REQUEST FOR PROPOSALS
ATL SOLICITATION # 26-002

TRANSIT OPERATIONS AND MAINTENANCE SERVICES For ATLANTA-REGION TRANSIT LINK AUTHORITY and GWINNETT COUNTY

ATTACHMENT 10

CONTENTS

ATL Facility Plan

Xpress Facility Maintenance Plan

Atlanta-Region Transit Link Authority (ATL)
Xpress Commuter Service

Facility Maintenance Plan Revision Notification:

Date	Revision Number	Summary
12/05/17	001	Originally produced November 25, 2015
01/04/18	002	Updated
02/20/18	003	Updated
02/26/18	004	Updated
04/23/20	005	Updated
08/31/20	006	Changed SRTA to ATL
12/30/21	007	Yearly Updates and Split Document
02/14/25	008	Updates to Reflect New Equipment

Notification of Revisions Within the Plan:

Date	Revision Number	Summary
05/09/2016	16-2	GRTA Semi-Annual Inspection Form change to Annual. Misc. PM additions and corrections. Updated monthly required reports to be consistent with contract.
10/09/2018	18-2	Changed P&R HVAC service to semi-annually.
04/23/2020	20-1	Revamped plan to align with current and future operations
08/31/2020	20-2	Changed SRTA references to ATL to reflect agency change
12/30/2021	21-1	Yearly Updates and Split Document
02/14/2025	25-1	Plan Updated

TABLE OF CONTENTS

1. Introduction

1.1. Overview

The purpose of the ATL Facility Maintenance Plan is to outline the required maintenance policies and procedures for maintaining Xpress-related facilities. It is also intended to meet or exceed ATL's requirement to FTA for oversight, maintenance, and control of the federal interest in the Xpress assets. ***Therefore, all Contractors to ATL Xpress are required to meet or exceed the requirements listed herein.***

ATL expects that every member of the Contractor's Team, both management and employees, to be familiar with the Facility Maintenance Plan and be committed to its directives. Adhering to these procedures will ensure that ATL services are of the highest quality and those delivering the services will find their jobs more rewarding as a result.

ATL considers its service Contractors to be our business partners. As partners, ATL welcomes the comments and suggestions of our Contractors and their personnel on how we may improve the methods by which we design and manage ATL properties.

All requests for information or questions concerning the ATL Facility Maintenance Plan should be directed to the Transit Operations Manager. The Xpress Facility Maintenance Plan has been reviewed and approved by the Atlanta Transit Link Authority management.

1.2. Safety

The primary concern of all ATL personnel and Contractors are for the safety of its customers and all employees (ATL and Contractor).

ATL's Quality Assurance Specialists monitor maintenance activities to ensure all personnel have received the appropriate safety training, use the appropriate protective equipment, and know how to operate all emergency equipment.

Safety Data Sheets (SDS) must be on file for any chemicals to be used by ATL or Contractor personnel.

ATL safety related objectives include:

- Each Contractor is responsible for personal safety and accountable for employee safety and safety performance by providing a safe, clean, and organized work environment.

ATL contacts for safety related questions are provided in 1.5 below.

1.3. Facility Maintenance Plan Timeframe

This is intended to be a living document that requires updating, as appropriate, with respect to any changes in the environment in which the *Xpress* service operates. The second page of this document contains the dates of any revisions.

1.4. Definition of Terms

- CobbLinc - a public transit property contracted with ATL to operate Xpress. CobbLinc in turn contracts with Transdev for operation and maintenance services.
- GCT – Gwinnett County Transit, a public transit property, shares a facility with ATL Xpress.
- ATL – Atlanta-Region Transit Link Authority, an executive branch Authority of the State of Georgia.
- Transdev North America - a private transit operation and maintenance company, contracted with ATL to operate Xpress.
- Xpress – a public transportation, commuter bus service in metro-Atlanta, operated by a private transit contractor.
- TAM – Transit Asset Management plan
- FTA – Federal Transit Administration
- XPRESS – Commuter bus service operated by ATL

1.5. ATL Staff Contact Information

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1.6 Property Management Procedures

GRTA, for FY2023, 2024 and FY2025 did not own or have federal interest in any property. The ATL, for FY2023, FY2024 and FY2025, does own and have federal interest in several properties. The ATL does not have any excess real property.

The ATL, as a grantee of the FTA and a subgrantee to GRTA, is required to notify FTA when property is removed from the service originally intended at grant approval or if property is put to additional or substitute uses.

If FTA funded real property is no longer needed for any transit purpose the ATL is required to prepare or update an excess property inventory and utilization plan for grants awarded prior to December 26, 2014 and real property inventory for grants awarded after December 26, 2014. The plan should identify and explain the reason for excess property. FTA C 5010.1F describes that the real property list should include such things as: property location, summary of conditions on the title, original acquisition cost, federal and non-federal participation ratio, FTA grant number, appraised value and date, brief description of improvements, current use of the property, and anticipated disposition or action proposed.

The ATL maintains a Facility Maintenance Plan.

Incidental Use and Utilization of Real Property for Intended Purpose follow a specific process described below:

Park and Ride lots utilized by Xpress commuter bus service are monitored by Transit Operations staff per an established schedule to ensure there is no unauthorized use of the Park and Ride Lots.

Incidental Use requests received by the ATL are directed to the Transit Operations Manager, Legal, and/or Compliance. Compliance, in coordination with Transit Operations completes the FTA Region IV Incidental Use Request; this may require support from other business units to provide the required information. The completed Incidental Use Request is reviewed by Transit Operations, Compliance, Legal, and Executive Management prior to submittal to FTA for review and concurrence.

2. Mission and Goals

2.1. Mission

The mission of Facilities Maintenance is to enhance the customer experience by maintaining equipment and facilities in a proper state of repair and to provide Xpress's customers with facilities that are safe, well maintained, and are in convenient locations. Being in convenient locations encourages Xpress ridership.

2.2 Facilities Management Goals

The goal of Facilities Management is to maintain the ATL facilities in a high state of repair. Also, to ensure a state of good repair for rolling stock, it is essential to maintain shop equipment to a high standard. Lifts must work properly and be safe, the bus wash must clean, and vehicles must be fueled in a timely and orderly manner.

ATL utilizes State owned Park and Ride Lot facilities, some leased facilities, and other agency operating/maintenance facilities. It includes, but is not limited to fixed station equipment, parking lot paving and striping, communications systems, fencing, and lighting.

3. Facilities and Equipment Maintenance Plan

3.1. Notice of OEM Standards

All equipment is to be maintained to OEM (Original Equipment Manufacturer) standards or better. This includes preventive maintenance schedules and procedures, scheduled and unscheduled maintenance. If there is a deviation due to a special circumstance, the contractor must make a request in writing to the ATL Fleet Manager for approval to deviate.

Contractors are to maintain documentation that equipment PMI's have been performed and the respective date. The documentation must be in a Microsoft readable electronic format and available to ATL staff upon request.

