



MAINTENANCE MANUAL

Last Updated: August 27, 2021

Table of Contents

Revisions	Page 3
Introduction/ Goals & Objective	Page 4
Safety	Page 5
Administrative	Page 11
Go Durham Vehicle Maintenance Plan	Page 20
Inventory Control and Warranty Procedure	Page 47
Go Durham Facility Maintenance Plan	Page 50
Environmental Compliance	Page 94
Purchasing and Accounting	Page 99
Maintenance Training	Page 103
Employee Management	Page 105
FASTER Maintenance Software	Page 107
Bus Stop / Shelter Maintenance	Page 111

Introductions

Revisions

PMI Inspection Procedure (Changed verbiage to mechanics open works orders)	Updated on December 8, 2018
Gillig PMI Inspection Sheet	Updated on September 18, 2019
Gillig PMI Defect Sheet	Updated on January 7, 2020
Monthly Jack Stand Inspection	Updated on January 22, 2020
Monthly Ladder Inspection	Updated on January 22, 2020
Durham Station Inspection	Updated on January 22, 2020
Daily Lot and Pond Inspection	Updated on January 22, 2020
Monthly Extinguisher Inspection	Updated on January 22, 2020
Daily facility Check Sheet	Updated on January 22, 2020
Garage Doors	Updated on August 27, 2021

Introduction

This Maintenance Manual contains the collective wisdom of some of the most experienced, dedicated and technically outstanding maintenance personnel in the country. This document is organized in 9 sections each section contains policies and procedures that, if consistently followed, will ensure success. These procedures are specific to DCTC GODURHAM. If there are union contractual requirements, those would supersede DCTC GODURHAM policy.

The policies and procedures contained in this manual are the heart of DCTC GODURHAM's professional competence. They guide our employees to success in an extremely challenging and stressful work environment. As DCTC GODURHAM's capstone Maintenance Manual, this document provides the basis for your shop operation and is designed to guide all personnel - from the most junior apprentice mechanic to the most senior manager.

This Manual represents the commitment to our greatest resource, our people. It is designed as a tool for each employee to use in furthering personal growth and professional excellence.

This manual standardizes procedures to provide consistent clear direction for all shops. For example, need to know the best way to maintain vehicle files? Review procedure for an outline of what should be in each vehicle file and how it should be organized.

This manual greatly improves your opportunities for personal growth. Your focus no longer needs to be on reinventing the wheel. Instead, your valuable time and energy can be focused on improving your

Introductions

maintenance program. Like a football quarterback who takes charge of his offensive unit that has a well-rehearsed basic playbook, you can put your energy into moving the ball down the field instead of teaching everyone the basics - this manual is your playbook.

As you become familiar with this book, you will have a thorough knowledge of the policies and procedure contained in this Manual, saving hours of time spent figuring out how to accomplish repetitive tasks. You will become more efficient and more effective. Dedicating 10-15 minutes per day reviewing this manual over the next year, you will have spent over four hours on each Section. That is more than enough time to become a true expert on how DCTC GODURHAM does its business.

The benefits this manual offers are driven solely by your personal desire for excellence. We urge you to take advantage of the information that this manual provides.

Goals and Objectives

The primary goal of the maintenance program is to provide a cost-effective, systematic, interruption free pattern of transit operation. To accomplish this, GoDurham maintenance practices are centered on the following goals and objectives:

Goals:	Objectives:
Provide consistently good service to meet public demand	Maintain equipment and facilities.
Fleet Availability	95%
Provide safe, reliable, comfortable and clean buses	Maintain a high-quality maintenance program.
Major mechanical failures	20
Provide maximum operational reliability	Replacement of certain parts and components at predetermined times.
PM's Completed on time	100%
Minimize Road calls, equipment, downtime and reduce costs	Adhere to strict Preventative Maintenance schedule of periodic inspections
Miles per major mechanical failure	12,566

To meet these goals and objectives, GoDurham has implemented a systematic maintenance program designed primarily to: (A) reduce costs (B) provide more effective scheduling of shop work (C) maximize the number of operable vehicles at any time.

The key to accomplishing this is preventative maintenance. The preventative maintenance philosophy forms the core of GoDurham's maintenance program. Every maintenance employee at GoDurham has this concept ingrained in their purpose of duties. It is the foundation by which the following procedures and practices, as outlined are followed.

Personal Protective Equipment

1. Purpose

Wearing personal protective equipment will assist in preventing injuries caused by known safety hazards in the repair shop.

2. Procedure

Policy

All maintenance employees, including Managers, Supervisors, Mechanics, and Attendants etc, who work in the maintenance department, are required to use personal protective equipment to assure their own personal safety.

Safety Glasses and Face Shields

Safety glasses must be worn at all times when working in the shop, fueling and cleaning vehicles. The shop should have spare glasses for visitors and vendors who may walk or be working in the maintenance area.

Face shields must be worn when using compressed air or liquids to clean parts and when performing all wire, grinding and cutoff wheel operations. Even though these machines are equipped with shields and guards, a face shield must be worn.

Safety Shoes

(OSHA approved, leather constructed safety shoes with oil resistant soles must be worn at all times. Safety shoes are a condition of employment and are provided by Maintenance.

Dust Mask

Dust Mask must be worn when using chemicals and cleaning solutions in a confined area. Employees should wear a cartridge-type respirator when spray painting, fine sanding, sandblasting or working in the same area of someone doing this work. All employees should be tested and fitted prior to use.

Protective Gloves

Employees working with chemicals and products, which could be hazardous to their health, must wear rubber gloves. Gauntlet gloves will be worn by welders when arc welding or cutting. The company will provide gloves.

Earplugs

Employees working around loud machinery and equipment must wear earplugs to prevent damage to hearing. The company will provide earplugs.

Lock out Tag Out

1. Purpose

To ensure that all vehicles and shop equipment that have safety related defects which are noted through the DVI process or maintenance inspections are kept out of service until satisfactory repairs have been made.

