



GOLDEN EMPIRE TRANSIT DISTRICT

TRANSIT ASSET MANAGEMENT PLAN

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DOCUMENT CONTROL HISTORY

Version	Desc	Date	Comments
0.1	Transit Asset Management Plan	May 24th, 2018	ABB Initial Draft
0.2		June 26 th , 2018	Reviewed by GETD
0.3		July 24, 2018	Added Appendices
0.4		July 26, 2018	Inserted goals – Table 6
1.0		July 2018	Version 1
1.1		2022	Draft Update
1.2		Sept 8, 2022	Added current SGR, Financials and budgets.

AUTHORITY ACCEPTANCE

Golden Empire Transit has prepared this Transit Asset Management Plan pursuant to 49 U.S. Code Section 625.25 and the 5326, and Federal Transit Administration’s Final Rule requirements. This document has been updated in 2022 and will be reviewed at least once every four years (or as frequently as needed), in order to reflect the City’s condition of all transit capital assets that are reportable under current Federal requirements.

Golden Empire Transit acknowledges that this document is subject to review by the FTA, and will provide this document to the FTA upon request. GETD will also provide this document to Kern Council of Governments, which serves as the region’s Metropolitan Planning Organization (MPO), for their records.

It’s the intent for this document to serve as a tool that will assist staff in maintaining Golden Empire Transit District’s transit fleet in a state of good repair. GETD may revise or amend this document in order to support any state of good repair continuing efforts, as well as any requests for available Federal and/or State funding opportunities.

As the Chief Executive Officer, I am Golden Empire Transit District’s Accountable Executive who has the direct responsibility for carrying out transit asset management practices, and controlling or directing the human and financial resources needed to develop and maintain GETD’s transit asset management plan. I also have the direct responsibility for executing the District’s annual certifications and assurances with the FTA. I hereby do certify that this document has been prepared and executed in accordance with all applicable Federal regulations pertaining to transit asset management.

Recipient Name	Title	Signature
Karen King	Chief Executive Officer	

ACKNOWLEDGEMENTS

This updated document is the culmination of a collaborative effort during July and August 2022 between Golden Empire Transit District (“GETD,” “The District”) and Southport Enterprise LLC (SE), serving as consultants. The core team members are shown above as the Document Development Committee.



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EXECUTIVE SUMMARY

Transit Asset Management (TAM) is a business model that prioritizes funding based on the condition of transit assets, in order to achieve or maintain transit networks in a State of Good Repair (SGR). In July 2016, the Federal Transit Administration (FTA) issued a final rule requiring transit agencies to maintain and document minimum TAM standards. Federal law requires recipients and sub-recipients of Federal financial assistance to develop a Transit Asset Management Plan by October 1, 2018, and review and update that plan at least every 4 years

Transit Asset Management Plan Elements

The FTA regulation defines Golden Empire Transit District (“GETD”) as a Tier 2 agency and, as such, GETD must implement a TAM Plan that includes the following TAM Elements:

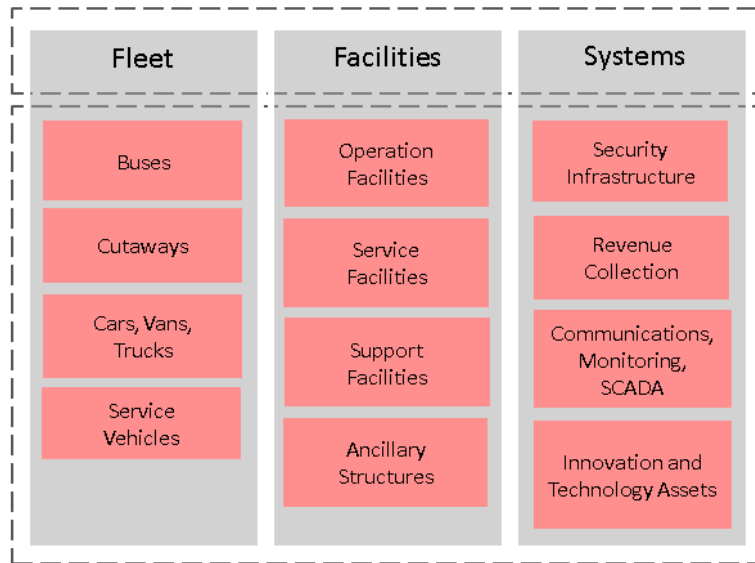
1. Inventory of assets – A register of capital assets and information about those assets
2. Condition assessment – A rating of the assets' physical state
3. Decision support tool – Analytic process and/or tools to assist in capital asset investment prioritization
4. Prioritized list of investments – A prioritized list of projects or programs directed to manage or improve the SGR of capital assets

Although it is not an FTA requirement for a Tier 2 Agency, for completeness the Plan should also document the agency’s TAM and SGR policy – The Executive-level direction regarding expectations for management of the Agency's assets

Asset Inventory and Condition Assessment

This TAM plan includes objectives and strategies that will optimize the management of fleet and facilities assets, and to ensure alignment with the FTA reporting requirements for the National Transit Database (NTD). District assets are registered and monitored in a hierarchy of asset categories and asset classes. Categories include fleet, facilities and systems. Under each category there are asset classes that include, for example: buses, operations facilities, and security infrastructure. Table 1 illustrates the hierarchy of GETD’s current asset categories and asset classes.

TABLE 1 – ASSET HIERARCHY



GETD uses Fleet-Net Asset Management software to manage all of the asset lifecycle management activities. During asset procurement and receipt, asset-specific identification, useful life, warranty and maintenance interval information data is collected from the Original Equipment Manufacturer (OEM). Fleet and facilities maintenance programs are updated with multiple scheduled maintenance activities required to meet Original Equipment Manufacturer (OEM) recommended maintenance intervals, along with safety and regulatory compliance. This practice ensures the asset data is properly recorded into the Asset Management Software for effective and efficient lifecycle management. Fleet-Net asset data is captured to consolidate and create the Inventory Report found in Appendix A.

Condition Assessment – Vehicles

Condition ratings for vehicles are expressed in terms of the percentage of assets that are ‘at’, or ‘beyond’ the Useful Life Benchmark (ULB) based on FTA Circular 9030.1D, paragraph 4.a, and field experience with specific vehicle types.

