City of Grand Forks
Staff Report

Committee of the Whole – July 28, 2025
City Council – August 4, 2025

Agenda Item: Cities Area Transit (CAT) Transit Asset Management (TAM) Plan changes and signature updates

Submitted by: Dale Bergman, Public Transportation Director
Kristi Slominski, Interim Manager

Staff Recommended Action: Approve Cities Area Transit (CAT) Transit Asset Management (TAM) Plan signature updates because of Public Transportation Director leadership changeover from Dale Bergman to Kristi Slominski.

July 28, 2025 - Committee Recommended Action: Motion by Osowski, second by Berg to move item to City Council with a recommendation to approve. Motion carried unanimously.

August 4, 2025 - Council Action:

BACKGROUND:

The CAT has completed an update to its latest TAM Plan, which was completed in May 2025. In accordance with the Federal Transit Administration (FTA), all transit agencies are required to have a TAM Plan in place and updated yearly or a change of leadership as required. The CAT is required to have City Council approval along with NDDOT approval to forward onto FTA for final FTA review and approval.

ANALYSIS AND FINDINGS OF FACT:

The TAM Plan summarizes key Federal requirements for managing its FTA funded assets and when replacement assets are required by general guidelines.

1. **Transit Asset Management –** The plan is created in compliance with the National Transit Asset Management System final rule (49 U.S.C. 625) to establish a strategic and systematic practice for procuring, operating, inspecting, maintaining, rehabilitating, and replacing the agencies capital assets. This includes the management of performance, risks, and cost over an asset's life cycle to support safe, cost-effective, and reliable public transportation.

2. **Goals –** The goals of the TAM Plan are to support safe, clean, reliable, and high-quality transit services while making maximum use of financial resources.

3. **State of Good Repair –** These fall under the state of good repair requirement which requires and understanding of the desired performance of an asset and timely investment to maximize that performance over its useful life. This will include a conditional assessment of assets, useful life, and benchmark assessments relating to decision-making activities in capital programming.

The TAM Plan was reviewed and updated during the City's 2025 FTA Triennial Review and now needs to have new signatures because of the Public Transportation Director leadership change from Dale Bergman to Kristi Slominski.

SUPPORT MATERIALS:

- 2025 Cities Area Transit TAM Plan.
- TAM Plan Attachments.

Cities Area Transit (CAT)

Transit Asset Management Plan (TAMS)

Cities Area Transit

Prepared by
JF Public Transit Consultants LLC.
Phoenix, AZ

Updated February 2025

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Purpose

The Transit Asset Management (TAM) plan is created in compliance with The National Transit Asset Management System Final Rule (49 U.S.C. 625) to establish a strategic and systematic practice for procuring, operating, inspecting, maintaining, rehabilitating, and replacing the agency's capital assets. This includes the management of performance, risks, and cost over an asset's life cycle to support safe, cost-effective, and reliable public transportation.

About Cities Area Transit (CAT)

Mission Statement

At Cities Area Transit the mission is to provide safe, clean, and reliable vehicles effectively and efficiently for use by its customers and operators, and to maintain transit vehicles, facilities and equipment in such condition as to operate at a full level of performance.

Goals

The goals of the Asset Management Plan of Cities Area Transit are to support safe, clean, reliable, and high-quality transit services while making maximum use of financial resources. The purpose of the plan is to provide consistent, systematic and integrated program guidance that will enable Cities Area Transit to properly maintain and service its assets in support of revenue operations while maintaining them at, or above, the State of Good Repair (SGR) (see definition below). An effective maintenance plan ensures safe, clean and comfortable transit vehicles on the road and maximizes transit vehicle life and to operate at a full level of performance.

State of Good Repair: *the condition at which a capital asset is able to operate at a "full level of performance" – that is, the asset can perform its designed function and does not pose an unacceptable safety risk to users.*

State of Good Repair Policy

Achieving a State of Good Repair requires an understanding of the desired performance of an asset and timely investment to maximize that performance over its useful life. The Cities Area Transit owns and maintains $17,968,431.44 million of capital assets in FY2025, including revenue vehicles, support vehicles, support equipment, maintenance, administrative, and passenger facilities. With an annual budget of nearly $5,796,473 Cities Area Transit must balance the needs of the transportation system between expanding capacity and reinvesting in existing infrastructure.

A score of at least 2.5 is required for the FTA to recognize a transportation system as being in a State of Good Repair. This plan herein allows Cities Area Transit to calculate these scores based on the associated condition assessment of agency assets taking into account additional factors such as specific operating conditions and level of use that impact the assets' condition. The Cities Area Transit will continue its condition assessment program across all asset classes. As this data is collected, condition scores will be updated annually to reflect the true condition of the agency's assets more accurately.

Service Provider

Cities Area Transit is the operator of transit services in the city limits of Grand Forks, ND and East Grand Forks, MN. The service area of Grand Forks, ND covers 26 square miles and the service area of East Grand Forks, MN covers 6.5 square miles. The headquarters for the transit

operation is in Grand Forks, ND. The Cities Area Transit operates eleven weekday routes Monday through Friday with service hours ranging from 6:00 AM to 10:00 PM, and nine routes on Saturday with service hours ranging from 7:45 AM to 10:00 PM. Cities Area Transit operates the paratransit service during the same timeframes. Fixed Route Service currently handles over 285,000 boardings per year and the Paratransit Service currently handles over 56,000 passengers per year. Both services expect growth over the next several years.

Agency Policies, Procedures and Performance Target

Cities Area Transit operates under the guidance of the DOT's and assistance from the MPO (see attachment 1 – GF and EGF MPO Performance Targets) with implementation of Operational Policies and Procedures developed by agency management and staff specific for asset management practices. All agency employees have copies of these agency policies and procedures and are aware of their rights and responsibilities as represented in this document and the respective policies and procedures.

Cities Area Transit's policies and procedures reflect compliance with all applicable regulatory requirements as provided by the Federal Transit Administration and the North Dakota and Minnesota Departments of Transportation. As a Tier II agency, Cities Area Transit has been covered under the North Dakota Department of Transportation's Group TAM (see Attachment 2 – NDDOT Group TAM Plan) Plan and now has developed and implemented its own TAM plan with this document entirely specific to Cities Area Transit.

Cities Area Transit performance target is to have 0% of its facilities in a condition that has met or exceeded their ULB; 10% or less of its vehicles in a condition that has met or exceeded their ULB; and 10% or less of any equipment in a condition that has met or exceeded their ULB.

TAM Plan

Accountable Executive

Each transit provider must designate an Accountable Executive to ensure appropriate resources for implementing the agency's TAM plan and the Transit Agency Safety Plan (49 CFR 625.5). Grand Forks Cities Area Transit's Accountable Executive shall be the Public Transit Director (see exhibit 1 - Accountable Executive).

TAM Plans are self-certified by the Accountable Executive. The FTA will review the plan during Triennial and State Management Reviews, as well as during MPO Certification reviews.

Reporting Timelines

This TAM document covers a time horizon of 4 years commencing January 1, 2023 and ending December 31, 2026. It began with setting SGR (State of Good Repair) targets by policy December 1, 2022 and then providing said SGR targets to Cities Area Transit's MPO and Grand Forks City Council and the East Grand Forks City Council. The plan will be updated in its entirety at least once every four years. This TAM document will be amended as needed during the four-year timeline when there is a significant change to staff, assets or operations to Grand Forks Cities Area Transit

Required Elements

There are four elements that Tier II agencies must have per TAM requirements:

I. Inventory of Capital Assets

All capital assets that a transit provider owns, operates or manages, including those acquired without FTA funds.

II. Condition Assessment
Rating of Inventoried assets, collected at individual or asset class level

III. Decision Support Tools
Analytical processes used to make investment prioritization

IV. Investment Prioritization
Ranked list of proposed projects and programs ordered by year of planned implementation/

Inventory of Assets

The following pages contain summary of Cities Area Transit's capital assets broken out by:

- Rolling Stock (see exhibit 2 – Revenue Vehicles)
- Equipment (includes vehicles used to support revenue service or staff) and any equipment with a replacement value of $50,000 or greater (see exhibit 3 - Equipment)
- Facilities (Maintenance, Operations, Administration, Park & Ride, physical stations) (see exhibit 4 – Facilities)

Rolling Stock

Cities Area Transit maintains an accurate, current inventory of all revenue vehicles within the Black Cat Grants software system. Included in the inventory will be make, model, year of vehicle, VIN number, mileage, anticipated replacement year, replacement cost and condition rating as determined by the Excel Vehicle Condition rating spreadsheet.

Equipment

Cities Area Transit also maintains an accurate, current inventory of all equipment with an original value of $5,000 or more. This inventory is also maintained in the Black Cat Grants System software. The inventory will contain original cost, anticipated replacement year, replacement cost and condition rating as determined by the agency and records maintained in Black Cat.

Facilities

Cities Area Transit also maintains an accurate, current inventory of all facilities. This inventory is currently being maintained by the City of Grand Forks Finance Department. The inventory will contain information regarding the original cost and funding source of the facility, the anticipated replacement year, replacement cost and condition rating as determined by the Public Transit Director and Finance Department.

Condition Assessment

The condition assessment is a systematic process of inspecting and evaluating the visual and/or measured condition of agency assets. This process is used in combination with Useful Life Benchmark thresholds to support asset management and related decision-making activities, including capital programming, performance modeling and day-to-day maintenance. For example, if a vehicle fails the daily inspection, a decision is made to perform maintenance or pull the vehicle from road operation until deemed safe and reliable for passenger transportation.

All revenue vehicles, facilities, and equipment will be assigned condition ratings that will be recorded by the Grand Forks Finance Department in Black Cat Grants software annually. The agency also maintains an internal inventory list via Excel which is updated annually.

Useful Life Benchmark (ULB)

Performance Measure: Useful Life Benchmark		
Revenue Vehicles	Useful Life Benchmark (ULB) in Years	Percent of Revenue Vehicles Which Have Met or Exceeded ULB
BUS	14	<=10%
CUTAWAY BUS	8	<=10%
MINIVAN	7	<=10%
VAN	7	<=10%

Performance Measure: Useful Life Benchmark		
Equipment	Useful Life Benchmark (ULB) in Years	Percent of Equipment Which Have Met or Exceeded ULB
Non-Revenue Vehicle	7	<=10%
Non-Revenue Truck	7	<=10%
Bobcat	14	<=10%
Mower	14	<=10%

Performance Measure: Useful Life Benchmark		
Facilities	Useful Life Benchmark (ULB) in Condition Rating	Percent of Facilities Which Have Met or Fallen Below ULB Condition Rating
Admin & Maintenance	<3.0	0%
Passenger	<3.0	0%

Performance Measures

Asset Class	Measure
Rolling Stock broken down by mode	The number of vehicles, as a percentage of their mode, which have exceeded its ULB (target is <=10%)
Equipment	The number of non-revenue vehicles and equipment, as a percentage of the total non-revenue vehicles and equipment, which have exceeded their ULB (target is <= 10%)
Facilities	The number of facilities, as a percentage of all facilities, which has a TERM rating of less than 3.0 (target = 0%)

Condition Rating of Assets

An assessment will be performed annually to establish a condition rating. A Condition Rating Assessment form is created for each revenue vehicle and transcribed into the State's Global Resources in Black Cat Grants. The condition rating will be recorded in the January vehicle statistics report annually. (**See exhibit 5 – Vehicle Statistics Report**).

REVENUE VEHICLE CONDITION ASSESSMENT							
Asset Condition Criteria					Asset Rating Vehicle #_____		
Asset Useful Life Benchmark (ULB)	Equipment Hours or Vehicle Mileage	Asset Condition	Asset Performance	Asset Level of Maintenance Required	Rating	Rating Description	Rating Range
Percent of ULB Based on Age Remaining	Percent of ULB based on hours or Mileage	Quality, Level of Maintenance Required	Reliability, Safety, Meets Industry Standards	Level of Preventative and Corrective Maintenance			
Asset is New or Nearly New 75% to 100%	Asset is New or Nearly New 75% to 100%	Asset is Brand New or Like New	Asset Meets or Exceeds All Performance and Reliability Metrics, Industry Standards	No Major Problems Exist, Asset Requires Routine Preventative Maintenance According to Scheduled Maintenance Cycles	5	EXCELLENT	4.7 to 5.0

Asset is Nearing or At Its Midpoint of ULB 50% to 75%	Asset is Nearing or At Its Midpoint of ULB 50% to 75%	All Elements are in Good Working Order, Asset is Showing Minimal Signs of Wear and Deterioration	Asset Generally Meets Performance and Reliability, Based on Manufacturers Performance Standards	Asset Requires Some Minor Repairs for Minor Subcomponents Between Maintenance Cycles	4	GOOD	3.9 to 4.6
Asset Has Reached or Passed Its Midpoint ULB 25% to 50%	Asset Has Reached or Passed Its Midpoint ULB 25% to 50%	Asset is Showing Moderate Signs of Defective or Deteriorated Components	Asset's Performance and Reliability May Decrease and Cause Service Disruption for Unplanned Maintenance	Asset Needs More Frequent Minor Repairs on Subcomponents and Infrequent Major Repairs	3	ADEQUATE	3.0 to 3.8
Asset Reaching or Just Passed Its End ULB 0% to 25%	Asset Reaching or Just Passed Its End ULB 0% to 25%	Asset's Major Subcomponents Requires Replacement or Rebuild, Minor Subcomponents Show Increases of Defective or Deteriorating Components	Asset Performance and Reliability is Becoming More Substandard but Does Not Pose a Safety Risk	Asset's Maintenance Frequency is Significantly Increased for Repairs Between Maintenance Cycles	2	MARGINAL	2.0 to 2.9
Asset Passed Its ULB	Asset Passed Its ULB	Asset is no Longer Serviceable and May Have Critically Failed Major Components	Asset Does Not Meet Performance Standards AND Would Pose a Safety Hazard if Placed in Service	Major Component Failure	1	POOR	1.0 to 1.9

Asset ULB	Asset ULB	Asset Condition	Asset Performance	Level of Maintenance	SCORE
scale 1 to 5	scale 1 to 5	scale 1 to 5	scale 1 to 5	scale 1 to 5	Average the ratings

Equipment/Non-Revenue Vehicles

An inspection, done annually, will establish the condition rating of equipment based on useful life remaining. This inspection will be performed annually by Cities Area Transit's staff and records kept on file locally (see exhibit 6 – Annual Equipment and Facilities Statistics Report).

EQUIPMENT (and Support Vehicle) CONDITION ASSESSMENT							
Asset Condition Criteria					Asset Rating: Asset_____		
Asset Useful Life Benchmark (ULB)	Equipment Hours or Vehicle Mileage	Asset Condition	Asset Performance	Asset Level of Maintenance Required	Rating	Rating Description	Rating Range
Percent of ULB Based on Age Remaining	Percent of ULB based on hours or Mileage	Quality, Level of Maintenance Required	Reliability, Safety, Meets Industry Standards	Level of Preventative and Corrective Maintenance			
Asset is New or Nearly New 75% to 100%	Asset is New or Nearly New 75% to 100%	Asset is Brand New or Like New	Asset Meets or Exceeds All Performance and Reliability Metrics, Industry Standards	No Major Problems Exist, Asset Requires Routine Preventative Maintenance According to Scheduled Maintenance Cycles	5	EXCELLENT	4.7 to 5.0
Asset is Nearing or At Its Midpoint of ULB 50% to 75%	Asset is Nearing or At Its Midpoint of ULB 50% to 75%	All Elements are in Good Working Order, Asset is Showing Minimal Signs of Wear and Deterioration	Asset Generally Meets Performance and Reliability, Based on Manufacturers Performance Standards	Asset Requires Some Minor Repairs for Minor Subcomponents Between Maintenance Cycles	4	GOOD	3.9 to 4.6
Asset Has Reached or Passed Its Midpoint ULB 25% to 50%	Asset Has Reached or Passed Its Midpoint ULB 25% to 50%	Asset is Showing Moderate Signs of Defective or Deteriorated Components	Asset's Performance and Reliability May Decrease and Cause Service Disruption for Unplanned Maintenance	Asset Needs More Frequent Minor Repairs on Subcomponents and Infrequent Major Repairs	3	ADEQUATE	3.0 to 3.8

Asset Reaching or Just Passed Its End ULB 0% to 25%	Asset Reaching or Just Passed Its End ULB 0% to 25%	Asset's Major Subcomponents Requires Replacement or Rebuild, Minor Subcomponents Show Increases of Defective or Deteriorating Components	Asset Performance and Reliability is Becoming More Substandard but Does Not Pose a Safety Risk	Asset's Maintenance Frequency is Significantly Increased for Repairs Between Maintenance Cycles	2	MARGINAL	2.0 to 2.9
Asset Passed Its ULB	Asset Passed Its ULB	Asset is no Longer Serviceable and May Have Critically Failed Major Components	Asset Does Not Meet Performance Standards AND Would Pose a Safety Hazard if Placed in Service	Major Component Failure	1	POOR	1.0 to 1.9

Asset ULB	Asset ULB	Asset Condition	Asset Performance	Level of Maintenance	SCORE
scale 1 to 5	scale 1 to 5	scale 1 to 5	scale 1 to 5	scale 1 to 5	Average the ratings

Facilities Condition Assessment

City of Grand Forks Buildings and Grounds staff and Transit staff will determine the condition rating of all facilities. This rating will be included in the annual Equipment and Facility Checklist performed by staff. An example of the Facility Checklist is on the following two pages (**see exhibit 6 – Annual Equipment and Facilities Statistics Report**).

