

SFRTA Transit Asset Management Plan

2018 Plan

prepared for

South Florida Regional Transportation Authority

prepared by

Cambridge Systematics, Inc.

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Executive Summary

South Florida, comprised of Broward, Miami-Dade and Palm Beach Counties, is the fifth largest urbanized area in the United States with more than five million residents. As one of the fastest growing regions in the nation, South Florida faces the challenge of how to maintain the region's economic competitiveness, while continuing to offer a high quality of life. Key to the region's economic vitality and quality of life is a robust multimodal transportation system that provides mobility for existing and future residents and visitors, alike.

With the creation of the South Florida Regional Transportation Authority (SFRTA) on July 1, 2003, South Florida's three counties began efforts to work together to ensure a viable regional transportation system. The SFRTA, with cooperation from our transportation partners, works diligently to plan, develop, fund and operate a seamless, safe and efficient regional transportation system. A regional transportation system in South Florida will ensure mobility, advance sustainable growth and improve the quality of life for our current and future residents.

SFRTA operates Tri-Rail commuter rail service linking three large urbanized areas in South Florida: Miami, Fort Lauderdale, and West Palm Beach. There are 18 passenger stations along a 72-mile rail corridor in Southeast Florida. The system is connected to three major airports in South Florida, and Amtrak service at several stations. The Tri-Rail system also connects to Metrorail system in Miami-Dade County. Tri-Rail operates along the CSX former Miami subdivision. Currently, the line is entirely owned by FDOT.

According to 49 CFR Part 625.5, Transit Asset Management (TAM) means 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. TAM rule requires establishment and implementation of a National TAM System which 1) defines the term SGR, 2) requires that all Tier I and Tier II transit providers to develop a TAM plan, 3) establishes annual reporting requirements, and 4) includes technical assistance.

As a Tier 1 provider, SFRTA's TAM plan is consisted of the following components:

1. Capital asset inventory,
2. Asset condition assessment,
3. Decision-support tools that SFRTA uses to estimate and prioritize capital investment needs,
4. Investment prioritization,
5. TAM and SGR policy,
6. TAM plan implementation strategy;

7. A list of key TAM activities,
8. A list of the resources, and
9. An outline of how to update and improve the TAM plan.

SFRTA manages an asset portfolio estimated to be approximately \$869,262,370 original purchase value, without soft costs of design and construction during replacement and rehabilitation.

Overall conditions of SFRTA's rolling stock is good with no revenue vehicle met or exceeded its ULB. The average age of non-revenue vehicles is less than six years old; none of them has met or exceeded their ULB. Of all SFRTA's systems and equipment, such as communication, monitoring, SCADA, network, 12% are rated with a conditions of below 2.5, which is the threshold rating for SGR.

For SFRTA's 18 passenger facilities, about 30% of their components have a condition rating below 2.5. SFRTA's maintenance facilities are rated as 3.0 and 3.2 for West Palm Beach and Hialeah facilities. Of the 72-mile double-track SFRTA manages, 8% or 5.6 miles of which is currently under speed restriction.

SFRTA has invested in a Decision Support System (DSS) based on TransAM, a fully open-source software platform for managing transportation assets, to manage, monitor, and generate required reports for capital assets, and the functionality to project future asset conditions, generate TAM investment needs, and generate capital projects.

TAM project prioritization is aimed at managing and improving the SGR of capital assets. Projects that improve safety and or enhance compliance are ranked as priority I. Projects that improve SGR are ranked as priority II. Projects that expand capital asset and/or enhance operations are ranked as priority III.

SFRTA TAM and SGR policies have been designed to guide the development and implementation of the TAM plan, and ensure consistency between SFRTA's mission and goals and the Transit Asset Policies are integrated into the TAM plan. The plan should comply with FTA requirements for TAM and Transit Safety.

The implementation strategy is SFRTA's approach to perform TAM practices, including setting up schedule, establishing key staff, tasks, and roles and responsibilities. FTA guidance have identified three potential paths as strategies for doing improvement projects to improve TAM maturity: Enterprise-Driven Path, Asset Class-Driven Path, and Capital Planning-Driven Path. At this stage, the Capital Planning-Driven path is most suitable for SFRTA. For longer term, SFRTA may transition into different implementation path of Asset Class-Driven or Enterprise-Driven.

This plan has identified a series of key TAM activities that SFRTA will engage over the TAM plan horizon period from October 1, 2018 to September 30, 2022. These activities are: perform compliance check, establish roles and responsibilities, maintain and update asset inventory, perform periodical updates of asset conditions, establish annual TAM performance targets, coordinate with internal

planning efforts, update project prioritization, update TAM plan, conduct NTD numerical and narrative reports, share TAM plan with partner planning agencies, conduct major update for TAM plan before October 2022.

SFRTA has identified a number of resources, such as staff positions, funding sources, software system, and TAM reference and guidance, for developing, implementing, and improving the TAM plan.

SFRTA's TAM plan is a "living document" that is to be reviewed and updated annually, and quarterly for some components. The TAM plan is to be incorporated into SFRTA's capital budget planning, transit development planning, and annual NTD reporting process. This very first TAM plan for SFRTA can also serve as a snapshot of baseline conditions for future asset management. The plan has identified a series of actions and strategies to continuously evaluate and improve the TAM plan and related business practices

1.0 Introduction

1.1 SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY (SFRTA) AND TRI-RAIL

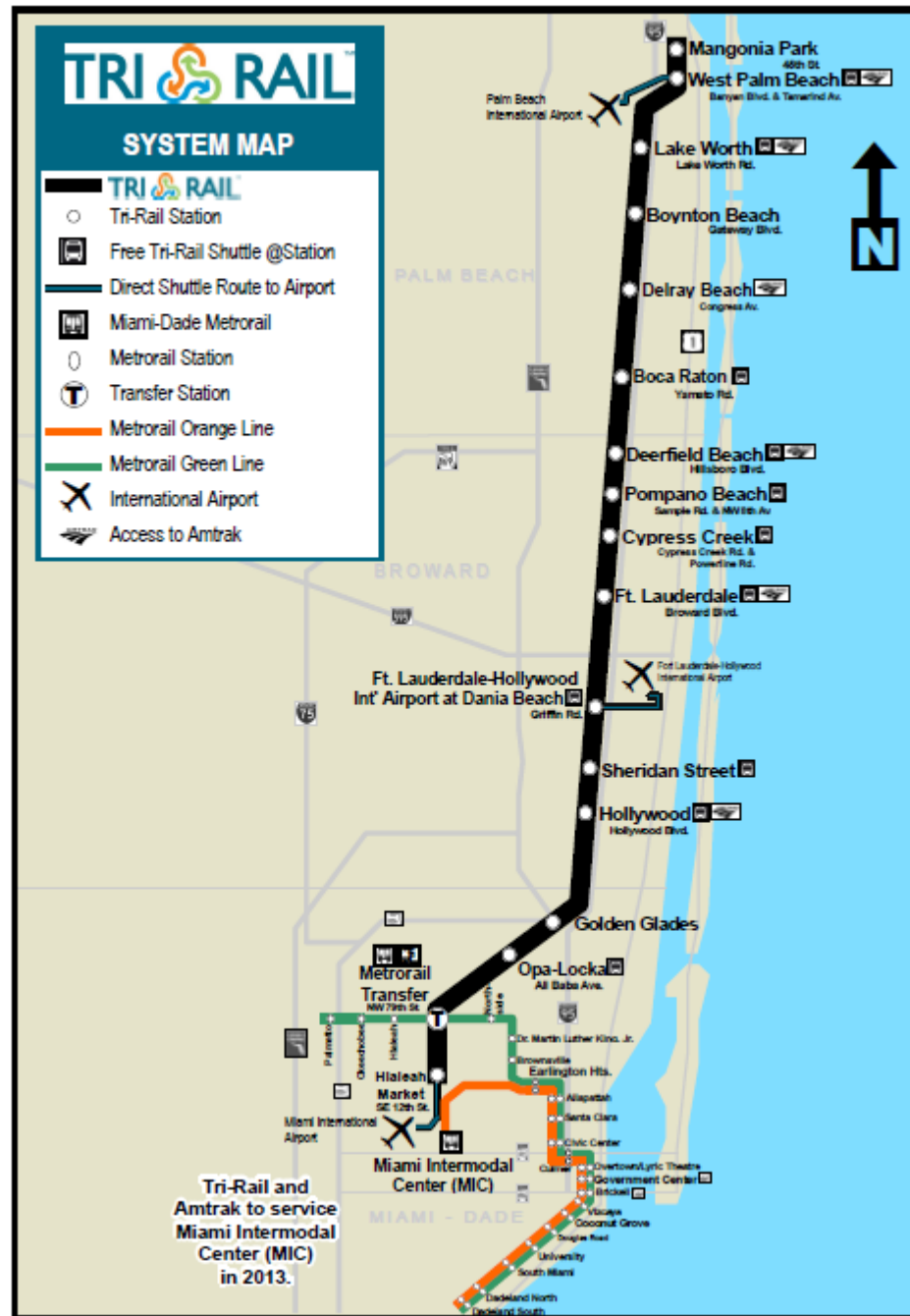
South Florida, comprised of Broward, Miami-Dade and Palm Beach Counties, is the fifth largest urbanized area in the United States with more than five million residents. As one of the fastest growing regions in the nation, South Florida faces the challenge of how to maintain the region's economic competitiveness, while continuing to offer a high quality of life. Key to the region's economic vitality and quality of life is a robust multimodal transportation system that provides mobility for existing and future residents and visitors, alike.

With the creation of the South Florida Regional Transportation Authority (SFRTA) on July 1, 2003, South Florida's three counties began efforts to work together to ensure a viable regional transportation system. The SFRTA, with cooperation from our transportation partners, works diligently to plan, develop, fund and operate a seamless, safe and efficient regional transportation system. A regional transportation system in South Florida will ensure mobility, advance sustainable growth and improve the quality of life for our current and future residents.

SFRTA operates Tri-Rail commuter rail service linking three large urbanized areas in South Florida: Miami, Fort Lauderdale, and West Palm Beach. There are 18 passenger stations along a 72-mile rail corridor in Southeast Florida. SFRTA also operates shuttle bus service to and from select Tri-Rail stations connecting the Tri-Rail system with numerous local destinations. Figure 1.1 below shows existing Tri-Rail system.

The system is connected to three major airports in South Florida: Miami International Airport, Fort Lauderdale-Hollywood International Airport, and the Palm Beach International Airport. The system directly connects to Amtrak at stations of Hollywood, Fort Lauderdale, Deerfield Beach, Delray Beach, Lake Worth, and West Palm Beach. The Tri-Rail system also connects to Metrorail system in Miami-Dade County at Metrorail Transfer station and Miami Intermodal Center station. Tri-Rail operates along the CSX former Miami subdivision. Currently, the line is entirely owned by FDOT.

Figure 1.1 Tri-Rail System Map



To meet public demand, the SFRTA is strategically planning for several needed transit projects to provide for the future regional mobility needs of South Florida's resident and visitors. These projects will allow people to rely on transit and enjoy the benefits of avoiding our increasingly congested highways, while saving money on gas, as well as on auto insurance and maintenance.

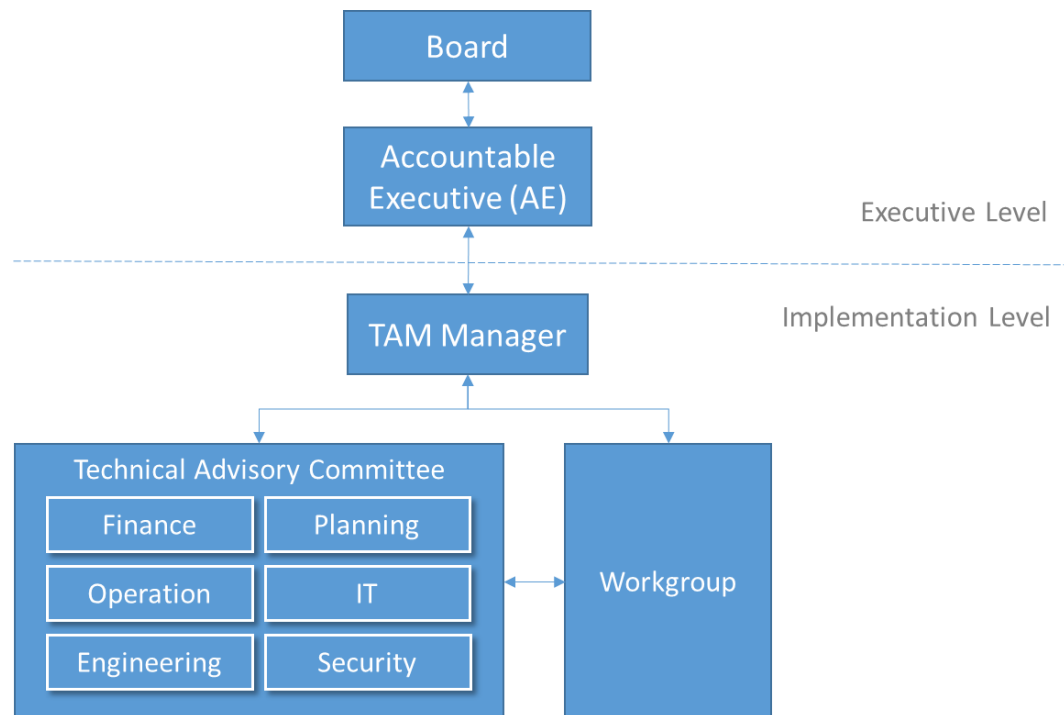
SFRTA Vision Statement: *“Providing greater mobility in South Florida, thereby improving the economic viability and the quality of the community, region and state.”*

SFRTA Mission Statement: *“To coordinate, develop and implement, in cooperation with all appropriate levels of government, private enterprise and citizens at-large in the community, a viable regional transportation system in South Florida that endeavors to meet the desires and needs for the movement of people, goods and services.”*

This TAM Plan provides a record of how SFRTA will assess, prioritize, and monitor the physical condition of assets utilized in the operation of the public transportation system.

SFRTA will establish a TAM Core team for implementing and improving the TAM plan. SFRTA's TAM Core Team is a two-level structure: Executive Level and Implementation Level, as shown in Figure 1.2 below.

Figure 1.2 SFRTA TAM Core Team



The Executive Level includes SFRTA Board and an Account Executive (AE). AE is the ultimate decision-maker throughout the process of approving the TAM plan. The Current AE for SFRTA TAM plan is the Director of Finance. The Implementation Level includes TAM Manager, Technical Advisory Committee (TAC), and TAM workgroup. The current TAM Manager is Budget and Grants Manager in Finance. TAC members include directors and managers of Finance, Operation, Engineering, Planning, IT, and Safety and Security offices. Workgroup consists of staff members who are involved in daily implementation of the TAM

plan, activities such as asset inventory update, asset condition assessment, capital project prioritization, and etc.

1.2 TRANSIT ASSET MANAGEMENT AND TRANSIT ASSET MANAGEMENT PLAN

According to 49 CFR Part 625.5, Transit Asset Management (TAM) means 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. TAM uses the asset conditions and projections to guide the funding prioritization to keep our transit networks in a State of Good Repair (SGR).

Section 20019 of MAP-21 amended Federal transit law by adding a new section 5326 to Chapter 53 of title 49 of the United States Code, requiring the Secretary of Transportation to establish and implement a National TAM System which 1) defines the term state of good repair, 2) requires that all Chapter 53 recipients and sub-recipients develop a TAM plan, 3) establishes annual reporting requirements, and 4) includes technical assistance.

The Code of Federal Regulations (Part 625.25) sets forth required components of TAM Plans for Tier 1 and Tier 2 providers.

Tier I provider means a recipient 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. 625.5

Tier II provider means a recipient that owns, operates, or manages 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. 625.5

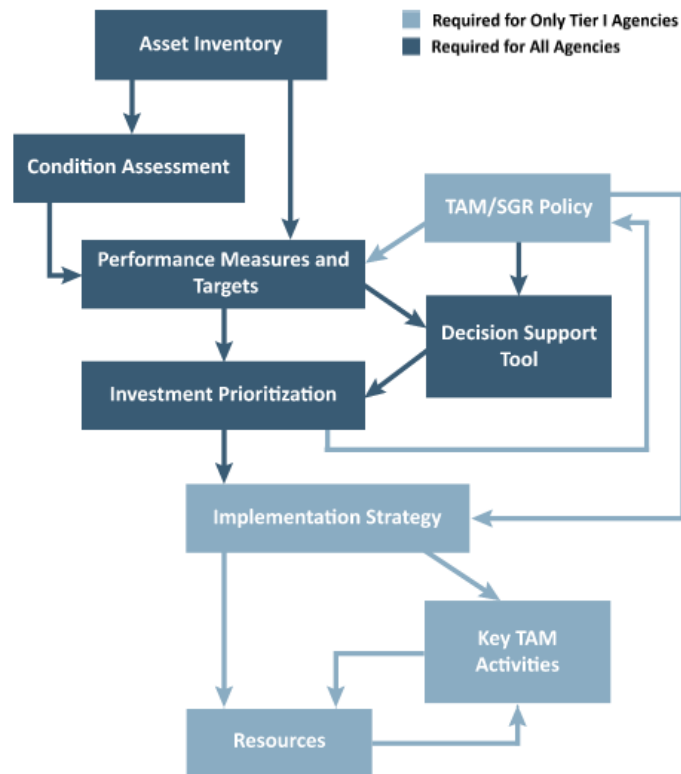
As a Tier 1 provider, SFRTA's TAM plan is consisted of the following components:

1. Asset inventory of the number and type of capital assets. The inventory must include all capital assets that SFRTA owns, except equipment with an acquisition value under \$50,000 that is not a service vehicle. An inventory also must include third-party owned or jointly procured exclusive-use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by SFRTA in the provision of public transportation. The asset inventory must be organized at a level of detail commensurate with the level of detail in the SFRTA's program of capital projects;
2. Asset condition assessment of those SFRTA 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;
3. A description of analytical processes or decision-support tools that SFRTA uses to estimate capital investment needs over time and develop its investment prioritization;
 4. A project-based prioritization of investments, developed in accordance with § 625.33 of this part;
 5. TAM and SGR policy;
 6. TAM plan implementation strategy;
 7. A list of key TAM activities that a provider intends to engage in over the TAM plan horizon period;
 8. A list of the resources, including personnel, that a provider needs to develop and carry out the TAM plan; and
 9. An outline of how a provider will monitor, update, and evaluate, as needed, its TAM plan and related business practices, to ensure the continuous improvement of its TAM practices.

Relationships between TAM plan components are shown in Figure 1.3 below.

Figure 1.3 Relationship between TAM Plan Elements



Source: TAM Final Rule Compliance Checklist, FTA, 2017

Together, these requirements allow transit providers to better assess their State of Good Repair (SGR) needs, and in turn make more informed investment decisions. The coordination amongst transit providers, States and Metropolitan Planning Organizations (MPOs) should influence MPO and State transportation funding investment decisions and is intended to increase the likelihood that transit SGR needs are programmed, committed to, and funded as part of the planning process.

Through asset management transit agencies use available funds more effectively to improve the physical condition and performance of their system. This, in turn has the potential to increase ridership.

According to FTA Report No. 0098, some of the benefits associated with improved asset management include:

- Improved customer service through on-time performance and service operations and customer-centered goals and metrics
- Improved productivity and reduced costs through predictive and preventive maintenance strategies.
- Optimized resource allocation through aligning spending with agency goals and objectives and incorporating lifecycle cost, risk, and performance trade-offs into capital programming and operation & maintenance budgeting.
- Improved stakeholder communications through more accurate and timely performance indicators and more effective tools to communicate performance metrics.

1.3 ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are used across this TAM plan:

ADA	Americans with Disability Act
AE	Accountable Executive
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan
DSS	Decision Support System
FDOT	Florida Department of Transportation
FEC	Florida East Coast Railway
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
MAP-21	Moving Ahead for Progress in the 21st Century Act

MPO	Metropolitan Planning Organizations
NTD	National Transit Database
SFRTA	South Florida Regional Transportation Authority
SGR	State of good repair
TAC	Technical Advisory Committee
TAM	Transit asset management
TDP	Transit Development Plan
TIP	Transportation Improvement Plan
TERM	Transit Economic Requirements Model
ULB	Useful life benchmark
VMS	Variable Message Sign

2.0 Capital Asset Inventory

This section summarizes all asset items that SFRTA owns, operates, and has direct capital responsibility, organized into four categories: rolling stock, equipment, facilities, and infrastructure.

SFRTA utilizes TransAM, an open-source asset management platform, to maintain asset inventory, track asset conditions, forecast replacement cycles, quantify capital needs, and develop and implement state-of-good-repair policies.

2.1 OVERALL SFRTA ASSETS

SFRTA manages an asset portfolio estimated to be approximately \$869,262,370 original purchase value, without soft costs of design and construction during replacement and rehabilitation. Table 2-1 below summarizes over all SFRTA asset value.

Table 2-1 SFRTA Asset Value

SFRTA Asset Category	Capital Asset Value
Rolling Stock: Revenue vehicles by mode	\$127,531,428
Equipment: Non-revenue support-service and maintenance vehicles and other capital equipment	\$10,358,035
Facilities: Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities	\$122,831,351
Infrastructures: Only rail fixed-guideway, track, signals and systems	\$608,541,556
Total	\$869,262,370

2.2 ROLLING STOCK

There are currently 108 rolling stock in SFRTA, including 26 commuter rail locomotive, 52 commuter rail passenger coaches, four self-propelled passenger cars, and 26 shuttle buses that provide connecting service to Tri-Rail stations. The summary of rolling stock is shown in Table 2-2. Details of each individual assets can be found in Appendix A.

Table 2-2 Rolling Stock

Asset Class	Sub Assets	Average Age	Count	Capital Asset Value
Rail Vehicles	Commuter Rail Locomotive (RL)	20	24	\$59,058,746
	Commuter Rail Passenger Coach (RP)	18	52	\$61,392,682
	Commuter Rail Self-Propelled Passenger Car (RS)	11	4	Tbd
Bus Vehicles	Bus (BU)	1	27	\$7,080,000
Total		14	107	\$127,531,428

Source: SFRTA, 2018

2.3 EQUIPMENT

Equipment inventory consist of non-revenue vehicles and capital systems. As shown in Table 2-3, there are 18 non-revenue vehicles in SFRTA that support revenue operations, maintain revenue vehicles, and perform transit-oriented administrative activities, including 13 automobiles and 5 trucks. Capital systems include security system and equipment, positive train control system, communication or monitoring system, fare collection system, and dispatch system. Details of each individual assets can be found in Appendix A.

Table 2-3 Equipment

Asset Class	Sub Assets	Average Age	Count	Capital Asset Value
Non-Revenue Vehicles	Automobiles	4.1	13	\$340,649
	Trucks and Other Rubber Tire Vehicles	5.4	5	\$88,176
Communication Equipment	Fare Collection Systems	15.9	283	\$7,948,067
	Surveillance & Security	6.6	8	\$77,144
	Other Communications Equipment	2	2	\$22,941
IT Equipment	Hardware	Tbd	52	\$34,203
	Software	4.6	15	\$23,773
Facility Equipment	Overhead Cranes - 1 ton	19	1	\$4,744
	Air Reservoir Tank	1	1	\$8,078
	Air Dryer TF174	1	1	\$14,004
	Overhead Cranes - 7.5 ton	26	1	\$15,301
	Air Compressor Kaeser DS171	9	1	\$17,000
	Overhead Cranes - 5 ton		1	\$19,000
	Fork Lift 1	22	1	\$19,750

Asset Class	Sub Assets	Average Age	Count	Capital Asset Value
	Air Compressor Kaeser CSD125	1	1	\$21,500
	Fork Lift 3	9	1	\$25,562
	Avtron (HEP Load Box)	20	1	\$26,500
	Man Lift	4	1	\$27,000
	Oil/Water Separator	12	1	\$35,000
	Fuel System	14	1	\$38,000
	Fork Lift 2	4	1	\$40,000
	Overhead Cranes - 15 ton	26	1	\$50,496
	Portable Jacks	22	1	\$55,633
	Train Wash	20	1	\$217,135
	Drop Table	22	1	\$333,635
	Wheel True Machine	13	1	\$850,000
	Sanding System	14	1	Tbd
	480 Layover power	Tbd	1	Tbd
	Lift Station (Train Service Area)	Tbd	Tbd	Tbd
	Lube Oil System & Tank	14	3	Tbd
	Sludge Tanks	Tbd	2	Tbd
	Load Box (Engine)	19		\$4,744
	Other Heavy Rail Shop Equipment	Tbd	Tbd	Tbd
Total				\$10,358,035

Source: SFRTA, 2018

2.4 FACILITIES

This section summarizes all existing facilities in SFRTA, as well as components within them. As shown in Table 2-4, there are three types of facilities in SFRTA: Bus and Rail Vehicle Maintenance Facilities, Stations / Passenger Facilities, and Service Facilities. Details of each individual assets can be found in Appendix A.

Table 2-4 Facilities

Asset Class	Sub Assets	Average Age	Count	Capital Asset Value
Stations / Passenger Facilities	Commuter Rail Station	40	18	\$ 80,231,965
	Parking Garage	5	2	\$ 16,682,365
Support Facilities	Administration Building	1	1	\$ 20,066,404

	Rail Maintenance Facility	45	2	\$ 5,850,617
Total				\$122,831,351

Source: SFRTA, 2018

2.5 INFRASTRUCTURES

Infrastructures in SFRTA include track, bridges structures, ancillary structures, yard, and signal and communication infrastructures, as shown in Table 2-5. Track asset consists with ballasted track, turnouts, and grade crossings. Bridges structures include steel bridges, timber trestles, concrete bridges, and moveable bridges. Ancillary structures include Under-track culverts and crossings, retaining walls, barriers and noise protection walls, information and sign structures. Both the yard for Waste Water Treatment Plant (WWTP) and collection tanks are contained in the inventory. Infrastructures to support signals and communication is also included, they are roadside rail crossing signals, rail crossing gates, communication device between wayside to control center, and hardware and software in the centralized control system. Details of each individual assets can be found in Appendix A.