2. Procedure

Out of Service Procedures

There must be a documented procedure for tagging and placing vehicles and shop equipment out of service and should receive training to explain the pre described procedure. There should be one common outline to follow in the out of service procedures then the division must adapt the outline to fit the daily needs and operations of the department. In addition each driver and technician must understand and perform a sufficient lock out tag out program implemented by the Maintenance Manager.

Vehicles

As stated in **CFR 49 § 396.7 Unsafe operations forbidden (a) General** - A motor vehicle shall not be operated in such a condition as to likely cause an accident or a breakdown of the vehicle

Outline

Employees should demonstrate and understand the following requirements:

- Vehicle which is out of service should be clearly marked and disabled when not being repaired.
- Note out of service vehicle on the maintenance out of service board
- Tag vehicle out in dispatch and notify dispatcher
- Reverse Procedures when placing vehicles back into service
- Documentation of repair recorded on vehicle work order and placed in vehicle file.

A DCTC GODURHAM OUT OF SERVICE marking will be placed upon the driver side windshield and an out of service steering wheel cover must be secured over the steering wheel. All employees shall be trained to recognize the marking and to abide by it. Any use of a marked vehicle shall be considered a "serious unsafe act" and the Maintenance Manager should be notified immediately.

The marking may not be removed, and the vehicle may not be put into service until it has been repaired and put back into service by the Maintenance Department. This should be considered a minimum requirement.

Facility and Shop Equipment

All tools and shop equipment at DCTC GODURHAM shall be maintained in accordance with OSHA regulations.

Outline

Employees should demonstrate and understand the following requirements:

Safety

- Equipment which is out of service should be clearly marked and disabled when not being repaired.
- Employees should immediately notify their supervisor and/or manager when any equipment is noticed in an unsafe condition.
- The Maintenance Manager will work to expedite repairs or replacement of shop equipment that is in unsafe or unusable condition.
- Documentation of repairs will be placed in the equipment files.

Basic Shop Safety

1. Purpose

To ensure that DCTC GODURHAM employees are practicing safe work habits while performing their job duties in a safe environment.

2. Procedure

The General Manager and Maintenance Manager are responsible to ensure all employees are following proper shop safety rules as outlined by OSHA.

DCTC GODURHAM is in the process of developing a shop safety program. The following basic safety rules shall be followed, but not limited to:

- No wearing jewelry in the shop such as necklaces, rings, etc.
- Hair must be kept contained to keep from catching in moving machinery.
- Approved footwear in the shop.
- Safety glasses worn in the shop.
- Clothes in good repair and properly fitting so there is no chance of getting caught in moving machinery.
- No smoking in or around the shop.
- No operating any electrical equipment around combustible fumes. Sparks from inside electrical equipment may cause fire or explosion.
- Follow any and all safety rules noted in repair manuals for diagnosis and repair procedures.

Emergency Action Plan

1. Purpose

To ensure the quick and safe evacuation of employees in case of emergency or fire.

2. Procedure

Duties and Responsibilities

The Division Management Team is responsible for all emergency planning and preparedness for this facility. During an emergency the Division Management Team will assume overall direction of the emergency procedure. The first and most important priority during an emergency situation is to ensure the safety of our passengers and employees. The Division Management Team will also:

Review the procedures contained in this document on an annual basis and update and distribute any changes.

Safety

Ensure all employees are trained on the procedures contained in this document and will direct that emergency procedures are emphasized during Safety Meetings and other employee training sessions.

Ensure there is an adequate warning system that is known to all and in coordination with other subordinate staff will conduct emergency evacuation drills no fewer than two times per calendar year.

Assume the role as the Company spokesperson for any local media until otherwise directed by the General Manager and act as liaison between DCTC-GODURHAM and Triangle Transit.

The manager designated by the Division Management Team will stay current and recommend any updates to procedures to the Division Management Team. He/she will ensure that all contact information is kept up to date and is properly disseminated. The manager will also:

Ensure that the system testing is scheduled and conducted twice each calendar year.

Ensure that system tests are as realistic as possible and include personnel accountability procedures to ensure all employees/customers are accounted for.

Maintain all records concerning drills, corrective action taken and any recommendations made to amend any procedures.

Specific procedures that are part of this document are:

Annex A:	Evacuation Due to Fire (Facility)
Annex B:	Evacuation Due to Spills
Annex C:	Evacuation Map

Annex A: Evacuation Due to Fire (Facility) to the (Project) Emergency Evacuation Procedures Guide

1. In the event of a fire at a Facility the person(s) noticing the smoke or fire will pull the nearest fire alarm and call out "Fire, Fire," and immediately exit the building to their designated assembly area. The senior staff person will call 911 as soon as possible and give the emergency operator as much detail as possible concerning the incident in progress.
2. Employees, unless specifically trained and certified in the use of fire extinguishers, will immediately exit the facility and move to their designated assembly areas.
3. Fuel island personnel will, if safe, activate the fuel emergency shut-off valve and then move immediately to their assembly area. In no case will fuelers attempt to fight a fire at the fuel island.
4. The senior employee present will take the headcount on a clipboard and note any personnel who are not accounted for. The senior employee will ensure that no one is allowed to enter the facility until emergency crews give the "all clear".

5. The evacuation will take place under the control and direction of the Division Management Team; his/her designated representative or the senior employee present.
6. The Division Management Team will notify the City and the General Manager of the situation.