FACILITY CONDITION ASSESSMENT (per TERM)									
Components	Sub-Components	Assessment Tasks	Percent of Asset Quantity by Condition						
			Asset Quantity	Unit of Measure	5 Excellent	4 Good	3 Adequate	2 Marginal	1 Poor
Substructure	Foundations	Inspect walls, columns, pilings, other structural components for signs of decay and establish overall condition							
Shell	Structural Frame	Inspect columns, pillars, and walls							
	Façade	Inspect building envelope, glazing, exterior, sealants							
	Gutters, Downspouts								
	Doors, Windows								
	Finishes	Paint, masonry							
	Roof	Roof surface, eaves, skylights, flashing, surrounds. Note evidence of pooling or roof leaks. Age, wear, and if still under warranty							
Interiors	Doors, windows	Inspect soundness and finish, signs of cracks, holes, and any other roughness or damage to surfaces, inspect surface materials (paint and other coatings etc)							
	Drywall, partitions								
	Ceiling, Ceiling tiles								
	Interior finishes								
Plumbing	Fixtures	Check condition and function of fixtures							
	Water distribution	Inspect pipes for distribution							
	Sanitary waste	Check fo damage or leaks including any drainage							
	Water drainage	Inspect outdoor faucets							
HVAC	Energy supply	Inspect coil, housing, drains, wiring and evaluate overall performance of each system. Note apparent or reported age of the equipment, any past component replacement or upgrades, and apparent level of maintenance exercised. Note refirgerants/fuel used and their suitability, or need for improvement or upgrade, Establish overall condition for each unit.							
	Distribution systems								
	Cooling generation & distrbution systems								
	Controls, instrumentation, testing, balancing								
	Chimneys and vents								
Electrical	Electrical service and distrubution	Insect service noting any deficiencies or needed upgrades. Examine any and all components related to electrical service and distribution such as conduit, boxes, mounting, checking for damaged wire chaffing or loose or corroded connections. Evaluate overall performance of the system.							
	Lighting and branch wiring (interior & exterior)								
	Communications and security								

Equipment	NOTE each piece of equipment with cost > $10k will have its own set of condition criteria									
Site	Roadways, driveways, and associated garages, signage markiings and equipment	Inspect area for cracking and settling of the concrete and asphalt. Inspect for uneven surfaces, holes and trip hazards								
	Parking lots and associated signage markings and equiment	Inspect for signs of pitting, rust, damage. Inspect markings for chips and condition of paint								
	Pedestrian areas and associated signage markings and equipment									
	Passenger platforms, shelters, overheads									
	Curbing ADA access areas	Pay special attention to wheelchair ramp areas and other ADA access considerations. Check curb for chips and condition of paint.								
	Fencing and gates	Look for corrosion, structural integrity and surface condition								
	Landscaping and irrigation	Look for sgns of drainage problems such as flooded areas, eroded soil, water damage to asphalt, and clogged storm drain inlets. Visually inspect the irrgation systemif applicable. Look for signs of leaks and water pooling. Check trees and grass for signs of insect invasion and overall health.								
	Site utilities including lighting	Inspect poles and wiring for damage, and inspect lighting, noting any deficiencies and evaluate overall condition.								
		TOTALS								

General Condition Assessment Rating Scale		
Raring	Condition	Description
5	Excellent	No visual defect; new or near new condition; may still be under warranty if applicable
4	Good	slightly defeective/deteriorating components; oveall functional
3	Adequate	Moderately deteriorated or defective components; has not exceeded useful life
2	Marginal	Defective or deteriorated components in need of replacement; has exceeded useful life
1	Poor	Critically damaged components in need of immediate repair; well past useful life

Inspection Date: _____

Inspected By: _____

Assessment Approved By: _____

Total Assessment Rating: _____

Maintaining a State of Good Repair (SGR)

SGR is the condition at which an asset can operate at a full level of performance. It can operate safely as designed without posing an unacceptable risk to its users. The emphasis of Cities Area Transit System's asset maintenance program is preventive rather than reactive maintenance. A strong Preventive Maintenance (PM) program effectively reduces overall maintenance costs, increases reliability and performance, and reduces the high cost of unpredictable repairs caused by reactive maintenance.

The Cities Area Transit uses a graduated PM program that is based on the manufacturer's recommendations and modified based on our experience and the local conditions of the City Limits of Grand Forks, ND and East Grand Forks, MN. Solid PM practices maximize useful life, are cost efficient over the life of the vehicle, facility and equipment, and ensures that our assets remain in safe operating condition.

Each asset is managed with the intent to achieve the following:

- Maximize intervention of wearing parts, premature failures, and early detection.
- Minimize equipment catastrophic failures.
- Minimize agency liability when incidents occur.
- Maximize service reliability

Vehicle Preventative Maintenance

The Cities Area Transit has an aggressive vehicle (revenue and support) PM program that schedules vehicle inspections based on a variety of categories. The PM schedule established is based upon usage and vehicle type (see attachment 3 – Bus Preventative Maintenance Plan). Vehicles are inspected based on mileage and/or predetermined time spans. In addition, each vehicle receives an annual comprehensive inspection.

The allowable variance with all preventive maintenance vehicle inspections is a minus 10% to a plus 10% of the mileage limits set for gas vehicles at 3,000 miles and for diesel vehicles at 4,000 miles. Any inspection completed within this parameter, or as directed by Agency Maintenance policy, is considered on time. For example, a gasoline vehicle with between 2,700 and 3,300 miles since its last preventative maintenance service is considered on-time.

The Operations Supervisor is responsible for developing the PM schedule for each vehicle fleet and ensuring that all PM activities are completed in a timely manner. Preventative maintenance cycles are performed for several vehicle components as well as for all Cities Area Transit Vehicles. Examples of components with their own PM schedule are wheelchair lifts, fare equipment, exhaust after-treatment, transmissions, engines, alternators, and axle assemblies. In most cases the manufacturer's recommendations are followed. In some cases, the intervals established are either longer or shorter than the recommendations. In these cases, extensive research and data collection is done prior to establishing a cycle. In all situations the goal of the maintenance programs is to enhance the quality and safety of the vehicle, minimize interruptions in service, and to reduce overall costs to the agency.

Throughout the PM and repair process the tasks performed by maintenance staff are under constant review by the Operations Supervisor and staff. This constant review is designed to ensure that review and decisions are made at the proper level of management. Maintenance programs are designed, constantly monitored, and updated to

minimize service interruptions and ensure consistently high quality of service on the street. A PM tracking report is printed regularly and reviewed to identify which vehicles or facility component are due or coming due for Preventative Maintenance. The identified vehicles are removed from service and scheduled for work.

Revenue Vehicle Corrective Maintenance

Specific procedures are outlined and monitored to ensure that all vehicles are inspected prior to the transit vehicle being put into service each day. Drivers perform a comprehensive checklist of essential maintenance elements and record the results on the designated Pre-Trip Inspection (PTI) form. Pre-trip inspection sheets are turned in to the main office and monitored for completion and any noted defects. Post-trip inspections are performed at the end of the driver's work schedule and contain information regarding the condition of the vehicle when the work day is completed. (See Attachment 4 – Daily PTI).

The Pre-Trip Inspection form includes inspection of wheelchair lifts. In compliance with the requirements of the Americans with Disabilities Act (ADA), monitoring of all wheelchair lifts is included as part of the Pre-Trip Inspection and the Preventive Maintenance process. The lift is cycled as part of the Pre-Trip Inspection, and maintenance will include replacement of worn components and all adjustments as necessary for peak performance.

Post-trip inspection sheets will be kept in the vehicle for information for the subsequent driver. Post-trip inspections will contain any necessary repair work needed to be completed. The next driver will determine whether the vehicle repair work warrants not using that vehicle and a spare vehicle will be used until the work is completed.

The drivers Pre-Trip and Post-Trip Inspections are critical to identifying issues in need of correction.

When corrective maintenance is required, drivers/mechanics will ensure that repairs needed are identified and reported. Mechanics (either in-house or contracted) will document all work done, cost of maintenance, dates and mileage.

Facility and Equipment Preventative Maintenance

Regular preventive maintenance is performed on Cities Area Transit facilities and equipment. Inspections are performed routinely, and any corrective maintenance needed is noted and performed as soon as possible. All inspections are documented. Each facility has its own maintenance plan on file in Black Cat Grants and inspections follow the maintenance plan (see attachment 5 – Facilities Maintenance Plan). Office of Transit staff will spot check facilities and records annually.

Individual preventive maintenance programs have been developed on key facilities components such as Heating and Air Conditioning, ADA Accessibility Features, Life Safety Systems, Pollution Control Equipment, Emergency Power Systems, Vehicle Lifts, Bus Wash Equipment, and similar items that have a high dollar value, significant wear and tear, or present a clear possibility in a disruption of service if they should fail. In addition, preventive maintenance programs have been set up for all components with a regulated or statutory inspection cycle such as fire sprinkler/alarm systems, hot water tanks, and compressed air vessels.

Facilities and equipment preventative maintenance goals are:

- Conduct 100% of all legally mandated inspections by mandated inspection date.
- Review and improve practices for the effective and efficient management of utilization of facilities and equipment.
- Ensure to the extent possible Cities Area Transit's facilities and grounds are both functional and aesthetically pleasing.
- Continue to conduct at least 80% of all facilities and equipment preventive maintenance within the "On Time Performance Guidelines".
- The Maintenance Manager conducts documented inspections of each facility on a monthly basis.
- Annually, complete a facility inspection report. (see attachment 6 – Annual Facility Inspection Report)

Facility and Equipment Corrective Maintenance

When corrective facility maintenance is required, the person responsible for the facility will identify and report the repair needed. All work will be documented and dated. Work done will also be included in the Annual Facility Inspection Report.

Local Conditions

Local conditions have a direct impact on the level of PM needed. Cities Area Transit provides service throughout the city limits of Grand Forks, ND and East Grand Forks, MN. The following conditions are considered when developing a PM program for a vehicle or group of vehicles:

- Service Design
    - Urban Service – Fixed route and complimentary paratransit/demand response service. Due to the frequency of the stops and traffic conditions in the urban area, vehicles used for this service require a higher level of PM
- Topography and Weather – Salt and ice from the winter roads may cause premature wear on certain parts of the vehicles. Those parts are inspected more frequently than the manufacturer recommends. Buildup of snow and ice may cause additional cleaning of vehicles.
- Local Policies:
    - All vehicles must be cleaned and vacuumed daily
    - Lifts must be cycled during pre-trip inspections
    - All pre-trip and post-trip inspection forms must be turned into the operations supervisor daily.
    - All vehicles must download fare collection information daily.
    - All vehicles must be fueled daily.

Identify, Track, and Record Maintenance Activities and Costs

Cities Area Transit uses a system of manual and computerized forms and reports to schedule and perform PM and repairs to its fleet of vehicles, equipment, or facilities. Work orders are primarily tracked through RTA EAM software. Transit Check Software is utilized for electronic vehicle inspection (EVIR) reports which are performed each time a revenue vehicle enters service and for preventive maintenance inspection checklists. These documents include:

- Work orders
- Service orders
- Purchase orders
- Parts requests

• PM tracking report
• PM inspection forms

After a vehicle or facility is identified as needing PM, a work order is prepared which includes coding, labor costs, parts, warranty work, contractor invoice, and recorded. If the prepared work order with repair labor and parts is estimated to exceed the $2,500 threshold, appropriate procurement procedures are followed. All repair labor, parts, and supplies are charged to the work orders under the specific coding applicable to the individual repairs. Upon completion, the PM Tracking Report is updated.

Warranty Recovery

Vehicles, parts, equipment and facility components will be monitored to make sure that all assets are repaired and maintained under the manufacturer's warranty where applicable. Warranties are monitored in the agency maintenance software for expiration so that problems can be addressed by the appropriate source and any concerns can be taken care of before warranties expire. All warranty work will be recorded. For failed components under warranty, authorization for warranty return and labor claims, if applicable, are obtained from the manufacturer or vendor.

Decision Support Tools

Agency staff within the executive, maintenance, operations, finance, and planning departments utilize a variety of management practices, policies, and technology to manage, maintain and plan throughout the life cycle of an asset.

The decision support tools that Cities Area Transit utilizes include both electronic software and written policies. Each compliments the other as they contribute to our asset management.

Tools include, but not limited are:

- Life Cycle Cost Analysis Tool
- Vehicle Replacement Lifecycle
- BlackCat Transit Software Program
- Asset Condition Assessment (SGR) (ULB)
- Cities Area Transit's ten-year Capital Improvement Plan (CIP)
- Investment Prioritization
- Risk Management and Accident/Incident Reporting
- Disposal Strategy

Life Cycle Cost Analysis Tool

Cities Area Transit uses life cycle cost analysis as part of its decision-making process when establishing and making changes to preventative maintenance intervals. The agency also Identifies replacement need, quantifies the need, and compares the benefits versus the cost to develop a recommendation for declaring an asset has reached its end of its useful life. Additional factors included in the decision-making include useful life benchmark; age (for vehicles both mileage and age of vehicle), condition, maintenance costs, and available funding.

Vehicle Replacement Lifecycle

Cities Area Transit also maintains a ten-year revenue vehicle replacement plan within the Black Cat Grants with NDDOT and with MnDOT (see attachment 7 – 10year Capital Project Plan). Projected vehicle costs and replacement dates are tracked in this replacement plan.

Cities Area Transit sets its own vehicle replacement schedule; however, the FTA's minimum useful life and the State's ULB are considered and used for vehicle replacement decisions. Occasionally, vehicles remain on the asset list and are used as back-up vehicles or in transit operations (if mechanically sound and presentable) even though they may have passed their minimal useful life. Likewise, occasionally, a vehicle will need replacement prior to the minimal useful life for various reasons. Cities Area Transit will work with the Office of Transit in those cases and reasons will be well-documented. Cities Area Transit's vehicles will be assigned a condition rating on an annual basis which will also help determine replacement.

BlackCat Transit Software

Cities Area Transit uses BlackCat Transit Data Management System by Panther International and provided by the State DOT which is specifically designed for Transit. Several workflow modules are used to support the tracking, analysis, and management of agency assets.

Asset Condition Assessments

As introduced earlier, a State of Good Repair (SGR) is a threshold that identifies the desired performance condition. An asset is in SGR when a capital asset is able to operate at a full level of performance. Annual asset assessments are critical not only to evaluate assets to SCR criteria but are a valuable analytical tool to be used in asset disposition and replacement decisions as those times approach.

SGR performance targets are based on realistic expectations obtained from the most available data (ULB-useful life benchmarks), FTA performance measure criteria and the financial resources Cities Area Transit reasonably expects to be available during the TAM plan period for capital planning

Capital Improvement Plan

All transit capital project improvements are taken into consideration on an annual basis. The Grand Forks – Easy Grand Forks MPO Transit Improvement Program is a key component in the agency's capital asset improvements and/or procurements (see attachment 8 – Grand Forks – East Grand Forks MPO TIP). The Minnesota DOT 10-year Capital Plan noted earlier in attachment 7 is also a stakeholder for capital improvement. When specific projects are identified, the agency is able to submit the request to the NDDOT/MnDOT through the BlackCat software.

Risk Management and Accident/Incident Reporting

The agency has a comprehensive Safety Management Plan which provides in depth training regarding the risk management practices. These include a safety module for transit drivers to provide safe vehicle operations, hazard assessment techniques, and risk assessment. On a quarterly basis, staff conducts a safety inspection to identify areas of potential risk. These practices help avoid potential public and staff injury and equipment damage.

Cities Area Transit employees are required to report all accidents and incidents that they witness or are a party to. Report forms are available for this purpose (see attachment XX – Safety Management Plan). The agency also must conduct random drug & alcohol testing for all safety-sensitive employees.

Disposal Strategy

Vehicles or equipment that have fulfilled their useful life and or mileage requirement that have a current unit market value of less than $5,000 may be disposed of with no further obligation to Federal Transit Administration (FTA) or the State of North Dakota per the respective policies of those agencies. Cities Area Transit will complete North Dakota Office of Transportation (NDDOT) Release of Continuing Control form and forward it to the NDDOT Transit Section seeking to divest itself of the vehicle.

Investment Prioritization

The demand for transportation investments far exceeds the available funding. Careful consideration is given to the broad objectives of the MPO and the agency before a quantitative evaluation is applied to determine which investment provides the greater good to the community. Attempts are made to balance the tradeoffs including asset condition and costs of projects versus the ability to impact the community for varying assets with the funds available.

Cities Area Transit Accountable Executive	Date
City of Grand Forks Council President	Date

EXHIBITS

Table Of Exhibits

Attachments

Table of Attachments

Selected Template ⓘ **Backup Generator Inspection/Maintenance (GEN-INSP)**

Template Ver ⓘ **649**

Item Image (default) ⓘ

Tag (optional) <ALL> ×

Inspection Item <select an item> ⓘ

Location <select a location> ⓘ

Click and grab the up/down arrows and drag/drop the inspection item to update the inspection order.

	Location	Item	Inspe Orc
↓↑	Generator Exterior	Exterior Cabinet	1
↓↑	Generator Exterior	Exhaust Stack	2
↓↑	Generator Exterior	Generator Natural Gas Line	3

↓↑	Generator Interior	Air Filter	6

	Location	Item	Inspe Orc
↓↑	Generator Interior	Charging System	7
↓↑	Generator Interior	Exhaust System	8
↓↑	Generator Interior	Vibration/Isolation Pads	9
↓↑	Generator Interior	Wiring Harness	1(
↓↑	Generator Interior	Control Panel	1'

Close | Delete Insp Items | Apply Changes

Monthly Building Walk Through Checklist

All automatic doors will be inspected weekly. These include automatic vehicular doors, doors with ADA controls and overhead doors in delivery areas and shops.