Table 2-5 Infrastructures

Asset Class	Sub Assets	Count	Capital Asset Value
Track	Ballasted (Rail/Fastening system/Crossties/Ballast and sub-ballast/Subgrade)	Tbd	Tbd
	Turnouts	Tbd	Tbd
	Grade Crossing	Tbd	Tbd
Bridges Structures	Steel Bridges (Viaducts/Steel trestles/Truss spans/Girder spans)	Tbd	Tbd
	Timber Trestles (Caps/Stringers)	Tbd	Tbd
	Concrete Bridges (Concrete Girders/Slab Bridges/Arches/Concrete Trestles)	Tbd	Tbd
	Moveable Bridges (Swing/Vertical lift/Bascule)	Tbd	Tbd
Ancillary Structures	Under-track culverts and crossings	Tbd	Tbd
	Retaining walls	Tbd	Tbd
	Barriers and noise protection walls	Tbd	Tbd
	Information and sign structures	Tbd	Tbd
Yard	Waste Water Treatment Plant (WWTP)	Tbd	Tbd

	Collection tanks	Tbd	Tbd
Signal and Communication	Roadside rail crossing signals	Tbd	Tbd
	Rail crossing gates	Tbd	Tbd
	Communication device between wayside to control center	Tbd	Tbd
	Centralized control system (hardware and software)	Tbd	Tbd
Total			\$608,541,556

Source: SFRTA, 2018

3.0 Asset Condition Assessment

This section conducts a condition assessment of inventoried assets for which SFRTA has direct capital responsibility. The purpose of the condition assessment is to generate information to monitor and predict the performance of the assets and to inform the investment prioritization.

For each asset, its condition is determined by their age or TERM rating. An overall performance measure was calculated for each asset category using the methods shown in Table 3-1.

The performance measure for rolling stock is calculated as the percentage of revenue vehicles within a particular asset class that have either met or exceeded their Useful Life Benchmark (ULB).

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.

The performance measure for Infrastructure, which includes rail fixed-guideway, track, signals, and systems, is the percentage of track segments with performance restrictions.

The performance measure for facilities is the percentage of facilities within an asset class, rated below condition 2.5 on the TERM scale (Table 3-2) or have reached their ULB shown in Table 3.3.

Table 3-1 Assets and Performance Measures

Assets:	Performance Measure
Equipment: Non-revenue support-service and maintenance vehicles	Percentage of non-revenue vehicles met or exceeded Useful Life Benchmark ¹
Rolling Stock: Revenue vehicles by mode	Percentage of revenue vehicles met or exceeded Useful Life Benchmark
Infrastructure: Only rail fixed-guideway, track, signals and systems	Percentage of track segments with performance restrictions
Facilities: Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities	Percentage of assets with condition rating below 2.5 on the FTA Transit Economic Requirements Model (TERM) Scale

Source: Federal Transit Administration, 2017.

¹ FTA provides a default Useful Life Benchmark (ULB) for each assets, which represents the maximum expected lifecycle of a capital asset based on the TERM model. Agencies can choose to customize ULB based the operating environment.

Table 3-2 TERM Rating

TERM Rating	Condition Description
Excellent	5.0 No visible defects, near-new condition.
Good	4.0 Some slightly defective or deteriorated components.
Adequate	3.0 Moderately defective or deteriorated components.
Marginal	2.0 Defective or deteriorated components in need of replacement.
Poor	1.0 Seriously damaged components in need of immediate repair.

Source: Federal Transit Administration, 2017.

Table 3.3 SFRTA Asset Useful Life Benchmarks (ULBs)

Vehicle Type		Default ULB (in years)
AO	Automobile	8
BR	Over-the-road bus	14
BU	Bus	14
CU	Cutaway bus	10
MV	Minivan	8
	Other rubber tire vehicles	14
RL	Commuter rail locomotive	39
RP	Commuter rail passenger coach	39
RS	Commuter rail self-propelled passenger car	39
	Steel wheel vehicles	25
SV	Sport utility vehicle	8
VN	Van	8

Source: SFRTA 2018.

3.1 OVERALL SFRTA ASSETS

Table 3-4 below summarized SFRTA's current asset conditions in the four categories of Rolling Stocks, Equipment, Facilities, and Infrastructures.

Table 3-4 Overall SFRTA Asset Conditions

SFRTA Asset Category	Overall Conditions
Rolling Stock: Revenue vehicles	0% met or exceeded ULB
Equipment: Non-revenue support-service and maintenance vehicles IT and system equipment	0% met or exceeded ULB 15% (TERM rating < 2.5)
Facilities: Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities	30% worth of all facilities have a condition rating low than fair (TERM rating < 2.5).
Infrastructure: Only rail fixed-guideway, track, signals and systems	8% tracks operating under performance restriction

Source: Federal Transit Administration, 2017.

Overall conditions of SFRTA's rolling stock is good with no revenue vehicle met or exceeded its ULB.

The average age of non-revenue vehicles is less than six years old; none of them has met or exceeded their ULB. The majority of communication, monitoring, SCADA systems are in adequate or better condition. Only seven percent of the Wide area networks (WAN)/ metro area network and 12% of the Core IT Systems were rated as marginal condition. All fare collection equipment are with adequate or better condition, and were rated higher than three. All dispatch systems are in excellent condition, with average ratings of five. All security equipment is in good or better condition. All positive train control systems are in excellent condition.

For SFRTA's 18 passenger facilities, about 30% of their components have an overall condition rating below 2.5. SFRTA has two vehicle maintenance facilities. For the two maintenance facilities, West Palm Beach maintenance yard has a condition rating of 3, and the Hialeah maintenance yard has a condition rating of 3.2. The administration facility located in Pompano Beach, FL was recently constructed, and the facility was in use since 2017. Condition rating of the administration facility is 5. The two garage facilities have a condition rating of 5.

Of the 72-mile double-track SFRTA manages, 8% or 5.6 miles of which is currently under speed restriction.

3.2 ROLLING STOCK

The overall condition of rolling stock is good; no revenue vehicle has met or exceeded its ULB. As summarized in Table 3-5, the average ages of commuter rail locomotive, commuter rail passenger coach, commuter rail self-propelled passenger car, and bus are 20, 18, 11, and one, respectively. There are five commuter rail locomotives with ages 38 years old and should be considered

replacing in the near future. Table 3-8 shows the condition of each rolling stock asset.

Table 3-5 Condition Summary – Rolling Stock

Rolling Stock	Count	Age			ULB	% Met or Exceeded ULB
		Average	Min	Max		
Commuter Rail Locomotive	26	20	5	38	39	0%
Commuter Rail Passenger Coach	52	18	6	30	39	0%
Commuter Rail Self-Propelled Passenger Car	4	11	9	12	39	0%
Bus	26	1	1	8	14	0%
Total	108	14	1	38	33	0%

Rolling Stock Business Process

For revenue rail vehicles, data collection and data Maintenance are conducted by the current Operations contractor. The current contractor for shuttle bus service, is responsible for collecting and managing data about revenue bus vehicles. Table 3-6 below illustrate the roles and responsibilities for conducting revenue vehicle inventory.

Data collection and Maintenance is completed using the TransAM template, which include at the minimum level collecting information for all required field in the TransAM template, conducting condition assessment, and provide periodic updates of the data. Table 3-7 shows the TransAM required fields for rolling stock inventory.

Once all needed fields in the template are filled in, data will be submitted to the Finance department by the end of each fiscal year. Finance department will perform quality control to ensure data meets the requirements of TransAM entry and NTD reporting. Finance department is also responsible for entering data in TransAM, conducting analysis, and creating reports.

Table 3-6 Business Process of Rolling Stock Inventory

Asset Class	Sub Assets	Asset Data Owner	Business Process			
			Data Collection	Data Maintenance	Quality Control	Data Entry & Reporting
Revenue Rail Vehicles	Locomotives and coaches	Finance	Operations & Contractor	Operations & Contractor	Finance	Finance
	Electric/Diesel Multiple Unit vehicles	Finance	Operations & Contractor	Operations & Contractor	Finance	Finance

Revenue Bus Vehicles	Shuttle buses	Finance	Finance & Contractor	Finance & Contractor	Finance	Finance
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Source: SFRTA, 2018

Table 3-7 TransAM Required Fields for Rolling Stock Inventory

Attributes	Data Type
Agency	Collect as text to define future list
VIN	Text
Asset ID	Text
Class	List
Type	List
Subtype	List
Estimated Service Life Category	List
Manufacturer	List
Model	Collect as text to define future list
Year of Manufacture	List
Fuel Type	List
Length (Ft)	Numeric
Length (in)	List
Seating Capacity	Numeric
Standing Capacity	Numeric
ADA Accessible	List
Wheelchair Capacity	Numeric
Primary Mode	List
Service Type (Primary Mode)	List
Dedicated Asset	List
Funding Type	List
Direct Capital Responsibility	List
% Capital Responsibility	Numeric
Ownership Type	List
Purchased New	List
Cost (Purchase)	Numeric
In Service Date	Date

Table 3-8 Condition Assessment – Rolling Stock

VIN	Asset ID	Class	Type	Subtype	Manufacturer	Model	Year of Manufactur e	Age	ULB
1N9MMAC68G C084203	1601	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	EZ RIDER II BUS	2010	8	14
1N9MMAC62G C84200	1602	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	EZ RIDER II BUS	2016	2	14
1N9MMAC66G C084202	1603	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	EZ RIDER II BUS	2016	2	14
1N9MMAC64G C084201	1604	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	EZ RIDER II BUS	2016	2	14
5WEASC8N7H H474893	1701	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N5H H474892	1702	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N9H H474894	1703	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N6H H474898	1704	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N4H H474902	1705	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N8H H474899	1706	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N2H H474896	1707	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N0H H474900	1708	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N2H H474901	1709	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8B4H H474897	1710	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N6H H474903	1711	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N0H H474895	1712	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N7H H474909	1713	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N3H H474910	1714	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N5H H474908	1715	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N1H H474906	1716	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8NXH H474905	1717	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N3H H474907	1718	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N8H H474904	1719	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N5H H474911	1720	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N7H H474912	1721	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
5WEASC8N9H H479913	1722	Buses (Rubber Tire Vehicles)	Bus (BU)	Bus Std 35 FT	EDN - ElDorado National	Passport	2017	1	14
	507	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	BOM - Bombardier Corporation	BiLevel	1996	22	39
	508	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	BOM - Bombardier Corporation	BiLevel	1996	22	39
	509	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	BOM - Bombardier Corporation	BiLevel	1996	22	39
	510	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	BOM - Bombardier Corporation	BiLevel	1996	22	39
	511	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	BOM - Bombardier Corporation	BiLevel	1996	22	39
	1001	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1002	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1003	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1004	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1005	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1006	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1007	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1008	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39

VIN	Asset ID	Class	Type	Subtype	Manufacturer	Model	Year of Manufactur e	Age	ULB
	1009	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1010	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1011	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1012	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	1013	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1991	27	39
	1014	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1991	27	39
	1015	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1991	27	39
	501	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	502	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	503	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	504	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	505	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	506	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	UTD - UTDC Inc.	BiLevel	1988	30	39
	807	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	MKI - American Passenger Rail Car Company	F40PHM2	1992	26	39
	808	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	MKI - American Passenger Rail Car Company	F40PHM2	1992	26	39
	809	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	MKI - American Passenger Rail Car Company	F40PHM2	1992	26	39
	810	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	F40PHR	1981	37	39
	811	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	F40PHR	1981	37	39
	802	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	MKI - American Passenger Rail Car Company	F40PHL2	1988	30	39
	803?	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	MKI - American Passenger Rail Car Company	F40PHL2	1988	30	39
	804?	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	MKI - American Passenger Rail Car Company	F40PHL2	1988	30	39
	812	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	GP49	1980	38	39
	813	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	GP49	1980	38	39
	814	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	GP49	1980	38	39
	815	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	GP49	1980	38	39
	816	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	GP49	1980	38	39
	817	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	GMC - General Motors Corporation	GP49	1980	38	39
	703	Railcars	Commuter Rail Self-Propelled Passenger Car (RS)	Commuter Rail Self-Propelled (Diesel)	USR - US Railcar	Series700	2006	12	39
	705	Railcars	Commuter Rail Self-Propelled Passenger Car (RS)	Commuter Rail Self-Propelled (Diesel)	USR - US Railcar	Series700	2006	12	39
	7001	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	USR - US Railcar	Series7000	2005	13	39
	7002	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	USR - US Railcar	Series7000	2005	13	39
	706	Railcars	Commuter Rail Self-Propelled Passenger Car (RS)	Commuter Rail Self-Propelled (Diesel)	USR - US Railcar	Series700	2007	11	39
	704	Railcars	Commuter Rail Self-Propelled Passenger Car (RS)	Commuter Rail Self-Propelled (Diesel)	USR - US Railcar	Series700	2009	9	39
	512	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2010	8	39
	513	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2010	8	39
	1101	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	1102	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39

VIN	Asset ID	Class	Type	Subtype	Manufacturer	Model	Year of Manufactur e	Age	ULB
	1103	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	514	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	515	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	516	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	517	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	518	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	519	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	520	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	521	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2011	7	39
	1104	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1105	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1106	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1107	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1108	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1109	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1110	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1111	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1112	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1113	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	1114	Railcars	Commuter Rail Passenger Coach (RP)	Commuter Rail Car Trailer	HYU - Hyundai Rotem	MultiLevelCommuter	2012	6	39
	818	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	819	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	820	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	821	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	822	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	823	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	824	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	825	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	826	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	827	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	828	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39
	829	Railcars	Commuter Rail Locomotive (RL)	Commuter Locomotive Diesel	BEC - Brookville Equipment Corporation	BL36PH	2013	5	39

3.3 EQUIPMENT

The equipment in SFRTA include non-revenue vehicles, communication and monitoring systems, fare collection systems, dispatch systems, security systems, and positive train control systems. Table 3-13 through Table 3-18 summarized the conditions for each equipment class.

The average age of non-revenue vehicles is less than six years old; none of them has met or exceeded their ULB.

The majority of communication/monitoring/SCADA systems are in adequate or better condition. Only seven percent of the Wide area networks (WAN)/metro area network and 12% of the Core IT Systems were rated as marginal condition.

All fare collection equipment are with adequate or better condition, and were rated higher than three.

All dispatch system are in excellent condition, with average ratings of five.

All security equipment are in good or better condition.

All positive train control systems are in excellent condition.

Table 3-19 through Table 3-29 provides details of condition assessment for each equipment.

Equipment Asset Business Process

Following the current business practice in SFRTA, Table 3-9 below illustrates the roles and responsibilities for conducting non-revenue vehicle equipment inventory. Asset data of Hi-rail vehicles are hosted in the Engineering Department, which also conduct data collection and Maintenance for Hi-rail vehicles. For non-revenue staff vehicles, data collection and data Maintenance are conducted by contractors through projects with the Procurement Department. Data are hosted by the Finance Department. Forklift Data are collected and managed by Operations Contractor HERZOG, and are provided upon request from Operations Department.

Data collection and Maintenance is completed by Engineering Department, Procurement, and Operations Contractor using the TransAM template (Table 3-10). Once all needed fields in the template are filled in, data will be submitted to the Finance department by the end of fiscal year. Finance department will perform quality control to ensure data meets the requirements of TransAM entry and NTD reporting. Finance department is also responsible for entering data in TransAM, conducting analysis, and creating reports.

Table 3-9 Business Process of Equipment Inventory – Non-Revenue Vehicles

Asset Class	Sub Assets	Asset Data Owner	Business Process			
			Data Collection	Data Maintenance	Quality Control	Data Entry & Reporting
Non-Revenue Rail Vehicles	Hi-rail vehicles	Engineering	Engineering	Engineering	Finance	Finance
Other Non-Revenue Road Vehicles	Non-revenue staff fleet	Finance	Procurement	Procurement	Finance	Finance
	Forklifts	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance

Source: SFRTA, 2018

Table 3-10 Required Fields for Equipment Inventory – Non-Revenue Vehicles

Attributes	Data Type
Agency	Collect as text to define future list
VIN	Text
Asset ID	Text
Class	List
Type	List
Subtype	List
Manufacturer	List
Model	Collect as text to define future list
Year of Manufacture	List
Fuel Type	List
Length (Ft)	Numeric
Length (in)	List
Seating Capacity	Numeric
Primary Mode	List
Direct Capital Responsibility	List
% Capital Responsibility	Numeric
Purchased New	List
Cost (Purchase)	Numeric
In Service Date	Date

Source: SFRTA, 2018

For capital systems in SFRTA, Table 3-11 below illustrate the roles and responsibilities for conducting non-revenue vehicle equipment inventory. The Safety & Security Department, as the owner of the asset data, is responsible for

data collection and Maintenance of security systems, with assistance from the IT department for closed circuit surveillance and access control. The data collection and Maintenance for most of the Positive Train Control systems are conducted by the Engineering Department and its contractor VIMI, except that the work for car-based equipment are done by the Operations Department and its contractor HERZOG. The IT Department and its contractor are responsible for data collection and Maintenance of communication/monitoring/SCADA systems and fare collection systems, with assistant from the Operations Department for data collection and Maintenance of public address and Variable Message Sign (VMS). Data collection and Maintenance of dispatch systems are conducted by the contractor of Engineering Department. Data collection and Maintenance should be completed using the TransAM template, as shown in Table 3-12. Finance department will perform quality control to ensure data meets the requirements of TransAM entry and NTD reporting. Finance department is also responsible for entering data in TransAM, conducting analysis, and creating reports.

Table 3-11 Business Process of Equipment Inventory– Capital System

Asset Class	Sub Assets	Asset Data Owner	Business Process			
			Data Collection	Data Maintenance	Quality Control	Data Entry & Reporting
Security	Closed circuit surveillance	Security	Security & IT	Security & IT	Finance	Finance
	Access control	Security	Security & IT	Security & IT	Finance	Finance
	Intrusion detection	Security	Security	Security	Finance	Finance
	Emergency operations center	Security	Security	Security	Finance	Finance
	Emergency management panel/system	Security	Security	Security	Finance	Finance
	Fire alarm system	Security	Security	Security	Finance	Finance
Positive Train Control (PTC)	PTC equipment	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Wayside equipment	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Cable and cable transmission system	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Equipment enclosures	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Car-based equipment	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Centralized control hardware, software, and workstations	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Railroad-Highway grade crossing equipment	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance

Asset Class	Sub Assets	Asset Data Owner	Business Process			
			Data Collection	Data Maintenance	Quality Control	Data Entry & Reporting
Communications /Monitoring /SCADA	Wide area networks (WAN)/metro area network	IT	IT	IT	Finance	Finance
	Cable/data transmission system	IT	IT	IT	Finance	Finance
	UPS systems	IT	IT & Contractor	IT & Contractor	Finance	Finance
	Telephone	IT	IT	IT	Finance	Finance
	Public address and VMS (variable message sign)	IT	IT Operations &	IT & Operations	Finance	Finance
	Core IT Systems	IT	IT	IT	Finance	Finance
Fare Collection	Point-of-sale devices (TVM)	IT	IT	IT	Finance	Finance
Dispatch System	Software	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Hardware	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance

Source: SFRTA, 2018

Table 3-12 Required Fields for Equipment Inventory – Capital System

Attributes	Data Type
Agency	Collect as text to define future list
Description	Text
Asset ID	Text
Quantity	Numeric
Quantity Units (USC)	List
Quantity Units (SI)	List
Class	List
Type	List
Subtype	List
Manufacturer	List
Model	Collect as text to define future list
Year of Manufacture	List
Cost (Purchase)	Numeric
Direct Capital Responsibility	List
% Capital Responsibility	Numeric
Purchased New	List
In Service Date	Date

Table 3-13 Condition Summary – Non-Revenue Vehicles

Non-Revenue Vehicles	Count	Age			ULB	% Met or Exceeded ULB
		Average	Min	Max		
Automobiles	13	4	1	8	8	0%
Trucks and Other Rubber Tire Vehicles	5	6	3	9	8	0%

Table 3-14 Condition Summary – Communications/Monitoring/SCADA

Communications/ Monitoring/ SCADA	Count	Condition Rating				
		Average	Min	Max	Count Rating <2.5	% Rating <2.5
Wide area networks (WAN)/metro area network	41	4.6	2	5	3	7%
Cable/data transmission system	1	5	5	5	0	0%
UPS systems	4	5	5	5	0	0%
Telephone	164	5	5	5	0	0%
Core IT Systems	17	3.8	2	5	2	12%

Table 3-15 Condition Summary – Fare Collection

Fare Collection	Count	Condition Rating				
		Average	Min	Max	Count Rating <2.5	% Rating <2.5
Photo ID Station System	8	3.6	3	4	0	0%
POI (TOM) System/Assembly	18	4.4	3	5	0	0%
RSV	117	3.9	3	5	0	0%
TVM (Cashless)	19	3.7	3	4	0	0%
TVM (Full Service)	72	3.9	3	4	0	0%

Table 3-16 Condition Summary – Dispatch System

Dispatch System	Count	Average Rating	Count Rating <2.5	% Rating <2.5
Wayside Dispatching Equipment	26	5	0	0%
Dispatching Radio Wayside Base Stations	4	5	0	0%
New River Draw Bridge Sx- 1013.90	1	5	0	0%

Table 3-17 Condition Summary – Security

Security	Count	Average Rating	Count Rating <2.5	% Rating <2.5
Closed Circuit	1	5	0	0%
Access Control	1	4	0	0%
Intrusion detection	1	5	0	0%
Emergency Operations Center	1	5	0	0%
Emergency Management Panel/System	1	5	0	0%
Fire Alarm System	1	5	0	0%

Table 3-18 Condition Summary – Positive Train Control (PTC)

Positive Train Control (PTC)	Count	Average Rating	Count Rating <2.5	% Rating <2.5
PTC equipment		5	0	0%
Wayside equipment		5	0	0%
Cable and cable transmission system		5	0	0%
Equipment enclosures		5	0	0%
Car-based equipment			0	0%
Centralized control hardware, software, and workstations		5	0	0%
Railroad-Highway grade crossing equipment		5	0	0%

Table 3-19 Condition Assessment – Non-Revenue Vehicles

VIN	Asset ID	Class	Type	Subtype	Manufacturer	Model	Year of Manufacture	Age	ULB
1FTRX12W39FA96419	143	Service Vehicles (Non-Revenue)	Trucks and Other Rubber Tire Vehicles	Pickup Truck	FRD - Ford Motor Corporation	F-150	2009	9	8
3FADP0L32AR384275	144	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	FRD - Ford Motor Corporation	Fusion Hybrid	2010	8	8
1FTBF2A66BECO6631	147	Service Vehicles (Non-Revenue)	Trucks and Other Rubber Tire Vehicles	Pickup Truck	FRD - Ford Motor Corporation	F-250	2011	7	8
1FTMF1CM8BKD35454	148	Service Vehicles (Non-Revenue)	Trucks and Other Rubber Tire Vehicles	Pickup Truck	FRD - Ford Motor Corporation	F-150	2011	7	8
3FADPOL32CR305030	149	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	FRD - Ford Motor Corporation	Fusion Hybrid	2012	6	8
3FADP0L3XCR399836	150	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	FRD - Ford Motor Corporation	Fusion Hybrid	2012	6	8
3FADP0L38CR399835	151	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	FRD - Ford Motor Corporation	Fusion Hybrid	2012	6	8
3FADP0L36CR399834	152	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	FRD - Ford Motor Corporation	Fusion Hybrid	2012	6	8
JTEBC3EH5D2015356	153	Service Vehicles (Non-Revenue)	Automobiles	Sports Utility Vehicle	TOY - Toyota Motor Corporation	Highlander Hybrid	2013	5	8
3FA6POUU9FR145944	154	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	FRD - Ford Motor Corporation	Fusion Hybrid	2015	3	8
3FA6POUUOFR145945	155	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	FRD - Ford Motor Corporation	Fusion Hybrid	2015	3	8
5N1CR2MN4EC647541	156	Service Vehicles (Non-Revenue)	Automobiles	Sports Utility Vehicle	NIS - Nissan	Pathfinder Hybrid	2014	4	8
4T1BD1FK0FU174045	157	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	TOY - Toyota Motor Corporation	Camry Hybrid	2015	3	8
NM0LS6E79G1242643	158	Service Vehicles (Non-Revenue)	Automobiles	Van	FRD - Ford Motor Corporation	Transit Connect	2016	2	8
1FTMF1C8XFKE52851	159	Service Vehicles (Non-Revenue)	Trucks and Other Rubber Tire Vehicles	Pickup Truck	FRD - Ford Motor Corporation	F-150	2015	3	8

VIN	Asset ID	Class	Type	Subtype	Manufacturer	Model	Year of Manufacture	Age	ULB
1FTMF1C88FKE52850	160	Service Vehicles (Non-Revenue)	Trucks and Other Rubber Tire Vehicles	Pickup Truck	FRD - Ford Motor Corporation	F-150	2015	3	8
JTMRJREV6GD040096	161	Service Vehicles (Non-Revenue)	Automobiles	Sedan/Station Wagon	TOY - Toyota Motor Corporation	RAV4 Hybrid	2016	2	8
ZFBERFAB9H6D68450	162	Service Vehicles (Non-Revenue)	Automobiles	Van	DTD - Dodge Division - Chrysler Corporation	Promaster City	2017	1	8

Table 3-20 Condition Assessment - Wide area networks (WAN)/metro area network

Device	Model	Type	Condition
FTL-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
SHE-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
BOC-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
MIC-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
HIA-ASE-Router	Cisco 1841,1841VE Integrated Services Router	Routers	2
HOL-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
Hialeah-Yard	Cisco 1841,1841VE Integrated Services Router	Routers	2
BOY-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
MET-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
DEL-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
MAN-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
WPB-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
DFB-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
CYP-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
OPA-ASE-Router	Cisco 1841,1841VE Integrated Services Router	Routers	2
GOL-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
ASE-HUB-POM	Cisco 3925E Integrated Services Router G2	Routers	5
LAK-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
FLA-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
POM-ASE-Router	Cisco 2911 Integrated Services Router G2	Routers	5
3FL-SW-COM5-East	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
HOL-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
MET-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
MIC-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5

Device	Model	Type	Condition
2FL-SW-COM4-East	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
2FL-SW-COM4-West	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
Server-Room-Switch-TenGig	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
Core-SW-01	Cisco Catalyst 4500 Virtual Switching System	Switches and Hubs	5
Hialeah-SW	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
LAK-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
BOY-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
DEL-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
BOC-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
POM-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
GOL-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
OPA-ASE-Switch	Cisco Catalyst 3560G-24TS Switch	Switches and Hubs	3
3FL-SW-COM6-W	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
FLL-ASE-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
Garage-Switch	Cisco Catalyst 29xx Stack-able Ethernet Switch	Switches and Hubs	5
SFRTA-WLC-1	Cisco 5508 Wireless LAN Controller	Wireless Controller	3
1FL-SW-COM2-W	Cisco Catalyst 29xx Stack-able Ethernet Switch		5

