

Transit Asset Management Plan

October 1, 2022 – September 30, 2026



RHODE ISLAND PUBLIC TRANSIT AUTHORITY

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Version Log

Version	Date	Reason for Revision
0	10/1/2022	Original TAM Plan
1	7/24/2025	<ul style="list-style-type: none"> • TAM plan can be approved by New Chief Executive Officer • Updated TAM Resources List • Replaced 2022 Facility Condition Assessments with September 2023 version that includes non-FTA required assets • Added 2022 Component Weighted Scores for each Facility • Added Fleet Plan (as of June 30, 2025) – Appendix B of Plan • Fixed Minor Grammatical Errors • Noted Subrecipient Agreement with QDC on Ferry Terminal • Updated Baseline and Target Tables (footnotes for clarity added)
2	8/5/2025	<ul style="list-style-type: none"> • CEO resigned TAM to incorporate change below. • Performance Target Review Process (included as activity in calendar)

Appendices

- A: Facility Condition Assessments
- B: Fleet Plan (as of June 30, 2025)
- C: FY 2026 TAM Performance Targets

CEO CERTIFICATION

The Rhode Island Public Transit Authority (RIPTA) is a designated Tier 1 provider as defined by the Federal Transit Administration. Per that designation, the agency is required to develop and implement a transit asset management plan to help address deferred maintenance using performance-based assessment and planning. As the Chief Executive Officer for the Authority, it is my overall responsibility that the agency carries out this plan in coordination with other applicable departments and relevant staff. In response to the requirements set forth in Federal legislation and regulations pertaining to receiving Federal monies by way of Chapter 53 funds, do hereby approve, adopt, and certify the RIPTA's Transit Asset Management Plan for implementation.



Christopher Durand
Chief Executive Officer
Accountable Executive

Date: 8/5/2025

Introduction

Background

At the start of 2010, it was found that the national backlog on infrastructure maintenance exceeded \$1 trillion, with transit accounting for over \$78 billion. In response, Congress passed the 2012 *Moving Ahead for Progress in the 21st Century Act* (or MAP-21). This initial legislation set a requirement for the United States Department of Transportation (USDOT) to develop rules and create a national system to monitor and manage public transportation assets to improve safety and increase reliability and performance. This aim was reaffirmed in the 2015 *Fixing America's Surface Transportation Act* (FAST). The Federal Transit Administration (FTA) issued its final rule on transit asset management, also known as 49 CFR 625 in July 2016 which proceeded to go into effect on October 1st, 2016.

Under this rule, every agency must develop a transit asset management plan if it owns, operates, or manages capital assets used to provide public transportation and receives federal financial assistance under 49 U.S.C. Chapter 53 as a recipient or subrecipient. FTA grantees are required to collect and use asset inventory and condition data, set state of good repair (SGR) performance targets, develop strategies to prioritize investments, and prepare a plan to meet those targets. These plans are required to be updated in their entirety at least once every four years. The first compliant TAM plans were due in October 2018 and are obligated to complete an updated every four years starting in October 2022, coinciding to the extent possible, with the State and metropolitan planning cycle for the development of the State Transportation Improvement Program (TIP) to set regional and statewide performance targets.

The Rhode Island Public Transit Authority (RIPTA) is the statewide transit operator for the Ocean State. It possesses five administrative/maintenance facilities in Providence and Newport, occupies three passenger facilities, and owns hundreds of millions of dollars' worth in vehicle and equipment assets. Today, RIPTA offers transit service in 36 of 39 municipalities; in FY 2020, RIPTA provided 13.4 million trips across its 53 fixed routes, assorted flex zones, and ADA paratransit operations.

RIPTA complied with the 2016 FTA final rule on transit asset management and composed its first plan in 2018. This final document consists of the Authority's established targets and actions to be carried out from October 2022 through to the next update in Fall 2026. The agency's organizational structure, maintenance practices, budget processes and information systems are all aligned with the goal of preserving and extending the useful life of its various assets. The Authority recently had its triennial review with the FTA in which it provided updated maintenance plans and programs for all relevant assets.

Scope

This plan details RIPTA's approach to Transit Asset Management for the upcoming four-year period, and describes the following:

- The process for inventorying and determining the condition of transit assets, including rolling stock, facilities, and equipment
- The decision-making process, including methodology for determining capital needs over time and prioritizing investment in capital assets
- Our implementation strategy, including an annual/cyclical calendar of activities
- The agency’s plan for monitoring and evaluating this plan
- The resources allocated toward the TAM process, including funding resources and agency personnel responsible for the implementation and oversight of this plan
- Our baseline and established targets to be achieved over the duration of this plan and the process of approving annual performance targets.
- RIPTA’s State of Good Repair Policy
- RIPTA’s completed facility condition assessments (see appendix), and
- RIPTA’s prioritized list of capital investments (see appendix)

Goals

RIPTA has set the following goals for the 2022-2026 plan:

1. Minimize total costs and maximize the performance of all capital assets and facilities.
2. Ensure decision-making is based on data driven information and well-defined objectives.
3. Make transparent cost-effective decisions on the acquisition of capital assets and their maintenance (both vehicles and facilities) over their useful life.

Inventory and Condition Assessments

As new assets are introduced – such as of new pieces of equipment, new facilities are opened, or new revenue vehicles brought into service – they will be added to the Authority’s inventory of capital assets. This database will be maintained by the Finance Department. Per the final rule, equipment that is not a service vehicle or has an acquisition value of less than \$50,000 does not need to be incorporated into the database.

RIPTA will utilize the FTA’s five-point Transit Economic Requirements Model (TERM) to assess the condition of facilities. To determine the condition of revenue vehicles and equipment, we will consider reports from regular preventive maintenance, specific repair events, vehicle or equipment useful lives, and other critical factors.

The condition of all facilities and vehicles will be submitted on an annual basis through the National Transit Database.

Decision-Making Process

RIPTA’s transit asset management plan will be implemented through the agency’s annual budgeting process. This involves the allocation of available funding from the federal, state, and self-sourced streams to identified needs. The financial plan shall serve as the determined list of

prioritized investments for the immediate fiscal year. Lower priorities will be evaluated and scheduled into outyears as feasible.

The Finance Department will maintain a full list of priorities that will be reviewed with respective departments during the start of the budgeting process.

Implementation Strategy

The agency’s implementation strategy includes our TAM-related objectives and performance targets as defined by the following manner:

- For rolling stock: the percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark (ULB) per FTA guidance.
- For facilities: the percentage of facilities within an asset class condition rated below 3.00 on the TERM scale.
- For equipment: the percentage of non-revenue, support-service and maintenance vehicles and relevant equipment that have either met or exceeded their ULB.

Calendar of Activities

To effectively implement this plan, the Authority has established the following annual calendar of activities (note: RIPTA operates on a July-June fiscal year):

Month	Activities
July	<ul style="list-style-type: none"> • Update all asset inventories. <ul style="list-style-type: none"> ○ If this is an identified year in which the TAM Plan needs to be fully updated, then new facility condition assessments will be completed.
August	<ul style="list-style-type: none"> • Review (and update if needed) the Agency Maintenance Plan.
September	<ul style="list-style-type: none"> • Review (and amend if needed) the Transportation Improvement Program/TIP. • RIPTA’s Board of Directors are presented with the revised capital financial plan for approval. • If this is an identified year in which the TAM plan needs to be updated, it will be completed and signed by the CEO by September 30.
October	<ul style="list-style-type: none"> • Report all asset data to the National Transit Database by end of month.
March	<ul style="list-style-type: none"> • Review prioritization of projects at the start of agency budgeting process • TAM Resources will convene to review and adjust (as needed) the performance targets and subsequent CEO approval.
May	<ul style="list-style-type: none"> • Review (and updated as needed) the TAM and the Agency Capital Plan.

Monitoring and Evaluation Plan

To monitor and evaluate the agency's assets on a yearly basis in accordance with each category's targets, the following performance measures will be used:

- Rolling stock
 - Measures related to the implementation of this plan
 - Labor hours per vehicle
 - Fuel economy
 - Safety risk: incidents per 1,000 miles
 - Capital cost: costs per mile, per passenger trip and per maintenance hour
 - Operational cost: costs per mile, per passenger trip per operational hour, and per maintenance hour
 - Maintenance cost: planned or unplanned preventive maintenance or repair

- Facilities
 - Measures related to the implementation of this plan
 - Energy use per square foot
 - Water use per square foot
 - Operating cost per square foot
 - Maintenance cost: planned or unplanned preventive maintenance or repair

- Equipment
 - Measures related to the implementation of this plan
 - Percentage of equipment with a rating of less than 3.00 on TERM scale
 - Age and mileage of equipment
 - Safety risk: incidents per 1,000 miles
 - Capital costs: per mile and per maintenance hour
 - Operation costs: per mile, per trip, per operation hour and per maintenance hour
 - Maintenance cost: planned or unplanned preventive maintenance or repair

Transit Asset Management Resources

A cross-departmental committee oversees and implements RIPTA's transit assessment management program. It includes representation from the following areas:

Position	Name	Role(s)
Chief Executive Officer	Christopher Durand	Oversee all aspects of RIPTA and is the Accountable Executive for the implementation of this plan. Consults with PM, Planning, Finance and other relevant resources to determine prioritization.
Deputy Chief of Planning	Sarah Ingle	Provides program support. Assists with securing grant funding toward identified priorities.
Principal Planner for Capital Development	Zachary Agush	Provides program support. Assists with securing grant funding toward identified priorities.
Deputy Chief of Finance	Nathan Watchous	Responsible for utilizing TAM data for integration into annual budgeting process, review prioritization lists against financial resources. Coordinates with relevant departments as needed.
Deputy Chief of Project Management and Facilities	James Canty	Responsible for overseeing the designation of critical infrastructure and assessment of life safety issues in partnership with Environmental Affairs and Safety, the execution of facility maintenance with the Director of Buildings & Grounds, and project managers to carry out major projects as needed.
Controller	Teri Fossa	Responsible for integrating financial indicators into TAM program, provides administrative support to program, coordinates NTD submission. Responsible for asset inventory and provides support to TAM program as needed.
Deputy Chief of Procurement, Inventory Control & Vehicle Maintenance	John Chadwick	Responsible for overseeing maintenance of vehicles.
Deputy Chief of Information Technology	Gary Jarvis	Responsible for business process review of enterprise software, ensure that performance indicator data is available for asset management.
Environmental Affairs and Safety Officer	Peter Ginaitt	Responsible for Level of Care program, works with Deputy Chief of PM and Facilities on designating critical infrastructure and assessment of life safety issues.
Director of Buildings & Grounds	Frank DiMaio	Responsible for facilities maintenance. Works with Deputy Chief of PM and Facilities and planning staff on condition assessments and establish quality indicators.

Baselines and Targets

For each asset category, the performance measure is a characterization of the percentage of the number of assets that are *not* in a state of good repair. For **facilities**, the performance measure is the percentage of facilities within an asset class rated below 3.0 on the TERM scale. For both **equipment and rolling stock**, the performance measure is the percentage having met or exceeded their useful life benchmark.

Facilities

The FTA Facility Condition Assessment Guidebook provides examples of the rating scale established in the TERM model. These descriptions are helpful in offering clear guidance in what FTA considers an appropriate condition. These have been incorporated into our evaluation process. For the purposes of this plan (and the associated facility condition assessments undertaken) the following was used:

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

For the 2018-2022 TAM Plan, an inter-departmental committee of RIPTA personnel assessed each facility and assigned scores for the various components. An average score was applied to determine the condition of the facility. Although this fulfilled the requirement of the final rule issued by FTA, it only gave staff a high-level understanding of what should be prioritized.

Desiring a far more detailed assessment of the facilities including cost estimations to better assist relevant departments involved in determining project prioritization through the budget process for the 2022-2026 TAM plan, RIPTA brought in Michael Baker to carry out an impartial and data-driven assessment of each facility. Following extensive walkthroughs of each applicable building, the contracted engineers reviewed their notes, photos, and other documentation and proceeded to apply a weighted average score to determine the condition of the facility. In addition to the assessments, Michael Baker has produced a 20-year financial outlook and guidance on how RIPTA should consider prioritizing the expenditure of limited capital funds to bring each facility up to a state of good repair. Full facility condition assessments and the 20-year financial outlook have been included in Appendix A of the TAM plan.

RIPTA currently utilizes five administrative or maintenance facilities that meet the threshold for inclusion for condition assessment. These consist of the following:

- 265 Melrose Street (Providence)
- 269 Melrose Street (Providence)
- 705 Elmwood Avenue (Providence)
- 750 Elmwood Avenue (Providence)
- 350 Coddington Highway (Middletown)

The table below shows the weighted TERM scores for each component assessed in each administrative or maintenance building:

Component	265 Melrose	269 Melrose	705 Elmwood	750 Elmwood	350 Coddington Hwy
Substructure	3	3.8	4	4	4
Shell	1.6	4	3.7	3.7	3.53
Interiors	1	3.8	3.6	2.7	3.22
Conveyance	1	N/A	3	3	N/A
Plumbing	2.4	3.5	4.9	3.7	3
HVAC	2.1	3.2	4.2	3.7	2
Fire Protection	1	3	4	4	2
Electrical	2.5	3.9	4	4	3.31
Equipment	N/A	2	3	3	2.51
Site	2	3	3	3	4
Total	1.8	3.4	3.7	3.5	3.13

The Authority also possesses one further property, 325 Melrose Street (Providence), but it is currently not used for public transportation functions. It is currently rented out to the Registry of Motor Vehicles as a driver testing site. Despite this, a facility condition assessment was conducted. Should this building be required for RIPTA's operations in the future, the facility will be fully incorporated into TAM plans.

The table below shows the comprehensive facility condition scores of each of the five administrative/maintenance facilities included in the 2018 plan and the updated scores for each determined by Michael Baker in July 2022.

Administrative/Maintenance Facility	TAM Score 2018	TAM Score 2022
265 Melrose Street	2	1.8
269 Melrose Street	3	3.4
705 Elmwood Avenue	3.5	3.7
750 Elmwood Avenue	4	3.5
350 Coddington Highway	3	3.13

The 2018-2022 Administrative/Maintenance Facility Condition Assessments found 20% of all facilities of this category to be rated below 3.0. This remains true in 2022. 265 Melrose Street, a facility built in 1905, continues to remain far below an adequate state of good repair. Bringing this building above 3.0 or greater is a critical priority for RIPTA over the next four years.

As of 2022, RIPTA has one passenger facility, Kennedy Plaza in Downtown Providence.

The table below shows the weighted TERM score for each component of the Kennedy Plaza facility:

Component	Kennedy Plaza
Substructure	4
Shell	3.6
Interiors	3.2
Conveyance	N/A
Plumbing	3
HVAC	2
Fire Protection	3
Electrical	2.2
Equipment	N/A
Site	3
Total	3

The table below shows the comprehensive condition score for each applicable passenger/parking facility directly owned by RIPTA:

Passenger/Parking Facility	TAM Score 2018	TAM Score 2022
Kennedy Plaza	2.5	3

The 2018-2022 Passenger/Parking Facility Condition Assessment found our only site to be below 3.0, however, improvements have been made over the past four years which has increased its score to a 3.0.

Throughout the duration of this plan, the following facilities have either come online or are slated to be operational:

Name of Facility	Date of Operation
Pawtucket-Central Falls Transit Center (Bus Area), Pawtucket	January 23, 2023
Broad/City Line Electric Bus Charging Facility, Providence	July 2, 2024
Community College of Rhode Island Knight Campus Bus Hub, Warwick	September 26, 2024
Pawtucket-Central Falls Transit Center (Passenger Building), Pawtucket	Anticipated January 2026
Kingston Station Bus Hub, South Kingstown	Anticipated April 2027

The Pawtucket-Central Falls (Bus Area and Passenger Building), the Broad/City Line Charging Facility and the Community College of Rhode Island Knight Campus Bus Hubs would all score a TERM score of 5 due to how new they are. The facilities will be properly evaluated and incorporated into RIPTA's TAM Plan starting October 1, 2026.

The Kingston Station Bus Hub is currently in project development. RIPTA is targeting its completion by April 2027; however, this could be later. When this facility is brought online, it will be included in the TAM plan.

In 2020, RIPTA applied, on behalf of the Quonset Development Corporation (QDC) and Rhode Island Fast Ferry (RIFF), to funding through FTA's Passenger Ferry Grant Program to construct a ferry terminal. The application was successful. RIPTA has a subrecipient agreement with QDC with us being responsible for ensuring the project complies with all federal regulations. Once this facility is operational – date unknown – it will be evaluated and incorporated into RIPTA's TAM plan.

RIPTA has set a target of **0%** for all its directly controlled and public transportation use facilities to be below a 3.0 on the TERM scale.

Rolling Stock and Equipment¹

A. Fixed-Route

FTA's useful life benchmark (ULB) of 12 years for fixed-route buses does not reflect the utilization of RIPTA buses. We have experienced most buses reaching their 500,000-mile threshold at 12 years of age, and therefore, will be using this ULB for the purposes of this TAM plan. The 2022 baseline has been set to **10.13%**, a decrease from 16% (or a decline of 5.87% from four years previous), due to the inclusion of newer vehicles into the fleet and the removal of older buses, particularly those from 2005 and earlier.

In 2022, RIPTA and Rhode Island's MPO approved targets for the then-2022 baseline and targets for 2024 and 2026 at **0%**. For 2023 and 2025 (intermediate years), RIPTA is maintaining a **0%** target for simplicity. Throughout the duration of the TAM plan, it has always been RIPTA's goal to reduce the number of fixed route vehicles exceeding useful life. The 2024 target is set based on the premise that the fleet will be right-sized and that most vehicles will be new.

¹ Note: Some 2022 baselines were off due to formula miscalculations. 2024 and 2026 targets were set based on anticipated changeovers when the original plan was approved. For simplicity, 0% targets have been set for 2023 and 2025. Tables have been updated to reflect the fleet plan

Class	# of Vehicles	Bus Yr	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
40' bus	24	2009	2010	2022	12	12	100%	
35' bus	10	2010	2011	2022	11	12	92%	
40' hybrid	40	2010	2011	2022	11	12	92%	
trolley replica	10	2010	2011	2022	11	12	92%	
40' bus	50	2013	2013	2022	9	12	75%	10.13%
40' bus	42	2016	2017	2022	5	12	42%	
40' Bus	33	2020	2020	2022	2	12	17%	
40' Bus	15	2021	2021	2022	1	12	8%	
30' Bus	9	2021	2021	2022	1	12	8%	
New Flyer Electric	1	2022	2022	2022	0	12	0%	
Proterra Electric	3	2018	2018	2022	4	12	33%	

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Class	# of Vehicles	Bus Yr	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
40' Diesel	0	2009	2010	2023	13	12	108%	
35' Diesel	0	2010	2011	2023	12	12	100%	
40' Hybrid	20	2010	2011	2023	12	12	100%	
35' Trolley Hybrid	6	2010	2011	2023	12	12	100%	
40' Diesel	50	2013	2013	2023	10	12	83%	
40' Diesel	42	2016	2017	2023	6	12	50%	11.21%
40' Diesel	33	2020	2020	2023	3	12	25%	
40' Diesel	15	2021	2021	2022	1	12	8%	
30' Diesel	9	2021	2021	2022	1	12	8%	
40' Electric (NF)	14	2021	2021	2023	2	12	17%	
40' Electric (Pro)	3	2022	2022	2023	1	12	8%	
35' Diesel	12	2022	2023	2023	0	12	0%	
40' Diesel	28	2023	2023	2023	0	12	0%	

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Class	# of Vehicles	Bus Yr	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
40' Diesel	0	2009	2010	2024	14	12	117%	
35' Diesel	0	2010	2011	2024	13	12	108%	
40' Hybrid	0	2010	2011	2024	13	12	108%	
35' Trolley Hybrid	6	2010	2011	2024	13	12	108%	
40' Diesel	42	2013	2013	2024	11	12	92%	
40' Diesel	42	2016	2017	2024	7	12	58%	
40' Diesel	33	2020	2020	2024	4	12	33%	20.60%
40' Diesel	15	2021	2021	2024	3	12	25%	
30' Diesel	9	2021	2021	2024	3	12	25%	
40' Electric (NF)	14	2021	2021	2024	3	12	25%	
40' Electric (Pro)	3	2022	2022	2024	2	12	17%	
35' Diesel	12	2022	2023	2024	1	12	8%	
40' Diesel	28	2023	2023	2024	1	12	8%	
40' Diesel	29	2024	2024	2024	0	12	0%	

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Class	# of Vehicles	Bus Yr	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
40' Diesel	0	2009	2010	2025	15	12	125%	
35' Diesel	0	2010	2011	2025	14	12	117%	
40' Hybrid	0	2010	2011	2025	14	12	117%	
35' Trolley Hybrid	6	2010	2011	2025	14	12	117%	
40' Diesel	42	2013	2013	2025	12	12	100%	
40' Diesel	42	2016	2017	2025	8	12	67%	
40' Diesel	33	2020	2020	2025	5	12	42%	20.60%
40' Diesel	15	2021	2021	2025	4	12	33%	
30' Diesel	9	2021	2021	2025	4	12	33%	
40' Electric (NF)	14	2021	2021	2025	4	12	33%	
40' Electric (Pro)	3	2022	2022	2025	3	12	25%	
35' Diesel	12	2022	2023	2025	2	12	17%	
40' Diesel	28	2023	2023	2025	2	12	17%	
40' Diesel	29	2024	2024	2025	1	12	8%	

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Class	# of Vehicles	Bus Yr	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
40' Diesel	0	2009	2010	2026	16	12	133%	
35' Diesel	0	2010	2011	2026	15	12	125%	
40' Hybrid	0	2010	2011	2026	15	12	125%	
35' Trolley Hybrid	0	2010	2011	2026	15	12	125%	
40' Diesel	28	2013	2013	2026	13	12	108%	
40' Diesel	42	2016	2017	2026	9	12	75%	
40' Diesel	33	2020	2020	2026	6	12	50%	12.33%
40' Diesel	15	2021	2021	2026	5	12	42%	
30' Diesel	9	2021	2021	2026	5	12	42%	
40' Electric (NF)	14	2021	2021	2026	5	12	42%	
40' Electric (Pro)	0	2022	2022	2026	4	12	33%	
35' Diesel	12	2022	2023	2026	3	12	25%	
40' Diesel	28	2023	2023	2026	3	12	25%	
40' Diesel	29	2024	2024	2026	2	12	17%	
40' Hybrid	17	2026	2026	2026	0	12	0%	

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B. Paratransit

RIPTA uses FTA's ULB threshold of 7 years for paratransit vehicles. The 2022 baseline is **45%**², a decrease from 48% (or a 3% decline from four years previous), due to the inclusion of newer vehicles into the fleet and the removal of older ones, particularly from 2011. In 2022, some of these vehicles are still operational but are expected to be taken off the road soon.

In 2022, RIPTA and Rhode Island's MPO approved targets for the then-2022 baseline and targets for 2024 and 2026 at **0%** for paratransit vehicles. For 2023 and 2025 (intermediate years), RIPTA maintained a **0%** target for simplicity. RIPTA's objective has been to reduce the number of paratransit vehicles exceeding useful life. The two-year targets were established based on the expectation of an aggressive fleet replacement program.

² Upon further inspection the baseline was 24%, not 45%. Vehicles from the 2018 and 2019 fleets mistakenly did not calculate properly. This has been revised for consistency based on the established fleet plan.

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2022	11	7	157%	
Cutaway	25	2013	2022	9	7	129%	
Cutaway	24	2016	2022	6	7	86%	24%
Caravan	5	2016	2022	6	7	86%	
Van	25	2019	2022	3	7	43%	
Cutaway	25	2022	2022	0	7	0%	
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Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2023	12	7	171%	
Cutaway	0	2013	2023	10	7	143%	
Cutaway	0	2016	2023	7	7	100%	
Caravan	4	2016	2023	7	7	100%	0%
Van	25	2019	2023	4	7	57%	
Cutaway	25	2022	2023	1	7	14%	
Cutaway	50	2023	2023	0	7	0%	
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Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2024	13	7	186%	
Cutaway	0	2013	2024	11	7	157%	
Cutaway	0	2016	2024	8	7	114%	
Caravan	0	2016	2024	8	7	114%	0%
Van	9	2019	2024	5	7	71%	
Cutaway	25	2022	2024	2	7	29%	
Cutaway	50	2023	2024	1	7	14%	
Cutaway	20	2023	2024	1	7	14%	
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Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2025	14	7	200%	
Cutaway	0	2013	2025	12	7	171%	
Cutaway	0	2016	2025	9	7	129%	
Caravan	0	2016	2025	9	7	129%	
Van	0	2019	2025	6	7	86%	0%
Cutaway	14	2022	2025	3	7	43%	
Cutaway	50	2023	2025	2	7	29%	
Cutaway	20	2024	2025	1	7	14%	
Cutaway	20	2025	2025	0	7	0%	

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Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2026	15	7	214%	
Cutaway	0	2013	2026	13	7	186%	
Cutaway	0	2016	2026	10	7	143%	
Caravan	0	2016	2026	10	7	143%	
Van	0	2019	2026	7	7	100%	0%
Cutaway	0	2022	2026	4	7	57%	
Cutaway	44	2023	2026	3	7	43%	
Cutaway	20	2024	2026	2	7	29%	
Cutaway	20	2025	2026	1	7	14%	
Cutaway	20	2026	2026	0	7	0%	

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C. Flex

RIPTA uses the FTA established 7-year ULB for Flex vehicles. The 2022 baseline is **21%**³, a decrease from 32% (or an 11% decline from four years previous), due to the removal of several 2011 and 2012 vehicles from operations.

In 2022, RIPTA and Rhode Island's MPO approved targets for the then-2022 baseline and targets for 2024 and 2026 at **0%** for paratransit vehicles. For 2023 and 2025 (intermediate years), RIPTA maintained a **0%** target for simplicity. RIPTA expects to achieve this in 2024 and through the remainder of the TAM plan's duration because of the removal of all remaining 2011 and 2012 Flex vehicles and the introduction of new Flex vehicles in their place. This could potentially change if funding is not available to replace vehicles fast enough.

³ Upon further inspection, there was an error with the excel formula. The baseline is 0%, not 21%. For purposes of simplicity, no changes to the baseline, as approved by the MPO.

Class	# of Vehicles	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2011	2022	11	7	157%
Cutaway	0	2012	2013	2022	9	7	129%
Cutaway	10	2015	2016	2022	6	7	86%
Cutaway	5	2022	2022	2022	0	7	0%
	15						

Class	# of Vehicles	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2011	2023	12	7	171%
Cutaway	0	2012	2013	2023	10	7	143%
Cutaway	10	2015	2016	2023	7	7	100%
Cutaway	5	2023	2023	2023	0	7	0%
	15						

Class	# of Vehicles	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2011	2024	13	7	186%
Cutaway	0	2012	2013	2024	11	7	157%
Cutaway	10	2015	2016	2024	8	7	114%
Cutaway	5	2022	2022	2024	2	7	29%
	15						

Class	# of Vehicles	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2011	2025	14	7	200%
Cutaway	0	2012	2013	2025	12	7	171%
Cutaway	10	2015	2016	2025	9	7	129%
Cutaway	5	2022	2022	2025	3	7	43%
	15						

Class	# of Vehicles	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Cutaway	0	2011	2011	2026	15	7	214%
Cutaway	0	2012	2013	2026	13	7	186%
Cutaway	10	2015	2016	2026	10	7	143%
Cutaway	5	2022	2022	2026	4	7	57%
							67%
							15

D. Non-Revenue Vehicles

RIPTA uses a ULB threshold of 8 years for non-revenue vehicles. The 2022 baseline is **49%**⁴. Due to low mileage over the 8-year period, most vehicles will remain in service during the TAM plan's cycle. Some additional vehicles may be added to improve operations. RIPTA's overall target is maintaining the existing level.

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
2001 Ford Explorers	0	2001	2022	21	8	263%	
2004 Chev. Express	9	2004	2022	18	8	225%	
2007 GMC Trucks	2	2007	2022	15	8	188%	
2010 Ford F 250	6	2010	2022	12	8	150%	
2010 Ford F 550	2	2010	2022	12	8	150%	
2011 GMC Savana Van	3	2011	2022	11	8	138%	
2011 Ford Explorer	3	2011	2022	11	8	138%	49%
2014 Ford CMAX	5	2014	2022	8	8	100%	
2016 Ford Explorers	4	2016	2022	6	8	75%	
2017 Ford Explorers	6	2017	2022	5	8	63%	
2018 Chev Silverado	5	2018	2022	4	8	50%	
2019 Ford Explorers	4	2019	2022	3	8	38%	
2021 Chev Silverado	2	2021	2022	1	8	13%	
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⁴ The original TAM plan issued in 2022 combined non-revenue and equipment. This revision separates them. Therefore, their respective targets and exceeding ULB percentages are different.

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
2001 Ford Explorers	0	2001	2023	22	8	275%	
2004 Chev. Express	9	2004	2023	19	8	238%	
2007 GMC Trucks	2	2007	2023	16	8	200%	
2010 Ford F 250	6	2010	2023	13	8	163%	
2010 Ford F 550	2	2010	2023	13	8	163%	
2011 GMC Savana Van	3	2011	2023	12	8	150%	
2011 Ford Explorer	3	2011	2023	12	8	150%	59%
2014 Ford CMAX	5	2014	2023	9	8	113%	
2016 Ford Explorers	4	2016	2023	7	8	88%	
2017 Ford Explorers	6	2017	2023	6	8	75%	
2018 Chev Silverado	5	2018	2023	5	8	63%	
2019 Ford Explorers	4	2019	2023	4	8	50%	
2021 Chev Silverado	2	2021	2023	2	8	25%	
							51

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
2001 Ford Explorers	0	2001	2024	23	8	288%	
2004 Chev. Express	9	2004	2024	20	8	250%	
2007 GMC Trucks	2	2007	2024	17	8	213%	
2010 Ford F 250	6	2010	2024	14	8	175%	
2010 Ford F 550	2	2010	2024	14	8	175%	
2011 GMC Savana Van	3	2011	2024	13	8	163%	
2011 Ford Explorer	3	2011	2024	13	8	163%	48%
2014 Ford CMAX	5	2014	2024	10	8	125%	
2016 Ford Explorers	4	2016	2024	8	8	100%	
2017 Ford Explorers	6	2017	2024	7	8	88%	
2018 Chev Silverado	5	2018	2024	6	8	75%	
2019 Ford Explorers	4	2019	2024	5	8	63%	
2021 Chev Silverado	2	2021	2024	3	8	38%	
2024 Dodge Durango	12	2021	2024	3	8	38%	
							63

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
2001 Ford Explorers	0	2001	2025	24	8	300%	
2004 Chev. Express	9	2004	2025	21	8	263%	
2007 GMC Trucks	2	2007	2025	18	8	225%	
2010 Ford F 250	6	2010	2025	15	8	188%	
2010 Ford F 550	2	2010	2025	15	8	188%	
2011 GMC Savana Van	3	2011	2025	14	8	175%	
2011 Ford Explorer	3	2011	2025	14	8	175%	54%
2014 Ford CMAX	5	2014	2025	11	8	138%	
2016 Ford Explorers	4	2016	2025	9	8	113%	
2017 Ford Explorers	6	2017	2025	8	8	100%	
2018 Chev Silverado	5	2018	2025	7	8	88%	
2019 Ford Explorers	4	2019	2025	6	8	75%	
2021 Chev Silverado	2	2021	2025	4	8	50%	
2024 Dodge Durango	12	2021	2025	4	8	50%	

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Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
2001 Ford Explorers	0	2001	2026	25	8	313%	
2004 Chev. Express	9	2004	2026	22	8	275%	
2007 GMC Trucks	2	2007	2026	19	8	238%	
2010 Ford F 250	6	2010	2026	16	8	200%	
2010 Ford F 550	2	2010	2026	16	8	200%	
2011 GMC Savana Van	3	2011	2026	15	8	188%	
2011 Ford Explorer	3	2011	2026	15	8	188%	63%
2014 Ford CMAX	5	2014	2026	12	8	150%	
2016 Ford Explorers	4	2016	2026	10	8	125%	
2017 Ford Explorers	6	2017	2026	9	8	113%	
2018 Chev Silverado	5	2018	2026	8	8	100%	
2019 Ford Explorers	4	2019	2026	7	8	88%	
2021 Chev Silverado	2	2021	2026	5	8	63%	
2024 Dodge Durango	12	2021	2026	5	8	63%	

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E. Equipment

The 2022 baseline is **0%**. The useful life of equipment is 25 years. None will exceed the threshold by 2026. RIPTA’s policy is to only replace either useful life or if ceases functionality

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Bobcats	2	2003	2022	19	25	76%	
Elgin Sweepers	2	2010	2022	12	25	48%	
Caterpillar P5000 Forklift	2	2011	2022	11	25	44%	0%
Caterpillar Forklift	2	2011	2022	11	25	44%	
Caterpillar Skidsteer	3	2011	2022	11	25	44%	
Yale Lift truck	1	2013	2022	9	25	36%	
12							

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Bobcats	2	2003	2023	20	25	80%	
Elgin Sweepers	2	2010	2023	13	25	52%	
Caterpillar P5000 Forklift	2	2011	2023	12	25	48%	0%
Caterpillar Forklift	2	2011	2023	12	25	48%	
Caterpillar Skidsteer	3	2011	2023	12	25	48%	
Yale Lift truck	1	2013	2023	10	25	40%	
12							

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Bobcats	2	2003	2024	21	25	84%	
Elgin Sweepers	2	2010	2024	14	25	56%	
Caterpillar P5000 Forklift	2	2011	2024	13	25	52%	0%
Caterpillar Forklift	2	2011	2024	13	25	52%	
Caterpillar Skidsteer	3	2011	2024	13	25	52%	
Yale Lift truck	1	2013	2024	11	25	44%	
12							

Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Bobcats	2	2003	2025	22	25	88%	
Elgin Sweepers	2	2010	2025	15	25	60%	
Caterpillar P5000 Forklift	2	2011	2025	14	25	56%	0%
Caterpillar Forklift	2	2011	2025	14	25	56%	
Caterpillar Skidsteer	3	2011	2025	14	25	56%	
Yale Lift truck	1	2013	2025	12	25	48%	

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Class	Size	FY of Purchase	Today's Date	Vehicle Age	ULB	Useful life	% Exceeding ULB
Bobcats	2	2003	2026	23	25	92%	
Elgin Sweepers	2	2010	2026	16	25	64%	
Caterpillar P5000 Forklift	2	2011	2026	15	25	60%	0%
Caterpillar Forklift	2	2011	2026	15	25	60%	
Caterpillar Skidsteer	3	2011	2026	15	25	60%	
Yale Lift truck	1	2013	2026	13	25	52%	

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Performance Target Approval Process

Operators are required to establish annual performance targets for each asset category – rolling stock, equipment, facilities, and if applicable, infrastructure. FTA expects targets to be realistic based on the most recent information available in conjunction with financial resources from all sources that can be reasonably expected over the TAM plan’s horizon period.

RIPTA will set the baseline and the initial annual performance targets at the onset of the TAM plan’s adoption. Each March, the identified TAM resources will be convened to review the initial target set for the given fiscal year and determine what the targets should be for the upcoming fiscal year. Once the group has arrived at a consensus, a memorandum will be drafted outlining the adjustments for the Accountable Executive’s review. If he concurs, then he will sign off on the targets and the adjustments incorporated as an amendment to the TAM plan.

Furthermore, RIPTA will coordinate with the Division of Statewide Planning (staff to the State Planning Council, Rhode Island’s MPO) in the selection of performance targets and provide annual updates for tracking purposes, particularly in relation to the Long-Range Transportation Plan.

Reporting

As a public transit operator who receives FTA financial assistance from sources including the Urbanized Area Formula Program (Section 5307), the Rural Area Formula Program (Section 5311), and the Bus & Bus Facilities Formula Program (Section 5339a), RIPTA is required by federal law to report to the National Transit Database. Reporting will be done on an annual basis, and submissions to NTD will occur no later than October 31st of each year.

State of Good Repair Policy

The Rhode Island Public Transit Authority (RIPTA) has a responsibility to both its riders and the citizens of the State of Rhode Island in maintaining its assets in a State of Good Repair. This is defined as **the condition in which a capital asset can operate at a full level of performance.**

This means that the asset is:

- Able to perform its designated function
- Does not pose an unacceptable safety risk, and
- Its lifecycle investments have been met or recovered.

RIPTA, as a Tier I provider, and as a recipient of federal financial assistance under 49 U.S.C. Chapter 53, should adhere to the established Transit Asset Management (TAM) Plan to guide the agency in reaching a State of Good Repair. To achieve this, the following goals and objectives are adopted:

- 1) *Ensure that RIPTA's services are provided and maintained in a sustainable manner.*
 - a. Consider the risks and consequences of action, and inaction, when prioritizing asset replacement or repair, and when identifying and allocating funding sources.
 - b. Incorporate complete asset lifecycle costs into long-term financial planning to achieve cost-effective asset management planning.
 - c. Inform decision-making by planning for, reporting, and considering future lifecycle costs of new services and assets including when considering upgrades and expansions of existing physical infrastructure.
- 2) *Safeguard assets, including employees and physical assets, by implementing asset management strategies and directing appropriate resources to these strategies.*
 - a. Develop employee capacity and competency in asset management practices and promote agency-wide stewardship of asset management strategies and governance.
 - b. Identify and apply consistent criteria in prioritizing funding of asset management projects throughout RIPTA.
 - c. Annually allocate appropriate financial and operational resources to implement asset management strategies and devote resources to prioritized projects.
- 3) *Demonstrate transparent and responsible asset management processes that align with best practices and federal standards.*

- a. Annually review and update all asset management plans to ensure assets are managed, valued, and depreciated in accordance with Generally Accepted Accounting Principles (GAAP) and federal standards.
 - b. Ensure alignment amongst RIPTA's annual operating and capital budgets, and Rhode Island's Transportation Improvement Program to inform decision-makers.
- 4) *Meet federal legislative requirements.*
- a. Develop Asset Management Plans that include, at a minimum:
 - i. Capital asset inventories
 - ii. Condition assessments
 - iii. Risk-based decision-making, and
 - iv. Investment prioritization.
 - b. Establish performance targets in relation to State of Good Repair measures, as required by the FTA.

Responsibility: RIPTA's Chief Executive Officer has overall responsibility for developing an asset management and State of Good Repair Policy, plans, and procedures, the allocation of resources, and reporting to the Board of Directors on the status and effectiveness of asset management within RIPTA.

Review of Policy: This policy shall be in effect for four years and will be reviewed annually. At the end of the four-year duration, the CEO and other relevant senior and executive leadership will convene to revise or readopt this policy. This policy should reflect changes in transit asset management guidance and procedures set by FTA and respective federal law.

Investment Prioritization

Prioritization of investments is made through the annual budget process. All financed projects that are either active or anticipated to begin within the upcoming fiscal year are included. Funding is documented in the Financial Plan for the first year and the subsequent four outyears (as applicable).

APPENDIX A

FACILITY CONDITION ASSESSMENTS



RHODE ISLAND PUBLIC TRANSIT AUTHORITY



RIPTA Transit Asset Management Facility Condition Assessment

FINAL ASSESSMENT REPORT
August, 2022



ADDITIONAL
ASSET
AMENDMENT
9/25/2023

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I. Executive Summary

The Rhode Island Public Transit Authority (RIPTA) has tasked Michael Baker International (MBI) to undertake a comprehensive assessment of all facilities that it owns and operates. Under this program each facility was assessed, and the condition of capital assets were determined regarding the state of good repair/functionality. Risks were identified, and a backlog of projects to be funded was forecasted over a twenty-year horizon.

The facility condition assessments were carried out and scored in accordance with the guidebook published by the USDOT in conjunction with the FTA. These assessments were completed through an on-site review by our team and focused on the observation of the primary and secondary level conditions assets. Assessments were limited to assets that were visible and accessible, with information on less easily accessible features like internal systems and wiring gained via record documentation and interview. Findings of these reports are contained in Appendix B. Overall, the portfolio of buildings was found to be adequate and the specific condition assessment for each facility is below:

Facility	Rating Summary
265 Melrose Street	1.8
269 Melrose Street	3.4
750 Elmwood Avenue	3.5
325 Melrose Street	2.6
1 Kennedy Plaza	3.0
350 Coddington Highway	3.1
705 Elmwood Avenue	3.7

Included in this document is an overview of each facility and the drivers that contributed to each of the asset ratings. This understanding of the drivers behind the ratings in relationship to the remaining useful life of each asset were the contributing factors into the development of the 20-year project forecast. This 20-year projection has a total investment of approximately \$31.5M in projects in 2022 dollars and includes maintenance as well as replace or repair projects. The Rhode Island Green Building Act (and LEED standards) went into the development of costs to replace during the initial assessments.

The costs that are shown in the 20-year forecast reflect the total value of the assets listed in the facility condition reports. This was done to remain consistent across reporting documents and provide a fair level of contingency. The value of proposed projects may differ in costs depending on the overall scope of the project and considerations into rehabilitation versus full replacement. Additional costs may be required for certain projects to account for extensive construction phasing to ensure the continuation of RIPTA operations. During the development

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of the 20-year projection, the projects were prioritized using the consideration below. A full projection can be found in Appendix A.

1. Safety Issues
2. Service Disruptions
3. Strategic Pairings
4. State Of Good Repair, including watertight shell and environmental issues

In addition to the condition ratings, remaining useful life, and the prioritization factors, consideration went into ensuring a balanced level of investment over the 20-year forecast. Within each of the twenty years, there is a median value of approximately \$1.4M worth of improvements across RIPTA's seven facilities. There are seven instances in which the yearly investment is over \$2M, which are typically driven by one large project as evidenced in Appendix A.

This condition assessment and 20-year forecast follows FTA's Transit Asset Management plan program. The analysis and reporting support RIPTA in their mission to enhance passenger safety, improve system reliability, reduce maintenance costs, and bolster overall system performance.

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II. Facility Summaries

A. 265 Melrose Street

Facility Description

265 Melrose Street was built in 1922 for United Electric Railroads and is a mostly one-story vehicle maintenance facility with shops and storage. Over the years it has been consolidated with the 267 Melrose Street structure and now function as a single building with circulation connections to each other on the ground and upper floors. The facility is classified as General-Purpose Maintenance and is approximately 72,000 square feet and sits on 1.07 acres.



There is a partial second floor and two small partial basement areas, which were previously used for mechanical equipment. 267 Melrose Street houses vehicle storage and repair on the first level. The second level features an office area that has been vacant for more than 10 years. Both second floor levels previously housed RIPTA administrative offices and have now been abandoned due to disrepair, hazardous materials building components, leaking roofs, and inefficient and obsolete building systems.

The building is the lowest rated in RIPTA’s facility portfolio. Photos showing the current condition of the exterior and interior of the building are enclosed in Appendix B. Based on our team’s assessment, the building is in a poor condition. There is approximately \$8.8M of improvements that fall within the 20-year forecast for 265 Melrose. Because of the existing condition of the building, there is a concentrated effort to get it into a state of good repair. Proposed projects span across the category of assets.

Overall Condition Assessment

Components	Rating
Substructure	3.0
Shell	1.6
Interiors	1.0
Conveyance	1.0
Plumbing	2.4
HVAC	2.1
Fire Protection	1.0
Electrical	2.5
Equipment	N/A
Site	2.0
Total	1.8

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Substructure (3.0)

The building foundations and substructure were not directly observable less a few instances of below grade spaces. Further invasive demolition would be required to ascertain the condition of the building foundations, column footings, etc.

The concrete slabs on grade appear very worn. There is evidence of staining, pitting, spalling, and some cracks in the slabs. Overall, they appear to be performing as intended but have undergone decades of continuous wear and tear.

Shell (1.61)

The primary structural frame of the building appears in fair condition albeit with obvious signs of wear. Concrete columns and beams appear to be the assets in best condition considering their age. Concrete slabs and decks are in fair condition with signs of staining, wear, and cracking. Exterior brick walls are in poor condition. Spalling, mortar gaps, cracking, and staining are all evident on the exterior brick.

Window lintels and sill stones are similarly beyond their useful life. Exposed rebar protruding through the lintels can be observed at most locations. The windows on the building are beyond their useful life. Beyond poor energy efficiency, windows and sealants are cracked and damaged. Exterior man doors and frames are in poor condition, many with signs of intense rust damage and wear. Overhead garage doors appear in better condition than man doors.

The ballasted roof is in very poor condition. Evidence of extreme ponding, damage to the membrane layer, and leaking can be observed. On the roof is a headhouse which includes cladding and glazing in disrepair.

Interiors (1.03)

Inside the building, office and administration spaces are not occupied and have been neglected. Almost every asset on the interior receives a score of one. Interior doors, partitions, ceilings, lighting fixtures, etc. are all in disrepair.

Carpet and vinyl flooring are severely stained and damaged. There is a significant amount of asbestos around and under the VCT flooring. Paint is peeling off many walls and ceilings. There is also a lot of debris and abandoned furniture inside the building. Interior fire doors and toilet partitions appear to be newer than other interior assets.

Conveyance (1.0)

The elevator in 265 Melrose is in poor condition, based on our observations. It is operational and has been regularly serviced over the years but has not been inspected. It is no longer in use since the second floor is unoccupied. The elevator equipment will need significant upgrades or full replacement if it returns to full time service.

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Plumbing Systems (2.4)

The plumbing is comprised of domestic hot- and cold-water systems, waste & vent systems, storm drainage systems, and compressed air systems. The domestic water piping is comprised of copper piping, which withstands the test of time well. There are minimal hot-water systems, but a newly installed gas-fired tank water heater in the boiler room brings up the weighted score of the hot-water system. The plumbing fixtures are dated and obsolete. The compressed air system is rather new, and the piping has held up over time. Overall, the poor condition of the plumbing fixtures and the deteriorating cast-iron used in the waste & vent and storm systems bring the overall weighted score down, while the compressed air and domestic water system bring the weighted score up.

HVAC Systems (2.1)

The HVAC system is comprised of a steam heating system, an exhaust system, and an air-side mechanical system for comfort cooling. The steam heating system serves both the garage portion of the building and the office portion. The comfort cooling system only covers the office portion. As such, the steam system carries the bulk of the weighted score. The steam distribution system is in fair condition, but there has been a lack of maintenance over the years. The Cleaver Brooks Boiler was built in 2010, and the expected life is ~30 years. Given the recent build date of the boiler, the weighted score of the HVAC system is brought up by the boiler, while the exhaust and air-side mechanical systems bring the overall score down.

Fire Protection Systems (1.0)

The fire sprinkler system is a wet-pipe system, and not all portions of the building are protected. No backflow preventer or fire department connection exists. The sprinkler piping is rather rusted in the basement level. These attributed to the overall low score.

Electrical Systems (2.5)

The overall Electrical systems appeared to be in adequate to good condition, however the poor condition of the systems located in the un-used office/storage area contributed to the lower overall score.

Site (2.0)

The site comprising of sidewalks and a surface parking lot is in marginal condition. Based on our observation, these components have 5 years of useful life remaining and are included in the forecast.

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B. 269 Melrose Street

Facility Description

269 Melrose Street was built in 1990 for the Rhode Island Public Transit Authority and is a one-story vehicle storage facility with administration spaces. The facility is classified as General-Purpose Maintenance and includes office space, restrooms, an employee lounge, meeting space, mechanical service space, vehicle storage, and two wash bays. 269 Melrose is approximately 94,400 square feet and sits on 2.16 acres.



The building is approaching 30 years in age and would benefit from the rehabilitation of critical building components to ensure a prolonged life. Photos showing the current condition of the exterior and interior of the building are enclosed in Appendix B. Based on our team’s assessment, the building is in an adequate condition. There is approximately \$4.9M of improvements that fall within the 20-year forecast for 269 Melrose. The most imminent projects center around equipment, plumbing, HVAC, and electrical components. The bulk of the proposed improvement projects (roughly \$3.6M) land in the second half of the 20-year forecast and primarily fall within fire protection, plumbing, and shell component categories.

Overall Condition Assessment

Components	Rating
Substructure	3.8
Shell	4.0
Interiors	3.8
Conveyance	N/A
Plumbing	3.5
HVAC	3.2
Fire Protection	3.0
Electrical	3.9
Equipment	2.0
Site	3.0
Total	3.4

Substructure (3.8)

The building foundation walls are only observable in a few places around the building perimeter. Overall, the foundations appear in good condition. There are no apparent structural cracks, pitting, or major spalling. Slabs on grade are in good condition as well. Slabs appear to have greater wear at highly trafficked areas which is to be expected. There is little evidence of major staining or cracking. However, there are some areas where water ponds on the slabs on

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grade. This correlates to some parts of the slabs on grade which are not level which can lead to future maintenance issues or potential safety issues in the short term.

Shell (4.0)

The primary structural frame of the building is in good condition. There are some signs of rust and coatings peeling/chipping on steel primary structure, but this wear does not appear structurally detrimental. Steel columns, beams, joists, and bracing generally appear to be performing as intended with normal wear evident.

Interior CMU walls are also in good condition. Mortar joints are still intact and there doesn't appear to be and major water infiltration withing wall cavity (exterior walls), however there are some signs of efflorescence on the interior which may require further investigation. The exterior split-face CMU is also in generally good condition. Control joints appear to be performing as intended with little wear. Exterior brick accent bands are in good condition with little spalling, cracking, mortar gaps, etc.

The membrane roofing is performing well with little wear. There is some evidence of minor ponding but generally the tapered insulation is pitched correctly and creating positive drainage. Roof drains look to be clear of debris but should be checked regularly. There is a small amount of pitched standing seam metal roof with snow guards that appears to be in good condition with little wear and tear. At the roof's edge, the long expanses of roof coping are performing well with no signs of oil canning. Exterior man doors are functional but are not in perfect condition. There are signs of rust and deterioration at exterior doors and frame which may be due to winter salting. Overhead garage doors are in good condition with some minor denting and wear.

Exterior windows/aluminum curtainwall is performing well with little wear evident. Sealants remain intact and system appears watertight.

Interiors (3.8)

There are some overhead garage doors inside the building which are in good working order. Interior doors and frames are in above average condition with some observable wear. Kick plates, hinges, and all hardware is in working condition. Acoustic ceilings and grids are in fair condition but there is some evidence of staining on some tiles. The ceramic tile flooring and bases show little wear or grout deterioration. Carpet tile flooring shows more evidence of wear which is expected. Rubber flooring within the building shows little wear and is performing well.

Restroom fixtures and accessories may require some cleaning but are generally in good condition. Ceramic wall tile in the restrooms similarly requires cleaning and maintenance but is functioning without issues. Interior drywall partitions are in good condition. There is a section of drywall missing near one of the curtainwall portions which requires maintenance.

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Plumbing Systems (3.5)

The plumbing is comprised of domestic hot- and cold-water systems, waste & vent systems, storm drainage systems, and compressed air systems. The domestic water piping is comprised of copper piping, which withstands the test of time well. There are minimal hot-water systems for domestic use, but the existing water heaters appear in good condition. The plumbing fixtures are dated but are not obsolete. The compressed air system is rather new, and the piping has held up over time. Overall, the poor condition of the plumbing fixtures and the deteriorating cast-iron used in the waste & vent and storm systems bring the overall weighted score down, while the compressed air and domestic water system bring the weighted score up.

HVAC Systems (3.2)

The HVAC system is comprised of comfort cooling and heating for the office portion of the building, and the garage/repair portion is served by Makeup Air Units and an Exhaust System. The comfort heating system is a hydronic water heating system with terminal units. The system is rather modern with a boiler from 2006. The cooling system is composed of a large rooftop unit with VAV boxes. Conditions vary amongst the MAUs and exhaust fans, but overall, they are adequate. The systems overall aren't in great condition but are adequate.

Fire Protection Systems (3.0)

The fire sprinkler system is composed of wet-pipe and dry-pipe systems. The service is complete with backflow preventers and fire department connections. There was recent maintenance on the dry-system and the air-compressors appear rather new. The system is in adequate condition.

Electrical Systems (3.9)

All the Electrical systems appeared to be in adequate to good condition, hence the overall high score.

Equipment (2.0)

Inside the storage area there are two bus washes that are in marginal condition. The moisture is also impacting the steel in the building frame. These washes are nearing their useful life due to their operational importance; they have been prioritized in the 20-year forecast.

Site (3.0)

The site comprising of sidewalks and a surface parking lot is in adequate condition. Based on our observation, these components have 50 years of useful life remaining.

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C. 750 Elmwood Avenue

Facility Description

750 Elmwood Avenue was built in 2000 for the Rhode Island Public Transit Authority and is primarily a one-story heavy maintenance facility for the authority. The first floor contains maintenance areas, paint bays, parts storage, and administrative space. There is a partial second floor that includes office space, restrooms, employee lounge, meeting space, and storage. 750 Elmwood is approximately 94,760 square feet and sits on 3.36 acres.



The building is approximately 21 years in age and has undergone a reasonable level of routine maintenance. This facility could benefit from some rehabilitation of components to ensure a prolong life. Photos showing the current condition of the exterior and interior of the building are enclosed in Appendix B. Based on our team’s assessment, the building is in an adequate to good condition. There is approximately \$5.9M of improvements that fall within the 20-year forecast for 750 Elmwood. There is a balanced distribution of projects over the 20-years, but the bulk of the investment is during Years 7 through 13. The core of the proposed projects is focused on the shell, electrical, HVAC, and plumbing components.

Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.7
Interiors	2.7
Conveyance	3.0
Plumbing	3.7
HVAC	3.7
Fire Protection	4.0
Electrical	4.0
Equipment	3.0
Site	3.0
Total	3.5

Substructure (4.0)

The building foundations and substructure were not directly observable less a few instances. Further invasive demolition would be required to ascertain the condition of the building foundations, column footings, etc. The fieldstone portion of the foundation is not waterproofed and is an issue.