3.2. Mission-Critical Facility Items

Contractors are to give special consideration to items that are deemed as being critical to providing daily services. Such items include but are not limited to:

- Buildings
- Passenger stations/shelters
- Parking lots
- Electric distribution and control equipment
- Electric bus chargers
- Plumbing systems
- Overhead doors
- Vehicle maintenance lifts

- Vehicle washers and wash water recycling systems
- Heating and/or air conditioning units
- Security equipment
- All fueling related equipment
- Other fluids pertinent to operation of vehicles and or buildings
- Oil/Water Separators
- Storm Water retention basins and outfalls

3.3. Current and Planned Facilities

Current Facilities:
The newest owned bus maintenance facility is the South Ops facility which opened in March 2017 and is located at 5250 Frontage Road, Forest Park, GA 30297.

Xpress also operates out of 27 Park-n-Ride lots, 13 of which are owned and maintained by ATL and mainly concentrated in the south Atlanta metro area, the Georgia 400 corridor, and the I-75/I-575 corridors.

Shown below is a list of current Park and Rides.

Park and Ride Lot	Address
Interagency	
McDonough	1059 Industrial Parkway, McDonough, GA30253 (Henry County)
Hewatt Road	2180 Stone Drive, Snellville, GA30039 (Gwinnett County)
Douglas Co. Multi-Modal Center	8880 Dorris Drive, Douglasville, GA 30134 (Douglas County)
Acworth	6045 Lake Acworth Drive, Acworth, GA 30101 (Cobb County)
West Conyers (Sigman Road)	911 Chambers Drive, Conyers, GA 30012 (Rockdale County)
Union City	Royal South Parkway, Atlanta, GA 30449 (Fulton County)

Leased	
Mall of Georgia	3333 Buford Drive, Buford, GA30519 (Gwinnett County)
Dacula (Hebron Baptist)	202 Hebron Church Road Dacula, GA 30019 (Gwinnett County)
Snellville (First Baptist Church	2400 Main St.E, Snellville, GA30078 (Gwinnett County)

Stone Mountain Park	1475 East Park Place Stone Mountain, GA 30087 (Gwinnett County)
BrandsMart	4000 Mount Zion Parkway Stockbridge, GA30281 (Henry County)
Hampton	104 Woosley Road, Hampton GA 30228 (Henry County)
East Conyers (Springfield Baptist Church	1877 Iris Drive, S.E, Conyers, GA 30013-1816 (Rockdale County)
Woodstock (His Hands Church)	550 Molly Lane, Woodstock, GA30189 (Cherokee County)
Owned	
Cumming	163 Deputy Bill Cantrell Memorial Rd 30040 (Forsyth County)
Riverdale	6842 Lamar Hutchinson Pkwy. Riverdale, GA (Clayton County)
Powder Springs	5100 Powder Springs-Dallas Road, Powder Springs, GA30127 (Cobb County)
Town Center-Big Shanty	3019 George Busbee Parkway Kennesaw, GA30144 (Cobb County)
Hickory Grove	2018 Hickory Grove Road, Acworth, GA 30102 (Cobb County)
Hamilton Mill	3220 Sardis Church Road, Buford GA 30519 (Gwinnett County)
Panola Road	5290 Minola Road, Lithonia, GA30038 (Dekalb County)
Stockbridge	656 Highway 138 West, Stockbridge, GA (Henry County)
Jonesboro	8488 Tara Boulevard, Jonesboro, GA 30236 (Clayton County)
Newnan	75 Hollz Parkway, Newnan, GA30265 (Coweta County)
West Douglas	7500 Douglas Blvd Douglasville, GA 30135 (Douglas County)
Hiram	79 Metromount Road, Hiram, GA30141 (Paulding County)

Sugar Loaf Mills	2115 N Brown Rd, Lawrenceville, GA 30043 (Gwinnett)

3.4. Facilities Maintenance Requirements

Facilities Maintenance is required to maintain both fixed station equipment and real property in a high state of repair. This will be accomplished with preventive maintenance programs, quality contractors, quality assurance inspections, and good design specifications. ATL also has a Transit Asset Management (TAM) plan that provides oversight and includes requirements to maintain assets in a State of Good Repair (SGR) as well as the useful life of an asset. SGR is partially defined as "The condition in which a capital asset is able to operate at a full level of performance".

Preventive Maintenance Programs: Equipment will be subjected to regular scheduled preventive maintenance inspections. The interval of the inspections will be determined by the OEM recommendations and ATL maintenance staff. The interval inspections will be entered into the CMMS. This equipment consists of, but is not limited to, fixed station equipment found in the garages and the Clever Device system operated by ATL.

Sample Preventive Maintenance Schedule for Facility Equipment

Equipment	Service Schedule
Overhead Doors	Annually
Bus Lifts	Annually
Forklift	Quarterly
Floor Scrubber	Semi-Annually
Air Handlers	Annually
HVAC Systems	Annually

ATL Building and Facilities Superintendent will ensure that the Contractor has the Preventive Maintenance schedule for all Facility Equipment and will ensure the Contractor has a vendor to complete all PM work according to the PM schedule.

The operations Contractor will document that all Preventive Maintenance (PM) for Facility equipment is performed on-time and that the work is completed to satisfaction. The Contractor will ensure they receive a copy of the work performed ensuring that the date, time, and description of services performed are included on the work order. The Contractor will sign off on the work order and email a copy of the work order to the ATL Building and Facilities Superintendent. The Contractor will keep the original work order and file the information in the same manner in which Preventive Maintenance records are kept for the vehicles. All PM information for Facility equipment will also be entered into the CMMS and properly tracked to ensure on-time PM inspections are met. The Facilities Superintendent will track Preventive Maintenance and notify the Contractor in writing if any deficiencies are

noted. The Contractor will be responsible for explaining how the deficiency happened and the corrective action plan to prevent future occurrences.

Quality Assurance/Quality Control: In addition to the preventive maintenance inspections, a random sampling of the PMs and the results will be conducted by ATL Personnel. These QA inspections will utilize a checklist developed from contract performance specifications and will be used to gauge and rank the effectiveness of the Contractors. Data collected will also be used to conduct analysis of process and results to improve effectiveness and reduce cost.

3.5. Facilities Staffing

Facilities maintenance personnel will have the responsibility of conducting random checks of the preventive maintenance program, evaluating the effectiveness of landscaping contractors, and inspecting each Park and Ride or maintenance facility at least once each month.

3.6. Facility Security Program

Facility Security has four components.

- Employee Training and Awareness
- Passive Security Devices
- Physical Security Devices
- Homeland Security Exercises

Any security incident is investigated. Where appropriate reports are made to the local law enforcement and/or Home Land Security according to prescribed protocol. Available camera images are retrieved to assist in the investigation.

3.7. Facility Maintenance Plan

The Facility Maintenance Plan has four major components: regular Preventive Maintenance Inspections, Checks and Services, Unscheduled Repairs, and the Capital Replacement/Upgrade Program. These elements combine to provide a safe, clean, and comfortable environment for our customers.