Automatic doors

_____Nut, bolt and fasteners conditions

_____Cleanliness

_____Stability

_____Shaft conditions

_____Overload and relay conditions

_____Overall appearance for damage/vandalism

_____Weatherproofing/caulking condition

_____Roller alignment

_____Condition of hinges

_____Alignment

____Operating devices (motors), pneumatic

____Lubrication

____Structural integrity

____Bearing conditions

____Circuit breaker condition

____Overall operation

____Lubrication of guides, hinges, and locks

____Glazing integrity

____Condition of locks and security

____Plumb and building settlement

Surveillance cameras and monitors

_____Function

_____Mounting condition/stability

_____General console condition/stability

_____Overall condition

____Fixture integrity

____Location accuracy

____Power source continuity

____Function

Alarm Systems

Inspect these items monthly. Adjust as appropriate. Repair immediately

_____Smoke detectors/operation

_____Housing condition

____Battery and hardwire connection

____Overall condition

Doors and Windows

_____Pane conditions

_____Screen conditions

_____Storm window conditions

_____Frame alignment and conditions

_____Paint or surface conditions

_____Hardware condition and lubrication

_____Lock and security operation

____Weather sealing condition

____Blind function and condition

____Overall condition

Doors and hardware

_____Automatic closure operation

_____Hardware condition and lubrication

_____Paint or surface condition

_____Door stop placement and stability

_____Overall condition

____Lock operation

____Weather seal condition

____Frame alignment and conditions

____Alarm system

Gas Connections

The following checks are shall be performed monthly. The gas company should be contacted if:

-There is an odor of gas anywhere and at anytime

-Valves cannot be turned off or appear damaged or rusted

-For minor repairs if maintenance personnel do not have adequate training

When gas is detected by odor, occupants should immediately evacuate and call the gas company and fire dept. If possible leak detected do not open or close valves.

____Operation- perform a bubble test with soap and water or a handheld gas detector.

Restrooms

_____Electrical outlet load

_____Accessible route

_____Overall fire safety

_____Accessible sinks and mirrors

_____Overall ADA accessibility and condition

_____Faucets function and hardware condition

____Position of flammable materials/heat source

____Visible exit

____Accessible toilet stalls for wheelchairs

____Hand rail stability and condition

____Plumbing/leaks or corrosion

____Drain function

_____Water flow/pressure

____Toilet condition

____Cap and part conditions

____Dispensor operation soap, paper towel, etc...

____Surface conditions for worn or sharp areas

____Trash receptacles

____Mirrors/cracks or sharp edges

____Overall privacy

____Fire safety and extinguishers

____Expiration of fire extinguishers

____Floor condition/wear or tripping hazards

____Trash receptacles/sanitation and stability

____Urinals/condition

____Water flow/pressure

____Seat and support condition

____Stability and security

____Vandalism or deficiencies

____Sanitary condition and stability

____Cleanliness of mirrors

____Overall cleanliness

____Placement and housing of fire ext...

____Overall fire extinguisher condition

____Condition of walls and ceiling

____Overall restroom condition

Offices

____Electrical outlet load

____Accessible route and visible exit

____Floor condition for excessive wear or tears

____Tripping hazards

____Check furniture for sharp or rough edges

____File cabinets are stable

____PA system is operational if applicable

____Housing and hose condition of fire extinguishers

____Overall condition of office spaces

____Position of flammable materials

____Overall fire safety

____Walls and ceiling condition

____Furniture is stable

____Lubrication of hardware as applicable

____Lock functions work

____Fire extinguishers are charged and current

____Correct placement of fire extinguisher

Kitchen and Dining Areas

____Electrical outlet load

____Accessible routes and visible exits

____Position of flammable materials

____Overall fire safety

____Furniture(counters, tables and chairs condition

____Placement and housing of fire extinguishers

____Sink and drainage in overall good condition

____Clocks are working

____Employee bulletin board/maps in good condition

____Correct placement of fire extinguishers

____Fire extinguishers are charged and current

____Flooring in good condition

____Trash receptacles are clean

____Closet door and locks working if applicable

____Fire extinguishers are charged and current

____Overall condition of Kitchen/dining room

Bus Wash Weekly Preventative Maintenance

____Check operation of all proximity switches

____Check levels of soap and/or wax levels

____Check brushes for foreign objects and debris

____Check guide rails for cleanliness and debris

____Test operation of switches on/in panel

____Check injection pumps and adjust if need

____Check brushes to see all rotate

____Grease bearings on side brushes

Bus Wash Monthly Preventative Maintenance

____ Check operation of all proximity switches

____Check levels of soap and/or wax levels

____Check brushes for foreign objects and debris

____Check guide rails for cleanliness and debris

____Cycle the side brushes and extend/retract

____Check performance of brushes-1o" filaments

____Check electric motors/pumps-stability/operation

____ Test operation of switches on/in panel

____Check injection pumps and adjust if need

____Check to see all brushes rotate

____Grease bearings on side brushes

____Check all nuts and bolts

____Check movement of brushes

____Replace any worn parts as soon as possible

Landscape

____Vegetation condition/overgrown/exposed roots

____Piping integrity

____Free of weeds and invasive plants

____Irrigation system/sprinklerheads direction

____Water runoff conditions

____Overall appearance

Asphalt and concrete

____Parking bumper condition and position

____Striping and pavement signage

____ADA accessibility

____Compliance with codes and standards

____Edging and curbs condition

____Potholes, softening/cracking erosion

____Tripping hazards

____Signs

____Message currency and visibility

____Surface conditions

____Weed and root encroachment

____Overall condition

Signage

____Compliance with codes and standards

____Accuracy of lettering/numbering-message

____Hardware conditions

____Paint conditions

____Cleanliness

____Adherence to surface/stable

____Illumination and location/visibility

____Overall appearance

General Safety and Security

____Sign visibility and currency

____Weed encroachment and trash buildup

____Fence conditions

____Overall condition

Locks

____Secure/security

____Overall operation

____Lubrication if applicable

____Overall condition

Painted Surfaces and Structural Condition

____Stability and joint conditions for deficiencies

____Overall condition

HVAC and Heating Systems

____Overall cleanliness

____Electrical connection conditions

____Motor/stability and lubrication

____Connection conditions

____Unit operation and noise level

____Window seal and gasket condition

____Condensation drain condition

____Filter condition

____Mounting stability of housing

____Oil cup conditions

____Coil conditions

____Blower motor operation

____Equipment cleanliness

____Mechanical equipment function

____Flow switch operation

____Overall condition

Irrigation Controllers

____Electrical connections

____Piping and ground condition

____Timer accuracy if applicable

____Overall condition

Roofing

____Support structure integrity/cracks or stains

____Surface conditions for deficiencies

____Membrane conditions for

____Roof ventilation conditions

____Structural conditions/settling of components

____Expansion joint conditions/punctures, splits

____Chimney condition if applicable

____Flashing conditions/deficiencies

____Subsurface/insulation for moisture

____Plumbing stacks and vents

____Skylight conditions/deficiencies

____Roof edging conditions/ (fasteners)

____Flat roof conditions/bare areas, cracks

____Overall condiotion

Gutters/roof drains

____Mounting stability/ bolts, screws and strap

____Joint conditions and stability

____Splash block location

____Caulking conditions

____Overall condition

____Discharge area for proper drainage

____Roof atrium drains /cleanliness

____Seam and elbow condition

____Gutter position toward downspouts

Solar panel equipment system

____Mounting stability/bolts, screws, etc...

____Electrrical connections

____Signs of cell degradation

____Voltage and current readings

____Structures blocking sunlight

____condition of solar panels/cracks or breaks

____Dirt and debris accumulation

____Damaged or frayed cale

____System efficiency

____Seal integrity around mounting points

_____Signs of rodent damage

_____Corrosion on components

_____Inverters condition

_____Charge controllers condition

_____Overall condition

Any deficiencies noted on inspection requires a Bus Maintenance Facility Work Order to be filled out and completed Promptly by the individual requesting the work.

Bus Washer Monthly Preventive Maintenance Checklist

Electrical Systems

____ Check all electrical connections, wiring and switches for wear or damage.

____ Verify lighting system is working correctly, Including signage.

Wash Bay Equipment

___ Inspect all washbay equipment (brushes, spray nozzles, high-pressure hoses, etc.) for signs of damage, wear, or misalignment. Remove any debris.

____ Check for loose or missing components on brushes and spray bars.

____ Verify proper rotation and pressure of rotating brushes.

____ Check for leaks in the wash system, including hoses and connections

____ Lubricate moving parts on wash equipment as needed.

Soap and Chemical Systems

____ Monitor soap and chemical solutions.

____ Clean and replace filters as needed.

____ Check soap injection pumps, (leaks or wear, adjust as necessary,

Water System

____ Check water pressure at different wash zones.

____ Inspect water supply lines for leaks or damage.

Drainage System

____ Inspect drainage channels and drain pits for sand/dirt and debris buildup.

____ Clean and maintain drainage channels and catch basins.

____ Clean interior of the wash bay to remove dirt and debris from floors/walls.

Operational checks

____ Run a full wash cycle, monitoring operation for any irregularities.

____ Check for proper flows and spray patterns, also check for soap dilution.

Safety Checks

____ Insure wash bay is free of safety hazards.

____ Verify the functioning of the emergency stop button.

____ Insure proper function of the wash bay door.

Inspector's Name_____

Date Inspected _____/_____/_____

Bus Washer Monthly Preventive Maintenance

_____ Check the operation of all proximity switches.

_____ Check and grease the top brush lift, and gantry drive chains.

_____ Test the operation of all switches on the main electrical panel door, and the Operator's control panel.

_____ Check the levels of soap and wax.

_____ Check the soap and wax injection pumps. Adjust as necessary.

_____ Check all the brushes for foreign objects and damage.

_____ Check to see all the brushes rotate.

_____ Check the guide tracks for cleanliness. Remove any debris on the tracks.

_____ Check and adjust the air-line lubricator. Fill if needed.

_____ Grease all bearings on side brushes.

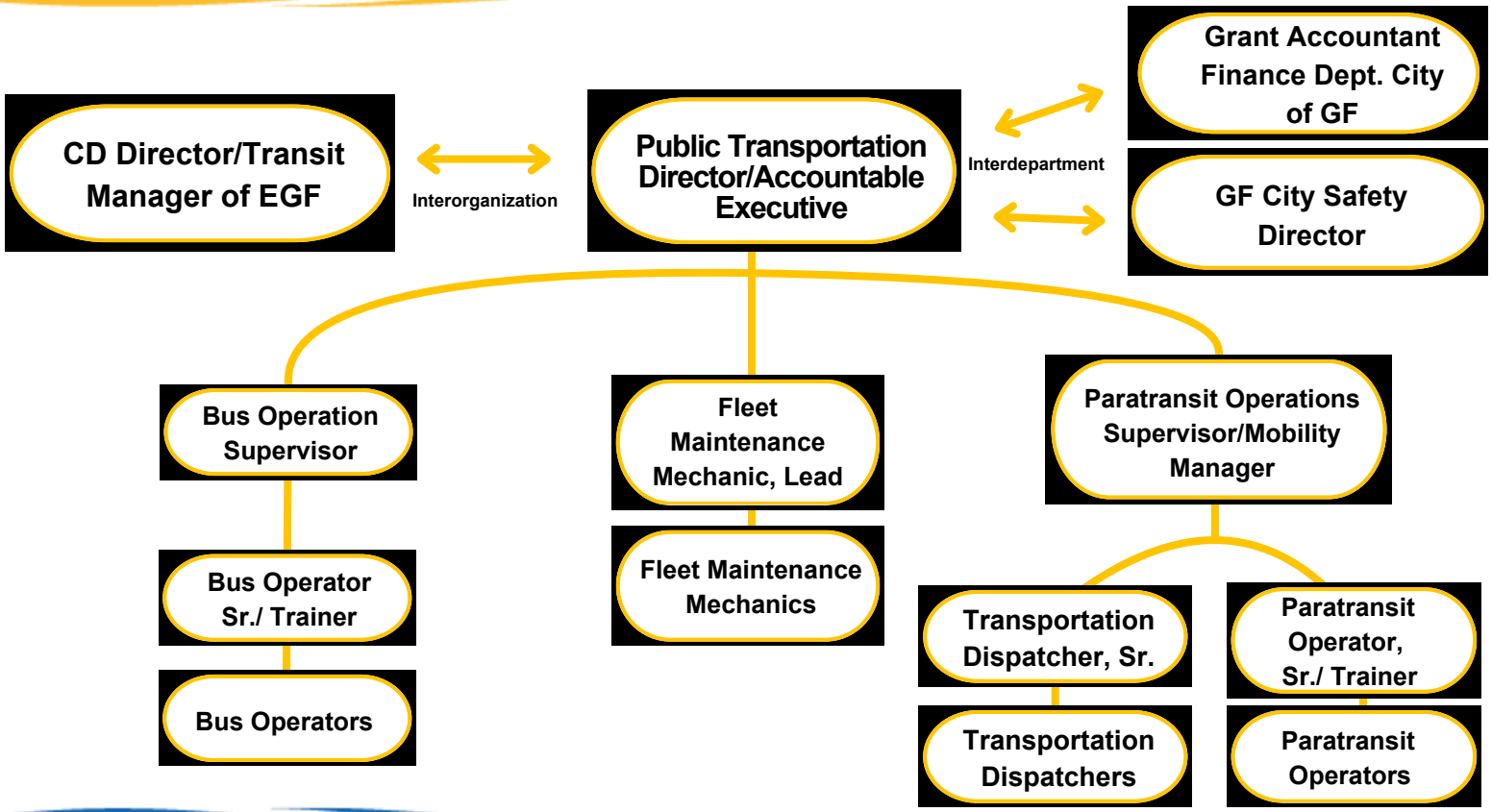
_____ Cycle the brush arms (extend/retract) and adjust the flow control valves at the air cylinders to give desired response speed.

_____ Drain all moisture from the airline filter's bowl.

Inspector's Name_____

Date Inspected_____/_____/_____

CITIES AREA TRANSIT ORGANIZATIONAL CHART



City of Grand Forks Cities Area Transit

FACILITY MAINTENANCE PLAN

January 2025

Cities Area Transit
PO Box 5200
Grand Forks, ND 58206
Phone: 701-746-8108
Fax: 701-746-2582

MISSION

A quality maintenance program is vital to support the mission of Cities Area Transit (CAT) to promote mobility by providing, maintaining, and supporting the development and delivery of public transportation services. CAT strives to meet or exceed the maintenance requirements of all transit vehicles, equipment, and facilities as outlined in their respective O&M manuals.

_____ Transportation Division Director _____
Signature Date

_____Transportation Supervisor _____
Signature Date

_____Safety Representative _____
Signature Date

Contents

SECTION 1: GENERAL SAFETY PROCEDURES

1. Emergency Phone Numbers: Fire 911

   Ambulance 911

   Poison Control 1-800-222-1222

2. Wear appropriate clothing and Personal Protective Equipment (PPE) for the work being done.
   a. Wear rubber gloves when cleaning the washroom or when using toxic chemicals.
   b. Wear safety glasses or goggles when working close to liquid chemicals or when using hand tools.
   c. Wear steel-toed shoes or boots when operating lawn mowing equipment or working in the shop.
   d. Wear an approved helmet, apron, and gloves when welding.
3. Follow manufacturers' instructions when mixing chemicals. Always mix chemicals in a well-ventilated area with spill protection.
4. Always read the Material Safety Data Sheet (MSDS) prior to working with products for the first time or whenever there are questions about how to properly handle the material. MSDS will be available outside parts room and in each facility where the materials are used.
5. NEVER ever use chains and padlocks to secure exit doors.
6. Always use proper lifting techniques when lifting heavy objects. Lift with the legs and keep the back straight. Do not twist the body and lift at the same time. Request assistance.
7. The Lock-Out Tag-Out system will be utilized whenever working on electrical circuits.
8. Do not use tools that are broken or that have missing guards, shields, or other protective components. Report broken tools to the Supervisor.
9. No employee is authorized to operate city owned or leased motor vehicles without training and /or authorization.
10. No employee shall attempt to perform tasks for which he or she has not been trained and authorized to perform by the Maintenance Supervisor.

1.1 CHEMICAL HAZARDS

Toxic, flammable, or otherwise hazardous chemicals are most commonly encountered in the custodial closets, kitchen, shop area, and storage rooms. It is very important to know how to use, store and dispose of chemicals and other hazardous substances used by technicians in their areas of responsibility.

Chemical Use:
No one should use any substance, even household products, without understanding what dangers exist and how to use the product safely. Chemical substances should be used only in the manner and for the purpose for which they were intended. Before using any chemical, the technician should learn about possible hazards, disposal and emergency treatment measures, and handling procedures. All of this information can be found on either the label on the product or its MSDS. The major safety precaution to take when working with chemicals is to avoid contact as much as possible. This can be accomplished in many ways.

- Avoid using hazardous chemicals for any task that can be done some other way.
- If you must use a hazardous substance, always wear protective clothing (gloves, goggles, shoes) as appropriate.
- Mix chemicals, only in approved combinations, and to the proper dilution levels. Prepare mixtures in a safe area.
- Do not splash or spill liquids.

Chemical Storage:
Proper storage of chemicals can avoid many accidents. Certain chemicals should not be stored near each other, because of the risk of combining fumes or spills. For example, bleach and ammonia may leak or evaporate from improperly sealed containers. If these fumes are combined, they react to extremely toxic gas. Acids with alkalis, and chemicals with petroleum products such as cleaning liquids, are also hazardous combinations.

- Never transfer chemicals into an unlabeled container.
- Store potentially flammable chemicals in approved containers and areas. NEVER store chemicals in electrical, mechanical, or boiler rooms.
- Keep chemicals away from sources of heat, such as furnaces or sunshine.
- Chemical storage areas should not be crowded and should be systematic, easy to reach arrangement.

Chemical Disposal:
Improper disposal of substances such as cleaning chemicals used on the job can cause serious problems. MSDS contains information about the safe disposal procedures for the chemical substances used. Some general rules to follow:

- Never flush corrosive or volatile materials into the sewage system.
- Always discard unused portions of mixed chemicals unless information on the label specifically states that the mixture may be kept for later use. If this is done, label and store the mixed solution properly.
- In case of spills, properly dispose of materials used to clean up the spill.

