



Transit Asset Management Plan

July 1, 2018

Transit Asset Management Plan

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1 Introduction

1.1 Chatham Area Transit

Chatham Area Transit Authority (CAT) is a regional transit agency that provides service to the Savannah, Georgia urbanized area. Covering 438 square miles with a population of 265,000, CAT offers a fare-free water ferry service that connects the Trade Center on Hutchinson Island with Historic River Street. CAT also provides traditional fixed-route bus service, county-wide paratransit service, and a downtown bike-share program, reaching major tourist destinations, employers, universities, and hospitals in the greater Savannah area.

CAT's primary service area falls within unincorporated Chatham County and the City of Savannah, Georgia. As the state's northernmost coastal area, Savannah includes the site on which General James Edward Oglethorpe landed in 1733 to establish the Georgia Colony. Today, the county and the city have a population of nearly 300,000 residents encompassing a 632 square mile area, which includes 194 square miles of water.

Thanks to large-scale port expansion and a growing tourism industry, Savannah is undergoing an unprecedented development boom. Construction is underway on a number of new hotels and mixed use developments on both ends of River Street, design work has commenced for a new west side arena, and the City of Savannah is in the planning stage of developing a new municipal complex on the west side of downtown. Private investment in these projects exceeds \$1 billion and public investment is topping \$300 million.

Adapting to meet this changing environment, CAT has spent the last year developing short and long-term strategies for providing more user-friendly and cost-effective services. A key component of this strategic plan is to provide seamless multimodal connections in and around the downtown area.

Fixed Route - CAT operates 62 fixed route vehicles and provides 3.25 million trips per year with the largest concentration of service located in the downtown and midtown areas of Savannah. As the second largest transit provider in the state of Georgia, CAT offers 17 fixed routes, including a high-frequency downtown circulator that connects with the City Hall ferry landing.

Paratransit - Known as "CAT Mobility," the CAT paratransit service is offered throughout Chatham County. Designed to transport eligible persons with disabilities in compliance with the ADA, CAT Mobility provides 100,000 trips per year.

Water Ferry - CAT's popular ferry system, known locally as the "Savannah Belles Ferry," provides fare-free service between the Savannah International Trade & Convention Center on Hutchinson Island, the Savannah City Hall in the heart of historic River Street, and the Waving

Girl landing on the eastern end of River Street. The ferry runs seven days a week from 7:00 a.m. until midnight and provides service to more than 750,000 passengers annually. CAT offers 20-minute peak and 30-minute off-peak frequencies between stops. All water ferry vessels and docks are ADA-compliant.

CAT Bike - CAT Bike is a bike share program which is owned and operated by CAT. There are two bike share stations currently in operation, and CAT has secured funding to expand the program to seven stations and 100 bikes.

1.2 Federal TAM Requirements

Overview

As part of MAP-21 and the subsequent *Fixing America's Surface Transportation* (FAST) Act, the FTA has enacted regulations for transit asset management (TAM) that require transit service providers to establish asset management performance measures and targets, and develop a TAM Plan.

The final TAM Rule was published on July 26, 2016 and went into effect on October 1, 2016. The rule itself amended the United States (U.S.) Code of Federal Regulations (CFR) Title 49 Parts 625 and 630, which relate to TAM and the NTD respectively.

The TAM Final Rule distinguishes requirements between larger and smaller or rural transit agencies:

- Tier I provider: “owns, operates, or manages either (1) one hundred and one (101) or more vehicles in revenue service during peak regular service or in any one non-fixed route mode, or (2) rail transit.”
- Tier II provider: “owns, operates, or manages (1) one hundred (100) or fewer vehicles in revenue service during peak regular service across all non-rail fixed route modes or in any one non-fixed route mode, (2) a subrecipient under the 5311 Rural Area Formula Program, (3) or any American Indian tribe.”

Due to the size and type of service provided, CAT is a Tier II provider as identified in the TAM Final Rule.

Performance Measures

The TAM Rule requires that transit agencies establish state of good repair (SGR) performance measures and targets for each asset class. As a Tier II provider, CAT must report on the State of Good Repair (SGR) measures for the following asset categories:

- Rolling stock (revenue vehicles): Percent of vehicles that have either met or exceeded their Useful Life Benchmark (ULB)

- Equipment (including non-revenue service vehicles): Percent of vehicles that have either met or exceeded their ULB
- Infrastructure (rail fixed-guideway, track, signals, and systems): Percent of track segments with performance restrictions
- Facilities: Percent of facilities rated below condition 3 on the FTA TERM scale

Transit agencies may also develop additional SGR performance measures for each asset category or class. CAT has completed conditional assessments for all capital assets but has not chosen to include these in the FY 2019 TAM Plan. CAT may develop performance measures and include these “non-reportable” assets in future iterations of its TAM Plan.