Preventive Maintenance Inspections, Checks, and Services: This program addresses three major areas – fixed station equipment; and paving, striping, and landscaping.

- Fixed Station Equipment: This category generally includes all equipment that is fixed in one location. It includes bus lifts, presses, fueling equipment, facility air compressors, hose reels, and lighting and passenger amenities. Fixed station equipment will have a Preventive Maintenance Inspection developed for it based on the Original Equipment Manufacturer's recommendations. The PM inspection will be maintained in the CMMS and/or file and will be generated on whatever cycle is

recommended. This PM may be performed by in-house personnel or contract personnel, depending on the skill or technical certification required. A copy of the PM Inspection will be maintained in the CMMS with the individual performing the inspection signing the PM work order.

- Paving and Striping: Paving and striping is inspected during the monthly inspections. It is also inspected during the TAM assessment for capital maintenance. A visual PM Inspection will be performed at least monthly for defects. If defects are found, a more involved inspection will be performed by an engineer. The PM will reside in the CMMS, along with results of the inspection. If the paving and striping is determined to be deficient or has significant problems, then a contractor will be engaged for repairs. Also, any deficiencies reported by customers will be addressed immediately.
- Landscaping: Landscape maintenance will be performed by contractor personnel. This work includes but is not limited to: grass cutting, removal of debris from the Park and Ride lots, trash removal, storm water runoff pond maintenance, fence line maintenance, tree cutting and pruning, and other general housekeeping duties. An inspection check list will be developed that mirrors the contract specifications and be entered into the CMMS. After landscaping activities are complete, an inspection will be performed to determine work quality. The checklist will become part of the permanent record in the CMMS and be used to evaluate the responsibility and quality of the landscape work.
- Unscheduled Repairs: When a shortcoming or deficiency is noticed by customers, Inspectors, or other ATL personnel, Facilities personnel will be notified. Upon notification, Facilities will determine the extent of the shortcoming or deficiency. After the work is complete, an Inspector will verify the repair is complete and check the quality of the work.
- Capital Replacement/Upgrade: As assets age and technology changes, replacement and upgrade of assets may be required. Asset management is part of ATL's TAM plan. It is managed by a Capital Replacement/Upgrade plan based on objective asset life data and condition assessments for each Park and Ride lot and for all facilities. A visual assessment for capital improvements of the Park and Ride assets will be conducted as required by TAM guidance. If the assessment determines that the asset has additional years of life, then the replacement will be deferred. If the assessment determines that the asset is failing in a more rapid fashion, then the replacement will be accelerated.

4. Asset Inspection Standards

4.1 South Ops Facility Standards Policy

The policy is designed for ATL's South Ops administration and maintenance facility. The policy seeks to maintain the facility in a state of good repair to maximize worker productivity, client satisfaction and efficient transit operations.

4.2 Facility Replacement Policy

The practical service life of ATL facilities is shown in the following table. The service life is dependent on performing maintenance activities recommended by the component manufacturers and/or industry best practices.

Asset	Life Cycle Event	Asset Age
Maintenance Facility	Replacement	30 to 40 years

Maintenance of facility systems and components, unlike those of fleet assets such as transit buses, do not include a comprehensive midlife rehabilitation. Rather, the service life is achieved by performing prescribed maintenance on a regular basis followed by component replacement at the end of the expected service life.

Maintenance requirements and expected service lives for major building systems and components are shown in the following sections.

4.3 HVAC (Mission Critical)

The purpose of the heating ventilation and air conditioning (HVAC) system is to provide conditions for human thermal comfort and to deliver clean air free from airborne contaminants.

The expected lifecycle of a typical industrial HVAC system is 30 years. Prior to conducting maintenance schedule for each component and to prevent personal injury, follow Lock-out/Tag-out procedures and safety procedures identified in the manufacturer's manual or as described by your operations and maintenance organization. As maintenance events are completed, submit a work order, and report any deficiencies to the operations and maintenance supervisor.

Maintenance and Replacement Schedule by Component (if installed)

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
Air Handling Unit	Replacement	30 years	
	Check with operating personnel for deficiencies such as work order requests and occupant comfort complaints.		Quarterly
	Check controls and unit for proper operation. This could include checking seasonal setback temperatures or occupancy settings.		Quarterly
	Check for unusual noise and vibration from the unit's fans, motors, and fan belts.		Quarterly

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Check tension, conditions, and alignment of belts; adjust, as necessary.		Quarterly
	Clean coils of dust and debris, drain pans, blower, motor and drain piping. Clear any sediment or obstructions that would cause condensate to back up and not drain.		Quarterly
	Lubricate fan shaft and motor bearings (Supply and Return Fans as equipped).		Annually if required
	Replace filters. Store extra filters at location of unit for ease of access to inventory.		Bi-annually
	Inspect exterior piping and valves for leaks. Tighten connections as required.		Monthly
	Check the following for tightness: bearing collar, sheave, and wheel hub setscrews, sheave cap screws, and bearing hold-down bolts.		Annually PM
	Check damper operator, linkages, set screws, and blade adjustment.		Annually
	Check unit door gaskets and flex connections for cracks, weathering, rotting or leakage. Replace if necessary or if damaged or deteriorated.		Annually
	Clean pad area around equipment of potential slip or trip hazards such as trash, oily or water residue, maintenance supplies, or other debris.		Monthly
Centrifugal Pump	Replacement	25 years	
	Check for proper operation of pump by visual inspection.		Semi-annually
	Check for leaks on suction side and discharge piping, at seals, packing, glands etc. Adjust as required to prevent or stop leaking.		Semi-annually
	Check pump and motor operation for excessive vibration, noise, and overheating.		Semi-annually
	Check alignment of pump to discharge and suction lines and motor shaft to pump. Adjust as necessary so there are no offsets that would restrict flow or damage the motor shaft.		Semi-annually
	Lubricate pump and motor using manufacturer recommended lubricants.		Semi-annually
	Clean pad area around pump of potential slip or trip hazards such as trash, oily or water residue, maintenance supplies, or other debris.		Semi-annually
Chiller	Replacement	20 years	

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Check with operating personnel for deficiencies including review of work order requests. Check unit operation, such as excessive vibration or noise.		Monthly
	Check control settings, refrigeration charge, and oil level.		Monthly
	Check system filters and strainers for excessive pressure drop by reviewing inlet and outlet pressure gauges. Clean or replace the filters as required to maintain efficient pressure drop.		Monthly
	Check glycol tank for buildup of sludge or scale. Flush as required.		Quarterly
	Check all backup modes of operation at main control panel for chiller.		Semi-annually
	Check coolant pumps for leaks and check pump seal for leaks, rotting and wear.; Repair the leaks and/or replace the seal as required.		Semi-annually
	Simulate a fault at each refrigeration safety switch. Verify the appropriate control reactions occur for each type of fault.		Semi-annually
	Clean the condenser coils and fans of excessive contamination.		Semi-annually
	Check all mounting hardware for the compressors, fans, condensers for tightness. Review the manufactures recommendation to ensure mounting hardware is torqued within the guidance.		Semi-annually
	Observe condenser fan operation and check for proper balance.		Semi-annually
	With the unit main power turned off, open the main electrical housing, and inspect all electrical connections for tightness. Look for unusual signs such as melted wiring insulation corrosion or moisture that may indicate a potential problem.		Semi-annually
	Restore power and measure the amperage of each fan motor. Verify that the amperage does not exceed the nameplate Full Load Amperage (FLA).		Semi-annually
	Measure the amperage of each pump motor. Verify that it does not exceed the nameplate FLA.		Semi-annually
	Leak check the refrigeration system. Check all flare fittings and tighten as needed.		Semi-annually