1.2 ELECTRICAL HAZARDS

Working with electricity can be a shocking experience for those not familiar with the hazards of this area. Besides the risk of electrical shock, many fires are caused by electrical misuse or malfunction. Receiving proper training and paying careful attention to safety precautions are important for any tasks involving electricity. Particular electrical hazards occur in kitchens, workshops, and machine rooms. However, it is also possible to find such common hazards as damaged cords or equipment in areas where they might be overlooked – for instance, lounges and offices. Staff should be alert for such potential problems throughout the facility. Coffee pots, hot plates, and microwave ovens are common hazards. Equipment with heating elements should be carefully monitored and not left unattended. Electrical hazards also exist when using or servicing a vacuum, power tool or other piece of equipment. An understanding of what happens as a result of carelessness with electricity may help avoid electric shocks. Electric current flows through the path of "least resistance." This path can be the human body, such as when a defective piece of electrical equipment is handled when standing on a wet surface. The risk of shock is lessened by the use of a grounding plug or wire, which provides a better path. Insulating the body, such as by wearing rubber gloves or rubber soled shoes, also helps. Here are some general points to remember about electrical safety:

- Never use defective equipment, or equipment with a cracked, frayed, spliced, or
  worn electric cord or missing the grounding plug.
- Always grasp the plug, not the cord, to unplug equipment.
- Outlets with Ground Fault Circuit Interrupt (GFI) protection devices should be
  available for use in all areas around water supplies and in damp areas.
- Always use GFI outlets for tasks involving electrical equipment when they are available. For example, use a GFI for power source for a wet/dry vacuum when
  picking up water. Portable GFI outlets may be used for areas where they have not been permanently installed but are necessary for safety.
- Never use electrical equipment around liquids, unless they are specifically designed for it.

1.3 FIRE HAZARDS

Fire safety means both preventing fires and taking the correct steps if a fire should occur. Fire prevention is the responsibility of all building occupants, but the maintenance staff has a special role to play. Good custodial housekeeping practices (for example, keeping litter and debris out of buildings, cleaning equipment, and vents properly) are important to eliminate fire hazards. Areas that often contain fire hazards are storage rooms that tend to accumulate trash, equipment rooms, furnace rooms, and the custodial closet. In many cases, the structural integrity of all or part of a building is necessary for adequate fire

protection. By not using built-in safeguards properly, the risk of fire damage is greatly increased. The same is true for exit doors. There is never any justification for blocking routes of egress or for chaining exit doors.

Major sources of fire hazards include lightning, electricity, human carelessness, and chemical combustion. Lightning cannot be prevented, but its effects can be minimized by keeping buildings in proper shape. There are many other things that can be done to eliminate hazards.

- Watch out for defective outlets and be sure they are not used until repaired.
- Never overload a circuit with extension cords or multiple outlets and report any overloads that are noticed.
- Store flammable and combustible materials in approved containers, cabinets, or rooms.
- Debris should never be allowed to accumulate. Flammable materials and gas-powered equipment shall not be stored in electrical or mechanical rooms.
- Cleanliness is important in areas such as electrical and mechanical rooms. Dust can be flammable and should be removed from surfaces and equipment frequently.
- Use extreme caution around fuel storage tanks. Any spark or flame near damaged or defective valves or regulators could cause explosion as well as fire by igniting fumes that may have leaked out.
- Keep electrical equipment in good shape. Report strange noises or other unusual events observed about fan belts, gears, or any other part of a piece of equipment.
- Report any suspicious signs, such as a “burning smell”.
- Hallways, aisles, and doorways must never be restricted or blocked by objects that prevent fast exit in case of emergencies.
- Know what actions to take in case of fire. Prompt action can save lives and property.

Fire Extinguishers:

All maintenance staff and other staff members shall receive training in the proper use of fire extinguishers and in the selection of the proper type of extinguisher for the type of fire.

Fire extinguishers have a rating on the faceplate, which shows which class or classes of fire it can put out. If you must use an extinguisher, remember the PASS method:

- Pull the pin
- Aim the extinguisher nozzle at the base of the flames.
- Squeeze the trigger while holding the extinguisher upright.
- Sweep the extinguisher from side to side, covering the fire with the extinguishing agent.

If taking the time to use a fire extinguisher could put a life in danger.... DON'T.

1.4 PHYSICAL HAZARDS

Wherever a ladder, mop, tools, or other equipment is used, there is potential for accidents. Stairs, hallways, mechanical or boiler rooms, and facility grounds are all likely places for trips, falls, or cuts. Many back injuries, broken bones and wounds could be avoided through awareness, carefulness, and proper training. There are many job factors in which staff can change or improve to help avoid accidents.

a. Proper Lifting Technique:

1. Size up the load. If it is too heavy to handle easily, get help or use proper equipment (such as a hand truck). Delaying the job a few moments to get assistance is better than risking an injury.

2. Check the route. Decide the safest path to take with the load; see that the way is clear; be sure that where the load will be placed is ready.

3. Get a firm footing and take a good grip—feet a little apart for good balance, one beside and one behind the object; keep back straight and aligned with the neck; bend knees, allowing legs instead of back to support the weight; grip the object with the whole hand including palms—not just the fingers.

4. Keep the load close to the body. Tuck arms and elbows into the body and center all body weight over the feet. Lift with a steady thrust, starting with the rear leg.

5. Never twist the body. Move the feet to change direction instead of twisting.

6. Bend knees to put down the load. Be sure fingers are not caught underneath the object as it is put down.

7. Wear proper protective gear, such as gloves, protective footwear and other

clothing, if the load requires special handling. For instance, wear protective gear when carrying liquid chemicals in containers that may leak, or objects with sharp edges.

8. When help is required to move a load, teamwork should be practiced and one person should call the signals.

REMEMBER:

PUSH, don't pull

MOVE, don't reach

SQUAT, don't bend

TURN, don't twist

Back Supports Help:

- Support lower back and abdominal muscles
- Reduce fatigue
- Improve lifting posture
- Act as a reminder

Back Supports DO NOT Make You Stronger

b. Slipping and Falling Hazards:

Most floors and other surfaces look safe. However, falls are the second most common cause of fatal injuries. Staff must be aware of the factors that cause slipping and falling.

1. Clothing can cause falls if inappropriate for the job. Clothing should not be too long or loose. Shoes should be slip resistant, preferably with rubber or other grip type soles. Sandals, clogs, or flip-flops are NOT allowed on the job.

2. Be alert. Watch for things that can trip people, such as wires, cords, litter, or equipment in the aisles and walkways. This is important for both inside buildings and on the grounds. When possible, remove or rearrange such objects so they are not in the way.

3. Wet floors cause a particular hazard. When cleaning floors, place a "Caution wet floors" sign to warn others in the area. Added protection is gained by roping off the area whenever possible. Floors should be cleaned when traffic is lightest and should be dried as soon as possible. If the task calls for walking on a wet surface, placing feet carefully and move slowly.

4. Spills and leakage from trash barrels or bags can create another problem situation. Empty a leaking trash container and clean up the spill as soon as possible.

5. Falls are commonly caused by tripping over obstacles in walkways. All equipment and supplies should be stored properly, out of the walkways. Never leave tools or equipment lying around if they are not actually being used.

c. Stairway and Ladder Safety:

There are many tasks that require the use of a ladder, scaffold, or other types of support. Routine use of stairs and ladders can lead to carelessness. Safety on ladders and stairways involves understanding what they were designed for and how to use them.

SAFETY FIRST!

NEVER use a support that was not specifically designed for such use. That is, use a stepladder not a chair.

Stepladders:

Stand by themselves
Are not adjustable in length
Have a hinged back
Have flat steps that are 6 to 12 inches apart
Open at least one inch for each foot of the ladder's length.

Rules for using stepladders safely:

- Make sure the ladder is fully open, and the spreaders are locked.
- Do not climb, stand or sit on the top two rungs.

Extension ladders:

Lightweight and durable
Adjustable in length
Made up of two or more sections that travel in glides or brackets
At least 12 inches wide
Not longer than 24-foot per section

Rules for using extension ladders safely:

- Have a co-worker to help you raise and lower the ladder
- Never raise or lower the ladder with the fly section extended
- Be sure to secure or foot the ladder firmly before extending it
- Set up the ladder with about three feet extending above the work surface
- When using an extension ladder figure out and use the right set up angle or pitch. The distance from the foot of your ladder to the base of what it is leaning against should be about one fourth of the distance from the ladder's top support to its bottom support

Inspection and Maintenance of Portable Ladders:

Ladders must be kept in good condition at all times. They need care and cleaning, especially when used in oily or greasy areas or left outside. Regular inspections will help make sure ladders are safe.

- Look for broken or missing steps or rungs.
- Look for broken or split side rails and other defects.
- Feel for soft areas on wooden ladders.
- Check for rust or weakness in the rungs and side rails of metal ladders.
- Check fallen or misused ladders for excessive dents or damage.
- Tag defective ladders and remove from service immediately to prevent any accidents.

General Safety Tips for setting up and using portable ladders:

- Make sure the ladder will be standing on a firm level surface.
- Try not to set a ladder up in a passageway. If you must use a ladder in a passageway, set out cones or barricades to warn passers-by.
- Never place a ladder on an unstable base for more height.
- Use both hands for climbing.
- Hoist your tools if carrying them would keep you from using both hands.
- Don't stretch in order to reach something. Climb down and move your ladder.
- Use wooden or fiberglass ladders for electrical work or in areas where contact with electrical circuits could occur.
- Only one person should be on a ladder at any time. Whenever possible have an extra person hold the ladder steady.
- Do not use a ladder for anything other than a ladder.

Stairways

Most stairway accidents occur because staff do not realize the hazards of climbing stairs. Some common causes of stairway accidents are dangerously high stairways, poor lighting, poor housekeeping, and slippery or greasy steps. Some simple work practices will help you climb stairs safely:

- Pay close attention as you climb. On the way down look for the leading edge of each step.
- On poorly lit stairways be extra careful and take your time.
- Always use railings and handrails.
- Use the safe platforms provided when working on stairways.
- Clean-up cluttered or slippery steps.

Using ladders and stairways properly is an important part of safeguarding your health. Choose the right ladder for each job, follow the basic rules for using it

safely, and perform regular inspections and maintenance. On the stairways, pay close attention while you climb, use the handrails and help keep steps clean and free of clutter. Taking just a little extra care will enable you to climb stairways and ladders safely and with confidence.

1.5 HAND AND POWER TOOL SAFETY

Power tools and even a small screwdriver can be hazardous if used improperly. Keeping tools in good working condition is an important way to avoid injury.

1. Always use the proper tool for the job. Approach the use of a tool with respect and care. A moment's carelessness can cost an eye, or worse.
2. Never use a defective tool.
3. Always wear protective gear such as gloves, goggles, and hearing protection when performing any task involving hazardous tool usage.
4. Do not overload a tool's capacity or try to hurry its operation.
5. Disconnect the power cord before adjusting tools, such as changing the blade on a skill saw.
6. Always be conscious of where parts of the body are in relation to the tool being used.
7. Keep the tools in proper shape. A sharp knife is less dangerous than a dull one that must be forced through what is being cut.
8. Use only the tools for which training has been received.
9. Do not reach into waste containers or push trash into a partly full container with bare hands.
10. Put waste with sharp edges in sturdy containers.
11. Be aware of sharp edges on furniture or other objects being moved; even the edges of a cardboard carton can cut badly.
12. Do not put hands or head into places that have not been visually inspected for possible hazards.

1.6 HEAT STRESS

In addition to the medical hazards of heat stress, you are also more likely to have accidents in hot environments. A hot environment with high humidity may overload your body with heat. Wearing excessive amounts of clothing while performing heavy manual work in cold weather can have the same effect as a 95-degree day in the summer. This stress can result in a series of disorders ranging from sunburn to serious heat stroke.

Your body's metabolism produces internal heat during digestion, muscle activity, energy storage and breathing. In fact, your muscles release about 70 percent of their energy as heat. This warms your muscles and surrounding tissues. Since your body works well at a constant inner temperature of 98.6 ° Fahrenheit, your body

works to keep your temperature at 98.6° in a process called thermoregulation. The amount of heat that stays stored in your body depends on the environment, level of physical activity, type of work, time spent working and number and length of breaks between work periods. In addition to recognizing signs of heat stress and knowing first aid measures, you can prevent heat stress disorders through gradually getting used to the environment, proper work procedures and proper food and water intake.

SECTION 2: PREVENTIVE MAINTENANCE

The Fleet Maintenance Mechanics are responsible for all routine, emergency and preventive maintenance of the Bus Garage and Metro Transit Center. All personnel are responsible for bringing to the attention of the Transportation Supervisor any deficiencies of the building.

The focus of CAT's maintenance program shall be on preventive maintenance. Every part of the facility shall be inspected according to the following schedules. Mechanical equipment shall be serviced according to the instructions from the manufacturer. Filters shall be changed, and equipment shall be adjusted and lubricated according to the appropriate operations and maintenance (O&M) instructions.

Servicing and adjustments shall be made during inspections unless parts need to be ordered. In the event that parts are to be ordered, the person conducting the preventive maintenance inspection shall complete and submit a work order for parts and any necessary work that was not completed at the time of the inspection.

Deferred maintenance shall be avoided unless time, facility use, or funding prevents immediate completion of necessary maintenance or repairs. All deferred work orders shall be reviewed monthly and completed at the earliest possible time. Every effort will be made to eliminate all remaining deferred maintenance work orders during the summer months so that no deferred maintenance will remain at the beginning of every year.

Every six months the Supervisor shall review the work order log for the previous 24 months to identify trends and equipment that fails or requires adjustments more frequently than the manufacturer's recommended maintenance schedule or more frequently than other equipment of the same type. Special attention will be given to equipment under warranty.

Equipment identified as requiring an unusual level of attention will be considered for replacement at the earliest opportunity. If appropriate, technical assistance shall be requested from the manufacturer.

Maintenance Schedules:
Inspect the following items and adjust as appropriate. Repair immediately or complete a work order for future repairs.

2.1 Automatic Doors

All automatic doors will be inspected weekly. These include automatic vehicular doors, doors with ADA controls, and overhead doors in delivery areas and shops. Routine maintenance is the best method to ensure operational integrity.

- _____*Nut, bolt, and fastener conditions*
- _____*Operating devices (motors), pneumatic powering*
    - _____*Cleanliness*
    - _____*Lubrication*
    - _____*Stability*
    - _____*Structural integrity*
    - _____*Shaft conditions*
    - _____*Bearing conditions*
    - _____*Overload and other relay conditions*
    - _____*Circuit breaker conditions*
- _____*Overall appearance for damage or vandalism*
- _____*Overall operation*
- _____*Weatherproofing/caulking condition*
- _____*Lubrication of guides, hinges, and locks*
- _____*Roller alignment*
- _____*Glazing integrity*
- _____*Hinge conditions*
- _____*Lock conditions and security*
- _____*Alignment*
- _____*Plumb*
    - _____*Building settlement*
    - _____*Straightness of guides*
- _____*Overall condition for deficiencies such as water intrusion and corrosion*

2.2 Bus Hoists

Bus in-ground hoists are used daily and need to be inspected on a daily basis prior to use to make sure they are safe for the bus and the personnel that would be under the bus on the hoist. The following is a list of minimum acceptable daily checks for safety of an in-ground hoist.

1. Defective hoists are not to be used. Unsafe hoists must be reported to the Shop Supervisor immediately for repairs.
2. When raising any part of a vehicle with a hoist, be sure to secure the vehicle against movement with blocks or stands and hand brakes. When more than one hoist is being used, the lift should be made evenly raised.
3. When maintaining a load in a raised position, relieve the strain on the jacks by safe blocking or jack stands.
4. When a person is working under a vehicle that is up on the hoist, technicians working on top of the vehicle must not work in a manner that may cause the vehicle to shift or move on the hoist.
5. Never overload a hoist, always verify the maximum load capacity.
6. Check oil level

There will be monthly inspections performed using the attached form of inspection record to ensure the safety of the equipment when in use.

Heavy Duty Inground
Lift Inspection Sheet

Manuals / Warnings Labels / Capacity Decals			Comments
Check accessibility of the rated load capacity of the lift	Yes	No	
Check accessibility of operating manuals	Yes	No	
Bay Lift			
Confirm that there is adequate clearance around the lift	Yes	No	
Are there any cracks in the floor that may indicate failure of the floor integrity	Yes	No	
Examine all accessible structural components of the lift (including welds) for any signs of fatigue, overloading misuse or abuse	Yes	No	
Superstructure			
Check for debris, corrosion, wear, or damage	Yes	No	
Are adapters in good condition and operate freely	Yes	No	
Are superstructure bolts tight - (Torque to 150 ft. Lbs.)	Yes	No	
Are superstructure - to - jack attachment bolts tight - (Torque to 150 ft. Lbs.)	Yes	No	
Are Moveable Jack u-bolts tightened to [proper torque (35 ft. Lbs.)]	Yes	No	
Trench			
Is there any liquid in the trench (pump out if liquidis present	Yes	No	
Inspect for debris	Yes	No	
Check roller channel for debris Lubricate roller chain, trench chains, sprockets, carriage rollers, and ratchet mechanism	Yes Yes	No No	
Lubricate housing door hinges	Yes	No	
Are there any missing or damaged cover plates or shuttle plates	Yes	No	
Do shuttle plates travel smoothly and transition to sub-surface without failure	Yes	No	
Fluid (Cylinder)			
Check fluid for contamination	Yes	No	
Fluid Filling: Factory recommends using a fluid that has a viscosity grade of ISO 32 (SAE 10) with anti-foam, anti-rust, anti-oxidation and anti-air entrainment additives.	Yes	No	
Bleed lift (if needed) (refer to owners manual for instructions)	Yes	No	
Hoses & Cylinders			
Check piping, hoses & cylinders for damage and leaks	Yes	No	
Inspect plungers for rust, burns, scratchers, etc.	Yes	No	
Check plungers for excess movement	Yes	No	

Heavy Duty Inground Lift Inspection Sheet, Con't			
Locking Leg			Comments
Remove locking leg and clean out outer pipe	Yes	No	
Inspect and lubricate latch assembly	Yes	No	
Re-install locking leg (Torque to 150 ft. lbs.)	Yes	No	
Inspect and lubricate latch assembly	Yes	No	
Check accessibility of operating manuals	Yes	No	
Seals			
Inspect for leaks	Yes	No	
Are gland bolts tight (Torque to 50 ft. lbs.)	Yes	No	
Tanks			
Check for fluid contamination	Yes	No	
Examine all accessible structural components of the lift (including welds) for any signs of fatigue, overloading misuse or abuse			
Lift Controls			
Inspect for leaks and damage	Yes	No	
Do controls operate freely and smoothly	Yes	No	
Hydraulic Drive			
Inspect for damage	Yes	No	
Check for proper operation forward and reverse	Yes	No	

2.3 Lighting: Exterior and Interior

All lighting systems will be inspected weekly. Extreme care must be taken to identify and correct deficiencies.
This checklist will be applied to the following lighting systems:

- ____*Building exterior*
- ____*Pedestrian*
- ____*Parking area*
- ____*Building interior (common areas, offices, hallways, exits, etc.)*
- ____*Emergency*

Various fixture and lamp types are used according to area needs; most lights are LED. Illumination will be maintained according to the recommended levels.