As a Tier II provider, CAT choose to develop its own TAM Plan and has included all the elements listed below. The first four elements are required for Tier II providers.

- Capital Asset Inventory
- Asset Condition Assessment Information
- Description of Decision Support Tools Used to Prioritize Capital Investment Needs
- Project-based Prioritization of Investments
- A TAM and SGR Policy
- TAM Plan Implementation Strategy
- Key TAM Plan Activities Undertaken During Plan Horizon Period
- List of Resources Needed to Carry Out the TAM Plan
- An Outline of How the TAM Plan will be Monitored and Updated to Support Continuous Asset Management Improvement

Reporting Requirements

A provider’s initial TAM Plan must be completed by October 1, 2018. U.S. 49 CFR § 625.29 (a) states that a TAM Plan should cover a planning horizon of at least four years. Amendments to the TAM Plan may be undertaken at any time and should be initiated following any major change to the asset inventory, condition assessment, or investments. The TAM Plan should also be updated following any change to prioritization processes affecting the timing of future projects. Although TAM Plans are required to be updated in their entirety at least once every four years, CAT plans to review its TAM Plan annually and update as needed in coordination with its safety management planning process.

In addition to the performance targets and TAM Plan, the TAM Final Rule requires that two additional asset management reports be submitted to the NTD annually:

- The **Data Report** should describe the condition of the transportation system currently and the SGR performance targets for the upcoming year.
- The **Narrative Report** should describe changes in the transportation system condition and report progress on meeting the performance targets from the prior year.

The first Data Report is due no later than four months after the end of the provider's 2018 fiscal year end, or October 2018 for CAT. The first Narrative Report is due within four months of the provider's 2019 fiscal year end, or October 2019 for CAT. Subsequently, both reports are due to the NTD no later than four months after the provider's fiscal year end. Over the course of the first three months of fiscal year FY 19 and before the October 1, 2018 deadline, CAT will implement its process for developing and submitting these additional reports.

2 Asset Management

2.1 Asset Management Approach

CAT is responsible for approximately \$42 million in fleet, equipment and facility assets. Over the next four years, CAT will need \$19.7 million to replace assets exceeding their useful life and an additional \$19.2 million to maintain these assets in a State of Good Repair (SGR). With the first ever state grant funding award, totaling \$10.7 million, through the Georgia State Road and Tollway Authority, our organization is fortunate to have sufficient funding available over the current plan horizon to successfully implement our asset management plan. Future planning horizons hold uncertain capital funding levels so a strategic approach to balancing system preservation and expansion while continuously seeking operational efficiencies within existing resources is still needed.

Our organization is committed to effectively managing capital assets and maintaining our system in a state of good repair. Our overall asset management approach is consistent with current federal regulations and sets the direction for establishing transit asset management strategies and plans that are achievable with available funding.

Expected responsibilities of transit agencies mandate that transit agencies have TAM and SGR procedures in place. Accordingly, CAT commits to:

- Maintain an Asset Inventory that includes all vehicles, facilities and equipment used in the delivery of transit service
- Identify all Safety-Critical assets within the Asset Inventory and prioritize efforts to maintain those Safety-Critical assets in a SGR
- Clearly define ownership, control, accountability and reporting requirements for assets
- Set annual asset performance targets and measure, monitor and report on progress towards meeting those targets
- Base capital project prioritization and other asset management decisions on asset criticality, condition, performance, available funding, safety considerations and on the evaluation of alternatives that consider full lifecycle benefits, costs, and risks
- Maintain the TAM Plan in coordination with safety policies and plans

A strategic approach to managing our fleet, equipment and facilities will optimize their performance and useful life while minimizing their lifecycle cost. The TAM Plan sets the direction for establishing and continually improving asset management strategies and plans to monitor and continually improve asset performance and service delivery.

Plan Objectives

The TAM Plan sets transit asset management objectives that align with the organizations overall strategic goals. Maintaining inventories that include conditional assessments provide a valuable

tool for prioritizing capital investment projects during the annual develop of a Program of Projects for the Capital Budget. Asset management processes that result in transit assets in a state of good repair allow CAT to provide safe, reliable and efficient transportation throughout the area we serve. Optimizing preventive maintenance and employing resiliency and sustainability strategies ensures good stewardship of federal, state and local taxpayer funds.