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Check that refrigerant site glass is clear at normal operating pressures.		Semi-annually
	Clean pad area around equipment of potential slip or trip hazards such as trash, oily or water residue, maintenance supplies, or other debris		Semi-annually
Condenser and Evaporator	Replacement	15 years	
	Check with operating personnel for deficiencies including review of work order requests. Check unit operation, such as excessive vibration or noise.		Quarterly
	Clean the coil. Remove dirt or obstructions from the discharge opening. Follow OEM recommendations for cleaner.		Bi-annually
	Clean the exterior surface. Vacuum coil surface using an up and down motion. Be careful not to bend or damage coil fins.		Bi-annually
	Clean electrical parts and check tightness of connections.		Bi-annually
	Clean fan.		Bi-annually
	Check fan assembly for tightness.		Bi-annually
	Clean base drain pan. Replace if rusted through.		Bi-annually
Unit Heater	Replacement	10 years	
	Check with operating personnel for deficiencies including review of work order requests. Check unit operation, such as hydronic or natural gas piping or electrical connections.		Bi-annually
	Clean and remove dust build up on fan blades or radiating coils.		Bi-annually
	Check tightness of electrical connections, hydronic or gas fitting connections. If hydronic, check piping insulation for damage and repair or replace if necessary.		Bi-annually
	Check fan assembly for tightness.		Bi-annually
Ductwork	Replacement	30 years	
	Inspect accessible ductwork for dents that would restrict airflow. Replace as required.		Annually
	Check insulation on exhaust ductwork for wear and damage and replace or repair as required.		Annually
Valves	Replacement	10 years	
	Test operation of each valve. Check for sticking or leaking and repair as necessary by replacing or lubricating. Check washers or seals for leaks.		Annually

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Clean valve box exterior.		Annually
	Perform semi-annual check as part of system evaluation.		Annually
	If present, inspect control mechanism and clean as necessary removing deposits and foreign matter.		Annually
Thermostat	Replacement	10 years	
	Check unit for operation by confirming power to unit. Determine if battery powered or powered by electric distribution system.		Semi-annually
	Check air temperature with portable thermostat to determine if unit is accurately measuring temperature. Re-calibrate or replace if necessary.		Semi-annually
Indoor Air Quality (IAQ) Monitors	Replacement	10 years	
	Check unit for CO2 calibration.		Semi-annually
	Check unit for operation by confirming power to unit. Determine if battery powered or powered by electric distribution system.		Semi-annually
Boiler, Hot Water, Gas Fired	Replacement	25 years	
	Check with operating personnel for deficiencies including review of work order requests. Check unit operation, such as gas piping or electrical connections to verify they are in working order.		Semi-annually
	Check indicating lights and alarms. If unit in alarm mode or indicating any variety of failure, refer to manufacturer's instruction manual for troubleshooting.		Weekly
	Check piping systems for natural gas or water leaks or damage.		Weekly
	Check for leaks, noise, vibration, or unusual conditions.		Weekly
	Check operating temperatures. Reset if too cold or hot.		Weekly
	Inspect the combustion air filter and replace as required. Check combustion air fan.		Semi-annually
	Check condensate drain hose and piping for blockages. Clean and flush as required.		Semi-annually

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Inspect and clean the burner and ignition components. Make sure that they are free from dust, soot, dirt, corrosion, and other deposits that could impair the boiler's performance.		Annually
	Inspect and clean the heat exchanger flue paths.		Annually
	Inspect and clean the condensing heat recovery module (CHRM).		Annually
	Inspect the air intake and vent systems for any signs of blockage, corrosion, or leakage; clean as required. Immediately replace any unsound vent system piping.		Annually
	Check the operating controls for proper operation.		Annually
	Ensure that the low water cutoff operates properly. Float type water cutoff device must be flushed out per the manufacturer's instructions. The probe on a probe low water cutoff must be removed, cleaned, and inspected.		Annually
	Check that the flow switch contacts are open when there is no water flow.		Annually
	Check relief valve. The relief valve should not weep or discharge water at normal system pressure. Replace, as necessary.		Annually
	Check the high limit control. Water temperature should never exceed the maximum set point of 215 degrees F.		Annually
	Visually check the pilot and main burner flames to ensure proper operation.		Annually
	Clean pad area around unit of potential slip or trip hazards such as trash, oily or water residue, maintenance supplies, or other debris		Annually
Variable Frequency Drive	Replacement	20 years	
	Check with operating personnel for deficiencies including review of work order requests.		Semi-annually
	Check operation and clean cooling fan, replace if noticeable bearing noise.		Semi-annually
	Check heat sink for dust buildup. If necessary, clean the heat sink by blowing clean dry compressed air from bottom to top and simultaneously using a vacuum cleaner at the air outlet to trap the dust.		Semi-annually

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Examine all conductor connections for overheating and looseness; tighten as required.		Semi-annually
	Clean control panel with a soft damp cloth. Do not use harsh cleaners.		Semi-annually
AC Unit	Replacement	15 years	
	Check with operating personnel for deficiencies including review of work order requests.		Monthly
	Check pan and drain for obstructions and algae buildup. Clean as required. Check exterior condensate drain for insulation and replace if required.		Monthly
	Replace filters as required.		Monthly
	Check belts for wear, tension and alignment replace belts as necessary and adjust as required.		Monthly
	Check refrigerant liquid line sight glass for bubbles in liquid or a color change indicating moisture in system. Service as required.		Monthly
	Check coil unit while operating.		Semi-annually
	Remove access panel and vacuum inside of unit and coils.		Semi-annually
	Check coils and piping for leaks, damage and corrosion, repair or replace, as necessary.		Semi-annually
	Lubricate blower shaft and fan motor bearings as required.		Semi-annually
	Clean area around unit of potential slip or trip hazards such as trash, oily or water residue, maintenance supplies, or other debris.		Monthly
Centrifugal Fan	Replacement	25 years	
	Start and stop fan with local switch.		Semi-annually
	Check fan for noise and vibration.		Semi-annually
	Check belts for wear, tension and alignment replace belts as necessary and adjust as required.		Semi-annually
	Check electrical wiring and connections, tighten loose connections.		Semi-annually
	Check motor and fan shaft bearings for noise, vibration, overheating, lubricate as required.		Semi-annually
	Check blower intake dampers, lubricate if applicable.		Semi-annually
	Replacement	10 years	