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The concrete slabs on grade are in good condition. There is little evidence of water ponding, and they seem level. There is normal wear and tear evident. Coatings and striping are in good condition and seems to be maintained.

Shell (3.7)

Steel girders, joists, beams, and columns make up the primary structure of the building. Overall, the structure is in very good condition with little wear. Coatings and painted surfaces look to be maintained. CMU structural walls show little signs of deterioration and mortar joints are intact. The exterior brick of the original building façade shows signs of wear normal for a building of this age. There are some mortar cracks and spalling as well as some staining on the exterior. It was noted on site that the original exterior brick walls do not have insulation.

The exterior brick veneer (North and South facades) is in good condition. There is little evidence of significant deterioration or wear. The exterior metal wall panels on the upper portion of the building show some signs of wear. There are some issues at material intersections and some of the panel joints.

The flat membrane roof is a recently installed asset which has some leaking issues. It was noted that the roof over compressor room leaks due to nails from the membrane roof above. The standing seam metal roof has some repairs done with sealant which appears to be potentially failing. Rust and staining can be seen on the standing seam roof especially at penetrations. The existing granite cornice which was incorporated into the new building is stained and cracked. It requires some repairs and maintenance to return it to its original form. On the other hand, the newer metal cornice which extends around most of the building is in good shape with no signs of oil canning, dents, or staining.

Overhead coiling doors show signs of normal wear and some discoloration. Exterior man doors are of similar condition with some normal wear. Glazed aluminum storefront is in very good condition with no signs of water intrusion or sealant failure. There is an exterior aluminum storefront door which shows signs of frequent usage. The insulated translucent panel system on the upper roof has some normal wear but appears in good working condition.

Interiors (2.7)

Inside the building, doors and frames show less wear than exterior and are functionally operational. There is a large amount of acoustic ceiling tiles and grid system which is not in optimal condition. Stained and cracked tiles as well as bowed grids need repair. The VCT flooring is still in useful condition but is heavily trafficked. In the restrooms and maintenance spaces, poured epoxy flooring is still in fair condition but may require some cleaning.

Restroom and locker room fixtures are in fair condition with normal everyday wear evident. There are no major issues in the restrooms and locker room spaces.

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Conveyance (3.0)

The elevators in 750 Elmwood are in adequate condition, based on our observations. They are over halfway through their expected useful life and are included in the 20-year forecast.

Plumbing Systems (3.7)

The plumbing is comprised of domestic hot- and cold-water systems, waste & vent systems, storm drainage systems, and compressed air systems. The domestic water piping is comprised of copper piping, which withstands the test of time well. The hot water system is a boiler-storage tank system, and it appears to be at the end of its useful life. The plumbing fixtures are dated but are not obsolete. The compressed air system is rather new, and the piping has held up over time. Overall, the systems are good, but the domestic water heating system brings the weighted overall score down.

HVAC Systems (3.7)

The HVAC system is comprised of comfort cooling and heating for the office portion of the building, and the garage/repair portion is served by Makeup Air Units and an Exhaust System. Hydronic boilers distribute hot water to the makeup air units and to terminal units. The comfort heating system is comprised of split direct-expansion and rooftop units. The systems date to 2002, but the systems appear to be well maintained.

Fire Protection Systems (4.0)

The fire sprinkler system is composed of a wet-pipe system with a fire pump for pressure. The service is complete with backflow preventers and fire department connections. Maintenance appears rather good, and the pump is tested regularly. The system is in good condition.

Electrical Systems (4.0)

All the Electrical systems appeared to be in good condition, with exceptions for the exterior lighting; which appeared to be adequate, and the fire alarm system; which appeared to be excellent, as it was recently installed. Overall, the systems averaged to good condition.

Equipment (3.0)

Inside the storage area there are 22 vertical lifts in adequate condition. These components are all nearing their useful life and due to their operation importance; they have been prioritized in the 20-year forecast.

Site (3.0)

The site comprising of surface lot is in adequate condition. Based on our observation, these components have 10 years of useful life remaining and are included in the forecast.

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D. 325 Melrose Street

Facility Description

325 Melrose Street is owned by RIPTA but operated by RIDOT DMV. The facility is used partially for road testing (DMV) and houses administrative functions for RIDOT DMV. The vehicle garage bays of the facility serve as inspection garages for vehicles. The facility is classified as a General-Purpose Maintenance and includes office space, restrooms, employee lounge, mechanical service space, and vehicle maintenance bays. The site is approximately 15,243 square feet and sits on 1.07 acres and is directly adjacent to a surface parking for RIPTA bus storage.



The building is well over 60+ years in age, is in marginal condition and includes a newer addition which is in better condition than the older portion. A 2002 building assessment identified various building component failures, some of which continue to exist today. Photos showing the current condition of the exterior and interior of the building are enclosed in Appendix B. There is approximately \$2.3M of improvements that fall within the 20-year forecast for 325 Melrose. The core of the proposed projects is focused on the shell, electrical, HVAC, and interior components.

Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.0
Interiors	2.7
Conveyance	N/A
Plumbing	3.0
HVAC	2.0
Fire Protection	1.0
Electrical	3.1
Equipment	3.0
Site	2.2
Total	2.6

Substructure (4.0)

The building foundations and substructure were not directly observable. Further invasive demolition would be required to ascertain the condition of the building foundations, column footings, etc.

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The slabs on grade appear to be in good condition with signs of normal wear given the age of the building. There is some staining but no signs of major structural damage.

Shell (3.03)

Overall, the steel superstructure of the building is in fair condition. Observable steel columns, beams, and joists did not show signs of major structural deterioration. There appears to be a fireproofing coating cracking and crumbling off some of the steel columns in the maintenance garage.

The CMU structural walls do not appear in good condition. There are multiple instances of cracking, moisture damage, failing expansion joints, and missing mortar. The moisture infiltration through the CMU walls can be seen on the interior where latex paint seems to be bubbling. Also, efflorescence was observed on the interior of one of the maintenance garages. Penetrations through the CMU walls have created some staining on the exterior.

Steel roof decking over the newer portion of the building appears to be in good condition. There is little signs of water infiltration from roofing nails, penetrations, etc. There were some concrete plank flooring members which also appeared in fair condition. However, the joints between the planks were not sealed and there was visibility through to the floor above.

The newer membrane roofing appeared to be fairly weathered considering its age. Ponding, staining, and potentially clogged roof drains can be observed on the white roof. The membrane itself may not be adhered properly as there was also some bubbling over the surface. Coping around the perimeter of the roof appears in fair condition but it is lapped over an older fascia which may compromise water tightness. A pitched batten seam metal roof in poor condition covers the large maintenance garage. Multiple repairs/patches have been done over the years and there are signs of leaks on the interior. The roof insulation under this roof is highly damaged and stained with signs of leaking and staining. Fasteners rely on sealant to stop water infiltration, and many are failing. A fair amount of rust is also on this roof. Metal gutters and downspouts around the perimeter of the roof are in fair condition, however there may be issues with how the gutters are adhered to the building.

Exterior steel doors and frames are in poor condition. Some frames were seen completely rusted and deteriorated at the base, most likely from salting adjacent exterior surfaces. A lot of staining and heavy wear was documented. There are a few exterior louvers which are in poor condition as well. One instance in the boiler room appeared to be a newer set of louvers but installation was poor and there are gaps around the perimeter. The overhead garage doors in the newer portion of the building are in better condition than the older wood garage doors. There is denting, chipping, warping, and corroded lintels. Exterior windows are not in good condition. There is compromised sealants and damage to some of the glazing itself.

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Interiors (2.72)

Through-wall piping and conduit penetrations were observed on the interior without proper sealing. While this is not a major maintenance concern, there are potentially firestopping issues between rated assemblies. Interior steel doors and frames are in better condition than exterior. There was some damage documented to door frames. Acoustic ceiling tiles and grids are in poor shape inside the building. Roof leaks have led to significant staining and water damage on the ceiling. The small amount of plaster ceilings appears in slightly better condition than the ACT ceilings. Drywall partitions on the interior show signs of heavy wear, patches, and repairs.

Floor finishes of VCT and carpet are in poor condition. Cracked and missing tiles along with extensive staining and damage can be seen on the tile floors. The carpet is beyond its useful life and poses interior air quality issues. Restroom fixtures and accessories are in fair condition but require some maintenance.

Plumbing Systems (3.0)

The plumbing systems for the building are overall adequate. The copper piping for the water appears okay. The plumbing fixtures are dated, but do not appear obsolete. A gas-fired water heater appears in good working order for the office portion. The overall weighted score of 3.0 reflects the plumbing is adequate.

HVAC Systems (2.0)

The HVAC system is comprised of an air-side cooling system and a hydronic heating system for comfort heating. Localized exhaust fans are not functioning. The comfort heating system appears to be repaired ad hoc as a condenser for a VRF unit is in the garage. Abandoned equipment remains in place. Equipment is rather old overall, but the RTU over the office portion appears to be in good working order. Overall, the system for the building is marginal.

Fire Protection Systems (1.0)

The fire sprinkler system is a wet-pipe sprinkler system. The system has a fire department connection and a backflow preventer, which appear in working order. The building is not fully sprinklered and as such, the system is rated as marginal.

Electrical Systems (3.1)

The overall Electrical systems appeared to be in marginal condition, however the good condition of the lighting systems contributed to a higher overall adequate score.

Equipment (3.0)

There are four vertical lifts in adequate condition. These components are all nearing their useful life and due to their operation importance; they have been prioritized in the 20-year forecast.

Site (2.2)

The site comprising of sidewalks and a surface parking lot is in marginal condition and are included in the 20-year forecast.

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E. 1 Kennedy Plaza

Facility Description

The Kennedy Plaza Passenger terminal is a single-story transit hub. The facility is classified as a Passenger Facility and includes a main concourse waiting space, police space, vending space, public and private restrooms, ticketing offices, and administration areas. The building is approximately 6,661 square feet and sits on a 2.25-acre site which also includes an expansive plaza with eight bus shelters, trees, a pavilion, benches, a historical statue, and trash receptacles.



This facility appears to be in adequate condition. The building is approaching 22 years in age and could benefit from some rehabilitation of components to ensure a prolonged life. Photos showing the current condition of the exterior and interior of the building are enclosed in Appendix B. There is approximately \$1.6M of improvements that fall within the 20-year forecast for 1 Kennedy Plaza. The investment driver for this project is an HVAC improvement proposed in Year 1. The remaining projects focus on electrical, interiors and plumbing/fire protection.

Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.6
Interiors	3.2
Conveyance	N/A
Plumbing	3.0
HVAC	2.0
Fire Protection	3.0
Electrical	2.2
Equipment	N/A
Site	3.0
Total	3.0

Substructure (4.0)

The building foundations and substructure were not directly observable less a few instances. Further invasive demolition would be required to ascertain the condition of the building foundations, column footings, etc. Observable concrete slabs on grade appeared in good condition. There was some minor chipping and cracking but no indication of structural failure.

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Shell (3.6)

Observable steel columns and beams were documented in good condition. Some minor evidence of rust was seen on beams in the mechanical room. Wood roof structure in the police area was documented in good condition. The structure appears to have been upkept and coatings were seen in good standing. Structural CMU walls were in very good condition with little signs of mortar damage, chipping, cracking, or notable moisture infiltration.

The exterior metal roof is in fair condition. Considering its age, the roof appears to have weathered as expected. There is some staining and denting due to the high traffic nature of this building. Metal downspouts had some issues at connection points to the building and were in poorest condition of all roof elements. Observable roof decking was in good condition with little to no documentation of damage or wear.

The exterior ornamental wood soffits and molding are in fair condition. There is more wear to these elements than the metal roof due to the nature of the material. Paint chipping and some damage to moldings can be seen. Exterior ornamental metal work in the police area is in fair condition but shows signs of wear. Coatings appear to have been maintained but there are potentially some corrosion issues. Also in this area are exterior steel wall panels which look to have once been used as doors. These are corroded at the base most likely due to salt applications and high public traffic in the area.

Exterior granite cladding and base in generally in good condition. However, there is a significant number of foreign substances and staining on the exterior which pose hygienic risk to the public. The large skylight glazing system appears in good condition. There were no noted incidents of water infiltration. Aluminum automatic entrances and storefronts are in fair condition but show signs of frequent usage, typical of the facility. Windows and storefront similarly show signs of wear inherent to the high traffic nature of the building. No failures reported, but sealants and flashings will need to be maintained.

Interiors (3.2)

The building interior is generally in fair condition albeit with evidence of high usage. Currently many of the administration and office spaces are not occupied. Interior gypsum board partitions appear to have a fair amount of scuff marks, discoloration, and light damage. Epoxy flooring in the restrooms is in poor condition. There is a lot of staining, unlevel surfaces, and damage to the integral cove base. The fixtures and toilet accessories in the restrooms are in fair condition but are used very frequently and will require regular maintenance. Stone wall tile in the public restrooms is in good condition but requires cleaning. There is a fair amount of staining evident, but the material does not seem to have major failures.

Gypsum board ceilings do not appear in good standing. There are multiple penetrations which have not been sealed properly in back-of-house spaces. In public spaces such as restrooms, there is a fair amount of staining and some damage. Interior doors in high traffic public areas

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such as public restrooms show heavy signs of wear. Additionally, some of the accessible push button operators for these doors are not functional. In the main public atrium space, the epoxy terrazzo flooring shows signs of heavy wear but is in adequate condition. In the waiting spaces, the wood benches are still functional but show signs of wear.

In the office and administration spaces, wood doors and HM frames are in good condition. Most of the interior millwork and office equipment appears to have signs of heavy usage but is otherwise still usable. There is a raised flooring system in the IT/communications space which requires some repair. There were missing and damaged floor tiles documented in the report.

Plumbing Systems (3.0)

The plumbing systems is adequate, but due to wear and tear, plumbing fixtures do not work as designed. The domestic electric water heater appears in good condition. Overall, the plumbing system is rated as adequate.

HVAC Systems (2.0)

The HVAC system is comprised of comfort cooling and heating systems, radiant heating, and accompanying exhaust systems. The comfort cooling is accomplished via direct-expansion split systems, and hydronic boilers provide hydronic heating to the various coils in the facility. Abandoned hydronic radiant heating systems were to heat the local sidewalk and plaza. Through patch repairs, the comfort cooling and heating systems are somewhat adequate, but do not work as designed. Given the radiant heating system is abandoned, and three of the four boilers are out of service, the overall score of the HVAC system is poor.

Fire Protection Systems (3.0)

The fire sprinkler system is a wet-pipe system with a dry-pipe pre-action system for the IT room. This system is adequate.

Electrical Systems (2.2)

All the Electrical systems appeared to be in marginal to adequate condition, hence the overall lower score.

Site (4.0)

The site comprising of sidewalks and eight bus shelters in adequate condition. Based on our observation, these components have more than 20 years of useful life remaining.

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F. 350 Coddington Highway

Facility Description

The facility at 350 Coddington Highway was built in 1993 for the Rhode Island Public Transit Authority and is one-story vehicle storage facility with administration space. The facility is classified as a General-Purpose Maintenance and includes office space, restrooms, employee lounge, meeting space, mechanical service space, vehicle storage, and two wash bays. 350 Coddington is approximately 39,217 square feet and sits on 3.42 acres.



This facility appears to be in adequate condition.

The building is approaching 30 years in age and could benefit from some rehabilitation of components to ensure a prolonged life. Photos showing the current condition of the exterior and interior of the building are enclosed in Appendix B. Based on our team’s assessment, the building is in an adequate condition. There is approximately \$2.0M of improvements that fall within the 20-year forecast for 350 Coddington. The focus for this facility is concentrated in the first few years and will address the HVAC, equipment and fire protection. There will be a concentrated effort on electrical and interior projects towards the end of the 20-year forecast.

Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.53
Interiors	3.22
Conveyance	N/A
Plumbing	3.00
HVAC	2.00
Fire Protection	2.00
Electrical	3.31
Equipment	2.51
Site	4.00
Total	3.13

Substructure (4.0)

The building foundations and substructure were not directly observable less a few instances. Further invasive demolition would be required to ascertain the condition of the building foundations, column footings, etc. Slabs on grade were in good condition and did not appear to show signs of structural cracking. Striping patterns in the large garage area need to be reapplied.

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Shell (3.53)

Steel beams, girders, columns, and joists were all in good working condition. There was a fair amount of paint and coating wear and peeling documented, especially in the bus wash area.

Structural CMU walls appeared in fair condition, however there is evidence of potential moisture buildup and efflorescence staining. Weep holes were not observed on the exterior, which are called for in the original construction documents. This moisture buildup can potentially lead to deterioration of insulation within the cavity walls as well as damage to the CMU walls. This efflorescence and staining are evident on most of the exterior split face CMU as well. Investigative demolition may need to be done to pinpoint moisture issues in the wall and potentially installation of weep holes. Exterior brick appears in fair condition, however there was documentation of potential moisture buildup and efflorescence staining. The same issues seen in CMU walls with lack of weep holes and moisture are seen in the exterior brick, mainly at wall penetrations and accents.

Most of the roofing is a white membrane on rigid insulation and is in good condition. There is evidence of some bubbling and staining, but the roof appears to be performing as intended. Pitches appear to be adequate to drain the roof. The roof does require some cleaning and general maintenance. The small section of pitched standing seam metal roof over the building vestibule is in good condition however there is some small amounts of rust accumulation in the gutter system. Metal roof coping around the perimeter of the building is in good condition. There is no sign of oil canning and only minor signs of dents.

Exterior steel man doors and frames are in good working order but show signs of heavy wear. Frames show signs of rust at the base and require some repairs. Exterior overhead coiling doors appear to be working but there is a fair amount of denting and deformation to the housing and tracks. All doors were in the open position at time of visit. Glazed aluminum curtainwall system showed no signs of failure, and all sealants were in working order. Lack of weep holes in surrounding brick may be an issue with moisture.

Interiors (3.22)

There are some overhead garage doors on the interior of the building which have some damage due to vehicle collisions. They appear to be in working order but with some notable damage. Interior steel doors and frames in maintenance areas show signs of typical wear considering the locations. In employee spaces, most of the ceilings are acoustic tiles in grids which are in poor condition. Many tiles are not seated properly and there are some cracked / stained tiles. The ceramic tile flooring and base in the entry and other employee spaces shows signs of typical wear but is in overall above average condition considering the age of the building. Restroom fixtures and accessories show signs of heavy wear, and the restrooms require some general cleaning and maintenance. Ceramic wall tile in the restrooms looked to be in above average condition.

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Plumbing Systems (3.0)

The plumbing systems for the building are overall adequate. The copper piping for the water appears okay. The plumbing fixtures are dated, but do not appear obsolete. A gas-fired water heater appears in good working order for the office portion.

HVAC Systems (2.0)

For comfort heating and cooling, the HVAC system largely consists of Rooftop Units with electric baseboard units for perimeter heating. The exhaust system is comprised of rope-and-pulley localized exhaust fans with Makeup Air Units. The rooftop units are past their useful life, and the exhaust system controls do not function.

Fire Protection Systems (2.0)

The fire sprinkler system is a wet-pipe sprinkler system. The system has a fire department connection and a backflow preventer, which appear in working order. The system appears to be past its useful life of 20 years where sprinklers need to be tested.

Electrical Systems (3.3)

All the Electrical systems appeared to be in adequate to good condition, hence the overall high score.

Equipment (2.5)

Inside the storage area there are two bus washes that are in marginal condition and three vertical lifts in adequate condition. These components are all nearing their useful life and due to their operation importance; they have been prioritized in the 20-year forecast.

Site (4.0)

The site comprising of sidewalks and a surface parking lot is in good condition. Based on our observation, these components have more than 20 years of useful life remaining.

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G. 705 Elmwood Avenue

Facility Description

705 Elmwood Avenue was built in 2012 for the Rhode Island Public Transit Authority and is primarily a two-story administrative facility. Both the first and second floor levels house RIPTA administrative and operations offices. This facility is classified as an administrative facility, but also serves as a General-Purpose Maintenance building. Portion of this facility houses indoor storage for the authority’s paratransit fleet.



The building is approximately 10 years in age and is the Authority’s headquarters and newest facility. Photos showing the current condition of the exterior and interior of the building are enclosed in Appendix B. Based on our team’s assessment, the building is in an adequate to good condition. There is approximately \$6.1M of improvements that fall within the 20-year forecast for 705 Elmwood. The bulk of the projects are between years 5 and 11 and primarily concentrated on equipment, plumbing, HVAC, and electrical components.

Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.7
Interiors	3.6
Conveyance	3.0
Plumbing	4.9
HVAC	4.2
Fire Protection	4.0
Electrical	4.0
Equipment	3.0
Site	3.0
Total	3.7

Substructure (4.0)

The building foundations and substructure were not directly observable less a few instances. Further invasive demolition would be required to ascertain the condition of the building foundations, column footings, etc. Concrete slabs on grade appear in good condition, however there were some observable patches and repairs.

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Shell (3.74)

Primary structural members including steel columns, beams, joists, and trusses are in very good condition. General cleaning and debris removal is recommended but overall, the superstructure is above average condition. CMU structural walls are also in good condition. From observing the interior and exterior, there are no major structural deficiencies detected in the CMU walls. Exterior brick veneer is in above average condition. There is very little wear documented and mortar joints appear to maintain their integrity.

Regarding roofing, the membrane on rigid insulation roof is in above average condition. There is little to no wear detected and the roof can be considered close to new condition. At the top level of the building is a parking deck. The coating and striping shows signs of continuous wear which is natural. There is also evidence of some staining on the deck. Metal roof coping at the same level can be seen in good condition however there was a section missing at the time of site visit.

At the ground level, 12 overhead coiling doors remain in average condition. They appear to show normal signs of wear. Exterior metal doors and frames show signs of wear typical of their location and lifespan. They are average condition. Exterior glazing does not seem to indicate any major deficiencies and is above average condition. Aluminum automatic entries indicate a lot of usage but are in overall good condition.

Interiors (3.6)

Interior wood doors and frames are in above average condition. There is little wear observable less some higher traffic areas. Acoustic ceiling tiles and grids are in good condition however there are some ceiling tiles that show signs of staining. VCT flooring is in good working condition with signs of wear in heavily trafficked areas and where furniture is moved frequently. Ceramic tile floor and base in restrooms and back-of-house spaces shows signs of heavy traffic and may not be level based on water pooling seen in documentation. Restroom fixtures and accessories are overall in average condition.

Conveyance (3.0)

The elevators in 705 Elmwood are in adequate condition, based on our observations. They are over halfway through their expected useful life and are included in the 20-year forecast.

Plumbing Systems (4.9)

The plumbing is comprised of domestic hot- and cold-water systems, waste & vent systems, storm drainage systems, and compressed air systems. The domestic water piping is comprised of copper piping, and much of it has the gleam of new piping. The hot-water systems for domestic use appear in good condition. The plumbing fixtures are dated but are not obsolete. The compressed air system is rather new. Overall, the systems are “Good.”

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HVAC Systems (4.2)

The HVAC system is comprised of comfort cooling and heating for the office portion of the building, and the garage/repair portion is served by Makeup Air Units and an Exhaust System. Comfort cooling and base comfort heating is composed of a several constant-air-volume rooftop units. The makeup air units and exhaust fans are in good working order. The systems are rather new, and all have useful life remaining. Overall, the systems are “Good.”

Fire Protection Systems (4.0)

The fire sprinkler system is composed of a wet-pipe system. The service is complete with backflow preventers and fire department connections. The system is “Good.”

Electrical Systems (4.0)

All the Electrical systems appeared to be in good condition, hence the overall high score.

Equipment (3.0)

Inside the storage area there are two bus washes that are in Marginal condition and three vertical lifts in adequate condition. These components are all nearing their useful life and due to their operation importance; they have been prioritized in the 20-year forecast.

Site (3.0)

The site comprising of sidewalks and a surface parking lot is in adequate condition. Based on our observation, these components have more than 20 years of useful life remaining.

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III. Appendix A - 20-Year Facility Cost Projection

Location	Cost By Fiscal Year							Grand Total
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	
FY 2024	\$1,000,000		\$150,000		\$96,000	\$1,185,000	\$570,000	\$3,001,000
<i>Fire Protection</i>			\$150,000			\$355,000	\$200,000	\$705,000
Fire Sprinklers			\$150,000			\$355,000	\$200,000	\$705,000
<i>HVAC</i>	\$1,000,000				\$96,000	\$830,000	\$370,000	\$2,296,000
AC, Boilers, Radiant Heating	\$1,000,000							\$1,000,000
Comfort Cooling					\$96,000			\$96,000
Comfort Heating and Cooling							\$350,000	\$350,000
Exhaust System						\$278,000	\$20,000	\$298,000
Air-Side Mechanical System						\$552,000		\$552,000
FY 2025	\$100,530	\$110,000	\$580,188		\$57,500	\$1,900,194		\$2,748,412
<i>Electrical</i>	\$100,530		\$37,188		\$7,500			\$145,218
Exterior Lighting System	\$7,500				\$7,500			\$15,000
Office/Storage Lighting System	\$93,030							\$93,030
Service and Distribution			\$37,188					\$37,188
<i>HVAC</i>			\$543,000					\$543,000
MAU and Exhaust System			\$375,000					\$375,000
Office Area Comfort Heating and Cooling			\$168,000					\$168,000
<i>Plumbing</i>		\$110,000			\$50,000	\$556,000		\$716,000
Hot-Water System					\$50,000	\$16,000		\$66,000
Plumbing Fixtures		\$110,000				\$132,500		\$242,500
Sanitary Drainage						\$257,500		\$257,500
Storm Drainage						\$150,000		\$150,000
Shell						\$1,344,194		\$1,344,194
Roofing – ballasted						\$1,344,194		\$1,344,194
FY 2026		\$70,000	\$99,172		\$170,691	\$2,109,111	\$47,566	\$2,496,541
<i>Equipment</i>		\$70,000	\$99,172					\$169,172
Bus wash			\$99,172					\$99,172
Bush Wash		\$70,000						\$70,000
<i>Plumbing</i>						\$413,000		\$413,000
Compressed Air						\$200,000		\$200,000
Domestic Water						\$213,000		\$213,000
Shell					\$170,691	\$1,696,111	\$47,566	\$1,914,369
Membrane roofing + rigid insulation					\$170,691			\$170,691
Exterior Walls, Brick						\$789,600		\$789,600
Exterior office windows						\$489,600		\$489,600
Exterior steel windows						\$350,096		\$350,096
Roof head houses and EQ						\$25,248		\$25,248
Storefront, Metal-framed with Glazing						\$14,090		\$14,090
Roof Skylight						\$8,250		\$8,250
Roof access ladder, steel						\$2,297		\$2,297
Steel exterior doors, frames, and hardware						\$16,931		\$16,931
Exterior louvers, frames, and bird/insect screens							\$2,290	\$2,290
Roof insulation							\$45,276	\$45,276
FY 2027		\$466,000			\$770,000	\$886,215	\$148,474	\$2,270,689
<i>Electrical</i>						\$886,215	\$148,474	\$1,034,689
Exterior Lighting System							\$7,500	\$7,500
Fire Alarm System						\$287,448	\$7,625	\$295,073
Garage Lighting System							\$110,722	\$110,722
Office/Storage Lighting System						\$553,540		\$553,540
Service and Distribution						\$45,227	\$22,627	\$67,854
<i>Equipment</i>					\$770,000			\$770,000
Vehicle Lifts					\$770,000			\$770,000
<i>HVAC</i>			\$466,000					\$466,000
Exhaust System			\$466,000					\$466,000
FY 2028	\$33,863	\$436,358		\$40,000	\$50,120	\$848,071	\$3,384	\$1,411,796
<i>Electrical</i>	\$21,518	\$38,858			\$50,120			\$110,496
Exterior Lighting System		\$7,500						\$7,500
Fire Alarm System	\$3,500	\$31,358						\$34,858
Service and Distribution	\$18,018				\$50,120			\$68,138
<i>Interiors</i>	\$12,345						\$3,384	\$15,729
Gypsum ceilings	\$12,345							\$12,345
Carpet flooring							\$3,384	\$3,384
<i>Plumbing</i>		\$397,500		\$40,000				\$437,500
Hot-Water System				\$40,000				\$40,000
Sanitary Drainage		\$397,500						\$397,500
<i>Interior</i>						\$848,071		\$848,071
Acoustic ceiling tile and grid systems.						\$237,160		\$237,160
Interior gypsum partitions/walls						\$221,088		\$221,088
Carpet flooring						\$95,634		\$95,634
Interior F2 Doors						\$91,402		\$91,402
Vinyl tile flooring						\$81,000		\$81,000
Interior stairs, Fire Exit						\$33,825		\$33,825
Interior gypsum board ceilings						\$20,262		\$20,262
Ceramic wall tile						\$18,000		\$18,000
Interior steel doors						\$37,039		\$37,039
Interior fire rated doors						\$12,662		\$12,662

Location	Cost By Fiscal Year								Grand Total
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St		
FY 2038	\$42,610		\$86,404	\$128,822			\$397,390	\$655,225	
Equipment				\$99,172				\$99,172	
Bus Wash				\$99,172				\$99,172	
Interiors	\$42,610		\$86,404				\$341,740	\$470,753	
Acoustic ceiling tiles and grids			\$60,638					\$60,638	
Interior Steel doors and frames			\$25,766				\$23,212	\$48,978	
Interior wood benches	\$2,000							\$2,000	
Public restroom fixtures, toilet partitions, and accessories	\$21,622							\$21,622	
Raised flooring system	\$2,268							\$2,268	
Restroom fixtures and accessories							\$3,348	\$3,348	
Stone wall tile	\$16,720							\$16,720	
Plaster ceilings							\$6,012	\$6,012	
Interior drywall Partitions							\$15,700	\$15,700	
Interior furniture and fixtures							\$293,468	\$293,468	
Shell				\$29,650			\$55,650	\$85,300	
Aluminum automatic entrances				\$29,650				\$29,650	
Overhead garage doors							\$55,650	\$55,650	
FY 2039	\$150,000	\$475,000			\$462,225			\$1,087,225	
Electrical					\$22,225			\$22,225	
Fire Alarm System					\$22,225			\$22,225	
Fire Protection	\$150,000	\$475,000			\$440,000			\$1,065,000	
Fire Sprinklers	\$150,000	\$475,000			\$440,000			\$1,065,000	
FY 2040	\$200,000	\$490,178			\$88,000			\$778,178	
Interiors		\$15,178						\$15,178	
Restroom fixtures and accessories		\$15,178						\$15,178	
Plumbing	\$200,000	\$475,000			\$88,000			\$763,000	
Domestic Water		\$237,500						\$237,500	
Natural Gas		\$95,000			\$88,000			\$183,000	
Plumbing System	\$200,000							\$200,000	
Storm Drainage		\$142,500						\$142,500	
FY 2041				\$226,000	\$352,000			\$578,000	
Plumbing				\$226,000	\$352,000			\$578,000	
Storm and Drainage				\$226,000	\$352,000			\$578,000	
FY 2042	\$12,451	\$55,660			\$176,465	\$994,000	\$29,568	\$1,268,144	
HVAC						\$994,000		\$994,000	
Steam System						\$994,000		\$994,000	
Interiors	\$12,451							\$12,451	
Epoxy flooring and cove base	\$12,451							\$12,451	
Shell		\$55,660			\$176,465		\$29,568	\$261,693	
Existing relocated granite cornice					\$58,188			\$58,188	
Exterior overhead coiling doors		\$55,660						\$55,660	
Overhead coiling doors					\$118,278			\$118,278	
Membrane roofing							\$29,568	\$29,568	
FY 2043		\$136,906	\$15,284	\$158,686	\$32,598	\$6,346	\$349,820	\$349,820	
Interiors		\$136,906	\$15,284	\$65,196	\$32,598	\$6,346		\$256,330	
Acoustic ceiling tiles and grids		\$136,906						\$136,906	
Overhead garage doors			\$8,695					\$8,695	
Restroom & locker room fixtures and accessories					\$32,598			\$32,598	
Restroom fixtures and accessories			\$6,589					\$6,589	
Restroom fixtures and accessories				\$65,196				\$65,196	
Interior lighting fixtures						\$6,346		\$6,346	
Shell				\$93,490				\$93,490	
Overhead coiling doors				\$93,490				\$93,490	
Grand Total	\$1,605,323	\$4,892,966	\$2,030,874	\$6,093,649	\$5,854,570	\$8,773,872	\$2,260,126	\$31,511,379	

IV. Appendix B - Facility Condition Assessments



265 MELROSE STREET,
PROVIDENCE, RI 02907

TAMS Facility Condition Assessment

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265 Melrose Street Maintenance Facility

I. ASSESSMENT OVERVIEW

A. Facility Description

Although two separate buildings, 265 and 267 Melrose Street function as a single building with circulation connections to each other on the ground and upper floors. 265 Melrose Street (Building 265) was built in 1922 for United Electric Railroads and is a mostly one-story vehicle maintenance facility with shops and storage. There is a partial second floor and two small partial basement areas, which were previously used for mechanical equipment. The exact construction date of 267 Melrose Street (Building 267) is unknown and was likely built



between 1935 and 1950. It is a two-story building with a mezzanine. 267 Melrose Street houses vehicle storage and repair on the first level. The second level features an office area that has been vacant for more than 10 years. Both second floor levels previously housed RIPTA administrative offices and have now been abandoned due to disrepair, hazardous materials building components, leaking roofs, and inefficient and obsolete building systems.

B. Facility Inventory Data

Item	Description
Agency	Rhode Island Public Transit Authority (RIPTA)
Address	265 Melrose St, Providence, RI 02907
Property Type	General Purpose Maintenance
Year Built	1927
Number of Vehicles Stored	15
Year of Latest Major Renovation	1997
Number of Stories	2 (Does not Include Basements, Mezzanines, or MEP Penthouses)
Occupied	No (Used as vehicle storage)
Land Area	1.07 Acre
Gross Building Area (GSF)	72,000
Total Parking Count (Including ADA)	0 Parking Spaces
ADA Compliant (Total Count)	0 Total ADA Spaces
ADA Compliant for Vans	0 Van Parking Spaces

C. Summary of Findings

The building is beyond its useful life in its current condition. An in-depth 2016 building assessment identified structural deficiencies, system performance failures, accessibility challenges not meeting ADA, UFAS, and other related requirements, and the presence of hazardous materials including asbestos. Based on our team’s assessment, the building remains in a poor condition. Please refer to the overall facility condition in Section D.

D. Overall Facility Condition

Components	Rating
Substructure	3.0
Shell	1.61
Interiors	1.03
Conveyance	1.0
Plumbing	2.39
HVAC	2.09
Fire Protection	1.0
Electrical	2.52
Equipment	N/A
Site	2.0
Total	1.8

II. PURPOSE AND SCOPE

A. Facility Condition Assessment Requirements & Procedures

The condition assessment is primarily intended to assess the overall physical condition of the facility to support capital investment decisions. The facility’s classification is based upon American Society of Testing and Materials (ASTM) and reporting will follow guidelines set by the Transit Asset Management (TAM) data-reporting requirements and National Transit Database (NTD).

These assessments are completed through an on-site review of our team comprised of an Architect, Electrical Engineer and Mechanical Engineer. These on-site assessments are supplemented with the review any previous inspections results, available as-builts and any additional information provided by RIPTA. The team will also note and report any defects that may constitute a safety concern or potential service delay immediately.

During the on-site assessment, the inspector will observe the primary and secondary level conditions identified in Section B. Our assessments are limited to assets that are visible and accessible, with information on less easily accessible features like internal systems and wiring gained via documentation and interview. Entering limited access areas such as crawl spaces, utility pits, and sloped roofs is not advisable, and their conditions will be observed from a point of safe access. The inspector will assess each using the FTA TERM condition rating scale that is described in Section C.

265 Melrose Street Maintenance Facility

B. Facility Components and Sub-Components

This section describes the specific components and sub-components that must be inspected as part of a facility condition assessment. The component classification is based upon American Society of Testing and Materials (ASTM) documents that provide standards for classification of building components and related site components, but these have been customized in certain respects to address common features of transit facilities.

ID#	Components	Typical Sub-Components
A.	Substructure	<ul style="list-style-type: none"> • Foundations: Walls, columns, pilings other structural components • Basement: Materials, insulation, slab, floor underpinning
B.	Shell	<ul style="list-style-type: none"> • Superstructure / structural frame: columns, pillars, walls • Roof: Roof surface, gutters, eaves, skylights, chimney surrounds • Exterior: Windows, doors, and all finishes (paint, masonry) • Shell appurtenances: Balconies, fire escapes, gutters, downspouts
C.	Interiors	<ul style="list-style-type: none"> • Partitions: walls, interior doors, fittings such as signage • Stairs: Interior stairs and landings • Finishes: Materials used on walls, floors, and ceilings
D.	Conveyance	<ul style="list-style-type: none"> • Elevators • Escalators • Lifts: any other such fixed apparatuses for the movement of goods or people
E.	Plumbing	<ul style="list-style-type: none"> • Fixtures • Water distribution • Sanitary waste • Rain water drainage
F.	HVAC	<ul style="list-style-type: none"> • Energy supply • Heat generation and distribution systems • Cooling generation and distribution systems • Testing, balancing, controls and instrumentation • Chimneys and vents
G.	Fire Protection	<ul style="list-style-type: none"> • Sprinklers • Standpipes • Hydrants and other fire protection specialties
H.	Electrical	<ul style="list-style-type: none"> • Electrical service & distribution • Lighting & branch wiring (interior and exterior) • Communications & security • Other electrical system-related pieces such as lightning protection, generators, and emergency lighting
I.	Equipment	<ul style="list-style-type: none"> • Equipment related to the function of the facility, including maintenance or vehicle service equipment <p><i>For clarity, includes only items valued above \$10,000 and related to facility function</i></p>
J.	Site	<ul style="list-style-type: none"> • Roadways/driveways and associated signage, markings, and equipment • Parking lots and associated signage, markings, and equipment • Pedestrian areas and associated signage, markings, and equipment • Site development such as fences, walls, and miscellaneous structures • Landscaping and irrigation • Site Utilities

265 Melrose Street Maintenance Facility

C. Condition Assessment Rating Scale

The condition measure used in the NTD is the five-point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

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

A weighted average condition is being utilized to calculate an overall condition for the facility.

$$OR = \frac{\sum_i CR_i RC_i}{\sum_i RC_i}$$

Where:

CR_i is the rating for component i

RC_i is the replacement cost for component i

III. ASSETS OBSERVED

Assets observed at the site are provided in this Section and sorted by the modified Uniformat II coding indexed as applicable. See the listing below for the sequence.

A. SUBSTRUCTURE

- A10 Foundations
- A20 Basement Construction

B. SHELL

- B10 Super Structure
- B20 Exterior Enclosure
- B30 Roofing

C. INTERIORS

- C10 Interior Construction
- C20 Stairs
- C30 Interior Finishes

D. SERVICES

- D10 Conveying
- D20 Plumbing
- D30 HVAC
- D40 Fire Protection
- D50 Electrical

E. EQUIPMENT

- E10 Equipment

G. SITEWORK

- G10 Site Preparation
- G20 Site Improvements
- G30 Site Mechanical Utilities
- G40 Site Electrical Utilities
- G90 Other Site Construction

A. Substructure

Coding / Field Name	Asset Description
System Name	Foundations, concrete
Condition	3
Quantity	~1,400 linear ft.
Unit Cost	Total: \$287,448
Year in Service	1922
Expected Useful Life	100 years
Remaining Useful Life	25 years, Estimated, Based on Date of Observation
Location	Structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Foundations not visually accessible.

B. Shell

Coding / Field Name	Asset Description
System Name	Superstructure, concrete/steel.
Condition	3
Quantity	72,000 sq. ft.
Unit Cost	Total: \$972,000
Year in Service	1922
Expected Useful Life	100 years
Remaining Useful Life	25 years, Estimated, Based on Date of Observation
Location	Structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Structural Floor/Decking
Condition	3
Quantity	~25,000 sq. ft.
Unit Cost	Total: \$325,056.26
Year in Service	1922
Expected Useful Life	100 years
Remaining Useful Life	25 years, Estimated, Based on Date of Observation
Location	Upper floors
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Roof access ladder, steel
Condition	1
Quantity	1
Unit Cost	\$2,296.85
Year in Service	N/A
Expected Useful Life	N/A
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior Walls, Brick
Condition	1
Quantity	~17,000 sq. ft.
Unit Cost	Total: \$789,600
Year in Service	1922
Expected Useful Life	100
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

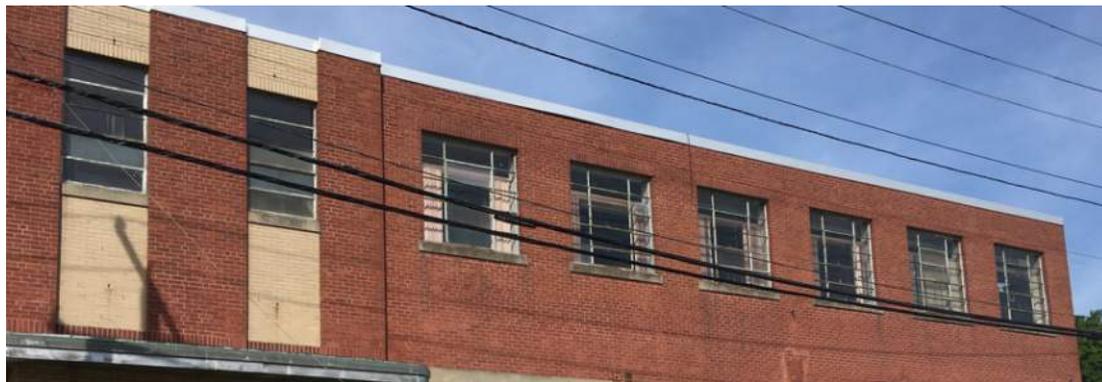
Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior office windows
Condition	1
Quantity	~50
Unit Cost	Total: \$489,600
Year in Service	1975
Expected Useful Life	30 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior steel windows
Condition	1
Quantity	~29
Unit Cost	Total: \$350,096
Year in Service	1975
Expected Useful Life	30 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Storefront, Metal-framed with Glazing
Condition	1
Quantity	~500 sq. ft.
Unit Cost	Total: \$14,090
Year in Service	1985
Expected Useful Life	30 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Steel exterior doors, frames, and hardware
Condition	1
Quantity	8
Unit Cost	Total: \$16,931
Year in Service	1997
Expected Useful Life	25 years
Remaining Useful Life	1 year, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

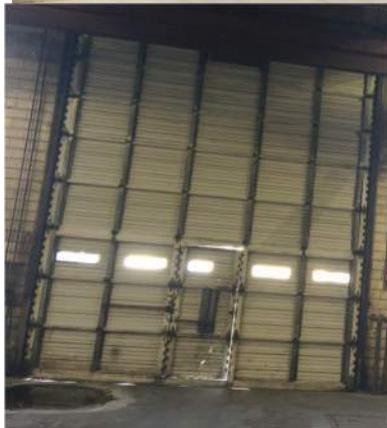
Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Overhead steel garage doors
Condition	2
Quantity	22
Unit Cost	Total: \$153,063
Year in Service	1995
Expected Useful Life	30 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Roofing – ballasted
Condition	1
Quantity	~43,500 sq. ft.
Unit Cost	Total: \$1,344,194
Year in Service	1995
Expected Useful Life	20 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Roof head houses
Condition	1
Quantity	~600 sq. ft.
Unit Cost	\$25,248
Year in Service	N/A
Expected Useful Life	N/A
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Roof – Membrane
Condition	2
Quantity	~3,000 sq. ft.
Unit Cost	Total: \$22,872
Year in Service	2005
Expected Useful Life	20
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Roof Skylight
Condition	1
Quantity	~160 sq. ft.
Unit Cost	Total: \$8,250
Year in Service	1975
Expected Useful Life	30
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Ada push buttons not operable on some doors.

Pictures:



C. Interior

Coding / Field Name	Asset Description
System Name	Interior steel doors
Condition	1
Quantity	23
Unit Cost	Total: \$37,039.20
Year in Service	2010
Expected Useful Life	20
Remaining Useful Life	2 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior F2 Doors
Condition	1
Quantity	74
Unit Cost	Total: \$91,402
Year in Service	1985
Expected Useful Life	25
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior fire rated doors
Condition	2
Quantity	6
Unit Cost	\$12,662.40
Year in Service	1985
Expected Useful Life	25 years
Remaining Useful Life	2 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Toilet partitions - metal
Condition	3
Quantity	5
Unit Cost	\$5289.84
Year in Service	2010
Expected Useful Life	15 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior stairs, Fire Exit
Condition	1
Quantity	~2,000 sq. ft.
Unit Cost	\$33,825
Year in Service	1927
Expected Useful Life	50 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior gypsum partitions/walls
Condition	1
Quantity	~25,000 sq. ft.
Unit Cost	\$221,087.50
Year in Service	N/A
Expected Useful Life	75 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Vinyl tile flooring
Condition	1
Quantity	~12,000 sq. ft.
Unit Cost	\$81,000
Year in Service	1975
Expected Useful Life	50 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

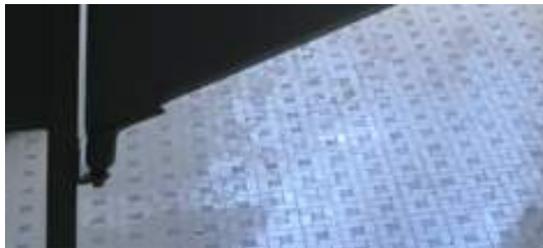
Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Ceramic tile flooring
Condition	1
Quantity	2,000 sq. ft.
Unit Cost	\$27,226.41
Year in Service	1975
Expected Useful Life	75 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Ceramic wall tile
Condition	1
Quantity	~2,000
Unit Cost	\$18,000
Year in Service	1975
Expected Useful Life	50 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Carpet flooring
Condition	1
Quantity	14,000 sq. ft.
Unit Cost	\$95,634
Year in Service	1975
Expected Useful Life	10 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior gypsum board ceilings
Condition	1
Quantity	~2,000 sq. ft.
Unit Cost	\$20,262
Year in Service	1927
Expected Useful Life	75 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

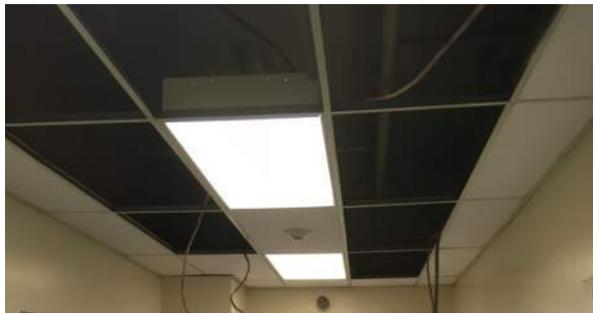
Pictures:



265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Acoustic ceiling tile and grid systems.
Condition	1
Quantity	22,000 sq. ft.
Unit Cost	\$237,160.02
Year in Service	1975
Expected Useful Life	40 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



D. SERVICES

Conveyance

Coding / Field Name	Asset Description
System Name	Elevator
Condition	1
Quantity	1
Unit Cost	\$453,500
Year in Service	1964
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	0 Years
Location	First and Second Floors
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Plumbing Systems

Coding / Field Name	Asset Description
Domestic Water Distribution	Domestic water service and piping distribution
Condition	3-Maginal
Quantity	~71,000 SF
Unit Cost	\$3/square foot for distribution & Labor Total: \$213,000
Year in Service	~1960s with sporadic modifications through the years
Expected Useful Life (EUL)	~50 Years
Remaining Useful Life (RUL)	~10 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

Domestic Water

Coding / Field Name	Asset Description
Domestic Water Distribution	Domestic water service and piping distribution
Condition	3-Maginal
Quantity	~71,000 SF
Unit Cost	\$3/square foot for distribution & Labor Total: \$213,000
Year in Service	~1960s with sporadic modifications through the years
Expected Useful Life (EUL)	~50 Years
Remaining Useful Life (RUL)	~10 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The domestic water service is in a basement level. The service has a 2” copper line. There is a 2” water meter and a 2” reduced-pressure zone backflow preventer. The copper is slightly corroded but appears to be in fair condition. A pressure gauge at the service reads 78 psi. No pressure boosting pumps are present. The domestic water is

265 Melrose Street Maintenance Facility

pipework with copper throughout the building. Maintenance was performed in a few sections. The older fittings were soldered, and the newer fittings are press-fit fittings. No insulation is present on hot or cold water piping.

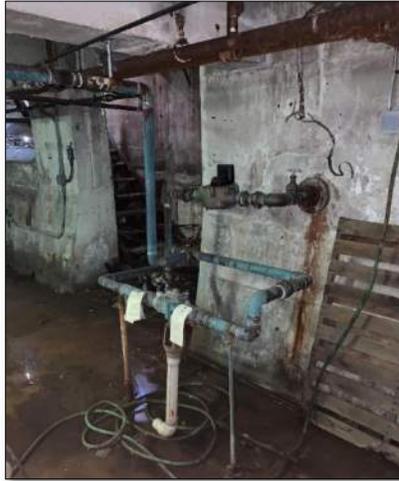


Figure 1: Water Service Entrance

Hot Water System

Coding / Field Name	Asset Description
Domestic Hot Water Systems	Water heaters
Condition	5-Excellent: Gas-Fired Tank Water Heater & Electric Tank Water Heater. 1- Poor: Abandoned Equipment
Quantity	~1 Gas-Fired Water heater, ~1 Electric Water Heater
Unit Cost	\$16,000
Year in Service	~November 2009
Expected Useful Life (EUL)	~15 Years
Remaining Useful Life (RUL)	~2 Years
Location	Boiler Room and Garage Restroom
Basis of Costing	RMS Means Data with Contingencies Added

A 65-gallon, 65,000 Btu/hr gas-fired water heater located in the boiler room provides hot water to a wash sink and several interior hose bibbs. A small, tank electric water heater provides hot water to the restroom. In the office area, a small tank electric water heater is abandoned in place under the vanity of a lavatory.



Figure 2: Gas-Fired Water Heater in Boiler Room



Figure 3: Electric Water Heater in Garage Area

265 Melrose Street Maintenance Facility



Figure 4: Electric Water Heater in Office Area

An abandoned, gas-fired water heater is in the abandoned boiler room. This water heater might have supplied hot water to the restrooms in the office area when the office portion of the building was operational.



Figure 5: Abandoned Gas-Fired Water Heater in Abandoned Boiler Room

Plumbing Fixtures

Coding / Field Name	Asset Description
Plumbing Fixtures	Water closets, lavatories, sinks, etc.
Condition	1-Poor
Quantity	~21,000 SF, ~20 Fixtures
Unit Cost	~\$4,000/Fixture and \$2.50/SF. Total: \$132,500
Year in Service	~1960s with sporadic modifications
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Office Area
Basis of Costing	RMS Means Data with Contingencies Added

The observed abandoned plumbing fixtures are non-ADA compliant, are manually operated, and are not of the water-saving variety. There appeared to be no master mixing valve and no point-of-use mixing valves to provide scald protection.



Figure 6: Abandoned Urinal



Figure 7: Abandoned Lavatory



Figure 8: Abandoned Lavatory



Figure 9: Garage Restroom



Figure 10: Garage Restroom



Figure 11: Garage Restroom

Storm Drainage

Coding / Field Name	Asset Description
Storm Drainage Systems	Roof drains and Leaders
Condition	1-Poor
Quantity	~50,000 SF
Unit Cost	\$3/SF. Total: \$150,000
Year in Service	~1960s with sporadic modifications
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Facility Roof
Basis of Costing	RMS Means Data with Contingencies Added

The storm drainage piping appeared to be original to the building. Most piping was bell and spigot cast iron, and some recent patching was done with PVC. The drains on the roof are original and some appear clogged. No secondary drainage was present.



Figure 12: Clogged Roof Drain



Figure 13: Storm Leaders - PVC and Cast Iron

Sanitary Drainage

Coding / Field Name	Asset Description
Sanitary Drainage System	Sanitary Drainage Piping and Interceptors
Condition	2-Marginal
Quantity	~71,000 SF
Unit Cost	\$2.50/SF. Total: \$177,500. Oil Water Separator: \$80,000
Year in Service	~1960s with sporadic modifications
Expected Useful Life (EUL)	~30 Years
Remaining Useful Life (RUL)	~0 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The sanitary piping is bell and spigot cast iron. The piping appeared to be original and is deteriorating in the basement, where one street lateral is observed.



Figure 14: Pipe Chase in Water Service Area. Sanitary Lateral

In the washroom, what appears to be a sand-oil separator is filled with concrete. No other oil separation system appears present in the building.

265 Melrose Street Maintenance Facility



Figure 15: Filled Sand-Oil Separator

Compressed Air System

Coding / Field Name	Asset Description
Compressed Air Systems	Compressed Air System Equipment and Piping
Condition	4-Good
Quantity	Qty (1) System
Unit Cost	Total: \$200,000
Year in Service	~2010
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~8 Years
Location	Garage
Basis of Costing	Equipment

A compressed air system is in a dedicated room. The system includes an air compressor, a filter, and a storage tank. The compressed air is only used for hand tools used by the technicians. Drops are located on columns in the garage bay. The compressed air system does not help control the steam system.

265 Melrose Street Maintenance Facility



Figure 16: Compressed Air Tank



Figure 17: Compressed Air Filter



Figure 18: Air Compressor



Figure 19: Compressed Air Drop for Hand Tools

HVAC Systems

Overview

The building’s mechanical systems are generally separated to accommodate the office portion and the garage portion of the building. However, steam does provide comfort heating for the garage and the office portion.

Steam System

A Cleaverbrooks 150 hp, natural-gas fired, 15 psi steam boiler serves both the offices and the garage. The garage has unit heaters located throughout to provide comfort heating and to also provide freeze protection for the wet-pipe sprinkler system. Perimeter heat is provided for the offices with the use of two-pipe steam radiators. No building automation system is in place. It appears the steam unit heaters’ fans in the garage are controlled with local thermostats.