- _____***Cleanliness***
- _____***Glassware conditions***
- _____***Diffusing louver conditions***
- _____***Fixture support conditions***

- _____***Luminary conditions***
- _____***Timers/sensors function (make seasonal adjustments)***
- _____***Junction box and cover conditions***
- _____***Switch conditions***
- _____***Outlet and cord conditions (if applicable)***
- _____***Protective caging conditions (if applicable)***
- _____***Overall condition for deficiencies such as arcing, wire exposure, unauthorized connections, and moisture problems.***

2.4 Security Systems

Weekly preventive maintenance of security systems is critical for occupant safety.

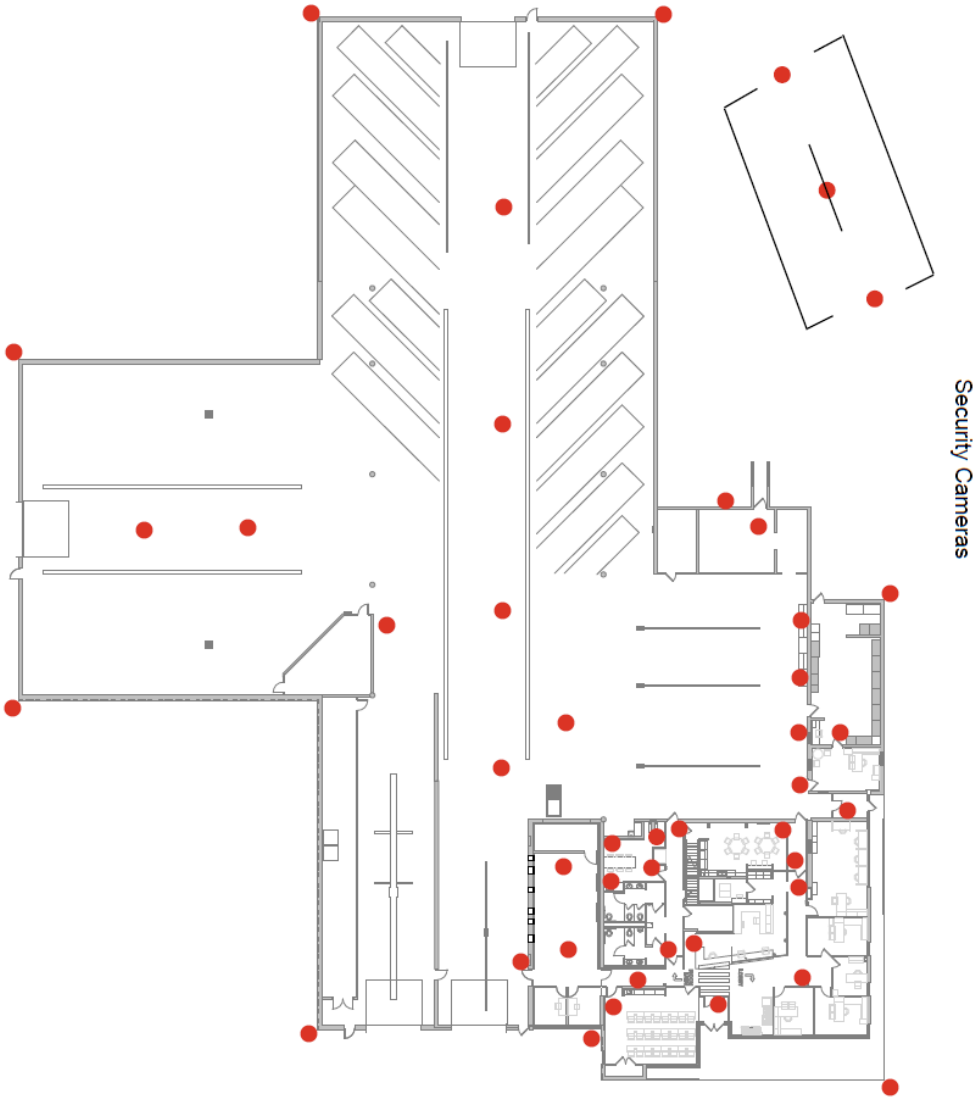
_____***Portable Radios***

- _____*Charge*
- _____*Battery efficiency*
- _____*Function*
- _____*Possession by authorized users*
- _____*Battery Chargers*
- _____*Overall condition*
- _____***Spare Batteries***

_____***Surveillance cameras and monitors***

- _____*Function*
- _____*Fixture integrity*
- _____*Mounting condition/stability*
- _____*Location accuracy*
- _____*General console condition*
- _____*Power source continuity*
- _____*Overall condition*
- _____*Function*

Inspect the following items monthly. Adjust as appropriate. Repair immediately or complete the work order for future repairs.



2.5 Alarm Systems

The following checklist covers automated smoke systems throughout the building. Preventive maintenance consists of validating that all equipment is present and functional on a monthly basis. Only certified professionals shall make repairs or adjustments to alarm systems. Maintenance staff will accompany professionals during statutory inspections.

____***Smoke detectors:***

- _____*Operation*

Procedure: Use UL-approved smoke alarm tester in aerosol can. One spray will activate both photo electric and ionization detectors.

- _____*Battery efficiency*
- _____*Hard wire connections*
- _____*Housing condition*
- _____*Overall condition*

2.6 Doors and Windows

Inspect all doors and windows for general condition and operability. Adjust and repair as necessary.

_____***Windows***

- _____*Pane conditions*
- _____*Screen conditions*
- _____*Storm window conditions*
- _____*Lock operation*
- _____*Frame alignment and conditions*
- _____*Security*
- _____*Weather sealing condition*
- _____*Paint or surface conditions*
- _____*Blind function and conditions*
- _____*Hardware conditions and lubrication*
- _____*Overall condition*

_____***Doors and hardware***

- _____ *Automatic closure operation. Must open with no more than 5 pounds of force pulling or pushing.*
- _____*Lock operation*
- _____*Hardware conditions and lubrication*
- _____*Weather sealing condition*
- _____*Paint or surface conditions*
- _____*Frame alignment and conditions*
- _____*Door stop placement and stability*
- _____*Alarm system operation*
- _____*Overall condition*

2.7 Gas Connections

The following check shall be conducted monthly for all gas connections and main valves throughout the facility. The gas company should be contacted if:

- There is an odor of gas anywhere at any time, or
- Valves cannot be turned off or appear to be rusted or damaged, or
- For minor repairs if maintenance personnel do not have adequate training or tools.

When gas is detected by odor, building occupants should immediately evacuate, and the gas company and fire department should be contacted.

_____***Possible undetected leakage: Visually check – <u>Do not open and close valves</u>***

- _____*Operation*

Procedure: Perform a bubble test with soap and water or use a handheld combustible gas detector (of professional quality).

2.8 Restrooms

The following checklist shall be applied monthly to all restrooms within the Bus facility.

_____***Fire safety***

- _____*Electrical outlet load*
- _____*Positioning of paper/flammable materials away from heat sources*
- _____*Accessible route*
- _____*Visible exit*

_____***ADA accessibility***

- _____*Accessible toilet stalls with wheelchair turning radius*
- _____*Accessible sinks*
- _____*Accessible mirror*
- _____*Handrail stability and condition*
- _____*Overall condition*

_____***Plumbing***

- _____ *Inspect all component conditions for deficiencies such as leakage, corrosion, and failure potential*

_____***Sinks and hardware***

- _____*Faucet function and hardware conditions*
- _____*Drain function*
- _____*Water flow/pressure*
- _____*Overall condition*

_____***Urinals***

- _____*Water flow/pressure*
- _____*Cap and part conditions*
- _____*Overall condition*

_____***Toilets***

- _____*Water flow/pressure*
- _____*Cap and part conditions*
- _____*Seat support conditions*
- _____*Overall condition*

_____***Dispenser operation and conditions (soap, paper towels, etc.)***

_____***Partitions***

- _____*Stability*
- _____*Surface conditions for deficiencies such as sharp or worn areas or vandalism*

- _____*Part conditions*
- _____*Security*
- _____*Overall condition*

_____***Trash receptacles***

- _____*Sanitation conditions*
- _____*Stability*
- _____*Overall condition*

_____***Mirrors***

- _____*Cleanliness*
- _____*Overall condition for deficiencies such as cracks, sharp edges, or vandalism*

_____***Overall cleanliness***

_____***Overall privacy***

_____***Overall appearance for damage and vandalism such as graffiti***

_____***Fire extinguishers (See also annual inspection of Fire Extinguishers)***

- _____*Tag currency*
- _____*Placement in correct proximity to potential hazards per code*
- _____*Housing condition*
- _____*Hose condition*
- _____*Overall condition*

2.9 Offices

Check the following once per month.

_____***Fire safety***

- _____*Electrical outlet load*
- _____*Positioning of paper/flammable materials away from heat sources*
- _____*Accessible route*
- _____*Visible exit*

_____***Emergency control panels***

- _____*Operation*
- _____*Part conditions*
- _____*Overall condition*

_____***Floor condition for deficiencies such as excessive wear, tears, stains, and***

- ***tripping hazards***

_____***Walls/ceiling condition***

_____***Furniture: desks, chairs, tables, and shelves***

- _____*Stability*
- _____*Surface conditions for deficiencies such as sharp or rough edges or protruding hardware*
- _____*Lubrication of hardware*
- _____*Overall condition*

_____***File cabinets***

- _____*Stability*
- _____*Lock function*
- _____*Overall condition*

_____***PA system***

- _____*Operation*
- _____*Overall condition*

_____***Fire extinguishers (See also annual inspection of Fire Extinguishers)***

- _____ *Charge*
- _____*Tag currency*
- _____*Placement in correct proximity to potential hazards per code*
- _____*Housing condition*
- _____*Hose condition*
- _____*Overall condition*

2.10 Kitchen and Dining Areas

Facility kitchens and dining areas contain many pieces of equipment that can jeopardize life safety if preventive maintenance is neglected. The following monthly checklist includes common cooking equipment and dining furniture. Preventive maintenance for general features including **Lighting**, **Alarm Systems**, **Fire Extinguishers**, **Doors and Windows**, and **HVAC Systems** also applies to this area. Refer to the corresponding checklists.

- _____*Fire Safety*
- _____*Electrical outlet load*
- _____*Positioning of paper/flammable materials away from heat sources*
- ____*Accessible route*
- _____*Emergency exit visibility*
- _____*Furniture: counters, tables, benches, and chairs*
- _____*Stability*
- _____*Surface condition for deficiencies such as rough areas or protruding hardware*
- _____*Overall condition*
- _____*Fire extinguishers (See also annual inspection of Fire Extinguishers)*
- _____ *Charge*
- _____*Tag currency*
- _____*Placement in correct proximity to potential hazards per code*
- _____*Housing condition*
- ____*Hose condition*
- _____*Overall condition*
- _____*Flooring*
- _____*Surface condition for deficiencies such as excessive wear, stains, tears, and tripping hazards*
- _____*Plumbing systems (if applicable)*
- _____*Sink conditions and drainage*
- _____*Overall condition for deficiencies such as leaks, corrosion, or failure potential*

- _____*Trash receptacles*
- _____*Location*
- _____*Cleanliness*
- _____*Overall condition*

_____***Clock function***

_____***Closets/storage areas***

- _____*Door/lock operation*
- _____*Appearance, interior and exterior*
- _____*Overall condition for debris and safety hazards*

_____***Wall map function and general condition***

_____ ***Fire extinguishers (See also annual inspection of Fire Extinguishers)***

- _____*Tag currency*
- _____*Placement in correct proximity to potential hazards per code*
- _____*Housing condition*
- _____*Hose condition*
- _____*Overall condition*

2.11 Bus Washer

Bus Washer Weekly Preventive Maintenance

- _____ Check the operation of all proximity switches.
- _____ Check and grease the top brush lift, and gantry drive chains.
- _____ Test the operation of all switches on the main electrical panel Door, and the operator's control panel.
- _____ Check the levels of soap and wax.
- _____ Check the soap and wax injection pumps. Adjust as necessary.
- _____ Check all the brushes for foreign objects and damage.
- _____ Check to see all the brushes rotate.
- _____ Check the guide tracks for cleanliness. Remove the debris on the tracks.
- _____ Check and adjust the air-line lubricator. Fill if needed.
- _____ Grease all bearings on side brushes.

Bus Washer Monthly Preventive Maintenance

- _____ Check the operation of all proximity switches.
- _____ Check and grease the top brush lift, and gantry drive chains.
- _____ Test the operation of all switches on the main electrical panel door, and the operator's control panel.
- _____ Check the levels of soap and wax.
- _____ Check the soap and wax injection pumps. Adjust as necessary.
- _____ Check all the brushes for foreign objects and damage.
- _____ Check to see all the brushes rotate.
- _____ Check the guide tracks for cleanliness. Remove any debris on the tracks.
- _____ Check and adjust the air-line lubricator. Fill if needed.
- _____ Grease all bearings on side brushes.
- _____ Cycle the brush arms (extend/retract) and adjust the flow control valves at the air cylinders to give desired response speed.
- _____ Drain all moisture from the airline filters.
- _____ Check for gear reducer oil, water and compressed air leaks. Fix if any are found.
- _____ Check all nuts and bolts and tighten if necessary.
- _____ Check the performance of all brushes. If the top brush's' filaments are shorter
  - than 12 ½" from the center shaft, and the side brush filaments are shorter than
  - 10" from the center shaft, then order new brushes. Replace the short brush segments as soon as possible.
- _____ Check the movement of all brushes.
- _____ Check the operation of the two-drive motor's brakes and adjust if necessary.
- _____ Replace all worn and damaged parts as soon as possible.

2.12 Landscape

Due to the comprehensive nature of preventive maintenance, selecting critical areas within the landscape domain should be inspected monthly.

_____***Vegetation conditions for deficiencies such as root systems near buildings and walkways, shrubs and trees near buildings and power lines, vines on buildings (except as designed), and overgrown shrubs***

_____***Irrigation systems (See also annual Irrigation Controllers checklist)***

- _____***Sprinkler head operation and direction of water flow***
- _____*Piping integrity*
- _____*Runoff conditions*

_____***Overall appearance***

2.13 Asphalt

Asphalt surfaces at bus facilities receive extensive wear and tear from contact with buses, cars, and pedestrians. Because such deficiencies as potholes, broken edges, and eroded areas can jeopardize life safety, it is essential for maintenance personnel to take monthly measures to promptly address and anticipate failing elements. The Americans with Disabilities Act also requires accessible parking spaces and pathways, slip-resistant surfaces, and curb cuts.

This checklist can be applied to all of the following areas.

- ____*Walkways*
- _____*Parking lots*
- _____*Driveways*
- _____***Parking bumper conditions and position***
- _____***Striping and pavement signage conditions***
- _____***ADA accessibility***
- _____***Signage***
- _____*Compliance with codes and standards*
- _____*Message currency*
- _____*Visibility*
- _____*Overall condition*
- _____***Edge conditions***
- _____***Surface conditions for deficiencies such as buildup from salt, ice melting materials, motor oil, or gasoline***
- _____***Overall appearance***
- _____***Overall condition for deficiencies such as potholes, softening, erosion, weed and root encroachment, chalking, cracking, and tripping hazards***

2.14 Signage

Signage is not only important for directing bus occupants and visitors, but it is also a reflection of the facility's character. Dirty, damaged, or inaccurate signage can send the wrong message to the community by making the facility as a whole appear neglected. It can also jeopardize the safety of users. Signage must comply with codes and standards, such as the ADA, and is important for alerting area users of potential hazards, recent changes, or other important messages. A critical eye is

needed in the maintenance process to address and anticipate sign inadequacy. The following monthly checklist applies to wall-mounted and pole-mounted exterior signage, as well as interior signage.

- _____***Compliance with codes and standards***
- _____***Cleanliness***
- _____***Accuracy of message***
- _____***Accuracy of lettering and numbering***
- _____***Adherence to surface or stabilizer***
- _____***Hardware conditions***
- _____***Illumination (if applicable)***
- _____***Location and visibility***
- _____***Paint condition***
- _____***Overall appearance***
- _____***Overall condition for deficiencies such as excessive wear, missing or broken parts, obstruction from view, or message inaccuracy***
- _____***General safety***
- _____*Signage visibility and currency*
- _____*Fence conditions for deficiencies such as holes, weed encroachment, and trash buildup*
- ____*Overall condition of grounds for deficiencies such as vandalism, debris buildup, trash, or tripping hazards*
- _____***Locks***
- _____*Overall operation*
- _____*Lubrication*
- _____*Security*
- _____*Overall condition*
- _____***Painted surfaces***
- _____*Overall condition for deficiencies such as rust, peeling, and abrasion*
- _____***Structural condition***
- _____*Stability*

- _____*Joint conditions*
- _____*Overall condition for deficiencies such as weak spots, rust, or missing parts*

2.15 HVAC Systems

Regular preventive maintenance of HVAC (heating, ventilation, and air-conditioning) systems is crucial to the quality of air and comfort within the bus facilities. HVAC systems should always sufficiently control temperature and humidity, distribute outside air uniformly, and isolate and remove odors and pollutants. Improper function and maintenance can cause indoor air pollution by allowing stale or contaminated air to remain in the building. As there are many areas within, the bus facilities it is essential that the HVAC system has fully functional and regularly inspected pressure control, filtration, and exhaust equipment.