Revenue Vehicle Condition Listing is included as Appendix B1

Condition Assessment – Facilities and Facility Equipment

In order to determine an asset’s condition, the FTA’s Transit Economic Requirements Model (TERM) scale is being used, where condition rating ranges from (5) Excellent to (1) Poor. Per the FTA TAM Final Ruling, assets with a condition rating score of 3.0 and above are in a state of good repair. Assets with a condition score lower than 2.9 are not in a state of good repair, and may require prioritization during capital programming to ensure safe, efficient, and reliable transit service.

Equipment and Facility Condition Listings are attached as Appendices B2 and B3 respectively.

Decision Support Tools and Investment Prioritization

Part of the asset management process is optimizing how funds are allocated, based on the assessed asset inventory, to help achieve and maintain a state of good repair. This includes both capital and operating funds.

GETD's capital budget funds the planning, design, acquisition, capital maintenance and rehabilitation of all assets subject to the TAM Plan. The operating budget funds the use and routine maintenance of those same assets, including the staff needed to perform those functions.

1. INTRODUCTION

1.1 OVERVIEW OF GETD The southern gateway to the Central Valley, Bakersfield is California's ninth largest city and one of the fastest growing regions in the nation. Bakersfield is a dynamic and diverse community and is the seat of Kern County - the Golden Empire, which generates 76 percent of the state's oil supply and ranks third among all counties in the United States in agriculture-related production. Graced with a wealth of natural wonderlands, recreational playgrounds, and offering a wide array of entertainment, shopping, and dining experiences, the Heart of the Golden Empire is a strategic crossroads, attracting a substantial tourism market annually.

The Golden Empire Transit District was formed in July 1973 and is the primary public transportation provider for the Bakersfield Urbanized Area. It is the largest public transit system within a 110-mile radius. The District's boundary includes all of the area within the Bakersfield city limits as well as adjacent unincorporated areas. The area within the District's boundaries is 160 square miles. The population of the District is nearly 500,000.

GETD's mission is to make life better by connecting people to places one ride at a time and its vision statement is "doing our part to improve mobility and create livable communities by becoming every household's second car."

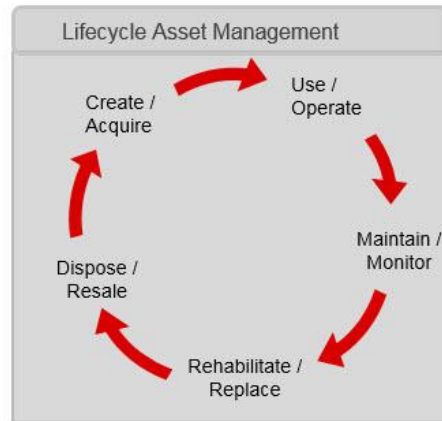
The District operates a fleet of (89) 40 foot compressed natural gas buses and 10 hydrogen fuel cell buses on 14 fixed routes, 1 limited route, and 1 express route. The District also provides On-Demand micro transit, paratransit, medical, and senior Assist transportation for ADA-eligible persons with a fleet of (35) compressed natural gas paratransit vehicles and 15 Ford Transit vans.

In terms of the Federal Transit Administration's guidelines, GET is a Tier 2 transit agency.

1.2 TAM APPROACH

GETD's core business is to provide safe, reliable and sustainable transportation options to the communities it serves. To accomplish this, GETD must continually improve its management of fleet and facilities. When executed properly, Transit Asset Management improves coordination of *all* departments across *all* phases of an asset's lifecycle as shown in Figure 4 to manage assets and required resources more efficiently.

FIGURE 4- TYPICAL LIFECYCLE PHASES OF A TRANSIT ASSET



The TAM Plan aims to optimize the costs, risks, and performance of the transit system assets, and provide a range of benefits to GETD through an ongoing planning effort as depicted in Figure 5. In addition, the TAM Plan enhances the District’s ability to communicate with the public and legislators about the District’s successful approach to asset management, the benefits of investing in the transit system and the consequences of underinvestment.

FIGURE 5 – ASSET MANAGEMENT OPTIMIZES COST, PERFORMANCE, AND RISK



Federal regulations currently require that assets used in the provision of public transit be subject to this TAM Plan. Industry best practices suggest that the scope of this TAM Plan should be expanded to include all significant Transit Assets and Land Assets procured through GETD’s capital program. Land Assets are included in the scope of GETD’s inventory as part of current asset management practices. Accordingly, this TAM Plan includes objectives and strategies to

optimize the management of Fleet and Facilities Assets that align with FTA reporting requirements for the National Transit Database (NTD).

1.3 FEDERAL TAM REQUIREMENTS

1.3.1 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 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. Based on the criteria, and the type of service provided, GET is a Tier 2 provider.

FTA defines a Tier 2 provider as:

- “A provider that owns, operates, or manages 100 or fewer vehicles across all modes or any one non-fixed mode during peak regular service across non-rail, fixed route modes, or is a subrecipient under the 5311 Rural Area Formula Program or American Indian Tribe.”

1.3.2 STATE OF GOOD REPAIR 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 2 provider, GET must report on the 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
- Facilities: Percent of facilities rated below condition 3 on the FTA TERM scale

Note: Infrastructure (rail fixed guideway, track, signals and systems) does not apply to GET because it is a bus-only transit property

Transit agencies may also develop additional SGR performance measures for each asset category or class.

1.3.3 TAM PLAN REQUIREMENTS

As a Tier 2 provider, GET must develop a TAM Plan that includes the first four (4) elements of the Final Rule. These elements must:

- Include the capital asset inventory
- Provide asset condition assessment information
- Describe the decision support tools used to prioritize capital investment needs
- Identify project-based prioritization of investments

In order to provide a visual of the federal regulations and elements listed above, Table 2 below reflects the strategies that GETD plans or has implemented. This table also describes the criteria for TAM Plan compliance that has been, or is being, addressed in the updated TAM Plan.