Coding / Field Name	Asset Description
Steam System	Steam boiler, piping, ancillary equipment, and terminal devices (radiators and fan coils).
Condition	Steam Boiler: 4-Good, Rest of System: 2-Marginal
Quantity	~71,000 square feet
Unit Cost	\$14/square foot for ~\$994,000
Year in Service	Boiler (2010), Other System Components ~1960s and 1997
Expected Useful Life (EUL)	Boiler ~30 Years, Other System Components ~30 Years
Remaining Useful Life (RUL)	Boiler ~20 years, Other System Components ~0 Years
Location	Boiler Room. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added



Figure 20: Steam Radiator in Breakroom



Figure 21: Steam Radiator in Lobby

265 Melrose Street Maintenance Facility



Figure 22: Steam Fan Coil in Garage

The Cleaverbrooks boiler was manufactured in 2010. This system replaced the existing oil-fired steam boiler that was abandoned in place in the basement. The boiler room is clean and appears to be well maintained. The floor was recently painted. However, building maintenance mentioned that only recently has the boiler feed water been treated. There is a 5 gallon-bucket of treatment chemicals being dosed into the Shipco Water Feed Tank. There isn't a contract with a water treatment company. Building maintenance mentioned the steam system is very loud and condensate traps fail often. This is most likely due to the lack of water treatment. Air purge valves and condensate traps become stuck due to the corrosion effects of the inadequately treated water. Trapped air and cold condensate flash with the steam and knock pipes.

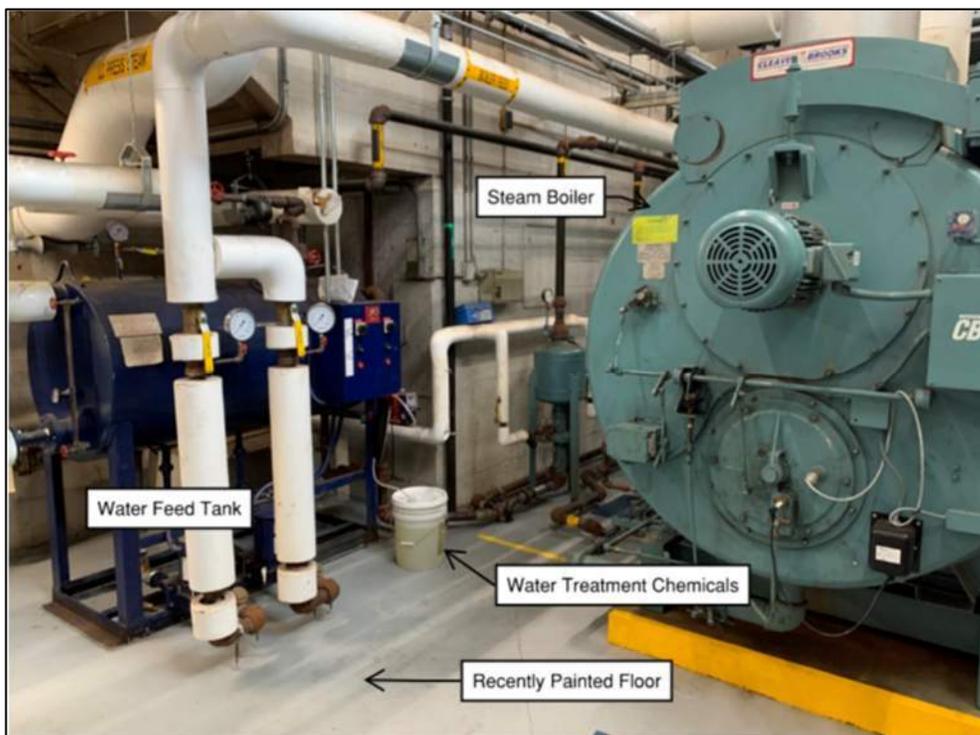


Figure 23: Boiler Room

265 Melrose Street Maintenance Facility

Figure 24: Abandoned Boiler in Abandoned Boiler Room

The maintenance staff mentioned the unit heaters work well, but it is unclear how many are operational or how many are not being triggered due to condensate traps failing or bad thermostats. Also, in the boiler room, the maintenance staff mentioned the need to open the boiler room doors to provide enough combustion air for the boiler. There are fans to provide combustion air, but the staff feels these are insufficiently sized. The control boxes are open exposing wiring.



Figure 25: Combustion Air Fans

265 Melrose Street Maintenance Facility

Condensate receivers are placed in various portions of the building. Some maintenance was observed, such as new pumps and motors.



Figure 26: Condensate Receiver in the Basement



Figure 27: Condensate Receiver in the Boiler Room

Exhaust System

Coding / Field Name	Asset Description
Exhaust System	Motor driven fans, passive dampers, abandoned air handlers
Condition	1-Poor
Quantity	~32,000 square feet
Unit Cost	\$4/square foot for distribution & Labor, ~\$150,000 for Equipment Total: \$278,000
Year in Service	~1960s with modifications around ~1997
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Garage Area
Basis of Costing	RMS Means Data with Contingencies Added

There is an abandoned paint booth on the North side of the building. The duct work in place feeds a large Air Handler that was abandoned in place on the roof. The sprinkler system was also disconnected for the penthouse where the air handler is housed (mentioned later in this report). Another large Air Handler was abandoned in place on the roof, and this air handler served the sheet metal shop and the glass shop.

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Figure 28: Abandoned Air Handler for Spray Booth, Located on Roof



Figure 29: Spray Booth and Duct Distribution

The garage has motor-driven exhaust fans that have some branch ducting. It appears the branch ducting was intended for localized exhaust, but the flexible ducting used for this purpose is not in place. It is unclear how the exhaust fans are controlled as there are no visible CO or NO2 controls that are typically in place and are mandated by current building codes. It is unclear how many exhaust fans are operational.

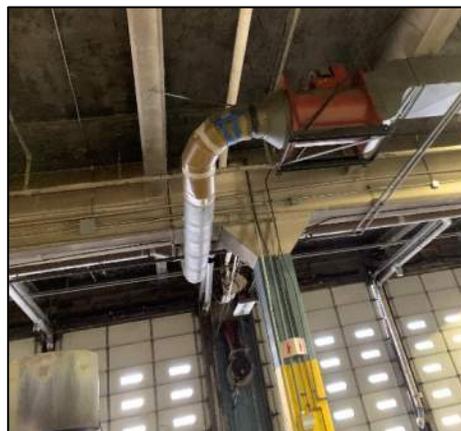


Figure 30: Garage Exhaust Fan

The garage also has exhaust ducts with dampers that lead to the roof. Some dampers are open, and some aren't. Some have strings tied to the damper levers. The mechanical exhaust fans were fitted to several of these ducts.

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Figure 31: Garage Exhaust Duct Closed



Figure 32: Garage Exhaust Duct Open



Figure 33: Garage Exhaust on Roof

Air-Side Mechanical Systems

Coding / Field Name	Asset Description
Air-Side Mechanical Systems	Air Conditioning Systems
Condition	1-Poor
Quantity	~3 Split Systems, ~1 Rooftop Unit, ~5 Window Units, ~21,000 SF of Office Space
Unit Cost	\$12/square foot for distribution & Labor, ~\$300,000 for Equipment Total: \$552,000
Year in Service	~1980s with modifications around ~2000
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Office Area
Basis of Costing	RMS Means Data with Contingencies Added

The office area provides cooling using qty (1) rooftop unit and (2) split systems with condensers on the roof and evaporators in mechanical areas. There appeared to be an

265 Melrose Street Maintenance Facility

abandoned indoor unit as well, but it's difficult to determine which indoor unit is abandoned as none of the units appeared operational. Variable air volume boxes were not observed, though most of the drop ceiling was in place, obscuring views. The systems are most likely constant air-volume systems controlled by a single thermostat. Ventilation air was provided through mechanical means, but the windows are operable, meaning natural ventilation could be possible through this.



Figure 34: Condenser



Figure 35: Condenser



Figure 36: Abandoned Rooftop Unit



Figure 37: Indoor Evaporator



Figure 38: Indoor Evaporator



Figure 39: Indoor Evaporator

In addition, there are several window units located throughout the building that provide some spot cooling.

265 Melrose Street Maintenance Facility



Figure 40: Window Unit in the Office Area



Figure 41: Window Unit in the Garage Area

Fire Sprinkler Systems

Overview

The fire sprinkler system is a wet-pipe sprinkler system. There isn't a central fire protection service room with a backflow preventer with risers coming off the main. The main sprinkler lines run underground, below the garage floor. There are Qty (3) risers: Qty (1) in the Boiler Room and Qty (2) in the Garage.

Coding / Field Name	Asset Description
Fire Sprinkler System	Wet-Pipe Piping, Sprinklers, and Valving
Condition	1-Poor, Incomplete Systems
Quantity	71,000 SF
Unit Cost	\$5.00/SF. Total: \$355,000
Year in Service	~1960 with Sporadic Modifications
Expected Useful Life (EUL)	~20 Years for sprinklers. ~40 Years for Piping
Remaining Useful Life (RUL)	~0 Years
Location	Entire Facility
Basis of Costing	RMS Means

Service Entrance

The sprinkler service enters the West side of the building into the Boiler Room. The main service is marked with a Post Indicator Valve (PIV). There is no Fire Department Connection, but there is an exterior bell.

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Figure 42: Fire Sprinkler Service Alarm Bell



Figure 43: Post Indicator Valve

Risers and Sprinklers

The Risers for the zones appear rather new. There are new flow switches and tamper switches in place. The riser check assemblies appear in good condition. There is an abandoned riser that previously served the air handler houses on the roof.

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Figure 44: Fire Sprinkler Riser in Boiler Room

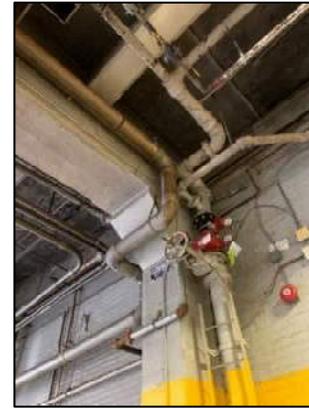


Figure 45: Fire Sprinkler Riser, West End of Garage

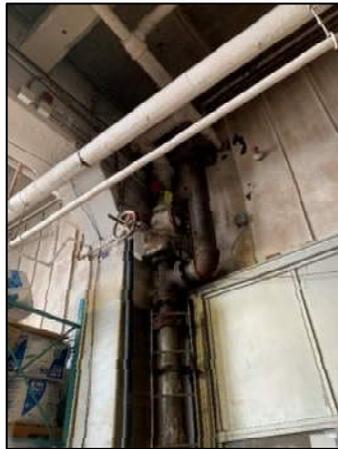


Figure 46: Fire Sprinkler Riser, East End of Garage



Figure 47: Abandoned Fire Sprinkler Riser

According to the maintenance team, sprinklers and branch piping have been replaced piecemeal. There are still very old sprinklers, which would require testing per NFPA 25 Table 5.1.1.2 to remain in use. Upright sprinklers are used in exposed areas. The piping is steel, which is in fair condition. The paint is gone for sprinkler piping in the basement and a good bit of corrosion is present.

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Figure 48: Rusted Fire Sprinkler Line, Basement



Figure 49: Rusted Fire Sprinkler Line, Basement

The office portion is not fully sprinklered. Sprinklers are present in the lobby and the corridor, but the offices, including a file storage area, do not have sprinklers.



Figure 50: Sprinklered Corridor, Office Area



Figure 51: Unsprinklered Storage Room, Office

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Electrical Systems

Electrical Service and Distribution

Coding / Field Name	Asset Description
480V Service and Distribution	Service Disconnect, Main Distribution Panel, dry-type transformers and associated panelboards
Condition	Electrical Service/new panelboards: 5 – Excellent, Rest of System: 2/1 – Marginal/Poor
Quantity	Electrical Service/new panelboards ~ 71,000 square feet
Unit Cost	\$.63/square foot for ~ \$45,227
Year in Service	Electrical Service/new panelboards ~3-4 years, Other System Components ~25+ years
Expected Useful Life (EUL)	Electrical Service/new panelboards ~20-30 years, Other System Components ~20-30 years
Remaining Useful Life (RUL)	Electrical Service ~ 15-25 years, Other System Components ~0 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Exterior of building. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

An existing 600V service was removed and replaced with a 600A, 480V service installed approximately 3-4 years ago. The service is fed from the main electrical room located in the building next door (269 Melrose) and enters a main disconnect located on the exterior (West side of the building) (*Figure 1*). Conduits enter building through boiler room and run to distribution panel on second floor mezzanine. The main objective of the new service was to feed new electrical vehicle charging stations and refeed existing Electrical distribution that was to remain. The new 480V, Main Distribution Panel ‘DP’ feeds an existing 600V elevator through a 30kVA step-up dry-type transformer. Additionally, Panel ‘DP’ (*Figure 2*) feeds a 120/208V Panelboard ‘LP8’ through a 75kVA step-down dry-type transformer. There was no access to Panel ‘LP8’, but it appears to feed the existing 120/208V panels throughout the building. Many older panelboards are deteriorating and/or are damaged (*Figure 3*) and several pieces of electrical equipment are longer in use and have been abandoned in place (*Figure 4*).

265 Melrose Street Maintenance Facility

Pictures:



Figure 1: Main Service Disconnect



Figure 2: Main Distribution Panel 'DP' (277/480V)



Figure 3: Deteriorating/Damaged Panelboard



Figure 4: Abandoned equipment/disconnect

265 Melrose Street Maintenance Facility

Lighting, Branch Wiring, and Associated Controls

Coding / Field Name	Asset Description
Garage Lighting System	Lighting, Branch Wiring, and Associated controls
Condition	4 – Good
Quantity	Garage Lighting System ~ 45,000 square feet
Unit Cost	\$11.97/square foot for ~ \$538,650
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

LED high-bay fixtures with integral occupancy sensors (*Figure 1*) are installed throughout the first-floor garage space. Smaller storage spaces consist of linear LED fixtures with ceiling mounted occupancy sensors (*Figure 2*) in combination with toggle switches. All exit signs throughout the space are illuminated and appear to be completely operational.

Pictures:



Figure 1: LED High-bay fixtures



Figure 2: Linear LED fixture with ceiling mounted occupancy sensor

265 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
Office/Storage Space	Lighting, Branch Wiring, and Associated controls
Condition	1 – Poor
Quantity	Office/Storage Lighting System ~ 26,000 square feet
Unit Cost	\$21.29/square foot for ~ \$553,540
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 35 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 0 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Second Floor, some rooms on first floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Storage/office spaces consist of fluorescent 2’X2’ and 2’X4’ troffer fixtures controlled by wall switch occupancy sensors (Figure 4). Some fixtures and controls are still operational, but the remaining system no longer in working condition. Older fixtures, before office fit-out were left abandoned in place above suspended ceiling (Figure 3). Some exit signs throughout the space were no longer illuminated (Figure 5) and are no longer operational. Emergency battery units (Figure 6) were observed throughout the space and appear to be operational, but are beyond their expected useful life.

Pictures:



Figure 3: Existing and abandoned fluorescent fixtures



Figure 4: Wall switch occupancy sensor

265 Melrose Street Maintenance Facility



Figure 5: Unilluminated Exit sign



Figure 6: Emergency Battery Unit

Coding / Field Name	Asset Description
Exterior Lighting System	Exterior wall pack fixtures, emergency remote heads
Condition	3 – Adequate
Quantity	Exterior Lighting System
Unit Cost	~ \$7,500
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 15 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Building Exterior
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Approximately 15 wall packs (Figure 7) along perimeter of building. Emergency remote heads (Figure 8) are located above doors for emergency egress lighting.

Pictures:



Figure 7: Exterior Wall packs



Figure 8: Emergency remote head

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Fire Alarm System

Coding / Field Name	Asset Description
Fire Alarm System	Fire Alarm Control Panel, Battery Cabinet, and Fire Alarm Devices and associated wiring
Condition	3 - Adequate
Quantity	Fire Alarm System ~ 71,000 square feet
Unit Cost	\$.50/square foot for ~ \$35,500
Year in Service	Fire Alarm Control Panel ~ 10-12 years, Other System Components ~15-20 years
Expected Useful Life (EUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~20 years
Remaining Useful Life (RUL)	Fire Alarm Control Panel ~ 3 years, Other System Components ~ 1-5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Lobby/entrance from Melrose Street
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fire alarm system (*Figure 1*) consists of an addressable Fire Alarm Control Panel, battery cabinet, and devices manufactured by Honeywell. Connection to local fire department is through a Gamewell Master Box. Fire Alarm system and associated devices and wiring appear to be in working condition, however they are approaching their expected useful life based on industry standards. The system was last inspected 3-2-22.

Pictures:



Figure 52: Fire Alarm System

265 Melrose Street Maintenance Facility

G. SITE

Coding / Field Name	Asset Description
System Name	Site work and parking lot
Condition	2
Quantity	~ 18,535.47 sq. ft.
Unit Cost	\$97,679.61
Year in Service	
Expected Useful Life	25 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building Exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition



269 MELROSE STREET,
PROVIDENCE, RI 02907

TAMS Facility Condition Assessment

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269 Melrose Street Bus Storage and Service Facility

I. ASSESSMENT OVERVIEW

A. Facility Description

269 Melrose Street was built in 1990 for the Rhode Island Public Transit Authority and is one-story vehicle storage facility with administration space. The facility includes office space, restrooms, employee lounge, meeting space, mechanical service space, vehicle storage, and two wash bays.



B. Facility Inventory Data

Item	Description
Agency	Rhode Island Public Transit Authority (RIPTA)
Address	269 Melrose St, Providence, RI 02907
Property Type	General Purpose Maintenance
Year Built	1990
Number of Vehicles Stored	80
Year of Latest Major Renovation	1997
Number of Stories	1
Occupied	Yes
Land Area	2.16 Acre
Gross Building Area (GSF)	94,402
Total Parking Count (Including ADA)	8 Parking Spaces
ADA Compliant (Total Count)	2 Total ADA Spaces
ADA Compliant for Vans	0 Van Parking Spaces

C. Summary of Findings

The building is approaching 30 years in age and could benefit from some rehabilitation of components to ensure a prolong life. Photos showing the current condition of the exterior and interior of the building are enclosed in the subsequent sections. Based on our team’s assessment, the building is in an Adequate condition. Please refer to the overall facility condition in Section D.

D. Overall Facility Condition

Components	Rating
Substructure	3.8
Shell	4.0
Interiors	3.8
Conveyance	N/A
Plumbing	3.5
HVAC	3.2
Fire Protection	3.0
Electrical	3.9
Equipment	2.0
Site	3.0
Total	3.4

II. PURPOSE AND SCOPE

A. Facility Condition Assessment Requirements & Procedures

The condition assessment is primarily intended to assess the overall physical condition of the facility to support capital investment decisions. The facility’s classification is based upon American Society of Testing and Materials (ASTM) and reporting will follow guidelines set by the Transit Asset Management (TAM) data-reporting requirements and National Transit Database (NTD).

These assessments are completed through an on-site review of our team comprised of an Architect, Electrical Engineer and Mechanical Engineer. These on-site assessments are supplemented with the review any previous inspections results, available as-builts and any additional information provided by RIPTA. The team will also note and report any defects that may constitute a safety concern or potential service delay immediately.

During the on-site assessment, the inspector will observe the primary and secondary level conditions identified in Section B. Our assessments are limited to assets that are visible and accessible, with information on less easily accessible features like internal systems and wiring gained via documentation and interview. Entering limited access areas such as crawl spaces, utility pits, and sloped roofs is not advisable, and their conditions will be observed from a point of safe access. The inspector will assess each using the FTA TERM condition rating scale that is described in Section C.

B. Facility Components and Sub-Components

This section describes the specific components and sub-components that must be inspected as part of a facility condition assessment. The component classification is based upon American Society of Testing and Materials (ASTM) documents that provide standards for classification of building components and related site components, but these have been customized in certain respects to address common features of transit facilities.

ID#	Components	Typical Sub-Components
A.	Substructure	<ul style="list-style-type: none"> • Foundations: Walls, columns, pilings other structural components • Basement: Materials, insulation, slab, floor underpinning
B.	Shell	<ul style="list-style-type: none"> • Superstructure / structural frame: columns, pillars, walls • Roof: Roof surface, gutters, eaves, skylights, chimney surrounds • Exterior: Windows, doors, and all finishes (paint, masonry) • Shell appurtenances: Balconies, fire escapes, gutters, downspouts
C.	Interiors	<ul style="list-style-type: none"> • Partitions: walls, interior doors, fittings such as signage • Stairs: Interior stairs and landings • Finishes: Materials used on walls, floors, and ceilings
D.	Conveyance	<ul style="list-style-type: none"> • Elevators • Escalators • Lifts: any other such fixed apparatuses for the movement of goods or people
E.	Plumbing	<ul style="list-style-type: none"> • Fixtures • Water distribution • Sanitary waste • Rain water drainage
F.	HVAC	<ul style="list-style-type: none"> • Energy supply • Heat generation and distribution systems • Cooling generation and distribution systems • Testing, balancing, controls and instrumentation • Chimneys and vents
G.	Fire Protection	<ul style="list-style-type: none"> • Sprinklers • Standpipes • Hydrants and other fire protection specialties
H.	Electrical	<ul style="list-style-type: none"> • Electrical service & distribution • Lighting & branch wiring (interior and exterior) • Communications & security • Other electrical system-related pieces such as lightning protection, generators, and emergency lighting
I.	Equipment	<ul style="list-style-type: none"> • Equipment related to the function of the facility, including maintenance or vehicle service equipment <p><i>For clarity, includes only items valued above \$10,000 and related to facility function</i></p>
J.	Site	<ul style="list-style-type: none"> • Roadways/driveways and associated signage, markings, and equipment • Parking lots and associated signage, markings, and equipment • Pedestrian areas and associated signage, markings, and equipment • Site development such as fences, walls, and miscellaneous structures • Landscaping and irrigation • Site Utilities

C. Condition Assessment Rating Scale

The condition measure used in the NTD is the five-point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

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

A weighted average condition is being utilized to calculate an overall condition for the facility.

$$OR = \frac{\sum_i CR_i RC_i}{\sum_i RC_i}$$

Where:

CR_i is the rating for component i

RC_i is the replacement cost for component i

III. ASSETS OBSERVED

Assets observed at the site are provided in this Section and sorted by the modified Uniformat II coding indexed as applicable. See the listing below for the sequence.

A. SUBSTRUCTURE

A10 Foundations

A20 Basement Construction

B. SHELL

B10 Super Structure

B20 Exterior Enclosure

B30 Roofing

C. INTERIORS

C10 Interior Construction

C20 Stairs

C30 Interior Finishes

D. SERVICES

D20 Plumbing

D30 HVAC

D40 Fire Protection

D50 Electrical

E. EQUIPMENT

E10 Equipment

G. SITEWORK

G10 Site

A.Substructure

B. Coding / Field Name	Asset Description
System Name	Foundations
Condition	4
Quantity	~1,801 linear ft. at varying depths (accounted for in unit cost)
Unit Cost	Total: \$369,775.20
Year in Service	1990
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



A. Coding / Field Name	Asset Description
System Name	Spread footings
Condition	N/A
Quantity	78
Unit Cost	Total: \$92,664
Year in Service	1990
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments: Spread footings not observable.

269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Slabs on grade
Condition	4
Quantity	~94,402 sq. ft.
Unit Cost	Total: \$1,889,928.04
Year in Service	1990
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



B.Shell

Coding / Field Name	Asset Description
System Name	Steel superstructure and metal roof decking.
Condition	4
Quantity	~94,402 sq. ft.
Unit Cost	Total: \$1,273,348.83
Year in Service	1990
Expected Useful Life	100 Years
Remaining Useful Life	80 years, Estimated, Based on Date of Observation
Location	Building structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	CMU Walls
Condition	4
Quantity	~27,015 sq. ft.
Unit Cost	Total: \$564,613.50
Year in Service	1990
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Building exterior / interior walls
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Exterior split-face CMU
Condition	4
Quantity	~25,000 sq. ft.
Unit Cost	Total: \$520,000
Year in Service	1990
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Exterior walls
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Exterior brick
Condition	4
Quantity	~3,176.66 sq. ft.
Unit Cost	Total: \$91,487.81
Year in Service	1990
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Membrane roofing + rigid insulation
Condition	4
Quantity	~93,686.44sq. ft.
Unit Cost	Total: \$714,222.04
Year in Service	1990
Expected Useful Life	40 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Flat Roofs
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Standing seam metal roof
Condition	4
Quantity	~715.56 sq. ft.
Unit Cost	Total: \$17,261.32
Year in Service	1990
Expected Useful Life	80 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Entry roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

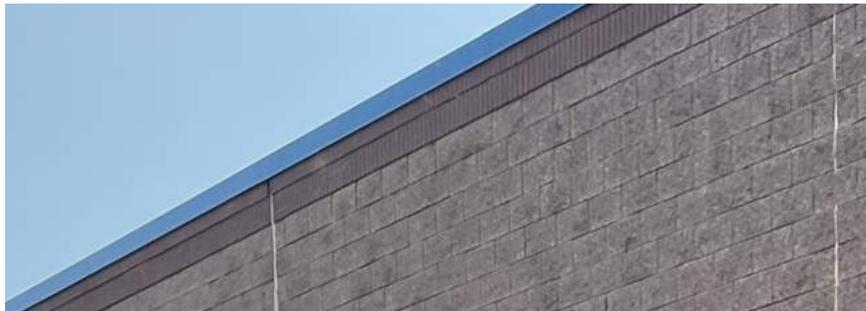
Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Metal roof coping
Condition	4
Quantity	~1,538.33 linear ft.
Unit Cost	Total: \$45,073.06
Year in Service	1990
Expected Useful Life	80 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Building roof edge
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Roof hatch
Condition	4
Quantity	1
Unit Cost	Total: \$3,085
Year in Service	1990
Expected Useful Life	50 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Flat roof
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Exterior steel doors and frames.
Condition	3
Quantity	11
Unit Cost	Total: \$41,085
Year in Service	1990
Expected Useful Life	50 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Exterior overhead coiling doors
Condition	3
Quantity	8
Unit Cost	Total: \$55,660
Year in Service	1990
Expected Useful Life	30 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Glazed aluminum curtainwall system
Condition	4
Quantity	~1,056.5 sq. ft.
Unit Cost	Total: \$29,772.88
Year in Service	1990
Expected Useful Life	70 years
Remaining Useful Life	60 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Exterior metal ceilings
Condition	4
Quantity	~876 sq. ft.
Unit Cost	Total: \$4,598
Year in Service	1990
Expected Useful Life	50 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



C.Interiors

Coding / Field Name	Asset Description
System Name	Overhead garage doors
Condition	4
Quantity	4
Unit Cost	Total: \$58,100
Year in Service	1990
Expected Useful Life	40 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Fueling / vacuum area
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Interior hm doors and frames
Condition	4
Quantity	20
Unit Cost	Total: \$29,280
Year in Service	1990
Expected Useful Life	40 years
Remaining Useful Life	25 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Interior wood doors and frames
Condition	4
Quantity	30
Unit Cost	Total: \$39,303
Year in Service	1990
Expected Useful Life	40 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Acoustic ceiling tiles and grids
Condition	4
Quantity	~12,700 sq. ft.
Unit Cost	Total: \$136,906
Year in Service	1990
Expected Useful Life	40 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Ceramic tile flooring and base
Condition	4
Quantity	~1,680 sq. ft.
Unit Cost	Total: \$22,870.18
Year in Service	1990
Expected Useful Life	75 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

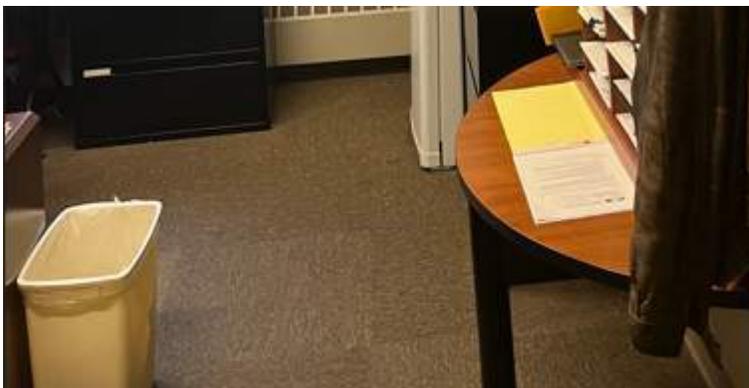
Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Carpet tile flooring and base
Condition	3
Quantity	~2,360 sq. ft.
Unit Cost	Total: \$13,168.80
Year in Service	1990
Expected Useful Life	20 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Rubber flooring and base
Condition	4
Quantity	~4,480 sq. ft.
Unit Cost	Total: \$38,080
Year in Service	1990
Expected Useful Life	75 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Restroom fixtures and accessories
Condition	4
Quantity	4 restrooms
Unit Cost	Total: \$15,178
Year in Service	1990
Expected Useful Life	30 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



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Coding / Field Name	Asset Description
System Name	Ceramic wall tile
Condition	3
Quantity	~1,593 sq. ft.
Unit Cost	Total: \$14,337
Year in Service	1990
Expected Useful Life	50 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Restrooms
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
System Name	Interior drywall partitions
Condition	3
Quantity	~13,320 sq. ft.
Unit Cost	Total: \$64,496
Year in Service	1990
Expected Useful Life	60 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



D. SERVICES

Plumbing Systems

Domestic Water

Coding / Field Name	Asset Description
Domestic Water Distribution	Domestic water service and piping distribution
Condition	4-Good
Quantity	~95,000 SF
Unit Cost	\$2.50/square foot for distribution & Labor Total: \$237,500
Year in Service	~1990s with sporadic modifications through the years
Expected Useful Life (EUL)	~50 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The domestic water service is in the boiler room. The domestic water service lateral is 4". The domestic water meter, the reduced-pressure zone backflow preventer, and valving is 2". No pressure boosting pumps are present. The domestic water piping is done with copper. Most fittings are soldered, but there are press fittings used in places where recent repairs or additions were performed. Insulation is present on hot and cold-water piping.

A separate set of reduced-pressure zone backflow preventers are located on a branch from the main service. This branch is labelled "nonpotable water" and is routed to the garage for the Bus Wash.

Pictures:



Figure 1: Domestic Water Service



Figure 2: Non-Potable Water Backflow Preventers

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Figure 3: Press-Connect Fittings on a Recently Installed Roof Hydrant

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Domestic Hot-Water System

Coding / Field Name	Asset Description
Domestic Hot Water Systems	Water heaters
Condition	4-Good: Gas-Fired Tank Water Heater & Electric Tank Water Heater.
Quantity	~1 Gas-Fired Water heater, ~1 Electric Water Heater
Unit Cost	\$16,000
Year in Service	~2016
Expected Useful Life (EUL)	~15 Years
Remaining Useful Life (RUL)	~9 Years
Location	Boiler Room and Garage Janitor’s Closet
Basis of Costing	RMS Means Data with Contingencies Added

A 55-gallon, 60,000 BTU/hr water heater located in the boiler room provides hot water to the office area. A small, tank electric water heater in a janitor’s closet provides hot water for the needs for the garage.

Pictures:



Figure 4: Gas-Fired Water Heater for Office Area



Figure 5: Electric Water Heater for Garage Fixtures

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Plumbing Fixtures

Coding / Field Name	Asset Description
Plumbing Fixtures	Water closets, lavatories, sinks, etc.
Condition	3-Adequate
Quantity	~12,000 SF, ~20 Fixtures
Unit Cost	~\$4,000/Fixture and \$2.50/SF. Total: \$110,000
Year in Service	~1990s with sporadic modifications
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Office Area
Basis of Costing	RMS Means Data with Contingencies Added

Most of the fixtures in the facility appear in good, working order. The fixtures are a variety of makes of touchless and manual controls due to repairs over the years.

Pictures:



Figure 6: Restroom Lavatories



Figure 7: Touchless Operated Urinals



Figure 8: Manual Operated Water Closet



Figure 9: High-Low Drinking Fountains

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Storm Drainage

Coding / Field Name	Asset Description
Storm Drainage Systems	Roof drains and Leaders
Condition	3-Adequate
Quantity	~95,000 SF
Unit Cost	\$1.50/SF. Total: \$142,500
Year in Service	~1990s with sporadic modifications
Expected Useful Life (EUL)	~50 Years
Remaining Useful Life (RUL)	~20 Years
Location	Facility Roof
Basis of Costing	RMS Means Data with Contingencies Added

The storm drainage piping appeared to be original to the building and appeared in working order. Most piping was no-hub cast iron. The drains on the roof are original. There was some secondary drainage added recently, and the drains appear rather high. In addition, some scuppers are present.



Figure 10: Scupper for Secondary Drainage



Figure 11: Added Secondary Drain Next to a Primary Drain

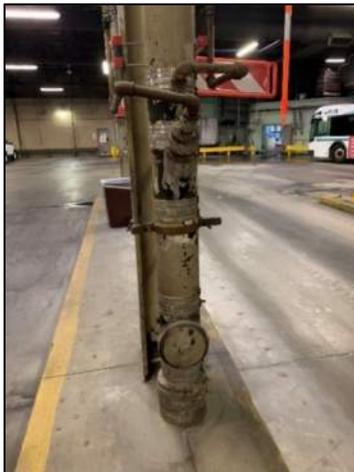


Figure 12: Storm Leader

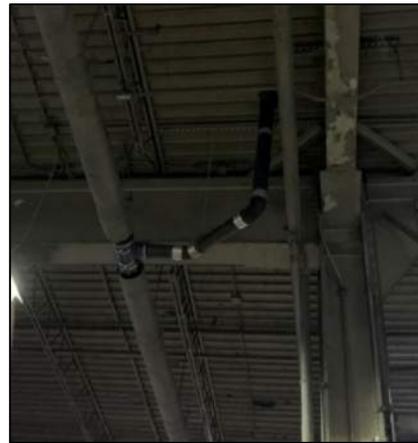


Figure 13: New Piping for Secondary Drainage

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Sanitary Drainage

Coding / Field Name	Asset Description
Sanitary Drainage System	Sanitary Drainage Piping and Interceptors
Condition	3-Adequate
Quantity	~95,000 SF
Unit Cost	\$2.50/SF. Distribution: \$237,500. Oil Water Separators: \$160,000. Total: \$397,500
Year in Service	~1990s
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~5 Years
Location	Garage
Basis of Costing	RMS Means Data with Contingencies Added

The sanitary piping is no-hub cast iron. Qty (2) Oil water separators are in the garage near the bus wash. One separator handles the drainage from the trench drains from the floor, and the other separator handles drainage from the water reclamation room.



Figure 14: Oil Interceptors in Garage

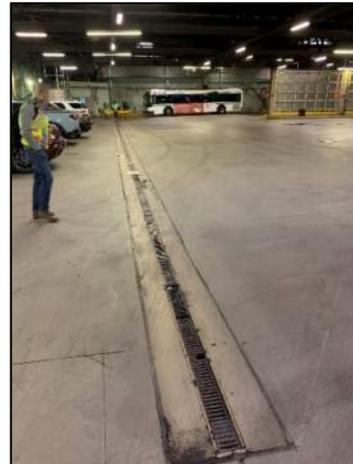


Figure 15: Trench Drain in Garage



Figure 16: Bus Wash Reclamation System



Figure 17: Bus Wash Water Reclamation Pit

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Natural Gas System

Coding / Field Name	Asset Description
Natural Gas System	Natural gas meters, regulators, and piping.
Condition	4-Good
Quantity	~95,000 SF
Unit Cost	\$1.00/SF. Total: \$95,000
Year in Service	~1990s with sporadic modifications
Expected Useful Life (EUL)	~50 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The building is served by a natural-gas system on the North side of the facility. The incoming service is ~2” and increases to ~6” after the regulators. A few items requiring gas are the boiler, the domestic water heater, and the MAUs in the garage. The service meter has a capacity of 7,000 CFH. The piping is schedule 40 steel with welded and threaded fittings.

Pictures:



Figure 18: Natural Gas Service

Compressed Air System

Coding / Field Name	Asset Description
Compressed Air Systems	Compressed Air System Equipment and Piping
Condition	4-Good
Quantity	Qty (1) System
Unit Cost	Total: \$200,000
Year in Service	~2010
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~8 Years
Location	Garage
Basis of Costing	Equipment

A compressed air system is located outside the Water Reclamation Room. The system

269 Melrose Street Bus Storage and Service Facility

includes an air compressor, a filter/dryer, and a storage tank. The compressed air is routed to drops and cord reels. The compressed air used for hand tools and the air-operated diaphragm pumps pumping automotive fluids.

Pictures:



Figure 19: Compressed Air System



Figure 20: Lube System with Air-Operated Diaphragm Pumps



Figure 21: Compressed Air Drop

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HVAC Systems

Office Area Comfort Heating and Cooling Systems

Coding / Field Name	Asset Description
Comfort Heating and Cooling Systems	Air-Conditioning and Electric Heating Systems
Condition	4-Good
Quantity	Qty (1) RTUs, Hydronic Boiler, and Various Supplemental Heat Devices
Unit Cost	~\$350,000
Year in Service	~2006
Expected Useful Life (EUL)	~30 Years
Remaining Useful Life (RUL)	14 years
Location	Office Space
Basis of Costing	RMS Means Data with Contingencies Added

Qty (1) Gas-Fired Boiler provides hot water for a hydronic heating system. The hot water is used for supplemental heating in the office space for two-pipe baseboard radiators, unit heaters, and panel radiators. The hydronic loops are served with Qty (2) pumps that are controlled with variable frequency drives (VFDs).

A 27.5-Ton Rooftop Unit mounted on the lower roof provides cooling and base heating. The unit uses R-410 and was manufactured in 2016. The office portion is zoned with variable-air-volume boxes. BMS controls for the office are done with Johnson Facility Explorer. The various zones are controlled with local thermostats.

The breakroom has a kitchenette equipped with a stove that has a recirculation hood.

The IT room has a Liebert Cooling split-system with air distribution from a raised floor.

Pictures:



Figure 22: Hydronic Heating System Boiler



Figure 23: Hydronic Pumps

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Figure 24: Baseboard Radiator in Conference Room



Figure 25: Hot-Water Unit Heater



Figure 26: Panel Radiator



Figure 27: Baseboard Radiator in Lobby

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Figure 28: Rooftop Unit for Office



Figure 29: Thermostat for a Zone in the Office



Figure 30: Johnson Controls BMS System Panel

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Figure 31: HVAC Diffuser in Office



Figure 32: HVAC Diffuser in Lobby



Figure 33: Recirculation-Type Hoods Over Stoves



Figure 34: Condenser for Liebert System



Figure 35: Air Diffusers for IT Room

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Exhaust Systems

Coding / Field Name	Asset Description
Exhaust System	Motor driven fans, passive dampers, abandoned air handlers
Condition	3-Adequate
Quantity	~83,000 square feet
Unit Cost	\$2/square foot for distribution & Labor, ~\$300,000 for Equipment Total: \$466,000
Year in Service	~2006
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~4 Years
Location	Garage Area
Basis of Costing	RMS Means Data with Contingencies Added

The garage is equipped with centrifugal down-blast exhaust fans and mechanically operated dampers.



Figure 36: Centrifugal Down-blast Exhaust Fan



Figure 37: Exhaust Damper

Garage Makeup-Air Systems

Coding / Field Name	Asset Description
Makeup Air Systems	MAUs and Ductwork in Garage
Condition	3-Adequate
Quantity	Qty (8) MAUs, ~83,000 square feet
Unit Cost	\$4/square foot for distribution & Labor, ~\$500,000 for Equipment Total: \$832,000
Year in Service	~2014
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~ 14 Years
Location	Garage Area
Basis of Costing	RMS Means Data with Contingencies Added

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The garage is equipped with Qty (8) Make-up Air Units. The MAUs have gas-fired coils to provide tempered air to replace the air exhausted from the various exhaust fans. The MAUs are hung from the ceiling at locations on the perimeter of the garage area. These units are ducted across the garage and to various rooms along the perimeter. The exhaust fans and MAUs are controlled with CO₂ and NO₂ gas-monitoring systems. The maintenance team mentioned the gas burners in the MAUs were prone to clogging, which they believe is due to the various fumes from the buses. To remedy this, the burners were having to be redrilled due to the hardness of the buildup on the burners. The MAUs were installed within the last 10 years, but they have aged worse than MAUs in similar facilities, according to the maintenance team.

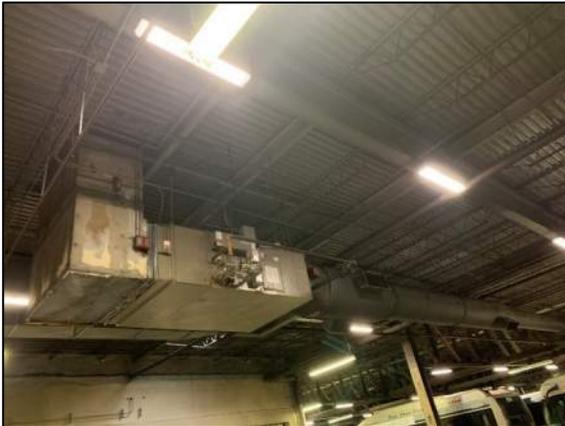


Figure 38: Makeup Air Unit and ducting



Figure 39: Makeup Air Unit Termination



Figure 40: MAU Ducting to Other Spaces



Figure 41: CO and NO₂ Controls

Fire Sprinkler Systems

Coding / Field Name	Asset Description
Fire Sprinkler System	Wet-Pipe Piping, Sprinklers, and Valving
Condition	3-Adequate
Quantity	95,000 SF
Unit Cost	\$5.00/SF. Total: \$475,000
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means

Service Entrance

The fire sprinkler system is composed of wet-pipe and dry-pipe risers. The main service is a central system located in the boiler room. An 8” service lateral immediately reduces to 6” inside the building. The Double-Check Valve assembly is 6”, and it includes a bypass meter. The system has Qty (4) risers: Qty (2) wet-pie and Qty (2) dry-pipe risers. A Fire Department Connection is located on the North side of the facility where the 8” service lateral enters.



Figure 42: Fire Protection Service



Figure 43: Double-Check Valve Assembly

Risers and Sprinklers

The riser check valve assemblies for the wet zones appear original to the building. The riser check valve assemblies for the dry zones appear to be recently installed. The dry-system air compressors are both single-phase, riser-mounted air compressors with a 1 HP motor. There are new flow switches and tamper switches in place.

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Figure 44: Risers Off of Fire Service Mains



Figure 45: Riser-Mounted Air Compressor

All sprinklers appear to be original to the building and appear in good, working order. Recessed sprinklers are in the office portion. Uprights and drops are in other areas.

A dry, chemical system is in place at the fuel station on the North side of the facility.



Figure 46: Dry-Chemical Suppression System



Figure 47: Dry-Chemical Suppression System

269 Melrose Street Bus Storage and Service Facility



Figure 48: Dry-Chemical Suppression System

Electrical Systems

Electrical Service and Distribution

Coding / Field Name	Asset Description
480V Service and Distribution	Switchboard, Distribution panelboards, dry-type transformers and associated panelboards
Condition	Electrical Service/Distribution: 3 – Adequate, Rest of System: 4/1 – Good/Poor
Quantity	Electrical Service/Distribution ~ Office: 11,950 square feet Garage: 75,700 square feet
Unit Cost	Office: \$2.80/square foot for ~ \$33,460 Garage: \$.63/square foot for ~ \$47,691
Year in Service	Electrical Service ~30+ years, Other System Components ~5-30 years
Expected Useful Life (EUL)	Electrical Service/new panelboards ~20-30 years, Other System Components ~20-30 years
Remaining Useful Life (RUL)	Electrical Service ~ 0 years, Other System Components ~25-0 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Electrical Alcove. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

269 Melrose Street Bus Storage and Service Facility**Observations/Comments:**

A 1,600A, 480V service installed approximately 33 years ago. The service is fed from the pad mounted transformer (North side of the building) (*Figure 4*) and enters the main switchboard (*Figure 2*) located in the Electrical Alcove. There is a PV Solar system (*Figure 1*) on the roof installed approximately 10 years ago. Maintenance mentioned shorting issues due to screws penetrating conduit when insulation was installed. Building has two backup generators. Many older panelboards are deteriorating and/or are damaged. Some panelboard covers are not secure and/or circuit breaker covers are missing leaving exposed live wires (*Figure 3*).

Pictures:

Figure 1: PV Solar System



Figure 2: Switchboard (277/480V)

269 Melrose Street Bus Storage and Service Facility



Figure 3: Deteriorating/Damaged Panelboard



Figure 4: Transformer and Generator

Lighting, Branch Wiring, and Associated Controls

Coding / Field Name	Asset Description
Garage Lighting System	Lighting, Branch Wiring, and Associated controls
Condition	4 – Good
Quantity	Garage Lighting System ~ 75,700 square feet
Unit Cost	\$11.97/square foot for ~ \$906,129
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor
Basis of Costing	RMS Means Data with Contingencies Added

269 Melrose Street Bus Storage and Service Facility**Observations/Comments:**

LED high-bay fixtures with integral occupancy sensors (*Figure 1*) are installed throughout the first-floor garage space. Older fluorescent fixtures were left in place (*Figure 2*). All exit signs throughout the space are illuminated and appear to be completely operational.

Pictures:

Figure 1: LED High-bay fixtures



Figure 2: Fluorescent fixtures

269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
Office/Storage Space	Lighting, Branch Wiring, and Associated controls
Condition	4 - Good
Quantity	Office/Storage Lighting System ~ 11,950 square feet
Unit Cost	\$21.29/square foot for ~ \$254,415.50
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 7 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 13 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Storage/office spaces consist of LED 2’X2’ troffer fixtures (Figure 3) controlled by a combination of toggle switches (Figure 7), ceiling mounted occupancy sensors (Figure 4), and wall switch occupancy sensors (Figure 8). Exit signs were observed throughout the space and appear to be fully operational (Figure 5). Emergency battery units (Figure 6) were observed throughout the space and appear to be fully operational. In addition to emergency battery units, lighting fixtures throughout the office space are on generator backup.

Pictures:



Figure 3: LED 2’X2’ troffer fixtures



Figure 4: Ceiling mounted occupancy sensor

269 Melrose Street Bus Storage and Service Facility



Figure 5: Exit sign



Figure 6: Emergency Battery Unit



Figure 7: Toggle switches



Figure 8: Wall switch occupancy sensor

269 Melrose Street Bus Storage and Service Facility

Coding / Field Name	Asset Description
Exterior Lighting System	Exterior wall pack fixtures, emergency remote heads
Condition	3 – Adequate
Quantity	Exterior Lighting System
Unit Cost	~ \$7,500
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 15 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Building Exterior
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Wall packs (*Figure 9*) are installed along perimeter of building. Emergency remote heads (*Figure 9*) are located above doors for emergency egress lighting. LED highbay fixtures are installed under fuel canopy (*Figure 10*).

Pictures:



Figure 9: Exterior Wall packs and remote heads



Figure 10: LED highbay under fuel canopy

Fire Alarm System

Coding / Field Name	Asset Description
Fire Alarm System	Fire Alarm Control Panel, Battery Cabinet, and Fire Alarm Devices and associated wiring
Condition	4/3 – Good/Adequate
Quantity	Fire Alarm System ~ 62,715 square feet
Unit Cost	\$.50/square foot for ~ \$31,357.50
Year in Service	Fire Alarm Control Panel ~ 6 years, Other System Components ~6-20 years
Expected Useful Life (EUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~20 years
Remaining Useful Life (RUL)	Fire Alarm Control Panel ~ 9 years, Other System Components ~ 1-14 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Lobby/entrance from Melrose Street
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fire alarm system (Figure 1) consists of an addressable Fire Alarm Control Panel (Simplex 4100ES) and associated devices manufactured by Simplex. Connection to local fire department is through a Gamewell Master Box. Most fire alarm devices were replaced along with new control panel approximately 6 years ago, however some older devices from previous system remain. A fire suppression system (Figure 2) was installed to serve IT room. Fire Alarm system and associated devices and wiring appear to be in working condition, however some devices are approaching their expected useful life based on industry standards.

Pictures:



Figure 1: Fire Alarm System

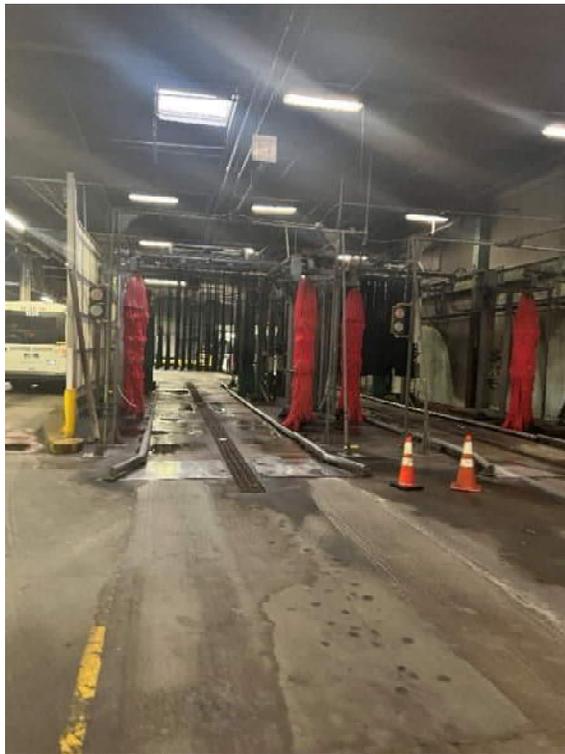


Figure 2: Fire Suppression System

E. Equipment

Coding / Field Name	Asset Description
System Name	Bus Wash
Condition	2
Quantity	2
Unit Cost	Total: \$99,172
Year in Service	1993
Expected Useful Life	25 years
Remaining Useful Life	4 years, Estimated, Based on Date of Observation
Location	Building exterior.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



269 Melrose Street Bus Storage and Service Facility

G.Site

Coding / Field Name	Asset Description
System Name	Exterior concrete pads and walking surfaces.
Condition	3
Quantity	~2,500 sq. ft.
Unit Cost	Total: \$26,800
Year in Service	1993
Expected Useful Life	85 years
Remaining Useful Life	50 years, Estimated, Based on Date of Observation
Location	Building exterior.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:





750 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

TAMS Facility Condition Assessment

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I. ASSESSMENT OVERVIEW

A. Facility Description

750 Elmwood Avenue was built in 2000 for the Rhode Island Public Transit Authority and is primarily a one-story heavy maintenance facility for the authority. The first floor contains maintenance areas, paint bays, parts storage, and administrative space. There is a partial second floor that includes office space, restrooms, employee lounge, meeting space, and storage.



B. Facility Inventory Data

Item	Description
Agency	Rhode Island Public Transit Authority (RIPTA)
Address	750 Elmwood Ave, Providence, RI 02907
Property Type	Heavy Maintenance
Year Built	2000
Number of Vehicles Stored	N/A
Year of Latest Major Renovation	N/A
Number of Stories	1
Occupied	Yes
Land Area	3.36 Acres
Gross Building Area (GSF)	94,760 sq. ft.
Total Parking Count (Including ADA)	N/A
ADA Compliant (Total Count)	N/A
ADA Compliant for Vans	N/A

C. Summary of Findings

The building is approximately 21+ years in age and has undergone a reasonable level of routine maintenance. This facility could benefit from some rehabilitation of components to ensure a prolong life. Photos showing the current condition of the exterior and interior of the building are enclosed in the subsequent sections. Based on our team’s assessment, the building is in an Adequate condition. Please refer to the overall facility condition in Section D.

D. Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.7
Interiors	2.7
Conveyance	3.0
Plumbing	3.7
HVAC	3.7
Fire Protection	4.0
Electrical	4.0
Equipment	3.0
Site	3.0
Total	3.5

II. PURPOSE AND SCOPE

A. Facility Condition Assessment Requirements & Procedures

The condition assessment is primarily intended to assess the overall physical condition of the facility to support capital investment decisions. The facility’s classification is based upon American Society of Testing and Materials (ASTM) and reporting will follow guidelines set by the Transit Asset Management (TAM) data-reporting requirements and National Transit Database (NTD).

These assessments are completed through an on-site review of our team comprised of an Architect, Electrical Engineer and Mechanical Engineer. These on-site assessments are supplemented with the review any previous inspections results, available as-builts and any additional information provided by RIPTA. The team will also note and report any defects that may constitute a safety concern or potential service delay immediately.

During the on-site assessment, the inspector will observe the primary and secondary level conditions identified in Section B. Our assessments are limited to assets that are visible and accessible, with information on less easily accessible features like internal systems and wiring gained via documentation and interview. Entering limited access areas such as crawl spaces, utility pits, and sloped roofs is not advisable, and their conditions will be observed from a point of safe access. The inspector will assess each using the FTA TERM condition rating scale that is described in Section C.

B. Facility Components and Sub-Components

This section describes the specific components and sub-components that must be inspected as part of a facility condition assessment. The component classification is based upon American Society of Testing and Materials (ASTM) documents that provide standards for classification of building components and related site components, but these have been customized in certain respects to address common features of transit facilities.