The following checklist shall be used for semiannual inspections of the HVAC system. When performing any maintenance procedures, always refer to manufacturers' recommendations.

For all types of HVAC systems, change filters every two months and post a sticker on the HVAC unit with the date of change and initials of the mechanic. Use rated filters unless otherwise directed by the Maintenance Supervisor.

- _____***General conditions***
- _____*Overall cleanliness*
- _____*Condensation drain condition (A/C only)*
- _____*Electrical connection conditions*
- _____*Filter conditions*
- _____*Motor*
- _____*Lubrication*
- _____*Housing stability*
- _____*Connection conditions*
- _____*Oil cup conditions*
- _____*Unit operation and noise level*
- _____*Coil conditions*
- _____*Window seal and gasket conditions*
- _____***Heating systems***

- _____*Blower motor operation*
- _____*Equipment cleanliness*
- _____*Flow switch operation*
- _____*Mechanical equipment function*

2.16 Roofing

The roof is the most costly and abused area of the facility, subject to a variety of weather conditions and temperature fluctuations. The early discovery and preventive maintenance of minor deficiencies extends its life and reduces the chance of premature failure and costly repairs.

Annual inspections of both membrane and building components shall be conducted for all roofs, including newly installed ones. Adequate time will be allotted to properly perform the many tasks involved in inspection. A roof will be surveyed completely, either by carefully walking it in its entirety where accessible (wearing soft shoes), or by visual inspection with binoculars where inaccessible. Visual inspection from the attic side is also important.

Attention should be paid to southern and northern exposures, weather-generated problems, horizontal lines, peak areas, and areas of sagging. Ventilation areas should also be examined for obstructions.

Supporting structural integrity for deficiencies such as cracks, moisture stains, and potential failure

- _____***Flashing conditions for deficiencies such as water penetration, displacement, oxidation, excessive stretching, delamination, and tearing***
- _____***Surface conditions for deficiencies***
- _____***Subsurface conditions (including insulation) for signs of moisture penetration***
- _____***Membrane conditions***
- _____***Chimney conditions***
- _____***Plumbing stack vent and roof connection conditions***
- _____***Roof ventilation conditions***
- _____***Skylight conditions for deficiencies such as broken glass or frames and flashing corrosion or rust***
- _____***Structural conditions for deficiencies such as settling of the deck, membrane splits, or cracks in walls***

- _____***Roof edging conditions for deficiencies such as deterioration and loose fasteners***
- _____***Expansion joint conditions for punctures, splits, and insecure fasteners***
- _____***Flat roof conditions for evenness across the horizontal plane and deficiencies such as bare areas, blisters, cove areas abutting parapets, cracks, curling, exposed nail heads, or ponding***
- _____***Overall condition***

2.17 Gutters/Roof Drains

Drainage devices are important in protecting buildings from water intrusion and damage. The following is an annual preventive maintenance checklist for gutters, downspouts, scuppers, and roof drains. Maintenance personnel should ensure that these areas are free of debris such as leaves and branches, and that large debris has also been removed from the roof.

- _____***Mounting stability***
- _____***Bolt, screw, and strap conditions***
- _____***Discharge area function for proper drainage away from building***
- _____***Joint conditions and stability***
- _____***Roof atrium drains***
  - _____*Cleanliness*
  - _____*Caulking condition*
  - _____*Mounting stability*
- _____***Overall condition for deficiencies such as blockage and cracks***
- _____***Splash block location***
- _____***Seam and elbow conditions***
- _____***Caulking condition***
- _____***Gutter positioning toward downspouts***
- _____***Overall condition for deficiencies such as corrosion, rust, blockage, obstructions, and disconnection***

2.18 Solar Panel Equipment System

A monthly inspection of the solar panel and charging system needs to be completed monthly to ensure optimal efficiency and proper functioning

- ____*Mounting stability/bolts, screws, etc.*
- ____*Condition of solar panels/cracks or breaks*
- ____*Electrical connections*
- ____*Dirt and debris accumulation*
- ____*Signs of cell degradation*
- ____*Damaged or frayed cables*
- ____*Voltage and current readings*
- ____*System efficiency*
- ____*Structures blocking any sunlight*
- ____*Seal integrity around mounting points*
- ____*Signs of rodent damage*
- ____*Corrosion on components*
- ____*condition of inverters*
- ____*condition of Charge controllers*
- ____*Overall condition of system*

2.19 Backup Generator

Monthly inspection of the backup generator will help to maintain optimal operation of backup power source and ensure optimal performance.

_____*Condition of exterior cabinet*

_____*Condition of exhaust stack*

_____*Condition of Natural gas line*

_____*Engine oil level*

_____*Engine coolant level and coolant system*

_____*Charging System*

_____*Exhaust system*

_____*Vibration/Isolation ground pads*

_____*Condition of Wiring Harness*

_____*Overall Condition of interior cabinet*

SECTION 3 WORK ORDER SYSTEM

Any staff member may submit a work order for maintenance or an event support request using one of the following forms. The requester shall complete section 1 of the appropriate form and submit the form to the maintenance department. In the event of an emergency such as a broken pipe, the requester shall notify maintenance staff immediately. A work order for emergency work shall be completed after the fact.

Maintenance staff shall initiate work orders for preventive maintenance (PM) according to the PM schedule.

Maintenance staff shall review all submitted forms for completeness, assign a work order number, enter the form in the work order log, and forward the form to the Supervisor.

The Supervisor shall review the request and assign one of the following priorities:

IMMEDIATE -Work must be completed within 4 hours to prevent further damage to property or to correct an immediate safety risk.

URGENT -Work must be completed within 48 hours to prevent an unacceptable interruption of facility operations.

ROUTINE -Work must be completed as soon as possible, but the problem is not expected to adversely affect facility operations.

DEFERRED -Work shall be completed at a future date when resources are available.

The Supervisor shall assign the work to a Fleet Maintenance Mechanic and schedule the work for completion.

The mechanic shall complete the assigned work or indicate that parts need to be ordered. If parts need to be ordered they should enter the necessary information on the work order and return it to the Supervisor. If parts do not need to be ordered, the mechanic will complete the work and indicate completion on the work order, which shall then be returned to the Supervisor.

If parts are to be ordered, the Supervisor shall review and approve the parts request. When the parts are received, the Supervisor will assign and schedule the work for completion.

Bus Maintenance FACILITY WORK ORDER

SECTION 1
(To be completed by the individual requesting work)

REQUESTED BY **DATE**

PROBLEM OR WORK REQUESTED

SECTION 2
(To be completed by Maintenance Staff)

DATE RECEIVED **WO #**

PRIORITY: **IMMEDIATE** **URGENT** **ROUTINE** **DEFERRED**

APPROVED BY

ASSIGNED TO **DATE**

PARTS REQUIRED

PARTS APPROVED BY **DATE**

PARTS ORDERED BY **DATE**

WORK COMPLETED BY **DATE**

WORK PERFORMED

Heavy Duty Inground
Lift Inspection Sheet

Manuals / Warnings Labels / Capacity Decals			Comments
Check accessibility of the rated load capacity of the lift	Yes	No	
Check accessibility of operating manuals	Yes	No	
Bay Lift			
Confirm that there is adequate clearance around the lift	Yes	No	
Are there any cracks in the floor that may indicate failure of the floor integrity	Yes	No	
Examine all accessible structural components of the lift (including welds) for any signs of fatigue, overloading misuse or abuse	Yes	No	
Superstructure			
Check for debris, corrosion, wear, or damage	Yes	No	
Are adapters in good condition and operate freely	Yes	No	
Are superstructure bolts tight - (Torque to 150 ft. Lbs.)	Yes	No	
Are superstructure - to - jack attachment bolts tight - (Torque to 150 ft. Lbs.)	Yes	No	
Are Moveable Jack u-bolts tightened to [proper torque (35 ft. Lbs.)]	Yes	No	
Trench			
Is there any liquid in the trench (pump out if liquidis present	Yes	No	
Inspect for debris	Yes	No	
Check roller channel for debris	Yes	No	
Lubricate roller chain, trench chains, sprockets, carriage rollers, and ratchet mechanism	Yes	No	
Lubricate housing door hinges	Yes	No	
Are there any missing or damaged cover plates or shuttle plates	Yes	No	
Do shuttle plates travel smoothly and transition to sub-surface without failure	Yes	No	
Fluid (Cylinder)			
Check fluid for contamination	Yes	No	
Fluid Filling: Factory recommends using a fluid that has a viscosity grade of ISO 32 (SAE 10) with anti-foam, anti-rust, anti-oxidation and anti-air entrainment additives.	Yes	No	
Bleed lift (if needed) (refer to owners manual for instructions)	Yes	No	
Hoses & Cylinders			
Check piping, hoses & cylinders for damage and leaks	Yes	No	
Inspect plungers for rust, burns, scratchers, etc.	Yes	No	
Check plungers for excess movement	Yes	No	

Heavy Duty Inground
Lift Inspection Sheet, Con't

Locking Leg			Comments
Remove locking leg and clean out outer pipe	Yes	No	
Inspect and lubricate latch assembly	Yes	No	
Re-install locking leg (Torque to 150 ft. lbs.)	Yes	No	
Inspect and lubricate latch assembly	Yes	No	
Check accessibility of operating manuals	Yes	No	
Seals			
Inspect for leaks	Yes	No	
Are gland bolts tight (Torque to 50 ft. lbs.)	Yes	No	
Tanks			
Check for fluid contamination	Yes	No	
Examine all accessible structural components of the lift (including welds) for any signs of fatigue, overloading misuse or abuse			
Lift Controls			
Inspect for leaks and damage	Yes	No	
Do controls operate freely and smoothly	Yes	No	
Hydraulic Drive			
Inspect for damage	Yes	No	
Check for proper operation forward and reverse	Yes	No	

Heavy Duty Inground
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Do controls operate freely and smoothly	Yes	No	
Hydraulic Drive			
Inspect for damage	Yes	No	
Check for proper operation forward and reverse	Yes	No	

	Work Completed	Pass/Fail	Initals	Date
1	Check for irregular noise & vibration			
2				
3	Clean or replace filters			
4	Clean coils and Condessors			
5	Grease motor and berrings			
6				
7	Check belts and pulleys			
8				
9	Check wiring for loose connections			
10				
11	Drain condensation pan			
12				
13	Check fan motor and blades are opperating correctly			
14				
15	Check system for leaks			
16				
17	Check Thermostat is correct			
18				
19				
20	Clean any dust and debris near unit			

CITIES AREA TRANSIT

HVAC Air Handler [redacted] Checklist

Name: _____ Date: _____

Comments & Concerns

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Supplies Used

Qty	Item #	Description

Signature: _____

	Work Completed	Pass/Fail	Initals	Date
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CITIES AREA TRANSIT

HVAC Air Handler [redacted] Checklist

Name: _____ Date: _____

Comments & Concerns

_____

_____

_____

_____

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Lift Controls			
Inspect for leaks and damage	Yes	No	
Do controls operate freely and smoothly	Yes	No	
Hydraulic Drive			
Inspect for damage	Yes	No	
Check for proper operation forward and reverse	Yes	No	

Monthly Building Walk Through Checklist

All automatic doors will be inspected weekly. These include automatic vehicular doors, doors with ADA controls and overhead doors in delivery areas and shops.

Automatic doors

_____Nut, bolt and fasteners conditions

_____Cleanliness

_____Stability

_____Shaft conditions

_____Overload and relay conditions

_____Overall appearance for damage/vandalism

_____Weatherproofing/caulking condition

_____Roller alignment

_____Condition of hinges

_____Alignment

____Operating devices (motors), pneumatic

____Lubrication

____Structural integrity

____Bearing conditions

____Circuit breaker condition

____Overall operation

____Lubrication of guides, hinges, and locks

____Glazing integrity

____Condition of locks and security

____Plumb and building settlement

Surveillance cameras and monitors

_____Function

_____Mounting condition/stability

_____General console condition/stability

_____Overall condition

____Fixture integrity

____Location accuracy

____Power source continuity

____Function

Alarm Systems

Inspect these items monthly. Adjust as appropriate. Repair immediately

_____Smoke detectors/operation

_____Housing condition

____Battery and hardwire connection

____Overall condition

Doors and Windows

_____Pane conditions

_____Screen conditions

_____Storm window conditions

_____Frame alignment and conditions

_____Paint or surface conditions

_____Hardware condition and lubrication

_____Lock and security operation

____Weather sealing condition

____Blind function and condition

____Overall condition

Doors and hardware

_____Automatic closure operation

_____Hardware condition and lubrication

_____Paint or surface condition

_____Door stop placement and stability

_____Overall condition

____Lock operation

____Weather seal condition

____Frame alignment and conditions

____Alarm system

Gas Connections

The following checks are shall be performed monthly. The gas company should be contacted if:

-There is an odor of gas anywhere and at anytime

-Valves cannot be turned off or appear damaged or rusted

-For minor repairs if maintenance personnel do not have adequate training

When gas is detected by odor, occupants should immediately evacuate and call the gas company and fire dept. If possible leak detected do not open or close valves.

____Operation- perform a bubble test with soap and water or a handheld gas detector.

Restrooms

_____Electrical outlet load

_____Accessible route

_____Overall fire safety

_____Accessible sinks and mirrors

_____Overall ADA accessibility and condition

_____Faucets function and hardware condition

____Position of flammable materials/heat source

____Visible exit

____Accessible toilet stalls for wheelchairs

____Hand rail stability and condition

____Plumbing/leaks or corrosion

____Drain function

_____Water flow/pressure

____Toilet condition

____Cap and part conditions

____Dispensor operation soap, paper towel, etc...

____Surface conditions for worn or sharp areas

____Trash receptacles

____Mirrors/cracks or sharp edges

____Overall privacy

____Fire safety and extinguishers

____Expiration of fire extinguishers

____Floor condition/wear or tripping hazards

____Trash receptacles/sanitation and stability

____Urinals/condition

____Water flow/pressure

____Seat and support condition

____Stability and security

____Vandalism or deficiencies

____Sanitary condition and stability

____Cleanliness of mirrors

____Overall cleanliness

____Placement and housing of fire ext...

____Overall fire extinguisher condition

____Condition of walls and ceiling

____Overall restroom condition

Offices

____Electrical outlet load

____Accessible route and visible exit

____Floor condition for excessive wear or tears

____Tripping hazards

____Check furniture for sharp or rough edges

____File cabinets are stable

____PA system is operational if applicable

____Housing and hose condition of fire extinguishers

____Overall condition of office spaces

____Position of flammable materials

____Overall fire safety

____Walls and ceiling condition

____Furniture is stable

____Lubrication of hardware as applicable

____Lock functions work

____Fire extinguishers are charged and current

____Correct placement of fire extinguisher

Kitchen and Dining Areas

____Electrical outlet load

____Accessible routes and visible exits

____Position of flammable materials

____Overall fire safety

____Furniture(counters, tables and chairs condition

____Placement and housing of fire extinguishers

____Sink and drainage in overall good condition

____Clocks are working

____Employee bulletin board/maps in good condition

____Correct placement of fire extinguishers

____Fire extinguishers are charged and current

____Flooring in good condition

____Trash receptacles are clean

____Closet door and locks working if applicable

____Fire extinguishers are charged and current

____Overall condition of Kitchen/dining room

Bus Wash Weekly Preventative Maintenance

____Check operation of all proximity switches

____Check levels of soap and/or wax levels

____Check brushes for foreign objects and debris

____Check guide rails for cleanliness and debris

____Test operation of switches on/in panel

____Check injection pumps and adjust if need

____Check brushes to see all rotate

____Grease bearings on side brushes

Bus Wash Monthly Preventative Maintenance

____ Check operation of all proximity switches

____Check levels of soap and/or wax levels

____Check brushes for foreign objects and debris

____Check guide rails for cleanliness and debris

____Cycle the side brushes and extend/retract

____Check performance of brushes-10" filaments

____Check electric motors/pumps-stability/operation

____ Test operation of switches on/in panel

____Check injection pumps and adjust if need

____Check to see all brushes rotate

____Grease bearings on side brushes

____Check all nuts and bolts

____Check movement of brushes

____Replace any worn parts as soon as possible

Landscape

____Vegetation condition/overgrown/exposed roots

____Piping integrity

____Free of weeds and invasive plants

____Irrigation system/sprinklerheads direction

____Water runoff conditions

____Overall appearance

Asphalt and concrete

____Parking bumper condition and position

____Striping and pavement signage

____ADA accessibility

____Compliance with codes and standards

____Edging and curbs condition

____Potholes, softening/cracking erosion

____Tripping hazards

____Signs

____Message currency and visibility

____Surface conditions

____Weed and root encroachment

____Overall condition

Signage

____Compliance with codes and standards

____Accuracy of lettering/numbering-message

____Hardware conditions

____Paint conditions

____Cleanliness

____Adherence to surface/stable

____Illumination and location/visibility

____Overall appearance

General Safety and Security

____Sign visibility and currency

____Weed encroachment and trash buildup

____Fence conditions

____Overall condition

Locks

____Secure/security

____Overall operation

____Lubrication if applicable

____Overall condition

Painted Surfaces and Structural Condition

____Stability and joint conditions for deficiencies

____Overall condition

HVAC and Heating Systems

____Overall cleanliness

____Electrical connection conditions

____Motor/stability and lubrication

____Connection conditions

____Unit operation and noise level

____Window seal and gasket condition

____Condensation drain condition

____Filter condition

____Mounting stability of housing

____Oil cup conditions

____Coil conditions

____Blower motor operation

____Equipment cleanliness

____Mechanical equipment function

____Flow switch operation

____Overall condition

Irrigation Controllers

____Electrical connections

____Piping and ground condition

____Timer accuracy if applicable

____Overall condition

Roofing

____Support structure integrity/cracks or stains

____Surface conditions for deficiencies

____Membrane conditions for

____Roof ventilation conditions

____Structural conditions/settling of components

____Expansion joint conditions/punctures, splits

____Chimney condition if applicable

____Flashing conditions/deficiencies

____Subsurface/insulation for moisture

____Plumbing stacks and vents

____Skylight conditions/deficiencies

____Roof edging conditions/ (fasteners)

____Flat roof conditions/bare areas, cracks

____Overall condiotion

Gutters/roof drains

____Mounting stability/ bolts, screws and strap

____Joint conditions and stability

____Splash block location

____Caulking conditions

____Overall condition

____Discharge area for proper drainage

____Roof atrium drains /cleanliness

____Seam and elbow condition

____Gutter position toward downspouts

Solar panel equipment system

____Mounting stability/bolts, screws, etc...

____Electrrical connections

____Signs of cell degradation

____Voltage and current readings

____Structures blocking sunlight

____condition of solar panels/cracks or breaks

____Dirt and debris accumulation

____Damaged or frayed cale

____System efficiency

____Seal integrity around mounting points

_____Signs of rodent damage

_____Corrosion on components

_____Inverters condition

_____Charge controllers condition

_____Overall condition

Any deficiencies noted on inspection requires a Bus Maintenance Facility Work Order to be filled out and completed Promptly by the individual requesting the work.