Table 3-21 Condition Assessment - Cable/data transmission system

Model	Type	Condition
OM3 Fiber/CAT6 Copper	Fiber/Cat6	5

Table 3-22 Condition Assessment - UPS systems

Model	Type	Condition
93E-60/60	Uninterruptible Power Supply	5

Table 3-23 Condition Assessment - Core IT Systems

Device	Model	Type	Condition
Eden TOP Server	PE R610	Server	3
Active Directory - 2012	PE R720	Server	5
Active Directory - 2012	PE R720	Server	5
Crystal Report Server	PE R320	Server	3
Eden Application Server	PE 2950	Server	3
Eden Web Server	PE 2950	Server	3
Exchange Edge Server	PE R720	Server	5
Exchange Server 2013	PE R720	Server	5
File Pro Server	PE R320	Server	5
Intranet Server	PE 2650	Server	3
New Backup Server	DL 4300	Server	5
FTP Server	PE R320	Server	5
Records Server	PE 2850	Server	2
SQL Server 2012	PE 1950	Server	3
System Center Host	PE R630	Server	5
VMWare Host	PE R420	Server	3
ValCom Server	PE 2950	Server	2

Table 3-24 Condition Assessment - Telephone

Pkey	Model	Location	Department	Condition
241	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
242	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
243	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
244	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
245	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
246	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
247	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
218	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
219	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
220	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
221	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
222	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
223	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
224	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
225	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
226	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
227	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
228	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
229	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
230	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
231	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
232	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
233	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
234	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
235	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5

Pkey	Model	Location	Department	Condition
236	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
237	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
238	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
239	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
240	Cisco 8811 Telephone	SFRTA Operations Center Pompano	Operations	5
104	Cisco 8851 Telephone	SFRTA Admin. Bldg. Hialeah Yard (#9400)	Operations	5
107	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
108	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
120	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
128	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
131	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
133	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
141	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
151	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
156	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
164	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
165	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
179	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
182	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
185	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
187	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
190	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Construction & Engineering	5
117	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
122	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
129	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
130	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5

Pkey	Model	Location	Department	Condition
139	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
147	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
159	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
160	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
188	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
212	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Contracts & Procurement	5
114	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
116	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
118	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
124	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
127	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
134	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
136	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
148	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
150	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
158	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
162	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
163	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
178	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
194	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
200	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
206	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
209	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
210	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
211	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Executive	5
109	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5

Pkey	Model	Location	Department	Condition
111	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
123	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
125	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
142	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
146	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
153	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
157	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
161	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
168	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
169	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
170	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
189	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
196	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
199	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
215	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
216	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Finance	5
144	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Human Resources	5
145	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Human Resources	5
180	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Human Resources	5
205	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Human Resources	5
101	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
112	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
140	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
149	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
152	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
154	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5

Pkey	Model	Location	Department	Condition
172	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
183	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
184	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
195	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
197	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
201	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
202	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology	5
248	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
249	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
250	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
251	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
252	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
253	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
254	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
255	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
256	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
257	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
258	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
259	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
260	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Information Technology (Storage)	5
135	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Legal	5
155	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Legal	5
166	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Legal	5
204	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Legal	5
119	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
126	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5

Pkey	Model	Location	Department	Condition
171	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
175	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
176	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
177	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
192	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
198	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
213	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations	5
102	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations (Dispatch)	5
137	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Operations (Dispatch)	5
113	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
115	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
121	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
138	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Planning	5
143	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
167	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
173	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
174	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
186	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
203	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
208	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
214	Cisco 8851 Telephone	SFRTA Operations Center Pompano	PLANNING	5
103	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety	5
191	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety & Security	5
217	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety & Security	5
110	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety and Security	5
132	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety and Security	5

Pkey	Model	Location	Department	Condition
181	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety and Security	5
193	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety and Security	5
207	Cisco 8851 Telephone	SFRTA Operations Center Pompano	Safety and Security	5
105	Cisco 8851 Telephone	SFRTA Operations Trailer Hialeah Yard (#750)	Operations	5
106	Cisco 8851 Telephone	SFRTA Operations Trailer Hialeah Yard (#750)	Operations	5
264	Cisco UCS C220 M3S phone system server	SFRTA Operations Center Pompano	Information Technology (Server Room)	5
261	Cisco UCS C240 M4SX phone system server	SFRTA Operations Center Pompano	Information Technology (Server Room)	5
262	Cisco UCS C240 M4SX phone system server	SFRTA Operations Center Pompano	Information Technology (Server Room)	5
263	Cisco UCSC-C220-M4S phone system server	SFRTA Operations Center Pompano	Information Technology (Server Room)	5

Table 3-25 Condition Assessment – Fare Collection System

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
766	Photo ID Station System	NONE	PHIDS_08	NONE	Pompano HQ (Storage)	3.00
766	Photo ID Station System	NONE	PHIDS_06	NONE	Pompano HQ Lab	3.00
766	Photo ID Station System	NONE	PHIDS_05	NONE	Pompano HQ Lab	3.00
766	Photo ID Station System	NONE	PHIDS_01	NONE	Ft. Lauderdale/Hollywood Airport Station Kiosk	4.00
766	Photo ID Station System	NONE	PHIDS_04	NONE	Metrorail Transfer Station Kiosk	4.00
766	Photo ID Station System	NONE	PHIDS_03	NONE	Miami Intermodal Center Station Kiosk	4.00
766	Photo ID Station System	NONE	PHIDS_02	NONE	Pompano HQ Front Desk	4.00
766	Photo ID Station System	NONE	PHIDS_07	NONE	West Palm Beach Station Kiosk	4.00
730	POI (TOM) System/Assembly	3100-10010	02006	POI-NONE	Pompano	3.00
673	POI (TOM) System/Assembly	3100-10010	02053	POI-NONE	Miami Intermodal Center Station	4.00
703	POI (TOM) System/Assembly	3100-10010	NONE	POI-NONE	Pompano	4.00
721	POI (TOM) System/Assembly	3100-10010	02003	POI40801	West Palm Beach Station	4.00
712	POI (TOM) System/Assembly	3100-10010	02049	POI435	Ft. Lauderdale/Hollywood Airport Station	4.00
663	POI (TOM) System/Assembly	3100-10010	02001	POI45001	Metrorail Transfer Station	4.00
674	POI (TOM) System/Assembly	3100-10010	02051	POI45601	Miami Intermodal Center Station	4.00
684	POI (TOM) System/Assembly	3100-10010	02002	POI45602	Miami Intermodal Center Station	4.00
693	POI (TOM) System/Assembly	3100-10010	NONE	POI65101	Pompano HQ	4.00
755	POI (TOM) System/Assembly	3100-10010	03001	POI65251	To DTPW	4.00
740	POI (TOM) System/Assembly	3100-10010	UNKNOWN	POI-NONE	Pompano	5.00
742	POI (TOM) System/Assembly	3100-10010	UNKNOWN	POI-NONE	Pompano	5.00
744	POI (TOM) System/Assembly	3100-10010	UNKNOWN	POI-NONE	Pompano	5.00
746	POI (TOM) System/Assembly	3100-10010	UNKNOWN	POI-NONE	Pompano	5.00
748	POI (TOM) System/Assembly	3100-10010	UNKNOWN	POI-NONE	Pompano	5.00
750	POI (TOM) System/Assembly	3100-10010	UNKNOWN	POI-NONE	Pompano	5.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
752	POI (TOM) System/Assembly	3100-10010	UNKNOWN	POI-NONE	Pompano	5.00
753	POI (TOM) System/Assembly	3100-10010	2033	POI-NONE	Pompano	5.00
622	RSV	7800-10011	3101	RSV-NONE	Miami Intermodal Center Station	3.00
623	RSV	7800-10011	3102	RSV-NONE	Miami Intermodal Center Station	3.00
624	RSV	7800-10011		RSV-NONE	Miami Intermodal Center Station	3.00
613	RSV	7800-10011	3091	RSV-NONE	Pompano Beach Station	3.00
614	RSV	7800-10011	3098	RSV-NONE	Pompano Beach Station	3.00
616	RSV	7800-10011	3065	RSV-NONE	Pompano HQ	3.00
617	RSV	7800-10011	3106	RSV-NONE	Pompano HQ	3.00
618	RSV	7800-10011	3027	RSV-NONE	Pompano HQ	3.00
619	RSV	7800-10011	3053	RSV-NONE	Pompano HQ	3.00
502	RSV	7800-10011	3074	RSV-NONE	SFRTA HQ	3.00
503	RSV	7800-10011	3001	RSV-NONE	SFRTA HQ	3.00
504	RSV	7800-10011	3021	RSV-NONE	SFRTA HQ	3.00
615	RSV	7800-10011	3014	RSV-NONE	SFRTA HQ	3.00
505	RSV	7800-10011	3039	RSV40501	Mangonia Park Station	4.00
506	RSV	7800-10011	3008	RSV40502	Mangonia Park Station	4.00
507	RSV	7800-10011	3049	RSV40511	Mangonia Park Station	4.00
508	RSV	7800-10011	3010	RSV40512	Mangonia Park Station	4.00
509	RSV	7800-10011	3030	RSV40801	West Palm Beach Station	4.00
510	RSV	7800-10011	3004	RSV40802	West Palm Beach Station	4.00
511	RSV	7800-10011	3080	RSV40811	West Palm Beach Station	4.00
512	RSV	7800-10011	3051	RSV40812	West Palm Beach Station	4.00
513	RSV	7800-10011	3061	RSV40813	West Palm Beach Station	4.00
514	RSV	7800-10011	3040	RSV41101	Lake Worth Station	4.00
515	RSV	7800-10011	3042	RSV41102	Lake Worth Station	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
516	RSV	7800-10011	3020	RSV41111	Lake Worth Station	4.00
517	RSV	7800-10011	3072	RSV41112	Lake Worth Station	4.00
518	RSV	7800-10011	3005	RSV41401	Boynton Beach Station	4.00
519	RSV	7800-10011	3079	RSV41402	Boynton Beach Station	4.00
520	RSV	7800-10011	3046	RSV41411	Boynton Beach Station	4.00
521	RSV	7800-10011	3067	RSV41412	Boynton Beach Station	4.00
522	RSV	7800-10011	3075	RSV41701	Delray Beach Station	4.00
523	RSV	7800-10011	3068	RSV41702	Delray Beach Station	4.00
524	RSV	7800-10011	3064	RSV41711	Delray Beach Station	4.00
525	RSV	7800-10011	3022	RSV41712	Delray Beach Station	4.00
612	RSV	7800-10011	3044	RSV42001	Boca Raton Station	4.00
526	RSV	7800-10011	3044	RSV42002	Boca Raton Station	4.00
527	RSV	7800-10011	3029	RSV42011	Boca Raton Station	4.00
528	RSV	7800-10011	3003	RSV42012	Boca Raton Station	4.00
529	RSV	7800-10011	3047	RSV42301	Deerfield Beach Station	4.00
530	RSV	7800-10011	3062	RSV42302	Deerfield Beach Station	4.00
531	RSV	7800-10011	3035	RSV42303	Deerfield Beach Station	4.00
532	RSV	7800-10011	3057	RSV42311	Deerfield Beach Station	4.00
533	RSV	7800-10011	3034	RSV42312	Deerfield Beach Station	4.00
534	RSV	7800-10011	3063	RSV42313	Deerfield Beach Station	4.00
535	RSV	7800-10011	3089	RSV42601	Pompano Beach Station	4.00
536	RSV	7800-10011	30111	RSV42602	Pompano Beach Station	4.00
537	RSV	7800-10011	3087	RSV42611	Pompano Beach Station	4.00
538	RSV	7800-10011	3099	RSV42612	Pompano Beach Station	4.00
539	RSV	7800-10011	3066	RSV42901	Cypress Creek Station	4.00
540	RSV	7800-10011	3085	RSV42902	Cypress Creek Station	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
541	RSV	7800-10011	3077	RSV42903	Cypress Creek Station	4.00
542	RSV	7800-10011	3007	RSV42911	Cypress Creek Station	4.00
543	RSV	7800-10011	3023	RSV42912	Cypress Creek Station	4.00
544	RSV	7800-10011	3009	RSV43201	Ft. Lauderdale Station	4.00
545	RSV	7800-10011	3033	RSV43202	Ft. Lauderdale Station	4.00
546	RSV	7800-10011	3025	RSV43203	Ft. Lauderdale Station	4.00
547	RSV	7800-10011	3038	RSV43211	Ft. Lauderdale Station	4.00
548	RSV	7800-10011	3031	RSV43212	Ft. Lauderdale Station	4.00
549	RSV	7800-10011	3050	RSV43501	Ft. Lauderdale/Hollywood Airport Station	4.00
550	RSV	7800-10011	3037	RSV43502	Ft. Lauderdale/Hollywood Airport Station	4.00
551	RSV	7800-10011	3070	RSV43511	Ft. Lauderdale/Hollywood Airport Station	4.00
552	RSV	7800-10011	3018	RSV43512	Ft. Lauderdale/Hollywood Airport Station	4.00
553	RSV	7800-10011	3071	RSV43801	Sheridan Street Station	4.00
554	RSV	7800-10011	3083	RSV43802	Sheridan Street Station	4.00
555	RSV	7800-10011	3084	RSV43811	Sheridan Street Station	4.00
556	RSV	7800-10011	3048	RSV43812	Sheridan Street Station	4.00
557	RSV	7800-10011	3082	RSV44101	Hollywood Station	4.00
558	RSV	7800-10011	3011	RSV44102	Hollywood Station	4.00
559	RSV	7800-10011	3024	RSV44103	Hollywood Station	4.00
560	RSV	7800-10011	3073	RSV44111	Hollywood Station	4.00
561	RSV	7800-10011	3078	RSV44112	Hollywood Station	4.00
562	RSV	7800-10011	3045	RSV44401	Golden Glades Station	4.00
563	RSV	7800-10011	3054	RSV44402	Golden Glades Station	4.00
564	RSV	7800-10011	3052	RSV44411	Golden Glades Station	4.00
565	RSV	7800-10011	3058	RSV44412	Golden Glades Station	4.00
566	RSV	7800-10011	3002	RSV44701	Opa-Locka Station	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
567	RSV	7800-10011	3076	RSV44702	Opa-Locka Station	4.00
568	RSV	7800-10011	3016	RSV44703	Opa-Locka Station	4.00
569	RSV	7800-10011	3017	RSV44711	Opa-Locka Station	4.00
570	RSV	7800-10011	3032	RSV44712	Opa-Locka Station	4.00
571	RSV	7800-10011	3036	RSV45001	Metrorail Transfer Station	4.00
572	RSV	7800-10011	3060	RSV45002	Metrorail Transfer Station	4.00
573	RSV	7800-10011	3059	RSV45003	Metrorail Transfer Station	4.00
574	RSV	7800-10011	3015	RSV45004	Metrorail Transfer Station	4.00
575	RSV	7800-10011	3006	RSV45005	Metrorail Transfer Station	4.00
576	RSV	7800-10011	3013	RSV45011	Metrorail Transfer Station	4.00
577	RSV	7800-10011	3056	RSV45012	Metrorail Transfer Station	4.00
578	RSV	7800-10011	3012	RSV45013	Metrorail Transfer Station	4.00
579	RSV	7800-10011	3019	RSV45014	Metrorail Transfer Station	4.00
580	RSV	7800-10011	3041	RSV45301	Hialeah Market Station	4.00
581	RSV	7800-10011	3069	RSV45302	Hialeah Market Station	4.00
582	RSV	7800-10011	3114	RSV45601	Miami Intermodal Center Station	4.00
583	RSV	7800-10011	3113	RSV45602	Miami Intermodal Center Station	4.00
584	RSV	7800-10011	3115	RSV45603	Miami Intermodal Center Station	4.00
585	RSV	7800-10011	3100	RSV45604	Miami Intermodal Center Station	4.00
586	RSV	7800-10011	3092	RSV45605	Miami Intermodal Center Station	4.00
587	RSV	7800-10011	3112	RSV45606	Miami Intermodal Center Station	4.00
588	RSV	7800-10011	3097	RSV45607	Miami Intermodal Center Station	4.00
594	RSV	7800-10011	3103	RSV45608	Miami Intermodal Center Station	4.00
590	RSV	7800-10011	3116	RSV45609	Miami Intermodal Center Station	4.00
595	RSV	7800-10011	3107	RSV45610	Miami Intermodal Center Station	4.00
592	RSV	7800-10011	3094	RSV45611	Miami Intermodal Center Station	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
593	RSV	7800-10011	3095	RSV45612	Miami Intermodal Center Station	4.00
596	RSV	7800-10011	3108	RSV45615	Miami Intermodal Center Station	4.00
597	RSV	7800-10011	3105	RSV45616	Miami Intermodal Center Station	4.00
598	RSV	7800-10011	3093	RSV45617	Miami Intermodal Center Station	4.00
601	RSV	7800-10011	3081	RSV65101	SFRTA Headquarters	4.00
602	RSV	7800-10011	3043	RSV65102	SFRTA Headquarters	4.00
603	RSV	7800-10011	3028	RSV65251	MDT TEST LAB	4.00
604	RSV	7800-10011	003086	RSV65252	MDT TEST LAB	4.00
625	RSV	7800-10011	3109	RSV-NONE	Miami Intermodal Center	5.00
626	RSV	7800-10011	3088	RSV-NONE	Miami Intermodal Center	5.00
627	RSV	7800-10011	3090	RSV-NONE	Miami Intermodal Center	5.00
628	RSV	7800-10011	3096	RSV-NONE	Miami Intermodal Center	5.00
629	RSV	7800-10011	3104	RSV-NONE	Miami Intermodal Center	5.00
630	RSV	7800-10011	3110	RSV-NONE	Miami Intermodal Center	5.00
631	RSV	7800-10011		RSV-NONE	Miami Intermodal Center	5.00
621	TVM (Cashless)	1100-10022	2070	TVM-NONE	MIC	3.00
425	TVM (Cashless)	1100-10022	2009	TVM-NONE	Pompano HQ	3.00
428	TVM (Cashless)	1100-10022	2003	TVM-NONE	Pompano HQ	3.00
429	TVM (Cashless)	1100-10022	2007	TVM-NONE	Pompano HQ	3.00
620	TVM (Cashless)	1100-10022	2030	TVM-NONE	Storage Garage	3.00
422	TVM (Cashless)	1100-10022	2017	TVM40512	Mangonia Park Station	4.00
427	TVM (Cashless)	1100-10022	2004	TVM40802	West Palm Beach Station	4.00
421	TVM (Cashless)	1100-10022	2001	TVM41112	Lake Worth Station	4.00
414	TVM (Cashless)	1100-10022	2002	TVM41412	Boynton Beach Station	4.00
417	TVM (Cashless)	1100-10022	2014	TVM41712	Delray Beach Station	4.00
413	TVM (Cashless)	1100-10022	2008	TVM42012	Boca Raton Station	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
416	TVM (Cashless)	1100-10022	2055	TVM42302	Deerfield Beach Station	4.00
415	TVM (Cashless)	1100-10022	2013	TVM42902	Cypress Creek Station	4.00
419	TVM (Cashless)	1100-10022	2006	TVM43212	Ft. Lauderdale Station	4.00
418	TVM (Cashless)	1100-10022	2015	TVM43502	Ft. Lauderdale / Hollywood Airport Station	4.00
426	TVM (Cashless)	1100-10022	2012	TVM43802	Sheridan Street Station	4.00
420	TVM (Cashless)	1100-10022	2011	TVM44112	Hollywood Station	4.00
424	TVM (Cashless)	1100-10022	2016	TVM44712	Opa-Locka Station	4.00
423	TVM (Cashless)	1100-10022	2010	TVM45012	Metrorail Transfer Station	4.00
472	TVM (Full Service)	1100-10022	2001	TVM-NONE	Pompano HQ	3.00
473	TVM (Full Service)	1100-10022	2009	TVM-NONE	Pompano HQ	3.00
474	TVM (Full Service)	1100-10022	2037	TVM-NONE	Pompano HQ	3.00
483	TVM (Full Service)	1100-10022	2058	TVM-NONE	Pompano HQ	3.00
611	TVM (Full Service)	1100-10022	2015	TVM-NONE	Pompano HQ	3.00
632	TVM (Full Service)	1100-10022	2055	TVM-NONE	To Contractor	4.00
461	TVM (Full Service)	1100-10022	2036	TVM40501	Mangonia Park Station	4.00
462	TVM (Full Service)	1100-10022	2059	TVM40502	Mangonia Park Station	4.00
463	TVM (Full Service)	1100-10022	2049	TVM40511	Mangonia Park Station	4.00
480	TVM (Full Service)	1100-10022	2012	TVM40801	West Palm Beach Station	4.00
481	TVM (Full Service)	1100-10022	2008	TVM40811	West Palm Beach Station	4.00
482	TVM (Full Service)	1100-10022	2034	TVM40812	West Palm Beach Station	4.00
458	TVM (Full Service)	1100-10022	2002	TVM41101	Lake Worth Station	4.00
459	TVM (Full Service)	1100-10022	2006	TVM41102	Lake Worth Station	4.00
460	TVM (Full Service)	1100-10022	2023	TVM41111	Lake Worth Station	4.00
433	TVM (Full Service)	1100-10022	2043	TVM41401	Boynton Beach Station	4.00
434	TVM (Full Service)	1100-10022	2027	TVM41402	Boynton Beach Station	4.00
435	TVM (Full Service)	1100-10022	2013	TVM41411	Boynton Beach Station	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
442	TVM (Full Service)	1100-10022	2019	TVM41701	Delray Beach Station	4.00
443	TVM (Full Service)	1100-10022	2051	TVM41702	Delray Beach Station	4.00
444	TVM (Full Service)	1100-10022	2026	TVM41711	Delray Beach Station	4.00
430	TVM (Full Service)	1100-10022	2022	TVM42001	Boca Raton Station	4.00
431	TVM (Full Service)	1100-10022	2004	TVM42002	Boca Raton Station	4.00
432	TVM (Full Service)	1100-10022	2054	TVM42011	Boca Raton Station	4.00
439	TVM (Full Service)	1100-10022	2016	TVM42301	Deerfield Beach Station	4.00
440	TVM (Full Service)	1100-10022	2056	TVM42311	Deerfield Beach Station	4.00
441	TVM (Full Service)	1100-10022	2044	TVM42312	Deerfield Beach Station	4.00
486	TVM (Full Service)	1100-10022	2003	TVM42601	Pompano Station	4.00
485	TVM (Full Service)	1100-10022	2032	TVM42602	Pompano Station	4.00
484	TVM (Full Service)	1100-10022	2010	TVM42611	Pompano Station	4.00
608	TVM (Full Service)	1100-10022	2061	TVM42612	Pompano Station	4.00
436	TVM (Full Service)	1100-10022	2057	TVM42901	Cypress Creek Station	4.00
437	TVM (Full Service)	1100-10022	2039	TVM42911	Cypress Creek Station	4.00
438	TVM (Full Service)	1100-10022	2020	TVM42912	Cypress Creek Station	4.00
448	TVM (Full Service)	1100-10022	2014	TVM43201	Ft. Lauderdale Station	4.00
449	TVM (Full Service)	1100-10022	2024	TVM43202	Ft. Lauderdale Station	4.00
450	TVM (Full Service)	1100-10022	2045	TVM43211	Ft. Lauderdale Station	4.00
445	TVM (Full Service)	1100-10022	2048	TVM43501	Ft. Lauderdale/Hollywood Airport Station	4.00
446	TVM (Full Service)	1100-10022	2038	TVM43511	Ft. Lauderdale/Hollywood Airport Station	4.00
447	TVM (Full Service)	1100-10022	2029	TVM43512	Ft. Lauderdale/Hollywood Airport Station	4.00
477	TVM (Full Service)	1100-10022	2018	TVM43801	Sheridan Street Station	4.00
478	TVM (Full Service)	1100-10022	2017	TVM43811	Sheridan Street Station	4.00
479	TVM (Full Service)	1100-10022	2011	TVM43812	Sheridan Street Station	4.00
455	TVM (Full Service)	1100-10022	2028	TVM44101	Hollywood Station	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
456	TVM (Full Service)	1100-10022	2046	TVM44102	Hollywood Station	4.00
457	TVM (Full Service)	1100-10022	2021	TVM44111	Hollywood Station	4.00
487	TVM (Full Service)	1100-10022	2068	TVM44401	Golden Glades Station	4.00
451	TVM (Full Service)	1100-10022	2047	TVM44402	Golden Glades Station	4.00
452	TVM (Full Service)	1100-10022	2035	TVM44411	Golden Glades Station	4.00
469	TVM (Full Service)	1100-10022	2053	TVM44701	Opa-Locka Station	4.00
470	TVM (Full Service)	1100-10022	2042	TVM44702	Opa-Locka Station	4.00
471	TVM (Full Service)	1100-10022	2025	TVM44711	Opa-Locka Station	4.00
465	TVM (Full Service)	1100-10022	2033	TVM45001	Metrorail Transfer Station	4.00
466	TVM (Full Service)	1100-10022	2007	TVM45002	Metrorail Transfer Station	4.00
467	TVM (Full Service)	1100-10022	2031	TVM45011	Metrorail Transfer Station	4.00
453	TVM (Full Service)	1100-10022	2052	TVM45301	Hialeah Market Station	4.00
454	TVM (Full Service)	1100-10022	2050	TVM45302	Hialeah Market Station	4.00
495	TVM (Full Service)	1100-10022	2072	TVM45601	Miami Intermodal Center Station	4.00
496	TVM (Full Service)	1100-10022	2071	TVM45602	Miami Intermodal Center Station	4.00
497	TVM (Full Service)	1100-10022	2073	TVM45603	Miami Intermodal Center Station	4.00
491	TVM (Full Service)	1100-10022	2069	TVM45604	Miami Intermodal Center Station	4.00
492	TVM (Full Service)	1100-10022	2067	TVM45605	Miami Intermodal Center Station	4.00
501	TVM (Full Service)	1100-10022	2060	TVM45608	Miami Intermodal Center Station	4.00
499	TVM (Full Service)	1100-10022	2063	TVM45609	Miami Intermodal Center Station	4.00
500	TVM (Full Service)	1100-10022	2065	TVM45610	Miami Intermodal Center Station	4.00
488	TVM (Full Service)	1100-10022	2074	TVM45621	Miami Intermodal Center Station	4.00
489	TVM (Full Service)	1100-10022	2066	TVM45622	Miami Intermodal Center Station	4.00
490	TVM (Full Service)	1100-10022	2064	TVM45623	Miami Intermodal Center Station	4.00
475	TVM (Full Service)	1100-10022	2041	TVM65101	SFRTA Headquarters	4.00
476	TVM (Full Service)	1100-10022	2040	TVM65102	SFRTA Headquarters	4.00

Pkey	part_name	part_number	item_serial_number	nf_device_id	Location	Rating
464	TVM (Full Service)	1100-10022	2005	TVM65251	DTPW	4.00
498	TVM (Full Service)	1100-10022	2061	TVM65301	Miami Intermodal Center Station	4.00

Table 3-26 Condition Assessment – Security System

Equipment	Type	Brand	Condition
Closed Circuit	DSC PowerSeries NEO	Avigilon HS2016	5
Access Control	Tyco Intevo – IPCAM01	Kantech Entrapass	4
Intrusion detection	Tyco Intevo – ADV 3TB	Kantech Entrapass	5
Emergency Operations Center	Public Safety Coordination Center	G4S Secure Solutions USA Inc.	
Emergency Management Panel/System	Protection 1; Life Safety; HERZOG; Avigilon; Kantech; Thermal Imaging; G4S	Protection 1; Life Safety; HERZOG; Avigilon; Kantech; Thermal Imaging; G4S	5
Fire Alarm System	Simplex 4100 ES	Tyco	5

Table 3-27 Dispatching System 1**WAYSIDE DISPATCHING EQUIPMENT****ONE EACH LOCATED AT EACH OF THE 26 CONTROL POINTS ALONG SFRC**

CP Gator	SX-	966.75
CP Coral	SX-	968.74
CP Mockingbird	SX-	970.24
CP Seaboard	SX-	972.76
CP Orange Blossom	SX-	977.10
CP Coconut	SX-	982.80
CP Clune	SX-	988.50
CP Meteor	SX-	991.08
CP Pineapple	SX-	993.23
CP Rankin	SX-	996.55
CP Parker	SX-	999.20
CP Cypress	SX-	1005.56
CP Manatee	SX-	1008.49

CP Whalen	SX-	1013.00
CP Dania	SX-	1015.86
CP Sheridan	SX-	1017.32
CP Plantation	SX-	1024.70
CP Hardy CP	SX-	1025.45
CP Golden Glades	SX-	1026.20
CP Thompsons	SX-	1031.60
CP Amtrak Holdout	SX-	1033.20
CP 79th St.	SX-	1033.80
CP 71st St.	SX-	1034.50
CP 46th St.	SX-	1035.95
CP Miami Canal	SX-	1036.65
CP MIC	SX-	1037.50

NOMENCLATURE

AT&T T-1 Lease Line (1.54 Mbps T1 circuit)

Verizon Wireless Modem (Sixnet SN-6701 4G LTE Modem/Router)

Siemens/RuggedCom RX-1501 Router

Newmar SPS12-20 Power Supply

Wilmore DC to DC converter MODEL 1675-12-24-8

12 Volt Fahrenheit HT145ET Batteries

Cell Antenna Mobile Mark ARMS-V5501-A Multiband Surface Trackside Antenna

ICT180S12 Fuse Panel

CCI CNA-2000 Protocol Converter - Converts signal from router to VHLC to ATCS protocol.