TABLE 2 –TAM PLAN – U.S. 49 CFR COMPLIANCE MATRIX

No:	TAM	Requirement	TAM Plan Compliance
1	49CFR§625.25 (b)(1)	Inventory of the number and type of all capital assets a provider owns, except equipment with an acquisition value under \$50,000 that is not a service vehicle.	Capital Inventory for all asset-classes, including assets with an acquisition value greater than \$50,000, are presented in Appendix A 1 of the TAM Plan.
2	49CFR§625.25 (b)(1)	An inventory must also include third- party owned or jointly procured exclusive-use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by a provider in the provision	All inventory included in Addendum 1 of the TAM Plan are owned by Golden Empire.
3	49CFR§625.25 (b)(2)	Condition assessment of those inventoried assets for which a provider has direct capital responsibility and to level of detail to monitor, predict performance of assets, and inform investment prioritization.	The assessed condition of the assets is included in Appendices B1, B2 and B3 of the TAM Plan.
4	49CFR§625.25 (b)(3)	Description of analytical processes or decision-support tools to estimate capital investment needs over time and develop its investment prioritization.	Use of tools, asset lifecycle strategies, and approaches to support decision making is described in Section 4 ASSET LIFECYCLE STRATEGIES of the TAM Plan

No:	TAM	Requirement	TAM Plan Compliance
5	49CFR§625.2 5 (b)(4)	Project-based prioritization of investments.	The process for prioritization of investment projects is set out in Section 5 INVESTMENT PRIORITIZATION AND FUNDING of the TAM Plan. Appendix C is a listing of current projects.
The following will be considered when developing investment prioritization:			
11	49CFR§625.3 3 (a)	Include an investment prioritization that includes program of projects to improve or manage the SGR of capital assets for which the provider has direct capital responsibility over the TAM Plan horizon period;	Prioritization of investments, work Plans, cost and budget schedules by year are presented in Section 5 INVESTMENT PRIORITIZATION AND FUNDING in the TAM Plan.
12	49CFR§625.3 3 (b)	Rank projects to improve or manage the SGR of capital assets in order of priority and anticipated project year;	Prioritization of investments, work Plans, cost and budget schedules by year are presented in Section 5 “INVESTMENT PRIORITIZATION AND FUNDING in the TAM Plan. Priorities are also reflected in Appendix C.
13	49CFR§625.3 3 (c)	Ensure project rankings are consistent with its TAM policy and strategies;	The approach to prioritizing projects is set out in Section 4 ASSET LIFECYCLE STRATEGIES and in Section 5 INVESTMENT PRIORITIZATION AND FUNDING in the TAM Plan.
14	49 CFR § 625.33 (d)	Give due consideration to state of good repair projects to improve those assets that pose an identified unacceptable safety risk;	Identification and management of risks are set out in Section 5 INVESTMENT PRIORITIZATION AND FUNDING in the TAM Plan. Appendix D reflects the ULB-based Fleet Replacement schedule, used to inform Budget funding prioritization.
15	49 CFR § 625.33 (e)	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; and	Prioritization of investments, work plans, cost and budget schedules by fiscal year are presented in Section 5 INVESTMENT PRIORITIZATION AND FUNDING in the TAM Plan.

No:	TAM	Requirement	TAM Plan Compliance
16	49 CFR § 625.33 (f)	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.	Strategies for maintaining assets are described in Section 4 ASSET LIFECYCLE STRATEGIES and in detail in the Fleet and Facilities Maintenance Plans.
17	49 CFR § 625.55 (a)(1) and (a)(2)	Each provider must submit the following reports: (1) An annual data report to FTA’s National Transit Database that reflects the SGR performance targets for the following year and condition information for the provider’s public transportation system (2) An annual narrative report to the National Transit Database 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.”	NTD Reporting requirements are addressed in Section 1.3.4 which outlines the annual data report reflecting SGR Performance Targets for the upcoming year and the Narrative report will provide a description of changes in condition from the prior year.

Each section of the TAM Plan contains references to the requirements of the Final Rule on Asset Management in the U.S. CFR. A glossary of key terms can be found in Appendix E: Key Definitions.

1.3.4 TAM REPORTING REQUIREMENTS

The FTA requires transit providers to update TAM Plans in their entirety at least once every four (4) years, with the first completed TAM Plan required by October 1, 2018, and the first update no later than October 2022.

The TAM Rule requires that agencies annually report on their progress towards meeting SGR performance targets and any change in condition from the previous year

Reference: 49 CFR Part 625 Subpart E Section 625.55(a)(2) “Each provider must submit ... (2) An annual narrative report to the National Transit Database 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.”

U.S. Title 49CFR§625.29 (a) states that a TAM Plan should cover a planning horizon of at least four (4) years. The District may amend the TAM Plan at any time but this should be initiated following any major change to the asset inventory, condition assessment, or capital investment. The TAM Plan should also be updated following any change to the prioritization processes affecting the timing of future projects. Although TAM Plans are required to be updated in their entirety at least once every four (4) years, GET currently plans to review its TAM Plan annually and update it as needed to reflect current conditions.

In addition to the performance targets and TAM Plan, the TAM Final Rule requires that two (2) additional asset management reports be submitted to the NTD annually. The following reports are due to the NTD no later than four months after the District’s fiscal year end:

- 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.

2. ASSET MANAGEMENT POLICY

Golden Empire Transit District has developed this TAM plan to ensure the safest useful service life for their facilities, equipment and rolling stock, while meeting financial obligations for anticipated replacement of the District's assets. The plan provides critical asset decision making information by:

- Maintaining an asset inventory that includes facilities, equipment and rolling stock used in the delivery of transit service.
- Determining the condition and performance of each asset in the inventory.
- Identifying all safety-critical assets within the asset inventory and prioritize efforts to maintain those assets in a State of Good Repair.
- Identifying the unacceptable risks with assets that are not in a State of Good Repair and determine the safety risks of those assets that are below a State of Good Repair
- Set annual asset performance targets to monitor the progress towards meeting SGR targets.
- Deciding how to prioritize anticipated funds toward improving asset condition to an acceptable State of Good Repair level or towards the replacement of the asset based on condition, safety, risk and full lifecycle benefit.
- Maintaining a Transit Asset Management Plan, in accordance with Golden Empire Transit District's safety policies and the FTA TAM Plan requirements.

2.1 TAM APPROACH AND VISION

Transit Asset Management is a strategic approach in managing fleet and facilities; to optimize their performance; their useful life; and to minimize the total cost of ownership. GETD's TAM Vision is an extension of the mission statement "We make life better by connecting people to places one ride at a time", and is as follows:

- 1) To maintain and improve the quality in our current asset management system by including Facilities, Rolling Stock and Equipment asset categories.
- 2) To optimize asset reliability and life cycle cost through improved asset lifecycle management, and without compromising service or safety. In addition, to assist the District's Accountable Executive decision making through improved asset management information.
- 3) Improved transparency and accountability for safety, maintenance, asset use, and funding investments;
- 4) Data Driven optimized capital investment and maintenance decisions;
- 5) System safety and Performance outcomes

2.2 TAM GOALS

TAM goals include monitoring the following criteria:

- Safety risks (Measure of accidents per 100,000 revenue miles by mode, no more than 1)
- System reliability (On-time performance by mode, 90% goal);

It is the belief of GETD that TAM implementation and monitoring provides a framework for maintaining a SGR by considering the condition of its assets in relation to the local operating environment. GETD has developed its SGR policies to account for the preservation, maintenance, inspection, rehabilitation, disposal, and replacement of capital assets. The goal of these policies is to allow GETD to determine and predict the cost to improve asset condition(s) at various stages of the asset life cycle, while balancing prioritization of capital, operating and expansion needs.