TAM Plan Objectives

CAT Strategic Plan		TAM Plan Objectives
Goals	Asset Management Strategies	
	<i>4.2 Complete TAM Plan & incorporate enhanced asset management procedures into annual work processes</i>	Maintain Asset Inventories
1 Provide Innovative Service Solutions	<i>4.2 Update Fleet Replacement Plan for fixed route, paratransit, and support vehicles</i>	Monitor Asset Condition
2 Enhance Community Engagement through Advocacy, Marketing and Outreach	<i>4.2 Formalize plan to convert fleet to low-no emission vehicles</i>	Manage Asset Maturity by Employing Resiliency and Sustainability Strategies
3 Maximize Staff Potential through Workforce Development	<i>4.3 Utilize APTA benchmarking statistics to move towards "best practice" status</i>	Optimize Preventive Maintenance of Critical Assets
4 Achieve Excellence through High-Quality Service Delivery	<i>4.3 Develop systems to obtain better performance data for reporting and analysis</i>	Prioritize Asset Investments
5 Maintain Financial Stability	<i>5.1 Secure dedicated local funding that will allow CAT to accomplish strategic goals</i>	Enhance Data and Performance Management
	<i>5.1 Build cash reserves keyed to meeting monthly cash outlay and providing a financially sound operating platform</i>	Enhance Agency Collaboration, Communication and Transparency

For purposes of the TAM Plan, CAT is a Tier II provider subject to requirements for maintenance of an inventory of capital assets, completion of condition assessments, utilization of decision support tools and development of an investment prioritization.

CAT considers a TAM and SGR Policy, an implementation strategy, a list of key annual activities, a schedule of resources available and processes to evaluate the plan integral parts of a successful asset management strategy and has incorporated these "Tier I only" elements into our TAM Plan as well.

Transit Asset Management and State of Good Repair Policy

Adopted by the CAT Board of Directors on June 22, 2018 the agency's Transit Asset Management and State of Good Repair Policy is presented here and also as Appendix 1.

Policy:

Chatham Area Transit Authority (CAT) is committed to effectively managing its capital assets and maintaining its system in a State of Good Repair (SGR) to enhance safety, reduce maintenance costs, increase reliability and improve service delivery. This policy outlines the agencies approach to overall asset management, identifies responsibility for monitoring and administering the Transit Asset Management (TAM) Plan and is established to ensure compliance with federal laws and regulations including Moving Ahead for Progress in the 21st Century (MAP-21) and 49 U.S.C. Section 5326.

For the purposes of complying with applicable federal regulations, CAT, as a Tier II provider (100 or fewer vehicles in peak revenue service), has developed a TAM plan which includes the following required elements:

1. An inventory of the number and type of capital assets that includes all capital assets owned by the agency except "non- service vehicle" equipment with an acquisition value under \$50,000.
2. A condition assessment of inventoried assets in a level of detail sufficient to:
 - a. Monitor and predict the performance of the assets
 - b. Inform the investment prioritization
3. A description of analytical processes or decision-support tools that allows CAT to estimate capital investment needs over time and develop an investment prioritization
4. A project-based prioritization of investments, developed in accordance with CFR 49 Section 625.33

Included but not required are the following:

5. The CAT TAM Plan and SGR Policy
6. The TAM Plan implementation strategy
7. Key asset management activities planned over the TAM plan horizon period
8. List of resources including personnel needed to develop and carry out the TAM plan
9. Outline of how TAM plan and related business practices will be monitored, updated and evaluated as needed to ensure continuous improvement of asset management practices

The TAM plan sets the agency's overall asset management approach and provides direction for establishing transit asset management strategies and plans that are

achievable with available funds. It has a four-year planning horizon, will be reviewed annually and updated and revised as needed.

In accordance with the TAM Plan, CAT commits to:

1. Maintain an Asset Inventory that includes all vehicles, facilities and equipment used in the delivery of transit service
2. Identify all safety-critical assets within the Asset Inventory and prioritize efforts to maintain those safety-critical assets in a state of good repair
3. Clearly define ownership, control, accountability and reporting requirements for assets
4. Set annual asset performance targets and measure, monitor and report on progress towards meeting those targets
5. Base capital project prioritization and other asset management decisions on asset criticality, condition, performance, available funding and safety considerations using an evaluation of alternatives that considers full life cycle benefits, cost and risks
6. Maintain the TAM Plan in coordination with safety policies and plans
7. Meet applicable reporting requirements for annual reporting to the National Transit Database (NTD)

The policy applies to all modes of service and will be managed by the Financial Services Unit with collaboration and assistance from the Service Delivery Unit (Maintenance Department) and System Development Unit (Planning Department). The CEO/Executive Director is designated as the accountable executive and is responsible for carrying out CAT's transit asset management and state of good repair practices.