Table 3-28 Dispatching System 2

<u>DISPATCHING RADIO WAYSIDE BASE STATIONS</u>	
<u>UNLESS NOTED, ONE EACH LOCATED AT EACH OF THE 4 BASE STATION LOCATIONS ALONG SFRC</u>	
LOCATIONS	MILEPOST
CP Mockingbird	SX- 970.24
CP Clune	SX- 988.50
	SX-
CP Whalen	1013.00
	SX-
CP 79th St.	1033.80
<u>NOMENCLATURE</u>	
AT&T T-1 Lease Line (1.54 Mbps T1 circuit)	
Kenwood NXR 710 Radios	
161 MHz Antenna Telewave ANT150D6-9 4 Element Dipole Antenna	
Polyphaser VHF50HN 100-512MHZ	
Polyphaser TSX-NFF-P 689-2.7GHZ (1)	
Duplexer Sinclair Q2330E DuplRes-Lok, 6 cavity, rack mount, 138-174 MHz exer, Q-Circuit,	
Sixnet SN6701 4G LTE Cell Modem	
Newmar SPS12-20 Power Supply (2)	
Wilmore DC to DC Converter MODEL 1675-44(1)	
RuggedCom RX-1501 Router	
12 Volt Fahrenheit HT145ET Batteries (2)	
Cell Antenna Mobile Mark ARMS-V5501-A Multiband Surface Trackside Antenna	
ICT180S12 Fuse Panel	
AVTEC Outpost (Converts Radio Analog Signal to IP Protocol)	

Table 3-29 Dispatching System 2

<u>NEW RIVER DRAW BRIDGE SX- 1013.90</u>	
<u>ONE EACH LOCATED WAYSIDE AT THE NEW RIVER DRAW BRIDGE</u>	
<u>NOMENCLATURE</u>	
Newmar SPS12-20 Power Supply	
Wilmore DC to DC Converter MODEL 1675-44	
RuggedCom RX-1501 Router	
12 Volt Fahrenheit HT145ET Batteries	
Cell Antenna Mobile Mark ARMS-V5501-A Multiband Surface Trackside Antenna	
ICT180S12 Fuse Panel	
CNA 2000	
Sixnet SN6701 4G LTE Cell Modem	
<u>UNLESS NOTED, ONE EACH LOCATED AT THE NEW RIVER DRAW BRIDGE</u>	
<u>NOMENCLATURE</u>	
ICOM Marine Radio and Antenna	
Kenwood Radio VHF with 3dB Gain Antenna	
12 volt – 25 amp Power Supply	
External Speakers (2)	

3.4 FACILITIES

The facilities in SFRTA include station and passenger facilities, as well as bus and rail vehicle maintenance facilities.

There are 18 stations in SFRTA's system. The overall condition ratings of these stations are about three; illustrating adequate or good conditions. Stations with the best condition are the Pompano Beach station and Miami Airport station; while Golden Glades, Deerfield, and Mangonia stations have the lowest condition scores. Among all components, upgrade or replacement prioritization should be given to communication system, pedestrian walkways, bridges, railings, and elevations. A summary of passenger facilities conditions assessment are shown in Table 3-30. Detailed asset conditions are shown in Table 3-36.

There are two maintenance facilities in SFRTA's system: the Hialeah Yard, and West Palm Beach Yard. Both have an average overall rating of three, as shown in Table 3-31. Detailed asset conditions are shown in Table 3-37 and Table 3-38.

SFRTA's administration facility is located at 801 NW 33rd St, Pompano Beach, FL. Construction of the main building of the administration facility was recently completed in 2016, and has been in use since 2017. The facility has an overall rating of five, shown in Table 3-32. Detailed asset conditions are shown in Table 3-39.

Table 3-30 Condition Summary – Passenger Facilities

Passenger Facilities	Overall Condition
Miami Airport Station	4.5
Hialeah Market	2.8
Metrorail Transfer	2.8
Opa-locka	2.7
Golden Glades	2.5
Hollywood	2.6
Sheridan	2.8
Ft. Lauderdale Airport	3.0
Ft. Lauderdale	2.9
Cypress Creek	2.5
Pompano	5.0
Deerfield	2.5
Boca Raton	2.8
Delray	2.8
Boynton	2.7
Lake Worth	2.8
WPB	2.7
Mangonia	2.3

Table 3-31 Condition Summary – Bus and Rail Vehicle Maintenance Facilities

Maintenance Facilities	Components counts	Condition Rating
		Average
Hialeah Yard	44	3.2
WPB Yard	17	3

Table 3-32 Condition Summary – Administration Facility

Administration Facility	Components counts	Condition Rating
		Average
Pompano Beach Administration Facility	10	5

Facility Asset Business Process

Table 10 below illustrate the roles and responsibilities for conducting facility inventory. Data collection and Maintenance are completed by the Operations Department and its Contractors using the TransAM template. Table 10 and Table 3-35 show the TransAM required fields for facilities and their components, respectively. Finance department should perform quality control to ensure data meets the requirements of TransAM entry and NTD reporting. Finance department is also responsible for entering data in TransAM, conducting analysis, and creating reports.

Table 3-33 Business Process of Facility Inventory

Asset Class	Sub Assets	Asset Data Owner	Business Process			
			Data Collection	Data Maintenance	Quality Control	Data Entry & Report
Bus and Rail Vehicle Maintenance Facilities	Buildings	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Civil improvements (storm water/drainage/Sound wall)	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Access roadways	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Parking lots/structures	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Offices	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Elevators and escalators	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance

	Maintenance equipment	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
Service Facilities	Access roadways	Operations	Operations	Operations	Finance	Finance
	Parking lots/structures	Operations	Operations	Operations	Finance	Finance
	Office Building	Operations	Operations	Operations	Finance	Finance
	Elevators and escalators	Operations	Operations	Operations	Finance	Finance
Stations / Passenger Facilities	Stations	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Access roadways	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Parking lots/structures	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Concourse and/or mezzanine levels (Ped Bridges)	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Offices	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Auxiliary and/or equipment rooms/yards	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Platforms	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance
	Elevators and escalators	Operations	Operations & Contractor	Operations & Contractor	Finance	Finance

Source: SFRTA, 2018

Table 3-34 Required Fields for Facility Inventory

Attribute	Data Type
Agency	Collect as text to define future list
Asset ID	Text
Facility Name	Text
Class	List
Type	List
Subtype	List
Estimated Service Life Category	List

Address 1	Text
City	Text
State	List
Zip Code	Text
Country	Text
Facility Size (USC)	Numeric
Facility Size Units (USC)	List
Section of a Larger Facility	List
Year Built	List
Purchased New	List
Cost (Purchase)	Numeric
Direct Capital Responsibility	List
% Capital Responsibility	Numeric
In Service Date	Date
Primary Mode	List

Table 3-35 Required Fields for Facility Component Inventory

Attribute	Data Type
Agency	Collect as text to define future list
Asset ID	Text
Description	Text
Facility Name	Text
Categorization	List
Facility Categorization (Component)	List
Facility Categorization (Sub-Component)	List
Year Built	List
Purchased New	List
Cost (Purchase)	Numeric
Direct Capital Responsibility	List
In Service Date	Date

Table 3-36 Condition Summary – Stations/Passenger Facilities

Passenger Facilities	Miami Airport Station	Hialeah Market	Metrorail Transfer	Opa-locka	Golden Glades	Hollywood	Sheridan	Ft. Lauderdale Airport	Ft. Lauderdale	Cypress Creek	Pompano	Deerfield	Boca Raton	Delray	Boynton	Lake Worth	WPB	Mangonia
Lighting	5	4	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3	3
HVAC	5	N/A	3	2	2	3	3	3	3	3	5	3	3	3	3	3	2	3
Door and Window Systems	5	N/A	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3	3
Plumbing	5	N/A	3	3	2	3	3	3	3	3	5	3	3	3	3	3	3	3
Electrical	5	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3	3
Communications	5	1	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1
Storm Drainage	5	3	3	3	1	3	3	3	3	1	5	3	3	3	3	3	3	1
Landscaping and Irrigation system	5	N/A	3	3	N/A	3	3	3	3	3	5	3	3	3	3	3	3	3
Fire and Life Safety Systems	5	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3	3
Lighting Protection	5	N/A	3	3	3	3	3	3	3	2	5	3	3	3	3	3	3	3
Facility Security Cameras, Doors, Fencing	5	3	3	3	3	3	3	3	3	3	5	3	3	3	3	3	3	3
Flooring	5	N/A	3	3	3	2	3	3	3	3	5	1	3	3	3	3	3	3
Access Roadways	4	3	3	3	3	3	3	3	4	4	5	2	3	3	3	3	3	2
Parking Lots/Structures	4	3	3	3	3	3	3	4	3	4	5	2	3	3	3	3	2	1
Pedestrian Walkways, Bridges, Railings, Etc.	4	N/A	2	3	3	2	2	N/A	2	2	5	N/A	2	2	2	2	2	2
Offices (Kiosks)	4	N/A	3	3	2	N/A	N/A	2	N/A	N/A	5	N/A	N/A	N/A	N/A	N/A	3	1
Auxiliary and/or Equipment Rooms/Yards	4	N/A	3	3	3	3	3	4	3	3	5	3	3	3	3	3	3	2
Platforms	4	3	3	3	3	1	3	3	3	1	5	1	3	3	3	3	3	3
Elevators	4	N/A	2	1	1	2	2	4	3	2	5	N/A	3	3	1	2	2	1
Escalators	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3-37 Condition Assessment - Hialeah Yard Maintenance Facility

Maintenance Equipment	Condition	Maintenance Equipment	Condition
Lighting		<u>Overhead Cranes</u>	
• Inside shop	5	• 5 ton	3.1
• Parking Lot area	3	• 7.5 ton	2.2
• Around building and yard	3	• 15 ton	2.2
• Roof Fans	5	Wheel True Machine	1
HVAC		Drop Table	3
• Foreman's Office	2	Portable Jacks	3
• Storeroom	2	Oil/Water Separator	3
• Lower Offices	2	Lift Station (Train Service area)	2
• Upper Offices	2	Fall Protection System	
Herzog Office Trailers	1	• Fuel System	3
Windows shop and offices	3	• Lube Oil System & Tank	1
Skylights	2.2	• Sludge Tanks	1
Plumbing	3	Load Box (Engine)	1
Shop and building pipes	3	Avtron (HEP Load Box)	1
Water heater	4	Facility Generator	3
Offices Conditions in Shop	3	Air Compressor Kaeser DS171	Out of Service
Men & Women's Locker room	3	Air Compressor Kaeser CSD125	5
Storm Drainage	3	Air Dryer TF174	5
Landscaping	3.9	Air Reservoir Tank	5
Irrigation	4	Fork lift 1	2
Hialeah Yard Admen Generator	3	Fork Lift 2	2
Storeroom Building	3.9	Fork Lift 3	4
New Storeroom building	5	Man Lift	5
Air Quality Sensors	5		
Facility Cameras	2		
Roll up Doors	3		
Fencing	3		
Sanding System	3		
480 Layover power	1		
Train Wash	2		

Table 3-38 Condition Assessment – West Palm Beach Maintenance Facility

Maintenance Equipment	Condition
Lighting	3
HVAC	2
Building	3
Windows	3
Plumbing	3
Water Lines	3
Water Heater	3
Storm Drain	3
Landscaping	2
Storeroom Building	3
480 Layover Power Tk 1&2	1
Oil/Water Separator (2)	2
Air Compressor	1
Lift station	3
Yard Fence	3
Man Lift	4
Roll Up Doors (2)	2

Table 3-39 Condition Assessment – Pompano Beach Administration Facility

Facility Component	Condition
Substructure	5
Shell	5
Interiors	5
Conveyance	5
Plumbing	5
HVAC	5
Fire Protection	5
Electrical	5
Equipment / Fare Collection	5
Site	5

3.5 INFRASTRUCTURES

Condition assessment was conducted for six types of infrastructure: Track, Rail Bridges, Grade Crossings, Switches, Signal Houses, and Culverts. All track segments were rated as adequate or better condition. About eight percent of the track has speed restriction. The average rating for rail bridges is 3.4, with 29% of them rated lower than three. About 84% of SFRTA's grade crossings, 80% of the switches, 39% of the signal houses, and 22% of the culverts are in marginal or worse condition, with defective or deteriorated components in need of replacement.

Table 3-40 Condition Summary – Infrastructure

	Condition Rating				Count Rating <3	% Rating <3
	Count	Average	Min	Max		
Track	14	3.5	3	4	0	0%
Rail Bridges	43	3.4	2.3	3.9	13	29%
Grade Crossings	104	2.08	1	5	87	84%
Switches	175	2.2	1	5	140	80%
Signal Houses	122	2.75	1	5	48	39%
Culverts	58	3.29	1	4	13	22%

Infrastructure Asset Business Process

As shown in Table 3-41, all infrastructure asset data is hosted by the engineering department. The staff at the engineering department and their contractors are responsible for data collection and maintenance using the TransAM template (Table 3-42). Data are submitted to the finance department for quality check, data entry, and reporting.

Table 3-41 Business Process for Infrastructure

Asset Class	Sub Assets	Asset Data Owner	Business Process			
			Data Collection	Data Maintenance	Quality Control	Data Entry & Report
Track	Ballasted	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Turnouts	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Grade Crossing	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
Bridges Structures	Steel Bridges	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Timber Trestles	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Concrete Bridges	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Moveable Bridges	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
Ancillary Structures	Under-track culverts and crossings	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Retaining walls	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Barriers and noise protection walls	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Information and sign structures	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
Yard	Waste Water Treatment Plant (WWTP)	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Collection tanks	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance

Asset Class	Sub Assets	Asset Data Owner	Business Process			
			Data Collection	Data Maintenance	Quality Control	Data Entry & Report
Signal and Communication	Roadside rail crossing signals	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Rail crossing gates	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Communication device between wayside to control center	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance
	Centralized control system (hardware and software)	Engineering	Engineering & Contractor	Engineering & Contractor	Finance	Finance

Table 3-42 Required Fields for Track and Track Components in Infrastructure Inventory

Attribute	Data Type
Agency	Text
Asset / Segment ID	Text
Line	Text
From	Numeric
Line	List
To	Numeric
Unit	List
Class	List
Type	List
Subtype	List
Segment Type	List
Main Line / Division	List
Branch / Subdivision	List
Track	List
Direct Capital Responsibility	List
% Capital Responsibility	Numeric
Organization with Shared Capital Responsibility	List
Maximum Permissible Speed	Numeric
Unit	List
Primary Mode	List
Service type	List
Component ID	Text
Component / Sub-Component	Text
Cost (Purchase)	Numeric
Purchased New	List
In Service Date	

Table 3-43 Condition Assessment - Track

Track ID	Segments	Length (mi)	speed restriction (mi)	Conditions (1-5)	Age (yr)			
					rail	ties	ballast	Avg
310100	MP 966 - 976 Wood (Mangonia to 10th Av N)	10	3.9	3	30.0	12	15	19.0
310200	MP 966 - 976 Concrete (Mangonia to 10th Av N)	10		4	15.0	12	15	14.0
310300	MP 976 - 986 Wood (10th Av N to L-30 Canal)	10	0.6	4	30.0	10	15	18.3
310400	MP 976 - 986 Concrete (10th Av N to L-30 Canal)	10		4	14.0	13	13	13.3
310500	MP 986 - 996 Wood (L-30 Canal to Palmetto Pk Rd)	10	1.4	3	30.0	10	17	19.0
310600	MP 986 - 996 Concrete (L-30 Canal to Palmetto Pk Rd)	10		4	14.0	14	14	14.0
310700	MP 996 - 1006 Wood (Palmetto Pk Rd to Cypress Creek Rd)	10	0.9	3	30.0	10	15	18.3
310800	MP 996 - 1006 Concrete (Palmetto Pk Rd to Cypress Creek Rd)	10		3	24.0	24	24	24.0
310900	MP 1006 - 1016 Wood (Cypress Creek Rd to Dania Canal C-11)	10	3.1	3	30.0	10	17	19.0
311000	MP 1006 - 1016 Concrete (Cypress Creek Rd to Dania Canal C-11)	10		4	20.0	20	20	20.0
311100	MP 1016 - 1026 Wood (Dania Canal C-11 to CP Golden Glades)	10		3	30.0	10	17	19.0
311200	MP 1016 - 1026 Concrete (Dania Canal C-11 to CP Golden Glades)	10		4	13.0	13	13	13.0
311300	MP 1026 - 1037 Wood (CP Golden Glades to MIC)	11	0.8	3	30.0	10	15	18.3
311400	MP 1026 - 1037 Concrete (CP Golden Glades to MIC)	11		4	12.0	12	12	12.0

Table 3-44 Condition Assessment – Rail Bridges

Bridge ID		Type of Construction				Overall Length	Location	Date of Construction	Condition
Mile Post		Material	Substructure (i)	Superstructure (ii)	Deck (iii)				
965.20		Concrete	Concrete Bents	Concrete Girders	Ballast	136' - 0"	Earman Canal	1961	2.8
974.60	1	Concrete	Concrete Bents	Concrete Girders	Ballast	270' - 0"	West Palm Beach Canal	1972	3.9
974.60	2	Concrete	Concrete Bents	Concrete Girders	Ballast	270' - 0"	West Palm Beach Canal	1972	2.3
982.20	1	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	234' - 0"	Boynton Canal	1961	3.9
982.20	2	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	234' - 0"	Boynton Canal	1961	2.8
984.80	1	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	172' - 2"	Lake Boynton/Ida Canal	1926	3.9
984.80	2	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	172' - 2"	Lake Boynton/Ida Canal	1926	3.9
986.00	1	Concrete	Concrete Bents	Concrete Girders	Ballast	120' - 0"	Lateral Canal	1978	3.9
986.00	2	Concrete	Concrete Bents	Concrete Girders	Ballast	120' - 0"	Lateral Canal	1978	3.9
987.10	1	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	125' - 0"	Lake Ida Outlet	1926	3.4
987.10	2	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	125' - 0"	Lake Ida Outlet	1926	3.4
990.20	1	Concrete	Concrete Bents	Concrete Beam	Ballast	172' - 10"	Bridge No B-11	1962	2.8
990.20	2	Concrete	Concrete Bents	Concrete Beam	Ballast	172' - 10"	Bridge No B-11	1962	2.8
992.50	1	Concrete	Concrete Bents	Concrete Beam	Ballast	112' - 0"	Yamato Canal	1926	3.4
992.50	2	Concrete	Concrete Bents	Concrete Beam	Ballast	120' - 0"	Yamato Canal	1926	3.4
997.50	1	Concrete	Concrete Bents	Concrete Beam	Ballast	152' - 0"	Hillsboro Canal	1926	2.8
997.50	2	Concrete	Concrete Bents	Concrete Beam	Ballast	192' - 0"	Hillsboro Canal	1926	2.8

Bridge ID		Type of Construction				Overall Length	Location	Date of Construction	Condition
Mile Post		Material	Substructure (i)	Superstructure (ii)	Deck (iii)				
1004.30	1	Concrete & Steel	Concrete Bents	Concrete Girders & Steel Girders	Ballast	92' - 0"	Pompano Canal	1958	2.8
1004.30	2	Concrete & Steel	Concrete Bents	Concrete Girders & Steel Girders	Ballast	92' - 0"	Pompano Canal	1958	2.8
1005.70	1	Concrete	Concrete Bents	Concrete Beam	Ballast	178' - 0"	Canal C-14	1959	2.8
1005.70	2	Concrete	Concrete Bents	Concrete Beam	Ballast	178' - 0"	Canal C-14	1959	2.8
1009.00	1	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	150' - 0"	Canal C-13	2002	3.4
1009.00	2	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	150' - 0"	Canal C-13	2002	3.4
1011.90	1	Concrete	Concrete Bents	Concrete Beams	Ballast	120' - 0"	North New River	1961	3.4
1011.90	2	Concrete	Concrete Bents	Concrete Beams	Ballast	120' - 0"	North New River	1961	3.4
1013.90	Bas	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	197' - 9"	South Fork New River	1926	2.8
1013.90	Tri	Concrete	Concrete Piers	Concrete Girders & Steel Girders	Ballast	4011' - 0"	South Fork New River	1926	3.4
1015.81	1	Concrete & Steel	Concrete Bents	Concrete Beams & Steel Girders	Ballast	174' - 6"	Danial Canal	1963	3.9
1015.81	2	Concrete & Timber	Concrete Abutments & Timber Bents	Concrete Beams	Ballast	174' - 6"	Danial Canal	1963	3.9
1017.80	1	Concrete	Concrete Bents	Concrete Beams	Ballast	88' - 0"	C-10 North Canal	1981	3.4
1017.80	2	Concrete	Concrete Bents	Concrete Beams	Ballast	135' - 0"	C-10 North Canal	1981	2.8
1018.90	1	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	77' - 10"	C-10 South Canal		3.9
1018.90	2	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	77' - 10"	C-10 South Canal		3.9

Bridge ID		Type of Construction				Overall Length	Location	Date of Construction	Condition
Mile Post		Material	Substructure (i)	Superstructure (ii)	Deck (iii)				
1024.80	1	Concrete	Concrete Bents	Concrete Girders	Ballast	172' - 0"	Snake Creek Canal	1953	3.9
1024.80	2	Concrete	Concrete Bents	Concrete Girders	Ballast	175' - 8"	Snake Creek Canal	1953	3.9
1027.90	1	Concrete & Steel	Concrete Bents	Steel Girders	Ballast	162' - 0"	Biscayne Canal	1983	3.4
1027.90	2	Concrete & Steel	Concrete Bents	Concrete Girders & Steel Girders	Ballast	162' - 0"	Biscayne Canal	1983	3.4
1032.30	1	Concrete	Concrete Bents	Concrete Beams	Ballast	121' - 0"	Little River Canal	1926	3.9
1032.30	2	Concrete	Concrete Bents	Concrete Beams	Ballast	121' - 0"	Little River Canal	1926	3.9
1032.30	3	Concrete	Concrete Bents	Concrete Beams	Ballast	121' - 0"	Little River Canal	1950	3.9
1032.30	4	Concrete	Concrete Bents	Concrete Beams	Ballast	121' - 0"	Little River Canal	1950	3.9
1032.30	5	Concrete	Concrete Bents	Concrete Beams	Ballast	121' - 0"	Little River Canal	1950	3.9
1036.70	Bas	Concrete & Steel	Concrete Bents	Steel Girders	Open	197' - 9"	Miami Canal	1926	3.4