ID#	Components	Typical Sub-Components
A.	Substructure	<ul style="list-style-type: none"> • Foundations: Walls, columns, pilings other structural components • Basement: Materials, insulation, slab, floor underpinning
B.	Shell	<ul style="list-style-type: none"> • Superstructure / structural frame: columns, pillars, walls • Roof: Roof surface, gutters, eaves, skylights, chimney surrounds • Exterior: Windows, doors, and all finishes (paint, masonry) • Shell appurtenances: Balconies, fire escapes, gutters, downspouts
C.	Interiors	<ul style="list-style-type: none"> • Partitions: walls, interior doors, fittings such as signage • Stairs: Interior stairs and landings • Finishes: Materials used on walls, floors, and ceilings
D.	Conveyance	<ul style="list-style-type: none"> • Elevators • Escalators • Lifts: any other such fixed apparatuses for the movement of goods or people
E.	Plumbing	<ul style="list-style-type: none"> • Fixtures • Water distribution • Sanitary waste • Rain water drainage
F.	HVAC	<ul style="list-style-type: none"> • Energy supply • Heat generation and distribution systems • Cooling generation and distribution systems • Testing, balancing, controls and instrumentation • Chimneys and vents
G.	Fire Protection	<ul style="list-style-type: none"> • Sprinklers • Standpipes • Hydrants and other fire protection specialties
H.	Electrical	<ul style="list-style-type: none"> • Electrical service & distribution • Lighting & branch wiring (interior and exterior) • Communications & security • Other electrical system-related pieces such as lightning protection, generators, and emergency lighting
I.	Equipment	<ul style="list-style-type: none"> • Equipment related to the function of the facility, including maintenance or vehicle service equipment <p><i>For clarity, includes only items valued above \$10,000 and related to facility function</i></p>
J.	Site	<ul style="list-style-type: none"> • Roadways/driveways and associated signage, markings, and equipment • Parking lots and associated signage, markings, and equipment • Pedestrian areas and associated signage, markings, and equipment • Site development such as fences, walls, and miscellaneous structures • Landscaping and irrigation • Site Utilities

C. Condition Assessment Rating Scale

The condition measure used in the NTD is the five-point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

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

A weighted average condition is being utilized to calculate an overall condition for the facility.

$$OR = \frac{\sum_i CR_i RC_i}{\sum_i RC_i}$$

Where:

CR_i is the rating for component i

RC_i is the replacement cost for component i

III. ASSETS OBSERVED

Assets observed at the site are provided in this Section and sorted by the modified Uniformat II coding indexed as applicable. See the listing below for the sequence.

A. SUBSTRUCTURE

A10 Foundations

A20 Basement Construction

B. SHELL

B10 Super Structure

B20 Exterior Enclosure

B30 Roofing

C. INTERIORS

C10 Interior Construction

C20 Stairs

C30 Interior Finishes

D. SERVICES

D10 Conveying

D20 Plumbing

D30 HVAC

D40 Fire Protection

D50 Electrical

E. EQUIPMENT

E10 Equipment

G. SITEWORK

G10 Site Preparation

G20 Site Improvements

G30 Site Mechanical Utilities

G40 Site Electrical Utilities

G90 Other Site Construction

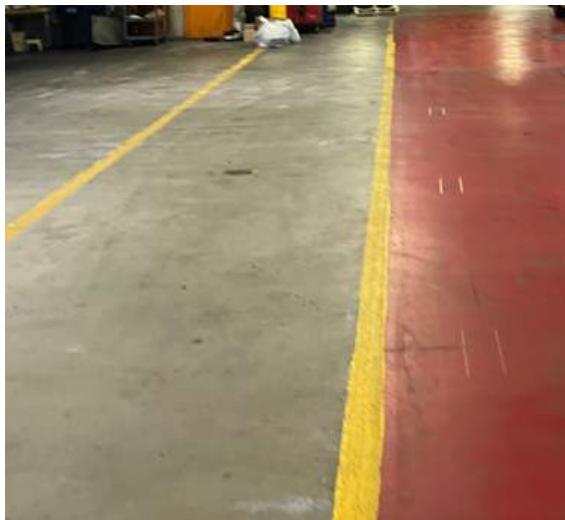
A.Substructure

Coding / Field Name	Asset Description
System Name	Slabs on grade
Condition	4
Quantity	~94,760 sq. ft.
Unit Cost	Total: \$1,897,095.20
Year in Service	2000
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Foundations not observable.

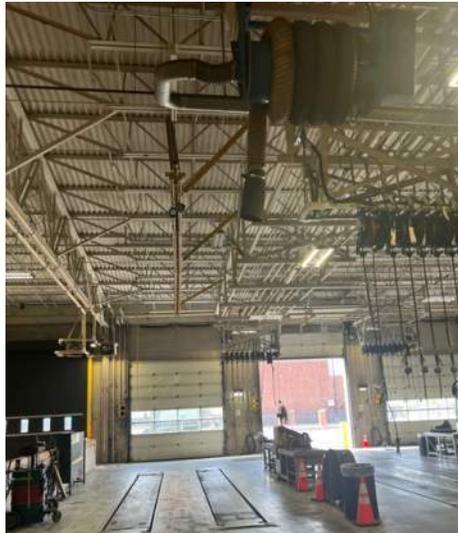
Pictures:



B.Shell

Coding / Field Name	Asset Description
System Name	Steel superstructure and metal roof decking.
Condition	4
Quantity	~94,760 sq. ft.
Unit Cost	Total: \$1,278,177.74
Year in Service	2000
Expected Useful Life	100 Years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Building structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	CMU Walls
Condition	4
Quantity	~88,182 sq. ft.
Unit Cost	Total: \$ 1,843,003.80
Year in Service	2000
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Building exterior / interior walls
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior brick (West elevation – original facade)
Condition	3
Quantity	~9,230 sq. ft.
Unit Cost	Total: \$265,824
Year in Service	N/A
Expected Useful Life	100 years
Remaining Useful Life	60 years, Estimated, Based on Date of Observation
Location	Exterior walls – West Elevation
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

No insulation on existing wall. Some cracks, pitting, and efflorescence staining observed.

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior brick veneer (North, south and east facades)
Condition	4
Quantity	~14,500 sq. ft.
Unit Cost	Total: \$ 417,600
Year in Service	2000
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Exterior – north, south, and east elevations
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior metal wall panels
Condition	3
Quantity	~8,160 sq. ft.
Unit Cost	Total: \$75,561.60
Year in Service	2000
Expected Useful Life	80 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



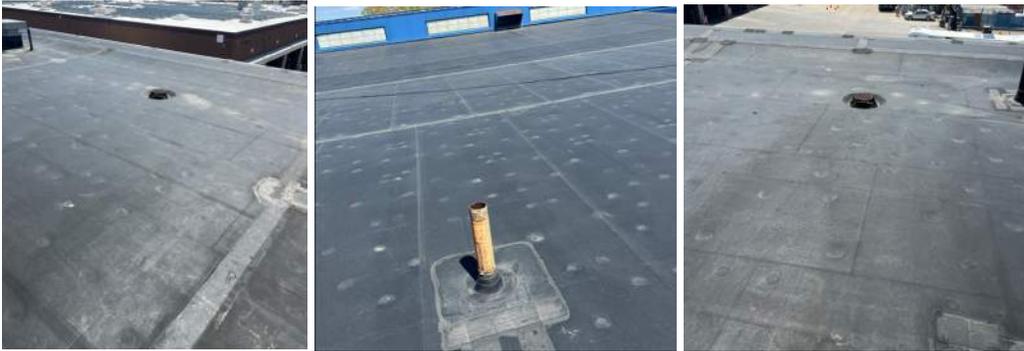
750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Membrane roofing + rigid insulation
Condition	2
Quantity	~22,390 sq. ft.
Unit Cost	Total: \$170,691
Year in Service	2020
Expected Useful Life	40 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Flat Roofs
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Roof over compressor room leaking because EPDM roofing nails. Flat roof was just done.

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Standing seam metal roof
Condition	3
Quantity	~72,370 sq. ft.
Unit Cost	Total: \$551,715.40
Year in Service	2000
Expected Useful Life	80 years
Remaining Useful Life	50 years, Estimated, Based on Date of Observation
Location	Sloped roofs
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Rust / staining from roof elements. Sealants / joinery issues.

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Existing relocated granite cornice
Condition	2
Quantity	~875 sq. ft.
Unit Cost	Total: \$ 58,187.50
Year in Service	N/A
Expected Useful Life	100 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building roof edge
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Cracking and staining evident.

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Prefinished metal cornice
Condition	4
Quantity	~2,112 linear ft.
Unit Cost	Total: \$ 68,217.59
Year in Service	2000
Expected Useful Life	80 years
Remaining Useful Life	70 years, Estimated, Based on Date of Observation
Location	Building roof edge
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Overhead coiling doors
Condition	3
Quantity	17
Unit Cost	Total: \$118,277.50
Year in Service	2000
Expected Useful Life	30 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Glazed aluminum storefront system
Condition	4
Quantity	~1,229 sq. ft.
Unit Cost	Total: \$34,634.05
Year in Service	2000
Expected Useful Life	70 years
Remaining Useful Life	60 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Insulated translucent panel system
Condition	4
Quantity	~960 sq. ft.
Unit Cost	Total: \$12,480
Year in Service	2000
Expected Useful Life	70 years
Remaining Useful Life	60 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Insulated metal clad doors
Condition	3
Quantity	9
Unit Cost	Total: \$19,047.60
Year in Service	2000
Expected Useful Life	70 years
Remaining Useful Life	60 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior aluminum storefront doors
Condition	3
Quantity	1
Unit Cost	Total: \$2568
Year in Service	2000
Expected Useful Life	70 years
Remaining Useful Life	45 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



C.Interiors

Coding / Field Name	Asset Description
System Name	Interior solid core doors
Condition	4
Quantity	14
Unit Cost	Total: \$18,341.40
Year in Service	2000
Expected Useful Life	50 years
Remaining Useful Life	40 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior hollow metal doors
Condition	3
Quantity	25
Unit Cost	Total: \$40,260
Year in Service	2000
Expected Useful Life	50 years
Remaining Useful Life	40 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Acoustic ceiling tiles and grids
Condition	2
Quantity	~ 8,320.5 sq. ft.
Unit Cost	Total: \$89,695
Year in Service	2000
Expected Useful Life	40 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

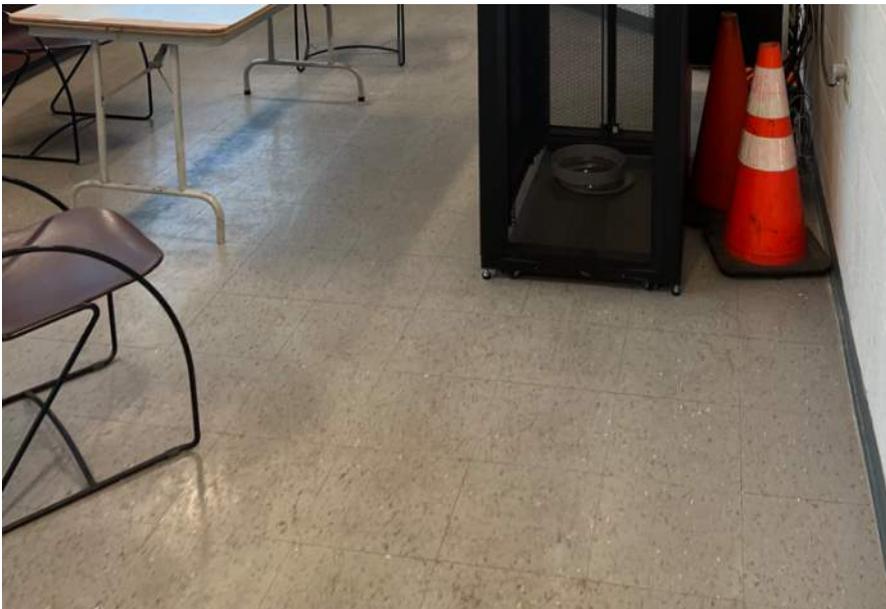
Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Vinyl composition tile
Condition	3
Quantity	~3562 sq. ft.
Unit Cost	Total: \$ 24,043.50
Year in Service	2000
Expected Useful Life	50 years
Remaining Useful Life	25 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

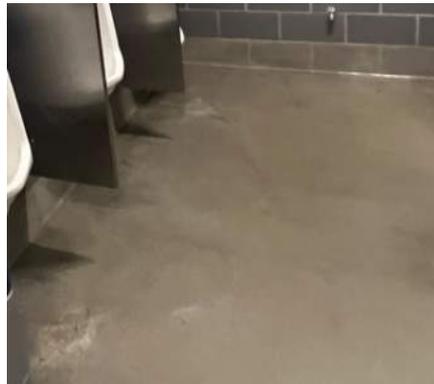
Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Poured epoxy floor
Condition	3
Quantity	~2025 sq. ft.
Unit Cost	Total: \$23,188.28
Year in Service	2000
Expected Useful Life	50 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Coding / Field Name	Asset Description
System Name	Restroom & locker room fixtures and accessories
Condition	3
Quantity	2 restrooms and locker rooms
Unit Cost	Total: \$32,598
Year in Service	2000
Expected Useful Life	30 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



D. Services

Conveyance

Coding / Field Name	Asset Description
System Name	Elevator
Condition	3
Quantity	1
Unit Cost	\$453,500
Year in Service	2000
Expected Useful Life	25 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



750 Elmwood Ave. Maintenance Facility

Plumbing Systems

Domestic Water

Coding / Field Name	Asset Description
Domestic Water Distribution	Domestic water service and piping distribution
Condition	3-Maginal
Quantity	~80,000 SF
Unit Cost	\$3/square foot for distribution & Labor Total: \$240,000
Year in Service	~2002 with sporadic modifications through the years
Expected Useful Life (EUL)	~50 Years
Remaining Useful Life (RUL)	~30 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The domestic water service is in the water room with the fire service equipment. The domestic water service lateral is 4". The domestic water meter is 1-1/2" and the reduced-pressure zone backflow preventer and valving match the lateral size of 4". No pressure boosting pumps are present. The domestic water is piped with copper throughout the building. The copper appears to be in fair condition. The fittings were soldered. Insulation is present on hot or cold-water piping.



Figure 1: Domestic Water Service

Domestic Hot-Water System

Coding / Field Name	Asset Description
Domestic Hot Water Systems	Water heaters
Condition	2-Marginal
Quantity	~1 Gas-Fired Boiler and Storage Tank
Unit Cost	\$50,000
Year in Service	~2002
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Boiler Room
Basis of Costing	RMS Means Data with Contingencies Added

On the mechanical mezzanine, a gas-fired boiler with an accompanying 200-gallon tank provides the facility domestic hot water. Recirculation pumps provide recirculation through the facility.



Figure 2: Domestic Water Boiler and Storage Tank

Plumbing Fixtures

Coding / Field Name	Asset Description
Plumbing Fixtures	Water closets, lavatories, sinks, etc.
Condition	4-Good
Quantity	~20 Fixtures
Unit Cost	~\$4,000/Fixture. Total: \$80,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~30 Years
Remaining Useful Life (RUL)	~10 Years
Location	Office Area
Basis of Costing	RMS Means Data with Contingencies Added

Most of the fixtures in the facility appear in good, working order. The sinks in the locker room are touchless and are equipped with pumice soap for deep cleaning. The water

750 Elmwood Ave. Maintenance Facility

closets and urinals are wall-mounted, low-flow fixtures. The showers are heavy-duty, public-use fixtures. Drinking fountains are provided in the office area. The breakroom is equipped with a kitchen sink and microwaves. No stovetops are present.



Figure 3: Locker Room Sinks



Figure 4: Locker Room Water Closet



Figure 5: Drinking Fountain in Office Area



Figure 6: Urinal in Men's Locker Room

750 Elmwood Ave. Maintenance Facility



Figure 7: Shower in Locker Room



Figure 8: Break Room Kitchenette

Storm and Sanitary Drainage

Coding / Field Name	Asset Description
Storm and Sanitary Drainage Systems	Piping and Appurtenances, Not Fixtures
Condition	4-good
Quantity	~88,000 SF
Unit Cost	\$2/SF. Total: \$352,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The storm drainage piping appeared to be original to the building and appeared in working order. Most piping was no-hub cast iron. The drains on the roof are original. For secondary drainage, sporadic scuppers were present.

The sanitary piping is no-hub cast iron. The piping appears in good, working order. A water-oil separator is present in the garage. This separator handles the runoff from the parts cleaning room, the bus bays, and other areas that have drains that could be contaminated with oil.

750 Elmwood Ave. Maintenance Facility



Figure 9: Sanitary Drainage Piping

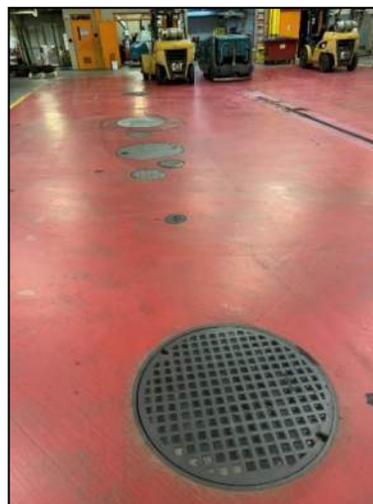


Figure 10: Oil/Water Separator



Figure 11: Parts Cleaner Bay

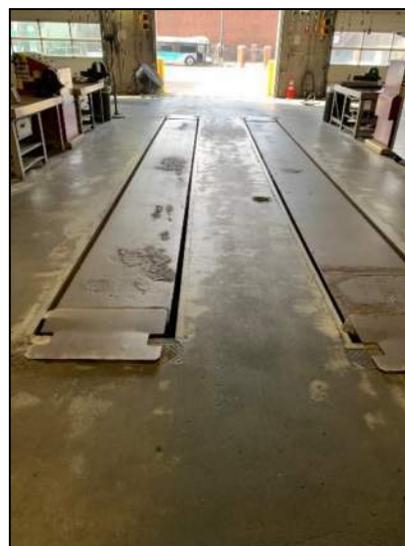


Figure 12: Repair Bay

Natural Gas System

Coding / Field Name	Asset Description
Natural Gas System	Natural gas meters, regulators, and piping.
Condition	4-Good
Quantity	~88,000 SF
Unit Cost	\$1.00/SF. Total: \$88,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The building is served by a natural-gas system on the North side of the facility. The incoming service is ~2” and increases to ~3” after the compressors. A few items requiring gas are the boilers for the hydronic and domestic water and the boilers in the water treatment room.



Figure 13: Gas Service Meter and Regulator

Compressed Air System

Coding / Field Name	Asset Description
Compressed Air Systems	Compressed Air System Equipment and Piping
Condition	4-Good
Quantity	Qty (1) System
Unit Cost	Total: \$300,000
Year in Service	~2002
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~8 Years
Location	Garage
Basis of Costing	Equipment

A compressed air system is in a dedicated room. The system includes an air

750 Elmwood Ave. Maintenance Facility

compressor, a filter/dryer, and a storage tank. The compressed air is used for hand tools and the air-operated diaphragm pumps in the lube room.



Figure 14: Air Compressor



Figure 15: Air Compressor Filter



Figure 16: Compressed Air Tank



Figure 17: Air-Operated Diaphragm Pumps in Lube Room

HVAC Systems

Hot-Water for Comfort Heating Systems

Coding / Field Name	Asset Description
Comfort Heating Systems	Hot-water boiler, piping, ancillary equipment, and terminal devices (radiators, MAUs, and fan coils).
Condition	4-Good
Quantity	~80,000 square feet
Unit Cost	\$20/square foot for ~\$1,600,000
Year in Service	Boiler (~2002), Other System Components ~2002
Expected Useful Life (EUL)	Boiler ~30 Years, Other System Components ~30 Years
Remaining Useful Life (RUL)	~10 years
Location	Entire Facility. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

Qty (2) Gas-Fired Boilers provide hot water for a hydronic heating system. The hot water is used in the coils of the Makeup Air Units (MAUs), unit heaters, and fan coils.

The MAUs provide tempered air to replace the air exhausted from the various exhaust systems. Some MAUs are hung from the ceiling at locations on the perimeter of the garage area. These units are ducted across the garage and to various rooms along the perimeter. MAUs are also mounted on the flat roof and provide MAU to the exterior spaces, outside of the garage area. An additional Fan Coil Unit is in the parts storage area.

There are many small, hot-water unit heaters located throughout the facility. These heaters appear to be locally controlled with a thermostat mounted on the unit.



Figure 18: Hydronic Heating System Boilers



Figure 19: Hot-Water Unit Heater

750 Elmwood Ave. Maintenance Facility



Figure 20: Fan Coil Unit in Parts Storage



Figure 21: MAU on the Perimeter of the Garage



Figure 22: Makeup Air Unit Mounted on Roof

750 Elmwood Ave. Maintenance Facility



Figure 23: MAU Ducting in the Garage



Figure 24: MAU Ducting from Garage to Surrounding Rooms



Figure 25: MAU Ducting from Garage to Surrounding Rooms

Exhaust Systems

Coding / Field Name	Asset Description
Exhaust System	Motor driven fans
Condition	3-Adequate
Quantity	~80,000 square feet
Unit Cost	\$4/square foot for distribution & Labor, ~\$150,000 for Equipment Total: \$470,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~30 Years
Remaining Useful Life (RUL)	~10 Years
Location	Service Area
Basis of Costing	RMS Means Data with Contingencies Added

The garage is equipped with motor driven exhaust fans that have branch ducting with a rope-and-pulley system for localized exhaust. The local exhaust systems appear in good, working order. The fan drives for the exhaust systems are mounted on the roof. Some fans appear newer, and some appear to be original with the building.

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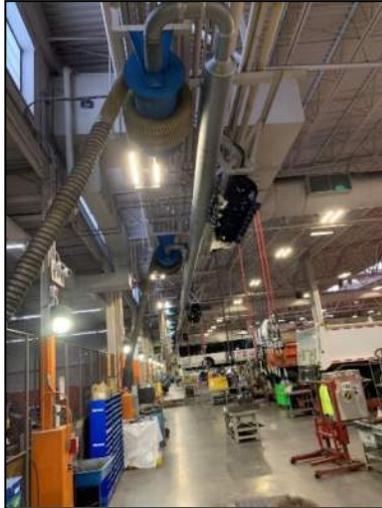


Figure 26: Localized Exhaust Systems



Figure 27: Localized Exhaust System Hose Reel



Figure 28: Exhaust Fan on the Roof



Figure 29: Exhaust Fan on the Roof

The main floor of the garage has exhaust fans mounted on both sides of the peak of the ceiling. These exhaust fans face one another and exhaust directly to the exterior. On the walls of the garage, there are control sensors that measure CO and NO₂ and control the fans.

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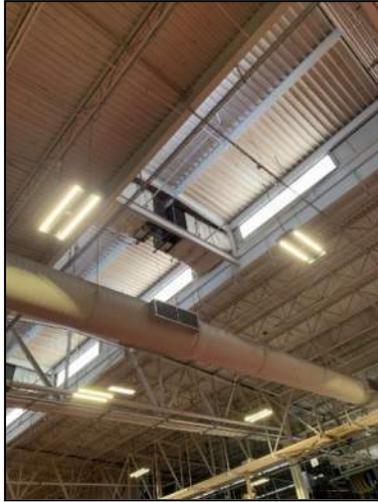


Figure 30: Exhaust Fans at Ceiling Peak



Figure 31: Exhaust Fan Terminals on Peak of Roof

The Body Shop is equipped with a localized smoke exhaust. The machine appears in working order.



Figure 32: Smoke Exhaust System

The facility has a paint booth that has an integral exhaust system. The interior of the paint booth has rows of filters. The exhaust terminates on the roof through exhaust stacks.

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Figure 33: Paint Booth Exhaust System (Interior to Building, Exterior to Booth)



Figure 34: Paint Booth Exhaust (Interior to Booth)



Figure 35: Paint Booth Exhaust Roof Terminations

The battery storage room has makeup air to it, but there is not a control system in place to exhaust the room if there is a dangerous buildup of off gasses from the batteries.



Figure 36: Battery Storage Room

Comfort-Cooling Mechanical Systems

Coding / Field Name	Asset Description
Air-Side Mechanical Systems	Air Conditioning Systems
Condition	3-Adequate
Quantity	~8,000 Square Feet
Unit Cost	\$12/square foot for a total of: \$96,000
Year in Service	~2002 with Additions
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Office Area
Basis of Costing	RMS Means Data with Contingencies Added

The main garage area is not equipped with a comfort cooling system. However, several

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comfort cooling systems are in place around the facility. The office area is equipped with a standard split, direct expansion system. The condensers are located on the flat roof on the South Side of the building, above the office area. The indoor units are hung from the ceiling in a mechanical space adjacent to the office area.



Figure 37: Air Conditioning Condensers on Flat Roof



Figure 38: AC Fan Coil Unit



Figure 39: Diffuser Setup Office Portion

Several small VRF systems provide spot cooling for IT and computer rooms. The security room is equipped with one and various offices are as well.

750 Elmwood Ave. Maintenance Facility



Figure 40: VRF Condenser for Security Room



Figure 41: VRF Evaporator for Security Room

A roof top unit on the North side of the building provides local cooling for an occupied storage area.



Figure 42: Roof Top Unit on Flat Roof

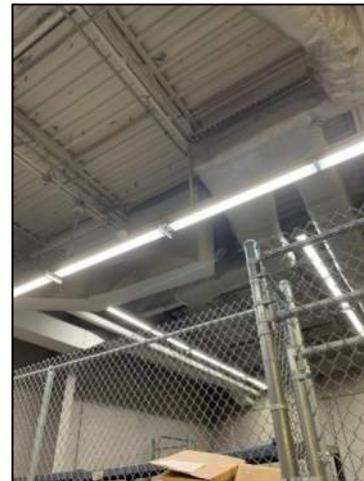


Figure 43: Ducting for Roof Top Unit

Controls System

An abandoned in-place BMS controls system panel is in the parts storage room. The abandoned system is JCI MetaSys system. The working controls system panel is in the boiler room. The working BMS controls system is JCI Facility Explorer.

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Figure 44: Abandoned BMS Control Panel



Figure 45: Working BMS Control Panel in Boiler Room

Fire Sprinkler Systems

Coding / Field Name	Asset Description
Fire Sprinkler System	Wet-Pipe Piping, Sprinklers, Pumps, and Valving
Condition	4-Good
Quantity	88,000 SF
Unit Cost	\$5.00/SF. Total: \$440,000
Year in Service	~2002 with Sporadic Modifications
Expected Useful Life (EUL)	~20 Years for sprinklers. ~40 Years for Piping
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means

Service Entrance

The fire sprinkler system is a wet-pipe sprinkler system. The system is a central system located in the water room. An 8” service lateral immediately reduces to 6” inside the building. A 40hp, double-suction pump provides boosted pressure for the system. A jockey pump maintains pressure. A hose station is located outside the water room. The system has qty (3) risers. There appear to be around qty (6) zones. A Fire Department Connection is located on the opposite side of the building along Thackery St. There is no exterior alarm bell.

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Figure 46: Fire Protection Service in the Water Room



Figure 47: Fire Department Connection



Figure 48: Hose Station Exterior to the Water Room

Risers and Sprinklers

The Risers for the zones appear rather new. There are new flow switches and tamper switches in place. The riser check assemblies appear in good condition.



Figure 49: Fire Sprinkler Risers

All sprinklers appear to be original to the building and appear in good, working order. Recessed sprinklers are in the office portion. Uprights and drops are in other areas. The mezzanine overlooking the garage floor was equipped with window sprinklers on both sides of the windows. The piping is steel, which is in fair condition.



Figure 50: Recessed Sprinkler in Office

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Figure 51: Window Sprinklers in Breakroom



Figure 52: Window Sprinklers in Breakroom

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Electrical Systems

Electrical Service and Distribution

Coding / Field Name	Asset Description
480V Service and Distribution	Switchboard, Distribution panelboards, dry-type transformers and associated panelboards
Condition	Electrical Service/Distribution: 4 – Good, Rest of System: 4 – Good
Quantity	Electrical Service/Distribution ~ Office: 8,450 square feet Garage: 42,000 square feet
Unit Cost	Office : \$2.80/square foot for ~ \$23,660 Garage : \$.63/square foot for ~ \$26,460
Year in Service	Electrical Service ~20 years, Other System Components ~20 years
Expected Useful Life (EUL)	Electrical Service/new panelboards ~20-30 years, Other System Components ~20-30 years
Remaining Useful Life (RUL)	Electrical Service ~ 0-10 years, Other System Components ~0-10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Electrical Room. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

A 1,600A, 480V service installed approximately 20 years ago. The service is fed from the pad mounted transformer (South side of the building) (*Figure 2*) and enters the main switchboard (*Figure 1*) located in the Electrical Room. Building is served by a 265KW backup diesel generator (*Figure 4*). Many older panelboards are deteriorating and/or are damaged or abandoned in place (*Figure 3*).

Pictures:



Figure 1: Switchboard (277/480V)



Figure 2: Transformer



Figure 3: Abandoned/Damaged Panelboard



Figure 4: Generator

Lighting, Branch Wiring, and Associated Controls

Coding / Field Name	Asset Description
Garage Lighting System	Lighting, Branch Wiring, and Associated controls
Condition	4 – Good
Quantity	Garage Lighting System ~ 42,000 square feet
Unit Cost	\$11.97/square foot for ~ \$502,740
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

LED high-bay fixtures with integral occupancy sensors (*Figure 1*) are installed throughout the first-floor garage space. Older fluorescent fixtures were left in place (*Figure 2*). All exit signs throughout the space are illuminated and appear to be completely operational.

Pictures:



Figure 1: LED High-bay fixtures with integral occupancy sensor

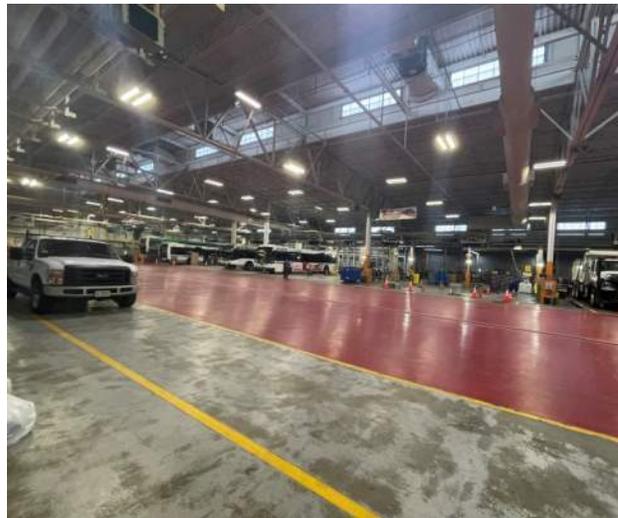


Figure 2: LED High-bay and fluorescent fixtures

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Coding / Field Name	Asset Description
Office/Storage Space	Lighting, Branch Wiring, and Associated controls
Condition	4 - Good
Quantity	Office/Storage Lighting System ~ 8,450 square feet
Unit Cost	\$21.29/square foot for ~ \$179,900.50
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 7 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 13 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First and second floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Storage/office spaces consist of LED 2’X2’ and 2’X4’ troffer fixtures (Figure 3) and linear LED fixtures controlled by a combination of toggle switches (Figure 7), ceiling mounted occupancy sensors (Figure 4), and wall switch occupancy sensors (Figure 8). Exit signs were observed throughout the space and appear to be fully operational (Figure 5). Emergency battery units were observed in some storage/mechanical/electrical rooms. In addition to emergency battery units, lighting fixtures throughout the office space are on generator backup. Fluorescent fixtures (Figure 6) are still operational throughout the office space and storage areas.

Pictures:



Figure 3: LED 2’X2’ troffer fixtures



Figure 4: Ceiling mounted occupancy sensor

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Figure 5: Exit sign

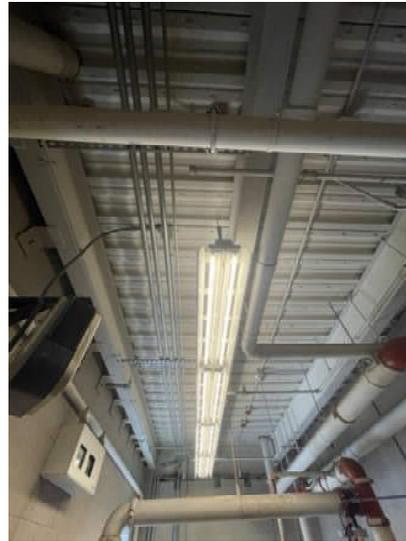


Figure 6: Fluorescent Fixtures



Figure 7: Toggle switches



Figure 8: Wall switch occupancy sensor

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Coding / Field Name	Asset Description
Exterior Lighting System	Exterior wall pack fixtures, emergency remote heads
Condition	3 – Adequate
Quantity	Exterior Lighting System
Unit Cost	~ \$7,500
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 20 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 0-5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Building Exterior
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Wall packs (*Figure 9*) are installed along perimeter of building. Emergency wall packs (*Figure 10*) are located above doors for emergency egress lighting.

Pictures:



Figure 9: Exterior Wall pack



Figure 10: Emergency Wall packs

Fire Alarm System

Coding / Field Name	Asset Description
Fire Alarm System	Fire Alarm Control Panel, Battery Cabinet, and Fire Alarm Devices and associated wiring
Condition	5 – Excellent
Quantity	Fire Alarm System ~ 50,450 square feet
Unit Cost	\$.50/square foot for ~ \$22,225
Year in Service	Fire Alarm Control Panel ~ 6 months, Other System Components ~20 years
Expected Useful Life (EUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~20 years
Remaining Useful Life (RUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~ 1-5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Second Floor Security Room above entrance
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fire alarm system (*Figure 1*) consists of an addressable Fire Alarm Control Panel (Edwards EST-3) and associated devices manufactured by Edwards. Connection to local fire department is through a Gamewell Master Box. CO detection system is installed throughout the garage space (*Figure 2*). Fire Alarm system and associated devices and wiring appear to be in working condition, however some devices are approaching their expected useful life based on industry standards.

Pictures:

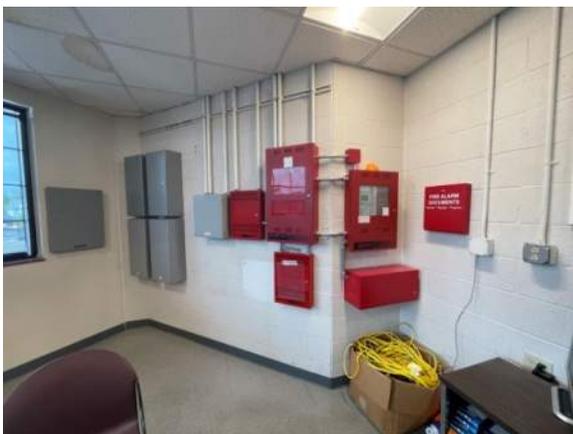


Figure 1: Fire Alarm System



Figure 2: Amber Strobe for CO detection system

E. Equipment

Coding / Field Name	Asset Description
System Name	Vehicle lifts
Condition	3
Quantity	22
Unit Cost	\$770,000
Year in Service	2000
Expected Useful Life	20 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



G.Site

H. Coding / Field Name	Asset Description
System Name	Roadways and paving
Condition	3
Quantity	~1,063.89 linear feet (50 ft wide roadway)
Unit Cost	\$ 272,355.84
Year in Service	2000
Expected Useful Life	25 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:





325 MELROSE STREET,
PROVIDENCE, RI 02907

TAMS Facility Condition Assessment

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325 Melrose Street Maintenance Facility

I. ASSESSMENT OVERVIEW

A. Facility Description

The building at 325 Melrose Street is owned by RIPTA but operated by RIDOT DMV. The facility is used partially for road testing (DMV) and houses administrative functions for RIDOT. The vehicle garage bays of the facility serve as inspection garages for vehicles. The facility includes office space, restrooms, employee lounge, mechanical service space, and vehicle maintenance bays. The site also includes a neighboring surface parking for RIPTA bus storage.



B. Facility Inventory Data

Item	Description
Agency	Rhode Island Public Transit Authority (RIPTA)
Address	325 Melrose St, Providence, RI 02907
Property Type	General Purpose Maintenance Facility
Year Built	1960s
Number of Vehicles Stored	0
Year of Latest Major Renovation	1990s
Number of Stories	1 (Does not Include Basements, Mezzanines, or MEP Penthouses)
Occupied	Yes
Land Area	1.07 Acre
Gross Building Area (GSF)	15,243
Total Parking Count (Including ADA)	45 total parking spaces. 27 (RIPTA) 18 (DMV)
ADA Compliant (Total Count)	6 Total ADA Spaces. 4 (RIPTA) 2 (DMV)
ADA Compliant for Vans	N/A

C. Summary of Findings

The building is in marginal condition and includes a newer addition which is in better condition than the older building. A 2002 building assessment identified various building component failures, some of which continue to exist today. Photos showing the current condition of the exterior and interior of the building are enclosed and labeled “Photos”.

D. Overall Facility Condition

Components	Rating
Substructure	4.00
Shell	3.03
Interiors	2.72
Conveyance	N/A
Plumbing	3.00
HVAC	1.95
Fire Protection	1.00
Electrical	3.12
Equipment	3.00
Site	2.22
Total	2.6

II. PURPOSE AND SCOPE

A. Facility Condition Assessment Requirements & Procedures

The condition assessment is primarily intended to assess the overall physical condition of the facility to support capital investment decisions. The facility’s classification is based upon American Society of Testing and Materials (ASTM) and reporting will follow guidelines set by the Transit Asset Management (TAM) data-reporting requirements and National Transit Database (NTD).

These assessments are completed through an on-site review of our team comprised of an Architect, Electrical Engineer and Mechanical Engineer. These on-site assessments are supplemented with the review any previous inspections results, available as-builts and any additional information provided by RIPTA. The team will also note and report any defects that may constitute a safety concern or potential service delay immediately.

During the on-site assessment, the inspector will observe the primary and secondary level conditions identified in Section F. Our assessments are limited to assets that are visible and accessible, with information on less easily accessible features like internal systems and wiring gained via documentation and interview. Entering limited access areas such as crawl spaces, utility pits, and sloped roofs is not advisable, and their conditions will be observed from a point of safe access. The inspector will assess each using the FTA TERM condition rating scale that is described in Section G.

B. Facility Components and Sub-Components

This section describes the specific components and sub-components that must be inspected as part of a facility condition assessment. The component classification is based upon American Society of Testing and Materials (ASTM) documents that provide standards for classification of building components and related site components, but these have been customized in certain respects to address common features of transit facilities.

ID#	Components	Typical Sub-Components
A.	Substructure	<ul style="list-style-type: none"> • Foundations: Walls, columns, pilings other structural components • Basement: Materials, insulation, slab, floor underpinning
B.	Shell	<ul style="list-style-type: none"> • Superstructure / structural frame: columns, pillars, walls • Roof: Roof surface, gutters, eaves, skylights, chimney surrounds • Exterior: Windows, doors, and all finishes (paint, masonry) • Shell appurtenances: Balconies, fire escapes, gutters, downspouts
C.	Interiors	<ul style="list-style-type: none"> • Partitions: walls, interior doors, fittings such as signage • Stairs: Interior stairs and landings • Finishes: Materials used on walls, floors, and ceilings
D.	Conveyance	<ul style="list-style-type: none"> • Elevators • Escalators • Lifts: any other such fixed apparatuses for the movement of goods or people
E.	Plumbing	<ul style="list-style-type: none"> • Fixtures • Water distribution • Sanitary waste • Rainwater drainage
F.	HVAC	<ul style="list-style-type: none"> • Energy supply • Heat generation and distribution systems • Cooling generation and distribution systems • Testing, balancing, controls and instrumentation • Chimneys and vents
G.	Fire Protection	<ul style="list-style-type: none"> • Sprinklers • Standpipes • Hydrants and other fire protection specialties
H.	Electrical	<ul style="list-style-type: none"> • Electrical service & distribution • Lighting & branch wiring (interior and exterior) • Communications & security • Other electrical system-related pieces such as lightning protection, generators, and emergency lighting
I.	Equipment	<ul style="list-style-type: none"> • Equipment related to the function of the facility, including maintenance or vehicle service equipment <p><i>For clarity, includes only items valued above \$10,000 and related to facility function</i></p>
J.	Site	<ul style="list-style-type: none"> • Roadways/driveways and associated signage, markings, and equipment • Parking lots and associated signage, markings, and equipment • Pedestrian areas and associated signage, markings, and equipment • Site development such as fences, walls, and miscellaneous structures • Landscaping and irrigation • Site Utilities

325 Melrose Street Maintenance Facility

C. Condition Assessment Rating Scale

The condition measure used in the NTD is the five-point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

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

A weighted average condition is being utilized to calculate an overall condition for the facility.

$$OR = \frac{\sum_i CR_i RC_i}{\sum_i RC_i}$$

Where:

CR_i is the rating for component i

RC_i is the replacement cost for component i

III. ASSETS OBSERVED

Assets observed at the site are provided in this Section and sorted by the modified Uniformat II coding indexed as applicable. See the listing below for the sequence.

A. SUBSTRUCTURE

A10 Foundations

A20 Basement Construction

B. SHELL

B10 Super Structure

B20 Exterior Enclosure

B30 Roofing

C. INTERIORS

C10 Interior Construction

C20 Stairs

C30 Interior Finishes

D. SERVICES

D10 Conveying

D20 Plumbing

D30 HVAC

D40 Fire Protection

D50 Electrical

D. EQUIPMENT

D10 Equipment

G. SITEWORK

G10 Site

A. SUBSTRUCTURE

B. Coding / Field Name	Asset Description
System Name	Slabs on grade
Condition	4
Quantity	~15,198 sq. ft.
Unit Cost	Total: \$258,366
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	100 years
Remaining Useful Life	85 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Foundations not visually accessible.

Pictures:



325 Melrose Street Maintenance Facility

B. SHELL

Coding / Field Name	Asset Description
System Name	Steel superstructure
Condition	4
Quantity	~15,198 sq. ft.
Unit Cost	Total: \$386,336
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	100
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Building Structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Fireproofing on columns deteriorating.

Pictures:



325 Melrose Street Maintenance Facility

Coding \$ Field Name	Asset Description
System Name	CMU walls
Condition	3
Quantity	~8,200 sq. ft.
Unit Cost	Total: \$200,694.42
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	100 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Exterior and interior bearing walls.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Various cracks, moisture damage, failing expansion joints, chipping, and deterioration.

Pictures:

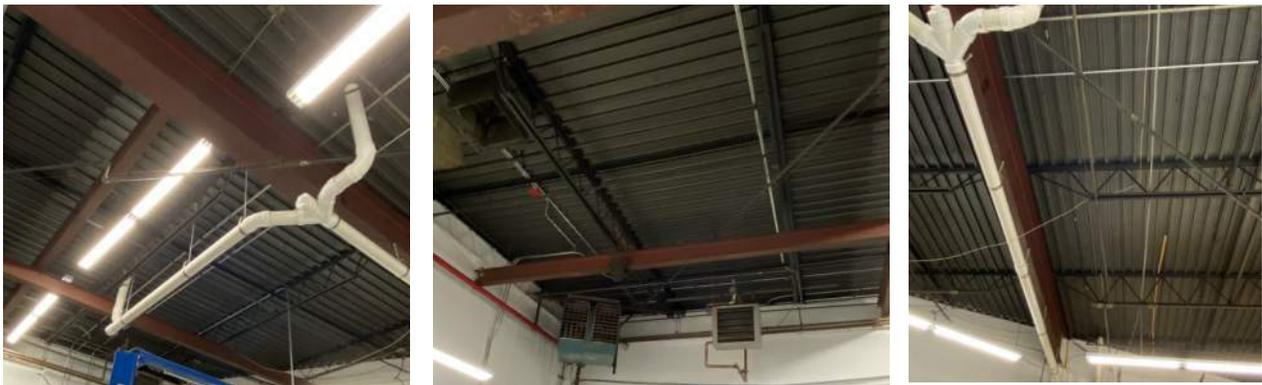


325 Melrose Street Maintenance Facility



Coding / Field Name	Asset Description
System Name	Steel roof decking
Condition	4
Quantity	1680 sq. ft.
Unit Cost	Total: \$25,160
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	70 years
Remaining Useful Life	60 years, Estimated, Based on Date of Observation
Location	Inspection garage
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Concrete plank floor
Condition	4
Quantity	~1600 sq. ft.
Unit Cost	Total: \$28,480
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	100 years
Remaining Useful Life	85 years, Estimated, Based on Date of Observation
Location	Mezzanine floor
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Some gaps between planks but overall fair condition.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Membrane roofing
Condition	3
Quantity	~7,500 sq. ft.
Unit Cost	Total: \$29,568
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Flat roofs.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Evidence of ponding, membrane bubbling, staining, potentially blocked roof drains.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Batten seam metal roof
Condition	2
Quantity	~7,750 sq. ft.
Unit Cost	Total: \$277,062.50
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	50 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Inspection garages.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Leaking through fasteners, various inconsistent spot patches and repairs, rust and corrosion.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Metal gutters and downspouts
Condition	4
Quantity	~450 linear ft.
Unit Cost	Total: \$8,752
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	50 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Building roof edge.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Gutters and downspouts in fair condition but fasteners may require maintenance.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Pitched roof metal fascia
Condition	2
Quantity	~150 linear ft.
Unit Cost	Total: \$4,530
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Inspection garage pitched roof.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Flat roof metal coping
Condition	4
Quantity	~500 linear ft.
Unit Cost	Total: \$9,175
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Flat roof perimeter
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Coping itself appears in fair condition but older fascia/coping and membrane flashing beneath top coping may have issues.

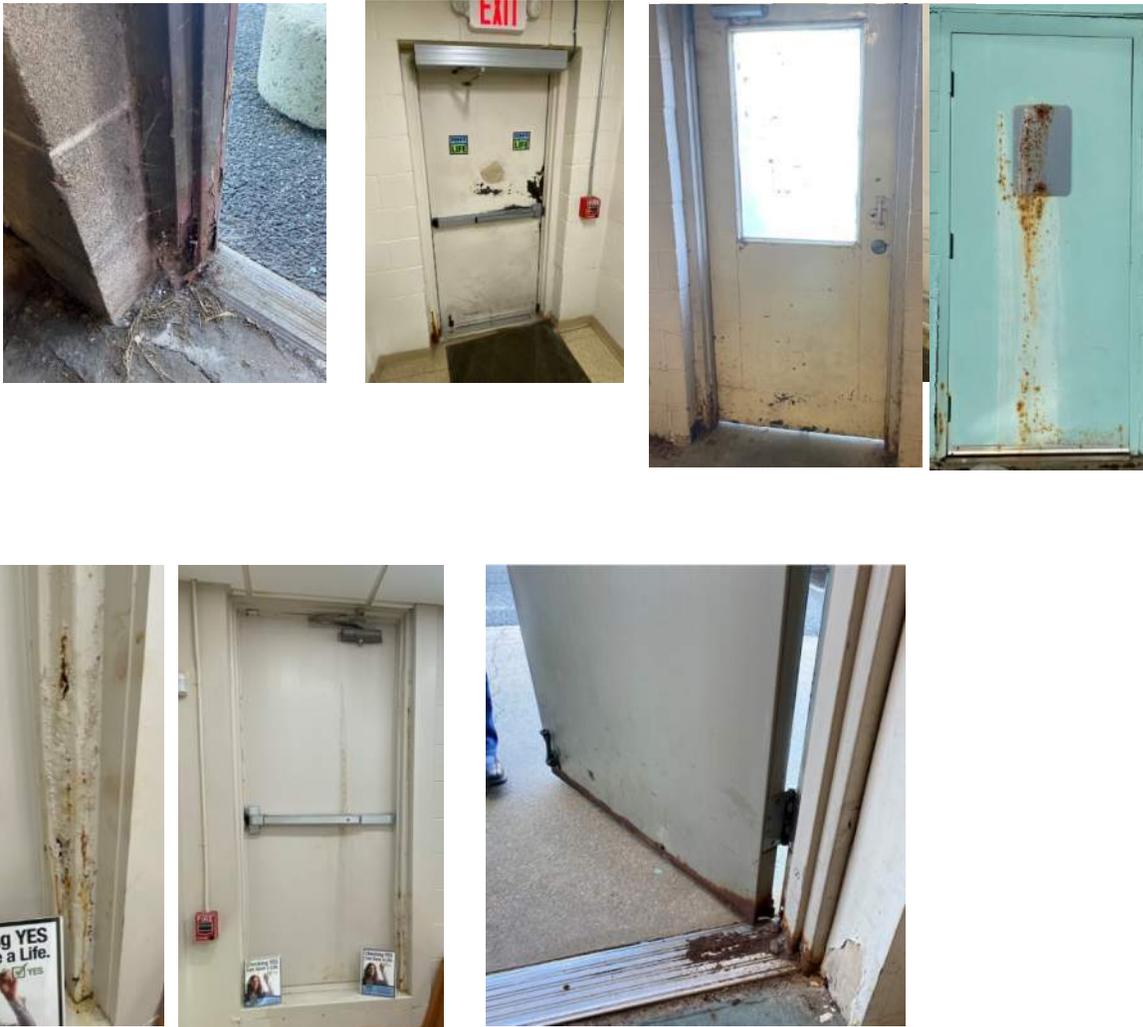
Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior steel doors and frames.
Condition	2
Quantity	8
Unit Cost	Total: \$ 4,372.50
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	50 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior louvers, frames, and bird/insect screens
Condition	2
Quantity	4
Unit Cost	Total: \$2,290.24
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	2 years, Estimated, Based on Date of Observation
Location	Exterior walls
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Louver blades missing / unseated. Screens pulled away from screen. Damage to openings.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Roof insulation
Condition	1
Quantity	~4,200 sq. ft.
Unit Cost	Total: \$45,276
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	2 years, Estimated, Based on Date of Observation
Location	Inspection Garage
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Overhead garage doors
Condition	3
Quantity	7
Unit Cost	Total: \$55,650
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Inspection garages, storage garage.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Inspection garage doors are better condition than storage garage. Denting, chipping, warping, corroded lintels.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Windows and frames
Condition	2
Quantity	15
Unit Cost	Total: \$45,210
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	7 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Corroded sealant, damage to glazing.