Annex B: Evacuation Due to Spills

1. The facility may have to be evacuated due to either on site or off-site spills and leaks. If a hazardous material spill or leak occurs, it will normally involve some type of fuel. If the spill is minor in nature the Maintenance Manager or his/her representative should respond with the “spill kit” and contain it. The senior operations personnel will be contacted and briefed. If no further action is required, the maintenance crew will clean up the spill. If the spill or leak is major the person reporting an on-site spill should indicate the location of the spill as part of the emergency report.
2. The senior person(s) present, based on the information available, determines that an evacuation of the facility is prudent he/she will call 911 and direct the immediate evacuation of the facility to the designated assembly areas.
3. The Division Management Team will be immediately notified, and he/she will take charge or designate another member of staff to manage the situation until he/she is able to arrive at the facility.
4. The Division Management Team or designated representative will brief emergency responders as completely and accurately as possible (i.e. “The propane fuel tank on the other side of the building has a leak”). Reports will be kept simple and to the point. Ensure the emergency crew is informed whether or not all personnel are accounted for.
5. The Division Management Team or designated representative will contact the City, Director of Maintenance and VPO and give a full report as soon as possible.

Annex C: Evacuation Map- It is the Division Management Team’s responsibility to develop and implement a proper facility evacuation map.

Any recommendations for changes or amendments to this document should be forwarded to the Division Management Team.

Hazardous Communication

1. Purpose

To ensure that DCTC GODURHAM provides guidelines for the implementation, control and use of all flammable, toxic and caustic materials and hazardous waste programs in our facilities.

2. Procedure

All maintenance employees, including Managers, Supervisors, Technicians, and Utility Workers who work in the maintenance department are required to be able to read and understand Hazardous Communication Program and information found on the Material Safety Data Sheets (MSDS).

The Company will identify, collect, store and dispose of all generated hazardous waste in

accordance with federal, state, and local mandated requirements. The Maintenance Manager will manage identified hazardous wastes and maintain all required records in a designated location.

Each departmental manager will maintain current and accurate inventories of flammable, toxic or caustic materials. Flammable, toxic or caustic materials stored in offender areas must be in a secure area and will be dispensed by staff.

The Maintenance Manager is responsible for maintaining a current list of all known hazardous chemicals used in the facility. This list includes, at a minimum, the product name, name of the chemical manufacturer, the HMPN, and facility work area the chemicals are used. The Maintenance Manager will maintain a master file of all Safety Data Sheets (SDS) on each chemical in a designated area(s).

Pollution prevention is a priority and this facility undertakes activities to reduce generation of solid and hazardous waste and use of toxic chemicals and resources.

What is SDS?

Safety Data Sheets explain the potential hazard of a chemical to the user as well as listing the composition of the chemical you are using. This information is useful for medical facilities when treating any chemical injuries.

Chemical manufacturers are required by the hazard Communication Standard to provide an SDS to the purchaser of the product at the time of the first order and, thereafter, or anytime the SDS is revised.

Record Keeping

DCTC GODURHAM has become a member of an SDS Online website, www.sdsonline.com. It is recommended to print out a copy of the SDS for commonly used chemicals in the area where the chemicals are used for quick access.

Updates

Because we are a member of the SDS online, the website is constantly updated. If you have an MSDS book, SDS book should be updated regularly. Anytime a new product is used the SDS sheet shall be put in the manuals. Anytime a product has been deleted from use then that SDS sheet shall be removed.

Training

All existing employees working with chemicals will be required to go through an SDS review class annually to assure that they understand how to read the sheets.

All new employees must go through safety training to assure the correct and efficient locating and interpreting of the SDS.

Communication

1. Purpose

To initiate and maintain communication with all staff involved to ensure a smooth operation.

2. Procedure

Communication is important when running an operation. There are various forms of communication that you can use to ensure important information is conveyed to the correct person or persons.

The Maintenance Manager shall make an effort to meet daily with the General Manager and discuss the day's status with the vehicles and maintenance. This information must also be conveyed to the Operations Manager or designated person in charge of the operation for that day. This will allow the staff to prepare and stage vehicles for an efficient roll out for that day.

The following discusses the various forms of communication and how to use them correctly.

Reports

Daily reports are developed and required to inform the General Manager and their staff of current status of the vehicles. The General Manager must be informed of everything occurring in their maintenance department at their location. Items that should be reported are vehicle out of service, current PM status of the vehicles, employees' labor and productivity, and any scheduled maintenance that needs to occur. General Managers may require other reports depending on the information they are currently looking for.

Meeting

An excellent form of communication is a face to face meeting. Make some time during the day to meet with your General Manager and discuss information regarding the Maintenance Department at your location. You can describe information with more detail during a verbal conversation. You can also answer specific questions and provide more detailed answers to allow for a better understanding and clarify reports. All maintenance staff shall attend a monthly conference call to discuss Faster data, mileage report, current PM status (LM: PM CUR REPORT) for all vehicles.

It is a good idea to document any meetings on a calendar and make notes on the discussion for future reference if needed.

Phone Call

As with meeting someone, verbal communication allows for better description and more detail when discussing the day's operation with the General Manager and their staff. If either of you are not available to meet person to person to discuss the days operational issues, then a phone call would be recommended. This will enable the Maintenance Manager to discuss the day's maintenance operation with the General Manager and clarify any reporting issues. Phone calls and meetings do not take place of reporting. The Maintenance Manager shall submit reports on a scheduled basis designed by the General Manager or their designee.

Memos & Letters

Memos and letters are utilized to formally document issues or get information across that is important. Memos are formatted and written to clearly get the information across. When writing a memo, it is important to make sure it is concise and has no spelling and grammatical errors. A well written memo provides for better credibility.

Maintenance Procedures FASTER

1. **Purpose**

Using **FASTER** maintenance software will allow easier, more accurate reporting upon correct data entry for mileage, pm and repair work orders and allow us to track repairs more closely.

2. **Procedure**

The following procedure is general and vague as more specific step by step procedures will be developed in a separate manual for the fleet maintenance software **FASTER**.

All data must be entered into **FASTER** beginning with mileage. Mileage will be entered daily so **FASTER** can track preventive maintenance inspections that are coming due.