2.3 TAM TECHNOLOGY RESOURCES

The TAM Rule requires that TAM Plans describe decision support tools.

Reference: 49 CFR Part 625 Subpart C Section 625.25(b) "Transit asset management Plan elements ... (3) A description of analytical processes or decision-support tools that a provider uses to estimate capital investment needs over time and develop its investment prioritization"

Information technology is a critical asset management enabler. Contemporary best practice either at the enterprise level or during any aspect of lifecycle management for individual asset

classes is data driven and requires the application of innovative and creative information technologies.

Table 5 below describes GET's technology tools used in support of this TAM Plan.

TABLE 5 – TECHNOLOGY PRODUCTS USED THROUGHOUT GET

TECHNOLOGY	DESCRIPTION / CONFIGURATION	OWNER
Fleet-Net	EAM system for Fleet and Facilities asset management. Software solution that improves planning, scheduling, routing and completing work orders based on priority, resources and assets.	Innovation and Technology

2.4 PERFORMANCE MEASURES

To comply with the FTA requirements associated with SGR, performance measures for capital assets have been established for each asset class along with performance targets. The following is a summary of the FTA requirements:

The TAM Rule requires SGR performance measures for capital assets.

Reference: *49CFRPart625, Subpart D, Section 625.43 "SGR performance measures for capital assets. (a) Equipment: (non-revenue) service vehicles.* The performance measure for non-revenue, support-service and maintenance vehicles equipment is the percentage of those vehicles that have either met or exceeded their ULB. *(b) Rolling stock.* The performance measure for rolling stock is the percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB. *(c) Infrastructure: rail fixed-guideway, track, signals, and systems.* The performance measure for rail fixed-guideway, track, signals, and systems is the percentage of track segments with performance restrictions. *(d) Facilities.* The performance measure for facilities is the percentage of facilities within an asset class, rated below condition 3 on the TERM scale.

The TAM Rule requires setting targets for performance measures.

Reference: *49CFRPart625 Subpart D, Section 625.45 "(a)(1) A provider must set one or more performance targets for each applicable performance measure. (a)(2) A provider must set a performance target based on realistic expectations, and both the most recent data available and the financial resources from all sources that the provider reasonably expects will be available during the TAM Plan horizon period. (b) Timeline for target setting. (1) Within three months after the effective date of this part, a provider must set performance targets for the following fiscal year for each asset class included in its TAM plan. (b)(2) At least once every fiscal year after initial targets are set, a provider must set performance targets for the following fiscal year.*

Targets for vehicles are expressed in terms of percentage of assets that are at or beyond the Useful Life Benchmark (ULB), therefore the ideal situation is to be less than the target

A note on GET's ULBs:

Buses: In the attached Asset Portfolio listing, the ULB used is the recommended FTA standard 12-year ULB provided for Buses. Based on our experience, the limiting factor for our buses is the availability of replacement spare parts from their OEM and Third-party suppliers, which become progressively more difficult to source over time. Our experience shows that 12 years is a reasonable estimate of how long we can expect to keep a vehicle in safe and reliable service, based on the availability of spares.

Cutaway Buses: Our goal for our Cutaway buses is to run them for the FTA's recommended 10 years, however given the higher temperatures in our geographic area, the hotter-running characteristics of the CNG Motors, we rigorously inspect these vehicles annually, and based on availability of support and parts have, on occasion, had to retire these vehicles earlier than that target ULB.

Non-revenue vehicles: For all non-revenue vehicles, the District identifies a particular useful life based on the vehicle characteristics at time of purchase.

Equipment: Equipment is assessed periodically, and condition is determined based on age and condition, to establish an expectation of remaining service life.

Facilities: Facilities and Facility Equipment have their condition assessed in line with the TERM guidelines published by the FTA (5 -excellent, 4 -good, 3 -adequate, 2 –marginal, 1 –poor), and determining the SGR threshold to be at 3.0. Facility condition was professionally assessed by specialized consultants for the original TAM Plan in 2018, and again for the updated plan in 2022.

All relative Targets are reflected below in Tables 6 and 7

TABLE 6 - FLEET PERFORMANCE TARGETS

Asset Class	ULB	Current	Target	Rationale
<i>Revenue Vehicles</i>				
Buses (BU)	12	11.34%	0%	District standard practice is for all revenue vehicles to be replaced at end of useful life. Funding and procurement can delay this, but no more than 10% of buses beyond ULB is reasonable.
Cutaway Buses (CU)	10	0	0%	
<i>Non-Revenue Vehicles</i>				
Non-Revenue service Vehicles	UL + 2	23.08%	8%	Target based on reasonable long-term expectation for SGR of non-revenue vehicles. This is a multi-year goal to get back to the target rate within the next 5 years. Continuing current funding levels should allow for achieving of the target.

TABLE 7 - FACILITIES PERFORMANCE TARGETS

Asset Class	Condition Benchmark	Current	Target	Rationale
Facilities	3	3.3	3%	Current average above benchmark, requires ongoing prioritization.

3. TRANSIT ASSET INVENTORY & CONDITION MONITORING

3.1 ASSET INVENTORY

GETD manages an asset portfolio estimated to be approximately \$ 101 million, not including all soft costs associated with asset replacement such as design and construction management costs. A full inventory listing is attached as Appendix A.

A detailed Transit Asset inventory is maintained in the Fleet-Net Enterprise Asset Management System (EAMS). During asset procurement and receipt or acceptance, specific asset identification, useful life, warranty and maintenance interval information [data] is collected from the Original Equipment Manufacturer (OEM). This practice ensures the asset data is properly recorded into the EAMS for effective and efficient lifecycle management.

3.2 ASSET CONDITION

The TAM Rule requires inclusion of condition assessments in an agency's TAM Plan. Condition assessments should collect sufficient information to inform asset replacement.