Pictures:



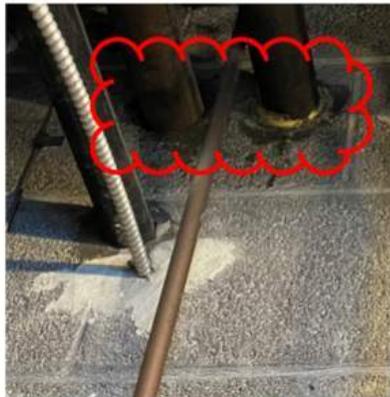
C. INTERIORS

Coding / Field Name	Asset Description
System Name	Through-wall piping and conduit penetrations.
Condition	2
Quantity	~50 sq. ft.
Unit Cost	Total: \$2,567
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	30 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Boiler / utility spaces. Inspection bays. Other.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Through-wall penetration sealants and sleeving deteriorating or not installed. Potential issues with penetration of fire-rated ceiling, wall, etc. assemblies.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior Steel doors and frames
Condition	3
Quantity	14
Unit Cost	Total: \$23,212
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Acoustic ceiling tiles and grids
Condition	2
Quantity	~7,500 sq. ft.
Unit Cost	Total: \$80,850
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	40 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Office and administrative spaces.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Water damage, missing tiles, corroded grids.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior furniture and fixtures.
Condition	3
Quantity	~5,000 sq. ft.
Unit Cost	Total: \$293,467.80
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	45 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Office and administrative areas.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



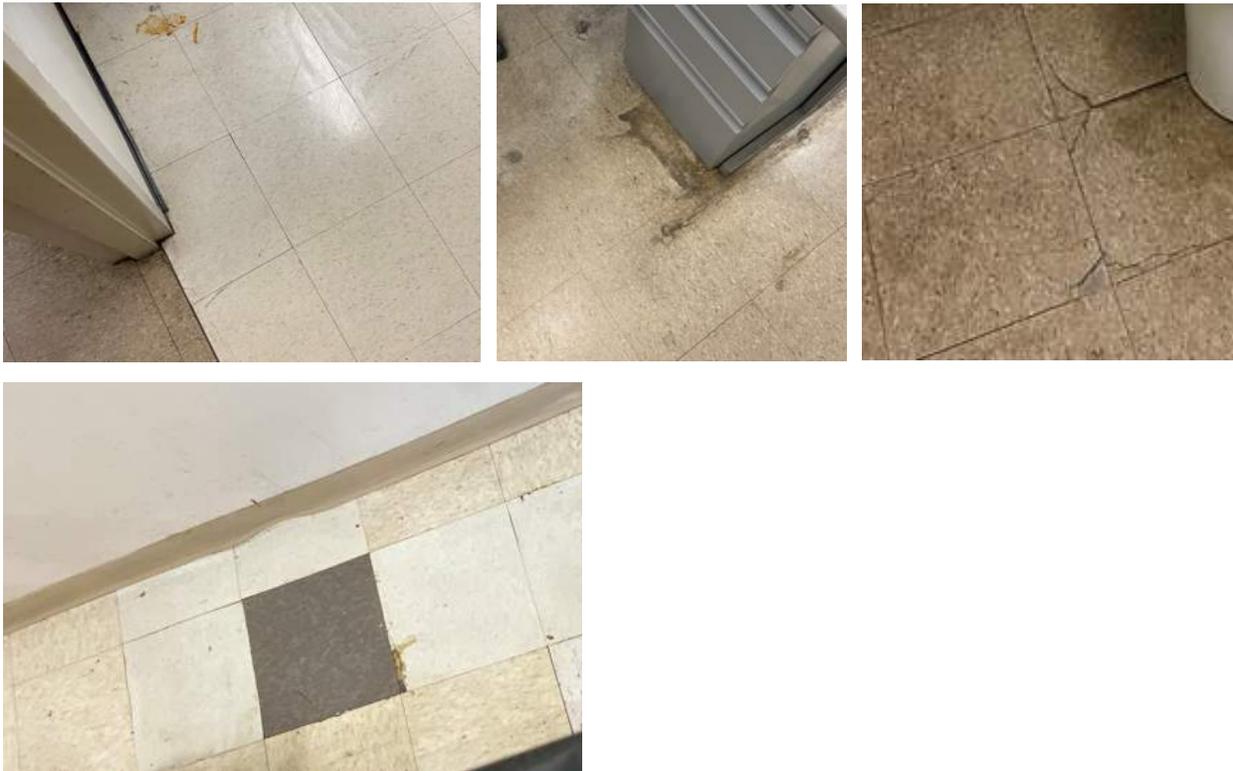
325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	VCT Flooring and rubber base.
Condition	2
Quantity	~7,500 sq. ft.
Unit Cost	Total: \$52,125
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	50 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Office and administrative areas.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Cracked / missing tiles, damaged tiles, discoloration, staining.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Carpet flooring
Condition	1
Quantity	~600 sq. ft.
Unit Cost	Total: \$3,384
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	30 years
Remaining Useful Life	0 years, Estimated, Based on Date of Observation
Location	Office spaces.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Restroom fixtures and accessories
Condition	3
Quantity	2 restrooms
Unit Cost	\$3,348.10
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	30 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Restrooms
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Plaster ceilings
Condition	3
Quantity	~600 sq. ft.
Unit Cost	Total: \$6,012
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	50 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Office / vending spaces.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

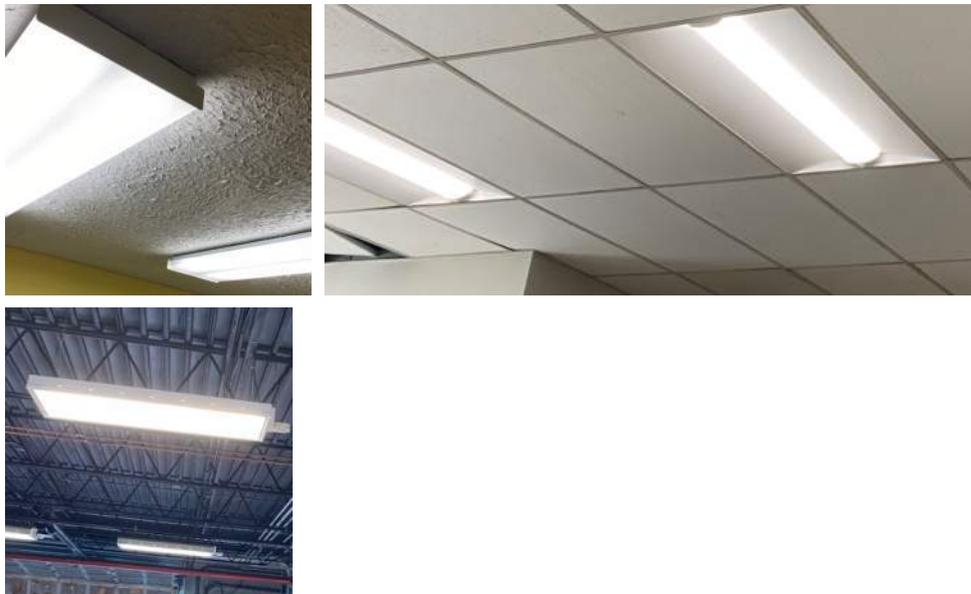
Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior lighting fixtures
Condition	4
Quantity	~50
Unit Cost	Total: \$6,346
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life	50 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

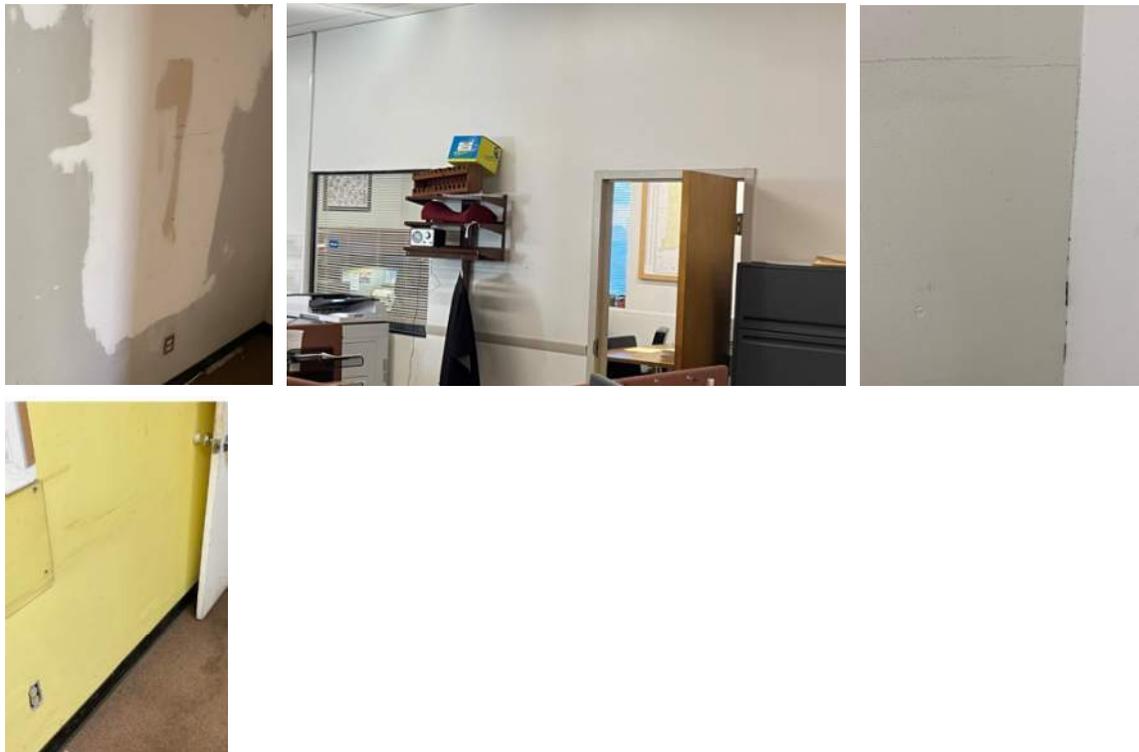
Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior drywall Partitions
Condition	3
Quantity	~2000 sq. ft.
Unit Cost	Total: \$15,700
Year in Service	~1960s with Sporadic Modifications
Expected Useful Life	60 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



D. SERVICES

Plumbing Systems

Coding / Field Name	Asset Description
Plumbing Systems	Cold-and Hot-Water, Natural Gas, Storm, and Waste & Vent Systems.
Condition	3-Adequate
Quantity	Qty (1) System
Unit Cost	Total: \$250,000
Year in Service	~1990s
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~10 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

Domestic Water

The building is served by a 1-1/2" domestic water line with a 1-1/2" water meter and reduced-pressure zone backflow preventer. The piping in the building predominantly employs solder fittings, but recent repairs are done with press-connect fittings.



Figure 1: Water Service Entrance



Figure 2: Domestic Water Meter

325 Melrose Street Maintenance Facility

Domestic Hot-Water System

A 40-gallon, 40,000 BTU/hr water heater located near the boiler provides hot water for the building.



Figure 3: Gas-Fired Tank Water Heater

Plumbing Fixtures

The plumbing fixtures are dated. Most are manually operated, are not ADA compliant, and are not water-saving fixtures.



Figure 4: Floor Mounted Water Closet



Figure 5: Piping Under Lavatory

325 Melrose Street Maintenance Facility

Storm Drainage

A roof drain appears on the flat roof, but most of the storm drainage is handled with the use of downspouts and gutters.



Figure 6: Roof Drains

Sanitary Drainage

The sanitary piping is no-hub cast iron, but a lot of the indoor, above ground piping was PVC.



Figure 7: Floor Mounted Water Closet



Figure 8: Piping Under Lavatory

Natural Gas System

The building is served by Qty (2) natural-gas meters. The meters are 1,000 CFH each. The piping is schedule 40 steel threaded fittings.



Figure 9: Gas Service Entrance

HVAC Systems

Comfort Heating and Cooling Systems

Coding / Field Name	Asset Description
Comfort Heating and Cooling Systems	Air-Conditioning Systems
Condition	2-Poor
Quantity	~10,000 square feet
Unit Cost	\$20/square foot with equipment costs for a total of \$350,000
Year in Service	Office RTU ~2010. Other Air Conditioning Systems ~1995
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Varies
Basis of Costing	RMS Means Data with Contingencies Added

A rooftop unit provides primary heating and cooling for the office portion of the building. The unit appears to be a constant-volume, single zone system. The RTU provides outdoor air with a damper and economizer.

325 Melrose Street Maintenance Facility



Figure 10: Rooftop Unit Over Office

In the shop-side of the building, a 1,700 MBh hydronic boiler with Qty (6) zones provides heat. The hydronic loops are routed to the various unit heaters around the perimeter of the spaces. Qty (3) split system, direct expansion air conditioners equipped with gas-fired furnaces provide cooling and heating. A variable-refrigerant flow heat pump provides heating and cooling for a small office area of the shop. There is no mechanical ventilation present outside of the area served by the rooftop unit.



Figure 11: Gas-Fired Boiler in Shop Area

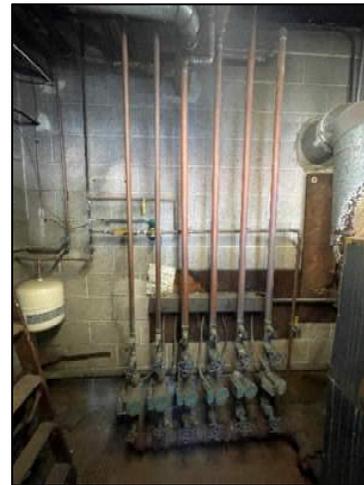


Figure 12: Hydronic Pump Manifold

325 Melrose Street Maintenance Facility



Figure 13: Hydronic Unit Heater



Figure 14: Hydronic Unit Heater



Figure 15: Indoor Evaporator with Gas-Fire Furnace



Figure 16: Abandoned Indoor Evaporator

325 Melrose Street Maintenance Facility



Figure 17: Indoor, Wall-Mounted Unit



Figure 18: Mini-Split Condenser on Roof of Shop Office



Figure 19: Ground-Mounted Condensers



Figure 20: Roof-Mounted Condenser

The IT room is equipped with a window-unit air conditioner.

325 Melrose Street Maintenance Facility



Figure 21: Window-Unit in IT Room

Exhaust Systems

Coding / Field Name	Asset Description
Exhaust System	Motor driven fans, passive dampers, abandoned air handlers
Condition	1-Poor
Quantity	~1 Exhaust Fan and Ducting
Unit Cost	\$20,000
Year in Service	~1960s with modifications around ~1997
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Garage Area
Basis of Costing	RMS Means Data with Contingencies Added

The shop is equipped with an exhaust fan that was ducted for use with trunks for local exhaust. These ducts are now missing, and it is not clear if the system is still operational.



Figure 22: Exhaust Fan

Fire Sprinkler Systems

Coding / Field Name	Asset Description
Fire Sprinkler System	Wet-Pipe Piping, Sprinklers, and Valving
Condition	1-Poor, Incomplete Systems
Quantity	Qty (1) System
Unit Cost	\$200,000
Year in Service	~1990s with Sporadic Modifications
Expected Useful Life (EUL)	~20 Years for sprinklers. ~40 Years for Piping
Remaining Useful Life (RUL)	~0 Years
Location	Entire Facility
Basis of Costing	RMS Means

The fire sprinkler system is a wet-pipe system served by a 6” lateral. A Fire Department Connection is located on the street side of the shop where an alarm bell is situated. The shop appears to be fully sprinklered, but the office areas are not sprinklered.



Figure 23: Fire-Service Main



Figure 24: Alarm Bell and Fire-Department Connection

Electrical Systems

Electrical Service and Distribution

Coding / Field Name	Asset Description
208V Service and Distribution	Distribution equipment and associated panelboards
Condition	Electrical Service/Distribution: 2 - Marginal
Quantity	Electrical Service/Distribution ~ Office: 6,000 square feet Garage: 9,250 square feet
Unit Cost	Office : \$2.80/square foot for ~ \$16,800 Garage : \$.63/square foot for ~ \$5,827
Year in Service	Electrical Service ~30+ years
Expected Useful Life (EUL)	Electrical Service/new panelboards ~20-30 years
Remaining Useful Life (RUL)	Electrical Service ~ 0-10 years, Other System Components ~0 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Electrical Room. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

A 400A, 3 phase service installed over 30 years ago. The service is fed from the pole mounted transformers (North side of the building) (*Figure 1*) and enters the main disconnect (*Figure 3*) and distribution equipment (*Figure 2*) located in the fenced off Electrical area. Building is served by a backup generator (*Figure 4*). Many older panelboards are deteriorating and/or are damaged or abandoned in place (*Figure 5*).

Pictures:

325 Melrose Street Maintenance Facility



Figure 1: Pole Mounted Transformers



Figure 2: Distribution Equipment



Figure 3: Main Disconnect



Figure 4: Generator

325 Melrose Street Maintenance Facility



Figure 5: Deteriorating panelboard

Lighting, Branch Wiring, and Associated Controls

Coding / Field Name	Asset Description
Garage Lighting System	Lighting, Branch Wiring, and Associated controls
Condition	2- Marginal
Quantity	Garage Lighting System ~ 9,250 square feet
Unit Cost	\$11.97/square foot for ~ \$110,722
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 20 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 0years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fluorescent high-bay fixtures (*Figure 1*) are installed throughout the first floor garage space. All exit signs (*Figure 2*) throughout the space are illuminated and appear to be completely operational. Garage lighting has reached the end of the expected useful life.

Pictures:



Figure 1: Fluorescent High-bay fixtures



Figure 2: Exit Sign

325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
Office/Storage Space	Lighting, Branch Wiring, and Associated controls
Condition	4 - Good
Quantity	Office/Storage Lighting System ~ 8,450 square feet
Unit Cost	\$21.29/square foot for ~ \$179,900.50
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 7 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 13 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First and second floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Storage/office spaces consist of LED 2’X2’ and 2’X4’ troffer fixtures (Figure 3) and linear LED fixtures controlled by a combination of toggle switches, ceiling mounted occupancy sensors (Figure 4), and wall switch occupancy sensors (Figure 8). Exit signs were observed throughout the space and appear to be fully operational (Figure 5). Emergency battery units (Figure 6) were observed in some storage/mechanical/electrical rooms. In addition to emergency battery units, lighting fixtures throughout the office space are on generator backup. Fluorescent fixtures (Figure 7) are still operational throughout the office space and storage areas.

Pictures:



Figure 3: LED 2’X2’ troffer fixtures



Figure 4: Ceiling mounted occupancy sensor

325 Melrose Street Maintenance Facility



Figure 5: Exit sign



Figure 6: Emergency Battery Unit



Figure 7: Fluorescent Fixture



Figure 8: Wall switch occupancy sensor

325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
Exterior Lighting System	Exterior wall pack fixtures, emergency remote heads
Condition	2 - Marginal
Quantity	Exterior Lighting System
Unit Cost	~ \$7,500
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 20 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 0-5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Building Exterior
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Wall packs (*Figure 9*) are installed along perimeter of building. Emergency wall packs (*Figure 10*) are located above doors for emergency egress lighting.

Pictures:



Figure 9: Exterior Wall pack

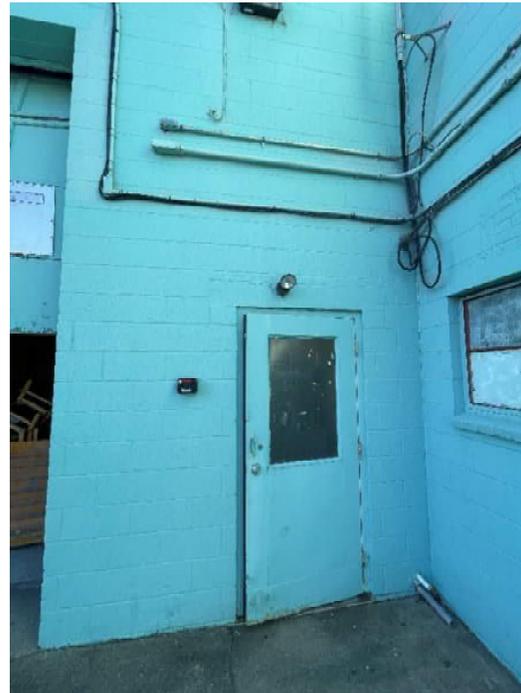


Figure 10: Emergency remote heads

325 Melrose Street Maintenance Facility

Fire Alarm System

Coding / Field Name	Asset Description
Fire Alarm System	Fire Alarm Control Panel, Battery Cabinet, and Fire Alarm Devices and associated wiring
Condition	3 - Adequate
Quantity	Fire Alarm System ~ 15,250 square feet
Unit Cost	\$.50/square foot for ~ \$7,625
Year in Service	Fire Alarm Control Panel ~ 15 years Other System Components ~ 20 years
Expected Useful Life (EUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~20 years
Remaining Useful Life (RUL)	Fire Alarm Control Panel ~ 1-5 years, Other System Components ~ 1-5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Rear Garage Entrance
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fire alarm system (*Figure 1*) consists of an addressable Fire Alarm Control Panel, battery cabinet, and associated devices manufactured by Honeywell. Connection to local fire department is through a Gamewell Master Box. Fire Alarm system and associated devices and wiring appear to be in working condition, however some devices are approaching their expected useful life based on industry standards.

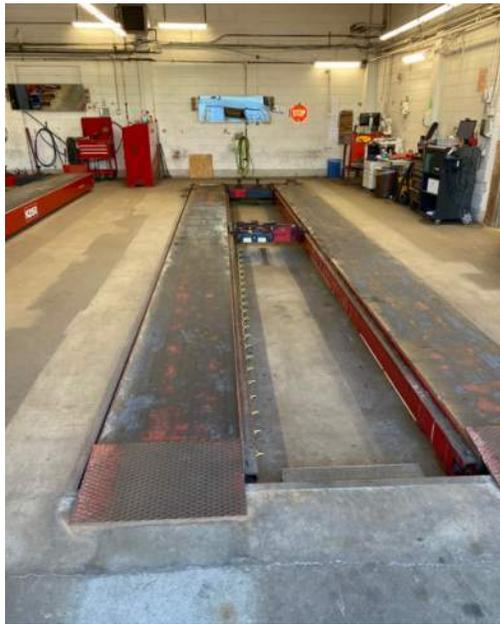


Figure 1: Fire Alarm System

E. EQUIPMENT

Coding / Field Name	Asset Description
System Name	Vehicle lifts
Condition	3
Quantity	4
Unit Cost	Total: \$140,000
Year in Service	N/A
Expected Useful Life	20 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



G. SITE

Coding / Field Name	Asset Description
System Name	Exterior concrete pads and walking surfaces.
Condition	2
Quantity	~2,000 sq. ft.
Unit Cost	Total: \$20,780
Year in Service	
Expected Useful Life	85 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building exterior.
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Cracking, settling, chipping.

Pictures:



325 Melrose Street Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior lighting fixtures
Condition	4
Quantity	10
Unit Cost	\$2,620
Year in Service	
Expected Useful Life	40 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Light fixtures in good working condition at time of inspection.

Pictures:





1 KENNEDY PLAZA,
PROVIDENCE, RI 02903

TAMS Facility Condition Assessment

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1 Kennedy Plaza, Passenger Facility

I. ASSESSMENT OVERVIEW

A. Facility Description

The Kennedy Plaza Passenger terminal is a single-story transit hub. It includes a main concourse waiting space, police space, vending space, public and private restrooms, ticketing offices, and administration areas. The building sits on a 2.25-acre site which also includes an expansive plaza with eight bus shelters, trees, a pavilion, benches, a historical statue, and trash receptacles.



Item	Description
Agency	Rhode Island Public Transit Authority (RIPTA)
Address	1 Kennedy Plaza, Providence, RI 02903
Property Type	Passenger Facility
Year Built	2001
Number of Vehicles Stored	0
Year of Latest Major Renovation	N/A
Number of Stories	1 (Does not Include Basements, Mezzanines, or MEP Penthouses)
Occupied	Yes
Land Area	2.25 Acres
Gross Building Area (GSF)	6,661
Total Parking Count (Including ADA)	0 Parking Spaces
ADA Compliant (Total Count)	0 Total ADA Spaces
ADA Compliant for Vans	0 Van Parking Spaces

1 Kennedy Plaza, Passenger Facility

B. Summary of Findings

This facility appears to be in adequate condition. The building is approaching 22 years in age and could benefit from some rehabilitation of components to ensure a prolong life. Photos showing the current condition of the exterior and interior of the building are enclosed in the subsequent sections.

C. Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.6
Interiors	3.2
Conveyance	N/A
Plumbing	3.0
HVAC	2.0
Fire Protection	3.0
Electrical	2.2
Equipment	N/A
Site	3.0
Total	3.0

II. PURPOSE AND SCOPE

A. Facility Condition Assessment Requirements & Procedures

The condition assessment is primarily intended to assess the overall physical condition of the facility to support capital investment decisions. The facility’s classification is based upon American Society of Testing and Materials (ASTM) and reporting will follow guidelines set by the Transit Asset Management (TAM) data-reporting requirements and National Transit Database (NTD).

These assessments are completed through an on-site review of our team comprised of an Architect, Electrical Engineer and Mechanical Engineer. These on-site assessments are supplemented with the review any previous inspections results, available as-builts and any additional information provided by RIPTA. The team will also note and report any defects that may constitute a safety concern or potential service delay immediately.

During the on-site assessment, the inspector will observe the primary and secondary level conditions identified in Section B. Our assessments are limited to assets that are visible and accessible, with information on less easily accessible features like internal systems and wiring gained via documentation and interview. Entering limited access areas such as crawl spaces, utility pits, and sloped roofs is not advisable, and their conditions will be observed from a point of safe access. The inspector will assess each using the FTA TERM condition rating scale that is described in Section C.

1 Kennedy Plaza, Passenger Facility

B. Facility Components and Sub-Components

This section describes the specific components and sub-components that must be inspected as part of a facility condition assessment. The component classification is based upon American Society of Testing and Materials (ASTM) documents that provide standards for classification of building components and related site components, but these have been customized in certain respects to address common features of transit facilities.

ID#	Components	Typical Sub-Components
A.	Substructure	<ul style="list-style-type: none"> • Foundations: Walls, columns, pilings other structural components • Basement: Materials, insulation, slab, floor underpinning
B.	Shell	<ul style="list-style-type: none"> • Superstructure / structural frame: columns, pillars, walls • Roof: Roof surface, gutters, eaves, skylights, chimney surrounds • Exterior: Windows, doors, and all finishes (paint, masonry) • Shell appurtenances: Balconies, fire escapes, gutters, downspouts
C.	Interiors	<ul style="list-style-type: none"> • Partitions: walls, interior doors, fittings such as signage • Stairs: Interior stairs and landings • Finishes: Materials used on walls, floors, and ceilings
D.1	Conveyance	<ul style="list-style-type: none"> • Elevators • Escalators • Lifts: any other such fixed apparatuses for the movement of goods or people
D.2	Plumbing	<ul style="list-style-type: none"> • Fixtures • Water distribution • Sanitary waste • Rain water drainage
D.3	HVAC	<ul style="list-style-type: none"> • Energy supply • Heat generation and distribution systems • Cooling generation and distribution systems • Testing, balancing, controls and instrumentation • Chimneys and vents
D.4	Fire Protection	<ul style="list-style-type: none"> • Sprinklers • Standpipes • Hydrants and other fire protection specialties
D.5	Electrical	<ul style="list-style-type: none"> • Electrical service & distribution • Lighting & branch wiring (interior and exterior) • Communications & security • Other electrical system-related pieces such as lightning protection, generators, and emergency lighting
G.	Site	<ul style="list-style-type: none"> • Roadways/driveways and associated signage, markings, and equipment • Parking lots and associated signage, markings, and equipment • Pedestrian areas and associated signage, markings, and equipment • Site development such as fences, walls, and miscellaneous structures • Landscaping and irrigation • Site Utilities

1 Kennedy Plaza, Passenger Facility

C. Condition Assessment Rating Scale

The condition measure used in the NTD is the five-point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

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

A weighted average condition is being utilized to calculate an overall condition for the facility.

$$OR = \frac{\sum_i CR_i RC_i}{\sum_i RC_i}$$

Where:

CR_i is the rating for component i

RC_i is the replacement cost for component i

1 Kennedy Plaza, Passenger Facility

III. ASSETS OBSERVED

Assets observed at the site are provided in this Section and sorted by the modified Uniformat II coding indexed as applicable. See the listing below for the sequence.

A. SUBSTRUCTURE

A10 Foundations

A20 Basement Construction

B. SHELL

B10 Super Structure

B20 Exterior Enclosure

B30 Roofing

C. INTERIORS

C10 Interior Construction

C20 Stairs

C30 Interior Finishes

D. SERVICES

D10 Conveying

D20 Plumbing

D30 HVAC

D40 Fire Protection

D50 Electrical

G. SITEWORK

G10 Site

1 Kennedy Plaza, Passenger Facility

A. Substructure

Coding / Field Name	Asset Description
System Name	Foundations, concrete
Condition	4
Quantity	~743 linear ft.
Unit Cost	Total: \$95,215.45
Year in Service	2001
Expected Useful Life	100 years
Remaining Useful Life	79 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Foundations not visually accessible.

Coding / Field Name	Asset Description
System Name	Concrete slab on grade
Condition	4
Quantity	~6661 sq. ft.
Unit Cost	Total: \$82,576.42
Year in Service	2001
Expected Useful Life	100 years
Remaining Useful Life	79 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Asset review based on observable slab locations.

Pictures:



1 Kennedy Plaza, Passenger Facility

B. Shell

C. Coding / Field Name	Asset Description
System Name	Steel superstructure
Condition	4
Quantity	6661 sq. ft.
Unit Cost	Total: \$223,032.35
Year in Service	2001
Expected Useful Life	100
Remaining Useful Life	79 years, Estimated, Based on Date of Observation
Location	Building structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

D. Coding / Field Name	Asset Description
System Name	Wood roof structure
Condition	4
Quantity	~773 sq. ft.
Unit Cost	Total: \$35,465
Year in Service	2001
Expected Useful Life	100 years
Remaining Useful Life	70 years, Estimated, Based on Date of Observation
Location	Building structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	CMU Walls
Condition	4
Quantity	~7,500 sq. ft.
Unit Cost	Total: \$183,562.50
Year in Service	2001
Expected Useful Life	100 years
Remaining Useful Life	79 years, Estimated, Based on Date of Observation
Location	Building structure / interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Metal roof, insulation, and decking. Fascias, soffits, and downspouts
Condition	3
Quantity	~5,000 sq. ft.
Unit Cost	Total: \$255,458.50
Year in Service	2001
Expected Useful Life	70 years
Remaining Useful Life	49 years, Estimated, Based on Date of Observation
Location	Roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Roof and accessories in fair condition. Some staining evident.

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Exterior ornamental wood soffits and molding.
Condition	3
Quantity	~70 linear ft.
Unit Cost	Total: \$2500
Year in Service	2001
Expected Useful Life	45 years
Remaining Useful Life	24 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Exterior ornamental metal work
Condition	3
Quantity	~650 sq. ft.
Unit Cost	Total: \$32,500
Year in Service	2001
Expected Useful Life	50 years
Remaining Useful Life	29 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Exterior granite cladding and base
Condition	4
Quantity	~1,300 sq. ft.
Unit Cost	Total: \$110,500
Year in Service	2001
Expected Useful Life	100 years
Remaining Useful Life	79 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Generally in fair condition. Regular maintenance and cleaning are crucial to prolonging life of this exterior in high traffic site.

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Exterior Steel Wall Panels
Condition	3
Quantity	12
Unit Cost	Total: \$8423.54
Year in Service	2001
Expected Useful Life	50 years
Remaining Useful Life	29 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Rust and wear evident.

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Skylight glazing system
Condition	4
Quantity	~1,000 sq. ft.
Unit Cost	Total: \$56,879.32
Year in Service	2001
Expected Useful Life	50
Remaining Useful Life	29 years, Estimated, Based on Date of Observation
Location	Roof level
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Aluminum Automatic entrances and storefronts
Condition	3
Quantity	~220 sq. ft.
Unit Cost	Total: \$20,856
Year in Service	2001
Expected Useful Life	50 years
Remaining Useful Life	29 years, Estimated, Based on Date of Observation
Location	Building exterior/interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Windows and storefront
Condition	3
Quantity	~656 sq. ft.
Unit Cost	Total: \$36,736.69
Year in Service	2001
Expected Useful Life	50 years
Remaining Useful Life	29 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:

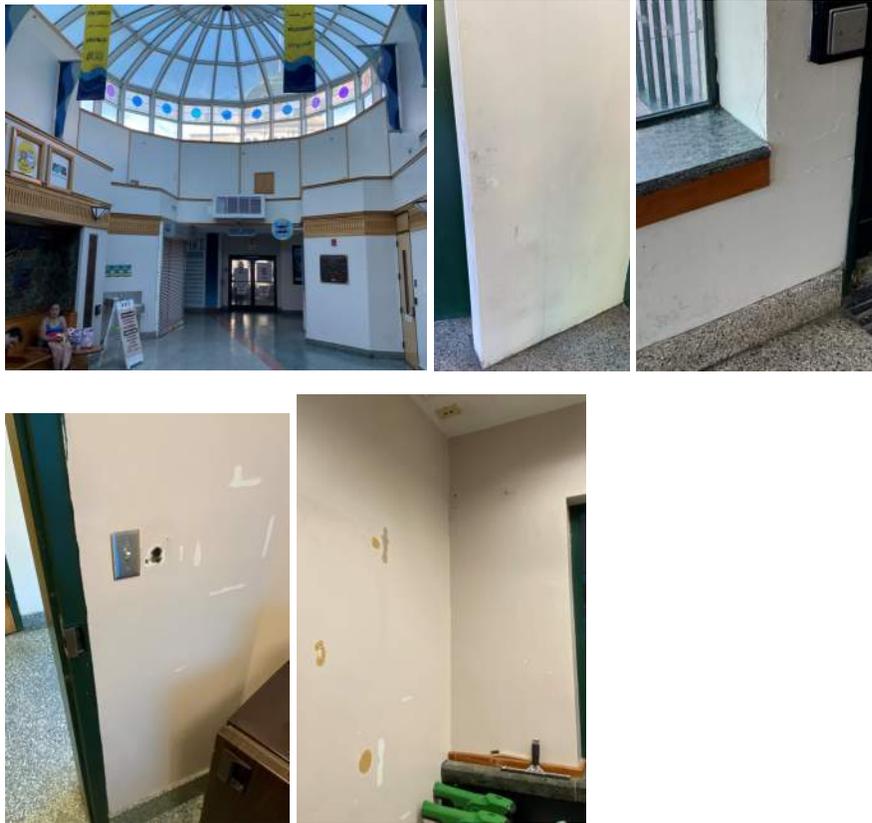


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C. Interiors

Coding / Field Name	Asset Description
System Name	Interior gypsum board partitions
Condition	3
Quantity	~2,000 sq. ft.
Unit Cost	Total: \$17,687
Year in Service	2001
Expected Useful Life	75 years
Remaining Useful Life	54 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Epoxy flooring and cove base
Condition	2
Quantity	~1000 sq. ft.
Unit Cost	Total: \$12,451
Year in Service	2001
Expected Useful Life	40 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Restrooms / maintenance areas.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

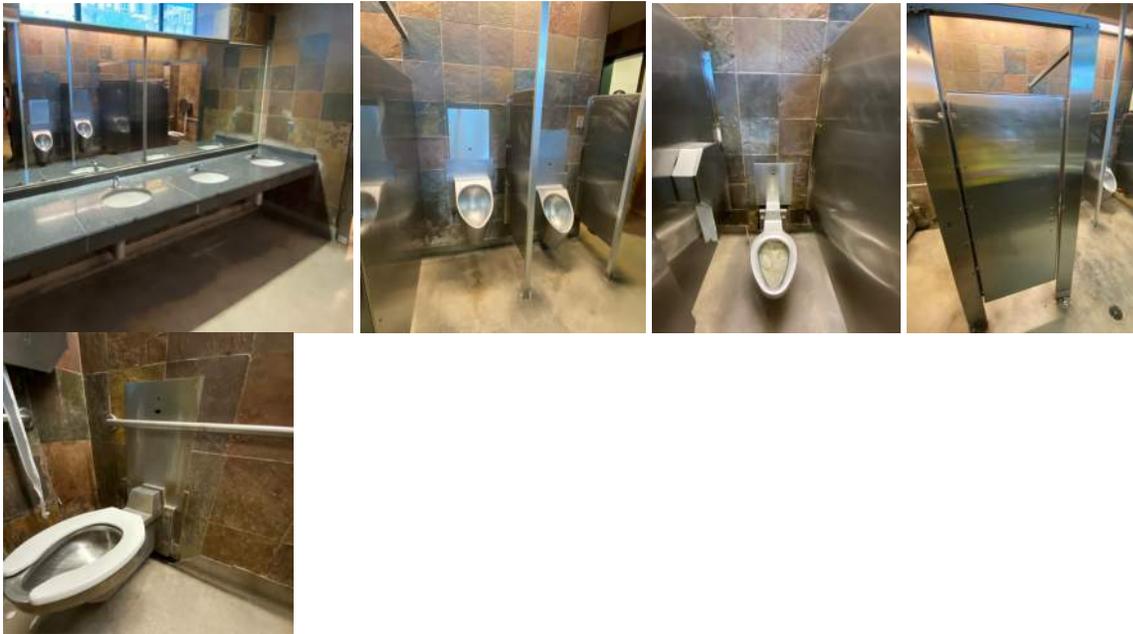
Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Public restroom fixtures, toilet partitions, and accessories
Condition	3
Quantity	~1000 sq. ft.
Unit Cost	Total: \$21,622
Year in Service	2001
Expected Useful Life	20 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Restrooms
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Stone wall tile
Condition	4
Quantity	1,520 sq. ft.
Unit Cost	Total: \$16,720
Year in Service	2001
Expected Useful Life	30 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Public restrooms
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Gypsum ceilings
Condition	2
Quantity	~1000 sq. ft.
Unit Cost	Total: \$12,345
Year in Service	2001
Expected Useful Life	20 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Interior steel doors and frames.
Condition	3
Quantity	~10
Unit Cost	Total: \$28,820
Year in Service	2001
Expected Useful Life	50 years
Remaining Useful Life	29 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Ada push buttons not operable on some doors.

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Epoxy terrazzo flooring and base
Condition	3
Quantity	~4,000 sq. ft.
Unit Cost	Total: \$101,200
Year in Service	2001
Expected Useful Life	60 years
Remaining Useful Life	45 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



Coding / Field Name	Asset Description
System Name	Interior wood doors and frames
Condition	4
Quantity	~10
Unit Cost	Total: \$62,920
Year in Service	2001
Expected Useful Life	50 years
Remaining Useful Life	29 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Interior casework, millwork, office furniture and equipment.
Condition	3
Quantity	1,128 sq. ft.
Unit Cost	Total: \$65,869
Year in Service	2001
Expected Useful Life	25 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



Coding / Field Name	Asset Description
System Name	Interior wood benches
Condition	3
Quantity	2
Unit Cost	Total: \$2000
Year in Service	2001
Expected Useful Life	40 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Building Interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

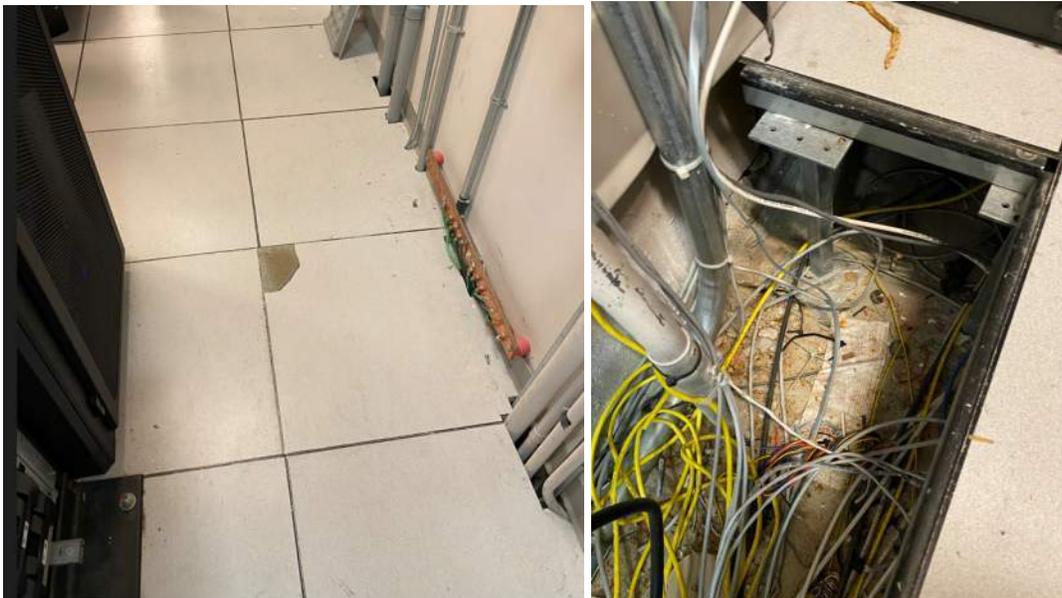
Pictures:



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Coding / Field Name	Asset Description
System Name	Raised flooring system
Condition	3
Quantity	~120 sq. ft.
Unit Cost	Total: \$2,268
Year in Service	2001
Expected Useful Life	35 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



D. Services

Plumbing Systems

Coding / Field Name	Asset Description
Plumbing Systems	Cold-and Hot-Water, Natural Gas, Storm, and Waste & Vent Systems.
Condition	3-Adequate
Quantity	Qty (1) System
Unit Cost	Total: \$200,000
Year in Service	~2002
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

Domestic Water

The building is served by a 2” domestic water line with a 1-1/2” water meter and 2” reduced-pressure zone backflow preventer. The piping in the building predominantly employs solder fittings, but recent repairs are done with press-connect fittings.



Figure 1: Domestic Water Meter and Backflow Preventer

A 40-gallon, 4,500 W dual-element, water heater located near the boiler provides hot water for the building.

1 Kennedy Plaza, Passenger Facility



Figure 2: Electric Water Heater

The plumbing fixtures are sparse, vandal-proof, touchless fixtures. There is wear and tear due to the transient population using the fixtures.



Figure 3: Public Water Closet



Figure 4: Public Lavatory

Storm drainage is handled with the use of downspouts and gutters.

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Figure 5: Gutters and Downspouts

The building is served by a 4" natural gas service and a 3" gas meter for 5,000 CFH. The piping is schedule 40 steel threaded fittings.



Figure 6: Gas Service

1 Kennedy Plaza, Passenger Facility

HVAC Systems

Comfort Heating and Cooling Systems

Coding / Field Name	Asset Description
Comfort Heating and Cooling Systems	Air-Conditioning, Boilers, and Radiant Heating Systems
Condition	2-Poor
Quantity	Qty (1) HVAC System
Unit Cost	\$1,000,000
Year in Service	~2000
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	0 years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The Kennedy Plaza Intermodal Transit Center has undergone several mechanical modifications since its dedication in 2002. The original mechanical design was conscious of aesthetics. For instance, the Qty (2) unitary air conditioning units and the condensing units for the VRF system were mounted in the attic with louvered wall to the exterior. This was done in lieu of roof-mounted equipment. According to the RIPTA maintenance teams, this arrangement was troublesome as the air conditioning units were not able to reject enough heat causing the respective units to freeze up. Subsequent modifications to the building’s comfort-cooling system addressed these issues.

Originally, Qty (2) unitary air-conditioning units mounted in the attic provided comfort cooling, base comfort heating, and ventilation. The air conditioning units had several ducted zones controlled by variable-air-volume boxes and reheat coils that were supplied hot water from the boilers. The largest zone, the Concourse/Waiting room, was supplied by both systems. Most ductwork is hidden by drop-ceilings, but due to the vaulted ceilings, the large Waiting area is supplied via underground ducts that branch to the perimeter windows.

1 Kennedy Plaza, Passenger Facility



Figure 7: Boiler Exhaust and Louvered Exterior for Mechanical Space



Figure 8: Unitary Air-Conditioning Unit in Attic Above Boiler Room

Due to the issues with the cooling system, the unitary air-conditioning units are no longer used for cooling and heating. The fans operate to provide ventilation, but the cooling and supplemental heating are provided by an exterior mounted unitary air-conditioner (a rooftop unit) and by a split system variable refrigerant flow (VRF) system consisting of Qty (4) wall-mounted indoor units and Qty (1) roof-mounted condenser.

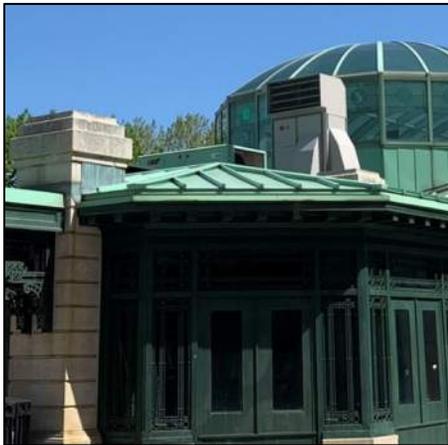


Figure 9: Rooftop Unit and Condenser for Split System



Figure 10: Indoor Unit for Large Waiting Room

1 Kennedy Plaza, Passenger Facility



Figure 11: Indoor Unit for Ticket Office



Figure 12: Wall-Mounted Indoor Unit

The Central Dispatch Room and the Telephone/Electrical Room were provided heating and cooling with separate VRF systems with ceiling mounted indoor units and condensing units in the attic. Due to issues with the Central Dispatch Room unit, a head from the new VRF system was added to heat and cool the space. The split system unit for the Telephone/Electrical Room appears to be original, and the condenser for this unit is still in place in the unit.



Figure 13: Wall-Mounted Indoor Unit in Dispatch Room



Figure 14: Indoor Liebert Unit for IT Room

1 Kennedy Plaza, Passenger Facility



Figure 15: Ducted Floor for Liebert Unit in IT Room

The new RTU uses some of the original ducting to provide cooling and heating to the large Waiting Room and the Concourse/Waiting Room.



Figure 16: Diffuser in Concourse/Waiting Room



Figure 17: Floor Ducts and Perimeter of Large Waiting Room

The Boiler Room is equipped with Qty (4) gas-fired 1,000,000 BTUh boilers. However, only Qty (1) boiler is operational. The boilers provide hot water for hydronic heating to the reheat coils, the unitary air-conditioners, and they also provide hot water for radiant flooring and a snowmelt system. The radiant flooring and snowmelt systems are supplied by Qty (2) separate heat exchangers. The radiant flooring is broken into Qty (5) zones: Large Waiting Room, Ticket Office, Concourse/Waiting Room, Small Waiting Room, and the Café/Vending Room. The radiant flooring is used as the primary source of heat, and the VRF system and Rooftop are used for supplementary heating. The snowmelt system is supplied hot water by another heat-exchanger, but the system is no

1 Kennedy Plaza, Passenger Facility

longer functioning. The snow melt system was made of Qty (4) zones covering the plaza.



Figure 18: Qty Four Boilers



Figure 19: Radiant Floor Manifolds



Figure 20: Capped Lines for Heat Exchanger for Abandoned Snow Melt System



Figure 21: Abandoned Snow Melt Manifold

1 Kennedy Plaza, Passenger Facility

Exhaust Systems

The boiler room has an attic above it, and combustion air is brought in via louvers to the exterior. The boiler exhaust is ducted straight up through the attic.



Figure 22: Boiler Exhaust and Louvered Exterior for Mechanical Space

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Fire Sprinkler Systems

Coding / Field Name	Asset Description
Fire Sprinkler System	Wet-Pipe Piping, Dry-Chemical System, Sprinklers, and Valving
Condition	3-Adequate
Quantity	Qty (1) System
Unit Cost	Total: \$150,000
Year in Service	~2002 with Sporadic Modifications
Expected Useful Life (EUL)	~20 Years for sprinklers. ~40 Years for Piping
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means

The fire sprinkler system is a wet-pipe system served by a 6” lateral and a 4” double-check valve assembly. The engineered drawings called for an Inergen system to protect the Central Dispatch Room and the Telephone/Electrical Room, but this system has since been converted to a pre-action system connected to the wet-pipe sprinkler system. A Fire Department Connection is located on the street side where an alarm bell is situated.



Figure 23: Fire Department Connection and Bell

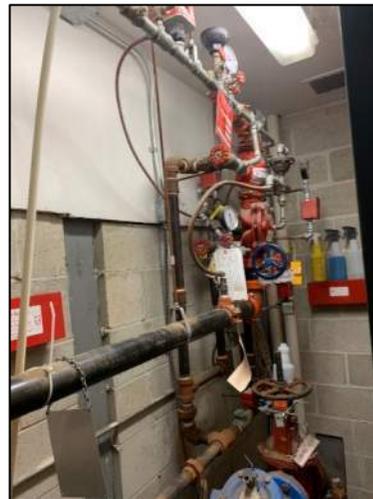


Figure 24: Fire Service

1 Kennedy Plaza, Passenger Facility



Figure 25: Fire Service Double Check Valve Assembly



Figure 26: Air Compressor for Pre-Action System



Figure 27: Pre-action System at Service



Figure 28: Pre-action System Controls

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Electrical Systems

Electrical Service and Distribution

Coding / Field Name	Asset Description
208V Service and Distribution	Service Disconnects, Distribution Panels, dry-type transformers and associated panelboards
Condition	Electrical Service/Distribution: 3 – Adequate
Quantity	Electrical Service/new panelboards ~ 7,000 square feet
Unit Cost	\$2.57 square foot for ~ \$18,018
Year in Service	Electrical Service/Distribution ~20+ years
Expected Useful Life (EUL)	Electrical Service/Distribution ~20-30 years
Remaining Useful Life (RUL)	Electrical Service/Distribution ~ 0-10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Exterior of building. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

It appears that three 200A, 208V services enter the building through 3 disconnect switches (Figure 1) located on the North side of the building into the main Electric Room (Figures 2-3) installed approximately 20 years ago. Building is served by a 37.5KW backup generator (Figure 4). Distribution equipment appears to be in adequate condition but is approaching its expected useful life based on industry standards.

Pictures:

1 Kennedy Plaza, Passenger Facility



Figure 1: Main Service Disconnects



Figure 2: Main Electric Room (1)



Figure 3: Main Electric Room (2)



Figure 4: Generator

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Lighting, Branch Wiring, and Associated Controls

Coding / Field Name	Asset Description
Office/Storage Space	Lighting, Branch Wiring, and Associated controls
Condition	2/1 – Marginal/Poor
Quantity	Bus Terminal ~ 7,000 square feet
Unit Cost	\$13.29/square foot for ~ \$93,030
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 20 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 0 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Bus Terminal
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Main lobby consist of decorative fluorescent pedants and wall mounted architectural fixtures (Figure 1). Storage/office spaces consist of fluorescent 2’X2’ troffers (Figure 2), downlights (Figure 3), linear fixtures (Figure 4), and track lighting (Figure 5) controlled by toggle switches (Figure 6). Fixtures and controls are still operational but are at the end of their expected useful life. Exit signs throughout the space were still illuminated (Figure 7) and are no longer operational. It appears lighting throughout the space is on generator backup for emergency lighting.

Pictures:



Figure 1: Decorative fluorescent pedants/wall mounted fixtures

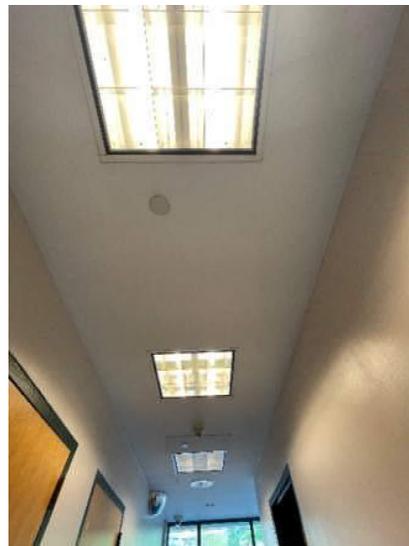


Figure 2: 2’X2’ Fluorescent fixtures

1 Kennedy Plaza, Passenger Facility



Figure 3: Fluorescent downlight fixtures



Figure 4: Fluorescent linear fixtures

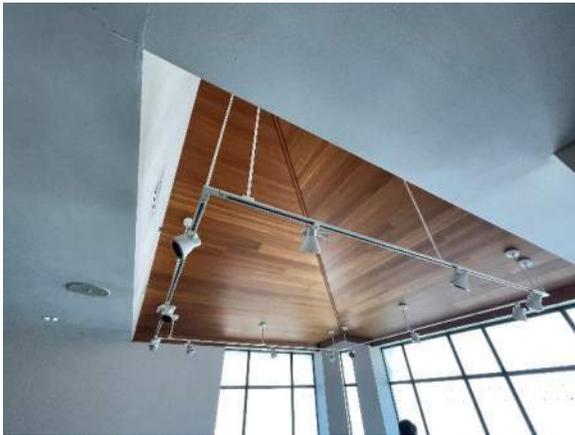


Figure 5: Track Lighting



Figure 6: Toggle Switch



Figure 7: Exit Sign

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Coding / Field Name	Asset Description
Exterior Lighting System	Exterior downlights, inground fixtures
Condition	Downlights - 2 – Marginal; Inground Fixtures – 4 - Good
Quantity	Exterior Lighting System
Unit Cost	~ \$7,500
Year in Service	Exterior Lighting, Branch Wiring, and Associated controls ~ 20 years; Inground LED ~ 5 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years; Inground LED ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 0-5 years; Inground LED ~ 15 years Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Building Exterior, throughout plaza
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Exterior downlights (*Figure 8*) are installed along perimeter of building. Inground LED RGB fixtures (*Figure 9*) are installed throughout plaza to provide accent lighting.

Pictures:



Figure 8: Exterior downlights



Figure 9: In ground LED RGB fixtures

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Fire Alarm System

Coding / Field Name	Asset Description
Fire Alarm System	Fire Alarm Control Panel, Fire Alarm Devices and Associated Wiring
Condition	3 - Adequate
Quantity	Fire Alarm System ~ 7,000 square feet
Unit Cost	\$.50/square foot for ~ \$3,500
Year in Service	Fire Alarm Control Panel ~ 10 years, Other System Components ~20 years
Expected Useful Life (EUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~20 years
Remaining Useful Life (RUL)	Fire Alarm Control Panel ~ 5 years, Other System Components ~ 1-5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Lobby/entrance
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fire alarm system consists of an addressable Fire Alarm Control Panel (Edwards EST-2) (Figure 1) and devices manufactured by EdwardsI. Fire Alarm system and associated devices and wiring appear to be in working condition, however they are approaching their expected useful life based on industry standards.

Pictures:



Figure 1: Fire Alarm Control Panel

1 Kennedy Plaza, Passenger Facility

G. SITE

Coding / Field Name	Asset Description
System Name	Exterior paving and stonework
Condition	3
Quantity	~71,349 sq. ft.
Unit Cost	Total: \$1,654,658
Year in Service	2001
Expected Useful Life	100 years
Remaining Useful Life	50 years, Estimated, Based on Date of Observation
Location	Site
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Many surfaces and textures create accessibility / tripping concerns. Maintenance is difficult with many connecting surfaces requiring differing treatment.

Pictures:



1 Kennedy Plaza, Passenger Facility

Coding / Field Name	Asset Description
System Name	Bus shelters
Condition	3
Quantity	8
Unit Cost	Total: \$238,832
Year in Service	2001
Expected Useful Life	60 years
Remaining Useful Life	40 years, Estimated, Based on Date of Observation
Location	Site
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Glazing material resulting in cracked units.

Pictures:





350 CODDINGTON HWY,
MIDDLETOWN, RI 02842

TAMS Facility Condition Assessment

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350 Coddington Highway Maintenance Facility

I. ASSESSMENT OVERVIEW

A. Facility Description

The facility at 350 Coddington Highway was built in 1993 for the Rhode Island Public Transit Authority and is one-story vehicle storage facility with administration space. The facility includes office space, restrooms, employee lounge, meeting space, mechanical service space, vehicle storage, and two wash bays.



B. Facility Inventory Data

Item	Description
Agency	Rhode Island Public Transit Authority (RIPTA)
Address	350 Coddington Hwy, Middletown, RI 02842
Property Type	General Purpose Maintenance
Year Built	1993
Number of Vehicles Stored	5-20
Year of Latest Major Renovation	N/A
Number of Stories	1 (Does not Include Basements, Mezzanines, or MEP Penthouses)
Occupied	Yes
Land Area	3.42 Acre
Gross Building Area (GSF)	39,217
Total Parking Count (Including ADA)	66 total parking spaces
ADA Compliant (Total Count)	6 Total ADA Spaces.
ADA Compliant for Vans	N/A

350 Coddington Highway Maintenance Facility

C. Summary of Findings

This facility appears to be in adequate condition. The building is approaching 30 years in age and could benefit from some rehabilitation of components to ensure a prolong life. Photos showing the current condition of the exterior and interior of the building are enclosed in the subsequent sections.

D. Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.53
Interiors	3.22
Conveyance	N/A
Plumbing	3.00
HVAC	2.00
Fire Protection	2.00
Electrical	3.31
Equipment	2.51
Site	4.00
Total	3.13

II. PURPOSE AND SCOPE

A. Facility Condition Assessment Requirements & Procedures

The condition assessment is primarily intended to assess the overall physical condition of the facility to support capital investment decisions. The facility’s classification is based upon American Society of Testing and Materials (ASTM) and reporting will follow guidelines set by the Transit Asset Management (TAM) data-reporting requirements and National Transit Database (NTD).

These assessments are completed through an on-site review of our team comprised of an Architect, Electrical Engineer and Mechanical Engineer. These on-site assessments are supplemented with the review any previous inspections results, available as-builts and any additional information provided by RIPTA. The team will also note and report any defects that may constitute a safety concern or potential service delay immediately.

During the on-site assessment, the inspector will observe the primary and secondary level conditions identified in Section F. Our assessments are limited to assets that are visible and accessible, with information on less easily accessible features like internal systems and wiring gained via documentation and interview. Entering limited access areas such as crawl spaces, utility pits, and sloped roofs is not advisable, and their conditions will be observed from a point of safe access. The inspector will assess each using the FTA TERM condition rating scale that is described in Section G.