Table 3-45 Condition Assessment – Grade Crossings

No.	DOT#	Mile Post	Location	Date of Installation	Rating
1	628102G	SX 966.76	AUSTRALIAN AVENUE	2004	2
2	628103N	SX 967.05	45 STREET / SR 702	2004	2
3	628104V	SX 967.59	36 STREET	2018	3
4	628116P	SX 968.24	25 STREET	2004	2
5	628117W	SX 968.85	15 STREET	2004	2
6	628118D	SX 969.07	PALM BEACH LAKES BOULEVARD	2005	2
7	628119K	SX 969.40	7 STREET	2004	2
8	628120E	SX 969.76	BANYAN BOULEVARD	2004	2
9	628126V	SX 970.40	OKEECHOBEE BOULEVARD	2004	3
10	628129R	SX 970.47	OKEECHOBEE ROAD	2003	2
11	628130K	SX 970.80	CAROLINE STREET	2004	2
12	628135U	SX 971.60	BELVEDERE ROAD	2004	2
13	628136B	SX 971.85	ALLENDAL ROAD	2004	2
14	628138P	SX 973.37	SUMMIT BOULEVARD	2002	2
15	628139W	SX 974.06	FOREST HILL BOULEVARD	2003	1
16	628140R	SX 975.40	17 AVENUE NORTH	2003	2
17	628142E	SX 976.24	7 AVENUE NORTH	2002	2
18	628144T	SX 976.74	LAKE WORTH ROAD	2003	2
19	628146G	SX 977.29	6 AVENUE SOUTH	2004	2
20	628147N	SX 977.84	12 AVENUE SOUTH	2002	2
21	628152K	SX 982.93	OCEAN AVENUE	2003	2
22	628154Y	SX 986.94	LAKE IDA ROAD	2004	2
23	628155F	SX 987.62	WEST ATLANTIC AVENUE	2008	2
24	628159H	SX 988.63	SW 10 STREET	2004	2
25	628160C	SX 989.14	LINTON BOULEVARD	2009	2
26	628163X	SX 992.40	YAMATO ROAD	2016	5
27	628165L	SX 995.95	PALMETTO PARK ROAD	2004	1
28	628166T	SX 996.41	CAMINO REAL ROAD	2017	5
29	631210G	SX 997.25	SW 18 STREET	2017	5
30	628167A	SX 998.23	HILLSBORO BOULEVARD	2008	2
31	621525H	SX 1000.20	NW 48 STREET	2003	2
32	628168G	SX 1001.29	SAMPLE ROAD	2008	2
33	621538J	SX 1001.55	NW 33 STREET	2017	3

No.	DOT#	Mile Post	Location	Date of Installation	Rating
34	628169N	SX 1002.30	COPANS ROAD	2008	1
35	628170H	SX 1003.25	NW 15 STREET	2017	5
36	628171P	SX 1003.90	HAMMONDVILLE ROAD	2005	2
37	628177F	SX 1004.34	ATLANTIC BOULEVARD	2008	2
38	628181V	SX 1004.68	RACE TRACK ROAD	2003	2
39	621437X	SX 1005.78	MCNAB ROAD	2008	2
40	628183J	SX 1006.31	CYPRESS CREEK ROAD	2008	2
41	628186E	SX 1007.36	COMMERICAL BOULEVARD	2010	2
42	628187L	SX 1007.82	POWERLINE ROAD	2008	2
43	628188T	SX 1007.88	PROSPECT ROAD	2008	2
44	628189A	SX 1008.44	NW 38 STREET	2003	2
45	628191B	SX 1009.01	OAKLAND PARK BOULEVARD	2003	2
46	628192H	SX 1010.08	NW 19 STREET	2003	2
47	628194W	SX 1011.63	SISTRUNK BOULEVARD	2004	2
48	628272B	SX 1016.26	GRIFFIN ROAD	2007	2
49	628272B	SX 1016.26	FRONTAGE ROAD	2007	2
50	628273H	SX 1016.85	TIGERTAIL ROAD	2004	2
51	628274P	SX 1017.30	STIRLING ROAD	2006	2
52	628279Y	SX 1018.75	TAFT STREET	2016	5
53	628280T	SX 1019.30	JOHNSON STREET	2004	1
54	628281A	SX 1019.83	HOLLYWOOD BOULEVARD	2007	2
55	628282G	SX 1020.85	PEMBROKE ROAD	2008	1
56	628290Y	SX 1021.58	HALLANDALE BEACH BOULEVARD	2008	1
57	628320N	SX 1028.85	NW 22 AVENUE	2006	2
58	628321V	SX 1029.40	NW 27 AVENUE	2003	2
59	628322C	SX 1029.75	CODADAD STREET	2003	2
60	628323J	SX 1029.88	OPA-LOCKA BOULEVARD	2003	2
61	628325X	SX 1030.18	DUNAD AVENUE	2004	2
62	628334W	SX 1030.50	NW 135 STREET	2004	2
63	628339F	SX 1033.99	NW 79 STREET	2016	5
64	628340A	SX 1034.54	NW 71 STREET	2005	2
65	628343V	SX 1035.00	NW 62 STREET	2004	1
66	628355P	SX 1035.55	NW 54 STREET	2016	5
67	628360L	SX 1036.03	NW 46 STREET	2004	2
68	628377P	SX 1036.60	NW 36 STREET	2004	2

No.	DOT#	Mile Post	Location	Date of Installation	Rating
69	628378W	SX 1036.60	NW NORTH RIVER DRIVE (Main Line)	2018	3
70	628476M	SX 1036.77	NW SOUTH RIVER DRIVE (Main Line)	2018	3
71	628477U	SX 1036.87	NW 28 STREET (OLD)	Not in use	3
72	968422U	SX 1037.15	NW 28 STREET (NEW)	2016	5
73	628478B	SX 1037.18	NW 25 STREET	2014	4
DOWNTOWN SPUR					
74	628475F	SXD 36.63	NW NORTH RIVER DRIVE	1980	2
75	628403C	SXD 37.48	NW NORTH RIVER DRIVE		1
76	628404J	SXD 37.80	NW 30 AVENUE	1983	1
77	628406X	SXD 38.00	NW 27 AVENUE / SR 9	1988	1
78	628407E	SXD 38.03	NW 23 STREET	2002	1
79	628408L	SXD 38.08	NW 26 AVENUE	1981	1
80	628409T	SXD 38.18	NW 25 AVENUE	1987	1
81	628410M	SXD 38.28	NW 24 COURT	1991	1
82	628411U	SXD 38.40	NW 24 AVENUE	1991	1
83	628412B	SXD 38.41	NW 23 AVENUE	1987	1
84	628413H	SXD 38.60	NW 22 COURT	1981	1
85	628414P	SXD 38.65	NW 22 AVENUE	2004	1
86	628417K	SXD 38.70	NW 21 AVENUE	1991	1
87	628418S	SXD 38.79	NW 19 AVENUE	1991	1
88	628419Y	SXD 38.92	NW 18 AVENUE	1986	1
89	628424V	SXD 39.03	NW 17 AVENUE	2002	1
90	628425C	SXD 39.19	NW 14 AVENUE	1991	1
91	628426S	SXD 39.31	NW 13 AVENUE	1991	1
92	628427R	SXD 39.42	NW 12 AVENUE / SR 933	2000	1
93	628428X	SXD 39.55	NW 11 AVENUE	1996	1
94	628429E	SXD 39.67	NW 10 AVENUE	2000	1
OLEANDER BRANCH					
95	628502A	SXH 37.10	NW 29 STREET	2003	2
96	621150U	SXH 37.26	Airport Connection Ramp	1988	2
97	915143C	SXH 37.80	NW 20 STREET/Commissary Road	2008	2
98	628506C	SXH 38.45	NW 15 STREET	2001	2
99	628507J	SXH 39.45	NW 57 AVENUE	2016	5
100	628509X	SXH 40.58	PERIMETER ROAD - A	2015	2
EAST RAIL					

No.	DOT#	Mile Post	Location	Date of Installation	Rating
101	628347X	SX 1031.51	NW 37 Avenue & NW 59 Street	2003	2
102	628348E	SX 1031.52	NW 35 Avenue & NW 59 Street	1980	2
103	628350F	SX 1031.53	NW 37 Avenue & NW 58 Street	2003	2
104	628898C	SX 1033.07	CSX Drive		3

Table 3-46 Condition Assessment - Switches

No.	Asset Type	Milepost	Description	Rating
1	Switch	SX 964.10	SE.DYER	2
2	Switch	SX 964.30	DERAIL	2
3	Switch	SX 965.09	T21 Cheney Bros.	2
4	Switch	SX 965.50	DERAIL, 84 LUMBER	2
5	Switch	SX 965.50	T 21, 84 LUMBER	2
6	Switch	SX 965.61	EL.LK. T21 NE.Misson	2
7	Switch	SX 965.61	DERAIL	2
8	Switch	SX 965.89	EL.LK. T21 SE.Mission	2
9	Switch	SX 965.89	DERAIL	2
10	Switch	SX 966.40	N.E. PASSENGER TRK	1
11	Switch	SX 966.75	GATOR B1	3
12	Switch	SX 966.75	GATOR A1	3
13	Switch	SX 966.75	GATOR B3	3
14	Switch	SX 966.75	GATOR A3	3
15	Switch	SX 966.93	NORTHWOOD NO. 1	5
16	Switch	SX 967.98	NORTHWOOD NO. 3	5
17	Switch	SX 968.26	NORTHWOOD NO. 5	5
18	Switch	SX 968.36	NORTHWOOD NO. 7	3
19	Switch	SX 968.74	CORAL A1	3
20	Switch	SX 968.74	CORAL B1	3
21	Switch	SX 968.74	CORAL A3	3
22	Switch	SX 968.74	CORAL B3	3
23	Switch	SX 970.24	MOCKINGBIRD	2
24	Switch	SX 972.09	DERAIL ALLENDALE	2
25	Switch	SX 972.09	Allendale team t-21	3
26	Switch	SX 972.76	SEABOARD B1	1
27	Switch	SX 972.76	SEABOARD A3	1
28	Switch	SX 972.76	SEABOARD A1	1
29	Switch	SX 972.76	SEABOARD B3	1
30	Switch	SX 976.03	DUNAN BRICK	1
31	Switch	SX 976.50	RINKER MATERIALS	2
32	Switch	SX 977.10	ORANGE BLOSSOM A3	2
33	Switch	SX 977.10	ORANGE BLOSSOM B3	2
34	Switch	SX 977.10	ORANGE BLOSSOM B1	2
35	Switch	SX 977.10	ORANGE BLOSSOM A1	2

No.	Asset Type	Milepost	Description	Rating
36	Switch	SX 981.04	LANTANNA TEAM T-21	2
37	Switch	SX 981.84	PUBLIX T21 EL LK	2
38	Switch	SX 982.80	COCONUT B3	2
39	Switch	SX 982.80	COCONUT B1	2
40	Switch	SX 982.80	COCONUT A3	2
41	Switch	SX 982.80	COCONUT A1	2
42	Switch	SX 987.99	McEwen Lumber	2
43	Switch	SX 988.50	Clune B3	2
44	Switch	SX 988.50	Clune A1	2
45	Switch	SX 988.50	Clune A3	2
46	Switch	SX 988.50	Clune B1	2
47	Switch	SX 989.23	NE HARDIVES	2
48	Switch	SX 989.87	SE HARDRIVE	2
49	Switch	SX 991.08	Meteor A-1	2
50	Switch	SX 991.08	Meteor B1	2
51	Switch	SX 993.28	PINEAPPLE A1	2
52	Switch	SX 993.28	PINEAPPLE A3	2
53	Switch	SX 993.28	PINEAPPLE B3	2
54	Switch	SX 993.28	PINEAPPLE B1	2
55	Switch	SX 995.05	BOCA TEAM TRK 1	2
56	Switch	SX 996.50	RANKIN 1A	2
57	Switch	SX 996.55	SW #1 Rankin Int.	2
58	Switch	SX 998.00	HT SW #2trk Deerfield she trek	2
59	Switch	SX 998.00	derail for Deerfield she trek	2
60	Switch	SX 998.05	HT SW elect lock #1trk double eagle	2
61	Switch	SX 998.32	HT SW #2trk sun sentinel	2
62	Switch	SX 998.69	HT SW #2trk Publix	2
63	Switch	SX 999.20	SW 1B CP Parker	2
64	Switch	SX 999.20	SW #1 parker Int.	2
65	Switch	SX 999.20	SW 2 parker Int.	2
66	Switch	SX 999.20	SW 2a parker Int.	2
67	Switch	SX 1001.77	HT SW #1trk home depot	2
68	Switch	SX 1002.67	HT SW #1trk Rinker	2
69	Switch	SX 1002.89	HT SW #1trk Bonsail	2
70	Switch	SX 1003.44	HT SW elect lock #2trk x-over	1
71	Switch	SX 1003.44	HT SW elect lock #1tk x-over	1

No.	Asset Type	Milepost	Description	Rating
72	Switch	SX 1003.53	HT SW CC NE Pomp. House Tk	1
73	Switch	SX 1003.53	NE POMPANO HOUSE TRACK	1
74	Switch	SX 1003.78	HT SW #2trk Miron lumber	1
75	Switch	SX 1003.90	HTelect lock #2trk ne east storage	2
76	Switch	SX 1004.23	HT SW elect lock #2trk se east storage	2
77	Switch	SX 1004.28	Derail SE Pomp. house Tk	2
78	Switch	SX 1004.28	HT elect lock #1trk se pomp she trek	2
79	Switch	SX 1004.64	HT switch #2trk race trek Road	2
80	Switch	SX 1004.98	HT switch (princess home)	2
81	Switch	SX 1005.56	CYPRESS INTERLOCKING SWITCH #1	2
82	Switch	SX 1005.56	CYPRESS INTERLOCKING SWITCH #3	2
83	Switch	SX 1005.56	CYPRESS INTERLOCKING SWITCH #3A	2
84	Switch	SX 1005.56	CYPRESS INTERLOCKING SWITCH #1A	2
85	Switch	SX 1005.80	MC LEAD SWITCH TRACK #1	2
86	Switch	SX 1006.70	UNIVERSAL DOOR SWITCH TRACK #1	2
87	Switch	SX 1007.27	PLAYWORLD SWITCH TRACK #1	2
88	Switch	SX 1007.52	RINKER SWITCH TRACK #1	2
89	Switch	SX 1008.17	FL LAUD WATER EAST DERAIL	2
90	Switch	SX 1008.17	FORT LAUDERDALE WATER TRACK #2	2
91	Switch	SX 1008.17	FT LAUD WATER WEST DERAIL	2
92	Switch	SX 1008.49	MANATEE INTERLOCKING SWITCH #1	2
93	Switch	SX 1008.49	MANATEE INTERLOCKING SWITCH #1A	2
94	Switch	SX 1008.49	MANATEE INTERLOCKING SWITCH #3	2
95	Switch	SX 1008.49	MANATEE INTERLOCKING SWITCH #3A	2
96	Switch	SX 1010.10	JONES CHEMICAL SWITCH TRACK #1	2
97	Switch	SX 1011.05	PUBLIC STORAGE SWITCH TRACK #1	2
98	Switch	SX 1012.34	WHITE LUMBER LEAD EL/LOCK SWITCH	3
99	Switch	SX 1012.34	WHITE LUMBER LEAD DERAILER	3
100	Switch	SX 1012.47	N.E RUN-AROUND EL/LOCK SWITCH	2
101	Switch	SX 1012.47	N.E RUN-AROUND DERAIL	2
102	Switch	SX 1013.00	WHALEN A-1	2
103	Switch	SX 1013.00	WHALEN B-1	2
104	Switch	SX 1013.00	WHALEN SW. #5	2
105	Switch	SX 1013.00	Whalen switch # 3	3
106	Switch	SX 1014.86	N.E.Dania Yard E/L	3
107	Switch	SX 1015.40	SW. LOCK	2

No.	Asset Type	Milepost	Description	Rating
108	Switch	SX 1015.86	SE DANIA	2
109	Switch	SX 1016.90	1016.9 ML #2	2
110	Switch	SX 1017.31	SHERIDAN B1 ML (#1)	3
111	Switch	SX 1017.32	SHERIDAN A1 ML (#2)	3
112	Switch	SX 1017.40	SHERIDAN A3 ML (#2)	3
113	Switch	SX 1017.42	SHERIDAN B3 ML (#1)	3
114	Switch	SX 1017.70	1017.7 ML #2	2
115	Switch	SX 1018.20	RINKER	3
116	Switch	SX 1018.70	NE FUN TRAIN SWITCH	2
117	Switch	SX 1018.75	SE FUN TRAIN	1
118	Switch	SX 1020.90	NE HALLANDALE TEAM	1
119	Switch	SX 1020.90	Derail NE HALLANDALE TEAM	2
120	Switch	SX 1021.50	SE HALLANDALE TEAM	1
121	Switch	SX 1021.50	Derail SE HALLANDALE	2
122	Switch	SX 1024.71	PLANTATION FL #1ML	2
123	Switch	SX 1025.45	Hardy X-Over Sw. #2A	2
124	Switch	SX 1025.45	Hardy X-Over Sw. #2	2
125	Switch	SX 1025.45	Hardy X-Over Sw. #1	2
126	Switch	SX 1025.45	Hardy X-Over Sw. #1A	2
127	Switch	SX 1026.20	Golden Glades Sw.	2
128	Switch	SX 1026.73	N.E. Hordis Bro.	2
129	Switch	SX 1027.70	S.E. Hordis Bro.	2
130	Switch	SX 1030.88	Junk Yard Sw.	3
131	Switch	SX 1030.88	Junk Yard SW E/L	3
132	Switch	SX 1031.45	Don Green Sw.	2
133	Switch	SX 1031.60	Tompkins #1	2
134	Switch	SX 1031.60	Tompkins #2	2
135	Switch	SX 1031.60	Tompkins #4	2
136	Switch	SX 1031.60	Tompkins # A1	2
137	Switch	SX 1031.60	Tompkins #2A	2
138	Switch	SX 1031.60	Tompkins #3	2
139	Switch	SX 1031.60	Tompkins #5	2
140	Switch	SX 1031.85	EL Lock Track #1 (South of Tompkins)	2
141	Switch	SX 1032.20	Amtrak Lead #1 SW T-21	2
142	Switch	SX 1032.30	Amtrak Lead #2 SW T-21	2
143	Switch	SX 1032.70	#16 HYDRA SWITCH	2

No.	Asset Type	Milepost	Description	Rating
144	Switch	SX 1032.70	In-Service #17 HYDRA SWITCH	2
145	Switch	SX 1032.70	In-Service #11 HYDRA SWITCH	2
146	Switch	SX 1032.70	In-Service #13 HYDRA SWITCH	2
147	Switch	SX 1032.70	# 15 HDRA SWITCH	2
148	Switch	SX 1032.70	In-Service #12 HYDRA SWITCH	2
149	Switch	SX 1032.70	In-Service #14 HYDRA SWITCH	2
150	Switch	SX 1032.90	Amtrak Lead #4 SW T-21	2
151	Switch	SX 1033.21	EL Lock T-21 #2 Track (Hialeah Yard SW)	2
152	Switch	SX 1033.21	Hayes Derail (Hialeah Yard SW)	2
153	Switch	SX 1033.21	EL Lock T-21 #1 Track (Hialeah Yard SW)	2
154	Switch	SX 1033.80	SW. NO. 1 - TRACK 2	2
155	Switch	SX 1033.80	SW. NO. 3 - TRACK 1	2
156	Switch	SX 1033.80	SW. NO. 5 - TRACK 2	2
157	Switch	SX 1033.80	SW. NO. 5 - TRACK 1	2
158	Switch	SX 1034.0	SW. NO. 7 - TRACK 1	5
159	Switch	SX 1034.0	SW. NO. 7 - TRACK 2	5
160	Switch	SX 1034.0	SW. NO. 9 - TRACK 2	5
161	Switch	SX 1034.51	SW 2 Power SW (71st St Int)	2
162	Switch	SX 1036.00	Electric lock with reverse contact	1
163	Switch	SX 1036.00	Hand throw U5	1
164	Switch	SX 1036.00	Power SW1 (46th St Int)	2
165	Switch	SX 1036.40	SR 112 EL Lock T-21 SW	2
166	Switch	SX 1036.54	T-21 EL/NW 36th ST	2
167	Switch	SX 1036.65	1 Power SW Miami Canal	1
168	Switch	SX 1037.21	MIC # 1 SWITCH	5
169	Switch	SX 1037.21	MIC # 3 SWITCH	5
170	Switch	SX 1037.21	MIC # 5 SWITCH	5
171	Switch	SX 1037.21	MIC # 7 SWITCH	5
172	Switch	SXH 40.13	N.E. RUN AROUND SWITCH	3
173	Switch	SXH 40.47	S.E. RUN AROUND TRACK SWITCH	3
174	Switch	SXH 40.62	NEW LEHIGH SPUR SWITCH	3
175	Switch	SXH 41.10	FEC CONN. SWITCH	3

Table 3-47 Condition Assessment – Signal Houses

No.	Asset Type	Milepost	Description	Date of Installation	Rating
1	House	SX 964.10	SE DYER		-
2	House	SX 964.20	S N DYER REMOTE HOUSE		-
3	House	SX 964.65	RL REPEATER/DAX HSE		3
4	House	SX 965.61	NE MISSION		3
5	House	SX 965.89	SE MISSION		3
6	House	SX 966.40	INT SIG 9663		2
7	House	SX 966.75	GATOR HSE A		3
8	House	SX 966.75	GATOR HSE B		3
9	House	SX 967.98	CP NORTHWOOD - HSE A	2017	5
10	House	SX 967.98	CP NORTHWOOD - HSE B	2017	5
11	House	SX 967.98	CP NORTHWOOD - HSE C	2017	5
12	House	SX 968.36	SE U&ME HSE		3
13	House	SX 968.74	CORAL HSE B		3
14	House	SX 968.74	CORAL HSE A		3
15	House	SX 969.78	Int. Signal 969.8	2017	5
16	House	SX 970.24	MOCKINGBIRD		3
17	House	SX 971.20	int.sigs 9712-1/2		2
18	House	SX 972.76	SEABOARD HSE A		3
19	House	SX 972.76	SEABOARD HSE B		3
20	House	SX 973.20	SUMMIT D.D.		1
21	House	SX 975.00	int sig 9750 1/2		2
22	House	SX 975.86	cut section		3
23	House	SX 976.73	cut section		3
24	House	SX 977.10	ORANGE BLOSSOM HSE B		3
25	House	SX 977.10	ORANGE BLOSSOM HSE A		3
26	House	SX 979.20	INT SIG 979.1/2		3
27	House	SX 980.98	INT SIG 9810-1		3
28	House	SX 981.30	INT SIG 9813-1		3
29	House	SX 981.84	Publix T21-EI LK & Cut Section		3
30	House	SX 982.80	COCONUT HSE B		3
31	House	SX 982.80	COCONUT HSE A		3
32	House	SX 984.76	INT SIG 984.6/7		3
33	House	SX 986.94	INT SIG 986.8/9		3

No.	Asset Type	Milepost	Description	Date of Installation	Rating
34	House	SX 987.99	McEwen Lumber		2
35	House	SX 988.50	Clune HSE B		3
36	House	SX 988.50	Clune HSE A		3
37	House	SX 989.23	NE HARDRIVES		2
38	House	SX 989.87	SE HARDRIVES		2
39	House	SX 991.08	Meteor		3
40	House	SX 991.20	Meteor HBD		1
41	House	SX 992.40	INT SIG 992.4	2017	5
42	House	SX 993.23	pineapple hse B		3
43	House	SX 993.23	Pineapple hse. A		2
44	House	SX 994.70	INT SIG		2
45	House	SX 995.97	RL REPEATER @ PALMETTO PRK RD		3
46	House	SX 996.55	loc a main hse Rankin int		2
47	House	SX 996.55	loc b Rankin int		2
48	House	SX 997.50	CUT CASE~E/CODE REPEATER		3
49	House	SX 998.05	case elect lock double eagle		3
50	House	SX 999.20	loc a parker int		2
51	House	SX 999.20	main hse parker int		2
52	House	SX 999.20	loc b parker int		2
53	House	SX 1001.10	repeating cut section		3
54	House	SX 1002.31	Copans rd. dist signal & elect code		2
55	House	SX 1003.35	Electro lock4 timers for pump x-over switches		2
56	House	SX 1003.44	Pompano HSE crossovers		2
57	House	SX 1003.53	case elect lock ne pump hse trk		3
58	House	SX 1003.90	case elect lock timer ne east storg		3
59	House	SX 1004.23	SE East Storage HSE		3
60	House	SX 1004.28	case elect lock se pump hse trk		2
61	House	SX 1005.56	CYPRESS INTERLOCKING: MAIN HOUSE		2
62	House	SX 1005.56	CYPRESS INTERLOCKING "B" HOUSE		2
63	House	SX 1005.56	CYPRESS INTERLOCKING: CASE "A"		2
64	House	SX 1006.80	ElectroCode repeater house		3

No.	Asset Type	Milepost	Description	Date of Installation	Rating
65	House	SX 1007.80	el code repeater house		3
66	House	SX 1008.49	CP MANATEE, "B" HOUSE		2
67	House	SX 1008.49	MANATEE ITINTERLOCKING HSE A		2
68	House	SX 1009.10	Oakland park dd		1
69	House	SX 1009.80	REPEATER HOUSE		3
70	House	SX 1010.85	INTERMEDIATE SIGNAL		3
71	House	SX 1012.34	WHITE LUMBER LEAD (HOUSE)		3
72	House	SX 1012.47	NE RUNAROUND (HOUSE)		3
73	House	SX 1013.00	CP WHALEN, "A" HOUSE		2
74	House	SX 1013.00	CP WHALEN, "B" HOUSE		2
75	House	SX 1013.90	NEW RIVER BRIDGE "A" HOUSE	2016	5
76	House	SX 1013.91	NEW RIVER BRIDGE "B" HOUSE	2016	5
77	House	SX 1013.91	NEW RIVER BRIDGE "B" HOUSE	2016	5
78	House	SX 1014.86	N.E. Dania Yard		3
79	House	SX 1015.42	S E Dania Yard Hse		3
80	House	SX 1015.86	CP SOUTH DANIA		2
81	House	SX 1015.86	B HSE S DANIA		2
82	House	SX 1016.54	ELECTROCODE REPEATER		3
83	House	SX 1017.32	SHERIDAN A HOUSE		3
84	House	SX 1017.32	SHERIDAN B HOUSE		3
85	House	SX 1018.40	NE FUN TRAIN HOUSE		3
86	House	SX 1019.30	N B inter med & S E Fun Train e/l		2
87	House	SX 1019.83	Hollywood s b Intermediate		2
88	House	SX 1020.44	1020.44 CUT CASE		3
89	House	SX 1020.90	n e Hallandale team SW e/l		2
90	House	SX 1021.50	s e Hallandale team SW		2
91	House	SX 1022.10	Hallandale inter med signal		2
92	House	SX 1024.70	CP PLANTATION		3
93	House	SX 1025.45	Hardy Interlocking Remote House		2
94	House	SX 1025.45	Hardy Main House		2
95	House	SX 1026.20	Golden Glades House		1
96	House	SX 1026.73	N.E. Hordis Bro. House		3
97	House	SX 1027.70	S.E. Hordis Bro. House		3
98	House	SX 1029.88	Opa-Locka Intermediate House		3

No.	Asset Type	Milepost	Description	Date of Installation	Rating
99	House	SX 1030.50	NW 135TH ST XING/HOUSE B		2
100	House	SX 1030.88	Junk Yard E/Lock House		2
101	House	SX 1031.60	Tompkins Remote House		2
102	House	SX 1031.60	Tompkins Main House		2
103	House	SX 1032.21	EL Lock House (South of Thompkins)		2
104	House	SX 1033.20	Holdout Signal House (Amtrak Lead)		4
105	House	SX 1033.21	Hialeah Yard Switch House		3
106	House	SX 1033.80	CP 79 - House A		3
107	House	SX 1033.80	CP 79 - House B		4
108	House	SX 1033.80	CP 79 - House C	2017	5
109	House	SX 1034.50	Iris -71st B Hse		3
110	House	SX 1034.51	71st St Interlocking House		2
111	House	SX 1036.00	46th St Interlocking House		2
112	House	SX 1036.40	SR 112 EL LOCK HOUSE		2
113	House	SX 1036.54	NW 36TH ST HOUSE		2
114	House	SX 1036.63	Miami Canal Remote House		1
115	House	SX 1036.65	CP MIAMI CANAL		1
116	House	SX 1036.87	MIC LOCATION B	2014	5
117	House	SX 1037.25	MIC LOCATION A	2014	5
118	House	SXH 37.80	AIRPORT APP HOUSE		3
119	House	SXH 40.13	NE RUNAROUND		3
120	House	SXH 40.47	SE RUNAROUND		3
121	House	SXH 40.62	NEW LEHIGH SPUR		3
122	House	SXH 41.10	FEC CONN.		3

Table 3-48 Condition Assessment - Culverts

	MP	SIZE TYPE	YEAR	RATING
1	966.4	46" RCP	NA	3
2	967.5	60" RCP	NA	3
3	968.9	72" RCP	NA	3
4	970.4	30" RCP	NA	3
5	970.5	18" RCP	NA	3
6	970.6	18" RCP	NA	3
7	971.1	40" ST	NA	3
8	968.0		NA	4
9	971.0		NA	4
10	972.7		NA	4
11	972.9		NA	4
12	973.5		NA	4
13	977.0		NA	4
14	981.0		NA	2
15	982.7		NA	4
16	983.9	24" RCP	NA	4
17	984.3		2009	2
18	985.5	48" RCP		3
19	986.4	48" RCP		3
20	988.5		NA	4
21	985.6		NA	4
22	986.7		NA	4
23	988.0		NA	4
24	989.8	48" RCP	NA	4
25	990.4	48" RCP	NA	4
26	991.2		NA	4
27	993.1	48" RCP	NA	4
28	994.2		NA	4
29	994.5	24" RCP	NA	2
30	994.9		NA	2
31	995.4		NA	4
32	995.7		NA	4
33	996.0		NA	4
34	996.5		NA	1

	MP	SIZE TYPE	YEAR	RATING
35	997.0		NA	4
36	998.3	48" RCP	NA	2
37	998.5		NA	2
38	998.7		NA	4
39	999.2		NA	1
40	999.7		NA	4
41	1000.0	60" RCP	NA	2
42	1000.1	10" RCP	NA	4
43	1000.3	48" RCP	NA	2
44	1000.4	36" RCP	NA	3
45	1001.1	24" RCP	NA	3
46	1001.7		NA	4
47	1002.3	28" RCP	NA	4
48	1002.6		NA	2
49	1003.2	24" RCP		3
50	1003.7	48" RCP		3
51	1008.4	48" RCP	NA	4
52	1009.5	48" RCP	NA	4
53	1021.9	48" RCP	NA	2
54	1027.4		NA	2
55	1030.3	72" RCP	NA	4
56	1030.9		NA	4
57	37.4	0.0	NA	4
58	39.9	60" RCP	NA	4

4.0 Capital Investment Decision Support Tool

This chapter describes the analytical process and decision support tools SFRTA adopted to estimate and prioritize capital investment needs over time.