Data for PM work orders will be entered every day in **FASTER**. The data that is entered will reset the PM tracking in **FASTER**.

Maintenance Procedures Vehicle Files

1. **Purpose**

To ensure consistency in the vehicle filing system at all DCTC Maintenance locations.

2. **Procedure**

Vehicle Files

We require that all vehicle repair records be kept for the life of the vehicle with the current year in the file and the purged files in a safe place. Retired vehicles' files should be archived. The vehicle files should be organized by equipment number as follows for each vehicle master file or jacket:

Vehicle Information Folder

This folder keeps all registrations, component specifications and all other related documentation including warranty information

PM Folder

All PM inspections are kept in chronological order with the PM inspection form attached to the front and kept in a manila file folder inside the Vehicle information Folder.

Work Order Folder

Each Repair Work Order is kept in this file in chronological order attaching the FASTER Software copy to the top. The work orders will be placed in a manila file folder and placed in the Vehicle information file folder behind the PM Folder.

DVI reports

All DVI reports are stored in Zonar for the life of the vehicle. DVI reports are viewed by maintenance on a daily basis.

ADMINISTRATIVE

All work orders are to be filled out neatly and legibly with the mechanics signature and printed name. In some divisions the manager's signature may also be required. Mechanics comments should be limited to what was repaired and parts used.

Reporting

1. **Purpose**

To ensure that all required reports for the City and DCTC GODURHAM are completed and submitted by the timelines stated.

2. **Procedure**

Daily Reporting

The Maintenance Manager shall ensure that the vehicle availability list is submitted 2 hours prior to start of the first route for each day to the following DCTC GODURHAM staff:

- Dispatch personnel
- Operations Manager
- General Manager

The Maintenance Manager shall also submit the current PM status to the General Manager along with a copy of the updated P.O. Tracking spreadsheet as described in MP-07-01 Purchase Orders.

Monthly Reports for City

1. Each division Maintenance Manager is required to maintain a copy of the operating contract for their division in the maintenance office specific to the requirements for maintenance.
2. The General Manager will review the operating contract with Maintenance Manager anytime there is a change to the staff or a change to the operating contract relative to reporting or requirements.
3. The General Manager and the Maintenance Manager will create a form that list all the required City reports and when they are due each month. The Maintenance Manager will create the reports needed, review them for accuracy and submit them to the General Manager for review prior to submittal to the City.

DCTC Monthly Reports

There are many required reports that a Maintenance Manager must compile throughout the month as well as end of month closing reports. The reporting is used for many different reasons and is critical for the analysis of the division.

Monthly Mileage Report

This report is located on the Lawson portal under reports, maintenance, mileage and update. Any division that receives new vehicles to their fleet must submit the vehicle information and in-service mileage to Fleet Maintenance Administrator for entry prior to the end of month. The report is generated and due on the first business day of a new month for the previous month's mileage. In addition, the spreadsheet is designed to give entry error reports when mileages are below the previous month mileage or if the vehicle has exceeded 15,000 miles in a given month. It is imperative that each manager report this mileage accurately. The General Manager should

review this report each month.

Daily Mileage Report FASTER

Maintenance Managers will review this report in the FASTER software once per week. Any vehicle that hasn't been updated in 5 days must be reviewed and an explanation must follow. The General Manager will review this report with the Maintenance Manager once a month.

PM CUR Report Faster

Maintenance Manager will review the PM status report in the Faster software once per week. Any discrepancies found must be forwarded to the Faster coordinator for correction. The General Manager will review this report with the Maintenance Manager once a month.

Vehicles Under 500 Miles Report

This report is located on the Lawson Portal under reports, maintenance and mileage. The report is due by close of business on the first business day of the new month. This report will be reviewed by the Maintenance Manager and General Manager after the monthly mileage update is completed. For any vehicle traveling less than 500 miles for the month a detailed explanation for the reason must be generated and sent to the area Director of Maintenance and Regional Vice President.

GL Tracker

The GL tracker used by the maintenance department to record expenses throughout the month must be sent to the Director of Maintenance by the 5th day of the following month after month end close. In addition the Maintenance Manager will provide the division Accountant or General Manager a list of known purchases where an invoice wasn't received so that the division may accrue properly. The General Manager may want to review the GL tracker with the Maintenance Manager and compare it to the monthly income statement during financial prelim review to ensure all expenses are recorded accurately.

Hours by Group Report.

The Maintenance Manager will monitor this report weekly throughout the month and compare each employee clocked hours to hours listed on repair orders for a productivity percentage. General Manager should review this report monthly with the Maintenance Manager. A productive employee should have productivity rate of 80 to 85 percent in an 8-hour shift.

Road Call and Vehicle Failure Analysis

A Road Call log is a required report for all transit agencies. The information in this report is used to complete section 15 reports for transit agencies. A road call is defined as failure that causes a disruption in service that prevents the operator from completing the trip within the allotted window. The Maintenance Manager and General Manager should review this with their City for definition as some Cities require a different reporting procedure. A road call log will be kept on file and updated throughout the month. The report will be updated with monthly mileage and then submitted to the Transit Administrator by the 10 day of each month.

Vehicle Failure Analysis

DCTC GODURHAM introduced this report as a way to track failures that are not defined as a road call however still interrupt the service to a certain extent This report is an internal report

required by the 5th day of each month to the General Manager. The Maintenance Manager will track daily all vehicle failures and the reason for the failure within this report. An example of this would be an operator goes to pre-trip the vehicle and finds the vehicle will not start and must swap out. Although not considered a road call it still was an interruption to the operation. The intention of the report is to define items that are causing disruption to the operation and that can be addressed through the pm program or through training. The General Manager will review this report each month and make recommendations based on the analysis.

Budget Compliance

1. Purpose

It is the responsibility of the Maintenance Manager to operate a cost-efficient maintenance department.