2.2 Implementation Strategy

CAT completed FY 2017 asset inventories, condition assessments and SGR targets. This data was reviewed and revised as of March 30, 2018 and our FY 2018 performance measures and FY 2019 – FY 2022 SGR targets were developed.

The TAM Plan and related Transit Asset Management and Capital Asset State of Good Repair Policy will be presented to our Board of Directors for approval on June 22, 2018.

Implementation will be incremental beginning on July 1, 2018. Initial focus will be on fully utilizing existing resources (including existing and forthcoming technology) and addressing known gaps. Once critical asset rehabilitation and replacement is completed, staff will work towards continuous asset management improvement to include securing necessary funding to keep all transit assets in a state of good repair.

Expected benefits of a successful TAM Plan implementation:

- Improved Safety

- More Consistent Performance
- Better Decision Making (transparent, justifiable, risk averse)
- Lower long-term costs for asset preservation

The Transit Asset Management Committee will spearhead full implementation and will communicate to the organization the importance of strong executive support, a willingness to assess current situation and improve, an inter-disciplinary perspective with buy-in by managers and staff at all levels and sustained, consistent commitment year over year to achieve desired results.

2.3 Key Annual Activities

CAT will participate in the following key activities in order to successfully implement the TAM Plan:

- Monthly Transit Asset Committee meetings with agendas structured to review current status of ongoing capital projects, available funding for capital projects, upcoming capital needs and future funding plans
- Incorporation of TAM principals and tools in to maintenance procedures and resource allocation decision making
- Quarterly review of TAM data, SGR targets and progress towards meeting annual goals
- Annual capital asset inventory with condition assessments
- Annual completion of required NTD data and narrative report submissions
- Annual review of Operating and Capital Budgets to ensure appropriate funding levels to carry out asset management
- Annual review of TAM Plan with amendments when revisions are necessary

2.4 Resource Identification

Funding

Funding sufficient to meet the needs of this asset management plan, to include replacement of capital, is critical to successful implementation. The following table summarizes current capital funding sources and planned allocation. FTA formula funds for Plan Year FY 2019 are actual known allocations and formula funds for Plan Years 2020, 2021 and 2022 are estimates based on FY 2018 amounts.

Capital Funding Summary

Funding Source	FY 2019	FY 2020	FY 2021	FY 2022
FTA Grant Funding				
Sec. 5307 - Capital	351,100	400,000	400,000	400,000
Sec. 5339 - Bus and Bus Facilities	404,600	424,200	424,200	424,200
Sec. 5339 (b) - Bus Replacement	2,298,400			
Sec. 5337 SGR - Ferry Rehabilitation	290,100	169,000	169,000	169,000
Sec. 5307 (h) - Ferry Discretionary	973,400			
Sec. 5309 - Bus Replacement	32,300			
State of Georgia				
FHWA/GDOT Ferry Formula	678,600	226,900	226,900	226,900
GA Dept. of Transportation - Ferry Construction	1,276,634			
GA Dept. of Transportation - Ferry Dock Rehab	600,000			
SRTA - Bus Replacement	11,100,000	2,600,000		
MPO Funding				
M230 - Vehicle Replacement		2,800,000		
M301 - Bike Share Expansion		225,800		
STGB Z230 - Bus Reliability Initiative			1,687,500	
STGB Z230 - Electric Bus Conversion			2,500,000	
STGB Z230 - Maintenance Equipment Upgrade			752,920	
Total	18,005,134	6,845,900	6,160,520	1,220,100

Staffing

CAT's Capital Asset Committee will add key staff necessary for successful implementation and continuous improvement of developed asset management tools and become the Transit Asset Management Committee. The work group will meet monthly and will be charged with carrying out all aspects of the TAM Plan. Committee members will include the following:

Financial Services Unit

Compliance Coordinator
Senior Accountant
Chief Financial Officer

Service Delivery Unit

Director of Maintenance
Director of Safety & Environmental
Chief Operating Officer

System Development Unit

Planner
Planning Manager
Chief Strategy Officer

Accountable Executive

Chief Executive Officer

2.5 Evaluation

The Transit Asset Management Committee will meet monthly and will continually evaluate progress towards SGR targets and goals.

The Committee will participate in and oversee annual inventories and condition assessments. Annual updates to the TAM Plan will be made when needed. At a minimum, the TAM Plan will be updated every four years.