SFRTA has invested in a Decision Support System (DSS) based on TransAM platform to manage, monitor, and generate required reports for capital assets, and the functionality to project future asset conditions, generate TAM investment needs, and generate capital projects. TransAM is a fully open-source software platform for managing transportation assets.

4.1 REPLACEMENT FY

The DSS applies the SGR policy, described in Section 6.2, to assign the Replacement Fiscal Year of each asset. The starting point for this calculation is the In Service Date of the asset. The default In Service Date for an asset is the current date. In all cases, the replacement year is the fiscal year after the year in which the asset reaches the end of its useful life.

The DSS tracks two potentially different Replacement FYs for each asset:

- Policy Replacement FY: The fiscal year that the asset must be replaced based on the service life calculation type. An asset is determined to be in backlog if the policy replacement year is prior to the current reporting year.
- Scheduled Replacement FY: The fiscal year in which an asset owner has scheduled the asset to be replaced. Transit agencies have the freedom to schedule replacement of an asset in a different year than the DSS estimate would dictate, as described in more detail below. Scheduled replacement years will default to the estimated replacement year value unless a user changes the year.

4.2 REPLACEMENT COST CALCULATION

SFRTA can select one of three methods for calculating the replacement cost for State of Good Repair (SOGR) projects.

- Replacement Cost: The expected cost to replace an asset is equal to the replacement cost set in the policy. Each asset subtype must be edited and assigned a replacement cost for this option to be effective.
- Replacement Cost + Interest: The expected cost to replace an asset is calculated from the replacement cost set in the policy but factors in an annual rate of

inflation starting from the fiscal year in which the replacement cost was defined. Each asset subtype must be edited and assigned a replacement cost for this option to be effective.

- **Purchase Price + Interest:** The expected cost to replace an asset is calculated from the purchase price of the asset but factors in an annual rate of inflation starting from the fiscal year that the asset was purchased. This is the default replacement cost calculation method.

4.3 CALCULATING USEFUL LIFE

The DSS uses a combination of one or two of the following factors to decide an asset's useful life:

- **Conditions** – The physical conditions of an asset. The DSS uses a one to five rating scale to provide an assessment of an asset's physical conditions. The system uses the condition ratings as an indicator of when assets require replacement. The scale is consistent with TERM rating as shown in Table 3-2.
- **Age** – Age of an asset.
- **Mileage** – Mileage occurred on a rolling stock asset

SFRTA can assign one of eight methods for calculating the useful life of an asset:

1. **Age Only:** The DSS calculates the policy replacement year based on the estimated service life, as specified in months, for that asset subtype in the policy
2. **Condition Only:** The DSS calculates the policy replacement year based on the number of months the DSS estimates it will take until the assets condition drops below the Minimum Condition Threshold.
3. **Age OR Mileage:** If the mileage is equal to or greater than the policies service mileage, the DSS calculates the policy replacement year based on the lower (minimum) value of the useful life based on age and mileage. Mileage updates may reduce the useful life, but will never extend it.
4. **Age AND Mileage:** The DSS calculates the policy replacement year based on when both the age and mileage surpass their estimated minimum values. However, only age is used to make predictions for policy replacement year. Therefore, the policy replacement year is initially set, but if the mileage has not surpassed its service life for the current planning year, then the policy year is deferred to the subsequent planning year.
5. **Age AND Condition:** The DSS calculates the policy replacement year based on when both the age and condition surpass their policy minimum values.
6. **Age OR Condition:** The DSS calculates the policy replacement year based on whichever comes first; the estimated time for the condition dropping below

the minimum condition threshold or the estimated service life as specified in the policy.

7. Condition AND Mileage: The DSS calculates the policy replacement year based on when both the condition and mileage surpass their policy minimum values.
8. Condition OR Mileage: If the mileage is equal to or greater than the policies service mileage, the DSS calculates the policy replacement year based on the lower (minimum) value of the useful life based on the estimated time for the condition dropping below the policy minimum condition and mileage. Mileage updates may reduce the useful life, but will never extend it.

4.4 SFRTA'S TAM PROJECTS

SFRTA's TAM projects are consist of SGR projects based on asset conditions/ages/mileage and SGR definition, and other capital projects from plans and programs such as TDP.

SFRTA defines a, SGR Policy that indicates the service life and replacement standards to be used for each asset type. Once the SGR Policy is applied to inventory, the DSS evaluates SFRTA's asset information to generate a set of capital investment projects. This analyzer uses SFRTA's current asset condition data together with current SGR Policy to determine when and what assets will be replaced. Based on current asset conditions and SGR policy, SFRTA's SGR projects are summarized in Table 4.1. Further detail of each project are shown in Table 4.2. Related capital projects from SFRTA's TDP can be included as part of TAM projects, if they can contribute to SFRTA Asset's SGR.

Annual funding needs for all TAM projects are summarized in Figure 4.1.

Table 4.1 SFRTA SGR Projects

Year	Project	Emgcy	SOGR	Multi Year	Title	Cost
2020	SFRTA #40	No	Yes	No	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$10,678,864
2020	SFRTA #41	No	Yes	No	Rail: Station Stops/Terminals: Acquisition project	\$12,287,408
2020	SFRTA #43	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$9,542,757
2020	SFRTA #9	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$398,171
2021	SFRTA #12	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$58,311
2021	SFRTA #15	No	Yes	No	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$16,038,517
2021	SFRTA #57	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$53,071
2021	SFRTA #65	No	Yes	No	Rail: Station Stops/Terminals: Acquisition project	\$17,572,579
2022	SFRTA #16	No	Yes	No	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$922,367
2022	SFRTA #62	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$24,059
2023	SFRTA #17	No	Yes	No	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$10,146,037
2023	SFRTA #55	No	Yes	No	Rail: Station Stops/Terminals: Acquisition project	\$94,758
2024	SFRTA #10	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$414,337
2024	SFRTA #36	No	Yes	No	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$0
2024	SFRTA #60	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$855,689
2025	SFRTA #13	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$60,679
2025	SFRTA #35	No	Yes	No	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$8,000,000
2025	SFRTA #56	No	Yes	No	Rail: Station Stops/Terminals: Acquisition project	\$3,411,091
2025	SFRTA #58	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$55,226
2026	SFRTA #47	No	Yes	No	Rail: Signal & Communication: Acquisition project	\$32,697
2026	SFRTA #63	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$25,036
2027	SFRTA #34	No	Yes	No	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$5,680,983
2028	SFRTA #11	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$431,162
2028	SFRTA #61	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$890,425
2029	SFRTA #14	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$63,142
2029	SFRTA #42	No	Yes	No	Rail: Station Stops/Terminals: Acquisition project	\$6,779,116
2029	SFRTA #59	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$57,468
2029	SFRTA #8	No	Yes	No	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$7,527,192

2030	SFRTA #19	No	Yes	No	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$0
2030	SFRTA #64	No	Yes	No	Rail: Support Facilities and Equipment: Acquisition project	\$26,053
2030	SFRTA #67	No	Yes	No	Rail: Station Stops/Terminals: Acquisition project	\$1,032,836
2031	SFRTA #20	No	Yes	No	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$0
2031	SFRTA #39	No	Yes	No	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$450,730
2031	SFRTA #66	No	Yes	No	Rail: Station Stops/Terminals: Acquisition project	\$19,411,061

Source: SFRTA TransAM System, 2018

Table 4.2 Project Details

SFRTA #40

Tag	Asset Subtype	Fuel	Description	Age	Bcklg	Mileage	Cond.	Policy Year	Orig. Cost	Book Val.	Sch. Cost
Totals for 12 assets									\$8,722,176	\$2,932,576	\$10,678,864
807	Commuter Locomotive Diesel	DF	MKI F40PHM2	19		-	-	2003	\$696,085	\$164,741	\$875,092
808	Commuter Locomotive Diesel	DF	MKI F40PHM2	19		-	-	2003	\$696,085	\$164,741	\$875,092
809	Commuter Locomotive Diesel	DF	MKI F40PHM2	19		-	-	2003	\$696,085	\$164,741	\$875,092
810	Commuter Locomotive Diesel	DF	GMC F40PHR	19		-	-	2003	\$696,085	\$167,061	\$875,092
811	Commuter Locomotive Diesel	DF	GMC F40PHR	19		-	-	2003	\$696,085	\$167,061	\$875,092
802	Commuter Locomotive Diesel	DF	MKI F40PHL2	19		-	-	2003	\$696,085	\$164,741	\$875,092
812	Commuter Locomotive Diesel	DF	GMC GP49	14		-	-	2009	\$757,611	\$335,875	\$897,242
813	Commuter Locomotive Diesel	DF	GMC GP49	14		-	-	2008	\$757,611	\$320,723	\$906,214
814	Commuter Locomotive Diesel	DF	GMC GP49	14		-	-	2008	\$757,611	\$320,723	\$906,214
815	Commuter Locomotive Diesel	DF	GMC GP49	14		-	-	2008	\$757,611	\$320,723	\$906,214
816	Commuter Locomotive Diesel	DF	GMC GP49	14		-	-	2008	\$757,611	\$320,723	\$906,214
817	Commuter Locomotive Diesel	DF	GMC GP49	14		-	-	2008	\$757,611	\$320,723	\$906,214

SFRTA #41

Tag	Asset Subtype	Fuel	Description	Age	Bcklg	Mileage	Cond.	Policy Year	Orig. Cost	Book Val.	Sch. Cost
Totals for 5 assets									\$9,839,068	\$6,819,451	\$11,352,404
HIALEAH	Commuter Rail Station	-	Hialeah Market Station	18		-	4.0	2000	\$402,021	\$221,111	\$490,542
HOLLYWOOD	Commuter Rail Station	-	Hollywood Station	15		-	4.0	2003	\$2,666,792	\$1,666,742	\$3,158,294
FTL	Commuter Rail Station	-	Fort Lauderdale Station	18		-	4.0	2000	\$1,388,939	\$763,917	\$1,694,770
DEERFIELD	Commuter Rail Station	-	Deerfield Beach Station	8		-	4.0	2010	\$4,958,628	\$3,966,900	\$5,477,410
WESTPALM	Commuter Rail Station	-	West Palm Beach Station	21		-	4.0	1997	\$422,688	\$200,781	\$531,388

Tag	Asset Subtype	Fuel	Description	Age	Bcklg	Mileage	Cond.	Policy Year	Orig. Cost	Book Val.	Sch. Cost
Totals for 28 assets									\$283,304	\$0	\$935,004
NA-001	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-002	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-003	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-004	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-005	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-006	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-007	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-008	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-009	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393
NA-010	Fare Collection Systems	-	RSV - Windows X	118		-	5.0	1910	\$10,118	\$0	\$33,393

SFRTA #42

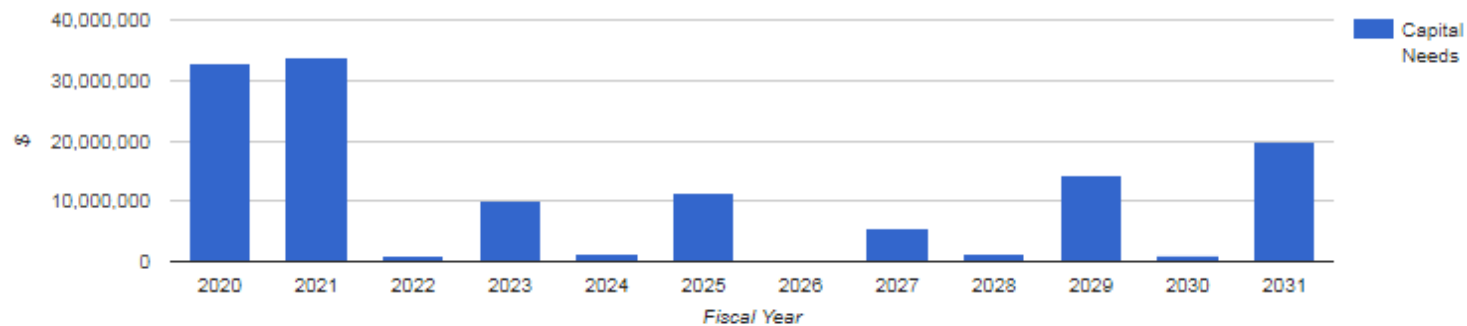
Tag	Asset Subtype	Fuel	Description	Age	Bcklg	Mileage	Cond.	Policy Year	Orig. Cost	Book Val.	Sch. Cost
Totals for 1 assets									\$2,691,217	\$1,278,330	\$3,383,298
MAINT-HLA	Light Rail Maintenance Facility	-	Hialeah Maintenance Yard	21		-	1.0	1997	\$2,691,217	\$1,278,330	\$3,383,298

Tag	Asset Subtype	Fuel	Description	Age	Bcklg	Mileage	Cond.	Policy Year	Orig. Cost	Book Val.	Sch. Cost
Totals for 51 assets									\$396,891	\$3,390	\$721,912
HARDWARE-002	Hardware	-	Cisco UCS C240 M4SX Phone System Server	9		-	5.0	2013	\$102,000	\$0	\$113,798
HARDWARE-003	Hardware	-	Cisco UCSC-C220-M4S Phone System Server	15		-	5.0	2007	\$51,000	\$0	\$60,400
HARDWARE-004	Hardware	-	Cisco Switch Catalyst	4		-	5.0	2019	\$30,643	\$1,277	\$32,206
HARDWARE-005	Hardware	-	Cisco Switch Catalyst	4		-	5.0	2019	\$6,696	\$279	\$7,038
HARDWARE-006	Hardware	-	Cisco Switch Catalyst	4		-	5.0	2019	\$26,266	\$1,094	\$27,606
HARDWARE-007	Hardware	-	Cisco Router	4		-	5.0	2019	\$17,752	\$740	\$18,658
HARDWARE-008	Hardware	-	Eden TOP Server	11		-	3.0	2011	\$4,470	\$0	\$4,938
HARDWARE-009	Hardware	-	Active Directory - 2012	4		-	4.0	2018	\$14,382	\$0	\$15,267
HARDWARE-010	Hardware	-	Active Directory - 2012	4		-	4.0	2018	\$14,382	\$0	\$15,267
FTL-ASE-Rout	Hardware	-	Routers - FTL-ASE-Router	118		-	5.0	1904	\$4,725	\$0	\$15,594

SFRTA #9

Tag	Asset Subtype	Fuel	Description	Age	Bcklg	Mileage	Cond.	Policy Year	Orig. Cost	Book Val.	Sch. Cost
Totals for 6 assets									\$111,010	\$20,923	\$118,543
143	Pickup/Utility Truck	GA	FRD F-150	9		127,177	3.0	2013	\$17,676	\$0	\$19,721
147	Pickup/Utility Truck	GA	FRD F-250	7		82,644	4.0	2015	\$16,992	\$0	\$18,584
148	Pickup/Utility Truck	GA	FRD F-150	7		63,262	4.0	2015	\$15,000	\$0	\$16,405
159	Pickup/Utility Truck	GA	FRD F-150	2		11,902	4.0	2020	\$19,254	\$6,418	\$20,036
160	Pickup/Utility Truck	GA	FRD F-150	2		13,844	4.0	2020	\$19,254	\$6,418	\$20,036
158	Van	GA	FRD Transit Connect	2		36,788	5.0	2020	\$22,834	\$8,087	\$23,761
Tag	Asset Subtype	Fuel	Description	Age	Bcklg	Mileage	Cond.	Policy Year	Orig. Cost	Book Val.	Sch. Cost
Totals for 10 assets									\$261,779	\$15,152	\$279,628
144	Sedan/Station Wagon	HG	FRD Fusion Hybrid	8		106,228	4.0	2014	\$24,707	\$0	\$27,292
149	Sedan/Station Wagon	HG	FRD Fusion Hybrid	6		77,585	4.0	2016	\$25,435	\$0	\$27,542
150	Sedan/Station Wagon	HG	FRD Fusion Hybrid	6		61,376	4.0	2017	\$25,435	\$0	\$27,270
151	Sedan/Station Wagon	HG	FRD Fusion Hybrid	6		25,918	4.0	2017	\$25,435	\$0	\$27,270
152	Sedan/Station Wagon	HG	FRD Fusion Hybrid	6		35,083	4.0	2017	\$25,435	\$0	\$27,270
154	Sedan/Station Wagon	HG	FRD Fusion Hybrid	3		21,228	5.0	2019	\$22,956	\$2,391	\$24,127
155	Sedan/Station Wagon	HG	FRD Fusion Hybrid	3		22,817	5.0	2019	\$22,956	\$2,391	\$24,127
157	Sedan/Station Wagon	HG	TOY Camry Hybrid	3		80,044	4.0	2019	\$23,982	\$5,996	\$25,205
153	Sedan/Station Wagon	HG	TOY Highlander Hybrid	5		30,065	4.5	2017	\$35,442	\$0	\$37,999
156	Sedan/Station Wagon	HG	NIS Pathfinder Hybrid	3		16,227	5.0	2019	\$29,996	\$4,374	\$31,526

Figure 4.1 Annual TAM Project Funding Needs FY 2018-2019 through FY 2022-2023



5.0 Investment Prioritization

This chapter presents SFRTA's investment prioritization to manage and improve over the TAM plan horizon period (currently set at four years) for the SGR of SFRTA's capital assets. The plan ranks projects consistently with SFRTA's TAM policy and strategies. The prioritization give due consideration to those SGR projects to improve that pose an identified unacceptable safety risk when developing its investment prioritization. The plan also takes into consideration SFRTA's funding estimation from all available sources that it reasonably expects will be available in each fiscal year during the TAM plan horizon period. The plan has also taken 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.

5.1 CAPITAL PROJECT PRIORITIZATION

SFRTA will evaluate investment prioritization on a quarterly basis in order to closely monitor and respond to SGR of assets, determine capital projects' necessity, and rank TAM projects for implementation priority.

SFRTA's project prioritization is aimed at managing and improving the SGR of capital assets. The following five ranking criteria, consistent with SFRTA's TAM policy shown in Section 6.1, have been designed to prioritize projects:

Criterion 1: Improve safety and reduce safety risks for SFRTA customers and employee,

Criterion 2: Enhance compliance to requirements such as TAM and ADA,

Criterion 3: Improve SGR of SFRTA assets, enhance reliability and efficiency, and reduce breakdowns,

Criterion 4: Enhance visibility and expand SFRTA assets, and

Criterion 5: Enhance agency operations efficiency, reduce operations costs, improve financial conditions for SFRTA, and enhance environmental sustainability.

Projects that improve safety (Criterion 1) and or enhance compliance (Criterion 2) are ranked as priority I. Projects that improve SGR (Criterion 3) are ranked as priority II. Projects that expand asset (Criterion 4) and/or enhance operations (Criterion 5) are ranked as priority III. All TAM projects are ranked as their highest priority function.

5.2 SFRTA'S CURRENT AND PROJECTED CAPITAL BUDGET

Part of the TAM process is designed to provide guidance on how funds are spent to achieve SGR of SFRTA assets. SFRTA funds include both capital improvement and operating budgets. The capital improvement budgets funds capital rehabilitation and improvements, capital maintenance, expansion and acquisition, and other planning and design projects of SFRTA. The operating budget funds the use and routine maintenance of assets, and agencies routing operations.

The total amount available to for TAM projects are summarized in Table 5.1 below. Note that funds amounts are expressed in 2018 dollars.

Table 5.1 SFRTA Annual Funding for TAM Projects

Funding Sources	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23
FTA Section 5307 – Formula Funds	\$18,349,207	\$18,349,207	\$18,349,207	\$18,349,207	\$18,349,207
FTA Section 5337 - SOG	\$19,965,505	\$19,965,505	\$19,965,505	\$19,965,505	\$19,965,505
County Gas Tax	\$8,010,000	\$8,010,000	\$8,010,000	\$8,010,000	\$8,010,000
Total	\$46,324,712	\$46,324,712	\$46,324,712	\$46,324,712	\$46,324,712

Source: SFRTA

SFRTA FY 2018/2019 capital budget is shown in Table 5.2 below. The three FDOT JPA funds applied only for currently on-going projects. Funds of FDOT Railroad Reimbursement Flagging and FDOT Railroad Reimbursement Grade Crossing are for constructions and grade crossing only. Project specific funds are CSX Contribution, BMPO Funds, PBMPO Funds, PTC Loan, SEOPW CRA-Debt Service/Bonds, All Aboard Florida Loan, Omni CRA, City of Miami, Bayfront Park Trust, Miami DDA, and Miami Dade County.

Funds applied for TAM projects are FTA Section 5307 – Formula Funds, FTA Section 5337 – State of Good Repair, and County Gas Tax. They are available for SFRTA at an annual amount of \$18,349,207, \$19,965,505, and \$8,010,000 from FY 2018-2019 through FY 2023-2024 (projected), expressed in 2018 dollars. The total annual amount funds available for TAM projects are \$46,324,712.

Table 5.2 SFRTA FY 2018/2019 Capital Budget and Five Year Plan**SOUTH FLORIDA REGIONAL TRANSPORTATION AUTHORITY****FY 2018-2019****CAPITAL REVENUE BUDGET AND FIVE YEAR PLAN**

	PREVIOUS FUNDING	FY 2018-2019 CAPITAL BUDGET	FY 2019-2020 PROJECTED	FY 2020-2021 PROJECTED	FY 2021-2022 PROJECTED	FY 2022-2023 PROJECTED	FY 2023-2024 PROJECTED	TOTAL
FTA Section 5307 - Formula Funds	\$109,182,232	\$18,560,578	\$18,560,578	\$18,560,578	\$18,560,578	\$18,560,578	\$18,560,578	\$ 220,545,700
FTA Section 5307 - Flex Funds	26,715,944	-						26,715,944
FTA Section 5307 - CIG Program	1,250,000	-						1,250,000
FTA Section 5309 - Rail Mod.	15,305,611	-						15,305,611
FTA Section 5309 - SAFETEA (Earmark)	595,000	-						595,000
FTA Section 5337 - State of Good Repair	82,836,151	16,101,684	16,101,684	16,101,684	16,101,684	16,101,684	16,101,684	179,446,255
FTA Section 5308 - TIGGER Funds	1,800,000	-						1,800,000
FTA Section 3028 - PTC	31,633,176	-						31,633,176
American Recovery & Reinvestment Act	135,670	-						135,670
FDOT GMR Funds	5,900,000	-		13,250,000	13,250,000			32,400,000
FDOT PTO	500,000	-						500,000
FDOT JPA'S	11,007,815	602,027.00						11,609,842
FDOT JPA'S-District 6	-	8,000,000						8,000,000
FDOT JPA-PTC	11,060,478	-						11,060,478
FDOT Railroad Reimbursement Flagging	7,750,000	2,500,000	2,500,000	2,500,000	2,500,000	3,000,000	2,500,000	23,250,000
FDOT Railroad Reimbursement Grade Crossing	-	2,569,000	12,329,800	11,981,924	11,993,382	12,005,183		50,879,289
FDOT Trip Funds	7,750,000	-	3,916,735		250,000			11,916,735
Insurance Proceeds	2,598,618	-						2,598,618
CSX Contribution	3,189,385	3,189,385						6,378,770
BMPO Funds	800,000	-						800,000
PBMPO Funds	-	1,505,000	4,890,000	3,416,735				9,811,735
PTC Loan	5,531,977	11,077,588	3,680,435					20,290,000
SEOPW CRA-Debt Service/Bonds	-	17,528,049						17,528,049
All Aboard Florida Loan	14,688,481	2,839,569						17,528,050
Omni CRA	3,143,433	606,567						3,750,000
City of Miami	6,786,865	1,310,165						8,097,030
Bayfront Park Trust	209,016	40,984						250,000
Miami DDA	1,061,472	205,528						1,267,000
Miami Dade County	11,647,506	2,252,494						13,900,000
SFRTA Investment Account	718,512							718,512
County Gas Tax	75,768,147	8,010,000	8,010,000	8,010,000	8,010,000	8,010,000	8,010,000	123,828,147
Permit Fees	27,000	-						27,000
Funding To Be Determined	-	20,765,500	23,425,188	19,682,425	25,678,239	19,237,461	10,373,666	119,162,479
Total Capital Revenues	\$ 439,592,489	\$ 117,664,118	\$ 93,414,420	\$ 93,503,346	\$ 96,343,883	\$ 76,914,906	\$ 55,545,928	\$ 972,979,090
Total Prior Year Funds Expended	\$ 288,632,859							
Remaining Prior Year Funds	\$ 150,959,630							

Source: SFRTA

5.3 SFRTA'S TAM PROJECTS PRIORITIZATION

Table 5.3 below shows all TAM projects within the four-year TAM plan horizon from FY 2018/2019 to FY 2021/2022, together with their rankings and costs.