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
Ductless AC Unit	Check with operating personnel for deficiencies including review of work order requests.		Semi-annually
	Inspect and clean or replace the unit air filters. Filters should be vacuumed and washed in warm water. Shake filter to remove any excess water and replace by sliding filter behind grille until filter snaps in place. If the filter has begun to break down or is torn, replace it.		Monthly
	Clean unit front panel inclusive of vent blades. Wipe the outside of the panel with a soft dry cloth. If necessary, use a mild liquid detergent and wipe off carefully with a dry cloth.		Bi-annually
	Clean unit drainpipe interior to remove algae growth.		Bi-annually
	Clean unit condensate drain pan.		Annually
	Change batteries in the Remote Controller if equipped with one.		Annually or sooner if needed
Fan Coil Unit	Replacement	20 years	
	Check filters for dust and debris. Change filters.		Semi-annually
	Check interior of unit, including condensate tray and drain, for dirt or moisture buildup and clean as necessary to clean blockages.		Annually
	Check fan and fan motor bearings. Repair and replace as needed.		Annually
Air Separator	Replacement	25 years	
	Check with operating personnel for deficiencies including review of work order requests.		Annually
	Check unit for corrosion and leaks. Replace if needed.		Annually
	Clean area around unit of potential slip or trip hazards such as trash, oily or water residue, maintenance supplies, or other debris.		Monthly
Building Automation System – DDC Controls	Replacement	20 years	
	Check with operating personnel for deficiencies including review of work order requests.		Monthly
	Complete overall visual inspection to be sure all equipment is operating and that safety systems are in place.		Monthly

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Check software for current version, updates, and reoccurring errors.		Monthly
	Verify in control software that schedules are accurate for season and occupancy.		Monthly
	Verify in control software that set points are accurate for season and occupancy.		Monthly
	Check time clock for accuracy. Reset as needed.		Monthly
	Check all gauges for expected readings and calibration where required.		Monthly
	Check outside air volume dampers for proper function.		Monthly
	Check set points for any temperatures, humidity, or pressure out of operating limits.		Monthly
	Check schedules for any operation out of operating limits.		Monthly
	Check sensors for temperature, humidity, pressure, and flow for expected values. Recalibrate or replace, as necessary.		Monthly
	Check and tighten arm on damper actuator motor output shafts.		Semi-annually
	Cycle actuator while watching for proper operation, verify that blades fully open and close.		Semi-annually
	Clean and lubricate actuator linkage and damper blade pivot points.		Semi-annually
	Calibrate all sensors for temperature, humidity, pressure, and flow.		Annually
	Clean area around panel of maintenance supplies, or other debris that blocks access to the panel.		Annually
Cabinet Unit Heater	Replacement	20 years	
	Check with operating personnel for deficiencies including review of work order requests.		Quarterly
	Clean or replace filter. Permanent filters should be washed in mild detergent or blown clean with compressed air.		Quarterly
	Clean coil. Vacuum coil or blow compressed air from the discharge side towards the inlet side.		Annually
	Inspect coils, connections, trap, and piping for leaks; repair, as necessary.		Annually
	Check fan and motor for vibration and noise; lubricate bearings as required.		Annually
	Check electrical wiring to blower motor.		Annually

HVAC Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Clean area around unit heater of maintenance supplies, or other debris that blocks the unit's fan.		Quarterly

4.4 Electrical (Mission Critical)

The purpose of electrical systems is to provide the necessary electrical distribution to the systems essential for building operations, such as HVAC, security, fire protection, computer, telecommunications, maintenance, and egress systems.

The expected lifecycle of a typical industrial electrical system is 20 years.

Electrical Component	Life Cycle Event	Asset Age	Maintenance Schedule
Auto Transfer Switch	Replacement	20 years	
	Check with operating personnel for deficiencies including review of work order requests.		Annually
	Check that the switch was operated during monthly generator test.		Annually
	De-energize and open the enclosure and remove accumulated dust and dirt with a soft cloth, brush, or vacuum cleaner. Do not use a blower or compressed air.		Annually
	Examine all conductor connections for overheating and looseness. Check contact condition. Clean, or if necessary, replace damaged parts and/or conductor sections. Tighten connections, as necessary.		Annually
	Inspect the general condition of the transfer switch and clean exterior and surrounding area.		Annually
Emergency Generator	Replacement	20 years	
	Check for oil, fuel, cooling, and exhaust system leaks. Check exhaust system audibly and visually with unit running and repair any leaks immediately.		After 8 hours
	Check engine oil level; replace, as necessary.		After 8 hours
	Check coolant level; replace, as necessary.		After 8 hours
	Check coolant heater		After 8 hours
	Perform 30-minute generator test run, check for proper operation.		Quarterly

Electrical Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Check air cleaner, replace if extremely dusty.		Annually, or after 100 hours
	Check all hardware (fittings, clamps, fasteners, etc.).		Annually, or after 100 hours
	Check battery charge and electrolyte level and specific gravity, add water as required; check terminals for corrosion and clean as required.		Annually, or after 100 hours
	Check generator air outlet, clean as required.		Annually, or after 100 hours
	Change engine oil and filter (100 hrs.).		Quarterly
	Check radiator hoses for wear and cracks, replace as required. Replace if hard or brittle.		Annually, or after 250 hrs.
	Check engine coolant port caps. Replace if visibly cracked, brittle, or shows signs of fatigue. Replace after 4 years or 1000 hrs.		Annually, or after 250 hrs.
	Inspect exterior of radiator for obstructions, clear as required.		Annually, or after 250 hrs.
	Check drive belt for evidence of wear or slippage. Replace if hard or brittle.		Annually, or after 250 hrs.
	Check AC generator and controls.		Semi-annually or after 250 hrs.
	Replace air cleaner element (500 hrs.).		Annually or after 500 hrs.
	Check anti-freeze concentration. Replace as needed.		Annually or after 500 hrs.
	Inspect spark plugs. Replace as needed or at 1000 hrs.		Annually or after 500 hrs.
	Inspect oxygen sensor. Replace as need or at 1000 hrs. (performed by authorized service center qualified mechanic).		Annually or after 500 hrs.
	Test catalytic converter restriction. Replace as need or at 1000 hrs. (performed by authorized service center qualified mechanic).		N/A
	Drain and flush radiator.		After 500 hrs.
	Perform 30% generator load test.		Annually

Electrical Component	Life Cycle Event	Asset Age	Maintenance Schedule
Circuit Breaker	Replacement	30 years	
	Verify circuit breaker application and rating, verify trip unit settings for all functions are set according to the coordination study.		Annually
	Check for overheating while equipment is energized, under load, and at operating temperature. Thermographic inspection methods may be used.		Annually
	Check for overheating while equipment is de-energized. Visually inspect electrical components for discoloration. (If no evidence of overheating or loose connections, do not disturb or re-torque connections.) If overheating of terminals, connectors, conductors, or conductor insulation is found, repair per manufacturer's instructions and NEMA standards.		Annually
	Check for cracks in the molded case. Replace any cracked breakers.		Annually
	Exercise circuit breaker mechanism. Toggle the handle on and off several times. Trip the breaker with the push-to-trip button. Reset and repeat trip. Replace any breaker that fails to trip or reset.		Annually
	Clean the circuit breaker. Remove any buildup of dust, dirt, grease, or moisture with a lint free dry cloth or vacuum cleaner. Do not use compressed air.		Annually
	Inspect and clean the enclosure. All covers and trip pieces should be in place.		Annually
Dry Type Transformer	Replacement	30 years	
	Check with operating personnel for deficiencies including review of work order requests.		Annually