3 Transit Asset Inventory

3.1 Capital Asset Inventory

CAT maintains a detailed asset inventory listing assets by major category. Elements included for each asset include a description sufficient to uniquely identify each asset, the initial cost and funding sources, useful life, annual and accumulated depreciation, and the current book value.

CAT FY 2017 Audited Capital Assets, net of depreciation

Asset Class	Value
Land	6,175,878
Construction in Progress	551,751
Buildings and Improvements	22,887,458
Transit Vehicles	12,498,187
Service Vehicles	126,569
Shop Equipment	58,076
Furniture and Office Equipment	2,188,057
Total	44,485,976

CAT's **TAM Plan Asset Inventory** represents a subset of total capital assets and includes assets for which performance measures and SGR targets need to be reported to the National Transit Database.

TAM Plan Asset Summary

Asset Class	Acquisition Cost
Revenue Vehicles	27,982,763
Equipment, Including Support Vehicles	483,509
Facilities	29,391,826
Total	57,858,098

3.2 Asset Condition

A condition assessment was completed for rolling stock and qualifying equipment. Individual assets were rated with a pass/fail mark using useful life benchmarks for each class. The performance measure for this class of asset is the “Met or Exceeded Useful Life” percentage. Facilities were assessed using the FTA TERM Scale with a “Percentage under TERM rating of 3” performance measure.

Plan year SGR Targets are presented in Appendix 4 – TAM Horizon SGR Targets. Performance measures in the summary table below indicate substantial investment is needed to obtain the overall end goal of system-wide SGR. Pending rolling stock replacements and planned equipment purchases will result in marked improvement during FY 2019. Subject to continued funding availability, incremental improvement will continue over the TAM Plan period with all classes except Cutaway Bus and Non-Revenue Service Vehicles reaching 100% SGR by 2022.

Additional detail on asset condition and TERM ratings is provided in Appendix 2 – Performance Measures and Appendix 3 – Weighted TERM - Facilities.

Performance Measure Summary Table

Asset Class	Performance Measure
Bus (BU) Fixed Route	29% exceed ULB
Cutaway Bus (CU) Paratransit/Fixed Route	82% exceed ULB
Van (VN) Paratransit	80% exceed ULB
Automobile (AO) Non- Revenue Service Vehicles	63% exceed ULB
Maintenance Equipment	100% exceed ULB
Administrative/ Maintenance Facility	50% under TERM Rating of 3
Passenger/Parking Facility	0% under TERM Rating of 3

4 Investment Prioritization

4.1 Analytic Tools

Data Management System

Beginning in July 2018, CAT will populate and utilize the MUNIS fixed asset inventory module of our financial software as the primary database for information required by our TAM Plan. User defined fields will identify TAM assets and indicate the most recent applicable condition assessment and performance measure result. Available statistic accounts will be defined in order to pull in TAM targets and calculate progress towards obtaining year-end targets. User defined report writing capabilities will allow for a menu of custom reports to include NTD required reporting.

Operating Funding Levels

CAT operations are funded from multiple sources with a property tax assessed in a special transit district accounting for 52% of all revenues available to meet ongoing operating cost. Additional operating funds are received from passenger fares, agency fees for service and federal FTA grant funds in the form of operating assistance and preventive maintenance reimbursement.

Maintenance functions receive 25% of CAT's annual budget dollars, approximately, \$6.5 million. Each year, the Chief Operating Officer and Director of Maintenance meet with the Chief Financial Officer to review results and develop realistic cost estimate for the upcoming year's budget. Actual results are analyzed monthly and comped to budget with major variances investigated and addressed. Maintenance and Finance staff at all levels work together to ensure resources are allocated compliantly and wisely.

Capital Funding Levels

Federal and State grant programs provide assistance with procuring and maintaining agency capital assets. CAT utilizes qualifying internal funds and other agency contributions to meet "local match" requirements on federal and state grant funding. Current available resources include:

- **Federal Transit Administration** provides capital funding, preventive maintenance assistance and operating assistance.
- **Federal Highway Administration** provides capital assistance for CAT's ferry program.
- **State Road and Tollway Authority** provides capital assistance through competitive process.
- **Chatham County-Savannah Metropolitan Planning Commission (MPC)** provides capital assistance through Call for Projects and selection process.

- **County Special Purpose Local Option Sales Tax (SPLOST)** provides local match for approved projects through a county sales tax.
- **City of Savannah** provides local match for capital purchases related to agency service.
- **Georgia Maritime International Trade Center** provides local match for capital purchases related to agency service.