Reference: 49 CFR Part 625 Subpart C Section 625.25(b)(2) "... a TAM Plan must include ... (2) A condition assessment of those inventoried assets for which a provider has direct capital responsibility. A condition assessment must generate information in a level of detail sufficient to monitor and predict the performance of the assets and to inform the investment prioritization."

Vehicle Condition Assessment: Condition ratings for vehicles are expressed in terms of the percentage of assets that are 'at', or 'beyond' the Useful Life Benchmark (ULB) based on FTA Circular 9030.1D, paragraph 4.a.

Certain vehicles have been retained beyond their regular expected ULB (by special dispensation from the FTA) as backups for newer-technology vehicles recently brought into service. Their ULBs have been extended to more accurately maintain SGR for the fleet as a whole.

Facilities and Facility Equipment Condition Assessment: In order to determine an asset's condition, the FTA's Transit Economic Requirements Model (TERM) scale is being used. A TERM scale condition rating ranges from (5) Excellent to (1) Poor. Per the FTA TAM Final Ruling, assets with a condition rating score of 3.0 and above are in a state of good repair. Assets with a condition score lower than 2.9 are not in a state of good repair, and may require prioritization during capital programming to ensure safe, efficient, and reliable transit service.

The District will utilize the ratings in the chart below when completing an asset condition assessment:

TABLE 10 - ASSET CONDITION ASSESSMENT RATING CRITERIA

Rating	Assessment	Criteria
5	Excellent	<p>New Asset; no visible defects</p> <hr/> <p>Asset is new and within the warranty period</p> <hr/> <p>Asset does not pose a known unacceptable safety risk</p>
4	Good	<p>Asset showing minimal signs of wear; some slightly deteriorated components</p> <hr/> <p>Asset performs its designed function</p> <hr/> <p>Asset does not pose a known unacceptable safety risk</p>
3	Adequate	<p>Asset has reached its mid-life; some moderately defective or deteriorated components</p> <hr/> <p>Asset performs its designed function</p> <hr/> <p>Asset does not pose a known unacceptable safety risk</p>
2	Marginal	<p>Asset reaching or just past the end of its useful life. Increasing number of defective or deteriorated components</p> <hr/> <p>Asset has met its useful life</p> <hr/> <p>Asset does not pose a known unacceptable safety risk</p>
1	Poor	<p>Asset has met its useful life, and is in need of immediate repair or replacement</p> <hr/> <p>Asset does not perform its designed function</p> <hr/> <p>Asset poses a known unacceptable safety risk</p>

For Facilities assets, condition assessments were performed using in-house staff and outside contractors where a particular set of skills or experience are necessary. These results are compiled into The Condition Assessment Report which can aggregate (roll-up) the individual asset condition assessments to the Asset Class level. The formula for aggregation of this data is as follows:

$$\text{Asset Condition Assessment Formula} = \sum (\text{Asset Rating, Asset Qty})$$

Assets with a condition rating score of 3.0 and above are in a State of Good Repair (SGR). Assets with a condition score lower than 2.9 are *not* in a SGR, and may require prioritization during capital programming to ensure safe, efficient, and reliable transit service. Note that these condition scores can represent individual asset conditions or can represent the average condition of all assets in each category/sub category depending on aggregation.

4. ASSET LIFECYCLE STRATEGIES

The TAM Rule requires that TAM Plans provide the implementation strategy.

Reference: 49 CFR Part 625 Subpart C Section 625.25(b) "Transit asset management Plan elements ... (6) a provider's TAM Plan implementation strategy; (7) A description of key TAM activities that a provider intends to engage in over the TAM Plan horizon period"

This section identifies GETD's key asset management practices across the lifecycle for the Fleet and Facilities assets. The asset strategies set out the approach for managing a specific asset class that will deliver GETD's strategic objectives in line with the TAM Policy and the TAM Vision.

Recognizing that each asset category and asset class is challenged with a unique set of performance characteristics and resource requirements, GETD has developed these Fleet and Facility Maintenance Plans ("FMPs"). These Plans provide guidance for managing the Fleet and Facilities to align with this TAM Plan.

GETD uses Fleet-Net Asset Management and Asset Performance Management software to manage all of the lifecycle management activities. These activities actually make up the lifecycle strategies. This includes all of the Preventive Maintenance Tasks, Standard Operating Procedures (SOPs), Inspections and proactive maintenance activities performed to ensure consistent asset lifecycle management at the asset class level.

4.1 LIFECYCLE MANAGEMENT STRATEGIES

Transit Asset Management is a strategic approach in managing fleet and facilities; to optimize their performance; their useful life; and to minimize the total cost of ownership. GETD has developed a framework for asset management and implementing procedures in the form of a Facilities Maintenance Plan covering facilities, and a Shop Maintenance Manual covering not only Safety and procedural protocols for Maintenance operations, but also Vehicle and associated equipment inspection procedures. These Maintenance Plans will be used to monitor and manage assets to achieve and maintain a state of good repair, improve safety and increase reliability and performance as shown in Figure 17 below. The purpose of these Maintenance Plans is to not only ensure that our assets are maintained in a state of good repair, but also help to enhance our operations by providing safe, frequent and reliable service.

FIGURE 17 – ASSET LIFECYCLE MANAGEMENT



4.2 VEHICLE MAINTENANCE PLAN

GETD has developed a Vehicle Maintenance Plan to monitor and manage assets to achieve and maintain a state of good repair, improve safety and increase reliability and performance. The purpose of the Vehicle Maintenance Plan is to provide an overview of the Methods and Procedures relating to vehicle inspection and maintenance, as well as the utilization and management of spares, and ongoing update of the Asset Management System to track lifecycle costs associated with the assets. Lastly, it defines the operational and safety protocols in effect at the maintenance facilities.

4.3 FACILITIES MAINTENANCE PLAN

GETD has developed the Facilities Maintenance Plan to monitor and manage GETD's assets to achieve and maintain a state of good repair, improve safety and increase reliability and performance. It includes descriptions of preventive maintenance procedures, inspection frequencies for the different asset categories, and inspection checklists.

5. INVESTMENT PRIORITIZATION AND FUNDING

The TAM Rule describes the specific requirements for investment prioritization.

Reference: 49 CFR Part 625 Subpart C Section 625.33 “(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.”