Electrical Component	Life Cycle Event	Asset Age	Maintenance Schedule
	De-energize the transformer and remove the access covers. Inspect for: 1. Dirt on insulating surfaces and at areas which tend to restrict air flow. 2. Loose connections. 3. Condition of tap changers or terminal boards. 4. The general condition of the transformer.		Annually
Switchboard	Check with operating personnel for deficiencies including review of work order requests.		Annually
	Check indicating lamps for proper operation if appropriate; replace burned out lamps.		Annually
	Remove switchboard from service, coordinate with appropriate authority.		Annually
	Check for discoloration, hot spots, odors, and charred insulation.		Annually
	Check the records on the circuit breaker for any full current rated trips which may indicate a potential problem.		Annually
	Check the exterior of the unit for any damage or moisture.		Annually
	Examine the exterior of circuit breaker tripping mechanism and relays.		Annually
	Check hardware for tightness.		Annually
	Check the interlock for proper operation.		Annually
	Check the switching handle and check the locking mechanism.		Annually
	Place switchboard back in service, notify appropriate authority.		Annually
	Clean switchboard and surrounding area.		Annually
Main Disconnect	Replacement	30 years	
	Check with operating personnel for deficiencies including review of work order requests.		
	Remove switch from service, turn off power supply.		Annually
	Check the exterior of the unit for any damage or moisture.		Annually
	Open switch blades and open the enclosure.		Annually

Electrical Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Check the switch for loose parts, discoloration, hot spots, odors, and charred insulation.		Annually
	Vacuum any loose material from inside and wipe internal parts and enclosure with a lint-fee cloth.		Annually
	Remove old grease from line side jaws and switchblades and re-lubricate with approved lubricant.		Annually
	Exercise the switch by opening and closing it five times.		Annually
	Place switch back in service.		Annually
	Clean switch and surrounding area.		Annually
Emergency Lighting	Replacement	20 years	
	Check with operating personnel for deficiencies including review of work order requests.		Annually
	Check that lighting is tested in accordance with jurisdictional authority.		Semi annually
Exterior Lighting	Replacement	20 years	
	Check with operating personnel for deficiencies including review of work order requests.		Semi annually
	Check for burned out bulbs and replace with more energy efficient bulbs that last longer and require less frequency of checks for burnout.		Monthly
	Check photocell operation. Replace or repair if not working.		Monthly
	Check for bulbs turned on during the day. This may mean the control or timer system is not operating properly. Repair or replace the controls.		Monthly
Electric Vehicle Chargers	Replacement	10 years	
	Check for operational deficiencies		Weekly
	Clean inside cabinet for visual signs of arcing or overheated connections (Electrical Contractor only)		Annually
	Check tightness of electrical connections. (Electrical Contractor only)		Annually
	Check cabinet for damage		Annually

Electrical Component	Life Cycle Event	Asset Age	Maintenance Schedule
Defribulators	Check annual service card to make sure service is in date	5 Years	Annually or after any use
Main Control Panel	Replacement	20 years	
	Check with operating personnel for deficiencies including review of work order		Annually
	Check for excessive heat, odors, noise, and vibration.		Annually
	Clean and check general condition of panel and connections.		Annually

4.5 Plumbing (Mission Critical)

The purpose of plumbing systems is to provide hot and cold potable water, protection of potable water, restroom operations, conveyance of sewage, oil, and water separation, drinking water fountains and supply to emergency eye wash stations. Cleanouts for plumbing systems should be checked semi-annually for blockages.

The expected lifecycle of a typical industrial plumbing system is 20 years.

Plumbing Component	Life Cycle Event	Asset Age	Maintenance Schedule
Lavatory	Replacement	30 years	
	Check with operating personnel for deficiencies including review of work order		Annually
	Maintain cleanliness to prevent spread of bacteria and viruses.		Daily or Weekly depending on use
Urinal	Replacement	30 years	
	Check with operating personnel for deficiencies including review of work order		Annually
	Maintain cleanliness to prevent spread of bacteria and viruses.		Daily or Weekly depending on use
Water closet	Replacement	30 years	
	Check with operating personnel for deficiencies including review of work order		Annually
Shower	Replacement	30 years	

Plumbing Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Check with operating personnel for deficiencies including review of work orders.		Annually
	Maintain cleanliness to prevent spread of bacteria and viruses.		Daily or Weekly depending on use
Drinking Fountain	Replacement	30 years	
	Check with operating personnel for deficiencies including review of work orders.		
	Change supply filter		Semi-annually
	Check piping for leaks		Semi-annually
	Check fan and motor for vibration and noise		Semi-annually
	Check electrical wiring.		Semi-annually
	Check condenser coil for dust and dirt accumulation. Clean as needed. Straighten any bent fins and fan blades.		Semi-annually
	Check unit operation, clean as required.		Semi-annually
Hot Water Heater- Gas Fired	Replacement	10 years	
	Check with operating personnel for deficiencies including review of work orders.		
	Flush and drain sediment from tank		Quarterly
	Check for scale buildup and clean as required.		Quarterly
	Check gas burner and pilot for proper flame; adjust as necessary		Semi-annually
	Check for water leaks to tank and piping check for flue system leaks		Semi-annually
	Check operation of temperature and pressure relief valve		Semi-annually
	Check automatic controls for proper operation; temperature regulators, thermostatic devices, and automatic fuel shut off valves		Semi-annually
	Check electrical wiring for fraying and loose connections.		Semi-annually
	Check for proper water temperature setting adjusting as required		Semi-annually
	Check condition of flue pipe and chimney		Semi-annually

Plumbing Component	Life Cycle Event	Asset Age	Maintenance Schedule
Backflow Preventer	Replacement	5 years	
	Test and calibrate check valve operation of backflow prevention device with test set.		Annually
	Bleed air from backflow preventer.		Annually
	Inspect for leaks under pressure.		Annually

4.6 Fire Protection (Mission Critical)

Active fire protection for buildings consists of manual and automatic detection and suppression. These systems include fire sprinklers and fire alarm systems. Active fire protection protects the building and its occupants if fire or smoke is detected. It also aids in evacuating occupants and alerting fire professionals to aid in extinguishing the smoke or flame.

The expected lifecycle of a typical industrial fire protection 5 to 10 years for security and alarm systems and 25 years for fire pumps and sprinklers.