The Capital Funding Summary on page 12 presents a table of available funding by source. FTA formula funds for Plan Year FY 2019 are actual known allocations and formula funds for Plan Years 2020, 2021 and 2022 are estimates based on FY 2018 amounts.

Available Funding by Plan Year:

<u>Plan Year</u>	<u>Amount</u>
2019	\$18,005,134
2020	\$ 6,845,900
2021	\$ 6,160,520
2022	<u>\$ 1,220,100</u>
Total	\$32,231,654

4.2 Prioritization

Cat has considered all funding sources reasonably expected in each fiscal year covered by this TAM plan as well as current capital needs as indicated by our asset inventories and condition assessments. The following page presents the Investment Prioritization Table developed from those exercises.

Investment Prioritization Table

Asset Category	Asset Class/Type	Project Description	Priority	Cost	Year	Funding Source
Rolling Stock	Bus (BU)	Fixed Route Vehicle Purchase (18)	1	10,800,000	2019	SRTA
Rolling Stock	Cutaway Bus (CU)	Fixed Route/Paratransit Vehicle Purchase (22)	1	1,782,000	2019	FTA Section 5339
Rolling Stock	Van (VN)	Paratransit Vehicle Purchase (6)	1	486,000	2019	FTA Section 5339
Equipment		Emergency Generator Purchase (1)	1	100,000	2019	Operating
Facility	Shell/Interior	Construct Marine Maintenance Facility	1	300,000	2019	FTA Section 5307(b)
Facility	Interior	JMR Transit Center - Reconfiguration	2	400,000	2019	FTA Section 5339
Facility	Interior	CAT Central Reconfiguration	2	400,000	2019	FTA Section 5339
Rolling Stock	Bus (BU)	Fixed Route Vehicle Purchase (3 Electric)	1	2,580,000	2020	SRTA/SPLOST
Rolling Stock	Cutaway Bus (CU)	Fixed Route/Paratransit Vehicle Purchase (1)	1	81,000	2020	MPO M230
Rolling Stock	Van (VN)	Paratransit Vehicle Purchase (2)	1	70,000	2020	MPO M230
Equipment	Automobile (AO)	Non-Revenue Service Vehicles (3)	1	60,000	2020	FTA Section 5307
Facility	Site	JMR Transit Center - Access Improvements	2	100,000	2020	FTA Section 5339
Rolling Stock	Bus (BU)	Fixed Route Vehicle Purchase (1)	1	600,000	2021	MPO M230
Rolling Stock	Cutaway Bus (CU)	Fixed Route/Paratransit Vehicle Purchase (1)	1	81,000	2021	MPO M230
Rolling Stock	Van (VN)	Paratransit Vehicle Purchase (2)	1	70,000	2021	MPO M230
Equipment	Automobile (AO)	Non-Revenue Service Vehicles (3)	1	60,000	2021	FTA Section 5307
Facility	Site	CAT Central Parking Lot & Access Improvements	2	1,000,000	2021	FTA Section 5339
Rolling Stock	Bus (BU)	Fixed Route Vehicle Purchase (1)	1	600,000	2022	MPO M230
Rolling Stock	Cutaway Bus (CU)	Fixed Route/Paratransit Vehicle Purchase (1)	1	81,000	2022	MPO M230
Rolling Stock	Van (VN)	Paratransit Vehicle Purchase (2)	1	70,000	2022	MPO M230
Equipment	Automobile (AO)	Non-Revenue Service Vehicles (3)	1	60,000	2022	FTA Section 5307

Ratings

1 – High Priority

- Critical to safe system, location or service delivery
- Asset condition indicates immediate replacement or repair
- Asset is beyond useful life
- High risk of asset failure

2 – Medium Priority

- Non-critical enhancement to system, location or service delivery
- Asset condition indicates some deterioration
- No safety risk
- Some risk of asset failure

3 – Low Priority

- Non-critical enhancement to system, location or service delivery
- Asset condition indicates state of good repair
- No safety risk
- No risk of asset failure

Policy:

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Included but not required are the following:

5. The CAT TAM Plan and SGR Policy
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7. Key asset management activities planned over the TAM plan horizon period
8. List of resources including personnel needed to develop and carry out the TAM plan

9. Outline of how TAM plan and related business practices will be monitored, updated and evaluated as needed to ensure continuous improvement of asset management practices

The TAM plan sets the agency's overall asset management approach and provides direction for establishing transit asset management strategies and plans that are achievable with available funds. It has a four year planning horizon, will be reviewed annually and updated and revised as needed.