Table 5.3 TAM Projects Prioritization

Rank	Year	Project	Title	Cost
1	2020	SFRTA #40	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$10,678,864
1	2020	SFRTA #41	Rail: Station Stops/Terminals: Acquisition project	\$12,287,408
1	2020	SFRTA #43	Rail: Support Facilities and Equipment: Acquisition project	\$9,542,757
1	2020	SFRTA #9	Rail: Support Facilities and Equipment: Acquisition project	\$398,171
1	2021	SFRTA #12	Rail: Support Facilities and Equipment: Acquisition project	\$58,311
1	2021	SFRTA #15	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$16,038,517
1	2021	SFRTA #57	Rail: Support Facilities and Equipment: Acquisition project	\$53,071
1	2021	SFRTA #65	Rail: Station Stops/Terminals: Acquisition project	\$17,572,579
1	2022	SFRTA #16	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$922,367
1	2022	SFRTA #62	Rail: Support Facilities and Equipment: Acquisition project	\$24,059
2	2023	SFRTA #17	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$10,146,037
2	2023	SFRTA #55	Rail: Station Stops/Terminals: Acquisition project	\$94,758
2	2024	SFRTA #10	Rail: Support Facilities and Equipment: Acquisition project	\$414,337
2	2024	SFRTA #36	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$0
2	2024	SFRTA #60	Rail: Support Facilities and Equipment: Acquisition project	\$855,689
2	2025	SFRTA #13	Rail: Support Facilities and Equipment: Acquisition project	\$60,679
2	2025	SFRTA #35	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$8,000,000
2	2025	SFRTA #56	Rail: Station Stops/Terminals: Acquisition project	\$3,411,091
2	2025	SFRTA #58	Rail: Support Facilities and Equipment: Acquisition project	\$55,226
2	2026	SFRTA #47	Rail: Signal & Communication: Acquisition project	\$32,697
2	2026	SFRTA #63	Rail: Support Facilities and Equipment: Acquisition project	\$25,036
2	2027	SFRTA #34	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$5,680,983
2	2028	SFRTA #11	Rail: Support Facilities and Equipment: Acquisition project	\$431,162
2	2028	SFRTA #61	Rail: Support Facilities and Equipment: Acquisition project	\$890,425
2	2029	SFRTA #14	Rail: Support Facilities and Equipment: Acquisition project	\$63,142
2	2029	SFRTA #42	Rail: Station Stops/Terminals: Acquisition project	\$6,779,116
2	2029	SFRTA #59	Rail: Support Facilities and Equipment: Acquisition project	\$57,468
2	2029	SFRTA #8	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$7,527,192
2	2030	SFRTA #19	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$0
2	2030	SFRTA #64	Rail: Support Facilities and Equipment: Acquisition project	\$26,053
2	2030	SFRTA #67	Rail: Station Stops/Terminals: Acquisition project	\$1,032,836
2	2031	SFRTA #20	Rail: Revenue Rolling Stock: Purchase - Replacement project	\$0
2	2031	SFRTA #39	Bus: Revenue Rolling Stock: Purchase - Replacement project	\$450,730
2	2031	SFRTA #66	Rail: Station Stops/Terminals: Acquisition project	\$19,411,061

6.0 TAM and SGR Policy and Performance Targets

The purpose of TAM and SGR policies are to guide the development and implementation of the TAM plan, and ensure consistency between SFRTA's mission and goals and the Transit Asset Management plan.

SFRTA's mission is to coordinate, develop and implement, in cooperation with all appropriate levels of government, private enterprise and citizens at-large in the community, a viable regional transportation system in South Florida that endeavors to meet the desires and needs for the movement of people, goods and services.

Our goals include maximizing the performance, reliability, efficiency and capacity of the existing SFRTA/Tri-Rail system, improving the Tri-Rail passenger experience, and maximizing environmentally sustainable practices for both the current SFRTA/ Tri-Rail system and expanded premium services in the region. The condition of SFRTA's assets is critical to performance, reliability, efficiency, sustainability and growth of the system, and the experience of our customers.

TAM is 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. Policies are integrated into the TAM plan. The plan should comply with FTA requirements for Transit Asset Management and Transit Safety.

6.1 SFRTA TAM POLICY

SFRTA will invest in, maintain, and operate its assets to achieve the following GOALS:

- i. Ensure the safety and health of customers and employees,
- ii. Improve reliability and on-time performance,
- iii. Reduce vehicle failures/breakdowns,
- iv. Improve the appearance and visibility of current and future Tri-Rail stations,
- v. Support environmental sustainability, and
- vi. Achieve cost savings over the life cycle of assets.

SFRTA will establish and maintain investment strategies that address the state of good repair of capital assets. State of good repair is defined as the condition in

which a capital asset is able to operate at a full level of performance. SFRTA's system will be in a state of good repair when the total cost of maintaining each asset over its expected life cycle is economically sustainable while performance is maximized in terms of system reliability, safety and customer satisfaction.

To achieve the stated Transit Asset Management goals, SFRTA will:

- a. Develop and keep up to date an inventory of capital assets, with a hierarchy and level of detail commensurate with how capital investments are listed in the Transit Development Plan;
- b. Establish performance targets for equipment, rolling stock, infrastructure, and facilities that address federal requirements as well as goals and desired outcomes specific to SFRTA;
- c. Consistently monitor the condition and measure the performance of assets over time and report performance of equipment, rolling stock, infrastructure, and facilities to the National Transit Database;
- d. Set and adjust priorities in the Transit Development Plan to address asset performance deficiencies;
- e. Project how future performance will be supported by continuously improved maintenance and operational policies and procedures, influenced by external factors like travel demand and weather-related impacts on infrastructure, and assisted by planned investments in repair, rehabilitation, and replacement;
- f. Develop and enhance information systems, businesses processes, and workforce capabilities to conduct effective asset management;
- g. Document policies, procedures, performance targets and metrics, investment priorities, and other elements of SFRTA's asset management program in a Transit Asset Management Plan;
- h. Effectively communicate to all employees an understanding of the performance targets, metrics and results of the Asset Management program and how they relate to the agency's mission;
- i. Coordinate with FDOT, related MPOs and County/City transit providers when establishing and adjusting performance targets for transit state of good repair; and
- j. Make adjustments as necessary to policies, standards, and procedures, and reallocate resources to better meet goals and specific performance targets.

6.2 SFRTA SGR POLICY

State of Good Repair (SGR) means the condition in which a capital asset is able to operate at a full level of performance. A capital asset is in a state of good repair if:

- (a) The capital asset is able to perform its designed function;

- (b) The use of the asset in its current condition does not pose an identified unacceptable safety risk; and
- (c) The life-cycle investment needs of the asset have been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.

The TAM plan helps SFRTA to predict the impact of its SGR policy and investment prioritizations of its assets throughout their life cycle, and helps maintain a SGR by investing in those assets before they deteriorate to an unacceptable level. The two primary criteria of SGR performance measures are *Useful Life Benchmark* (ULB) and *Condition*, while *Service Miles* are also used for some revenue vehicles. The SFRTA has elected to use the ULB defaults provided by FTA, as shown in Table 6.1 below, until customized ULBs were developed by the SFRTA. Asset condition is rated based on TERM rating shown in Table 3-2.

Table 6.1 FTA Useful Life Benchmarks (ULBs)

Vehicle Type		Default ULB (in years)
AB	Articulated bus	14
AG	Automated guideway vehicle	31
AO	Automobile	8
BR	Over-the-road bus	14
BU	Bus	14
CC	Cable car	112
CU	Cutaway bus	10
DB	Double decked bus	14
FB	Ferryboat	42
HR	Heavy rail passenger car	31
IP	Inclined plane vehicle	56
LR	Light rail vehicle	31
MB	Minibus	10
MO	Monorail vehicle	31
MV	Minivan	8
	Other rubber tire vehicles	14
RL	Commuter rail locomotive	39
RP	Commuter rail passenger coach	39
RS	Commuter rail self-propelled passenger car	39

Vehicle Type		Default ULB (in years)
RT	Rubber-tired vintage trolley	14
SB	School bus	14
	Steel wheel vehicles	25
SR	Streetcar	31
SV	Sport utility vehicle	8
TB	Trolleybus	13
TR	Aerial tramway	12
VN	Van	8
VT	Vintage trolley	58

Source: 2017 Asset Inventory Module Reporting Manual, FTA

The SFRTA's SGR policy is summarized in Table 6.2 through Table 6.4 below:

Table 6.2 SFRTA Standard SGR Policy

Description	Condition Estimate Method	Condition Threshold	Depreciation Interval	Depreciation Calculation Method
Standard Replacement/Rehab Policy	Straight Line	2.5	Annual	Straight Line

Source: SFRTA, 2018

Table 6.3 SFRTA Asset Type Rule for Service Life Calculation

Asset Type	Service Life Calculation Method	Replacement Cost Estimation Method	Annual Inflation Rate (%)	% Residual Value at End of Life
Revenue Vehicles	Age or Mileage	Purchase Price plus Interest	3.00%	0.00%
Stations/Stop s/Terminals	Age Only	Purchase Price plus Interest	3.00%	0.00%
Support Facilities	Age Only	Purchase Price plus Interest	3.00%	0.00%
Support Vehicles	Age Only	Purchase Price plus Interest	3.00%	0.00%
Maintenance Equipment	Age Only	Purchase Price plus Interest	3.00%	0.00%
Facility Equipment	Age Only	Purchase Price plus Interest	3.00%	0.00%

Asset Type	Service Life Calculation Method	Replacement Cost Estimation Method	Annual Inflation Rate (%)	% Residual Value at End of Life
IT Equipment	Age Only	Purchase Price plus Interest	3.00%	0.00%
Office Equipment	Age Only	Purchase Price plus Interest	3.00%	0.00%
Communications Equipment	Age Only	Purchase Price plus Interest	3.00%	0.00%
Signals/Signs	Age Only	Purchase Price plus Interest	3.00%	0.00%
Rail Cars	Age Only	Purchase Price plus Interest	3.00%	0.00%
Locomotives	Age Only	Purchase Price plus Interest	3.00%	0.00%

Source: SFRTA, 2018

Table 6.4 SFRTA Asset Service Life Policy for SGR

Asset Type	Asset Subtype	Service Life (years)	Service Miles (mile)
Revenue Vehicles	Bus Std 40 FT	12	500,000
Revenue Vehicles	Bus Std 35 FT	12	500,000
Stations/Stops/Terminals	Bus Shelter	10	
Stations/Stops/Terminals	Bus Station	40	
Stations/Stops/Terminals	Park and Ride Lot	40	
Stations/Stops/Terminals	Parking Garage	40	
Stations/Stops/Terminals	Parking Lot	40	
Stations/Stops/Terminals	Commuter Rail Station	40	
Support Facilities	Administration Building	40	
Support Facilities	Bus Maintenance Facility	40	
Support Facilities	Bus Parking Facility	40	
Support Facilities	Bus Turnaround Facility	40	
Support Facilities	Storage Yard	40	
Support Facilities	Other Support Facility	40	
Support Vehicles	Van	4	
Support Vehicles	Tow Truck	10	

Asset Type	Asset Subtype	Service Life (years)	Service Miles (mile)
Support Vehicles	Sedan/Station Wagon	4	
Support Vehicles	Pickup/Utility Truck	4	
Support Vehicles	Sports Utility Vehicle	4	
Support Vehicles	Other Support Vehicle	12	
Maintenance Equipment	Bus Maintenance Equipment	10	
Maintenance Equipment	Other Maintenance Equipment	10	
Maintenance Equipment	Rail Maintenance Equipment	10	
Facility Equipment	Mechanical Equipment	15	
Facility Equipment	Electrical Equipment	15	
Facility Equipment	Structural Equipment	30	
Facility Equipment	Other Facilities Equipment	15	
IT Equipment	Hardware	4	
IT Equipment	Software	4	
IT Equipment	Networks	12	
IT Equipment	Storage	12	
IT Equipment	Other IT Equipment	4	
Office Equipment	Furniture	4	
Office Equipment	Supplies	4	
Office Equipment	Other Office Equipment	4	
Communications Equipment	Vehicle Location Systems	10	
Communications Equipment	Radios	10	
Communications Equipment	Surveillance & Security	10	
Communications Equipment	Fare Collection Systems	10	
Communications Equipment	Other Communications Equipment	10	
Signals/Signs	Route Signage	10	
Signals/Signs	Other Signage Equipment	10	
Signals/Signs	Train Control/Signal System	10	
Rail Cars	Commuter Rail Car Trailer	25	

Asset Type	Asset Subtype	Service Life (years)	Service Miles (mile)
Rail Cars	Commuter Rail Self Propelled (Diesel)	25	
Rail Cars	Commuter Rail Self Propelled (Elec)	25	
Rail Cars	Incline Railway Car	25	
Locomotives	Commuter Locomotive Diesel	25	
Locomotives	Commuter Locomotive Electric	25	
Stations/Stops/Terminals	Other Transit Facility	40	

Source: SFRTA, 2018

6.3 SFRTA TAM PERFORMANCE TARGETS

Table 6.5 below summarizes 2018 performance targets established based on current asset conditions, capital improvement projects, and SFRTA's SGR policy. The targets are expressed as percent of asset with failure conditions. Failures are defined as assets reaching ULB, or condition assessment with a score of 2.5 or less, or track segments under speed restriction.

Table 6.5 2018 SFRTA TAM Performance Targets

FTA Asset Classes	Performance Measures	Targets (Failure)
Equipment	Vehicles – 8 yrs	0%
Non-revenue support-service and maintenance vehicles	Others (1-5 scale)	0% (< 2.5)
Rolling Stock	Locomotives – 39 yrs	0%
Revenue vehicles	Coach – 39 yrs	0%
	Self-propelled – 39 yrs	0%
	Bus (Cutaway) – 10 yrs	0%
Infrastructure	Performance restrictions	8%
Rail fixed-guideway track		
Facilities	Passenger (1-5 scale)	30% (< 2.5)
Buildings and structures	Maintenance (1-5 scale)	30% (< 2.5)
	Administrative (1-5 scale)	0%
Systems	Service (1-5 scale)	15% (< 2.5)

7.0 Implementation Strategies

The implementation strategy is SFRTA's approach to perform TAM practices, including setting up schedule, establishing key staff, tasks, and roles and responsibilities. This chapter outlines a plan of necessary activities to achieve TAM goals.

FTA guidance have identified three potential paths as strategies for doing improvement projects to improve TAM maturity:

- Path 1: Enterprise-Driven,
- Path 2: Asset Class-Driven, and
- Path 3: Capital Planning-Driven

Table 7.1 below shows the characteristics and interested attributes of the three implementation paths.

Table 7.1 Potential Asset Management Implementation Paths

Potential Paths	Path Characteristics	Attributes of Agency Interested in Path
1. Enterprise-Driven	<ul style="list-style-type: none"> • Enterprise initiative that starts by establishing asset management policies, strategy, and a plan that ensures a well-integrated and aligned organization. • Uses consistent, up-to-date, and increasingly complete asset inventory data to align with the agency's performance management requirements and support all enterprise-level asset management business processes. • Requires strong executive sponsorship commitment to asset management being one of the agency's top strategic objectives. • Staff at all levels increasingly understand how their job supports asset management. 	<ul style="list-style-type: none"> • Any size agency with any mix of modes or ages of assets. • Asset Management Champion is the Executive Level sponsor. • Staff dedicated to the asset management improvement program (full- or part-time, depending on the size of the agency). • Dedicated resources available to drive implementation, including software investment. • Agency management and staff understand.
2. Asset Class-Driven	<ul style="list-style-type: none"> • Driven by the managers of individual asset classes who champion asset management; it does not require enterprise-level direction. 	<ul style="list-style-type: none"> • Single- or multiple-mode agency with assets of any ages. • Asset management champion does not

Potential Paths	Path Characteristics	Attributes of Agency Interested in Path
	<ul style="list-style-type: none"> Improvements focus on the lifecycle management of individual asset classes. Key to this implementation path is the development of lifecycle management plans for those assets within the classes involved (starting with the most critical assets). 	<ul style="list-style-type: none"> necessarily exist at Executive Level. Staff are most likely not dedicated to an asset management improvement program
3. Capital Planning-Driven	<ul style="list-style-type: none"> Focuses on providing information on asset condition from a centralized asset inventory in a consistent way across all asset classes. Information can be used to improve programming and prioritization to improve asset management outcomes. Capital improvements required to meet the level of service commitments are systematically identified and communicated. Focus of this implementation path is more at the planning level, but it can provide a springboard for increasing awareness and then driving initiative and methods to reduce lifecycle costs. 	<ul style="list-style-type: none"> Single- or multiple-mode agency with assets of any ages. Asset management champion does not necessarily exist at Executive Level. Staff are most likely not dedicated to an asset management improvement program. Agency management and/or staff recognize the need to prioritize the capital program in a more transparent, systematic way to more effectively use capital funds. Some consultant support and software investment may be required.

Source: Transit Asset Management Guide, FTA Report No 0098, Federal Transit Administration 2016

The Enterprise-Driven path requires commitment from an executive which prioritize asset management as one of the top strategic objectives. This path uses complete, consistent, and up-to-date asset inventory data to compare with the agency's performance targets and support all enterprise level asset management business processes. All staff understand how their jobs support asset management and the agency as a whole is constantly looking for opportunities for improvement.

The Asset Class-Driven path is likely led by one or multiple asset managers who provides leadership in TAM. A manager can apply the leadership and influence as a model to move the agency forward and drive positive changes. The focus is more on the lifecycle management of individual asset classes. The key to this implementation path is developing lifecycle management plans for each asset.

The Capital Planning-Driven path is to provide systematic information on asset condition and capital needs required to meet the SGR targets. This

implementation path focuses on providing information on asset condition from a centralized asset inventory in a consistent way across all asset classes. Capital improvement needs are systematically identified. This path requires the development of a centralized inventory, the application of consistent condition assessment, and the use of tools that prioritize all capital needs based on funding.

At this stage, the Capital Planning-Driven path is most suitable for SFRTA. For longer term, SFRTA may transition into different implementation path of Asset Class-Driven or Enterprise-Driven.

SFRTA's TAM plan implementation approach is described as:

1. Develop and keep up to date an inventory of capital assets;
2. Establish annual TAM performance targets for equipment, rolling stock, infrastructure, and facilities that address federal requirements as well as goals and desired outcomes specific to SFRTA;
3. Consistently monitor the condition and measure the performance of assets over time and report performance of equipment, rolling stock, infrastructure, and facilities to the National Transit Database;
4. Set and adjust priorities to address asset performance deficiencies;
5. Project how future performance will be supported by continuously improved maintenance and operational policies and procedures;
6. Develop and enhance TAM information systems, businesses processes, and workforce capabilities to conduct effective asset management;
7. Effectively communicate to related staff members an understanding of the performance targets, metrics and results of the Asset Management program and how they relate to the agency's mission;
8. Coordinate with FDOT, related MPOs and County/City transit providers when establishing and adjusting TAM performance targets; and
9. Make adjustments as necessary to policies, standards, and procedures, and reallocate resources to better meet goals and specific performance targets.

8.0 List of Key Annual TAM Activities

This chapter describes a series of key TAM activities that SFRTA intends to engage over the TAM plan horizon period from October 1, 2018 to September 30, 2022. Key activities include:

1. Self-certify compliance with regulation. The compliance checklist is shown in Figure 8.1. The compliance checklist should be completed within first three months from each TAM plan update.
2. Establish and update TAM agency roles and responsibilities which are applicable to each asset class and responsible staff position. Roles and responsibilities will be established within the first six months from October 1, 2018, and will be updated if necessary within the first three months from October 1st of each following TAM planning year.
3. Maintain and update SFRTA's capital asset inventory. SFRTA will maintain an up-to-date asset inventory database. Asset inventory will be updated when changes occur.
4. Perform annual, sometime quarterly even monthly, condition assessment for capital assets. SFRTA will continue monitoring and reporting asset conditions to the TransAM system.
5. Review asset conditions and establish annual TAM performance targets. Annual SFRTA TAM Performance Targets will be updated within three months from October 1st of each following TAM planning year.
6. Coordinate with TDP and other efforts in terms of capital projects and project priorities. Coordination effort will be conducted from the beginning of April through the end of September.
7. Update TAM project prioritization. TAM project prioritization will be updated by end of September of each following TAM planning year, if necessary.
8. Update the TAM Plan with significant changes made during the previous year, if needed, by end of September of each TAM planning year.
9. Conduct, by end of October, annual NTD report which reflects the SGR performance targets for the following year and condition information for SFRTA's system.
10. Share TAM plan with City, County planning partners. SFRTA will share updated TAM plan and performance targets with planning partners by December of each TAM planning year.

11. Produce narrative reports. Starting 2019, SFRTA will produce and submit annual narrative NTD reports by end of October. The narrative report will describe any condition changes of SFRTA's system from the previous year, and describe progress made during the year to meet the performance targets established in the previous year.
12. Update the TAM plan by end of TAM planning horizon. The TAM plan will be updated by October 1st, 2022.

These annual activities and their timeframes are summarized in Figure 8.2.

Figure 8.1 TAM Compliance Checklist

Yes?	Checklist
✓	Do I have a TAM plan that covers a four year period?
✓	Was the TAM plan updated within the last four years?
✓	Do I have a TAM plan that includes all of the required elements? (Tier I providers and group plan sponsors, see applicable sections.)
✓	a. An asset inventory for all assets used in the provision of public transportation, including those owned by third parties?
✓	b. A condition assessment of all assets in my asset inventory for which I have direct capital responsibility?
✓	c. An investment prioritization that:
✓	Ranks projects to improve or manage the state of good repair over the horizon period,
✓	Includes all capital assets for which I have direct capital responsibility, and
✓	Is at the asset class level?
✓	d. Did I document the analytical processes and decision support tools used in developing my TAM plan?
✓	Do I have documentation that I calculated performance for:
✓	<u>Equipment</u> (non-revenue service vehicles, support-service and maintenance vehicles equipment): the percentage of those vehicles that have either met or exceeded their ULB for all assets for which I have direct capital responsibility.
✓	<u>Rolling Stock</u> : the percentage of revenue vehicles by vehicle type that have either met or exceeded their ULB for all assets for which I have direct capital responsibility.
✓	<u>Infrastructure</u> (rail fixed-guideway, track, signals, and systems): the percentage of track segments with performance restrictions for all assets for which I have direct capital responsibility.
✓	<u>Facilities</u> : the percentage of facilities within an asset group rated below condition 3 on the TERM scale for all assets for which I have direct capital responsibility.
✓	Do I have documentation that I set performance targets annually to project the following fiscal year for:
✓	Equipment
✓	Rolling Stock
✓	Infrastructure
✓	Facilities
✓	Did I make my TAM plan, any supporting records or documents, performance targets, investment strategies, and the annual condition assessment report available to the State and/or MPO that provides my funding?
✓	Does your tier I TAM plan include all of the required elements?
✓	Documentation of a TAM and SGR policy?
✓	An implementation strategy that outlines a plan to achieve its asset management goals?
✓	A written description of the key TAM activities that you intend to engage in over the TAM plan horizon period?
✓	A summary or list of the resources, including personnel, that the recipient needs to develop and carry out the TAM plan?
✓	An outline of how I will monitor, update, and evaluate, as needed, its TAM plan and related business practices, to ensure the continuous improvement of its TAM practices?

Figure 8.2 SFRTA Key TAM Activities and Schedule

Key TAM Activities	Oct 2018 - Sep 2019				Oct 2019 - Sep 2020				Oct 2020 - Sep 2021				Oct 2021 - Sep 2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Self-certify compliance with regulation.	■															
2. Establish and update TAM agency roles and responsibilities	■	■			■				■				■			
3. Maintain and update SFRTA's capital asset inventory.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4. Perform annual, sometime quarterly, condition assessment for capital assets.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5. Review asset conditions and establish annual TAM performance targets.	■				■				■				■			
6. Coordinate with other efforts for projects and priority			■	■			■	■			■	■			■	■
7. Update TAM plan prioritization.				■				■				■				■
8. Update current TAM Plan				■				■				■				■
9. Conduct annual NTD report.	■				■				■				■			
10. Share TAM plan with City, County planning partners.	■				■				■				■			
11. Produce narrative reports .								■				■				■
12. Update TAM Plan for next cycle													■	■	■	■

9.0 Identification of Resources

SFRTA has identified a number of resources for developing, implementing, and improving the TAM plan.

9.1 STAFF RESOURCE

Table 9.1 summarizes SFRTA staff and position for TAM practices.

Table 9.1 SFRTA Staff Resource for TAM Practices

Responsibility	Department	Position
Collecting, analyzing and reporting of conditions on assets including: Vehicles; Facilities and Stations; Guideway Elements; and Systems	Contractors	General Managers
	Finance	Manager
	Engineering	Project Manager
	Operations	Director
	IT	Director
	Security	Director
Responding to identified needs and pursuing necessary budget support	Finance	Manager
	Engineering	Project Manager
	Operations	Director
	IT	Director
	Security	Director
Establishing agency-wide targets and performance metrics	Finance	Manager
Reporting to the Board of Directors	Finance	Director

9.2 FUNDING RESOURCE

Funds applied for TAM projects are FTA Section 5307 – Formula Funds, FTA Section 5337 – State of Good Repair, and County Gas Tax. They are available for SFRTA at an annual amount of \$18,349,207, \$19,965,505, and \$8,010,000 from FY 2018-2019 through FY 2023-2024 (projected), expressed in 2018 dollars. The total annual amount funds available for TAM projects are \$46,324,712.