2. Procedure

It is imperative that the Maintenance Manager and has a clear understanding of the budget and how it is developed for their division and the City contract involved. All divisions operate on a projected yearly budget for maintenance repairs and are accountable to ensure they manage their expenses to stay within a budget. In some divisions there are several contracts with different types of charges which need to be understood by all involved to reduce unnecessary charges to the company. Certain contracts allow for major component, such as engines, transmissions, differentials and wheelchair lifts, costs to pass the charge through to the City known as "Pass Through". It is important that the management team understands contract provisions that may allow for this.

The general ledger account codes are set up to track the various items in the maintenance department and need to be coded correctly. Each line item needs to be reviewed monthly by the General and Maintenance Manager and discrepancies need to be researched and a plan put in place to resolve the discrepancy. Keeping an accurate PO budget tracker is an essential tool for achieving correct expenses. Each Maintenance Manager should have access to the company financial system.

Technicians Tool Inventory

1. Purpose

To ensure each technician has the opportunity to participate in the insurance coverage for his or her tools which is provided as a benefit by DCTC GODURHAM.

2. Procedure

Company mechanics that are required to provide tools as part of their job duties will be protected up to \$15,000 of tool insurance. There is no premium for the insurance and each loss is subject to a \$250 deductible. Coverage requires action on the part of the mechanic, no coverage will be provided unless the following steps are taken in advance:

Step 1. Employee Wants Tool Protection

1. Employees covered may include full-time and regularly scheduled part-time mechanics, maintenance supervisors and Maintenance Managers.
2. In order to obtain insurance, the mechanic is required to follow these steps.

Step 2. Tool Inventory Form is Complete

1. Employee completes required Tool Inventory Form. Each tool must be described in detail including manufacturer, serial number if applicable, and value.
2. Maintenance Manager reviews Tool Inventory Form and signs, it after verifying the inventory. If insurance is for the Maintenance Manager, the inventory must be verified by the General Manager.
3. Maintenance Manager provides the original form to the Assistant General Manager for procurement of insurance.

Step 3. Employee's Tools Are Protected

1. The mechanic's tools are protected under the Tool Protection Program when the Maintenance Manager receives confirmation from the Assistant General Manager. Maintenance Manager provides employee with copy of confirmation and keeps a copy in the employee's file.
2. If the employee purchases tooling over \$100 during the year, a revised Tool Inventory Form must be sent to Assistant General Manager per Step 2.
3. To continue protection each calendar year, each November, the employee must complete and submit a new Tool Inventory Form, per Step 2. The new form must be forwarded to Assistant General Manager by December 15. The employee's tools are protected under the Tool Protection Program when the Maintenance Manager receives confirmation from Assistant General Manager. Refer to Step 3.1. If such an inventory is not received, coverage will be terminated effective December 31.

Step 4. If Loss Occurs

Only properly secured tools stolen as the result of an evident theft or tools damaged as the result of fire, earthquake or flood will be considered for coverage. Mysterious disappearances are not covered. There must be signs of theft and the tools must have been properly secured. In the event of fire, flood or earthquake, photos of the damaged tools must be taken

If tools are stolen, the employee and Maintenance Manager must contact the local police within 6 hours the theft was discovered and file a report and immediately notify Assistant General Manager.

Step 5. Employee Contacts Assistant General Manager

1. The employee provides Assistant General Manager with the date of loss, copy of the police report with the case number, and a list of missing tools.
2. The employee locates and identifies replacement tools from supplier(s).

ADMINISTRATIVE

3. After the employee locates replacement tools, he/she must submit a purchasing proposal, which includes the list of tools and the cost, to Assistant General Manager.

Step 6. Risk Management Issues Payment to Supplier(s) Less \$250

Deductible

1. Employee pays first \$250 deductible to supplier(s)
-

DCTC GODURHAM Tool Inventory Certification

This is to certify that we have performed a physical tool inventory of the technician's tools. We have received all the necessary approvals. The approval and tool inventory checklist have been properly filed.

Total insured value of the technician's tools: \$ _____

The policy has been followed and there are no unapproved variances to the current tool policy.

Maintenance Supervisor

Date

Maintenance Manager

Date

GO DURHAM

**Vehicle Maintenance
Plan**

Maintenance Procedures Driver Vehicle Inspection Report

1. Purpose

Driver Vehicle Inspection and reporting is essential and required by law CFR 49 Part 396.11.

2. Procedure

All Operators are required to perform a daily inspection on their unit. All defects on the unit will be recorded in Zonar.

Processing DVI Reports

All DVI reports follow a certain process to assure that a vehicle is not driven in an unsafe condition. It is important to follow this process.

Operators

The operators will perform the following steps

- Operators will review the original previous days DVI reports prior to inspection vehicle and either initial or sign the report if there are defects noted and repaired.
- Perform a complete pre-inspection as outlined in the Commercial Drivers Handbook, and as instructed by DCTC Safety and Training Department.

NOTE: If you mark an item on your DVI report unsatisfactory, do not drive the vehicle until someone has inspected the vehicle defect.