In accordance with the TAM Plan, CAT commits to:

1. Maintain an Asset Inventory that includes all vehicles, facilities and equipment used in the delivery of transit service
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3. Clearly define ownership, control, accountability and reporting requirements for assets
4. Set annual asset performance targets and measure, monitor and report on progress towards meeting those targets
5. Base capital project prioritization and other asset management decisions on asset criticality, condition, performance, available funding and safety considerations using an evaluation of alternatives that considers full life cycle benefits, cost and risks
6. Maintain the TAM Plan in coordination with safety policies and plans
7. Meet applicable requirements for annual reporting to the National Transit Database (NTD)

The policy applies to all modes of service and will be managed by the Financial Services Unit with collaboration and assistance from the Service Delivery Unit (Maintenance Department) and System Development Unit (Planning Department). The CEO/Executive Director is designated as the accountable executive and is responsible for carrying out CAT's transit asset management and state of good repair practices.

Appendix 2 - Performance Measures

Asset Category	Asset Class	Individual Asset(s)	Fleet Size	Vehicle/ Equipment Age	Useful Life Benchmark (ULB)	Years Remaining	FY18 Performance Metric (% Exceeding ULB)	FY19 Target (% in SGR)	Notes
Rolling Stock	Bus (BU) Fixed Route	2003 35 ft Gillig	16	15	12	-3	29%	96%	FY 2018/FY 2019 Purchasing 18 new 35 ft Buses
		2003 35 ft Rehab Gillig	3	15	17	2			
		2006 29 ft Rehab Gillig	5	10	15	5			
		2006 35 ft Rehab Gillig	5	12	17	5			
		2009 29 ft Gillig	2	9	10	1			
		2009 35 ft Gillig	9	9	12	3			
		2011 35 ft Gillig	9	7	12	5			
		2011 40 ft Gillig	5	7	12	5			
		Gillig Trolley	2	2	10	8			
	Cutaway Bus (CU) Paratransit / Fixed Route	2010 El Dorado (Paratransit)	5	8	4	-4	82%	79%	FY 2018/FY 2019 Purchasing 28 Paratransit Cutaway Buses, Replacing 22 from this category
		2011 El Dorado (Paratransit)	12	7	4	-3			
		2012 Goshen GC11 (Fixed Route)	4	6	4	-2			
		2014 Goshen GCII (Fixed Route)	2	4	4	0			
		2016 Goshen Coach (Paratransit)	5	2	4	2			
	Van (VN) Paratransit	2013 Dodge Caravan	4	5	4	-1	80%	60%	Replacing 6 from this category
		2014 MV1	8	4	4	0			
		2017 Braun Entervan	3	1	4	3			
Equipment	Automobile (AO) Non-Revenue Service Vehicles	2002	2	16	4	-12	63%	26%	
		2007	1	11	4	-7			
		2009	1	9	4	-5			
		2010	2	8	4	-4			
		2013	5	5	4	-1			
		2014	1	4	4	0			
		2015	2	3	4	1			
		2016	4	2	4	2			
		2017	1	1	4	3			
Equipment	Maintenance	Emergency Generator	1	11	5	-6	100%	100%	Replace in FY 19

Asset Category	Asset Class	Individual Asset(s)	Condition Assessment- TERM Rating	FY18 Performance Metric (% Under TERM 3.0)	FY19 Target (% in SGR)	Notes
Facilities	Admin/Maintenance Facility	CAT Central	5			
	Admin/Maintenance Facility	Marine Maintenance Shop	2			Scheduled for replacement, Est. completion by FY 2020
		Admin/Maintenance		50%	50%	
	Passenger & Parking	JMR Transit Center	5			
		Passenger/Parking		0%	100%	