B. Facility Components and Sub-Components

This section describes the specific components and sub-components that must be inspected as part of a facility condition assessment. The component classification is based upon American Society of Testing and Materials (ASTM) documents that provide standards for classification of building components and related site components, but these have been customized in certain respects to address common features of transit facilities.

ID#	Components	Sub-Components
A.	Substructure	<ul style="list-style-type: none"> • Foundations: Walls, columns, pilings other structural components • Basement: Materials, insulation, slab, floor underpinning
B.	Shell	<ul style="list-style-type: none"> • Superstructure / structural frame: columns, pillars, walls • Roof: Roof surface, gutters, eaves, skylights, chimney surrounds • Exterior: Windows, doors, and all finishes (paint, masonry) • Shell appurtenances: Balconies, fire escapes, gutters, downspouts
C.	Interiors	<ul style="list-style-type: none"> • Partitions: walls, interior doors, fittings such as signage • Stairs: Interior stairs and landings • Finishes: Materials used on walls, floors, and ceilings
D.	Conveyance	<ul style="list-style-type: none"> • Elevators • Escalators • Lifts: any other such fixed apparatuses for the movement of goods or people
E.	Plumbing	<ul style="list-style-type: none"> • Fixtures • Water distribution • Sanitary waste • Rainwater drainage
F.	HVAC	<ul style="list-style-type: none"> • Energy supply • Heat generation and distribution systems • Cooling generation and distribution systems • Testing, balancing, controls and instrumentation • Chimneys and vents
G.	Fire Protection	<ul style="list-style-type: none"> • Sprinklers • Standpipes • Hydrants and other fire protection specialties
H.	Electrical	<ul style="list-style-type: none"> • Electrical service & distribution • Lighting & branch wiring (interior and exterior) • Communications & security • Other electrical system-related pieces such as lightning protection, generators, and emergency lighting
I.	Equipment	<ul style="list-style-type: none"> • Equipment related to the function of the facility, including maintenance or vehicle service equipment <p><i>For clarity, includes only items valued above \$10,000 and related to facility function</i></p>
J.	Site	<ul style="list-style-type: none"> • Roadways/driveways and associated signage, markings, and equipment • Parking lots and associated signage, markings, and equipment • Pedestrian areas and associated signage, markings, and equipment • Site development such as fences, walls, and miscellaneous structures • Landscaping and irrigation • Site Utilities

350 Coddington Highway Maintenance Facility

C. Condition Assessment Rating Scale

The condition measure used in the NTD is the five-point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

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

A weighted average condition is being utilized to calculate an overall condition for the facility.

$$OR = \frac{\sum_i CR_i RC_i}{\sum_i RC_i}$$

Where:

CR_i is the rating for component i

RC_i is the replacement cost for component i

350 Coddington Highway Maintenance Facility**III. ASSETS OBSERVED**

Assets observed at the site are provided in this Section and sorted by the modified Uniformat II coding indexed as applicable. See the listing below for the sequence.

A. SUBSTRUCTURE

A10 Foundations

A20 Basement Construction

B. SHELL

B10 Super Structure

B20 Exterior Enclosure

B30 Roofing

C. INTERIORS

C10 Interior Construction

C20 Stairs

C30 Interior Finishes

D. SERVICES

D10 Conveying

D20 Plumbing

D30 HVAC

D40 Fire Protection

D50 Electrical

E. EQUIPMENT

E10 Equipment

G. SITEWORK

G10 Site

350 Coddington Highway Maintenance Facility

A. SUBSTRUCTURE

B. Coding / Field Name	Asset Description
System Name	Slabs on grade
Condition	4
Quantity	~38,000 sq. ft.
Unit Cost	Total: \$760,760
Year in Service	1993
Expected Useful Life	100 years
Remaining Useful Life	95 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Observations/Comments:

Some cracking and minor wear.

Pictures:



350 Coddington Highway Maintenance Facility

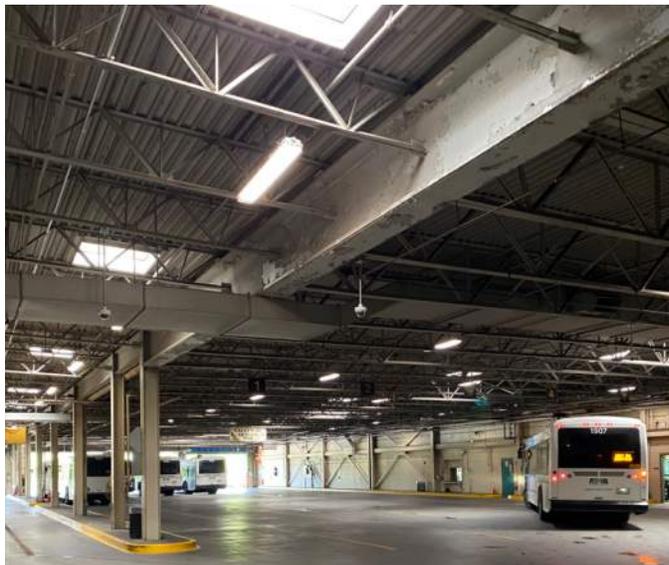
B. SHELL

Coding / Field Name	Asset Description
System Name	Steel superstructure and metal roof decking.
Condition	4
Quantity	~38,000 sq. ft.
Unit Cost	Total: \$512,566
Year in Service	1993
Expected Useful Life	100 years
Remaining Useful Life	85 years, Estimated, Based on Date of Observation
Location	Building Structure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Paint and coating wear and peeling.

Pictures:



350 Coddington Highway Maintenance Facility

Coding \$ Field Name	Asset Description
System Name	CMU walls
Condition	3
Quantity	~17,795 sq. ft.
Unit Cost	Total: \$371,915.50
Year in Service	1993
Expected Useful Life	100 years
Remaining Useful Life	75 years, Estimated, Based on Date of Observation
Location	Bearing walls
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

CMU walls appear in fair condition, however there is evidence of potential moisture buildup and efflorescence staining. Weep holes were not observed on the exterior, which are called for in the original construction documents.

Pictures:



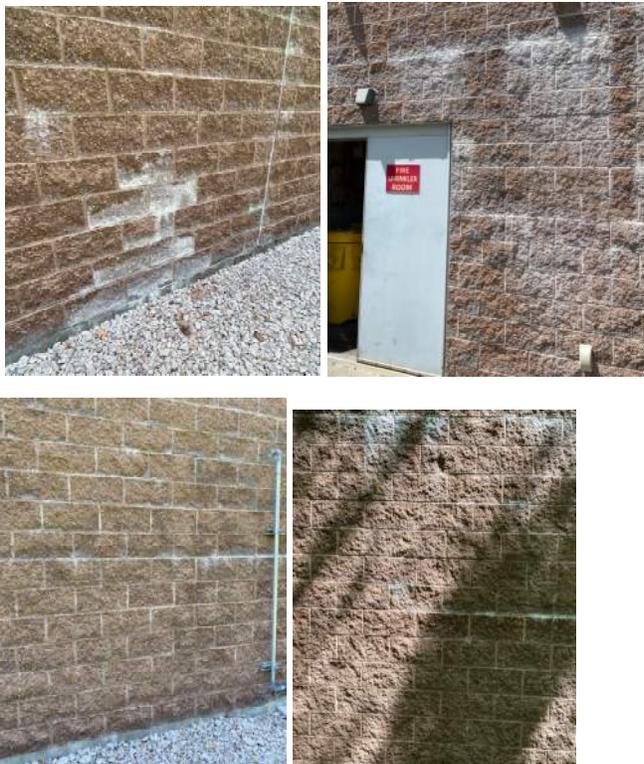
350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior split-face CMU
Condition	3
Quantity	~17,795 sq. ft.
Unit Cost	Total: \$370,136
Year in Service	1993
Expected Useful Life	100 years
Remaining Useful Life	75 years, Estimated, Based on Date of Observation
Location	Exterior walls
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Split-face CMU walls appear in fair condition, however there is evidence of potential moisture buildup and efflorescence staining. Weep holes were not observed on the exterior, which are called for in the original construction documents.

Pictures:



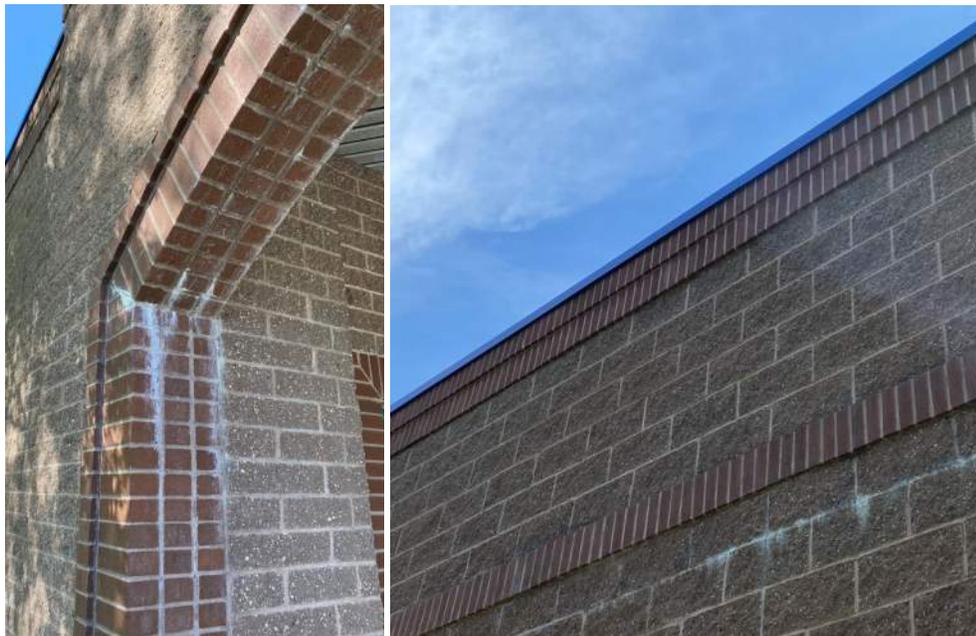
350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior brick
Condition	4
Quantity	~2,200 sq. ft.
Unit Cost	Total: \$63,360
Year in Service	1993
Expected Useful Life	100 years
Remaining Useful Life	85 years, Estimated, Based on Date of Observation
Location	Exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Exterior brick work appears in fair condition, however there is some evidence of potential moisture buildup and efflorescence staining.

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Membrane roofing + rigid insulation
Condition	4
Quantity	~38,875 sq. ft.
Unit Cost	Total: \$296,365
Year in Service	1993
Expected Useful Life	40 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Flat roofs.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Rigid insulation not visible during inspection. Membrane roof covering in fair condition. Evidence of bubbling and some staining.

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Standing seam metal roof
Condition	4
Quantity	~342 sq. ft.
Unit Cost	Total: \$8,250
Year in Service	1993
Expected Useful Life	80 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Vestibule roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Metal roof coping
Condition	4
Quantity	~890 linear ft.
Unit Cost	Total: \$26,077
Year in Service	1993
Expected Useful Life	80 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Building roof edge.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



Coding / Field Name	Asset Description
System Name	Roof skylights
Condition	4
Quantity	20
Unit Cost	Total: \$10,353.20
Year in Service	1993
Expected Useful Life	60 years
Remaining Useful Life	45 years, Estimated, Based on Date of Observation
Location	Flat roofs
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Roof hatch
Condition	4
Quantity	1
Unit Cost	Total: \$3,085
Year in Service	
Expected Useful Life	50 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Flat roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior steel doors and frames.
Condition	3
Quantity	11
Unit Cost	Total: \$ 41,085
Year in Service	
Expected Useful Life	50 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Deterioration/rust evident at base of doors and frames.

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Exterior overhead coiling doors
Condition	3
Quantity	7
Unit Cost	Total: \$48,702.50
Year in Service	1993
Expected Useful Life	30 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Some denting and rust evident.

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Glazed aluminum curtainwall system
Condition	4
Quantity	~595 sq. ft.
Unit Cost	Total: \$16,767.50
Year in Service	1993
Expected Useful Life	70 years
Remaining Useful Life	50 years, Estimated, Based on Date of Observation
Location	Building exterior and vestibule
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



Coding / Field Name	Asset Description
System Name	Exterior linear metal ceilings
Condition	4
Quantity	~342 sq. ft.
Unit Cost	Total: \$4,258
Year in Service	1993
Expected Useful Life	50 years
Remaining Useful Life	35 years, Estimated, Based on Date of Observation
Location	Building exterior and vestibule
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

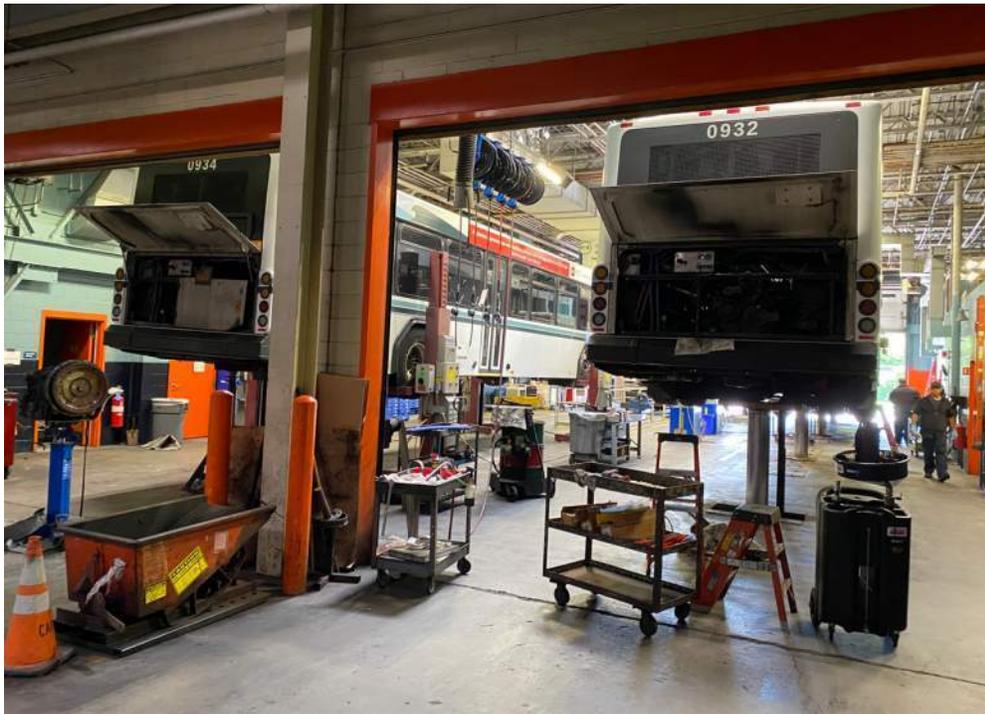
Pictures:



C. INTERIORS

Coding / Field Name	Asset Description
System Name	Overhead garage doors
Condition	3
Quantity	2
Unit Cost	Total: \$8,695
Year in Service	1993
Expected Useful Life	40 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Maintenance garage.
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Interior Steel doors and frames
Condition	3
Quantity	16
Unit Cost	Total: \$25,766
Year in Service	1993
Expected Useful Life	40 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:

350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Acoustic ceiling tiles and grids
Condition	2
Quantity	~5,625 sq. ft.
Unit Cost	Total: \$60,637.50
Year in Service	1993
Expected Useful Life	40 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Non-garage/service spaces.
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Water damage, missing tiles, corroded grids.

Pictures:



Coding / Field Name	Asset Description
System Name	Ceramic tile Flooring and base.
Condition	4
Quantity	~6,625 sq. ft.
Unit Cost	Total: \$90,187.50
Year in Service	1993
Expected Useful Life	75 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Common areas
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Restroom fixtures and accessories
Condition	3
Quantity	2 restrooms
Unit Cost	Total: \$6,589
Year in Service	1993
Expected Useful Life	30 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Restrooms
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Ceramic wall tile
Condition	4
Quantity	~2500 sq. ft.
Unit Cost	Total: \$22,500
Year in Service	
Expected Useful Life	50 years
Remaining Useful Life	40 years, Estimated, Based on Date of Observation
Location	Restrooms
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



Coding / Field Name	Asset Description
System Name	Interior drywall Partitions
Condition	3
Quantity	~3,800 sq. ft.
Unit Cost	Total: \$18,400
Year in Service	1993
Expected Useful Life	60 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

D. SERVICES

Plumbing Systems

Coding / Field Name	Asset Description
Plumbing Systems	Cold-and Hot-Water, Natural Gas, Storm, Compressed Air, and Waste & Vent Systems.
Condition	3-Adequate
Quantity	Qty (1) System
Unit Cost	Total: \$350,000
Year in Service	~1990s
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~10 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

Domestic Water

The fire protection and domestic water systems connect to a common 6”-service lateral from the street. The domestic service has a 2” copper line. There is a 2” water meter and a pair of 2” reduced-pressure zone backflow preventer in parallel protect the system.

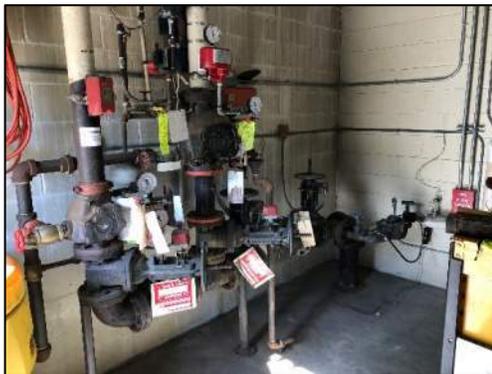


Figure 1: Fire and Water Services



Figure 2: Domestic Water Service Backflow Devices

350 Coddington Highway Maintenance Facility



Figure 3: Domestic Water Meter

Domestic Hot Water System

A 100-gallon, 250,000 BTU/hr water heater located in the boiler room provides HW to the facility.



Figure 4: Gas-Fired Water Heater

350 Coddington Highway Maintenance Facility

A dedicated gas-fired boiler provides hot water for the car wash.



Figure 5: Dedicated Boiler for Bus Wash

Compressed Air System

A compressed air system is in the Mechanical Room. The system includes an air compressor, a filter/dryer, and a storage tank. The compressed air is routed to drops and cord reels. The compressed air is used for hand tools and the air-operated diaphragm pumps pumping automotive fluids.



Figure 6: Compressed Air System

350 Coddington Highway Maintenance Facility

Sanitary and Storm Drainage

Storm drainage is handled via roof drains with secondary drainage being handled by scuppers.



Figure 7: Roof Drain

An Oil-Water separator handles the waste from floor drains in the shop area before discharging to the main sewer line.

350 Coddington Highway Maintenance Facility

HVAC Systems

Coding / Field Name	Asset Description
Comfort Heating and Cooling Systems	Air-Conditioning and Baseboard Systems
Condition	2-Marginal
Quantity	~12,000 square feet
Unit Cost	\$14/square foot for ~\$168,000
Year in Service	~2000
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	0 years
Location	Office Space
Basis of Costing	RMS Means Data with Contingencies Added

The office area is heated and cooled with a Rooftop Unit (RTU) which also provides outdoor air for ventilation. The RTU is a constant-volume, single-zone system. The RTU is equipped with a gas-fired burner for heating. The conference room and select offices have split systems installed by the occupants. Perimeter electric baseboard also appears to be added by the occupants. Electric unit heaters provide heating in the maintenance areas.



Figure 8: Rooftop Unit



Figure 9: Split System Condensers

350 Coddington Highway Maintenance Facility



Figure 10: Mechanical Ducting



Figure 11: Electric Unit Heater at Entrance

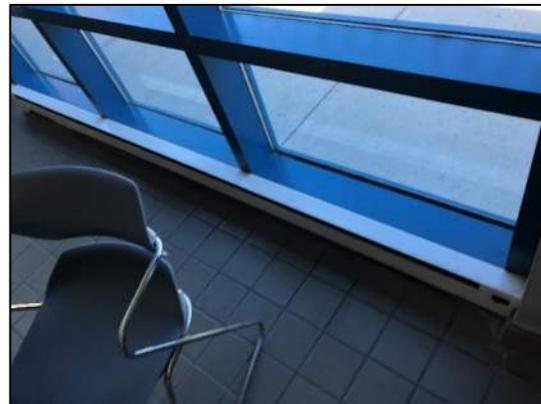


Figure 12: Electric Baseboard Heater

350 Coddington Highway Maintenance Facility



Figure 13: Electric Unit Heater in Water Room

Makeup-Air and Exhaust Systems

Coding / Field Name	Asset Description
Makeup Air and Exhaust Systems	MAUs, Exhaust Fans, and Ductwork in Garage
Condition	2-Marginal
Quantity	Qty (1) MAU System and Qty (1) Exhaust System and Controls
Unit Cost	\$375,000
Year in Service	~1993
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~ 0 Years
Location	Garage Area
Basis of Costing	RMS Means Data with Contingencies Added

The maintenance bays are supplied with local rope-and-pully exhaust at each hydraulic lift and pit. Centrifugal upblast fans exhaust the maintenance areas. On the roof, existing make-up air units (MAUs) are original to the building (1993). The existing control system detecting CO and NO2 is not operational.

350 Coddington Highway Maintenance Facility



Figure 14: Rope-and-Pulley Exhaust System



Figure 15: Ceiling Mounted Exhaust Fan



Figure 16: Makeup Air Unit



Figure 17: Centrifugal Upblast Exhaust Fans



Figure 18: Centrifugal Downblast Exhaust Fans

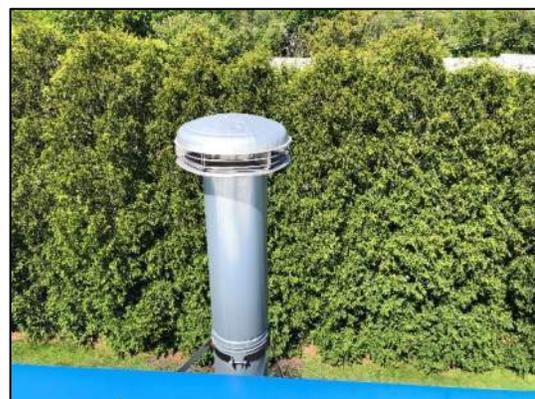


Figure 19: Boiler Exhaust Stack

350 Coddington Highway Maintenance Facility



Figure 20: NO₂ and CO₂ Control Panel



Figure 21: NO₂ and CO₂ Control Panel

Centrifugal downblast fans exhaust restrooms and housekeeping areas. A battery charging station is equipped with a dedicated exhaust system that is no longer operational.



Figure 22: Battery Exhaust Hood

Fire Sprinkler Systems

Coding / Field Name	Asset Description
Fire Sprinkler System	Wet-Pipe and Dry-Pipe Piping, Sprinklers, and Valving
Condition	2-Poor
Quantity	Qty (1) System
Unit Cost	Total: \$150,000
Year in Service	~1960 with Sporadic Modifications
Expected Useful Life (EUL)	~20 Years for sprinklers. ~40 Years for Piping
Remaining Useful Life (RUL)	~0 Years
Location	Entire Facility
Basis of Costing	RMS Means

The fire protection and domestic water systems connect to a common 6”-service lateral from the street. The fire sprinkler system has Qty (2) risers: (1) is a wet-system riser and (1) is a dry-system riser. The office is protected with the wet-system riser and the sprinkler heads appear original to the building. The maintenance bay is supplied with the dry-system with upright heads that also appear original.



Figure 23: Fire and Water Services

A fire-department connection with an alarm bell is situated outside the fire sprinkler room.

350 Coddington Highway Maintenance Facility



Figure 24: Fire Department Connection and Drain

Electrical Systems

Electrical Service and Distribution

Coding / Field Name	Asset Description
480V Service and Distribution	Switchboard, Distribution panelboards, dry-type transformers and associated panelboards
Condition	Electrical Service/Distribution: 3 - Adequate, Rest of System: 3 - Adequate
Quantity	Electrical Service/Distribution ~ Office: 5,825 square feet Garage: 33,140 square feet
Unit Cost	Office: \$2.80/square foot for ~ \$16,310 Garage: \$.63/square foot for ~ \$20,878
Year in Service	Electrical Service ~30 years, Other System Components ~30 years
Expected Useful Life (EUL)	Electrical Service/new panelboards ~20-30 years, Other System Components ~20-30 years
Remaining Useful Life (RUL)	Electrical Service ~ 0-5 years, Other System Components ~0-5 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Main Electrical Room. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

350 Coddington Highway Maintenance Facility**Observations/Comments:**

A 800A, 480V service installed approximately 30 years ago. The service is fed from the pad mounted transformer (Figure 2) (South side of the building) and enters the main switchboard (Figure 1) located in the Electrical Room. Building is served by a backup diesel generator (Figure 3). All distribution equipment appears to be in adequate condition, but it is approaching expected useful life based on industry standards.

Pictures:

Figure 1: Switchboard (277/480V)



Figure 2: Transformer

350 Coddington Highway Maintenance Facility



Figure 3: Diesel Generator

Lighting, Branch Wiring, and Associated Controls

Coding / Field Name	Asset Description
Garage Lighting System	Lighting, Branch Wiring, and Associated controls
Condition	4 – Good/1 - Poor
Quantity	Garage Lighting System ~ 33,140 square feet
Unit Cost	\$11.97/square foot for ~ \$396,685
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 6 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 14 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

LED high-bay fixtures with integral occupancy sensors (Figure 1) are installed throughout the first-floor garage space and appear to be in good condition. Exit signs (Figure 2) throughout the space do not appear to be illuminated and are not operational.

350 Coddington Highway Maintenance Facility

Pictures:



Figure 1: LED High-bay fixtures with integral occupancy sensor



Figure 2: Exit Sign (Not Illuminated)

Coding / Field Name	Asset Description
Office/Storage Space	Lighting, Branch Wiring, and Associated controls
Condition	4 - Good
Quantity	Office/Storage Lighting System ~ 5,825 square feet
Unit Cost	\$21.29/square foot for ~ \$124,014
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Storage/office spaces consist of LED 2’X2’ and 2’X4’ troffer fixtures (Figure 3) and linear LED fixtures controlled by a combination of toggle switches (Figure 7), ceiling mounted occupancy sensors (Figure 4), and wall switch occupancy sensors (Figure 8). Exit signs were observed throughout the space and appear to be fully operational (Figure 5). Lighting fixtures throughout

350 Coddington Highway Maintenance Facility

the office space are on generator backup. Fluorescent fixtures (Figure 6) are installed in the storage areas and fluorescent downlights were left in place throughout the lobby.

Pictures:



Figure 3: LED 2'X2' troffer fixtures



Figure 4: Ceiling mounted occupancy sensor



Figure 5: Exit sign

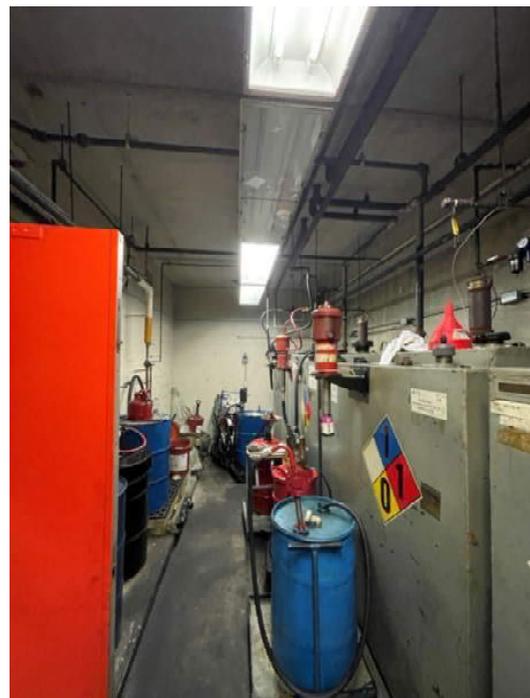


Figure 6: Fluorescent fixtures

350 Coddington Highway Maintenance Facility



Figure 7: Toggle switch



Figure 8: Wall switch occupancy sensor

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Coding / Field Name	Asset Description
Exterior Lighting System	Exterior wall pack fixtures, emergency remote heads
Condition	4 – Good
Quantity	Exterior Lighting System
Unit Cost	~ \$7,500
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Building Exterior
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Wall packs (*Figure 9*) are installed along perimeter of building. Photocells on wall packs appear to have issues (lights staying on throughout the day). Emergency wall packs (*Figure 10*) are located above doors for emergency egress lighting.

Pictures:

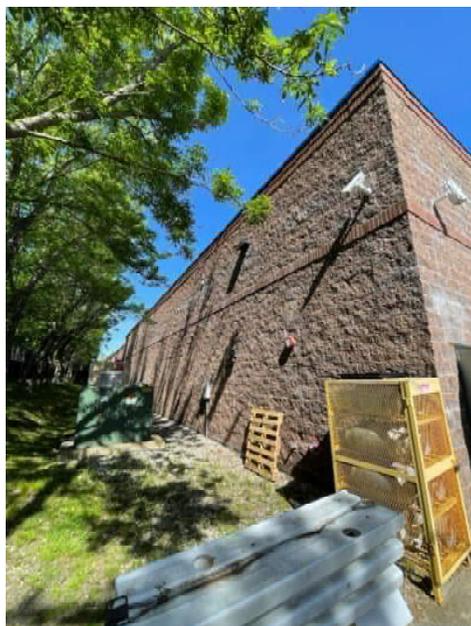


Figure 9: Exterior Wall packs

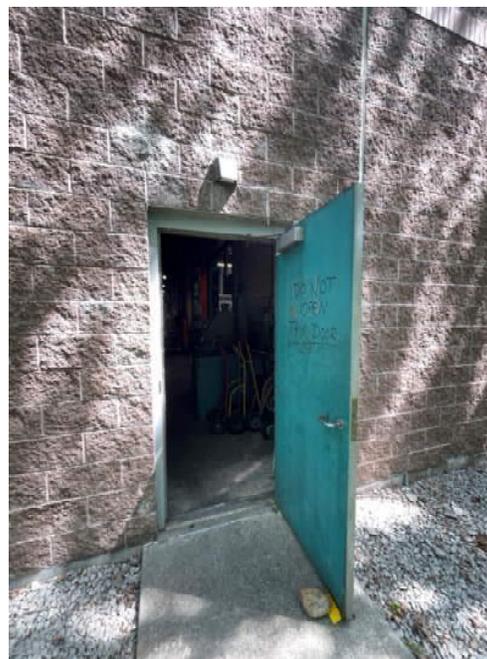


Figure 10: Emergency Wall packs

350 Coddington Highway Maintenance Facility

Fire Alarm System

Coding / Field Name	Asset Description
Fire Alarm System	Fire Alarm Control Panel, Battery Cabinet, and Fire Alarm Devices and associated wiring
Condition	4 - Good
Quantity	Fire Alarm System ~ 38,965 square feet
Unit Cost	\$.50/square foot for ~ \$19,482.50.
Year in Service	Fire Alarm Control Panel ~ 10 years, Other System Components ~10 years
Expected Useful Life (EUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~20 years
Remaining Useful Life (RUL)	Fire Alarm Control Panel ~ 5 years, Other System Components ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor Electric Room
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fire alarm system consists of an addressable Fire Alarm Control Panel (Figure 2) (Simplex 4007) and associated devices manufactured by Simplex. Connection to local fire department is through a Radio Master Box (Figure 1). Pneumatic CO detection system installed throughout the garage space is no longer operational. One operational CO detection device was observed throughout the space (Figure 3). A fire suppression system is installed in the IT room (Figure 4). Fire Alarm system and associated devices and wiring appear to be in good condition.



Figure 1: Gamewell Master Box



Figure 2: Fire Alarm Control Panel

350 Coddington Highway Maintenance Facility



Figure 3: CO system



Figure 4: Fire suppression system

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E. EQUIPMENT

Coding / Field Name	Asset Description
System Name	Vehicle lifts
Condition	3
Quantity	3
Unit Cost	Total: \$105,000
Year in Service	29
Expected Useful Life	20 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

Coding / Field Name	Asset Description
System Name	Bus wash
Condition	2
Quantity	2
Unit Cost	Total: \$99,172
Year in Service	29
Expected Useful Life	25 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



350 Coddington Highway Maintenance Facility

G. SITE

Coding / Field Name	Asset Description
System Name	Exterior concrete pads and walking surfaces.
Condition	4
Quantity	~3,040 sq. ft.
Unit Cost	Total: \$32,589
Year in Service	29
Expected Useful Life	85 years
Remaining Useful Life	70 years, Estimated, Based on Date of Observation
Location	Building exterior.
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:





705 ELMWOOD AVENUE,
PROVIDENCE, RI 02907

TAMS Facility Condition Assessment

TABLE OF CONTENTS

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705 Elmwood Ave. Para-Transit & Storage Facility

I. ASSESSMENT OVERVIEW

A. Facility Description

705 Elmwood Avenue was built in 2012 for the Rhode Island Public Transit Authority and is primarily a two-story administrative facility. There is a portion of this facility that houses indoor storage for the authority’s paratransit fleet. Both the first and second floor levels houses RIPTA administrative and operations offices.



B. Facility Inventory Data

Item	Description
Agency	Rhode Island Public Transit Authority (RIPTA)
Address	705 Elmwood Ave, Providence, RI 02907
Property Type	Para-Transit Maintenance and Storage Facility
Year Built	2009
Number of Vehicles Stored	80-100
Year of Latest Major Renovation	N/A
Number of Stories	2
Occupied	Yes
Land Area	5.60 Acres
Gross Building Area (GSF)	127,952 sq. ft.
Total Parking Count (Including ADA)	157
ADA Compliant (Total Count)	8
ADA Compliant for Vans	2

705 Elmwood Ave. Para-Transit & Storage Facility

C. Summary of Findings

The building is approximately 10 years in age and is the Authority’s headquarters and newest facility. Photos showing the current condition of the exterior and interior of the building are enclosed in the subsequent sections. Based on our team’s assessment, the building is in an Adequate to good condition. Please refer to the overall facility condition in Section D.

D. Overall Facility Condition

Components	Rating
Substructure	4.0
Shell	3.74
Interiors	3.60
Conveyance	3.0
Plumbing	4.9
HVAC	4.2
Fire Protection	4.0
Electrical	4.0
Equipment	3.0
Site	3.0
Total	3.7

II. PURPOSE AND SCOPE

A. Facility Condition Assessment Requirements & Procedures

The condition assessment is primarily intended to assess the overall physical condition of the facility to support capital investment decisions. The facility’s classification is based upon American Society of Testing and Materials (ASTM) and reporting will follow guidelines set by the Transit Asset Management (TAM) data-reporting requirements and National Transit Database (NTD).

These assessments are completed through an on-site review of our team comprised of an Architect, Electrical Engineer and Mechanical Engineer. These on-site assessments are supplemented with the review any previous inspections results, available as-builts and any additional information provided by RIPTA. The team will also note and report any defects that may constitute a safety concern or potential service delay immediately.

During the on-site assessment, the inspector will observe the primary and secondary level conditions identified in Section B. Our assessments are limited to assets that are visible and accessible, with information on less easily accessible features like internal systems and wiring gained via documentation and interview. Entering limited access areas such as crawl spaces, utility pits, and sloped roofs is not advisable, and their conditions will be observed from a point of safe access. The inspector will assess each using the FTA TERM condition rating scale that is described in Section C.

705 Elmwood Ave. Para-Transit & Storage Facility

B. Facility Components and Sub-Components

This section describes the specific components and sub-components that must be inspected as part of a facility condition assessment. The component classification is based upon American Society of Testing and Materials (ASTM) documents that provide standards for classification of building components and related site components, but these have been customized in certain respects to address common features of transit facilities.

ID#	Components	Typical Sub-Components
A.	Substructure	<ul style="list-style-type: none"> • Foundations: Walls, columns, pilings other structural components • Basement: Materials, insulation, slab, floor underpinning
B.	Shell	<ul style="list-style-type: none"> • Superstructure / structural frame: columns, pillars, walls • Roof: Roof surface, gutters, eaves, skylights, chimney surrounds • Exterior: Windows, doors, and all finishes (paint, masonry) • Shell appurtenances: Balconies, fire escapes, gutters, downspouts
C.	Interiors	<ul style="list-style-type: none"> • Partitions: walls, interior doors, fittings such as signage • Stairs: Interior stairs and landings • Finishes: Materials used on walls, floors, and ceilings
D.	Conveyance	<ul style="list-style-type: none"> • Elevators • Escalators • Lifts: any other such fixed apparatuses for the movement of goods or people
E.	Plumbing	<ul style="list-style-type: none"> • Fixtures • Water distribution • Sanitary waste • Rain water drainage
F.	HVAC	<ul style="list-style-type: none"> • Energy supply • Heat generation and distribution systems • Cooling generation and distribution systems • Testing, balancing, controls and instrumentation • Chimneys and vents
G.	Fire Protection	<ul style="list-style-type: none"> • Sprinklers • Standpipes • Hydrants and other fire protection specialties
H.	Electrical	<ul style="list-style-type: none"> • Electrical service & distribution • Lighting & branch wiring (interior and exterior) • Communications & security • Other electrical system-related pieces such as lightning protection, generators, and emergency lighting
I.	Equipment	<ul style="list-style-type: none"> • Equipment related to the function of the facility, including maintenance or vehicle service equipment <p><i>For clarity, includes only items valued above \$10,000 and related to facility function</i></p>
J.	Site	<ul style="list-style-type: none"> • Roadways/driveways and associated signage, markings, and equipment • Parking lots and associated signage, markings, and equipment • Pedestrian areas and associated signage, markings, and equipment • Site development such as fences, walls, and miscellaneous structures • Landscaping and irrigation • Site Utilities

705 Elmwood Ave. Para-Transit & Storage Facility

C. Condition Assessment Rating Scale

The condition measure used in the NTD is the five-point scale used by FTA's Transit Economic Requirements Model (TERM). This scale has the following values:

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

A weighted average condition is being utilized to calculate an overall condition for the facility.

$$OR = \frac{\sum_i CR_i RC_i}{\sum_i RC_i}$$

Where:

CR_i is the rating for component i

RC_i is the replacement cost for component i

III. ASSETS OBSERVED

Assets observed at the site are provided in this Section and sorted by the modified Uniformat II coding indexed as applicable. See the listing below for the sequence.

A. SUBSTRUCTURE

A10 Foundations

A20 Basement Construction

B. SHELL

B10 Super Structure

B20 Exterior Enclosure

B30 Roofing

C. INTERIORS

C10 Interior Construction

C20 Stairs

C30 Interior Finishes

D. SERVICES

D10 Conveying

D20 Plumbing

D30 HVAC

D40 Fire Protection

D50 Electrical

E. EQUIPMENT

E10 Equipment

G. SITEWORK

G10 Site Preparation

G20 Site Improvements

G30 Site Mechanical Utilities

G40 Site Electrical Utilities

G90 Other Site Construction

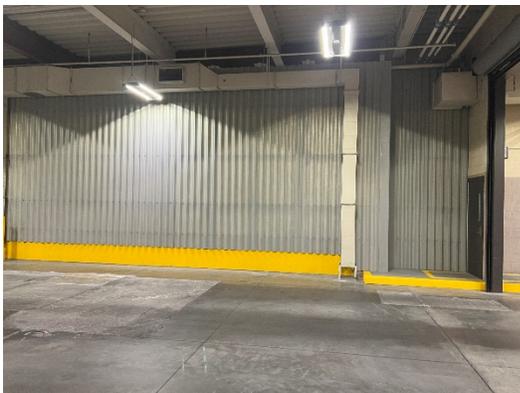
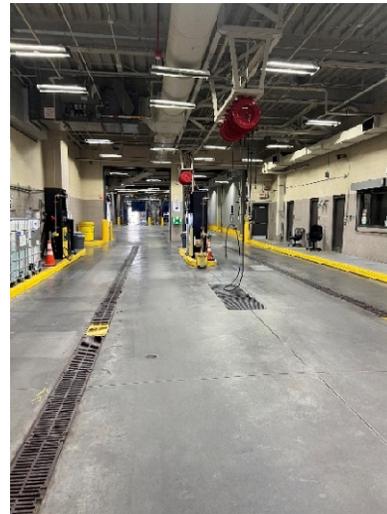
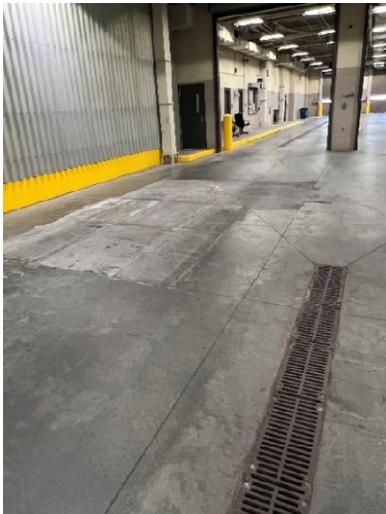
A.Substructure

Coding / Field Name	Asset Description
System Name	Slabs on grade
Condition	4
Quantity	~127,952 sq. ft.
Unit Cost	\$2,561,599.04
Year in Service	2009
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Substructure
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Observations/Comments:

Foundations not observable.

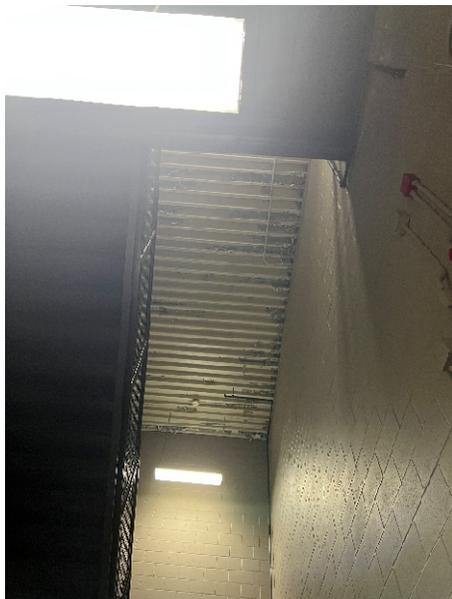
Pictures:



B.Shell

Coding / Field Name	Asset Description
System Name	Steel superstructure and metal roof decking.
Condition	4
Quantity	~127,952 sq. ft.
Unit Cost	\$1,725,890.65
Year in Service	2009
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Building structure
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	CMU Walls
Condition	4
Quantity	~282,360 sq. ft.
Unit Cost	\$5,901,324
Year in Service	2009
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Building exterior & interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Exterior brick veneer
Condition	4
Quantity	~16,595 sq. ft.
Unit Cost	\$477,936
Year in Service	2009
Expected Useful Life	100 years
Remaining Useful Life	90 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Exterior metal panel cladding system (dry joint)
Condition	4
Quantity	~2,500 sq. ft.
Unit Cost	\$86,250
Year in Service	2009
Expected Useful Life	40 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

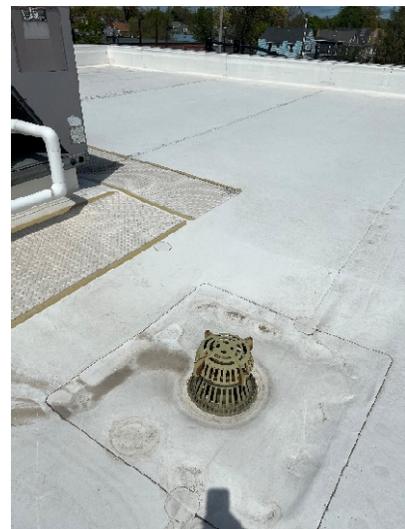
Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Membrane roofing + rigid insulation
Condition	5
Quantity	~54,282
Unit Cost	\$502,651.32
Year in Service	2009
Expected Useful Life	40 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Roof
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Parking deck slab and structure
Condition	3
Quantity	~72,150 sq. ft.
Unit Cost	\$3,473,300
Year in Service	2009
Expected Useful Life	80 years
Remaining Useful Life	60 years
Location	Parking roof deck
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Metal roof coping
Condition	4
Quantity	~1,806 linear ft.
Unit Cost	\$52,915.8
Year in Service	2009
Expected Useful Life	80 years
Remaining Useful Life	65 years, Estimated, Based on Date of Observation
Location	Building roof edge
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Overhead coiling doors
Condition	3
Quantity	12
Unit Cost	\$93,490
Year in Service	2009
Expected Useful Life	30 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Exterior glazing
Condition	4
Quantity	~2,200 sq. ft.
Unit Cost	\$61,997.48
Year in Service	2009
Expected Useful Life	70 years
Remaining Useful Life	60 years
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Exterior metal doors & frames
Condition	3
Quantity	27
Unit Cost	Total: \$56,366
Year in Service	2009
Expected Useful Life	50 years
Remaining Useful Life	40 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Aluminum automatic entrances
Condition	3
Quantity	2
Unit Cost	\$29,650
Year in Service	2009
Expected Useful Life	25 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Building exterior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

Pictures:



C.Interiors

Coding / Field Name	Asset Description
System Name	Interior wood doors and frames
Condition	4
Quantity	81
Unit Cost	\$106,118.1
Year in Service	2009
Expected Useful Life	50 years
Remaining Useful Life	40 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

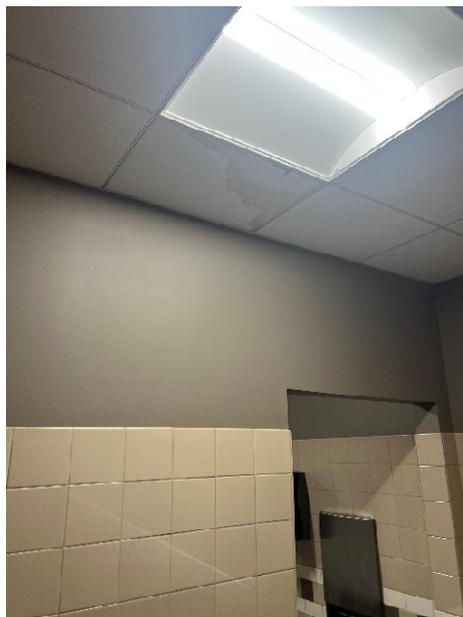
Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Acoustic ceiling tiles and grids
Condition	4
Quantity	~26,040 sq. ft.
Unit Cost	\$280,711.23
Year in Service	2009
Expected Useful Life	40 years
Remaining Useful Life	30 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Vinyl composition tile
Condition	3
Quantity	~26,040 sq. ft.
Unit Cost	\$175,770
Year in Service	2009
Expected Useful Life	50 years
Remaining Useful Life	25 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Ceramic Tile Floor & base
Condition	3
Quantity	~1,200 sq. ft.
Unit Cost	\$16,335.84
Year in Service	2009
Expected Useful Life	75 years
Remaining Useful Life	60 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Coding / Field Name	Asset Description
System Name	Restroom fixtures and accessories
Condition	3
Quantity	4 restrooms
Unit Cost	Total: \$65,196
Year in Service	2009
Expected Useful Life	30 years
Remaining Useful Life	20 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:

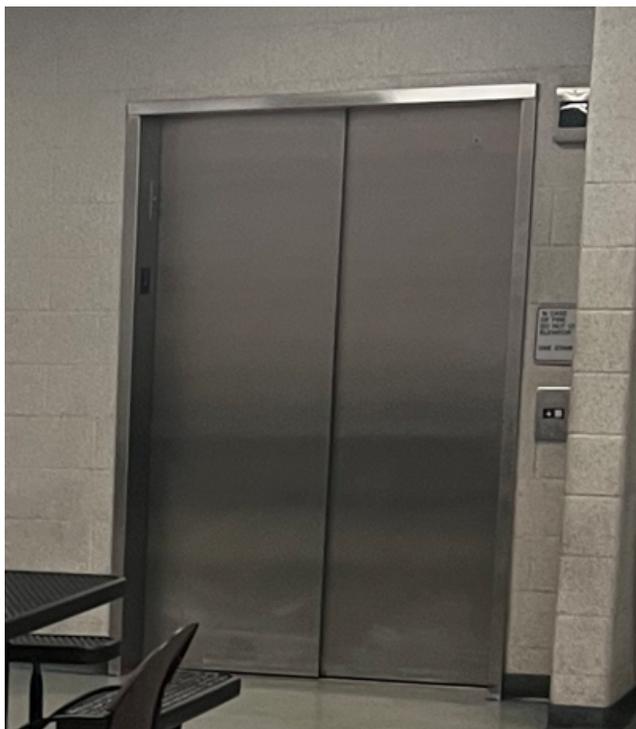


D. Services

Conveyance

Coding / Field Name	Asset Description
System Name	Elevator
Condition	3
Quantity	1
Unit Cost	\$453,500
Year in Service	2009
Expected Useful Life	25 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



705 Elmwood Ave. Para-Transit & Storage Facility

Plumbing Systems

Domestic Water

Coding / Field Name	Asset Description
Domestic Water Distribution	Domestic water service and piping distribution
Condition	3-Maginal
Quantity	~80,000 SF
Unit Cost	\$3/square foot for distribution & Labor Total: \$240,000
Year in Service	~2002 with sporadic modifications through the years
Expected Useful Life (EUL)	~50 Years
Remaining Useful Life (RUL)	~30 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The domestic water service is in the water room with the fire service equipment. The domestic water service lateral is 4". The domestic water meter is 1-1/2" and the reduced-pressure zone backflow preventer and valving match the lateral size of 4". No pressure boosting pumps are present. The domestic water is piped with copper throughout the building. The copper appears to be in fair condition. The fittings were soldered. Insulation is present on hot or cold-water piping.



Figure 1: Domestic Water Service

705 Elmwood Ave. Para-Transit & Storage Facility

Domestic Hot-Water System

Coding / Field Name	Asset Description
Domestic Hot Water Systems	Water heaters
Condition	2-Marginal
Quantity	~1 Gas-Fired Boiler and Storage Tank
Unit Cost	\$50,000
Year in Service	~2002
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Boiler Room
Basis of Costing	RMS Means Data with Contingencies Added

On the mechanical mezzanine, a gas-fired boiler with an accompanying 200-gallon tank provides the facility domestic hot water. Recirculation pumps provide recirculation through the facility.



Figure 2: Domestic Water Boiler and Storage Tank

Plumbing Fixtures

Coding / Field Name	Asset Description
Plumbing Fixtures	Water closets, lavatories, sinks, etc.
Condition	4-Good
Quantity	~20 Fixtures
Unit Cost	~\$4,000/Fixture. Total: \$80,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~30 Years
Remaining Useful Life (RUL)	~10 Years
Location	Office Area
Basis of Costing	RMS Means Data with Contingencies Added

Most of the fixtures in the facility appear in good, working order. The sinks in the locker room are touchless and are equipped with pumice soap for deep cleaning. The water

705 Elmwood Ave. Para-Transit & Storage Facility

closets and urinals are wall-mounted, low-flow fixtures. The showers are heavy-duty, public-use fixtures. Drinking fountains are provided in the office area. The breakroom is equipped with a kitchen sink and microwaves. No stovetops are present.



Figure 3: Locker Room Sinks



Figure 4: Locker Room Water Closet



Figure 5: Drinking Fountain in Office Area



Figure 6: Urinal in Men's Locker Room

705 Elmwood Ave. Para-Transit & Storage Facility

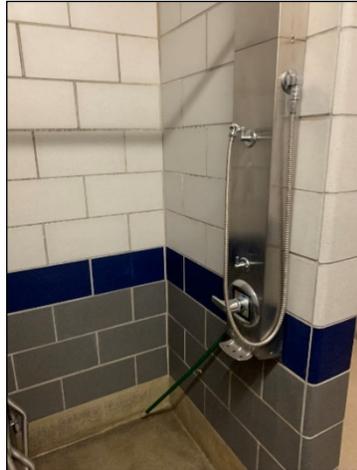


Figure 7: Shower in Locker Room



Figure 8: Break Room Kitchenette

Storm and Sanitary Drainage

Coding / Field Name	Asset Description
Storm and Sanitary Drainage Systems	Piping and Appurtenances, Not Fixtures
Condition	4-good
Quantity	~88,000 SF
Unit Cost	\$2/SF. Total: \$352,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The storm drainage piping appeared to be original to the building and appeared in working order. Most piping was no-hub cast iron. The drains on the roof are original. For secondary drainage, sporadic scuppers were present.

The sanitary piping is no-hub cast iron. The piping appears in good, working order. A water-oil separator is present in the garage. This separator handles the runoff from the parts cleaning room, the bus bays, and other areas that have drains that could be contaminated with oil.

705 Elmwood Ave. Para-Transit & Storage Facility



Figure 9: Sanitary Drainage Piping



Figure 10: Oil/Water Separator



Figure 11: Parts Cleaner Bay



Figure 12: Repair Bay

705 Elmwood Ave. Para-Transit & Storage Facility

Natural Gas System

Coding / Field Name	Asset Description
Natural Gas System	Natural gas meters, regulators, and piping.
Condition	4-Good
Quantity	~88,000 SF
Unit Cost	\$1.00/SF. Total: \$88,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~40 Years
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means Data with Contingencies Added

The building is served by a natural-gas system on the North side of the facility. The incoming service is ~2” and increases to ~3” after the compressors. A few items requiring gas are the boilers for the hydronic and domestic water and the boilers in the water treatment room.



Figure 13: Gas Service Meter and Regulator

Compressed Air System

Coding / Field Name	Asset Description
Compressed Air Systems	Compressed Air System Equipment and Piping
Condition	4-Good
Quantity	Qty (1) System
Unit Cost	Total: \$300,000
Year in Service	~2002
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~8 Years
Location	Garage
Basis of Costing	Equipment

A compressed air system is in a dedicated room. The system includes an air

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compressor, a filter/dryer, and a storage tank. The compressed air is used for hand tools and the air-operated diaphragm pumps in the lube room.