This chapter identifies and highlights GET’s asset investment needs (capital and operational budget needs, the process used to prioritize investments, and the anticipated impact on current and future staffing resources), based on GET’s organizational goals, asset management strategies, core principles and processes.

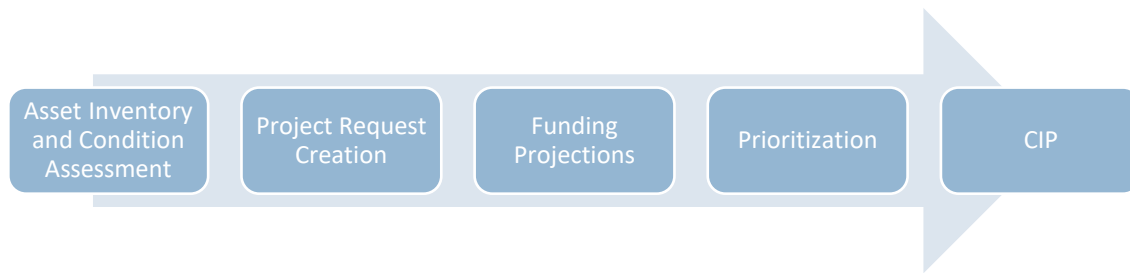
5.1 PROCESS OVERVIEW

Part of the asset management process is optimizing how funds are spent based on the assessed asset inventory to help achieve and maintain a state of good repair. This includes both capital and operating funds. GETD’s capital budget funds the planning, design, acquisition, capital maintenance and rehabilitation of all assets subject to this TAM Plan. The operating budget funds the use and routine maintenance of those same assets, including the staff needed to perform those functions.

GETD currently adopts yearly operating and capital budgets. The capital budget for a given year is based on a longer-term Capital Improvement Plan (CIP) in which capital projects are programmed.

The Capital Improvement Plan defines a Capital Programming Committee which is central to the CIP programming process. The committee includes executive directors and members of the executive management team. The basic process for assembling a multi-year CIP is shown below in Figure 18.

FIGURE 18 – CAPITAL IMPROVEMENT PLANNING PROCESS



The start of the process is updating and analyzing the asset inventory and condition assessment so that programming can be based off an updated set of data. The next step is the creation of project requests based on the inventory and condition data. Then the capital funding projections for the span of the years to be programmed must be assembled. The District includes 5-year capital funding projections in its Short Range Transit Plan, separated into committed and possible amounts to use as basis for the CIP programming.

Next is the prioritization process. Prioritization is an iterative process that works with the priority attributes of the requests and the funding available, as well as the timing of both the requests and the funding, to arrive at a CIP. Within the entire CIP and specific years, the funding available limits the requests that can be programmed, and the scope of the various funding sources also limits what projects can be linked to what funds. This step is driven by the Capital Programming Committee, which has the charge to work through this iterative programming process and assemble the CIP. The outcome after this process is a year-by-year list of projects and matched funding that becomes the CIP. This preliminary CIP is approved by the Chief Executive Officer and then ultimately the Board of Directors. The CIP is then used to estimate the spending levels in any given year for inclusion into the budget process.

5.2 CAPITAL INVESTMENT PRIORITIZATION

GETD uses an existing capital project prioritization process, which considers asset condition or age along with investment categorization.

The basic unit of the prioritization process is the project request. Project requests are created by District staff and have a set of required fields to assist in the prioritization process. The asset inventory and condition assessment is used in this step to create project requests based on the asset age or condition (as applicable to that asset class) for rehabilitation or replacement of the assets that are indicated within the CIP period. Requests can cover individual or groups of assets, and also include a cost estimate, sponsoring department and project manager information, and any relevant documentation.

There are two main fields for prioritization. The first field categorizes the project within five priority groupings, and the second assigns a priority within that grouping. The first field is shown in Table 12 below with the highest priority item at the top. The second field consists of the relatively self-explanatory entries of High, Medium, and Low priority.

TABLE 12 – CIP PRIORITIZATION CATEGORIES

Priority 1	Description
Safety	Requests that concern safety or security critical assets or initiatives. This applies to the safety of both riders and employees.
Compliance	Requests that are necessary to fulfil regulatory compliance requirements.
Maintenance	Requests for maintenance of existing assets. This encompasses the bulk of state of good repair requests.
Business Case	Requests that can show a quantifiable benefit from their implementation. These requests are generally not necessary from a maintenance standpoint but could save the District money in an identifiable and specific way.
Enhancement	Enhancement of existing assets or addition of new assets that are not required for maintenance purposes. Expansion projects.

All project requests must go through an approval workflow process before they are programmed. This workflow goes through several approval steps: (1) project initiation; (2) project manager; (3) project controls; (4) committee reviewer; (5) Chief Executive Officer; (6) Chief Finance Officer. Requests approved at the Chief Executive Officer step (5) are then collected for the programming process. Once the programming has been completed the final step with the Chief Finance Officer creates a project from the request.

The prioritization and programming is performed by a committee comprised of the department executives. The committee uses the prioritization fields and cost estimates from the project requests along with the capital funding projections to assemble the CIP.

5.3 OPERATING AND CAPITAL INVESTMENT PLANNING AND BUDGET

GETD’s operating budget funds service delivery and maintenance, including employee wages, spare parts, consumables, and a variety of support services used throughout the organization. This also includes payments to third-party contractors responsible for consulting and maintenance activities.

The operating budget is currently approved on a yearly basis through the Board of Directors. GETD’s FY 2022-23- operating budget is \$40 million, with labor costs as the largest portion (75%) of the budget. Figure 20 below shows the composition of the FY 2022-23 operating budget.