Table 9.2 SFRTA Annual Funding for TAM Projects

Funding Sources	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23
FTA Section 5307 – Formula Funds	\$18,349,207	\$18,349,207	\$18,349,207	\$18,349,207	\$18,349,207
FTA Section 5337 - SOG	\$19,965,505	\$19,965,505	\$19,965,505	\$19,965,505	\$19,965,505
County Gas Tax	\$8,010,000	\$8,010,000	\$8,010,000	\$8,010,000	\$8,010,000
Total	\$46,324,712	\$46,324,712	\$46,324,712	\$46,324,712	\$46,324,712

Source: SFRTA

9.3 SOFTWARE RESOURCE

SFRTA has invested in a Decision Support System (DSS) based on TransAM, a fully open-source software platform for managing transportation assets, to manage, monitor, and generate required reports for capital assets, and the functionality to project future asset conditions, generate TAM investment needs, and generate capital projects. Further detail about the TransAM system is provided in Chapter 4.0. Regular training should be provided to SFRTA staff upon system completion.

9.4 REFERENCE AND GUIDANCE

A list of TAM related reference and guidance that applies to SFRTA is listed below:

[*TAM Infrastructure Performance Measure Reporting Guidebook, FTA, 2017*](#)

[*TAM Facility Performance Measure Reporting Guidebook, FTA, 2018*](#)

[*TAM Compliance Checklist, FTA, 2018*](#)

[*Transit Asset Management Guide \(FTA Report No. 0098\), FTA 2016*](#)

[*TAM Performance Measures Fact Sheet, FTA, 2017*](#)

[*TAM NPRM and NTD Guidance Crosswalk, FTA, 2016*](#)

10.0 Evaluation Plan

SFRTA's TAM plan is a "living document" that is to be reviewed and updated annually, and quarterly for some components. The TAM plan is to be incorporated into SFRTA's capital budget planning, transit development planning, and annual NTD reporting process. This very first TAM plan for SFRTA can also serve as a snapshot of baseline conditions for future asset management.

SFRTA developed an outline for continuously evaluate and improve the TAM plan and related business practices:

- Continue to complete asset inventory data and improve data resolution, accuracy, and timeliness.
- Integrate various internal asset database within each department, establish asset data collection and reporting protocol.
- Define and refine SFRTA technical and management staff responsibility for TAM inventory reporting and conditions assessment; streamlining TAM business process.
- Enhance TAM planning integration with internal planning process.
- Establish periodical communication with external partner agencies for performance target updates and other related information.
- Share success, experience, and lessons learned with peer agencies.
- Provide training and education for all level staff to understand overall structure of TAM and individual's role in TAM practice.
- Establish strong executive sponsorship commitment to TAM process.
- Transition from capital planning-driven to enterprise-driven TAM approach, shown in Chapter 7.0.

A. Asset Inventory

A-1. Rolling Stocks

Asset Type	Asset Subtype	FTA Vehicle Type	Asset Tag	External ID	VIN	License Plate	Manufacturer Year	Manufacturer	Model	Fuel Type	In Service Date	Purchase Date	Purchase Cost	Purchased New	Rehabbed Asset?	Direct Capital Responsibility	ULB	Age	Current	Current	Useful Life Remaining
																			Condition (TERM)	Mileage (mi.)	
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1601		1N9MMAC68GC084203	HRNG43	2016	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	EZ RIDER II BUS	DF-Diesel Fuel	7/1/2016	7/1/2016	350000	YES	NO	NO	10	2	5	63300	8
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1602		1N9MMAC62GC84200	HRNG47	2016	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	EZ RIDER II BUS	DF-Diesel Fuel	7/1/2016	7/1/2016	350000	YES	NO	NO	10	2	5	59944	8
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1603		1N9MMAC66GC084202	HRNG45	2016	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	EZ RIDER II BUS	DF-Diesel Fuel	7/1/2016	7/1/2016	350000	YES	NO	NO	10	2	5	70000	8
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1604		1N9MMAC64GC084201	HRNG44	2016	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	EZ RIDER II BUS	DF-Diesel Fuel	7/1/2016	7/1/2016	350000	YES	NO	NO	10	2	5	39569	8
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1701		5WEASC8N7HH474893	HTSZ23	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	28029	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1702		5WEASC8N5HH474892	HTSX34	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	29077	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1703		5WEASC8N9HH474894	HTSW81	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	25068	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1704		5WEASC8N6HH474898	HVFX73	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	24286	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1705		5WEASC8N4HH474902	HTSZ22	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	30676	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1706		5WEASC8N8HH474899	HTSX33	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	29181	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1707		5WEASC8N2HH474896	HTSZ07	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	21632	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1708		5WEASC8N0HH474900	HTSZ11	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	28029	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1709		5WEASC8N2HH474901	HTSY32	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	28364	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1710		5WEASC8B4HH474897	HTSX37	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	28405	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1711		5WEASC8N6HH474903	HTSZ08	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	28669	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1712		5WEASC8N0HH474895	HTSW82	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	31749	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1713		5WEASC8N7HH474909	HTSZ24	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	24901	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1714		5WEASC8N3HH474910	HVFX74	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	26807	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1715		5WEASC8N5HH474908	HTSZ10	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	28930	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1716		5WEASC8N1HH474906	HTSZ09	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	42114	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1717		5WEASC8NXHH474905	HTSW83	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	25239	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1718		5WEASC8N3HH474907	HTSX35	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	22207	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1719		5WEASC8N8HH474904	HTSW80	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	30858	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1720		5WEASC8N5HH474911	HTSY33	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	23092	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1721		5WEASC8N7HH474912	HTSY34	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	33218	9
Revenue Vehicles	Bus Std 35 FT	BU - Bus	1722		5WEASC8N9HH479913	HTSY36	2017	EDN-ElDorado National (formerly El Dorado/EBC/Nat. Coach/ NCC	Passport	DF-Diesel Fuel	1/1/2017	1/1/2017	240000	YES	NO	NO	10	1	5	35557	9
Revenue Vehicles	Bus Std 40 FT	BU - Bus	JGB787		GFTR543DFR7654FRV		2018	GIL-Gillig Corporation	Low Floor	DF-Diesel Fuel	8/1/2018	8/1/2018	400000	YES	NO	YES	10	0		0	10
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	807	F40PHM2			1992	MKI-American Passenger Rail Car Company (formerly Morrison-Knudsen)	F40PHM2	DF-Diesel Fuel	5/29/1999	5/29/1999	696085	NO	NO	YES	39	26			13
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	808	F40PHM2			1992	MKI-American Passenger Rail Car Company (formerly Morrison-Knudsen)	F40PHM2	DF-Diesel Fuel	5/30/1999	5/30/1999	696085	NO	NO	YES	39	26			13
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	809	F40PHM2			1992	MKI-American Passenger Rail Car Company (formerly Morrison-Knudsen)	F40PHM2	DF-Diesel Fuel	5/31/1999	5/31/1999	696085	NO	NO	YES	39	26			13
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	810	F40PHR			1981	GMC-General Motors Corporation	F40PHR	DF-Diesel Fuel	6/1/1999	6/1/1999	696085	NO	NO	YES	39	37			2
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	811	F40PHR			1981	GMC-General Motors Corporation	F40PHR	DF-Diesel Fuel	6/2/1999	6/2/1999	696085	NO	NO	YES	39	37			2
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	802	F40PHL2			1988	MKI-American Passenger Rail Car Company (formerly Morrison-Knudsen)	F40PHL2	DF-Diesel Fuel	5/24/1999	5/24/1999	696085	NO	NO	YES	39	30			9
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	812	GP49 Loco			1980	GMC-General Motors Corporation	GP49	DF-Diesel Fuel	7/3/2004	7/3/2004	757611	NO	NO	YES	39	38			1
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	813	GP49 Loco			1980	GMC-General Motors Corporation	GP49	DF-Diesel Fuel	1/31/2004	1/31/2004	757611	NO	NO	YES	39	38			1
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	814	GP49 Loco			1980	GMC-General Motors Corporation	GP49	DF-Diesel Fuel	1/31/2004	1/31/2004	757611	NO	NO	YES	39	38			1
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	815	GP49 Loco			1980	GMC-General Motors Corporation	GP49	DF-Diesel Fuel	1/31/2004	1/31/2004	757611	NO	NO	YES	39	38			1
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	816	GP49 Loco			1980	GMC-General Motors Corporation	GP49	DF-Diesel Fuel	1/31/2004	1/31/2004	757611	NO	NO	YES	39	38			1
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	817	GP49 Loco			1980	GMC-General Motors Corporation	GP49	DF-Diesel Fuel	1/31/2004	1/31/2004	757611	NO	NO	YES	39	38			1
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	818	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	4/1/2014	4/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	819	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	5/1/2014	5/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	820	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	7/1/2014	7/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	821	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	7/1/2014	7/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	822	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	7/1/2014	7/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	823	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	8/1/2014	8/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	824	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	8/1/2014	8/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	825	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	10/1/2014	10/1/2014	4266657	YES	NO	YES	39	5			34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	826	loco			2013	BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	10/1/2014	10/1/2014	4266657	YES	NO	YES	39	5			34

Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	827 loco	2013 BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	11/1/2014	11/1/2014	4266657	YES	NO	YES	39	5	34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	828 loco	2013 BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	5/1/2015	5/1/2015	3835000	YES	NO	YES	39	5	34
Locomotives	Commuter Locomotive Diesel	RL - Commuter Rail Locomotive	829 loco	2013 BEC-Brookville Equipment Corporation	BL36PH	DF-Diesel Fuel	5/1/2015	5/1/2015	3835000	YES	NO	YES	39	5	34
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	507 UTD BiLevel	1996 BOM-Bombardier Corporation	BiLevel	OR-Other	5/1/1996	5/1/1996	1136939	YES	NO	YES	39	22	17
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	508 UTD BiLevel	1996 BOM-Bombardier Corporation	BiLevel	OR-Other	5/1/1996	5/1/1996	1136939	YES	NO	YES	39	22	17
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	509 UTD BiLevel	1996 BOM-Bombardier Corporation	BiLevel	OR-Other	5/1/1996	5/1/1996	1136939	YES	NO	YES	39	22	17
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	510 UTD BiLevel	1996 BOM-Bombardier Corporation	BiLevel	OR-Other	5/1/1996	5/1/1996	1136939	YES	NO	YES	39	22	17
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	511 UTD BiLevel	1996 BOM-Bombardier Corporation	BiLevel	OR-Other	5/1/1996	5/1/1996	1136939	YES	NO	YES	39	22	17
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1001 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	6/1/1997	6/1/1997	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1002 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	7/1/1997	7/1/1997	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1003 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	8/1/1997	8/1/1997	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1004 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	9/1/1997	9/1/1997	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1005 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	10/1/1997	10/1/1997	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1006 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	11/1/1997	11/1/1997	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1007 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	12/1/1997	12/1/1997	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1008 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	1/1/1998	1/1/1998	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1009 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	2/1/1998	2/1/1998	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1010 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	3/1/1998	3/1/1998	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1011 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	4/1/1998	4/1/1998	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1012 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	5/1/1998	5/1/1998	719233	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1013 UTD BiLevel	1991 UTD-UTDC Inc.	BiLevel	OR-Other	7/1/2001	7/1/2001	1461997	YES	NO	YES	39	27	12
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1014 UTD BiLevel	1991 UTD-UTDC Inc.	BiLevel	OR-Other	7/1/2001	7/1/2001	1461997	YES	NO	YES	39	27	12
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1015 UTD BiLevel	1991 UTD-UTDC Inc.	BiLevel	OR-Other	7/1/2001	7/1/2001	1461997	YES	NO	YES	39	27	12
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	501 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	11/1/1995	11/1/1995	1136939	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	502 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	11/1/1995	11/1/1995	1136939	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	503 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	11/1/1995	11/1/1995	1136939	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	504 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	11/1/1995	11/1/1995	1136939	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	505 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	11/1/1995	11/1/1995	1136939	YES	NO	YES	39	30	9
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	506 UTD BiLevel	1988 UTD-UTDC Inc.	BiLevel	OR-Other	11/1/1995	11/1/1995	1136939	YES	NO	YES	39	30	9
				USR-US Railcar (formerly Colorado Railcar											
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	7001 DMU Coach	2005 Manufacturing)	Series7000	OR-Other	1/1/2005	1/1/2005	0	YES	NO	YES	39	13	26
				USR-US Railcar (formerly Colorado Railcar											
				2005 Manufacturing)	Series7000	OR-Other	1/1/2005	1/1/2005	0	YES	NO	YES	39	13	26
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	7002 DMU Coach	2010 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	9/1/2011	9/1/2011	1773965	YES	NO	YES	39	8	31
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	512 RCAB	2010 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	9/1/2011	9/1/2011	1773965	YES	NO	YES	39	8	31
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	513 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	6/1/2012	6/1/2012	1294994	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1101 RCC	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	6/1/2012	6/1/2012	1294994	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1102 RCC	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	6/1/2012	6/1/2012	1294994	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1103 RCC	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	6/1/2012	6/1/2012	1294994	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	514 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	2/1/2013	2/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	515 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	2/1/2013	2/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	516 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	2/1/2013	2/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	517 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	2/1/2013	2/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	518 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	2/1/2013	2/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	519 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	5/1/2013	5/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	520 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	5/1/2013	5/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	521 RCAB	2011 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	5/1/2013	5/1/2013	1773965	YES	NO	YES	39	7	32
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1104 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	5/1/2013	5/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1105 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	5/1/2013	5/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1106 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	5/1/2013	5/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1107 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	6/1/2013	6/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1108 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	6/1/2013	6/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1109 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	6/1/2013	6/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1110 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	11/1/2013	11/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1111 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	11/1/2013	11/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1112 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	11/1/2013	11/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1113 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	11/1/2013	11/1/2013	1294994	YES	NO	YES	39	6	33
Rail Cars	Commuter Rail Car Trailer	RP - Commuter Rail Passenger Coach	1114 RCC	2012 HYU-Hyundai Rotem	MultiLevelCommuter	OR-Other	11/1/2013	11/1/2013	1294994	YES	NO	YES	39	6	33
				USR-US Railcar (formerly Colorado Railcar											
Rail Cars	Commuter Rail Self Propelled (Diesel)	RS - Commuter Rail Self-Propelled Passenger Car	703 DMU	2006 Manufacturing)	Series700	DF-Diesel Fuel	1/1/2006	1/1/2006	0	YES	NO	YES	39	12	27
				USR-US Railcar (formerly Colorado Railcar											
Rail Cars	Commuter Rail Self Propelled (Diesel)	RS - Commuter Rail Self-Propelled Passenger Car	705 DMU	2006 Manufacturing)	Series700	DF-Diesel Fuel	1/1/2006	1/1/2006	0	YES	NO	YES	39	12	27
				USR-US Railcar (formerly Colorado Railcar											
Rail Cars	Commuter Rail Self Propelled (Diesel)	RS - Commuter Rail Self-Propelled Passenger Car	706 DMU	2007 Manufacturing)	Series700	DF-Diesel Fuel	1/1/2007	1/1/2007	0	YES	NO	YES	39	11	28
				USR-US Railcar (formerly Colorado Railcar											
Rail Cars	Commuter Rail Self Propelled (Diesel)	RS - Commuter Rail Self-Propelled Passenger Car	704 DMU	2009 Manufacturing)	Series700	DF-Diesel Fuel	1/1/2009	1/1/2009	0	YES	NO	YES	39	9	30

A-2 Equipment

																		Current	Current
			Asset		License	Manufacturer				In Service	Purchase	Purchase	Purchased	Rehabbed	Direct Capital			Condition	Mileage
Asset Type	Asset Subtype	FTA Vehicle Type	Tag	VIN	Plate	Year	Manufacturer	Model	Fuel Type	Date	Date	Cost	New	Asset?	Responsibility	ULB	Age	(TERM)	(mi.)
Support Vehicles	Sedan/Station Wagon	Automobiles	144	3FADP0L32AR384275	YB433		2010 FRD-Ford Motor Corporation	Fusion Hybrid	HG-Hybrid Gasoline	6/17/2010	6/11/2010	\$24,707	YES	NO	YES	8	8		4 106228
Support Vehicles	Sedan/Station Wagon	Automobiles	149	3FADPOL32CR305030	YC969		2012 FRD-Ford Motor Corporation	Fusion Hybrid	HG-Hybrid Gasoline	4/21/2012	3/14/2012	\$25,435	YES	NO	YES	8	6	4	77585
Support Vehicles	Sedan/Station Wagon	Automobiles	150	3FADP0L3XCR399836	YE992		2012 FRD-Ford Motor Corporation	Fusion Hybrid	HG-Hybrid Gasoline	9/26/2012	9/20/2012	\$25,435	YES	NO	YES	8	6	4	61376
Support Vehicles	Sedan/Station Wagon	Automobiles	151	3FADP0L38CR399835	YE993		2012 FRD-Ford Motor Corporation	Fusion Hybrid	HG-Hybrid Gasoline	9/26/2012	9/20/2012	\$25,435	YES	NO	YES	8	6	4	25918
Support Vehicles	Sedan/Station Wagon	Automobiles	152	3FADP0L36CR399834	YE994		2012 FRD-Ford Motor Corporation	Fusion Hybrid	HG-Hybrid Gasoline	9/26/2012	9/20/2012	\$25,435	YES	NO	YES	8	6	4	35083
Support Vehicles	Sedan/Station Wagon	Automobiles	154	3FA6POUU9FR145944	YF005		2015 FRD-Ford Motor Corporation	Fusion Hybrid	HG-Hybrid Gasoline	11/7/2014	9/26/2014	\$22,956	YES	NO	YES	8	3	5	21228
Support Vehicles	Sedan/Station Wagon	Automobiles	155	3FA6POUUOFR145945	YF004		2015 FRD-Ford Motor Corporation	Fusion Hybrid	HG-Hybrid Gasoline	11/7/2014	9/26/2014	\$22,956	YES	NO	YES	8	3	5	22817
Support Vehicles	Sedan/Station Wagon	Automobiles	157	4T1BD1FK0FU174045	YI625		2015 TOY-Toyota Motor Corporation	Camry Hybrid	HG-Hybrid Gasoline	6/25/2015	6/26/2015	\$23,982	YES	NO	YES	8	3	4	80044
Support Vehicles	Sedan/Station Wagon	Automobiles	161	JTMRJREV6GD040096	YI632		2016 TOY-Toyota Motor Corporation	RAV4 Hybrid	HG-Hybrid Gasoline	8/8/2016	7/21/2016	\$27,781	YES	NO	YES	8	2	5	15476
Support Vehicles	Sedan/Station Wagon	Automobiles	153	JTEBC3EH5D2015356	254YLD		2013 TOY-Toyota Motor Corporation	Highlander Hybrid	HG-Hybrid Gasoline	3/27/2013	3/21/2013	\$35,442	YES	NO	YES	8	5	4.5	30065
Support Vehicles	Sedan/Station Wagon	Automobiles	156	5N1CR2MN4EC647541	YF007		2014 NIS-Nissan	Pathfinder Hybrid	HG-Hybrid Gasoline	1/12/2015	12/8/2014	\$29,996	YES	NO	YES	8	4	5	16227
Support Vehicles	Van	Automobiles	158	NM0LS6E79G1242643	YI627		2016 FRD-Ford Motor Corporation	Transit Connect	GA-Gasoline	11/30/2015	10/5/2015	\$22,834	YES	NO	YES	8	2	5	36788
Support Vehicles	Van	Automobiles	162	ZFBERFAB9H6D68450	YI636		2017 DTD-Dodge Division - Chrysler Corporation	Promaster City	GA-Gasoline	6/30/2017	6/17/2017	\$28,255	YES	NO	YES	8	1	5	3886
Support Vehicles	Pickup/Utility Truck	Trucks and other Rubber Tire Vehicles	143	1FTRX12W39FA96419	YB430		2009 FRD-Ford Motor Corporation	F-150	GA-Gasoline	4/17/2009	4/15/2009	\$17,676	YES	NO	YES	14	9	3	127177
Support Vehicles	Pickup/Utility Truck	Trucks and other Rubber Tire Vehicles	147	1FTBF2A66BECO6631	YC964		2011 FRD-Ford Motor Corporation	F-250	GA-Gasoline	2/18/2011	2/11/2011	\$16,992	YES	NO	YES	14	7	4	82644
Support Vehicles	Pickup/Utility Truck	Trucks and other Rubber Tire Vehicles	148	1FTMF1CM8BKD35454	YC966		2011 FRD-Ford Motor Corporation	F-150	GA-Gasoline	4/7/2011	3/29/2011	\$15,000	YES	NO	YES	14	7	4	63262
Support Vehicles	Pickup/Utility Truck	Trucks and other Rubber Tire Vehicles	159	1FTMF1C8XFKES2851	YI628		2015 FRD-Ford Motor Corporation	F-150	GA-Gasoline	10/22/2015	10/22/2015	\$19,254	YES	NO	YES	14	3	4	11902

A-3. Facilities

Asset Type	Asset Subtype	Class	FTA Facility Type	Asset Tag	Name	Address1	Address2	City	State	Zip	Year In Service		Purchase Date	Purchase	Purchased	Rehabbed Asset?	Direct Capital	TERM	Age	Current
											Built	Date		Cost	New		Responsibility			(TERM)
Support Facilities	Administration Building	Administration	Administrative Office/Sales Office	ADMIN BLDG	RTA Administration Building	801 NW 33rd Street		Pompano Beach	FL	33064	2017	2/3/2017	2/3/2017	\$20,066,404	YES	NO	YES	3	1	3
Support Facilities	Light Rail Maintenance Facility	Maintenance	General Purpose Maintenance Facility/Depot	MAINT-HLA	Hialeah Maintenance Yard	9400 NW 37 Ave		Hialeah	FL	33147	1956	6/30/1997	6/30/1997	\$2,691,217	NO	NO	YES	3	62	1
Stations/Stops/Terminals	Parking Garage	Parking	Parking Structure	POMPANO GAR	Pompano Station Parking Garage	801 NW 33rd Street		Pompano Beach	FL	33064	2017	2/3/2017	2/3/2017	\$12,356,365	YES	NO	YES	3	1	
Stations/Stops/Terminals	Parking Garage	Parking	Parking Structure	DANIA GAR	Dania Beach Parking	500 Gulf Stream Way		Dania Beach	FL	33004	2010	6/1/2010	6/1/2010	\$4,326,000	YES	NO	YES	3	8	
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	MIAMI	Miami Airport Station	3797 NW 21st Street		Miami	FL	3142	2011	1/9/2011	1/9/2011	\$15,697,341	YES	NO	YES	3	7	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	HIALEAH	Hialeah Market Station	1200 SE 11th Avenue		Hialeah	FL	33010	1989	6/30/2000	6/30/2000	\$402,021	NO	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	METRORAIL	Metrorail Transfer Station	1125 East 25th Street		Hialeah	FL	33147	1989	3/6/1989	3/6/1989	\$3,167,300	YES	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	OPL	Opa-locka Station	480 Ali Baba Avenue		Ali Baba	FL	33054	1996	6/30/1997	6/30/1997	\$4,468,422	YES	NO	YES	3	22	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	GGI	Golden Glades Station	16000 State Road 9		Miami	FL	33169	1989	6/1/2007	6/1/2007	\$4,886,320	YES	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	HOLLYWOOD	Hollywood Station	3001 Hollywood Boulevards		Hollywood	FL	33021	1928	6/30/2003	6/30/2003	\$2,666,792	NO	NO	YES	3	90	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	SHERIDAN	Sheridan Station	2900 Sheridan Street		Hollywood	FL	33021	1996	6/30/1997	6/30/1997	\$1,337,021	YES	NO	YES	3	22	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	FLL	Fort Lauderdale Airport Station	500 Gulf Stream Way		Dania Beach	FL	33004	2000	6/30/1996	6/30/1996	\$4,656,617	YES	NO	YES	3	18	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	FTL	Fort Lauderdale Station	200 SW 21st Terrace		Fort Lauderdale	FL	33312	1927	6/30/2000	6/30/2000	\$1,388,939	NO	NO	YES	3	91	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	CYREPSS	Cypress Creek Station	5910 NW 9th Avenue		Fort Lauderdale	FL	33309	1989	7/31/2002	7/31/2002	\$6,547,605	YES	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	POMPANO	Pompano Beach Station	3491 NW Eighth Avenue		Pompano Beach	FL	33064	1989	2/1/2017	2/1/2017	\$10,799,270	YES	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	DEERFIELD	Deerfield Beach Station	1300 W Hillsboro Blvd		Deerfield Beacj	FL	33442	1926	6/1/2010	6/1/2010	\$4,958,628	NO	NO	YES	3	92	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	BOCA	Boca Raton Station	680 Yamato Road		Boca Raton	FL	33431	1989	6/30/2006	6/30/2006	\$14,403,767	YES	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	DELRAY	Delray Beach Station	345 S Congress Ave		Delray Beach	FL	33444	1991	7/1/1996	7/1/1996	\$530,940	YES	NO	YES	3	27	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	BOYNTON	Boynton Beach Station	2800 High Ridge Rd		Boynton Beach	FL	33426	1989	6/30/1997	6/30/1997	\$1,843,072	YES	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	LAKEWORTH	Lake Worth Station	17003 Lake Worth Road		Lake Worth	FL	33460	1989	6/30/1996	6/30/1996	\$144,903	YES	NO	YES	3	29	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	WESTPALM	West Palm Beach Station	203-209 S Tamarind Ave		West Palm Beach	FL	33401	1925	6/30/1997	6/30/1997	\$422,688	NO	NO	YES	3	93	4
Stations/Stops/Terminals	Commuter Rail Station	Passenger	At-Grade Fixed Guideway Station	MANGONIA	Mangonia Park Station	1415 45th Street		West Palm Beach	FL	33407	1996	6/30/1997	6/30/1997	\$1,910,319	YES	NO	YES	3	22	4
Support Facilities	Light Rail Maintenance Facility	Maintenance	Maintenance Facility (Service and Inspection)	MAINT-WPB	West Palm Beach Maintenance Yard	435 S. Tamarind Ave		West Palm Beach	FL	33401	1990	6/30/1997	6/30/1997	\$3,159,400	YES	NO	YES	3	28	