Fire Protection Component	Life Cycle Event	Asset Age	Maintenance Schedule
Fire Detection	Replacement	10 years	
	Check with operating personnel for deficiencies including review of work order		Annually
	Operate and maintain system in a working condition, making sure it is always turned on, except during repairs or maintenance.		Monthly
	Test and adjust fire detectors and fire detection systems to ensure that they operate correctly and maintain reliability. Detectors found to be unreliable and/or with reduced sensitivity must be replaced or cleaned and recalibrated.		Electronically Monitored continuously by Fire System
	Have a qualified person service, maintain, and test all fire detection systems, including cleaning and necessary sensitivity adjustments.		Annually
	Have fire detectors cleaned of dust, dirt, or other particulates at periodic intervals to assure their proper operation.		Annually
Fire Extinguishing	Replacement	25 years	
	Check with operating personnel for deficiencies including review of work order		

Fire Protection Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Inspect each system and operate and maintain them in a working condition, making sure they are always turned on, except during repairs or maintenance.		Annual
	Notify employees and establish measures to guarantee their safety if a fixed extinguishing system becomes inoperable. Fix any defects or impairments by trained personnel.		Monthly
	Check the weight and pressure of refillable containers. If the container shows a loss in net content, weight, or pressure, it must be subjected to maintenance		Semi-annual
	Assure that factory charged non-refillable containers that have no means of pressure indication are weighed. Replace the container if it shows a loss in net weight		Semi-annual
	Assure that inspection and maintenance dates are recorded and kept until the container is checked again or for the life of the container, whichever is less.		
	Train employees designated to inspect, maintain, operate, or repair fixed extinguishing systems.		Annual
	Train all employees with respect to the type of systems installed in the workplace, the hazards involved, proper activation in case of emergency, and the correct response to audible and visual pre-discharge alarms. Provide training for non-English speaking employees in languages understood by the affected employees and other individuals that may be exposed to the hazard.		Annual

4.7 Building Exterior - Roof (Mission Critical)

The purpose of the roofing system is to provide building protection from weather, including rain, heat, wind and sunlight, and animals. The roof also protects the framing structure which supports the covering.

The expected lifecycle of a typical metal roofing system is 40 years.

Roof Component	Life Cycle Event	Asset Age	Maintenance Schedule
Roof Covering	Replacement	40 years	
	Check with maintenance staff to see if the roof has a history of leaks, and if so, where and under what conditions.		Semi-annually, or as needed
	Observe condition of roof panels – physical damage, open laps, loose or missing fasteners.		Semi-annually and after major storms
Flashings and Trim	Observe for proper attachment, physical damage, general weather-tightness.		Semi-annually
Gutters and Downspouts	Observe for proper attachment, physical damage.		Semi-annually
	Clean debris out of gutters.		Annually
	If drains are present, clean debris from around drains		After major storms
	If splash blocks are present, verify correct placement to prevent soil/landscaping erosion.		Semi-annually
Misc.	Observe roof for damage and debris.		After every major storm

4.8 Building Exterior - Walls, Windows, and Doors (Mission Critical)

The exterior walls, windows, and doors, along with the roof, comprise the building enclosure which protects the interior from weather including rain, heat, wind, and sunlight, and provides privacy and pleasant operating conditions for building operations.

The expected lifecycle of building walls, windows, and doors is 40 years.

Exterior Wall Component	Life Cycle Event	Asset Age	Maintenance Schedule
Exterior - General	Replacement	40 years	
	Observe perimeter base of building for cracks in the foundation, evidence of settling or washout.		Annually
Exterior – Walls	Replacement	40 years	
	Observe wall panels for physical damage, detachment, missing fasteners, open laps, or general weather-tightness.		Semi-annually
Exterior – Windows	Replacement	40 years	
	Inspect sealants and gaskets, locks, and screens. Check for weather-tightness.		Semi-annually

Exterior Wall Component	Life Cycle Event	Asset Age	Maintenance Schedule
Exterior – Doors	Replacement	25 years	
Personnel	Personnel Doors: Inspect for proper closure, physical damage, and operation of hardware.		Monthly
Roll-up	Roll-up Doors and Sectional Roll-up Doors: Inspect guides, sections, anchor bolts and securement, chain hoist mechanism, rollers, and hinges. If powered, inspect motor and switches for proper operation.		Annually

4.9 Facility Site (Mission Critical)

The facility site includes access (roadway and pedestrian for fleet vehicles and staff), parking, external lighting, fencing, and landscaping. As the site consists of multiple separate components, there is no overall expected life for the site. Many site elements are also found in Park & Ride lots.

Site Component	Life Cycle Event	Asset Age	Maintenance Schedule
Pavement	Replacement	20 years	
	Inspect pavement for general condition (cracks, deterioration, ponding, potholes, petroleum related degradation, etc.)		Semi-annually
	Seal cracks and open joints to prevent moisture entry which accelerates pavement deterioration and reduced structural integrity.		Quarterly or whenever observed
	Install seal coat	10 years	
Striping/ markings	Replacement	7 years	
	Inspect for visibility and wear. Include observation at night and after rain events.		Semi-annually
Storm Water Runoff Curbs & Drains	Replacement	20 years	
	Inspect outfalls for any obstructions. Clear drains and curb inlets of accumulated trash		Monthly and after major storms
	Inspect for physical damage, adequate bearing support, etc.		Monthly
Sidewalks	Replacement	30 years	
	Inspect for cleanliness and general appearance.		Monthly

Site Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Inspect for physical damage, trip hazards, etc.		Monthly
Signage	Replacement	10 years	
	Observe signage for proper attachment, impact damage, and placement, e.g., level, plumb. Signage should be clear and legible.		Monthly
Lighting	Replacement	20 years	
	Inspect for proper operation, illumination		Quarterly, or as necessary
Gates	Replacement	30 years	
	Inspect for proper operation		Quarterly
Retaining Wall	Replacement	25 years	
	Observe for cracking and indication of settling		Annually
Fencing	Replacement	40 years	
	Inspect for general condition, adequacy of intruder protection		Semi-annually
Drainage	Replacement	40 years	
	Inspect for proper site drainage, condition of outfall structures, etc. Test and ensure flow is not obstructed.		Quarterly, and after major storms
Storm Water Retention Pond	Replacement	40 years	
	Inspect for changes in general condition, storage, etc.		Annually, and after major storms

4.10 Specialty Equipment (Mission Critical)

Specialty equipment includes lifts, fueling station equipment, bus washers and other transit specialty equipment. Given the wide variation in special equipment products, staff should follow the OEM recommended PM inspections and schedules.