Figure 14: Air Compressor



Figure 15: Air Compressor Filter



Figure 16: Compressed Air Tank



Figure 17: Air-Operated Diaphragm Pumps in Lube Room

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HVAC Systems

Hot-Water for Comfort Heating Systems

Coding / Field Name	Asset Description
Comfort Heating Systems	Hot-water boiler, piping, ancillary equipment, and terminal devices (radiators, MAUs, and fan coils).
Condition	4-Good
Quantity	~80,000 square feet
Unit Cost	\$20/square foot for ~\$1,600,000
Year in Service	Boiler (~2002), Other System Components ~2002
Expected Useful Life (EUL)	Boiler ~30 Years, Other System Components ~30 Years
Remaining Useful Life (RUL)	~10 years
Location	Entire Facility. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

Qty (2) Gas-Fired Boilers provide hot water for a hydronic heating system. The hot water is used in the coils of the Makeup Air Units (MAUs), unit heaters, and fan coils.

The MAUs provide tempered air to replace the air exhausted from the various exhaust systems. Some MAUs are hung from the ceiling at locations on the perimeter of the garage area. These units are ducted across the garage and to various rooms along the perimeter. MAUs are also mounted on the flat roof and provide MAU to the exterior spaces, outside of the garage area. An additional Fan Coil Unit is in the parts storage area.

There are many small, hot-water unit heaters located throughout the facility. These heaters appear to be locally controlled with a thermostat mounted on the unit.



Figure 18: Hydronic Heating System Boilers



Figure 19: Hot-Water Unit Heater

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Figure 20: Fan Coil Unit in Parts Storage



Figure 21: MAU on the Perimeter of the Garage



Figure 22: Makeup Air Unit Mounted on Roof

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Figure 23: MAU Ducting in the Garage



Figure 24: MAU Ducting from Garage to Surrounding Rooms



Figure 25: MAU Ducting from Garage to Surrounding Rooms

Exhaust Systems

Coding / Field Name	Asset Description
Exhaust System	Motor driven fans
Condition	3-Adequate
Quantity	~80,000 square feet
Unit Cost	\$4/square foot for distribution & Labor, ~\$150,000 for Equipment Total: \$470,000
Year in Service	~2002 with sporadic modifications
Expected Useful Life (EUL)	~30 Years
Remaining Useful Life (RUL)	~10 Years
Location	Service Area
Basis of Costing	RMS Means Data with Contingencies Added

The garage is equipped with motor driven exhaust fans that have branch ducting with a rope-and-pulley system for localized exhaust. The local exhaust systems appear in good, working order. The fan drives for the exhaust systems are mounted on the roof. Some fans appear newer, and some appear to be original with the building.

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Figure 26: Localized Exhaust Systems



Figure 27: Localized Exhaust System Hose Reel



Figure 28: Exhaust Fan on the Roof



Figure 29: Exhaust Fan on the Roof

The main floor of the garage has exhaust fans mounted on both sides of the peak of the ceiling. These exhaust fans face one another and exhaust directly to the exterior. On the walls of the garage, there are control sensors that measure CO and NO₂ and control the fans.

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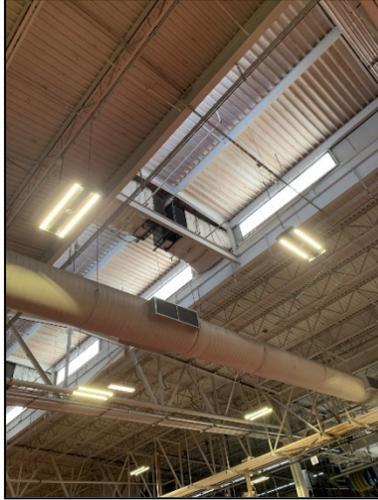


Figure 30: Exhaust Fans at Ceiling Peak



Figure 31: Exhaust Fan Terminals on Peak of Roof

The Body Shop is equipped with a localized smoke exhaust. The machine appears in working order.



Figure 32: Smoke Exhaust System

The facility has a paint booth that has an integral exhaust system. The interior of the paint booth has rows of filters. The exhaust terminates on the roof through exhaust stacks.

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Figure 33: Paint Booth Exhaust System (Interior to Building, Exterior to Booth)

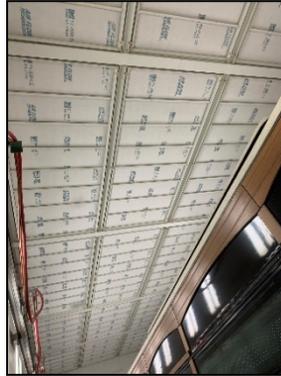


Figure 34: Paint Booth Exhaust (Interior to Booth)



Figure 35: Paint Booth Exhaust Roof Terminations

The battery storage room has makeup air to it, but there is not a control system in place to exhaust the room if there is a dangerous buildup of off gasses from the batteries.



Figure 36: Battery Storage Room

Comfort-Cooling Mechanical Systems

Coding / Field Name	Asset Description
Air-Side Mechanical Systems	Air Conditioning Systems
Condition	3-Adequate
Quantity	~8,000 Square Feet
Unit Cost	\$12/square foot for a total of: \$96,000
Year in Service	~2002 with Additions
Expected Useful Life (EUL)	~20 Years
Remaining Useful Life (RUL)	~0 Years
Location	Office Area
Basis of Costing	RMS Means Data with Contingencies Added

The main garage area is not equipped with a comfort cooling system. However, several

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comfort cooling systems are in place around the facility. The office area is equipped with a standard split, direct expansion system. The condensers are located on the flat roof on the South Side of the building, above the office area. The indoor units are hung from the ceiling in a mechanical space adjacent to the office area.



Figure 37: Air Conditioning Condensers on Flat Roof



Figure 38: AC Fan Coil Unit



Figure 39: Diffuser Setup Office Portion

Several small VRF systems provide spot cooling for IT and computer rooms. The security room is equipped with one and various offices are as well.

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Figure 40: VRF Condenser for Security Room



Figure 41: VRF Evaporator for Security Room

A roof top unit on the North side of the building provides local cooling for an occupied storage area.



Figure 42: Roof Top Unit on Flat Roof

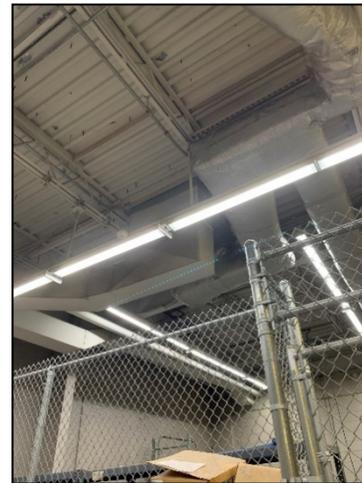


Figure 43: Ducting for Roof Top Unit

Controls System

An abandoned in-place BMS controls system panel is in the parts storage room. The abandoned system is JCI MetaSys system. The working controls system panel is in the boiler room. The working BMS controls system is JCI Facility Explorer.

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Figure 44: Abandoned BMS Control Panel



Figure 45: Working BMS Control Panel in Boiler Room

Fire Sprinkler Systems

Coding / Field Name	Asset Description
Fire Sprinkler System	Wet-Pipe Piping, Sprinklers, Pumps, and Valving
Condition	4-Good
Quantity	88,000 SF
Unit Cost	\$5.00/SF. Total: \$440,000
Year in Service	~2002 with Sporadic Modifications
Expected Useful Life (EUL)	~20 Years for sprinklers. ~40 Years for Piping
Remaining Useful Life (RUL)	~20 Years
Location	Entire Facility
Basis of Costing	RMS Means

Service Entrance

The fire sprinkler system is a wet-pipe sprinkler system. The system is a central system located in the water room. An 8” service lateral immediately reduces to 6” inside the building. A 40hp, double-suction pump provides boosted pressure for the system. A jockey pump maintains pressure. A hose station is located outside the water room. The system has qty (3) risers. There appear to be around qty (6) zones. A Fire Department Connection is located on the opposite side of the building along Thackery St. There is no exterior alarm bell.

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Figure 46: Fire Protection Service in the Water Room



Figure 47: Fire Department Connection



Figure 48: Hose Station Exterior to the Water Room

705 Elmwood Ave. Para-Transit & Storage Facility**Risers and Sprinklers**

The Risers for the zones appear rather new. There are new flow switches and tamper switches in place. The riser check assemblies appear in good condition.



Figure 49: Fire Sprinkler Risers

All sprinklers appear to be original to the building and appear in good, working order. Recessed sprinklers are in the office portion. Uprights and drops are in other areas. The mezzanine overlooking the garage floor was equipped with window sprinklers on both sides of the windows. The piping is steel, which is in fair condition.



Figure 50: Recessed Sprinkler in Office

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Figure 51: Window Sprinklers in Breakroom



Figure 52: Window Sprinklers in Breakroom

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Electrical Systems

Electrical Service and Distribution

Coding / Field Name	Asset Description
480V Service and Distribution	Switchboard, Distribution panelboards, dry-type transformers and associated panelboards
Condition	Electrical Service/Distribution: 4 – Good, Rest of System: 4 – Good
Quantity	Electrical Service/Distribution ~ Office: 33,650 square feet Garage: 102,200 square feet
Unit Cost	Office : \$2.80/square foot for ~ \$94,220 Garage : \$.63/square foot for ~ \$64,386
Year in Service	Electrical Service ~10 years, Other System Components ~10 years
Expected Useful Life (EUL)	Electrical Service/new panelboards ~20-30 years, Other System Components ~20-30 years
Remaining Useful Life (RUL)	Electrical Service ~ 10-20 years, Other System Components ~10-20 years; Estimation contingent on equipment meeting the American Natational Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Main Electrical Room. See comments for further details.
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

A 1,600A, 480V service installed approximately 10 years ago. The service is fed from the pad mounted transformer (North side of the building) and enters the main switchboard (*Figure 1*) located in the Electrical Room. Building is served by a backup generator (Figure 2). All distribution equipment appears to be in good condition.

Pictures:



Figure 1: Switchboard (277/480V)



Figure 2: Generator

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Lighting, Branch Wiring, and Associated Controls

Coding / Field Name	Asset Description
Garage Lighting System	Lighting, Branch Wiring, and Associated controls
Condition	4 – Good
Quantity	Garage Lighting System ~ 102,200 square feet
Unit Cost	\$11.97/square foot for ~ \$1,223,334
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American Natonational Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

LED high-bay fixtures with integral occupancy sensors (*Figure 1*) are installed throughout the first floor garage space. All exit signs (*Figure 2*) throughout the space are illuminated and appear to be completely operational.

Pictures:

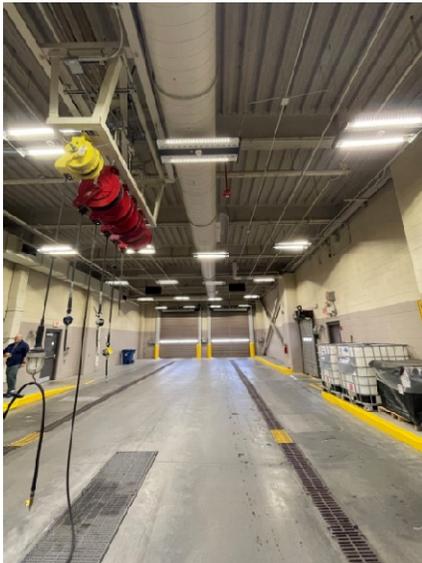


Figure 1: LED High-bay fixtures with integral occupancy sensor

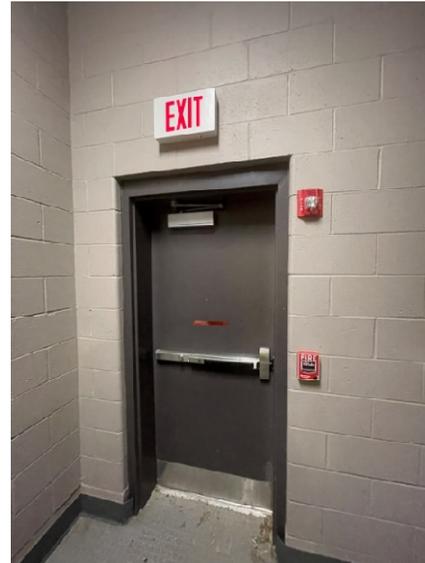


Figure 2: Exit Sign

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Coding / Field Name	Asset Description
Office/Storage Space	Lighting, Branch Wiring, and Associated controls
Condition	4 - Good
Quantity	Office/Storage Lighting System ~ 33,650 square feet
Unit Cost	\$21.29/square foot for ~ \$716,408.50
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First and second floor
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Storage/office spaces consist of LED 2’X2’ troffer fixtures (Figure 3) and linear LED fixtures controlled by a combination of toggle switches (Figure 7), ceiling mounted occupancy sensors (Figure 4), and wall switch occupancy sensors (Figure 8). Exit signs were observed throughout the space and appear to be fully operational (Figure 5). Emergency battery units were observed in some storage/mechanical/electrical rooms. In addition to emergency battery units, lighting fixtures throughout the office space are on generator backup. Linear LED fixtures (Figure 6) are installed in the storage areas.

Pictures:



Figure 3: LED 2’X2’ troffer fixtures



Figure 4: Ceiling mounted occupancy sensor

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Figure 5: Exit sign

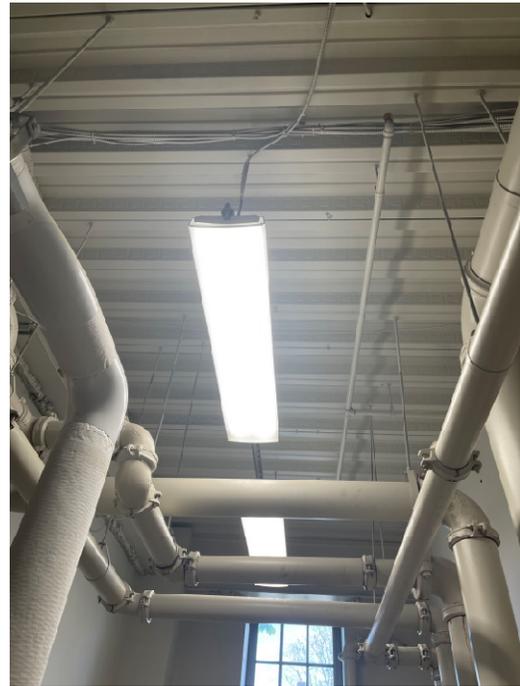


Figure 6: Linear LED Fixture



Figure 7: Toggle switch



Figure 8: Wall switch occupancy sensor

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Coding / Field Name	Asset Description
Exterior Lighting System	Exterior wall pack fixtures, emergency remote heads
Condition	4 – Good
Quantity	Exterior Lighting System
Unit Cost	~ \$15,000
Year in Service	Lighting, Branch Wiring, and Associated controls ~ 10 years
Expected Useful Life (EUL)	Lighting, Branch Wiring, and Associated controls ~ 20 years
Remaining Useful Life (RUL)	Lighting, Branch Wiring, and Associated controls ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	Building Exterior
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Wall packs (*Figure 9*) are installed along perimeter of building. Emergency wall packs (*Figure 10*) are located above doors for emergency egress lighting.

Pictures:



Figure 9: Exterior Wall packs

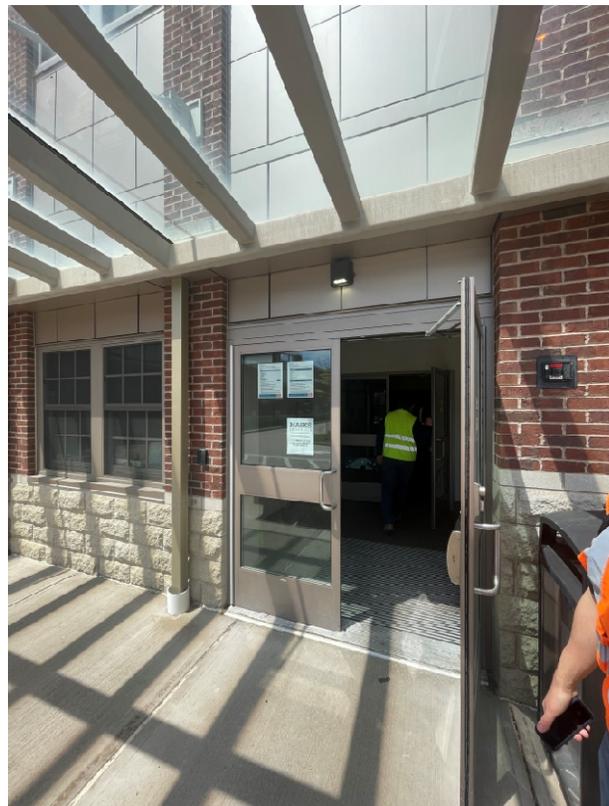


Figure 10: Emergency Wall packs

Fire Alarm System

Coding / Field Name	Asset Description
Fire Alarm System	Fire Alarm Control Panel, Battery Cabinet, and Fire Alarm Devices and associated wiring
Condition	4 - Good
Quantity	Fire Alarm System ~ 135,850 square feet
Unit Cost	\$.50/square foot for ~ \$67,925
Year in Service	Fire Alarm Control Panel ~ 10 years, Other System Components ~10 years
Expected Useful Life (EUL)	Fire Alarm Control Panel ~ 15 years, Other System Components ~20 years
Remaining Useful Life (RUL)	Fire Alarm Control Panel ~ 5 years, Other System Components ~ 10 years; Estimation contingent on equipment meeting the American National Standards Institute/International Electrical Testing Association (ANSI/NETA) Standard for Maintenance Testing Specifications.
Location	First Floor Electric Room
Basis of Costing	RMS Means Data with Contingencies Added

Observations/Comments:

Fire alarm system consists of an addressable Fire Alarm Control Panel (Figure 2) (Notifier NFS-320) and associated devices manufactured by Notifier. Connection to local fire department is through a Gamewell Master Box (Figure 1). CO detection system is installed throughout the garage space (Figure 3). A fire suppression system is installed in the IT room (Figure 4). Fire Alarm system and associated devices and wiring appear to be in good condition.

Pictures:



Figure 1: Gamewell Master Box



Figure 2: Fire Alarm Control Panel

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Figure 3: CO system



Figure 4: Fire suppression system amber strobe

E. Equipment

Coding / Field Name	Asset Description
System Name	Vehicle lifts
Condition	3
Quantity	5
Unit Cost	\$175,000
Year in Service	2009
Expected Useful Life	20 years
Remaining Useful Life	10 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



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Coding / Field Name	Asset Description
System Name	Bus wash
Condition	3
Quantity	2
Unit Cost	\$99,172
Year in Service	2009
Expected Useful Life	25 years
Remaining Useful Life	15 years, Estimated, Based on Date of Observation
Location	Building interior
Basis of Costing	Square Foot Costs with RSMMeans Data 2022 – 43 rd Edition

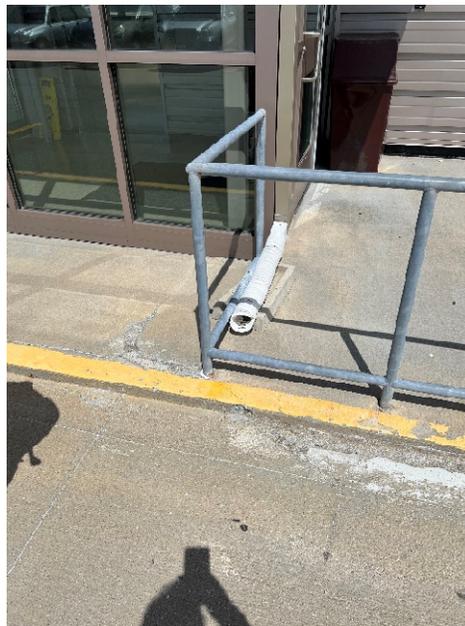


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G.Site

Coding / Field Name	Asset Description
System Name	Site work and parking lot
Condition	3
Quantity	~ 90,857.75 sq. ft.
Unit Cost	\$478,809.60
Year in Service	2009
Expected Useful Life	25 years
Remaining Useful Life	5 years, Estimated, Based on Date of Observation
Location	Building Exterior
Basis of Costing	Square Foot Costs with RSMeans Data 2022 – 43 rd Edition

Pictures:



Final Assessment Report

V. Appendix C – Additional Asset Assessments

In addition to the assets identified within of the initial Transit Asset Management report, additional assets have been identified which were not included in the original reporting. Identifying these assets and including them as part of the 20-year look ahead will provide a more detailed overview of RIPTA assets and further inform capital planning. The scope of additional assets was coordinated with RIPTA project management and facilities management to include additional equipment, site appurtenances, and freestanding structures which fall outside of the typical TAM reporting. These assets have been added to the updated 20-year look ahead spending plans, through the lens of a \$2.5million per year expenditure as well as a \$5million per year expenditure. Additional assets were identified through field verification, existing data and drawings, and input from RIPTA. All assets identified were reviewed by RIPTA for accuracy and the asset list checked by RIPTA for completeness. An overview of additional assets is outlined below, and the 20-year additional asset projections are included in Appendix D.

The \$2.5million projected expenditure table is based on a 20-year projection and the \$5million expenditure table is based on an 11-year projection. This is due to the total combined asset value for all properties totaling ~\$56.6million.

\$2.5million 20-year Projection Overall Cost by Facility

Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
FY 2024	\$1,000,000		\$150,000		\$96,000	\$1,185,000	\$570,000				\$3,001,000
FY 2025	\$100,530	\$110,000	\$580,188		\$57,500	\$1,900,194					\$2,748,412
FY 2026		\$70,000	\$174,172	\$98,000		\$2,109,111	\$47,566				\$2,498,850
FY 2027		\$766,000			\$910,000	\$886,215	\$148,474				\$2,710,689
FY 2028	\$33,863	\$436,358		\$40,000	\$1,215,120	\$848,071	\$3,384				\$2,576,796
FY 2029		\$174,200		\$478,810	\$272,356	\$285,115	\$351,955		\$1,000,000		\$2,562,436
FY 2030		\$216,000	\$537,600	\$1,126,300	\$380,000		\$250,000				\$2,509,900
FY 2031			\$75,000	\$685,500	\$521,580	\$5,290	\$275,542		\$1,000,000		\$2,562,912
FY 2032					\$2,070,000				\$1,000,000		\$3,070,000
FY 2033	\$65,869	\$13,169	\$353,142	\$1,832,500	\$170,691	\$27,226					\$2,462,596
FY 2034		\$906,129		\$1,173,891	\$502,740						\$2,582,760
FY 2035				\$2,460,334	\$160,000						\$2,620,334
FY 2036		\$335,567		\$105,000	\$269,596	\$537,650	\$179,901		\$1,000,000		\$2,427,713
FY 2037		\$1,182,000	\$396,685	\$158,606	\$796,000					\$40,000	\$2,573,291
FY 2038	\$42,610		\$86,404	\$1,688,822			\$397,390		\$1,000,000		\$3,215,225
FY 2039	\$150,000	\$475,000		\$149,500	\$882,225				\$1,000,000		\$2,656,725
FY 2040	\$200,000	\$490,178			\$88,000				\$2,000,000		\$2,778,178
FY 2041				\$226,000	\$352,000				\$2,000,000		\$2,578,000
FY 2042	\$12,451	\$55,660	\$22,000	\$67,000	\$176,465		\$89,568	\$80,000	\$2,000,000		\$2,503,144
FY 2043		\$136,906	\$15,284	\$158,686	\$152,598		\$6,346		\$3,000,000		\$3,469,820
FY 2044			\$390,000					\$596,500		\$1,496,000	\$2,482,500
Grand Total	\$1,605,323	\$5,367,166	\$2,780,474	\$10,448,949	\$9,072,870	\$7,783,872	\$2,320,126	\$676,500	\$15,000,000	\$1,536,000	\$56,591,279

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\$2.5million 20-year Projection Overall Cost by Asset Category by Facility

Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
FY 2024	\$1,000,000		\$150,000		\$96,000	\$1,185,000	\$570,000				\$3,001,000
Fire Protection			\$150,000			\$355,000	\$200,000				\$705,000
HVAC	\$1,000,000				\$96,000	\$830,000	\$370,000				\$2,296,000
FY 2025	\$100,530	\$110,000	\$580,188		\$57,500	\$1,900,194					\$2,748,412
Electrical	\$100,530		\$37,188			\$7,500					\$145,218
HVAC			\$543,000								\$543,000
Plumbing		\$110,000			\$50,000		\$556,000				\$716,000
Shell							\$1,344,194				\$1,344,194
FY 2026		\$70,000	\$174,172	\$98,000		\$2,109,111	\$47,566				\$2,498,850
Equipment		\$70,000	\$99,172								\$169,172
Plumbing						\$413,000					\$413,000
Shell						\$1,696,111	\$47,566				\$1,743,678
Storage Tank - Below Ground			\$75,000								\$75,000
Equipment				\$98,000							\$98,000
FY 2027		\$766,000			\$910,000	\$886,215	\$148,474				\$2,710,689
Electrical						\$886,215	\$148,474				\$1,034,689
HVAC		\$466,000									\$466,000
Storage Tank - Below Ground			\$300,000								\$300,000
Equipment					\$910,000						\$910,000
FY 2028	\$33,863	\$436,358		\$40,000	\$1,215,120	\$848,071	\$3,384				\$2,576,796
Electrical	\$21,518	\$38,858			\$50,120						\$110,496
Interiors	\$12,345						\$3,384				\$15,729
Plumbing		\$397,500		\$40,000							\$437,500
Interior						\$848,071					\$848,071
Equipment					\$1,165,000						\$1,165,000
FY 2029		\$174,200		\$478,810	\$272,356	\$285,115	\$351,955		\$1,000,000		\$2,562,436
Electrical						\$7,500					\$7,500
Shell						\$175,935	\$331,175				\$507,110
Site				\$478,810	\$272,356	\$97,680	\$20,780				\$869,625
Storage Tank - Above Ground		\$174,200				\$4,000					\$178,200
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2030		\$216,000	\$537,600	\$1,126,300	\$380,000		\$250,000				\$2,509,900
Plumbing		\$216,000	\$350,000	\$550,000	\$380,000		\$250,000				\$1,746,000
Storage Tank - Above Ground			\$187,600	\$52,300							\$239,900
Storage Tank - Below Ground				\$524,000							\$524,000
FY 2031			\$75,000	\$685,500	\$521,580	\$5,290	\$275,542		\$1,000,000		\$2,562,912
Conveyance				\$453,500	\$104,280						\$557,780
Equipment							\$140,000				\$140,000
Interiors							\$135,542				\$135,542
Interior						\$5,290					\$5,290
Storage Tank - Above Ground			\$75,000	\$232,000	\$307,300						\$614,300
Equipment					\$110,000						\$110,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2032					\$2,070,000				\$1,000,000		\$3,070,000
HVAC					\$2,070,000						\$2,070,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2033	\$65,869	\$13,169	\$353,142	\$1,832,500	\$170,691	\$27,226					\$2,462,596
Electrical			\$199,439								\$199,439
Equipment			\$105,000								\$105,000
HVAC				\$1,750,000							\$1,750,000
Interiors	\$65,869	\$13,169									\$79,038
Shell			\$48,703		\$170,691						\$219,394
Interior						\$27,226					\$27,226
Equipment				\$82,500							\$82,500
FY 2034		\$906,129		\$1,173,891	\$502,740						\$2,582,760
Electrical		\$906,129		\$750,891	\$502,740						\$2,159,760
Equipment				\$423,000							\$423,000
FY 2035				\$2,460,334	\$160,000						\$2,620,334
Electrical				\$1,223,334					\$1,223,334		\$1,223,334

Final Assessment Report

Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Storage Tank - Above Ground					\$160,000						\$160,000
Equipment				\$1,237,000							\$1,237,000
FY 2036		\$335,567		\$105,000	\$269,596	\$537,650	\$179,901		\$1,000,000		\$2,427,713
Electrical		\$335,567			\$179,901	\$537,650	\$179,901				\$1,233,018
Interiors					\$89,695						\$89,695
Equipment				\$105,000							\$105,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2037		\$1,182,000	\$396,685	\$158,606	\$796,000					\$40,000	\$2,573,291
Electrical			\$396,685	\$158,606							\$555,291
HVAC		\$1,182,000									\$1,182,000
Site										\$40,000	\$40,000
Equipment					\$796,000						\$796,000
FY 2038	\$42,610		\$86,404	\$1,688,822			\$397,390		\$1,000,000		\$3,215,225
Equipment				\$99,172							\$99,172
Interiors	\$42,610		\$86,404				\$341,740				\$470,753
Shell				\$29,650			\$55,650				\$85,300
Equipment				\$1,560,000							\$1,560,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2039	\$150,000	\$475,000		\$149,500	\$882,225				\$1,000,000		\$2,656,725
Electrical					\$22,225						\$22,225
Fire Protection	\$150,000	\$475,000			\$440,000						\$1,065,000
Equipment				\$149,500	\$420,000						\$569,500
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2040	\$200,000	\$490,178			\$88,000				\$2,000,000		\$2,778,178
Interiors		\$15,178									\$15,178
Plumbing	\$200,000	\$475,000			\$88,000						\$763,000
Tunnel Infrastructure									\$2,000,000		\$2,000,000
FY 2041				\$226,000	\$352,000				\$2,000,000		\$2,578,000
Plumbing				\$226,000	\$352,000						\$578,000
Tunnel Infrastructure									\$2,000,000		\$2,000,000
FY 2042	\$12,451	\$55,660	\$22,000	\$67,000	\$176,465		\$89,568	\$80,000	\$2,000,000		\$2,503,144
Interiors	\$12,451										\$12,451
Shell		\$55,660			\$176,465		\$29,568				\$261,693
Site			\$22,000				\$60,000				\$82,000
Infrastructure								\$80,000			\$80,000
Site				\$67,000							\$67,000
Tunnel Infrastructure									\$2,000,000		\$2,000,000
FY 2043		\$136,906	\$15,284	\$158,686	\$152,598		\$6,346		\$3,000,000		\$3,469,820
Interiors		\$136,906	\$15,284	\$65,196	\$32,598		\$6,346				\$256,330
Shell				\$93,490							\$93,490
Site					\$120,000						\$120,000
Tunnel Infrastructure									\$3,000,000		\$3,000,000
FY 2044			\$390,000					\$596,500		\$1,496,000	\$2,482,500
Shell			\$390,000								\$390,000
Freestanding Structure								\$596,500		\$24,000	\$620,500
Site										\$1,472,000	\$1,472,000
Grand Total	\$1,605,323	\$5,367,166	\$2,780,474	\$10,448,949	\$9,072,870	\$7,783,872	\$2,320,126	\$676,500	\$15,000,000	\$1,536,000	\$56,591,279

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\$5million 11-year Projection Overall Cost by Facility

Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
FY 2024	\$1,000,000	\$110,000	\$150,000		\$146,000	\$3,085,194	\$570,000				\$5,061,194
FY 2025	\$100,530	\$836,000	\$754,360	\$98,000	\$7,500	\$2,995,326	\$196,040				\$4,987,757
FY 2026	\$33,863	\$436,358		\$518,810	\$2,125,120	\$848,071	\$24,164		\$1,000,000		\$4,986,385
FY 2027		\$390,200	\$612,600	\$1,811,800	\$1,063,936	\$290,405	\$856,717				\$5,025,658
FY 2028	\$65,869	\$13,169	\$353,142	\$82,500	\$2,350,691	\$27,226			\$2,000,000		\$4,892,596
FY 2029		\$906,129		\$3,265,891	\$662,740						\$4,834,760
FY 2030		\$335,567	\$396,685	\$2,381,940	\$269,596	\$537,650	\$179,901		\$1,000,000		\$5,101,338
FY 2031	\$42,610	\$1,182,000	\$86,404	\$1,688,822	\$796,000		\$55,650		\$1,000,000	\$40,000	\$4,891,486
FY 2032	\$150,000	\$475,000		\$149,500	\$970,225		\$341,740		\$3,000,000		\$5,086,465
FY 2033	\$212,451	\$545,838	\$22,000	\$451,686	\$528,465		\$89,568	\$80,000	\$3,000,000		\$4,930,008
FY 2034		\$136,906	\$405,284		\$152,598		\$6,346		\$4,000,000		\$4,701,134
FY 2035								\$596,500		\$1,496,000	\$2,092,500
Grand Total	\$1,605,323	\$5,367,166	\$2,780,474	\$10,448,949	\$9,072,870	\$7,783,872	\$2,320,126	\$676,500	\$15,000,000	\$1,536,000	\$56,591,279

\$5million 11-year Projection Overall Cost by Asset Category by Facility

Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
FY 2024	\$1,000,000	\$110,000	\$150,000		\$146,000	\$3,085,194	\$570,000				\$5,061,194
Fire Protection			\$150,000			\$355,000	\$200,000				\$705,000
HVAC	\$1,000,000				\$96,000	\$830,000	\$370,000				\$2,296,000
Plumbing		\$110,000			\$50,000	\$556,000					\$716,000
Shell						\$1,344,194					\$1,344,194
FY 2025	\$100,530	\$836,000	\$754,360	\$98,000	\$7,500	\$2,995,326	\$196,040				\$4,987,757
Electrical	\$100,530		\$37,188		\$7,500	\$886,215	\$148,474				\$1,179,907
Equipment		\$70,000	\$99,172								\$169,172
HVAC		\$466,000	\$543,000								\$1,009,000
Plumbing						\$413,000					\$413,000
Shell						\$1,696,111	\$47,566				\$1,743,678
Storage Tank - Below Ground		\$300,000	\$75,000								\$375,000
Equipment				\$98,000							\$98,000
FY 2026	\$33,863	\$436,358		\$518,810	\$2,125,120	\$848,071	\$24,164		\$1,000,000		\$4,986,385
Electrical	\$21,518	\$38,858			\$50,120						\$110,496
Interiors	\$12,345						\$3,384				\$15,729
Plumbing		\$397,500		\$40,000							\$437,500
Site				\$478,810			\$20,780				\$499,590
Interior						\$848,071					\$848,071
Equipment					\$2,075,000						\$2,075,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2027		\$390,200	\$612,600	\$1,811,800	\$1,063,936	\$290,405	\$856,717				\$5,025,658
Conveyance				\$453,500	\$104,280						\$557,780
Electrical						\$7,500					\$7,500
Equipment							\$140,000				\$140,000
Interiors							\$135,542				\$135,542
Plumbing		\$216,000	\$350,000	\$550,000	\$380,000		\$250,000				\$1,746,000
Shell						\$175,935	\$331,175				\$507,110
Site					\$272,356	\$97,680					\$370,036
Interior						\$5,290					\$5,290
Storage Tank - Above Ground		\$174,200	\$262,600	\$284,300	\$307,300	\$4,000					\$1,032,400
Storage Tank - Below Ground				\$524,000							\$524,000
FY 2028	\$65,869	\$13,169	\$353,142	\$82,500	\$2,350,691	\$27,226			\$2,000,000		\$4,892,596
Electrical			\$199,439								\$199,439
Equipment			\$105,000								\$105,000
HVAC					\$2,070,000						\$2,070,000
Interiors	\$65,869	\$13,169									\$79,038
Shell			\$48,703		\$170,691						\$219,394
Interior						\$27,226					\$27,226
Equipment				\$82,500	\$110,000						\$192,500
Tunnel Infrastructure									\$2,000,000		\$2,000,000

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Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
FY 2029		\$906,129		\$3,265,891	\$662,740						\$4,834,760
Electrical		\$906,129		\$750,891	\$502,740						\$2,159,760
HVAC				\$1,750,000							\$1,750,000
Storage Tank - Above Ground					\$160,000						\$160,000
Equipment				\$765,000							\$765,000
FY 2030		\$335,567	\$396,685	\$2,381,940	\$269,596	\$537,650	\$179,901		\$1,000,000		\$5,101,338
Electrical		\$335,567	\$396,685	\$1,381,940	\$179,901	\$537,650	\$179,901				\$3,011,643
Interiors					\$89,695						\$89,695
Equipment				\$1,000,000							\$1,000,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2031	\$42,610	\$1,182,000	\$86,404	\$1,688,822	\$796,000		\$55,650		\$1,000,000	\$40,000	\$4,891,486
Equipment				\$99,172							\$99,172
HVAC		\$1,182,000									\$1,182,000
Interiors	\$42,610		\$86,404								\$129,014
Shell				\$29,650			\$55,650				\$85,300
Site										\$40,000	\$40,000
Equipment				\$1,560,000	\$796,000						\$2,356,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
FY 2032	\$150,000	\$475,000		\$149,500	\$970,225		\$341,740		\$3,000,000		\$5,086,465
Electrical					\$22,225						\$22,225
Fire Protection	\$150,000	\$475,000			\$440,000						\$1,065,000
Interiors							\$341,740				\$341,740
Plumbing					\$88,000						\$88,000
Equipment				\$149,500	\$420,000						\$569,500
Tunnel Infrastructure									\$3,000,000		\$3,000,000
FY 2033	\$212,451	\$545,838	\$22,000	\$451,686	\$528,465		\$89,568	\$80,000	\$3,000,000		\$4,930,008
Interiors	\$12,451	\$15,178		\$65,196							\$92,825
Plumbing	\$200,000	\$475,000		\$226,000	\$352,000						\$1,253,000
Shell		\$55,660		\$93,490	\$176,465		\$29,568				\$355,183
Site			\$22,000				\$60,000				\$82,000
Infrastructure								\$80,000			\$80,000
Site				\$67,000							\$67,000
Tunnel Infrastructure									\$3,000,000		\$3,000,000
FY 2034		\$136,906	\$405,284		\$152,598		\$6,346		\$4,000,000		\$4,701,134
Interiors		\$136,906	\$15,284		\$32,598		\$6,346				\$191,134
Shell			\$390,000								\$390,000
Site					\$120,000						\$120,000
Tunnel Infrastructure									\$4,000,000		\$4,000,000
FY 2035								\$596,500		\$1,496,000	\$2,092,500
Freestanding Structure								\$596,500		\$24,000	\$620,500
Site										\$1,472,000	\$1,472,000
Grand Total	\$1,605,323	\$5,367,166	\$2,780,474	\$10,448,949	\$9,072,870	\$7,783,872	\$2,320,126	\$676,500	\$15,000,000	\$1,536,000	\$56,591,279

Storage Tanks

Storage tanks, both above and below ground, were a primary focus of the additional asset effort. Across all RIPTA properties reviewed, there were one hundred twenty-eight storage tanks identified. Many of the tanks are aging beyond their useful life and were therefore prioritized in the 20-year look ahead. Types of tanks range from large double wall metal fueling tanks to smaller plastic tanks used for general maintenance and upkeep. Tanks which are part of generators and oil water separators were also identified and included in the report. All data provided including RIPTA tank identification system numbers, serial numbers, and product data is included in the additional assets spreadsheet.

Vehicle Lifts

Vehicle lifts were originally identified in the TAM report. The additional asset assessment includes more detailed information on lifts and any duplicate information was updated to reflect new data provided. Model numbers, serial numbers, and installation dates are included in the additional assets spreadsheet. In general, many of these lifts are newer (installed within last 5 years) or recently restored.

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Equipment

The original TAM reporting guidelines included parameters for assessment of larger facility equipment. Additional equipment outside of these parameters was identified as part of the additional asset assessment. RIPTA equipment assets vary depending on the facility, but for this effort all available information and data for existing equipment was included in the additional reporting. Cumulatively, over 130 additional equipment assets of varying condition and value were identified. Most of this information was derived from available existing drawing records and reviewed by RIPTA for accuracy.

Freestanding Structures

Several freestanding structures associated with RIPTA's Downtown Transit Connector (DTC) were included as part of the additional asset assessment. The Downtown Transit Connector provides high-frequency transit service (every 5 minutes in each direction) between the Providence Amtrak/MBTA Station and the Hospital District in Upper South Providence. These structures are primarily freestanding bus shelters along the corridor. There are small, medium, and large shelters which were given values based on their size and scope. These structures were recently constructed within the past 5 years and were not considered higher priority relative to other assets in the cost projections. Along with the bus shelters, a freestanding DTC driver restroom was identified as an additional asset.

Tunnel Infrastructure

Another significant structure identified in the cost projections is the East Side Tunnel. The tunnel and all its utilities and amenities was assigned a value of \$15million. Since the cost projections were for \$2.5million per year and \$5million per year, the overall value of this asset was broken up into \$1million upgrade packages, spaced out over the course of the 20-year projections.

Site Appurtenances

Site-related assets not typically broken out individually as part of the original TAM assessment were identified in the additional assets effort. These items include site benches, illuminated crosswalk systems, site lighting, drainage systems, bike racks, and other assets which fall outside of the purview of the original reporting. A site which hosts many of the additional site appurtenances assets is the Pawtucket Central Falls Bus Hub. The new bus hub completed in January 2023, which is built adjacent to the train station serves the many bus commuters in the Pawtucket, Central Falls and greater Blackstone Valley area with RIPTA's 1, 71, 72, 73, 75, 76, 78, 80, QX and the R-Line stopping at the transit center.

RIPTA provided detailed information on site entrance gates for multiple properties. Many of these gates are either existing or recently constructed. A total of fourteen entrance gates were identified as additional assets.

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VI. Appendix D – 20-Year Additional Asset Projections

\$2.5million Per Year Expenditure: Summary By Location / Fiscal Year

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
FY 2024	\$1,000,000		\$150,000		\$96,000	\$1,185,000	\$570,000				\$3,001,000
<i>Fire Protection</i>			<i>\$150,000</i>			<i>\$355,000</i>	<i>\$200,000</i>				<i>\$705,000</i>
Fire Sprinklers			\$150,000			\$355,000	\$200,000				\$705,000
<i>HVAC</i>	<i>\$1,000,000</i>				<i>\$96,000</i>	<i>\$830,000</i>	<i>\$370,000</i>				<i>\$2,296,000</i>
AC, Boilers, Radiant Heating	\$1,000,000										\$1,000,000
Comfort Cooling					\$96,000						\$96,000
Comfort Heating and Cooling							\$350,000				\$350,000
Exhaust System						\$278,000	\$20,000				\$298,000
Air-Side Mechanical System						\$552,000					\$552,000
FY 2025	\$100,530	\$110,000	\$580,188		\$57,500	\$1,900,194					\$2,748,412
<i>Electrical</i>	<i>\$100,530</i>		<i>\$37,188</i>		<i>\$7,500</i>						<i>\$145,218</i>
Exterior Lighting System	\$7,500				\$7,500						\$15,000
Office/Storage Lighting System	\$93,030										\$93,030
Service and Distribution			\$37,188								\$37,188
<i>HVAC</i>			<i>\$543,000</i>								<i>\$543,000</i>
MAU and Exhaust System			\$375,000								\$375,000
Office Area Comfort Heating and Cooling			\$168,000								\$168,000
<i>Plumbing</i>		<i>\$110,000</i>			<i>\$50,000</i>	<i>\$556,000</i>					<i>\$716,000</i>
Hot-Water System					\$50,000	\$16,000					\$66,000
Plumbing Fixtures		\$110,000				\$132,500					\$242,500
Sanitary Drainage						\$257,500					\$257,500
Storm Drainage						\$150,000					\$150,000
Shell						\$1,344,194					\$1,344,194
Roofing – ballasted						\$1,344,194					\$1,344,194
FY 2026		\$70,000	\$174,172	\$98,000		\$2,109,111	\$47,566				\$2,498,850
<i>Equipment</i>		<i>\$70,000</i>	<i>\$99,172</i>								<i>\$169,172</i>
Bus wash			\$99,172								\$99,172
Bush Wash		\$70,000									\$70,000
Plumbing						\$413,000					\$413,000
Compressed Air						\$200,000					\$200,000
Domestic Water						\$213,000					\$213,000
Shell						\$1,696,111	\$47,566				\$1,743,678
Exterior Walls, Brick						\$789,600					\$789,600
Exterior office windows						\$489,600					\$489,600
Exterior steel windows						\$350,096					\$350,096
Roof head houses and EQ						\$25,248					\$25,248
Storefront, Metal-framed with Glazing						\$14,090					\$14,090
Roof Skylight						\$8,250					\$8,250
Roof access ladder, steel						\$2,297					\$2,297
Steel exterior doors, frames, and hardware						\$16,931					\$16,931
Exterior louvers, frames, and bird/insect screens							\$2,290				\$2,290
Roof insulation							\$45,276				\$45,276
Storage Tank - Below Ground			\$75,000								\$75,000
20,000 gal Diesel			\$75,000								\$75,000
<i>Equipment</i>				<i>\$98,000</i>							<i>\$98,000</i>
40' Bus Dispenser - Bennet Fuel Pump				\$7,000							\$7,000
Wayne Fuel Pump (outside fueling)				\$16,000							\$16,000

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Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Fuel Management Control Terminal (2) - Coencorp Fuelzone Terminal				\$20,000							\$20,000
Hydraulic Press 100 ton (2)				\$50,000							\$50,000
Radial Press				\$5,000							\$5,000
FY 2027		\$766,000			\$910,000	\$886,215	\$148,474				\$2,710,689
Electrical						\$886,215	\$148,474				\$1,034,689
Exterior Lighting System							\$7,500				\$7,500
Fire Alarm System						\$287,448	\$7,625				\$295,073
Garage Lighting System							\$110,722				\$110,722
Office/Storage Lighting System						\$553,540					\$553,540
Service and Distribution						\$45,227	\$22,627				\$67,854
HVAC		\$466,000									\$466,000
Exhaust System		\$466,000									\$466,000
Storage Tank - Below Ground		\$300,000									\$300,000
20,000 gal Diesel - Tank 1		\$75,000									\$75,000
20,000 gal Diesel - Tank 2		\$75,000									\$75,000
20,000 gal Diesel - Tank 3		\$75,000									\$75,000
6,000 gal Unleaded Gas - Tank 4		\$75,000									\$75,000
Equipment					\$910,000						\$910,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02081					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02082					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02084					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02085					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221D-02094					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221D-02095					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 220J-02057					\$130,000						\$130,000
FY 2028	\$33,863	\$436,358		\$40,000	\$1,215,120	\$848,071	\$3,384				\$2,576,796
Electrical	\$21,518	\$38,858			\$50,120						\$110,496
Exterior Lighting System		\$7,500									\$7,500
Fire Alarm System	\$3,500	\$31,358									\$34,858
Service and Distribution	\$18,018				\$50,120						\$68,138
Interiors	\$12,345					\$848,071	\$3,384				\$863,800
Gypsum ceilings	\$12,345										\$12,345
Acoustic ceiling tile and grid systems.						\$237,160					\$237,160
Interior gypsum partitions/walls						\$221,088					\$221,088
Carpet flooring						\$95,634					\$95,634
Interior F2 Doors						\$91,402					\$91,402
Vinyl tile flooring						\$81,000					\$81,000
Interior stairs, Fire Exit						\$33,825					\$33,825
Interior gypsum board ceilings						\$20,262					\$20,262
Ceramic wall tile						\$18,000					\$18,000

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Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Interior steel doors						\$37,039					\$37,039
Interior fire rated doors						\$12,662					\$12,662
Carpet flooring							\$3,384				\$3,384
Plumbing		\$397,500		\$40,000							\$437,500
Hot-Water System				\$40,000							\$40,000
Sanitary Drainage		\$397,500									\$397,500
Equipment					\$1,165,000						\$1,165,000
Vehicle Lift (Drive On) (11)					\$385,000						\$385,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 220J-02058					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 220J-02059					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 200J-02060					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 200D-02091					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 200D02092					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 222D-02203					\$130,000						\$130,000
FY 2029		\$174,200		\$478,810	\$272,356	\$285,115	\$351,955		\$1,000,000		\$2,562,436
Electrical						\$7,500					\$7,500
Exterior Lighting System						\$7,500					\$7,500
Shell						\$175,935	\$331,175				\$507,110
Overhead steel garage doors						\$153,063					\$153,063
Roof – Membrane						\$22,872					\$22,872
Exterior steel doors and frames.							\$4,373				\$4,373
Pitched roof metal fascia							\$4,530				\$4,530
Windows and frames							\$45,210				\$45,210
Batten seam metal roof							\$277,063				\$277,063
Site				\$478,810	\$272,356	\$97,680	\$20,780				\$869,625
Roadways and paving					\$272,356						\$272,356
Site work and parking lot				\$478,810		\$97,680					\$576,489
Exterior concrete pads and walking surfaces.							\$20,780				\$20,780
Storage Tank - Above Ground		\$174,200				\$4,000					\$178,200
Bus Wash		\$2,000									\$2,000
30 gal Hydraulic Fluid						\$2,000					\$2,000
Interior and Floor Bus Wash						\$2,000					\$2,000
DEF Fluid		\$4,000									\$4,000
500 gal Motor Oil (15W40)		\$4,600									\$4,600
500 gal Antifreeze		\$4,600									\$4,600
500 gal Windshield Wash Fluid		\$2,400									\$2,400
125 gal Diesel Generator (3E)		\$4,600									\$4,600
30 gal Hydraulic Fluid, Trash Compactor		\$2,000									\$2,000
Floor Wash		\$2,000									\$2,000
Static Glass Cleaner		\$2,000									\$2,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Interior and Floor Wash		\$2,000									\$2,000
1,000 gal OWS		\$59,000									\$59,000
3,000 gal OWS		\$85,000									\$85,000
Tunnel Infrastructure Updates (1 of 15)									\$1,000,000		\$1,000,000
									\$1,000,000		\$1,000,000
FY 2030		\$216,000	\$537,600	\$1,126,300	\$380,000		\$250,000				\$2,509,900
<i>Plumbing</i>		<i>\$216,000</i>	<i>\$350,000</i>	<i>\$550,000</i>	<i>\$380,000</i>		<i>\$250,000</i>				<i>\$1,746,000</i>
Compressed Air		\$200,000		\$350,000	\$300,000						\$850,000
Hot-Water System		\$16,000									\$16,000
Plumbing Fixtures				\$200,000	\$80,000						\$280,000
Plumbing System			\$350,000				\$250,000				\$600,000
Storage Tank - Above Ground			\$187,600	\$52,300							\$239,900
1,000 gal OWS			\$60,000								\$60,000
3,000 gal OWS			\$85,000								\$85,000
500 gal Antifreeze			\$2,400								\$2,400
500 gal Transmission Fluid			\$4,600								\$4,600
500 gal Motor Oil			\$4,600								\$4,600
500 gal			\$4,600								\$4,600
500 gal Waste Oil			\$4,600								\$4,600
500 gal Sanborn Unit which processes pit drains			\$4,600								\$4,600
28 gal (2 at 14 gal each) hydraulic oil tank (lifts)			\$2,000								\$2,000
130 gal Diesel Emergency Generator			\$4,000								\$4,000
400 gal Electrical Transformer			\$4,000								\$4,000
30 gal Hydraulic Oil			\$2,000								\$2,000
100 gal Floor Soap			\$1,300								\$1,300
100 gal Antistatic Glass			\$1,300								\$1,300
100 gal Bus Int. and Floor Soap			\$1,300								\$1,300
100 gal Outside Bus Cleaner			\$1,300								\$1,300
1,000 gal Oil				\$6,700							\$6,700
500 gal ATF				\$9,200							\$9,200
500 gal Windshield Fluid				\$2,400							\$2,400
1000 gal Waste Oil				\$6,700							\$6,700
500 gal Lube Oil				\$4,600							\$4,600
500 gal Anti-Freeze				\$4,600							\$4,600
1000 gal Multi-Viscosity Oil				\$6,700							\$6,700
55 gal Gear Oil Drum				\$1,400							\$1,400
55 gal Grease Drum				\$1,400							\$1,400
30 gal Hydraulic Fluid				\$1,000							\$1,000
250 gal DW Diesel Generator. Caterpillar				\$3,000							\$3,000
400 gal (non-PBC) mineral oil dielectric fluid transformer				\$4,600							\$4,600
Storage Tank - Below Ground				\$524,000							\$524,000
1,000 gal OWS				\$60,000							\$60,000
5,000 gal OWS pre sewer outfall				\$22,000							\$22,000
10,000 gal OWS at bus wash				\$42,000							\$42,000
1,500 gal OWS at undercarriage room				\$15,000							\$15,000
1,000 emergency spill tank				\$15,000							\$15,000

Final Assessment Report

	Cost By Fiscal Year										
Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
5,000 gal OWS				\$125,000							\$125,000
10,000 gal OWS				\$180,000							\$180,000
1,500 gal Spill Containment Tank				\$65,000							\$65,000
FY 2031			\$75,000	\$685,500	\$521,580	\$5,290	\$275,542		\$1,000,000		\$2,562,912
Conveyance				\$453,500	\$104,280						\$557,780
Elevator					\$104,280						\$104,280
Elevator				\$453,500							\$453,500
Equipment							\$140,000				\$140,000
Vehicle lifts							\$140,000				\$140,000
Interiors						\$5,290	\$135,542				\$140,832
Acoustic ceiling tiles and grids							\$80,850				\$80,850
Toilet partitions - metal						\$5,290					\$5,290
Through-wall piping and conduit penetrations.							\$2,567				\$2,567
VCT Flooring and rubber base.							\$52,125				\$52,125
Storage Tank - Above Ground			\$75,000	\$232,000	\$307,300						\$614,300
Floor Wash					\$2,000						\$2,000
1,000 gal OWS					\$60,000						\$60,000
1000 gal Waste ATF					\$6,700						\$6,700
500 gal Waste Anti-Freeze					\$4,600						\$4,600
500 gal Virgin Anti-Freeze					\$9,200						\$9,200
1000 gal Waste Oil					\$6,700						\$6,700
1000 gal Motor Oil (15W40)					\$13,400						\$13,400
1000 gal Hybrid Transmission Fluid					\$6,700						\$6,700
475 gal Diesel Generator					\$190,000						\$190,000
A/C Coil Cleaner					\$2,000						\$2,000
Degreaser					\$2,000						\$2,000
Floor Scrub/General					\$2,000						\$2,000
Rim Cleaner					\$2,000						\$2,000
20000 gal Diesel			\$75,000								\$75,000
10,000 gal Unleaded Gasoline. Highland Tank Fireguard				\$46,000							\$46,000
20,000 gal Diesel. Highland Tank Fireguard				\$150,000							\$150,000
Diesel Generator - Caterpillar 150kW Generator				\$36,000							\$36,000
Equipment					\$110,000						\$110,000
3 Ton Crane					\$90,000						\$90,000
3 Ton Jib Crane					\$20,000						\$20,000
Tunnel Infrastructure Updates (2 of 15)									\$1,000,000		\$1,000,000
									\$1,000,000		\$1,000,000
FY 2032					\$2,070,000				\$1,000,000		\$3,070,000
HVAC					\$2,070,000						\$2,070,000
Comfort Heating					\$1,600,000						\$1,600,000
Exhaust System					\$470,000						\$470,000
Tunnel Infrastructure Updates (3 of 15)									\$1,000,000		\$1,000,000
									\$1,000,000		\$1,000,000
FY 2033	\$65,869	\$13,169	\$353,142	\$1,832,500	\$170,691	\$27,226					\$2,462,596
Electrical			\$199,439								\$199,439
Exterior Lighting System			\$7,500								\$7,500
Fire Alarm System			\$67,925								\$67,925
Office/Storage Lighting System			\$124,014								\$124,014
Equipment			\$105,000								\$105,000
Vehicle lifts			\$105,000								\$105,000