Appendix 3 - Weighted TERM - Facilities

Asset Category	Asset Class/Type	Individual Assets	Year Built or Reconstructed As New	Sq Ft	Acq Amount	Condition Assessment (1 - 5)	Upgrade/Re-placement Scheduled	Upgrade/Repla-cement Cost	Weighted Replacement Cost
CAT Central Administrative and Maintenance Facility									
Facility	Shell/Interiors	Administration - CAT Central	Aug-13		10,672,224	5	2053	10,400,000	52,000,000
Facility	Conveyance	Included in Renovation Cost Above	Aug-13			5			
Facility	Plumbing	Included in Renovation Cost Above	Aug-13						
Facility	HVAC	Included in Renovation Cost Above	Aug-13			5		300,000	1,500,000
Facility	Fire Protection	Included in Renovation Cost Above	Aug-13						
Facility	Electrical	Included in Renovation Cost Above	Aug-13						
Facility	Shell/Interiors	Maint Facility - Garage	Aug-13		1,824,144	4		1,900,000	7,600,000
Facility	Equipment	Bus Maintenance Equipment	Aug-13			3		500,000	1,500,000
Facility	Shell/Interiors	Maint Facility - Body Shop	Dec-15		325,608	5		326,000	1,630,000
Facility	Equipment	Maint Facility - Fuel Pump Islands & Storage Tanks	Aug-13		285,000	5		300,000	1,500,000
Facility	Equipment	Maint Facility - Bus Wash Systems	Aug-13		270,000	4		300,000	1,200,000
Facility	Site	Parking - Storage Yard	2004, 2006, 2007		1,782,155	3		1,000,000	3,000,000
Facility	Equipment	Video Surveillance Equipment	2013, 2014		283,305	5		300,000	1,500,000
								15,326,000	71,430,000
CAT Central Administrative and Maintenance Facility TERM Rating									5
Marine Maintenance Shop TERM Rating									
Facility	Maintenance	Marine Maintenance Shop	2010		287,000	2	2020	300,000	600,000
Marine Maintenance Shop TERM Rating									2
JMR Transit Center TERM Rating									
Facility	Administration	Administration - ITC Transit Center - Bus Terminal/Transfer Station	Dec-13		11,444,941	5	2053	11,000,000	55,000,000
Facility	System	Administration - ITC Transit Center - HVAC	Dec-13			5		500,000	2,500,000
Facility	Equipment	Ticket Vending Machines	2015		110,000	4	2023	110,000	440,000
Facility	Equipment	Video Surveillance Equipment	2013, 2014		283,305	5		300,000	1,500,000
								11,910,000	59,440,000
JMR Transit Center TERM Rating									5

Appendix 4 - TAM Horizon SGR Targets

Asset Category	Asset Class	Individual Asset(s)	Fleet Size	Vehicle/ Equipment Age	Useful Life Benchmark (ULB)	Years Remaining	FY18 Performance Metric (% Exceeding ULB)	FY19 Target (% in SGR)	FY20 Target (% in SGR)	FY21 Target (% in SGR)	FY22 Target (% in SGR)
Rolling Stock	Bus (BU) Fixed Route	2003 35 ft Gillig	16	15	12	-3	29%	96%	100%	100%	100%
		2003 35 ft Rehab Gillig	3	15	17	2					
		2006 29 ft Rehab Gillig	5	10	15	5					
		2006 35 ft Rehab Gillig	5	12	17	5					
		2009 29 ft Gillig	2	9	10	1					
		2009 35 ft Gillig	9	9	12	3					
		2011 35 ft Gillig	9	7	12	5					
		2011 40 ft Gillig	5	7	12	5					
		Gillig Trolley	2	2	10	8					
	Cutaway Bus (CU) Paratransit / Fixed Route	2010 El Dorado (Paratransit)	5	8	4	-4	82%	79%	82%	86%	89%
		2011 El Dorado (Paratransit)	12	7	4	-3					
		2012 Goshen GC11 (Fixed Route)	4	6	4	-2					
		2014 Goshen GCII (Fixed Route)	2	4	4	0					
		2016 Goshen Coach (Paratransit)	5	2	4	2					
	Van (VN) Paratransit	2013 Dodge Caravan	4	5	4	-1	80%	60%	73%	87%	100%
		2014 MV1	8	4	4	0					
		2017 Braun Entervan	3	1	4	3					
Equipment	Automobile (AO) Non-Revenue Service Vehicles	2002	2	16	4	-12	63%	26%	42%	58%	74%
		2007	1	11	4	-7					
		2009	1	9	4	-5					
		2010	2	8	4	-4					
		2013	5	5	4	-1					
		2014	1	4	4	0					
		2015	2	3	4	1					
		2016	4	2	4	2					
		2017	1	1	4	3					
Equipment	Maintenance	Emergency Generator	1	11	5	-6	100%	100%	100%	100%	100%

Asset Category	Asset Class	Individual Asset(s)	Condition Assessment- TERM Rating	FY18 Performance Metric (% Under TERM 3.0)*	FY19 Target (% in SGR)	FY20 Target (% in SGR)	FY21 Target (% in SGR)	FY22 Target (% in SGR)
Facilities	Admin/Maintenance Facility	CAT Central	5					
	Admin/Maintenance Facility	Marine Maintenance Shop	2					
		Admin/Maintenance		50%	50%	100%	100%	100%
	Passenger & Parking	JMR Transit Center	5					
		Passenger/Parking		0%	100%	100%	100%	100%