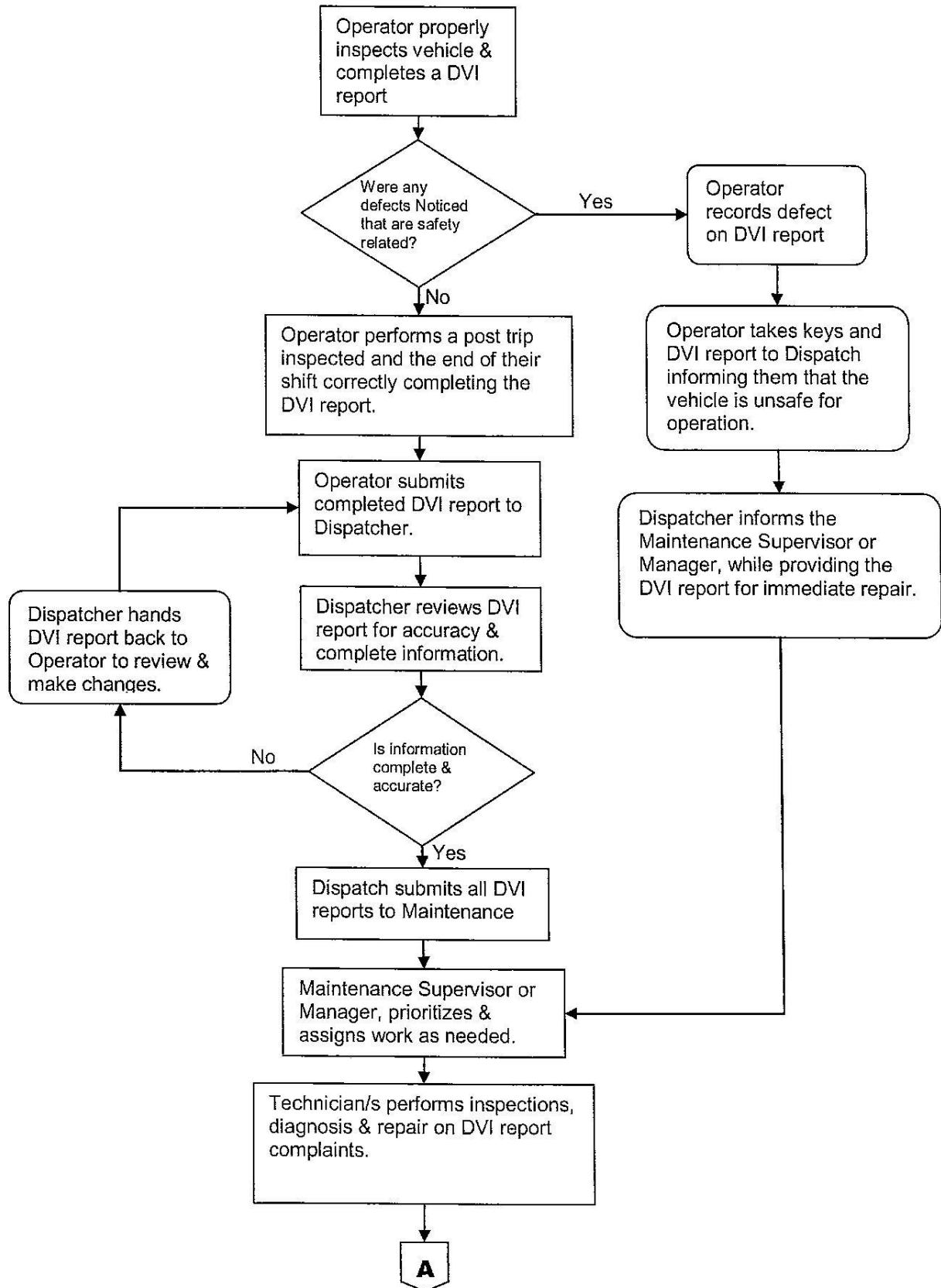
- Complete the DVI inspection report form by marking as indicated on the DVI report sheet. Sign any areas indicating you have performed your DVI report correctly prior to operating the vehicle.
- Perform a post-inspection after the trip is done and you have completed your shift. Mark your DVI report to reflect any problems or defects that may have occurred during the operation of the vehicle on your route.
- Check your DVI report for proper mileage, date, legibility and accuracy.

Maintenance Personnel

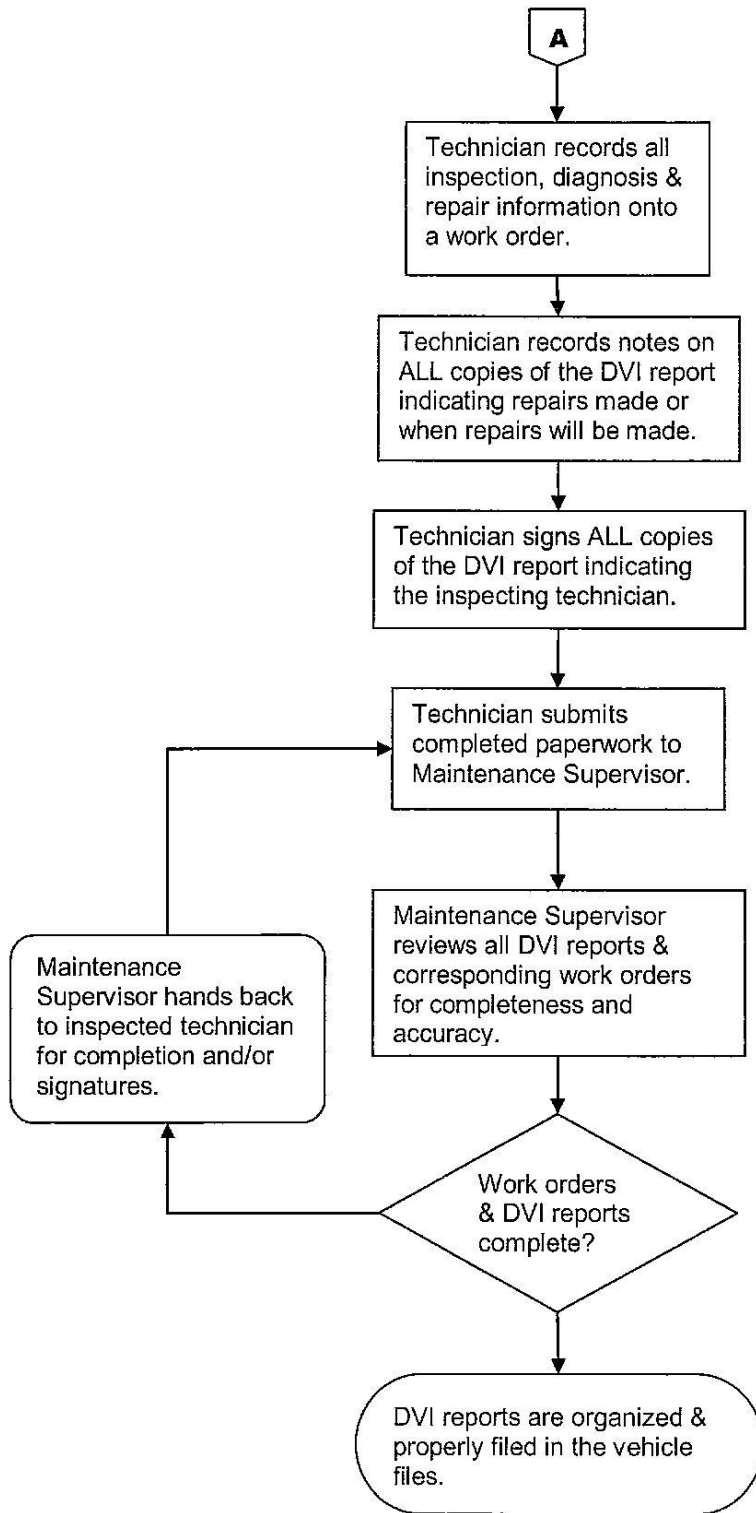
The Maintenance personnel will perform the following steps regarding DVI report process:

- Review and investigate all DVI complaints and repair as needed. All safety concerns or major defects must be repaired before the vehicle can go back into service.
- Repair order shall be written for all repairs to Driver Vehicle Inspection Report complaints.
- Sign off in Zonar indicating complaint was resolved, noted for repair, could not duplicate problem or was reviewed.
- Attain information needed for reports.

GODURHAM VEHICLE MAINTENANCE PLAN



GODURHAM VEHICLE MAINTENANCE PLAN



Maintenance Procedures

Preventative Maintenance Inspection

1. Purpose

To ensure that all vehicles that are maintained by DCTC GODURHAM are in compliance with our City Contractual Requirements, DCTC GODURHAM standards and government regulations.

2. Procedure

A. PM inspection

- PMI's are tracked using DCTC GODURHAM Fleet Maintenance software, FASTER. Vehicle mileages are entered into the fleet maintenance software daily.
- The Maintenance Manager, or designee, will ensure the mileage entries are entered daily and are accurate.
- The Maintenance Manager, or designee, will run the PM scheduling or PM Soon Due Report from the fleet maintenance software. This will indicate what services are needed on what vehicles.
- The Maintenance Manager, and/or Maintenance Shift Supervisors, will post the type of PM required to be performed.
- The Maintenance Shift Supervisor will assign the work to the properly skilled Shop Repair Technician.
- The Shop Repair Technician will open work order and perform a through and detailed inspection recording all defects that are noticed during the course of the inspection using a detailed checklist which includes inspection of all vehicle systems. The form at a minimum will have a column labeled with a "X" and a Column labeled "O" These columns represent pass, fail and corrected/completed specific to each line item. Technicians will use their first and last initial in the pass column, "X" in the fail column and first and last initial in the corrected column if present on the form.
- The Shop Repair Technician will record all defect during the inspection and record it on a PM defect sheet.
- The Shop Repair Technician will finalize the PM by driving the vehicle on a road test, reviewing and completing the paperwork.
- Once the PM has been completed the Shop Repair Technician will submit the paperwork, including the work order, PM checklist, and Defect list, along with any other required paperwork required by the Maintenance Manager to the Shift Supervisor for review.
- Once reviewed, the designated person will close the work order.
- The Shift Supervisor, or designee, will enter those non-safety related defects that were not repaired, into the fleet maintenance software for tracking.
- The paperwork will be arranged and stapled together beginning with the final printed work order followed by the handwritten repair order, then the PM checklist then the PMI Defect list. Other paperwork may be attached after the PM Defect list.

B. Repairs

Defects noted during the inspection are noted on a defect list. The defects are then repaired and listed on a work order after completion. At a minimum all safety related defects will be repaired prior to the vehicle release. No DCTC employee will knowingly

release a vehicle to service with a known safety defect. Scheduled repairs must be tracked via maintenance software or through a vehicle filing system identifying the pending repairs.

C. Intervals (Addendum for Vehicle Maintenance)

PREVENTATIVE MAINTENANCE GILLIG LOW FLOOR TRANSIT BUS

The Preventative Maintenance Program is an essential part of any maintenance program. The goal of an effective preventive maintenance (PM) program is to ensure safety, minimize vehicle downtime, and prevent unexpected breakdowns. Effective preventive maintenance ensures quality service is provided to the community, the significant investment in capital equipment is protected and that vehicle down time is limited. Durham Area Transit Authority's internal goal is to perform 95% of all preventative maintenance inspections on time.

- The Preventive Maintenance program consists of vehicle inspections completed every six thousand (6,000) miles. An inspection is considered late at (6,600) miles. The inspection cycle is as follows:
 - (A) inspection at 6,000 miles (A) inspection at 12,000 miles
 - (A) inspection at 18,000 miles (B) inspection at 24,000 miles
 - (A) inspection at 30,000 miles (A) inspection at 36,000 miles
 - (A) inspection at 42,000 miles (C) inspection at 48,000 miles
 - (A) inspection at 54,000 miles (A) inspection at 60,000 miles
 - (A) inspection at 66,000 miles (B) inspection at 72,000 miles
 - (A) inspection at 78,000 miles (A) inspection at 84,000 miles
 - (A) inspection at 90,000 miles (D) inspection at 96,000 miles
- Fleet specific components are performed to OEM specifications.
- The (A) inspection performed at six thousand miles (6,000). All fluids and filters are changed in accordance with the manufacturers' specifications and OEM recommended practice. All systems are operated, tested, and lubricated per manufacturers' specifications. An oil sample is taken every 6,000 miles and oil analysis is performed through Titan Laboratories. A complete safety inspection is completed. A wheelchair/ramp inspection is performed in accordance with manufacturers' recommendations or industry best practices for the system's operating environment.
- The (B) inspection is performed at twenty- f o u r thousand miles (24,000) and includes all aspects of the (A) inspection and also includes items identified by OEMs and system manufacturers as an item to service at this recommended mileage.
- The (C) inspection is performed at forty- e i g h t thousand miles (48,000) and includes all aspects of the (A) and (B) inspections and includes items identified by OEMs and system manufacturers as an item to service at this recommended mileage. This is an extensive

GODURHAM VEHICLE MAINTENANCE PLAN

and encompassing inspection covering the entire coach and all subsystems that do not have separate PM inspections.