Final Assessment Report

	Cost By Fiscal Year										
Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
HVAC				\$1,750,000							\$1,750,000
Comfort Heating and Cooling				\$350,000							\$350,000
Exhaust System and MAU				\$1,400,000							\$1,400,000
Interiors	\$65,869	\$13,169				\$27,226					\$106,264
Carpet tile flooring and base		\$13,169									\$13,169
Interior casework, millwork, office furniture and equipment	\$65,869										\$65,869
Ceramic tile flooring						\$27,226					\$27,226
Shell			\$48,703		\$170,691						\$219,394
Exterior overhead coiling doors			\$48,703								\$48,703
Membrane roofing + rigid insulation					\$170,691						\$170,691
Equipment				\$82,500							\$82,500
Oil Filter Crusher				\$5,000							\$5,000
Wheel Balancer				\$7,500							\$7,500
Mount/Demount				\$20,000							\$20,000
Battery Charger (2)				\$6,000							\$6,000
Batter Charger (5)				\$10,000							\$10,000
Charging Distribution Board (2)				\$5,000							\$5,000
Circular Chart Recorder				\$4,000							\$4,000
Fuel Management Control Terminal				\$5,000							\$5,000
Hot Water Pressure Washer 3000 PSI				\$20,000							\$20,000
FY 2034		\$906,129		\$1,173,891	\$502,740						\$2,582,760
Electrical		\$906,129		\$750,891	\$502,740						\$2,159,760
Exterior Lighting System				\$15,000							\$15,000
Fire Alarm System				\$19,483							\$19,483
Garage Lighting System		\$906,129			\$502,740						\$1,408,869
Office/Storage Lighting System				\$716,409							\$716,409
Equipment				\$423,000							\$423,000
Hot Water Pressure Washer 3000 PSI				\$20,000							\$20,000
Water Recycling System				\$20,000							\$20,000
Brake Lathe, Large				\$20,000							\$20,000
Brake Lathe, Small				\$10,000							\$10,000
Arbor Press				\$10,000							\$10,000
Fuel Monitoring System Panel - TLS350				\$8,000							\$8,000
Fuel Management Panel				\$5,000							\$5,000
Radial Arm Saw				\$5,000							\$5,000
60 HP Spinner Pump (2)				\$45,000							\$45,000
30 HP Wheel Pump (2)				\$25,000							\$25,000
20 HP Reclaim Console (3)				\$12,000							\$12,000
Detergent Pumps (2)				\$4,000							\$4,000
Washer Control (2)				\$4,000							\$4,000
Varioable Speed Drives				\$25,000							\$25,000
Vehicle Lift - Restored Drive-On (6)				\$210,000							\$210,000
FY 2035				\$2,460,334	\$160,000						\$2,620,334
Electrical				\$1,223,334							\$1,223,334
Garage Lighting System				\$1,223,334							\$1,223,334

Final Assessment Report

	Cost By Fiscal Year										
Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Storage Tank - Above Ground					\$160,000						\$160,000
6000 gal OWS					\$160,000						\$160,000
Equipment				\$1,237,000							\$1,237,000
Ride-On Power floor Scrubber				\$60,000							\$60,000
Work Bench (20)				\$20,000							\$20,000
Work Bench w/ Vice (8)				\$12,000							\$12,000
Bus Washer (2)				\$1,000,000							\$1,000,000
Fork Lift				\$30,000							\$30,000
Scissor Lift				\$20,000							\$20,000
Walk-Behind Power Floor Scrubber				\$30,000							\$30,000
Sump Pump				\$15,000							\$15,000
Jib Grane				\$20,000							\$20,000
Hoist				\$30,000							\$30,000
FY 2036		\$335,567		\$105,000	\$269,596	\$537,650	\$179,901		\$1,000,000		\$2,427,713
<i>Electrical</i>		\$335,567			\$179,901	\$537,650	\$179,901				\$1,233,018
Garage Lighting System						\$537,650					\$537,650
Office/Storage Lighting System		\$254,416			\$179,901		\$179,901				\$614,217
Service and Distribution		\$81,151									\$81,151
Interiors					\$89,695						\$89,695
Acoustic ceiling tiles and grids					\$89,695						\$89,695
Equipment				\$105,000							\$105,000
Dispensing Reel - Type 4				\$7,500							\$7,500
Dispensing Reel - Type 3				\$7,500							\$7,500
Dispensing Reel - Type 2				\$7,500							\$7,500
Dispensing Reel - Type 1 (11)				\$82,500							\$82,500
Tunnel Infrastructure Updates (4 of 15)								\$1,000,000	\$1,000,000		\$1,000,000
FY 2037		\$1,182,000	\$396,685	\$158,606	\$796,000					\$40,000	\$2,573,291
<i>Electrical</i>			\$396,685	\$158,606							\$555,291
Garage Lighting System			\$396,685								\$396,685
Service and Distribution				\$158,606							\$158,606
HVAC		\$1,182,000									\$1,182,000
MAUs		\$832,000									\$832,000
Office Area Comfort Heating and Cooling		\$350,000									\$350,000
Site										\$40,000	\$40,000
CCTV Cameras										\$20,000	\$20,000
Illuminated Crosswalk System										\$20,000	\$20,000
Equipment					\$796,000						\$796,000
Dispensing Reel - Type 5					\$7,500						\$7,500
Dispensing Reel - Type 4					\$7,500						\$7,500
Dispensing Reel - Type 3 (6)					\$45,000						\$45,000
Dispensing Reel - Type 2 (17)					\$127,500						\$127,500
Dispensing Reel - Type 1 (9)					\$67,500						\$67,500
Engine Exhaust Reel (23)					\$92,000						\$92,000
Work Bench w/ Vise (50)					\$75,000						\$75,000
Drill Press (8)					\$40,000						\$40,000
Radial Drill Press					\$5,000						\$5,000
Sheet Metal Shear					\$5,000						\$5,000
Wheel Balancer					\$10,000						\$10,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Tire Machine					\$10,000						\$10,000
30 Ton Press					\$4,000						\$4,000
Transmission Dynamometer & Console					\$100,000						\$100,000
Engine Dynamometer & Console					\$100,000						\$100,000
Chasis Dynamometer					\$100,000						\$100,000
FY 2038	\$42,610		\$86,404	\$1,688,822			\$397,390		\$1,000,000		\$3,215,225
<i>Equipment</i>				\$99,172							\$99,172
Bus Wash				\$99,172							\$99,172
<i>Interiors</i>	\$42,610		\$86,404				\$341,740				\$470,753
Acoustic ceiling tiles and grids			\$60,638								\$60,638
Interior Steel doors and frames			\$25,766				\$23,212				\$48,978
Interior wood benches	\$2,000										\$2,000
Public restroom fixtures, toilet partitions, and accessories	\$21,622										\$21,622
Raised flooring system	\$2,268										\$2,268
Restroom fixtures and accessories							\$3,348				\$3,348
Stone wall tile	\$16,720										\$16,720
Plaster ceilings							\$6,012				\$6,012
Interior drywall Partitions							\$15,700				\$15,700
Interior furniture and fixtures							\$293,468				\$293,468
<i>Shell</i>				\$29,650			\$55,650				\$85,300
Aluminum automatic entrances				\$29,650							\$29,650
Overhead garage doors							\$55,650				\$55,650
Equipment				\$1,560,000							\$1,560,000
Vehicle Lift - In-Ground w/Control Console (12) - Stertil KONI ECO60-13				\$1,560,000							\$1,560,000
Tunnel Infrastructure Updates (5 of 15)								\$1,000,000	\$1,000,000		\$1,000,000
FY 2039	\$150,000	\$475,000		\$149,500	\$882,225				\$1,000,000		\$2,656,725
Electrical					\$22,225						\$22,225
Fire Alarm System					\$22,225						\$22,225
Fire Protection	\$150,000	\$475,000			\$440,000						\$1,065,000
Fire Sprinklers	\$150,000	\$475,000			\$440,000						\$1,065,000
Equipment				\$149,500	\$420,000						\$569,500
55 Ton Press					\$6,000						\$6,000
100 Ton Press					\$6,000						\$6,000
Water Recycler					\$20,000						\$20,000
Brake Lathe (3)					\$30,000						\$30,000
Oil Filter Crusher					\$10,000						\$10,000
Hot Water Pressure Washer 3000 PSI					\$20,000						\$20,000
Hot Water Pressure Washer					\$20,000						\$20,000
Mobile Scissor Lift					\$3,000						\$3,000
High Density Storage					\$20,000						\$20,000
Parts Storage, Cantilever Racks, Shelving, Bulk Storage					\$30,000						\$30,000
Walking Stacker					\$20,000						\$20,000
Fork Lift					\$45,000						\$45,000
Hauling Tractor					\$20,000						\$20,000
Ride-On Power floor Scrubber					\$60,000						\$60,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Walk-Behind Power Floor Scrubber (2)					\$60,000						\$60,000
1 Ton Jib Crane					\$20,000						\$20,000
1 Ton Bridge Crane					\$30,000						\$30,000
Carbon Monoxide Detection System (35)				\$25,000							\$25,000
Nitrogen Dioxide Detection System (35)				\$25,000							\$25,000
Hydrogen Sulfide Detector (1)				\$8,000							\$8,000
Gear Oil Pump				\$5,000							\$5,000
Chasis Grease Pump				\$5,000							\$5,000
Pump Lift				\$10,000							\$10,000
Fluid Monitoring				\$5,000							\$5,000
Spill Containment Pallets (3)				\$1,000							\$1,000
Pallet Racks (8)				\$8,000							\$8,000
Bulk Storage Racks (12)				\$12,000							\$12,000
30"Wx27"Dx5'H Drawers w/4' High Shelves (18)				\$10,000							\$10,000
4'Wx3'Dx8'H Shelves (4)				\$500							\$500
6'Wx3'Dx8'H Shelves (6)				\$650							\$650
6'Wx2'Dx8'H Shelves (6)				\$650							\$650
30"Wx27"Dx5'H Cabinet (3)				\$500							\$500
6'Wx3'Dx8'H Shelves (8)				\$1,200							\$1,200
Drill Press - Ibarria SZ-32				\$10,000							\$10,000
Bulk Storage Racks				\$3,000							\$3,000
Portable Fume Extractor				\$5,000							\$5,000
Paratransit Dispenser (2) - Bennet Fuel Pump				\$14,000							\$14,000
Tunnel Infrastructure Updates (6 of 15)								\$1,000,000			\$1,000,000
FY 2040	\$200,000	\$490,178			\$88,000			\$2,000,000			\$2,778,178
Interiors		\$15,178									\$15,178
Restroom fixtures and accessories		\$15,178									\$15,178
Plumbing	\$200,000	\$475,000			\$88,000						\$763,000
Domestic Water		\$237,500									\$237,500
Natural Gas		\$95,000			\$88,000						\$183,000
Plumbing System	\$200,000										\$200,000
Storm Drainage		\$142,500									\$142,500
Tunnel Infrastructure Updates (7 of 15)								\$2,000,000			\$2,000,000
Updates (8 of 15)								\$1,000,000			\$1,000,000
FY 2041				\$226,000	\$352,000			\$2,000,000			\$2,578,000
Plumbing				\$226,000	\$352,000						\$578,000
Storm and Drainage				\$226,000	\$352,000						\$578,000
Tunnel Infrastructure Updates (9 of 15)								\$2,000,000			\$2,000,000
Updates (10 of 15)								\$1,000,000			\$1,000,000
FY 2042	\$12,451	\$55,660	\$22,000	\$67,000	\$176,465		\$89,568	\$80,000	\$2,000,000		\$2,503,144
Interiors	\$12,451										\$12,451
Epoxy flooring and cove base	\$12,451										\$12,451
Shell		\$55,660			\$176,465		\$89,568				\$261,693
Existing relocated granite cornice					\$58,188						\$58,188

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Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Exterior overhead coiling doors		\$55,660									\$55,660
Overhead coiling doors					\$118,278						\$118,278
Membrane roofing							\$29,568				\$29,568
Site			\$22,000				\$60,000				\$82,000
Entrance Gate - 26'x8' Structural Cantilever Slide Gate							\$40,000				\$40,000
Entrance Gate - Center Sliding Gate							\$20,000				\$20,000
Entrance Gate - 32'x8' Security Gate			\$22,000								\$22,000
Infrastructure								\$80,000			\$80,000
Pavement Markings - Bus Lanes								\$30,000			\$30,000
Transit Signal Priority System								\$50,000			\$50,000
Site				\$67,000							\$67,000
Entrance Gate - 26'x8' Structural Cantilever Slide Gate				\$20,000							\$20,000
Entrance Gate - 10'x8' Heavy Duty Swing Gate				\$7,000							\$7,000
Entrance Gate - 12'-7"x8' Structural Cantilever Slide Gate				\$40,000							\$40,000
Tunnel Infrastructure									\$2,000,000		\$2,000,000
Updates (11 of 15)									\$1,000,000		\$1,000,000
Updates (12 of 15)									\$1,000,000		\$1,000,000
FY 2043		\$136,906	\$15,284	\$158,686	\$152,598		\$6,346		\$3,000,000		\$3,469,820
Interiors		\$136,906	\$15,284	\$65,196	\$32,598		\$6,346				\$256,330
Acoustic ceiling tiles and grids		\$136,906									\$136,906
Overhead garage doors			\$8,695								\$8,695
Restroom & locker room fixtures and accessories					\$32,598						\$32,598
Restroom fixtures and accessories			\$6,589								\$6,589
Restroom fixtures and accessories				\$65,196							\$65,196
Interior lighting fixtures							\$6,346				\$6,346
Shell				\$93,490							\$93,490
Overhead coiling doors				\$93,490							\$93,490
Site					\$120,000						\$120,000
Entrance Gate - 20'x8' Structural Cantilever Slide Gate					\$60,000						\$60,000
Entrance Gate - 25'x8' Structural Cantilever Slide Gate					\$20,000						\$20,000
Entrance Gate - 15'x8' Structural Cantilever Slide Gate					\$40,000						\$40,000
Tunnel Infrastructure									\$3,000,000		\$3,000,000
Updates (13 of 15)									\$1,000,000		\$1,000,000
Updates (14 of 15)									\$1,000,000		\$1,000,000
Updates (15 of 15)									\$1,000,000		\$1,000,000
FY 2044			\$390,000					\$596,500		\$1,496,000	\$2,482,500
Shell			\$390,000								\$390,000

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Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Overhead Door - 12'-0" x 12'-0" LH Interior Mount			\$65,000								\$65,000
Overhead Door - 12'-0" x 12'-0" RH Interior Mount			\$65,000								\$65,000
Overhead Door - 20'-7" x 12'-0" LH Interior Mount			\$130,000								\$130,000
Overhead Door - 15'-11" x 12'-0" LH Interior Mount			\$65,000								\$65,000
Overhead Door - 15'-11" x 12'-0" RH Interior Mount			\$65,000								\$65,000
Freestanding Structure								\$596,500		\$24,000	\$620,500
Bus Shelter (Small) - Dorrance St. Northbound								\$52,000			\$52,000
Bus Shelter (Medium) - Dorrance St. Southbound								\$71,500			\$71,500
Bus Shelter (Large) - Dyer St. Northbound								\$84,500			\$84,500
Bus Shelter (Large) - Dyer St. Southbound								\$84,500			\$84,500
Bus Shelter (Small) - South Street Northbound								\$52,000			\$52,000
Bus Shelter (Small) - South St. Southbound								\$52,000			\$52,000
DTC Driver Restroom								\$200,000			\$200,000
Bus Shelter										\$24,000	\$24,000
Site										\$1,472,000	\$1,472,000
Site Benches (8)										\$12,000	\$12,000
Bike Racks (12)										\$5,000	\$5,000
Site Lighting (60)										\$230,000	\$230,000
Bus Hub Concrete Pavement										\$600,000	\$600,000
Tactile Surfaces										\$45,000	\$45,000
Granite Curbing										\$100,000	\$100,000
Concrete Sidewalks										\$220,000	\$220,000
Bus Hub Subsurface Drainage System										\$30,000	\$30,000
Turf and Plantings										\$230,000	\$230,000
Grand Total	\$1,605,323	\$5,367,166	\$2,780,474	\$10,448,949	\$9,072,870	\$7,783,872	\$2,320,126	\$676,500	\$15,000,000	\$1,536,000	\$56,591,279

Final Assessment Report

\$5million Per Year Expenditure: Summary By Location / Fiscal Year

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
FY 2024	\$1,000,000	\$110,000	\$150,000		\$146,000	\$3,085,194	\$570,000				\$5,061,194
Fire Protection			\$150,000			\$355,000	\$200,000				\$705,000
Fire Sprinklers			\$150,000			\$355,000	\$200,000				\$705,000
HVAC	\$1,000,000				\$96,000	\$830,000	\$370,000				\$2,296,000
AC, Boilers, Radiant Heating	\$1,000,000										\$1,000,000
Comfort Cooling					\$96,000						\$96,000
Comfort Heating and Cooling							\$350,000				\$350,000
Exhaust System						\$278,000	\$20,000				\$298,000
Air-Side Mechanical System						\$552,000					\$552,000
Plumbing		\$110,000			\$50,000	\$556,000					\$716,000
Hot-Water System					\$50,000	\$16,000					\$66,000
Plumbing Fixtures		\$110,000				\$132,500					\$242,500
Sanitary Drainage						\$257,500					\$257,500
Storm Drainage						\$150,000					\$150,000
Shell						\$1,344,194					\$1,344,194
Roofing – ballasted						\$1,344,194					\$1,344,194
FY 2025	\$100,530	\$836,000	\$754,360	\$98,000	\$7,500	\$2,995,326	\$196,040				\$4,987,757
Electrical	\$100,530		\$37,188		\$7,500	\$886,215	\$148,474				\$1,179,907
Exterior Lighting System	\$7,500				\$7,500		\$7,500				\$22,500
Fire Alarm System						\$287,448	\$7,625				\$295,073
Garage Lighting System							\$110,722				\$110,722
Office/Storage Lighting System	\$93,030					\$553,540					\$646,570
Service and Distribution			\$37,188			\$45,227	\$22,627				\$105,042
Equipment		\$70,000	\$99,172								\$169,172
Bus wash			\$99,172								\$99,172
Bush Wash		\$70,000									\$70,000
HVAC		\$466,000	\$543,000								\$1,009,000
Exhaust System		\$466,000									\$466,000
MAU and Exhaust System			\$375,000								\$375,000
Office Area Comfort Heating and Cooling			\$168,000								\$168,000
Plumbing						\$413,000					\$413,000
Compressed Air						\$200,000					\$200,000
Domestic Water						\$213,000					\$213,000
Shell						\$1,696,111	\$47,566				\$1,743,677
Exterior Walls, Brick						\$789,600					\$789,600
Exterior office windows						\$489,600					\$489,600
Exterior steel windows						\$350,096					\$350,096
Roof head houses and EQ						\$25,248					\$25,248
Storefront, Metal-framed with Glazing						\$14,090					\$14,090
Roof Skylight						\$8,250					\$8,250
Roof access ladder, steel						\$2,297					\$2,297
Steel exterior doors, frames, and hardware						\$16,931					\$16,931
Exterior louvers, frames, and bird/insect screens							\$2,290				\$2,290
Roof insulation							\$45,276				\$45,276
Storage Tank - Below Ground		\$300,000	\$75,000								\$375,000
20,000 gal Diesel			\$75,000								\$75,000
20,000 gal Diesel - Tank 1		\$75,000									\$75,000
20,000 gal Diesel - Tank 2		\$75,000									\$75,000

Final Assessment Report

	Cost By Fiscal Year										
Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
20,000 gal Diesel - Tank 3		\$75,000									\$75,000
6,000 gal Unleaded Gas - Tank 4		\$75,000									\$75,000
Equipment				\$98,000							\$98,000
40' Bus Dispenser - Bennet Fuel Pump				\$7,000							\$7,000
Wayne Fuel Pump (outside fueling)				\$16,000							\$16,000
Fuel Management Control Terminal (2) - Coencorp Fuelzone Terminal				\$20,000							\$20,000
Hydraulic Press 100 ton (2)				\$50,000							\$50,000
Radial Press				\$5,000							\$5,000
FY 2026	\$33,863	\$436,358		\$518,810	\$2,125,120	\$848,071	\$24,164		\$1,000,000		\$4,986,385
Electrical	\$21,518	\$38,858			\$50,120						\$110,496
Exterior Lighting System		\$7,500									\$7,500
Fire Alarm System	\$3,500	\$31,358									\$34,858
Service and Distribution	\$18,018				\$50,120						\$68,138
Interiors	\$12,345					\$848,071	\$3,384				\$863,800
Gypsum ceilings	\$12,345										\$12,345
Acoustic ceiling tile and grid systems.						\$237,160					\$237,160
Interior gypsum partitions/walls						\$221,088					\$221,088
Carpet flooring						\$95,634					\$95,634
Interior F2 Doors						\$91,402					\$91,402
Vinyl tile flooring						\$81,000					\$81,000
Interior stairs, Fire Exit						\$33,825					\$33,825
Interior gypsum board ceilings						\$20,262					\$20,262
Ceramic wall tile						\$18,000					\$18,000
Interior steel doors						\$37,039					\$37,039
Interior fire rated doors						\$12,662					\$12,662
Carpet flooring							\$3,384				\$3,384
Plumbing		\$397,500		\$40,000							\$437,500
Hot-Water System				\$40,000							\$40,000
Sanitary Drainage		\$397,500									\$397,500
Site				\$478,810			\$20,780				\$499,590
Site work and Parking Lot				\$478,810							\$478,810
Exterior concrete pads and walking surfaces.							\$20,780				\$20,780
Equipment					\$2,075,000						\$2,075,000
Vehicle Lift (Drive On) (11)					\$385,000						\$385,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02081					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02082					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02084					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221B-02085					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221D-02094					\$130,000						\$130,000

Final Assessment Report

	Cost By Fiscal Year										
Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 221D-02095					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 220J-02057					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 220J-02058					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 220J-02059					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 200J-02060					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 200D-02091					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 200D02092					\$130,000						\$130,000
Vehicle Lift (Bus) - Stertil KONI ECO60-13: 222D-02203					\$130,000						\$130,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
Updates (1 of 15)									\$1,000,000		\$1,000,000
FY 2027		\$390,200	\$612,600	\$1,811,800	\$1,063,936	\$290,405	\$856,717				\$5,025,658
Conveyance				\$453,500	\$104,280						\$557,780
Elevator					\$104,280						\$104,280
Elevator				\$453,500							\$453,500
Electrical						\$7,500					\$7,500
Exterior Lighting System						\$7,500					\$7,500
Equipment							\$140,000				\$140,000
Vehicle lifts							\$140,000				\$140,000
Interiors						\$5,290	\$135,542				\$140,832
Acoustic ceiling tiles and grids							\$80,850				\$80,850
Toilet partitions - metal						\$5,290					\$5,290
Through-wall piping and conduit penetrations.							\$2,567				\$2,567
VCT Flooring and rubber base.							\$52,125				\$52,125
Plumbing		\$216,000	\$350,000	\$550,000	\$380,000		\$250,000				\$1,746,000
Compressed Air		\$200,000		\$350,000	\$300,000						\$850,000
Hot-Water System		\$16,000									\$16,000
Plumbing Fixtures				\$200,000	\$80,000						\$280,000
Plumbing System			\$350,000				\$250,000				\$600,000
Shell						\$175,935	\$331,175				\$507,110
Overhead steel garage doors						\$153,063					\$153,063
Roof - Membrane						\$22,872					\$22,872
Exterior steel doors and frames.							\$4,373				\$4,373
Pitched roof metal fascia							\$4,530				\$4,530
Windows and frames							\$45,210				\$45,210
Batten seam metal roof							\$277,063				\$277,063
Site					\$272,356	\$97,680					\$370,035
Roadways and paving					\$272,356						\$272,356
Site work and Parking Lot						\$97,680					\$97,680
Storage Tank - Above Ground		\$174,200	\$262,600	\$284,300	\$307,300	\$4,000					\$1,032,400
Bus Wash		\$2,000									\$2,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
30 gal Hydraulic Fluid						\$2,000					\$2,000
Interior and Floor Bus Wash						\$2,000					\$2,000
DEF Fluid		\$4,000									\$4,000
500 gal Motor Oil (15W40)		\$4,600									\$4,600
500 gal Antifreeze		\$4,600									\$4,600
500 gal Windshield Wash Fluid		\$2,400									\$2,400
125 gal Diesel Generator (3E)		\$4,600									\$4,600
30 gal Hydraulic Fluid, Trash Compactor		\$2,000									\$2,000
Floor Wash		\$2,000			\$2,000						\$4,000
Static Glass Cleaner		\$2,000									\$2,000
Interior and Floor Wash		\$2,000									\$2,000
1,000 gal OWS		\$59,000	\$60,000		\$60,000						\$179,000
3,000 gal OWS		\$85,000	\$85,000								\$170,000
1000 gal Waste ATF					\$6,700						\$6,700
500 gal Waste Anti-Freeze					\$4,600						\$4,600
500 gal Virgin Anti-Freeze					\$9,200						\$9,200
1000 gal Waste Oil					\$6,700						\$6,700
1000 gal Motor Oil (15W40)					\$13,400						\$13,400
1000 gal Hybrid Transmission Fluid					\$6,700						\$6,700
475 gal Diesel Generator					\$190,000						\$190,000
A/C Coil Cleaner					\$2,000						\$2,000
Degreaser					\$2,000						\$2,000
Floor Scrub/General					\$2,000						\$2,000
Rim Cleaner					\$2,000						\$2,000
500 gal Antifreeze			\$2,400								\$2,400
500 gal Transmission Fluid			\$4,600								\$4,600
500 gal Motor Oil			\$4,600								\$4,600
500 gal			\$4,600								\$4,600
500 gal Waste Oil			\$4,600								\$4,600
500 gal Sanborn Unit which processes pit drains			\$4,600								\$4,600
28 gal (2 at 14 gal each) hydraulic oil tank (lifts)			\$2,000								\$2,000
130 gal Diesel Emergency Generator			\$4,000								\$4,000
400 gal Electrical Transformer			\$4,000								\$4,000
30 gal Hydraulic Oil Trash Compactor			\$2,000								\$2,000
20000 gal Diesel			\$75,000								\$75,000
100 gal Floor Soap			\$1,300								\$1,300
100 gal Antistatic Glass			\$1,300								\$1,300
100 gal Bus Int. and Floor Soap			\$1,300								\$1,300
100 gal Outside Bus Cleaner			\$1,300								\$1,300
10,000 gal Unleaded Gasoline. Highland Tank Fireguard				\$46,000							\$46,000
20,000 gal Diesel. Highland Tank Fireguard				\$150,000							\$150,000
1,000 gal Oil				\$6,700							\$6,700
500 gal ATF				\$9,200							\$9,200

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
500 gal Windshield Fluid				\$2,400							\$2,400
1000 gal Waste Oil				\$6,700							\$6,700
500 gal Lube Oil				\$4,600							\$4,600
500 gal Anti-Freeze				\$4,600							\$4,600
1000 gal Multi-Viscosity Oil				\$6,700							\$6,700
55 gal Gear Oil Drum				\$1,400							\$1,400
55 gal Grease Drum				\$1,400							\$1,400
30 gal Hydraulic Fluid				\$1,000							\$1,000
250 gal DW Diesel Generator. Caterpillar				\$3,000							\$3,000
400 gal (non-PBC) mineral oil dielectric fluid transformer				\$4,600							\$4,600
Diesel Generator - Caterpillar 150kW Generator				\$36,000							\$36,000
Storage Tank - Below Ground				\$524,000							\$524,000
1,000 gal OWS				\$60,000							\$60,000
5,000 gal OWS pre sewer outfall				\$22,000							\$22,000
10,000 gal OWS at bus wash				\$42,000							\$42,000
1,500 gal OWS at undercarriage room				\$15,000							\$15,000
1,000 emergency spill tank				\$15,000							\$15,000
5,000 gal OWS				\$125,000							\$125,000
10,000 gal OWS				\$180,000							\$180,000
1,500 gal Spill Containment Tank				\$65,000							\$65,000
FY 2028	\$65,869	\$13,169	\$353,142	\$82,500	\$2,350,691	\$27,226			\$2,000,000		\$4,892,596
<i>Electrical</i>			<i>\$199,439</i>								<i>\$199,439</i>
Exterior Lighting System			\$7,500								\$7,500
Fire Alarm System			\$67,925								\$67,925
Office/Storage Lighting System			\$124,014								\$124,014
Equipment			\$105,000								\$105,000
Vehicle lifts			\$105,000								\$105,000
HVAC					\$2,070,000						\$2,070,000
Comfort Heating					\$1,600,000						\$1,600,000
Exhaust System					\$470,000						\$470,000
<i>Interiors</i>	<i>\$65,869</i>	<i>\$13,169</i>				<i>\$27,226</i>					<i>\$106,264</i>
Carpet tile flooring and base		\$13,169									\$13,169
Interior casework, millwork, office furniture and equipment	\$65,869										\$65,869
Ceramic tile flooring						\$27,226					\$27,226
Shell			\$48,703		\$170,691						\$219,394
Exterior overhead coiling doors			\$48,703								\$48,703
Membrane roofing + rigid insulation					\$170,691						\$170,691
Equipment				\$82,500	\$110,000						\$192,500
Oil Filter Crusher				\$5,000							\$5,000
3 Ton Crane					\$90,000						\$90,000
3 Ton Jib Crane					\$20,000						\$20,000
Wheel Balancer				\$7,500							\$7,500
Mount/Demount				\$20,000							\$20,000
Battery Charger (2)				\$6,000							\$6,000
Batter Charger (5)				\$10,000							\$10,000
Charging Distribution Board (2)				\$5,000							\$5,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Circular Chart Recorder				\$4,000							\$4,000
Fuel Management Control Terminal				\$5,000							\$5,000
Hot Water Pressure Washer 3000 PSI				\$20,000							\$20,000
Tunnel Infrastructure									\$2,000,000		\$2,000,000
Updates (2 of 15)									\$1,000,000		\$1,000,000
Updates (3 of 15)									\$1,000,000		\$1,000,000
FY 2029		\$906,129		\$3,265,891	\$662,740						\$4,834,760
Electrical		\$906,129		\$750,891	\$502,740						\$2,159,760
Exterior Lighting System				\$15,000							\$15,000
Fire Alarm System				\$19,483							\$19,483
Garage Lighting System		\$906,129			\$502,740						\$1,408,869
Office/Storage Lighting System				\$716,409							\$716,409
HVAC				\$1,750,000							\$1,750,000
Comfort Heating and Cooling				\$350,000							\$350,000
Exhaust System and MAU				\$1,400,000							\$1,400,000
Storage Tank - Above Ground					\$160,000						\$160,000
6000 gal OWS					\$160,000						\$160,000
Equipment				\$765,000							\$765,000
Dispensing Reel - Type 4				\$7,500							\$7,500
Ride-On Power floor Scrubber				\$60,000							\$60,000
Hot Water Pressure Washer 3000 PSI				\$20,000							\$20,000
Water Recycling System				\$20,000							\$20,000
Brake Lathe, Large				\$20,000							\$20,000
Brake Lathe, Small				\$10,000							\$10,000
Arbor Press				\$10,000							\$10,000
Fuel Monitoring System Panel - TLS350				\$8,000							\$8,000
Fuel Management Panel				\$5,000							\$5,000
Radial Arm Saw				\$5,000							\$5,000
60 HP Spinner Pump (2)				\$45,000							\$45,000
30 HP Wheel Pump (2)				\$25,000							\$25,000
20 HP Reclaim Console (3)				\$12,000							\$12,000
Detergent Pumps (2)				\$4,000							\$4,000
Washer Control (2)				\$4,000							\$4,000
Varioable Speed Drives				\$25,000							\$25,000
Vehicle Lift - Restored Drive-On (6)				\$210,000							\$210,000
Dispensing Reel - Type 3				\$7,500							\$7,500
Dispensing Reel - Type 2				\$7,500							\$7,500
Dispensing Reel - Type 1 (11)				\$82,500							\$82,500
Work Bench (20)				\$20,000							\$20,000
Work Bench w/ Vice (8)				\$12,000							\$12,000
Fork Lift				\$30,000							\$30,000
Scizzor Lift				\$20,000							\$20,000
Walk-Behind Power Floor Scrubber				\$30,000							\$30,000
Sump Pump				\$15,000							\$15,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Jib Grane				\$20,000							\$20,000
Hoist				\$30,000							\$30,000
FY 2030		\$335,567	\$396,685	\$2,381,940	\$269,596	\$537,650	\$179,901		\$1,000,000		\$5,101,338
Electrical		\$335,567	\$396,685	\$1,381,940	\$179,901	\$537,650	\$179,901				\$3,011,643
Garage Lighting System			\$396,685	\$1,223,334		\$537,650					\$2,157,669
Office/Storage Lighting System		\$254,416			\$179,901		\$179,901				\$614,217
Service and Distribution		\$81,151		\$158,606							\$239,757
Interiors					\$89,695						\$89,695
Acoustic ceiling tiles and grids					\$89,695						\$89,695
Equipment				\$1,000,000							\$1,000,000
Bus Washer (2)				\$1,000,000							\$1,000,000
Tunnel Infrastructure								\$1,000,000			\$1,000,000
Updates (4 of 15)								\$1,000,000			\$1,000,000
FY 2031	\$42,610	\$1,182,000	\$86,404	\$1,688,822	\$796,000		\$55,650	\$1,000,000	\$40,000		\$4,891,486
Equipment				\$99,172							\$99,172
Bus Wash				\$99,172							\$99,172
HVAC		\$1,182,000									\$1,182,000
MAUs		\$832,000									\$832,000
Office Area Comfort Heating and Cooling		\$350,000									\$350,000
Interiors	\$42,610		\$86,404								\$129,014
Acoustic ceiling tiles and grids			\$60,638								\$60,638
Interior Steel doors and frames			\$25,766								\$25,766
Interior wood benches	\$2,000										\$2,000
Public restroom fixtures, toilet partitions, and accessories	\$21,622										\$21,622
Raised flooring system	\$2,268										\$2,268
Stone wall tile	\$16,720										\$16,720
Shell				\$29,650			\$55,650				\$85,300
Aluminum automatic entrances				\$29,650							\$29,650
Overhead garage doors							\$55,650				\$55,650
Site									\$40,000		\$40,000
CCTV Cameras									\$20,000		\$20,000
Illuminated Crosswalk System									\$20,000		\$20,000
Equipment				\$1,560,000	\$796,000						\$2,356,000
Dispensing Reel - Type 5					\$7,500						\$7,500
Dispensing Reel - Type 4					\$7,500						\$7,500
Dispensing Reel - Type 3 (6)					\$45,000						\$45,000
Dispensing Reel - Type 2 (17)					\$127,500						\$127,500
Dispensing Reel - Type 1 (9)					\$67,500						\$67,500
Engine Exhaust Reel (23)					\$92,000						\$92,000
Work Bench w/ Vise (50)					\$75,000						\$75,000
Drill Press (8)					\$40,000						\$40,000
Radial Drill Press					\$5,000						\$5,000
Sheet Metal Shear					\$5,000						\$5,000
Wheel Balancer					\$10,000						\$10,000
Tire Machine					\$10,000						\$10,000
30 Ton Press					\$4,000						\$4,000
Transmission Dynamometer & Console					\$100,000						\$100,000

Final Assessment Report

	Cost By Fiscal Year										
Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Engine Dynamometer & Console					\$100,000						\$100,000
Chasis Dynamometer					\$100,000						\$100,000
Vehicle Lift - In-Ground w/Control Console (12) - Stertil KONI ECO60-13				\$1,560,000							\$1,560,000
Tunnel Infrastructure									\$1,000,000		\$1,000,000
Updates (5 of 15)									\$1,000,000		\$1,000,000
FY 2032	\$150,000	\$475,000		\$149,500	\$970,225		\$341,740		\$3,000,000		\$5,086,465
Electrical					\$22,225						\$22,225
Fire Alarm System					\$22,225						\$22,225
Fire Protection	\$150,000	\$475,000			\$440,000						\$1,065,000
Fire Sprinklers	\$150,000	\$475,000			\$440,000						\$1,065,000
Interiors							\$341,740				\$341,740
Interior Steel doors and frames							\$23,212				\$23,212
Restroom fixtures and accessories							\$3,348				\$3,348
Plaster ceilings							\$6,012				\$6,012
Interior drywall Partitions							\$15,700				\$15,700
Interior furniture and fixtures							\$293,468				\$293,468
Plumbing					\$88,000						\$88,000
Natural Gas					\$88,000						\$88,000
Equipment				\$149,500	\$420,000						\$569,500
55 Ton Press					\$6,000						\$6,000
100 Ton Press					\$6,000						\$6,000
Water Recycler					\$20,000						\$20,000
Brake Lathe (3)					\$30,000						\$30,000
Oil Filter Crusher					\$10,000						\$10,000
Hot Water Pressure Washer 3000 PSI					\$20,000						\$20,000
Hot Water Pressure Washer					\$20,000						\$20,000
Mobile Scissor Lift					\$3,000						\$3,000
High Density Storage					\$20,000						\$20,000
Parts Storage, Cantilever Racks, Shelving, Bulk Storage					\$30,000						\$30,000
Walking Stackers					\$20,000						\$20,000
Fork Lift					\$45,000						\$45,000
Hauling Tractor					\$20,000						\$20,000
Ride-On Power floor Scrubber					\$60,000						\$60,000
Walk-Behind Power Floor Scrubber (2)					\$60,000						\$60,000
1 Ton Jib Crane					\$20,000						\$20,000
1 Ton Bridge Crane					\$30,000						\$30,000
Carbon Monoxide Detection System (35)				\$25,000							\$25,000
Nitrogen Dioxide Detection System (35)				\$25,000							\$25,000
Hydrogen Sulfide Detector (1)				\$8,000							\$8,000
Gear Oil Pump				\$5,000							\$5,000
Chasis Grease Pump				\$5,000							\$5,000
Pump Lift				\$10,000							\$10,000
Fluid Monitoring				\$5,000							\$5,000
Spill Containment Pallets (3)				\$1,000							\$1,000
Pallet Racks (8)				\$8,000							\$8,000
Bulk Storage Racks (12)				\$12,000							\$12,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
30"Wx27"Dx5'H Drawers w/4' High Shelves (18)				\$10,000							\$10,000
4'Wx3'Dx8'H Shelves (4)				\$500							\$500
6'Wx3'Dx8'H Shelves (6)				\$650							\$650
6'Wx2'Dx8'H Shelves (6)				\$650							\$650
30"Wx27"Dx5'H Cabinet (3)				\$500							\$500
6'Wx3'Dx8'H Shelves (8)				\$1,200							\$1,200
Drill Press - Ibarria SZ-32				\$10,000							\$10,000
Bulk Storage Racks				\$3,000							\$3,000
Portable Fume Extractor				\$5,000							\$5,000
Paratransit Dispenser (2) - Bennet Fuel Pump				\$14,000							\$14,000
Tunnel Infrastructure									\$3,000,000		\$3,000,000
Updates (6 of 15)									\$1,000,000		\$1,000,000
Updates (7 of 15)									\$1,000,000		\$1,000,000
Updates (8 of 15)									\$1,000,000		\$1,000,000
FY 2033	\$212,451	\$545,838	\$22,000	\$451,686	\$528,465		\$89,568	\$80,000	\$3,000,000		\$4,930,008
<i>Interiors</i>	<i>\$12,451</i>	<i>\$15,178</i>		<i>\$65,196</i>							<i>\$92,825</i>
Epoxy flooring and cove base	\$12,451										\$12,451
Restroom fixtures and accessories		\$15,178		\$65,196							\$80,374
Plumbing	\$200,000	\$475,000		\$226,000	\$352,000						\$1,253,000
Domestic Water		\$237,500									\$237,500
Natural Gas		\$95,000									\$95,000
Plumbing System	\$200,000										\$200,000
Storm and Drainage				\$226,000	\$352,000						\$578,000
Storm Drainage		\$142,500									\$142,500
<i>Shell</i>		<i>\$55,660</i>		<i>\$93,490</i>	<i>\$176,465</i>		<i>\$29,568</i>				<i>\$355,183</i>
Existing relocated granite cornice					\$58,188						\$58,188
Exterior overhead coiling doors		\$55,660									\$55,660
Overhead coiling doors				\$93,490	\$118,278						\$211,768
Membrane roofing							\$29,568				\$29,568
Site			\$22,000				\$60,000				\$82,000
Entrance Gate - 26'x8' Structural Cantilever Slide Gate							\$40,000				\$40,000
Entrance Gate - Center Sliding Gate							\$20,000				\$20,000
Entrance Gate - 32'x8' Security Gate			\$22,000								\$22,000
Infrastructure								\$80,000			\$80,000
Pavement Markings - Bus Lanes								\$30,000			\$30,000
Transit Signal Priority System								\$50,000			\$50,000
Site				\$67,000							\$67,000
Entrance Gate - 26'x8' Structural Cantilever Slide Gate				\$20,000							\$20,000
Entrance Gate - 10'x8' Heavy Duty Swing Gate				\$7,000							\$7,000

Final Assessment Report

Location	Cost By Fiscal Year										
	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Entrance Gate - 12'-7"x8' Structural Cantilever Slide Gate				\$40,000							\$40,000
Tunnel Infrastructure									\$3,000,000		\$3,000,000
Updates (9 of 15)									\$1,000,000		\$1,000,000
Updates (10 of 15)									\$1,000,000		\$1,000,000
Updates (11 of 15)									\$1,000,000		\$1,000,000
FY 2034		\$136,906	\$405,284		\$152,598		\$6,346		\$4,000,000		\$4,701,134
<i>Interiors</i>		\$136,906	\$15,284		\$32,598		\$6,346				\$191,134
Acoustic ceiling tiles and grids		\$136,906									\$136,906
Overhead garage doors			\$8,695								\$8,695
Restroom & locker room fixtures and accessories					\$32,598						\$32,598
Restroom fixtures and accessories			\$6,589								\$6,589
Interior lighting fixtures							\$6,346				\$6,346
Shell			\$390,000								\$390,000
Overhead Door - 12'-0" x 12'-0" LH Interior Mount			\$65,000								\$65,000
Overhead Door - 12'-0" x 12'-0" RH Interior Mount			\$65,000								\$65,000
Overhead Door - 20'-7" x 12'-0" LH Interior Mount			\$130,000								\$130,000
Overhead Door - 15'-11" x 12'-0" LH Interior Mount			\$65,000								\$65,000
Overhead Door - 15'-11" x 12'-0" RH Interior Mount			\$65,000								\$65,000
Site					\$120,000						\$120,000
Entrance Gate - 20'x8' Structural Cantilever Slide Gate					\$60,000						\$60,000
Entrance Gate - 25'x8' Structural Cantilever Slide Gate					\$20,000						\$20,000
Entrance Gate - 15'x8' Structural Cantilever Slide Gate					\$40,000						\$40,000
Tunnel Infrastructure									\$4,000,000		\$4,000,000
Updates (12 of 15)									\$1,000,000		\$1,000,000
Updates (13 of 15)									\$1,000,000		\$1,000,000
Updates (14 of 15)									\$1,000,000		\$1,000,000
Updates (15 of 15)									\$1,000,000		\$1,000,000
FY 2035								\$596,500		\$1,496,000	\$2,092,500
Freestanding Structure								\$596,500		\$24,000	\$620,500
Bus Shelter (Small) - Dorrance St. Northbound								\$52,000			\$52,000

Final Assessment Report

	Cost By Fiscal Year										
Location	1 Kennedy Plaza	269 Melrose St	350 Coddington Ave	705 Elmwood Ave	750 Elmwood Ave	265 Melrose St	325 Melrose St	DTC	East Side Tunnel	Pawtucket Central Falls	Grand Total
Bus Shelter (Medium) - Dorrance St. Southbound								\$71,500			\$71,500
Bus Shelter (Large) - Dyer St. Northbound								\$84,500			\$84,500
Bus Shelter (Large) - Dyer St. Southbound								\$84,500			\$84,500
Bus Shelter (Small) - South Street Northbound								\$52,000			\$52,000
Bus Shelter (Small) - South St. Southbound								\$52,000			\$52,000
DTC Driver Restroom								\$200,000			\$200,000
Bus Shelter Site										\$24,000	\$24,000
Site Benches (8)										\$1,472,000	\$1,472,000
Bike Racks (12)										\$12,000	\$12,000
Site Lighting (60)										\$5,000	\$5,000
Bus Hub Concrete Pavement										\$230,000	\$230,000
Tactile Surfaces										\$600,000	\$600,000
Granite Curbing										\$45,000	\$45,000
Concrete Sidewalks										\$100,000	\$100,000
Bus Hub Subsurface Drainage System										\$220,000	\$220,000
Turf and Plantings										\$30,000	\$30,000
Grand Total	\$1,605,323	\$5,367,166	\$2,780,474	\$10,448,949	\$9,072,870	\$7,783,872	\$2,320,126	\$676,500	\$15,000,000	\$1,536,000	\$56,591,279

APPENDIX B
FLEET PLAN (AS OF JUNE 30, 2025)

FIXED-ROUTE PLAN

Fleet Year	Vehicle Type	ifecycle (Yr:Retirement)	FY20	FY21 Order	FY21	FY22 Order	FY22	FY23 Order	FY23	FY24 Order	FY24	FY25 Order	FY25	FY26 Order	FY26	FY27 Order	FY27	FY28 Order	FY28	FY29 Order	FY29	FY30 Order	FY30
2005	Gillig 40' Diesel	12 2017	8	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009	Gillig 40' Diesel	12 2021	24		24	-14	10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	Gillig 35' Hybrid-Electric Trolley	12 2022	10		10	-2	8	-2	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	Gillig 40' Hybrid-Electric	12 2022	52	-16	36		36	-16	20	-20	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	Gillig 35' Diesel	12 2022	10		10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013	Gillig 40' Diesel	12 2025	50		50		50		50	-9	42	42	-14	28	-25	3	-3	0	0	0	0	0	0
2016	Gillig 40' Diesel	12 2028	42		42		42		42		42	42		42		42	-22	20	-20	0	0	0	0
2018	Proterra 40' Battery-Electric	12 2030	3		3		3		3		3	-3	0	0	0	0	0	0	0	0	0	0	0
2019	Gillig 40' Diesel	12 2031	33		33		33		33		33	33		33		33		33	-5	28	-28	0	0
2020	Gillig 30' Diesel	12 2032	0	9	9		9		9		9	9		9		9		9		9		9	9
2020	Gillig 40' Diesel	12 2032	0	15	15		15		15		15	15		15		15		15		15		15	15
2022	New Flyer 40' Battery-Electric	12 2034	0		0	14	14		14		14	14		14		14		14		14		14	14
2022	Gillig 35' Diesel	12 2034	0		0	12	12		12		12	12		12		12		12		12		12	12
2023	Gillig 40' Diesel	12 2035	0		0		0	28	28		28	28		28		28		28		28		28	28
2024	Gillig 40' Diesel	12 2036	0		0		0		0	29	29		29		29		29		29		29		29
2026	35' Hybrid-Electric	12 2038	0		0		0		0		0		17	17		17		17		17		17	17
2027	40' Hybrid-Electric	12 2039	0		0		0		0		0		0	0	25	25		25		25		25	25
2028	35' Newport Battery-Electric	12 2040	0		0		0		0		0		0	5	5		5		5		5		5
2028	40' Newport Battery-Electric	12 2040	0		0		0		0		0		0	0	0	20	20		20		20		20
2029	40' Hybrid-Electric	12 2041	0		0		0		0		0		0	0	0	0		0		25		25	25
2030	40' Hybrid Electric	12 2042	0		0		0		0		0		0	0	0	0		0		0		28	28
TOTALS			232	24	232	26	232	28	232	29	233	0	233	17	227	25	227	25	227	25	227	28	227

FLEX PLAN

Fleet Year	Vehicle Type	Lifecycle	Retirement	FY20	FY21 Order	FY21	FY22 Order	FY22	FY23 Order	FY23	FY24 Order	FY24	FY25 Order	FY25	FY26 Order	FY26	FY27 Order	FY27	FY28 Order	FY28	FY29 Order	FY29	FY30 Order	FY30
2011	Flex Cutaway	5	2016	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012	Flex Cutaway	5	2017	3	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	Flex Cutaway	5	2020	11	-6	5	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2022	Flex Cutaway	5	2027	0	10	10	10	10	10	10	10	10	10	10	10	-10	0	0	0	0	0	0	0	0
2023	Flex Cutaway	5	2028	0	0	0	5	5	5	5	5	5	5	5	5	5	5	-5	0	0	0	0	0	0
2024	Flex Cutaway	5	2029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	Flex Cutaway	5	2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2026	Flex Cutaway	5	2031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2027	Flex Cutaway	5	2032	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10	10	10	10	10	10
2028	Flex Cutaway	5	2033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	5
TOTALS				15	10	15	5	15	0	15	0	15	0	15	0	15	10	15	5	15	0	15	0	15

PARATRANSIT PLAN

Fleet Year	Vehicle Type	Lifecycle	Retirement	FY20	FY21 Order	FY21	FY22 Order	FY22	FY23 Order	FY23	FY24 Order	FY24	FY25 Order	FY25	FY26 Order	FY26	FY27 Order	FY27	FY28 Order	FY28	FY29 Order	FY29	FY30 Order	FY30
2011	Cutaway	5	2016	25		25	-25	0		0		0		0	0		0	0	0	0		0		0
2012	Cutaway	5	2017	24		24		24	-24	0		0		0	0		0	0	0	0		0		0
2015	Cutaway	5	2020	25		25		25	-25	0		0		0	0		0	0	0	0		0		0
2018	Caravan	5	2023	5		5		5	-1	4	-4	0		0	0		0	0	0	0		0		0
2019	Transit Van	5	2024	25		25		25		25	-16	9	-9	0	0		0	0	0	0		0		4
2022	Cutaway	5	2027	0		0	25	25		25		25	-11	14	-14	0		0	0	0		0		0
2023	Cutaway	5	2028	0		0		0	50	50		50		50	-6	44	-20	24	-20	4	-4	4	-4	0
2024	Cutaway	5	2029	0		0		0		0	20	20		20		20		20		20	-16	4	-4	0
2025	Cutaway	5	2030	0		0		0		0		0	20	20		20		20		20		20	-16	4
2026	Cutaway	5	2031	0		0		0		0		0		0	20		20		20		20		20	20
2027	Cutaway	5	2032	0		0		0		0		0		0		20		20		20		20		20
2028	Cutaway	5	2033	0		0		0		0		0		0			20		20		20		20	20
2029	Cutaway	5	2034	0		0		0		0		0		0				0		0	20		20	20
2030	Cutaway	5	2035	0		0		0		0		0		0				0		0		0	20	20
TOTALS				104	0	104	25	104	50	104	20	104	20	104	20	104	20	104	25	104	0	104	20	104

APPENDIX C
FY 2026 Performance Targets

MEMORANDUM

To: Christopher Durand, Chief Executive Officer
From: Zachary Agush, Principal Planner
RE: Request for Approval – FY 2026 TAM Performance Targets
Date: August 4, 2025

Under 49 CFR 625, entitled Transit Asset Management, all transit operators are required to establish annual performance targets for each asset category: rolling stock, equipment, facilities, and if applicable, infrastructure.

The 2022-2026 TAM plan set aggressive targets that have not been realized. The updated targets below are based on the most recent information available and indicate what can be reasonably expected during the remainder of the plan's horizon.

The proposed FY 2026 targets are as follows:

- Fixed-Route (Rolling Stock): 12.33%
 - This assumes no order is placed over the next 12 months.
- Paratransit (Rolling Stock): 0%
 - The arrival of the Model 1s will enable us to begin retiring more recent paratransit vehicles that have exceeded mileage ULB.
- Flex (Rolling Stock): 0%
 - The arrival of the Model 1s, that can operate as both paratransit and Flex vehicles, will help us achieve this target.
- Non-Revenue (Rolling Stock): 50%
 - FTA's ULB is at least 4 years or 100,000 miles+, most vehicles meet the age threshold, but this target recognizes we will not be able to turnover more than a handful of vehicles in the upcoming year.
- Facilities: 17%
 - This is 265 Melrose Street. We do not anticipate any additional funding except for what we gained in the FY 2024 Bus & Bus Facilities grant.
- Equipment: 0%
 - All equipment is below the ULB threshold of 25 years.

Per 49 CFR 625, annual performance targets must be approved by the Accountable Executive. If the proposed targets are satisfactory to you, please sign on the next page.

APPROVAL ON THE NEXT PAGE



Approved by the Accountable Executive:

A handwritten signature in black ink, appearing to read "CD", is written over a horizontal line.

8/4/2025

Christopher Durand
Chief Executive Officer

Date