2025 Real Property Status Report **Recipient Unique Id Number (UEI)** **L2SLA7WWD7M1**

PROPERTY ADDRESS	DATE OF ACQUISITION	TYPE OF INSURANCE COVERAGE	DESCRIPTION OF REAL PROPERTY	VESTED TITLE	FACILITY SIZE SQUARE FOOTAGE	DATE IN SERVICE	DATE OUT OF SERVICE	FEDERAL USEFUL LIFE (MONTHS)	ACTUAL USEFUL LIFE (MONTHS)	REMAINING USEFUL LIFE (MONTHS)	TOTAL VALUE	FEDERAL SHARE	FED SHARE BASED ON (MONTHS)
CAT Administrative and Maintenance Facility 867 South 48th Street Grand Forks, ND	1982	Full Coverage including Flood Ins.	Bus Administrative and Maintenance Facility	City of Grand Forks	24,976	7/9/1982	7/9/2022	480	516	(36)	$ 1,496,696	80%	$ 1,197,357
CAT Administrative and Maintenance Facility 867 South 48th Street Grand Forks, ND	2020	Full Coverage including Flood Ins.	Bus Administrative and Maintenance Facility Phase 1 Upgrade	City of Grand Forks	10,786	9/1/2020	9/1/2060	480	58	422	$ 4,500,000	80%	$ 3,600,000
CAT Administrative and Maintenance Facility 867 South 48th Street Grand Forks, ND	2024	Full Coverage including Flood Ins.	Bus Administrative and Maintenance Facility Phase 2 Upgrade	City of Grand Forks	14,254	6/1/2024	9/1/2064	480	13	467	$ 8,631,936	90%	$ 7,768,742
Metro Transit Center 450 Kittson Ave	2001	Full Coverage including Flood Ins.	Metro Transit Center	City of Grand Forks	1,000	9/1/2001	9/1/2041	480	286	194	$ 539,304	80%	$ 485,374

Updated **7/1/2025**

*Note: Actual Service Months = (B13-G8)/365*12*

LOCAL SHARE BASED ON (MONTHS)	REMAINING FED SHARE BASED ON (MONTHS)	REAL PROPERTY CONDITION	DISPOSITION ACTION	FAIN # or GRANT #	APPRAISED FAIR MARKET VALUE	APPRAISAL DATE
$ 299,339	$ (90,048)	Fair	No	UMTA Grant ND-03-0006		
$ 900,000	$ 3,165,041	Excellent	No	ND-2019-002		
$ 863,194	$ 7,558,561	Excellent	No	ND-2023-013	$16,800,000	5/1/2025
$ 53,930	$ 196,011	Very Good	No	ND-2023-013	$750,000	1/1/2025

City of Grand Forks
Cities Area Transit

VEHICLE MAINTENANCE PLAN

JANUARY 2025

Cities Area Transit
PO Box 5200
Grand Forks, ND 58206
Phone: 701-746-8108
Fax: 701-746-2582

TABLE OF CONTENTS

INTRODUCTION

The City of Grand Forks Public Transportation Department has set as a goal, the concept of establishing an efficient, effective and high-quality maintenance program for our transit vehicle fleet. These efforts allow the transit service to remain economically operable and consistently attractive. An integral part of an effective maintenance program is a documented set of policies and procedures, which clearly describe all maintenance standards and activities.

This manual of maintenance policies and procedures is designed to describe the following components of the maintenance program:

-Descriptions of personnel duties
-Servicing and cleaning
Inspections and Preventive Maintenance
Body and Structural Repair

Appropriate, effective responses to bus fleet maintenance requirements can be fostered through a clear understanding of the policies and procedures contained herein. This may be achieved by encouraging all bus maintenance personnel and interested officials to familiarize themselves with the contents of this plan. The result will be maintenance cost effectiveness and continued quality service to the general public.

The Grand Forks transit fleet consists of twenty-six (26) vehicles. There are nine (9) New Flyer, (2), three (3) New England buses, and two (2) Alexander Dennis buses. It also consists of (7) seven Dodge Grand Caravans, four (4) Chrysler Voyagers, and one (1) Ford Transit. (See Appendix I – Fleet Roster). Also, the City of East Grand Forks, which contracts for maintenance service with the City of Grand Forks owns one (1) Arboc Mobility bus, one (1) New Flyer Bus and two (2) Arboc vans. The overall maintenance for the above-mentioned transit vehicles are accomplished at the Grand Forks Bus Maintenance Facility located at 867 South 48th Street, Grand Forks, North Dakota 58201. The facility is located in the Grand Forks Industrial Park. The maintenance facility can accommodate all existing transit vehicles with inside storage parking.

PERSONNEL

In-house staff of the Grand Forks Cities Area Transit Department implements the maintenance functions of the transit system. The implementation and monitoring of the Grand Forks preventive maintenance program requires several staff members. Brief descriptions of the staff functions are provided below. An organization chart depicting the relationships between the appropriate staff members and entities is provided in Appendix II – Organization Chart.

PUBLIC TRANSIT DIRECTOR

The position of Public Transit Director includes overall system management in the areas of:

- Administration
- Project Management and procurement
- Grants Management
- Financial Reporting
- Planning
- Federal Compliance
- Department Oversight

Responsible for department oversight of operations, maintenance, and administration. Maintains federal compliance while administering grants, procurements, reporting, and projects.

PARATRANSIT OPERATIONS SUPERVISOR/MOBILITY MANAGER

The position of Paratransit Operation Supervisor includes overall system management in the areas of:

- Metro Transit Center Operations
- Agency Coordination
- Paratransit Operations
- Education and Outreach
- Travel Training
- Driver Training

Responsible for paratransit driver and dispatcher oversight. Engages with the community for education and outreach regarding public transportation.

BUS OPERATION SUPERVISOR

The position of Supervisor includes overall system management in the areas of:

- Fixed Route Operations
- Scheduling

- Facilities Maintenance
- Snow removal
-Driver Training and Testing

Responsible for the overall maintenance of the transportation facilities, developing maintenance schedules, maintenance of equipment and supplies, and driver training.

FLEET OPERATIONS SUPERVISOR

The position of Fleet Operations Supervisor includes overall system management in the areas of:

- Shop Operations
- Vehicle Maintenance
- Coordination with Bus and Paratransit Supervisors

Responsible for the daily work assignments of the maintenance personnel under his supervision. Provides inspection services for completed work assignments and tasks. Also involved in computerizing inventories and histories of each transit vehicle.

Reviews and analyzes all vehicle documentation including but not limited to preventive maintenance schedules, garage service requests, and vehicle history files. Subsequently ensures that all records are properly and promptly processed. Ensures that inventory, equipment and facilities are protected and maintained in safe operating condition.

FLEET MAINTENANCE MECHANICS

Responsible for the mechanical operation of the bus fleet. On a routine basis, the mechanics conduct daily repairs on the diesel engines and all related parts: electrical systems, brake systems, heating and air conditioning systems, and suspension systems. The mechanics also repair minor vehicle problems, but work related to upholstered seats is contracted to private businesses. Replace and rebuild diesel engines and automatic transmissions, diagnose and perform all tune up and electrical problems. Complete rebuilding of front suspension and front-end alignment. Perform scheduled preventive maintenance according to full-service checklist. (See Appendix III – full-service Checklist).

Performance levels of the preventive maintenance program are also checked by the mechanics. Steam cleaning of engines, radiators, air conditioning condensers, battery boxes, chassis, etc. are also completed.

Responsible for the overall appearance of the bus fleet. Generally involved in the removal and replacement of components such as: fenders, bumpers, lamps, side panels, interior and exterior glass, and adjusting door systems and seats. Repairs minor body damage, also repair and paint accident damage. If time does not allow, accident damage is contracted and bid out to area body shops.

In the spring months, air conditioning systems on all buses are scheduled for complete maintenance. Freon removed from the A/C system of each bus runs through our A/C reclaimer when and if needed for repairs. The filtered Freon is reused and replaced into the A/C system. This results in cost savings on Freon when servicing the A/C system. Also, this process is environmentally safe, with no contamination from releasing Freon into the atmosphere.

Also, in the spring of the year, before the "hot weather" starts, all transit vehicles are scheduled for complete cooling system cleaning. This includes checking of anti freeze and adding additives or replacing coolant as needed.

BUS OPERATORS

Bus Operators are responsible for daily morning inspections of transit vehicles and operating a fixed route while providing excellent customer service. Inspection includes items such as fluid checks, body damage, tire inflation, mirrors, wipers, etc. Bus Operators are responsible for the cleanliness of the drivers' area during their shift and at the end of the shift. See Appendix IV for a sample of the Driver's Check Sheet.

PARATRANSIT DRIVERS

Paratransit Drivers are responsible for daily morning inspections of transit vehicles and providing origin to destination service while providing excellent customer service. Inspection includes items such as fluid checks, body damage, tire inflation, mirrors, wipers, etc. See Appendix IV for a sample of the Driver's Check Sheet.

TRANSPORTATION DISPATCHERS

Transportation Dispatchers are responsible for scheduling, dispatching, and customer service for the Dial-A-Ride and Senior Rider programs. Transportation Dispatchers also sell bus passes to agencies and the general public and provide customer service at the Metro Transit Center.

ADMINISTRATIVE STAFF

Office staff personnel are responsible for:

-General customer service
-Accounts payable and receivable
-Invoicing
-Payroll
-Miscellaneous data entry

CLEANING PERSONNEL

Cleaning personnel are responsible for interior and exterior cleaning of vehicles.

SERVICE AND CLEANING

POLICY

The Bus Operations Supervisor will be responsible for the cleanliness and availability of vehicles for dispatch. The Bus Operations Supervisor will make sure all drivers are thoroughly familiar with the various make and models of the City's buses and their requirements for proper fueling and service. The Bus Operations Supervisor will see that cleaning personnel are thoroughly cleaning vehicles after service. The Bus Operation Supervisor will also be responsible for the preparation of servicing and cleaning schedules and reports.

General fueling and servicing of vehicles will be conducted between 6:00 a.m. and 11:00 p.m., Monday-Friday and on Saturdays from 8:00 a.m. to 11:00 p.m.

At the beginning of their scheduled shift, each driver completes the Driver's Pre-Trip Check Report found in Appendix IV. It is used for maintaining a record of all necessary repairs that require immediate action. It is also used as a guide for scheduling maintenance on the vehicle.

After completing the regular run for the day, each fixed route vehicle is washed and fueled by the bus driver. After the computerized fueling process is completed, the vehicle is then parked in the storage area of the Bus Maintenance Facility. Cleaning personnel thoroughly clean and mop the inside of each transit vehicle.

Cleaning of the Paratransit vehicles is handled each day by the cleaning personnel.

TASKS

- Pre Operations

All transit operators are required to perform a pre-trip inspection at the beginning of their scheduled shift.

- Post Operations

Transit vehicles are to be fueled and preform a post-trip inspection at the end of their scheduled shift.

- Exteriors

Vehicle exteriors are to be washed every night, excluding Sundays.

- Interiors

Complete vehicle interior cleaning will be performed every day. Interior cleaning will include:

- Sweeping and mopping the floors
- Cleaning all glass (windshield, side windows)
- Cleaning and dusting all passenger seats
- Cleaning of the dash panel and driver's area

- Other

At the time of full-service inspection by the Fleet Operations Mechanic (4,000-mile mark for diesel buses and 3000 mile for gas buses), heating and air conditioning filters are renewed with disposable filters. The entire engine, transmission and air conditioning compartment is pressure washed with hot water. This makes it easier for the night cleaning personnel to maintain a clean and fresh interior for each transit vehicle.

DAILY CITY BUS CLEANING SCHEDULE

Buses are cleaned everyday Monday thru Saturday

1. Wash outside of vehicles with automatic washer
2. Dry sweep floors (DO NOT sweep onto garage floor).
3. Close front bus doors and clean behind doors.
4. Vacuum out wheelchair tie down tracks in floor daily.
5. Clean all passenger seats and backs.
6. Clean wheel-well areas and front and rear steps.
7. Clean driver's seat and dash areas.
8. Thoroughly clean under and around farebox.
9. Clean drivers front and side windows using window cleaner.
10. Clean all interior windows using window cleaner.

11. Clean and wipe down all handrails.

12. Clean out all trash.

13. Sweep and mop floors.

When time allows, at least twice a year, wipe down all walls and ceilings with damp cloth.

INSPECTION

POLICY

To ensure safe, reliable service, it is imperative that buses are inspected at regular intervals. The policy of the Public Transportation Department is to have full service major inspections. These types of major inspections including the tasks and the schedule are described on the next two pages.

Any defect found during an inspection that would adversely affect the safe operation of the vehicle is to be repaired prior to the release for service. Defects not affecting safe vehicle operation will normally be repaired prior to the vehicle being released for service. However, buses requiring parts not in stock, outside vendor services are not available, or excessive repair time may be released at the discretion of the Fleet Operations Supervisor.

Accessibility equipment (ramps, lifts, annunciators) must be in working condition prior to putting vehicles in service. Any defect related to the operation of accessibility equipment, the vehicle must be removed from service and repaired before it is put back into service.

Buses will be scheduled for repair at the earliest possible opportunity. Any vehicle defects that have been noted in the Driver's Pre and Post Trip Check Report will be handled in this same manner. The mechanics will be responsible for the check-off function of the inspection form and ensure that all work is performed properly. The work order is filled out and signed by the mechanic when the work is completed on the transit vehicle. The Fleet Operations Supervisor receives the completed work order and reviews with the Fleet Maintenance Mechanics and files it with the vehicle historical service records.

Engine oil analysis samples are taken at every 4,000-mile oil change interval on diesel vehicles. The resulting oil analysis test report is reviewed by the Fleet Operations Supervisor and then placed in the proper vehicle record file.

INTERVALS AND SCHEDULE

A copy of the Public Transportation Department's scheduled preventive maintenance program (3,000- and 4,000-mile Full-Service Checklist) is shown in Appendix III.

The service inspection is performed every 4,000 miles on Diesel and 3,000 mile on Gas vehicles. It consists of inspecting steering components, heating and air conditioning units, brakes, tires, lights, marine pump, wheelchair lifts and ramps, and general appearance of the vehicle.

The Fleet Maintenance Mechanics fill out the work order and the Fleet Operations Supervisor maintains a complete history of inspections and work performed on each vehicle.

The engine oil and filters are changed at every full-service inspection, which is conducted every 4,000 miles on Diesel and 3,000 mile on Gas vehicles. Also, it is the policy of our department to change the transmission oil at the same time as the 4,000-mile inspection on diesel vehicles. Historically, our department has determined that by changing the transmission oil at 4,000-mile on heavy duty diesel buses intervals, this contributes to both a long life and trouble-free vehicle transmission.

SCHEDULED MAINTENANCE

PREVENTIVE MAINTENANCE:

1. Preventive Maintenance – Full Service

    a. Vehicle inspection and engine – transmission.
    b. Oil change – 4,000-mile interval on diesel buses
       3,000-mile interval on gas buses.

2. Oil analysis – engine and transmission (at oil change – 4,000-mile interval) on diesel buses.

3. Air Filters – all are changed at service intervals or as needed.

4. Cooling System

    a. Drain, flush and add new antifreeze back into system if needed.
    b. All vehicles are done at 50,000 miles or every two years in November.

5. Dryer Kits – replaced in all buses with air systems each November.

6. Differential Oil – changed in all buses each November.

7. Evaporator and Heater Cores

    a. Washed out each May
    b. Inspect and service all air conditioning systems.

MAINTENANCE PLANNED SCHEDULE

PLANNED: MAJOR COMPONENT REPLACEMENT OR OVERHAUL

1. Engines rebuild – as needed

2. Transmission rebuilds – as needed

3. Complete front axle rebuilds

    a. Minor front axle rebuild – replace outer bushings
    b. Major front axle rebuild – replace all bushings- king pins, tie rod ends and bell crank

4. Front and rear brake replacement

    a. Change when worn to wear mark
    b. Turn all drums or replace – new brake blocks and all worn parts

5. New tires

    a. Change front tires as needed or at 4/32nd
    b. Change rear tires when tread depth reaches 3/32 at wear bar

6. Steering gear – change as needed

7. Differential – Replace or rebuild as needed

8. Radiator – Complete rod out and rebuild when leaking or at engine change

9. Alternator – change as needed or change at engine rebuild

10. Air compressor – change as needed and change at engine rebuild.

BODY AND STRUCTURAL REPAIR

It is the policy of the Grand Forks Public Transportation Department that bus exteriors and interiors are to be maintained in a manner that promotes the image of public transit as an attractive, comfortable, and safe, efficient alternative to the use of a private automobile. Keeping this in mind, significant wear and damage must be dealt with expeditiously to ensure a high level of appearance.