FIGURE 20 – OPERATING EXPENSE BUDGET BY DIVISION

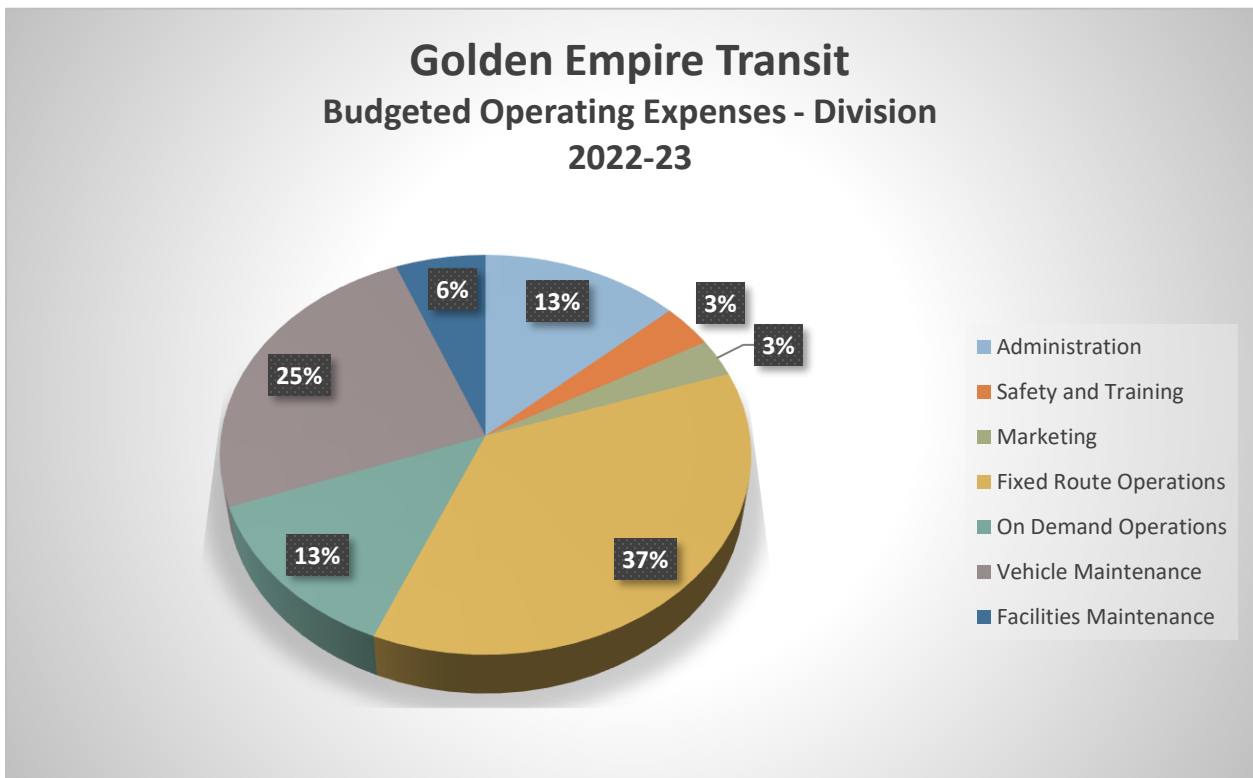
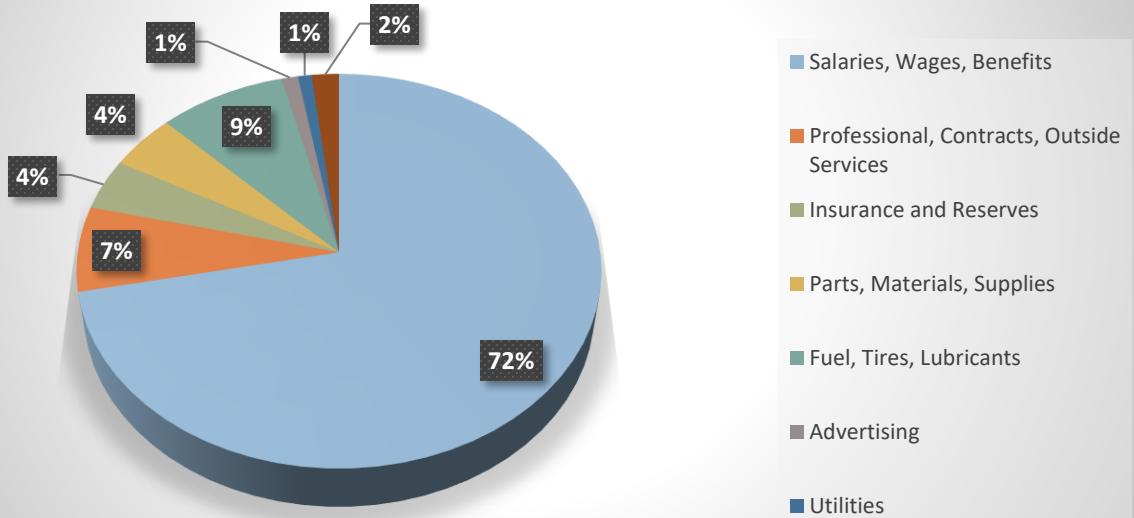


FIGURE 21 – OPERATING EXPENSE BUDGET BY CATEGORY

Golden Empire Transit Budgeted Operating Expenses - By Category 2022-23



Along with the operating budget the Board also approves a capital budget for the fiscal year. The capital budget for the year includes the projected grant and District Capital spending for the projects included in the CIP.

Figure 22 details the fund sources for three-year CIP (also updated for FY 2022-23 mid-year budget).