Specialty Equipment	Life Cycle Event	Asset Age	Maintenance Schedule
Bus Lifts	Replacement	20 years	
	Inspect and test lifts to ensure full functionality and safe operation. Repair defects.		Annually
	Lubricate moving parts		Annually

Specialty Equipment	Life Cycle Event	Asset Age	Maintenance Schedule
	Maintain to specific OEM recommendations		As specified
Vehicle Fluids Delivery System	Replacement	15 years	
	Inspect and test system to ensure full functionality and safe operation. Repair defects.		Monthly
	Maintain to specific OEM recommendations		As specified
Fuel Island: Tank	Replacement	20 years	
	Inspect and test tank structure and gauges to ensure full functionality and safe operation. Repair defects.		Monthly
	Maintain to specific OEM recommendations		As specified
Fuel Island Tank Monitoring System	Check operation of UST tank monitoring equipment.		Weekly
	Retain and file at least one leak test report each month to show compliance.		Monthly
Fuel Island: Electrical System	Replacement	20 years	
	Inspect electrical system, connections, and grounding to ensure full functionality and safe operation. Repair defects.		Monthly
	Maintain to specific OEM recommendations		As specified
Fuel Island: Pump	Replacement	20 years	
	Inspect and test pump to ensure full functionality and safe operation. Repair defects.		Weekly
	Maintain to specific OEM recommendations		As specified
Fuel Island: Canopy	Replacement	20 years	
	Inspect for damage		Semi-Annually
Fuel Island: Concrete Platform	Replacement	20 years	
	Inspect for pitting and cracking and repair as needed		Monthly
Bus Washer: Structure	Replacement	15 years	
	Inspect and test to ensure integrity, full functionality, and safe operation. Document and repair defects.		Semi-Annually

Specialty Equipment	Life Cycle Event	Asset Age	Maintenance Schedule
	Maintain to specific OEM recommendations		As specified
Bus Washer: Brushes	Replacement	20 years	
	Inspect and test pump to ensure full functionality and safe operation. Repair defects.		Semi-Annually (if equipped)
	Maintain to specific OEM recommendations		As specified
Bus Washer: Mechanical Systems	Replacement	20 years	
	Inspect and test pump to ensure full functionality and safe operation. Repair defects.		Monitor daily for proper operation
	Inspect and test air-compressor to ensure full functionality and safe operation. Repair defects.		Monitor daily for proper operation
	Inspect and test steam cleaning system to ensure full functionality and safe operation.		Monitor daily for proper operation
	Maintain to specific OEM recommendations		As specified
Bus Washer: Plumbing Systems	Replacement	20 years	
	Inspect and test plumbing connections to washer. Repair any leaks or other defects		Semi-Annually
	Inspect and test bus washer drainage system. Correct any defects, obstructions, or leaks.		Monitor daily for proper operation
	Maintain to specific OEM recommendations		As specified
Bus Tire Balancer	Replacement	10 years	
	Inspect and test performance. Check calibration.		Annually

5 - Park & Ride Lots

5.1 Park & Ride Lots (Mission Critical)

The purpose of the Park and Ride Lots is to provide a safe and convenient location for commuters headed to city centers to leave their vehicles and transfer to a ATL bus for the remainder of their journey. The vehicle is parked in the Park and Ride Lots during the day and retrieved when the owner returns.

To meet its purpose and encourage commuters to ride ATL buses, the parking facility is well-maintained, marked, lit and secure.

The expected lifecycle of a typical Park and Ride Lot is 20 years.

Replacement, Rehabilitation and Maintenance Policy

Similar to the facilities policy presented above, the Park & Ride policy is driven by the replacement, rehabilitation, and maintenance requirements of the component assets (e.g., pavement, signage, and lighting). Most P&R lot components can be replaced, rebuilt, and maintained independently of other neighboring components. The repair/replacement of major items and assets is governed by the TAM assessment.

Leased vs. ATL Owned P&R Lots

It is important to note that the full listing of asset components and their maintenance requirements applies to both ATL owned lots and leased Park and Ride lots. However, ATL's maintenance and rehabilitation requirements for leased lots is typically limited to pavement, but may also include responsibility for some additional asset types to support lot services (e.g., signage and shelters). Responsibility for these items is determined by the lease agreement.

5.2 Useful Life and Maintenance Requirements by Component

ADA requires all pavement, curbs, sidewalks, boarding areas, signage, and parking lots must be inspected for compliance with ADA requirements.

P&R Lot Component	Life Cycle Event	Asset Age	Maintenance Schedule
Pavement	Replacement	20 years	
	Inspect pavement for general condition (cracks, deterioration, ponding, potholes, petroleum related degradation, etc.)		Semi-annually
	Seal cracks and open joints to prevent moisture entry		As needed
	Install seal coat	10 years	
Striping/ markings	Replacement	10 years	
	Inspect for visibility and wear. Include observation at night and after rain events.		Semi-annually
Curbs & Drains	Replacement	20 years	
	Clear drains and curb inlets of accumulated trash		Monthly and after major storms
	Inspect for physical damage, adequate bearing support, etc.		Monthly
Sidewalks / Boarding Areas	Replacement	30 years	
	Inspect for cleanliness and general appearance.		Monthly

P&R Lot Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Inspect for physical damage, trip hazards, etc.		Monthly
Signage & Graphics	Replacement	20 years	
	Observe signage for proper attachment, impact damage, and placement, e.g., level, plumb. Signage should be clear and legible.		Monthly
Monument Sign	Replacement	20 years	
	Inspect for general condition, impact damage, proper illumination		Monthly
Lighting	Replacement	20 years	
	Inspect for proper operation, illumination		Monthly
Landscaping/ grounds	Replacement	20 years	Annually
Retaining Wall	Replacement	30 years	
	Observe for cracking and indication of settling		Annually
Passenger Shelters	Replacement	30 years	
	Observe structure and components for proper attachment, finish, weather tightness.		Monthly
Canopy	Replacement	30 years	
	Inspect for missing and rusted fasteners, and damaged panels.		Monthly
Seating / Trash Receptacles	Replacement	20 years	
	Inspect for damage, general condition		Monthly
Fencing	Replacement	40 years	
	Inspect for general condition, adequacy of intruder protection		Monthly
Drainage	Replacement	40 years	
	Inspect for proper site drainage, condition of outfall structures, etc.		Monthly
Storm Water Retention Pond	Replacement	40 years	
	Inspect for changes in general condition, storage, etc.		Annually, and after major storms
Utility Building: Structure	Replacement	30 years	
	Inspect for cracks and other indications of differential settlement, constrained thermal expansion/contraction, etc.		Annually
Utility Roof	Replacement	20 years	

P&R Lot Component	Life Cycle Event	Asset Age	Maintenance Schedule
	Inspect for general condition, proper drainage, debris.		Annually, and after storms
Utility Systems	Replacement	See below	
	HVAC	30 years	Semi-annually
	Electrical	30 years	Annually
	Plumbing	30 years	Annually

Conclusion

The Facility Maintenance plan is the basis of our facility maintenance program for both Park and Ride Lots and the bus Maintenance facility. Following the plan will maintain our assets in a state of good repair as prescribed by the FTA. The plan is updated periodically to include new equipment, new assets and to remove assets that are no longer in service. It is intended as a guide and can be adapted to new issues or needs as they arise. The Plan is an integral part of managing our assets, along with a commonsense approach as issues arise. Please notify the Transit Operations Manager should any new risks or unforeseen issues cause concern.