Major bus body and structural repair work will continue to be performed by the Department's Fleet Operations Mechanics. It is the responsibility of the Fleet Maintenance Supervisor to ensure that the scheduling of vehicles for body repair is done as soon as practical after determination of the work required.

Repair of typical minor body damage such as chalked or scraped paint, body dents and scratches, door and panel replacement and interior wear will be performed by the Department's Fleet Operations Mechanics. The Fleet Operations Supervisor is responsible to assure that buses are regularly checked and subjectively assessed against the look and finish of a new bus. When buses do not favorably compare in their appearance, fit and finish, steps should be taken to bring them up to an acceptable level. All Public Transportation employees are aware that the responsibility for providing a safe vehicle rests with all parties concerned.

The remaining body repair work that is not done "in-house", mainly damage caused by accidents is taken out to private body shops.

Experience has shown that transit vehicles maintained at a high level of interior and exterior appearance are both indicative of and foster a positive staff attitude toward all phases of bus maintenance and operation. It has also been demonstrated that it is less costly to maintain buses at a high level of exterior and interior repair than to allow them to deteriorate to a level that requires major refurbishment. The Grand Forks Public Transportation Department feels that its policies in this regard are consistent with and beneficial to the operation of a public transit system.

The Fleet Operations Mechanics, as directed by the Fleet Operations Supervisor, will perform vehicle repairs. Upon receiving a service request or discovery of a defect during inspection or service, the Fleet Operation Supervisor will assign a Fleet Maintenance Mechanic to perform the required repairs. Upon completion of the work, the Fleet Operations Supervisor will review the service request and ensure that all work has been satisfactorily completed.

WARRANTY RECOVERY SYSTEM

All vehicle service and repairs must be checked for manufacturer warranty coverage. All covered items must be processed through the respective manufacturers for repair or reimbursement. Warranty service and repair records are kept on file for the life of the vehicle. The Fleet Operations Supervisor is responsible for securing warranty coverage and reimbursement.

APPENDIX I

CITY OF GRAND FORKS
PUBLIC TRANSPORTATION DEPARTMENT

YR	MAKE AND MODEL	UNIT NUMBER	SERIAL NUMBER
2010	New Flyer 35 foot hybrid	103	5FYH5KV11AB037677
2010	New Flyer 35 foot hybrid	104	5FYH5KV13AB037678
2010	New Flyer 35 foot	105	5FYD5KV16AB037656
2010	New Flyer 35 foot	106	5FYH5KV18AB037657
2018	New Flyer	183	5FYD8KV14JB054821
2018	New Flyer (EGF)	184	5FYD8KV16JB054822
2018	New Flyer	185	5FYD8KV19KB071499
2016	New England	191	3C7WRVLG0GE125672
2019	Alexander Dennis	193	3C7WRVLG0GE125672
2019	Alexander Dennis	194	3C7WRVLG5GE125683
2020	New Flyer	201	5FYD8KV11LC074604
2020	New Flyer	202	5FYD8KV13LC074605
2020	New Flyer	203	5FYD8KV15LC074606
2021	New England	215	3C7WRVLG7LE137280
2023	Chevy/Arboc (EGF)	241	1HA6GUB74PN003323
2023	New England	242	3C7WRVLG8PE573819
		Support Vehicles	
2007	Brown Kia Sportage	14	KNDJF723687456834
2010	Silver Ford Fusion	7	3FAHPOA2AR430181
2011	Ford F-250	4	1FTBF2B60BEA69149
2012	Maroon Ford Fusion	2	3FAHPOGA2CR400021
2017	Black Ford Fusion	10	2FA6P0H74HR316977
2017	White Ford Fusion	11	2FA6P0H74HR316978
2017	Dodge Ram 3500	13	3C63R3CT6HG638505
		Shop Equipment	
2005	Bobcat Skid Steer		526015192
2005	John Deere Mower Blower		TC1445D050861
	Tennet Floor Sweeper		MV-520-0038-520-7267
2023	Bobcat Toolcat		B4RC13560
		Paratransit Vehicles	
2014	Chevy Arboc (EGF)	142	1GB6G5BG2E1176082
2018	Dodge Caravan	181	2C7WDGBG1HR808704
2018	Ford Transit	182	1FBVU4XMXJKA35746
2018	Arboc Mobility Bus (EGF)	186	1HA6GUBG2JN008138
2019	Dodge Caravan	195	2C7WDGBG2KR779379
2019	Dodge Caravan	196	2C7WDGBG8KR779435
2019	Dodge Caravan	197	2C7WDGBG1KR779504
2019	Dodge Caravan	198	2C7WDGBG0KR779509
2021	Chrysler Voyager	211	2C4RC1AG2MR510264
2021	Chrysler Voyager	212	2C4RC1AG4MR510265

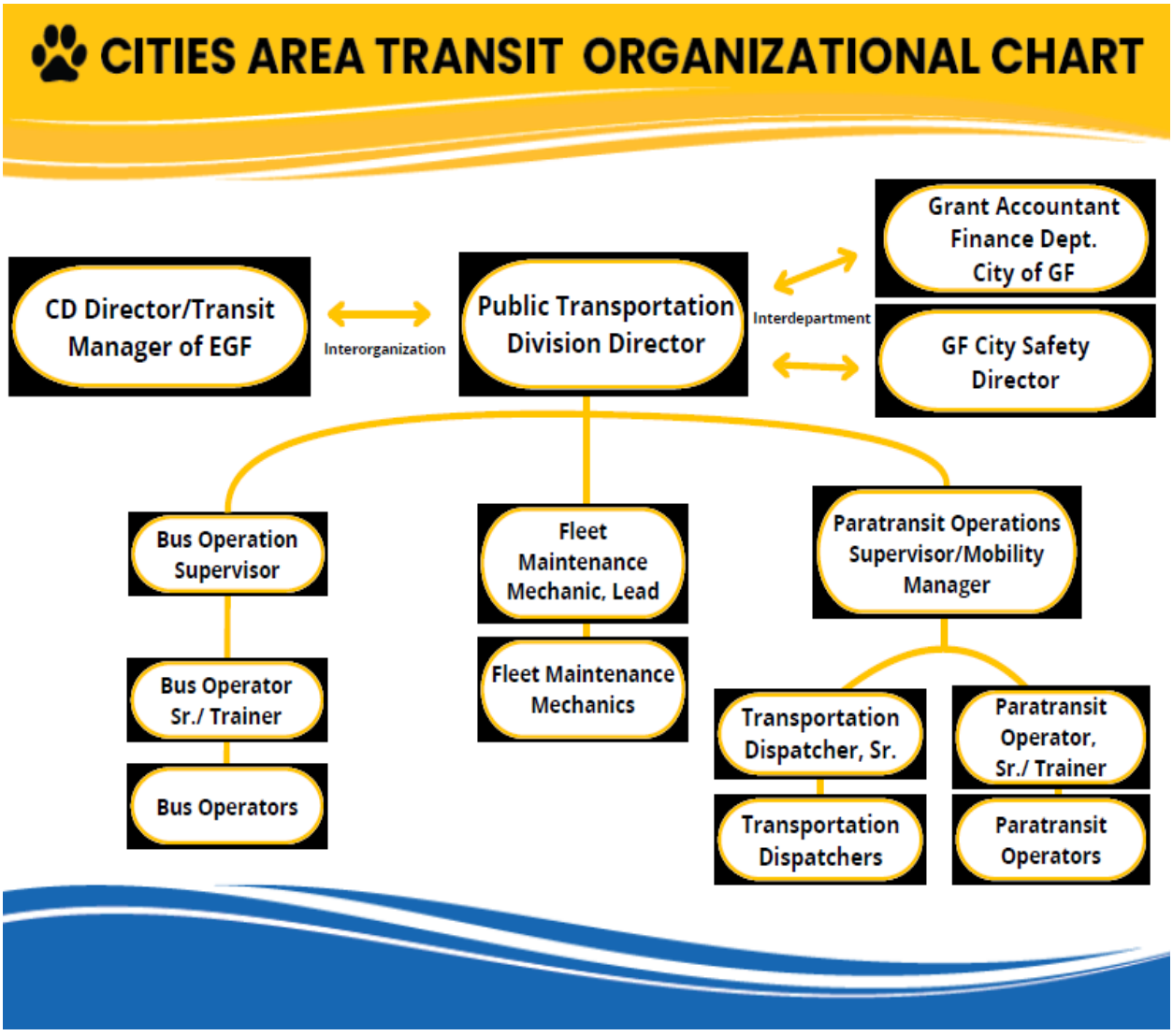
2021	**Chrysler Voyager**	**213**	**2C4RC1AG6MR510266**
2021	**Chrysler Voyager**	**214**	**2C4RC1AG8MR510267**
2023	**Chrysler Voyager**	**231**	**2C4RC1CG5PR512818**
2023	**Chrysler Voyager**	**232**	**2C4RC1CG4PR512860**
2023	**Chrysler Voyager**	**233**	**2C4RC1CG0PR583358**

APPENDIX II

CITY OF GRAND FORKS

PUBLIC TRANSPORTATION DEPARTMENT

ORGANIZATIONAL CHART



APPENDIX III

CITY OF GRAND FORKS PUBLIC TRANSPORTATION DEPARTMENT
SCHEDULED PREVENTIVE MAINTENANCE
3,000 and 4,000 MILE – FULL-SERVICE CHECKLIST

Hoist Up

1. Change Oil and Filter – engine and transmission
2. Lube all points (check for wear)
3. Check for leaks around oil and transmission pans (torque, if needed)
4. Check air pressure in all tires to manufacture specifications
5. Check air lines for leaks or wear
6. Drain air tanks periodically
7. Check brake setting and wear
8. Check out front suspension for wear
9. Check muffler straps
10. Service driver's heater filter
11. Check differential oil level
12. Operate wheelchair lift and lube all chains and pivot points

Hoist Down

1. Change fuel filter (fill with fuel before installation)
2. Change oil by-pass filter
3. Fill crankcase (six gallons with bypass filter)
4. Fill transmission (six gallons)
5. Check all water hoses for leaks
6. Check air lines and electrical wiring for wear spots

7. Check power steering level
8. Check air conditioner belt and oil level
9. Check engine fan belt (04)
10. Check water level
11. Check lights
12. Replace service sticker in bus
13. Write service order
14. Wash engine – wash radiator – clean A/C filers at rear
15. Check cleanliness of inside white trim – schedule for cleaning if needed
16. Check battery compartment
17. Check coolant additive
18. Check operation of passenger doors
19. Fuel bus, if more than 50 miles since last fueling
20. Clean and oil all access door latches

APPENDIX IV

PRE AND POST TRIP INSPECTION REPORT (REQUIRED BY ALL DRIVERS)

Engine Location	Inspection Order
Engine Compartment	
Fluid Levels	1
Belts & Hoses	2
Engine Components	3
Fluid Leaks	4
Right Rear	
Tire	5
Wheel	6
Right Side	
General Condition	7
Lights & Reflectors	8
Right Front	
Tire	9
Wheel	10
Mirror	11
General Condition	12
Front	
Windshield	13
Windshield Wipers	14
General Condiditon	15
Lights & Reflectors	16
Bike Rack	17
Left Front	
Mirror	18
Tire	19
Wheel	20
General Condition	21
Left Side	
General Condidtion	22
Lights & Reflectors	23
Coolant Access Doors	24
Left Rear	
Tire	25
Wheel	26
Rear	
General Condition	27
Lights & Reflectors	28
Exhaust	29
Interior	
Fire Extinguisher	30
Emergency Triangles	31
Passenger Doors	32
Emergency Exits	33
Interior Lights	34
Seats	35
Handrails	36
ADA Documentation	37
Cleanliness	38
Wheelchair Lift/Ramp & Tie Downs	39
First Aid Kit	40
Blood Borne Pathogen Clean Up Kit	41
Reflective Vest	42
Seat Belt Cutter	43
Flashlight	44
Driver's Area	
Mileage	45
Yellow Service Tag	46
Operator's Cab	
Insurance Card	47
Steering Mechanism	48
Seat Belt Cutter	49
Radio & PA System	50
Destination Signs	51
Gauges	52
Horn	53
Wiper Operations	54
Interior Mirrors	55
Heater & Defroster	56
Tablet	57
Cleanliness	58
Fare Box	59
Airbrake Check	60
Exterior Lights	61

Engine Location	Inspection Order
Engine Compartment	
Engine Fluid Levels	1
Belts & Hoses	2
Engine Components	3
Fluid Leaks	4
Front	
Lights & Reflectors	5
General Condition	6
Windshield Wipers	7
Windshield	8
Right Front	
Mirror	9
Tire	10
Interior	
Passenger Doors	11
Wheelchair Lift/Ramp & Tie Downs	12
Fire Extinguisher	23
Emergency Triangles	24
Interior Lights	25
Seats	26
ADA Documentation	27
Cleanliness	28
First Aid Kit	29
Blood Borne Pathogen Kit	30
Reflective Vest	31
Seatbelt Cutter	32
Flashlight	33
Right Side	
General Condition	13
Lights & Reflectors	14
Right Rear	
Tire	15
General Condition	16
Lights & Reflectors	17
Left Rear	
Tire	18
Left Side	
General Condition	19
Lights & Reflectors	20
Left Front	
Mirror	21
Tire	22
Driver's Area	
Exterior Lights	34
Hydraulic Brakes	35
Mileage	36
Yellow Service Tag	37
Operator's Cab	
Insurance Card	38
Seat Belt	39
Radio & PA System	40
Gauges	41
Horn	42
Wiper Operations	43
Interior Mirrors	44
Heater & Defroster	45
Tablet	46
Cleanliness	47

PRE-TRIP INSPECTION

Check if O.K.

_____ Wheels & Tires
_____ Brakes – Service & Park
_____ Headlights & Tail Lights
_____ Brake Lights & Turn Signals
_____ Interior Lights
_____ Mirrors Inside & Out
_____ Body & Glass
_____ Engine Oil & Coolant Levels
_____ Announcement System
_____ Gauges – Instruments
_____ Cycle Wheel Chair Lift or Ramp
_____ Title VI Policy Displayed
_____ Operation of Tie Downs
_____ Body Fluid Cleanup Kit
_____ First Aid Kit
_____ Fire Extinguisher
_____ Reflective Triangles
_____ Fare Collection System
_____ Seatbelt Cutter
_____ Climate Control System
_____ ADA Reas. Mod. Policy Posted
_____ Operation of Doors
_____ Operation of Horn
_____ Cameras Aligned & Secured
_____ Operation of Digital Radio
_____ Cleanliness of Vehicle
_____ Cleanliness of Driver Area

Remarks:_____
_____
_____
_____

Oil Added (Qt.) ____ Signed by: _____

The operator signing below is responsible for checking and adding coolant and engine oil to the vehicle. The vehicle must have 5-min. warm-up at fast idle. Fill air system from shop air supply. Do not start engine until vehicle is ready to pull out of garage.

Vehicle # _____ Time _____ AM Odometer _____

Date: _____ Signature _____

POST-TRIP INSPECTION

Check if O.K.

_____ Wheels & Tires
_____ Headlights & Tail Lights
_____ Brake Lights & Turn Signals
_____ Interior Lights
_____ Mirrors Inside & Out
_____ Body Fluid Cleanup Kit, First Aid Kit, Fire Extinguisher & Reflective Triangles
_____ Cleanliness of Driver Area
_____ Check PM Service Limit
_____ Operation of Doors
_____ Operation of Horn
_____ Operation of Digital Radio
_____ Full Vehicle Walk-Around
_____ Turn Main Power Off

Remarks:_____
_____
_____
_____
_____
_____

Signed by: _____

NOTE: A thorough Post-Trip Inspection is very important. The operator should review the the pre and post trip inspection sheets to ensure nothing has changed. If problems are found, immediately notify the mechanic or supervisor.

Vehicle # _____ Time _____ PM Odometer _____

Date: _____ Signature _____

		MAKE/MODEL OR		
VEH	VEH	VEHICLE	OUT OF	
#	YEAR	DESCRIPTION	SERVICE	
103	2010	New Flyer	8/19/2024	
104	2010	New Flyer	8/19/2024	
105	2010	New Flyer	8/15/2024	
106	2010	New Flyer	8/15/2024	
183	2018	New Flyer	7/9/2030	
184	2018	New Flyer	12/17/2030	
185	2018	New Flyer	12/17/2030	
191	2016	Dodge Ram ProMaster 3500	3/20/2024	New England Wheels
193	2019	Alexander - Dennis Enviro 200	10/17/2031	
194	2019	Alexander - Dennis Enviro 200	10/17/2031	
201	2020	New Flyer	7/29/2032	
202	2020	New Flyer	7/29/2032	
203	2020	New Flyer	7/29/2032	
215	2021	Dodge Ram ProMaster 3500	6/30/2026	New England Wheels
241	2024	Chevy Arboc	7/29/2032	
242	2024	Dodge Ram ProMaster 3500	6/30/2026	New England Wheels
142	2014	Chevy Arboc/4500	6/30/2022	
181	2018	Dodge Entervan	4/2/2022	awaiting sale
182	2018	Ford Transit	7/2/2023	
186	2018	Chevy Arboc/4500	12/31/2025	
195	2019	Dodge Entervan	12/2/2023	
196	2019	Dodge Entervan	12/2/2023	
197	2019	Dodge Entervan	12/2/2023	
198	2019	Dodge Entervan	12/2/2023	
211	2021	Dodge Entervan	12/2/2025	
212	2021	Dodge Entervan	12/2/2025	
213	2021	Dodge Entervan	12/2/2025	
214	2021	Dodge Entervan	12/2/2025	
231	2023	Chrysler Pacifica	12/2/2027	
232	2023	Chrysler Pacifica	12/2/2027	
233	2023	Chrysler Pacifica	12/2/2027	