FIGURE 22 - THREE-YEAR CIP FUND SOURCES

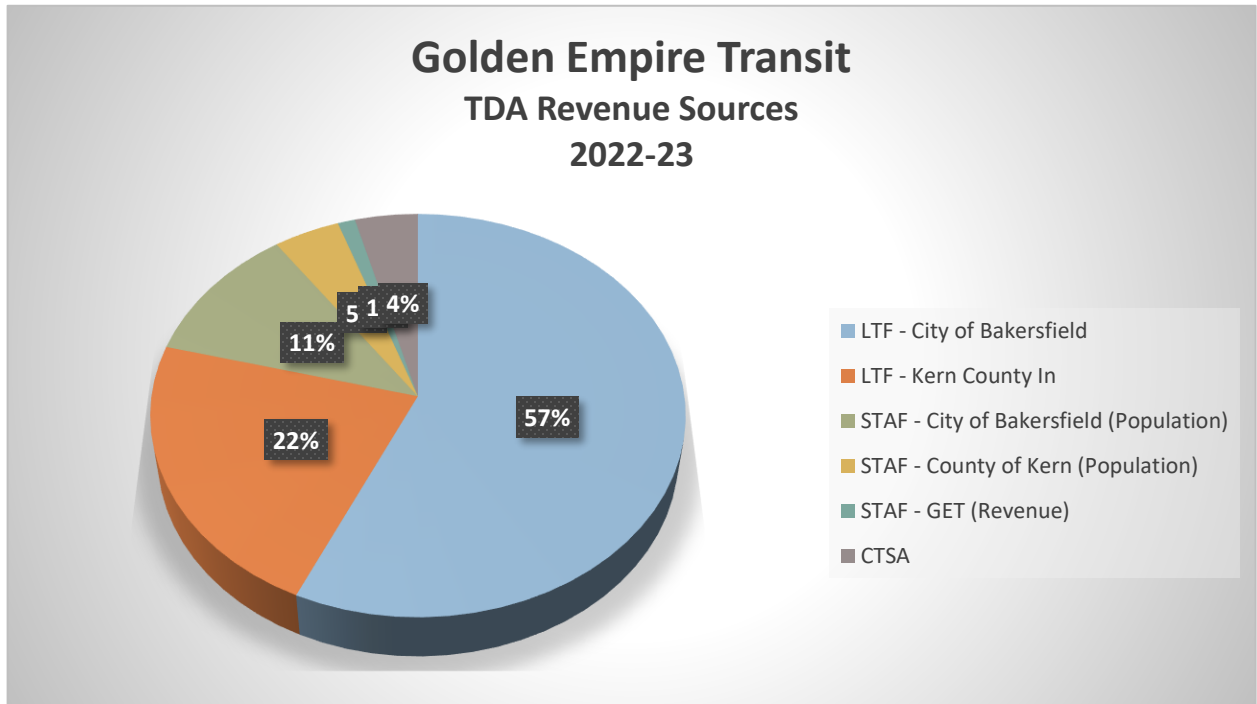


Figure 23 below shows the current Capital Projects budget, reflecting a prioritized list of currently-funded facility and vehicle upgrade projects underway at time of writing.

FIGURE 23 – 2022 CAPITAL PROGRAM SPENDING

Hydrogen Infrastructure	\$4,372,321
(2) A/C Units for the Maintenance Building	\$50,000
Fuel Island Vacuum System	\$175,000
Modification to Body Shop	\$60,000
Maintenance Scaffolding	\$80,000
5 Replacement CNG Para-transit buses	\$625,000
Primary and Secondary Firewall	\$45,000
Computer Replacement	\$55,000
Electronic Signs	\$300,000
16 Electric Vehicles	\$4,389,004
Environmental,Preliminary,Engineering & Design	\$3,456,250
Hydrogen Buses	\$6,550,000
8 Shelters	\$80,000
Replacement for vehicle #42 2011 F450 Flat Bed	\$75,000
Replacement for vehicle #130 2013 Ford Fusion	\$42,000
(2) Portable Stream Cleaners	\$30,000
Electric Charging Stations	\$708,000
Southwest Terminal Bathroom Renovations	\$190,388
Downtown Terminal Bathroom Renovations	\$190,388
TOTAL	\$21,473,351

APPENDIX A – ASSET REGISTER



Appendix A.pdf

APPENDIX B1 – REVENUE VEHICLE CONDITION LISTING



Appendix B1.pdf

APPENDIX B2 – EQUIPMENT CONDITION LISTING



Appendix B2.pdf

APPENDIX B3 – FACILITIES CONDITION LISTING



Appendix B3.pdf

APPENDIX C – PROJECT LIST



Appendix C.pdf

APPENDIX D – FLEET REPLACEMENT TABLE



Appendix D.pdf

APPENDIX E: KEY DEFINITIONS

CBM: CONDITION BASED MAINTENANCE

CIP: CAPITAL IMPROVEMENT PLAN

CAD/AVL: Computer Aided Dispatch (CAD) and Automated Vehicle Location (AVL)

EAMS: ENTERPRISE ASSET MANAGEMENT SYSTEM

FMP: Fleet and Facilities Maintenance Plans

FTA: FEDERAL TRANSIT ADMINISTRATION

NTD: NATIONAL TRANSIT DATABASE

PDM: PREDICTIVE MAINTENANCE

PM: PREVENTATIVE MAINTENANCE

OEM: ORIGINAL EQUIPMENT MANUFACTURER

SRTP: SHORT RANGE TRANSIT PLAN

SOP: STANDARD OPERATING PROCEDURE

State Of Good Repair (SGR): Defined by 49 U.S.C. Chapter 53 as the “condition in which a [transit asset or] capital asset is able to [safely] operate at a full level of performance.” The State of Good Repair is further defined by an asset’s Useful Life Benchmark (for rolling stock and equipment) or physical condition (for facilities). Assets are considered in a State of Good Repair when they do not meet or exceed their ULB or physical condition threshold. Vehicle and equipment assets, for example, are considered in a State of Good Repair, when rated as a 2.5 or above on GETD’s TERM Lite scale, where 2.5 is equivalent to the ULB set for an asset class. Additionally, facilities, are considered in a State of Good Repair when rated as a 3 or above on FTA’s TERM scale. *Also see definition for Useful Life Benchmark.*

TERM Scale: The five category rating system used in the FTA’s Transit Economic Requirements Model (TERM) to describe the condition of an asset, where 5 is excellent condition and 1 is poor condition.

Tier I Transit Provider: An entity that receives Federal financial assistance under 49 U.S.C. Chapter 53, either directly from FTA or as a subrecipient, that owns, operates, or manages either (1) one hundred and one (101) or more vehicles in revenue service during peak regular service across all fixed route modes or in any one non-fixed route mode, or (2) rail transit.

Transit Asset Management (TAM): Defined by 49 U.S.C. Chapter 53 as “the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation.”

Transit Asset Management Plan (TAM Plan): This document, which describes: the capital asset inventory; condition of inventoried assets; TAM performance measures, targets, and prioritization of

investments aligned with the agency's TAM and SGR policy, strategic goals and objectives; as well as the strategies, activities, and resources required for delivering this Plan (including decision support tools and processes); and other agency-wide approaches to continually improve TAM practices. While this TAM Plan exists as a standalone document, LMPs may be considered an extension of the TAM Plan by reference.

Useful Life: Defined by 49 U.S.C. Chapter 53 as "either the expected life cycle of a capital asset or the acceptable period of use in service determined by FTA." It generally defines the minimum eligibility for retirement, replacement, or disposal of an asset.

Useful Life Benchmark (ULB): Defined by 49 U.S.C. Chapter 53 as "the expected life cycle or the acceptable period of use in service for a capital asset, as determined by a transit provider, or the default benchmark provided by FTA." The ULB is the realistic expectation for when an asset would be disposed or replaced based on operating environment and procurement timelines. It is not the same as "Useful Life" in FTA grant programs, is reported by age (in years), and usually only pertains to rolling stock or equipment. It is a single number shared for or within specified asset classes, although may vary across different asset classes and providers.

END