- The (D) inspection is performed at ninety-six thousand miles (96,000) and includes all aspects of the (A), (B), and (C) inspections and includes items identified by OEMs and system manufacturers as an item to service at this recommended mileage. This is an extensive and encompassing inspection covering the entire coach and all subsystems that do not have separate PM inspections.
- Durham Area Transit Authority uses synthetic transmission fluid and changes fluid and filters at OEM recommended intervals, transmission fluid samples are taken at the ninety-six thousand miles (96,000) on the standard buses and on the hybrid drive transmission on the (D) inspection. This ensures corrective action can be taken if any abnormal results are found.
- The bus fire extinguisher is inspected on all Preventive Maintenance inspections and an outside vendor is to inspect, test, and recharge as needed and tag all fire extinguishers yearly.
- Durham Area Transit Authority has a service contract with the City of Durham radio repair facility. A list of radio problems is compiled weekly by dispatch and repairs are completed.
- In addition to regularly scheduled maintenance annual HVAC inspections are completed by DCTC staff.
- A PM tracker due report is prepared daily to monitor PM's due.

D. Unscheduled

Unscheduled maintenance is any repair made to the vehicle in between scheduled preventive maintenance inspections. Unscheduled maintenance repairs cause disruptions to every maintenance shop and adversely affect productivity and budgets. Goals will be established annually to minimize unscheduled repairs. These goals will be determined by fleet age, fleet type, and MDBF failure report from the previous year if available and with the assistance of the Director of Maintenance.

GODURHAM VEHICLE MAINTENANCE PLAN

GILLIG TRANSIT BUS PMI INSPECTION SHEET									
Date:		Vehicle #:		Mileage:		Interval:		Inspector:	
TYPE OF OPERATIONS TO BE PERFORMED: X if Okay; O if Repairs are required				INT		PUT		INITIALS	
PM WORK ORDER NUMBER:				REPAIR WORK ORDER NUMBER:					
INT	X/O	ROAD TEST				INT	X/O	HVAC	
		Steam clean engine, radiator/battery box						Clean HVAC filters front and back or replace	
		Check acceleration response						Record temperature with infrared gauge	
		Check brake retarder operation						Record Temperature @	
		Check speedometer operation						Drivers Duct @ Return Air Duct	
		Drivers Area						UNDERCARRIAGE	
		If ABS light is on down bus						Check u-joints and driveshaft for wear and tightness	
		Attempt to move bus with Park Brake applied						Inspect air lines for damage, pinching, or obstruction	
		Check air buildup: 90-120 within 5 min w/fast idle on						Inspect all radius rods for wear/damage/securement	
		Verify air governor cut-out @ 120 - 140 Hybrids						Inspect axle/pinion nuts for securement/ fluid leaks	
		Verify Low Air alarm and light activate @ 68-74 PSI						Inspect axle housing mounts for cracks and damage	
		Check door control operation in all positions						Inspect drag link and tie ends for damage and wear	
		Check Engine Light / Low Coolant Light/MIL light						Inspect frame for cracks	
		Check fare box light						Inspect fuel lines for chaffing, clamps, and leaks	
		Check fast idle.						Inspect fuel tank straps for condition or damage	
		Check inter lamps. Dome lamps off in Reverse						Inspect leveling valves for adjustment and leaks	
		Check interior/exterior mirrors including operation						Inspect power steering pump operation and condition	
		Check operation of door dump valve						Inspect shocks and bushings for wear and damage	
		Check Booster Fan/dash fan						Inspect steering column/U joints condition/operation	
		Check operation of horn						Inspect steering gear box/lines for leaks/damage	
		Check operation of P/A, mic, amp, and foot switch						Inspect suspension components for damage and wear	
		Check operation of signal lights and audible devices						Soap test air bags and inspect for leaks and condition	
		Check operation of step well lights						LUBRICATION	
		Check operations of wipers and washers						Check oil level in differential.	
		Inspect dash gauges for operation						Drain Engine oil/Replace Oil Filter/Re-fill Engine oil	
		Inspect the tilt/telescopic function of the column						Lube all pivot points on bike rack	
		Test all Destination Sign for proper operation						Lube drag link ends (2 zerks)	
		Verify that starter will only work in Neutral						Lube driveline slip spline (1 zerk)	
		Check operation and condition of visors and shades						Lube driveline u-joints (2 zerks)	
		Inspect driver's seatbelt/bottom/tracks/fabric/mounts						Lube engine door pivots	
		INTERIOR						Lube kingpins(4 zerks) (raise axle to relieve pressure)	
		Check chime system, dash indicator, & ADA chime						Lube s-cam tubes (1 zerk per wheel position)	
		Check grab rails/stanchions for damage/securement						Lube slack adjusters (1 zerk per wheel position)	
		Trip rear door sensitive edge; should set alarm						Lube steering column u-joints (4 zerks)	
		Check ADA seats for operation or Damage						Lube steering tie-rod ends (2 zerks)	
		Inspect fire ext. charge, mount, safety seal & sign off						Lube upper and Lower rollers/pins on entrance/exit doors	
		Inspect floors/step treads/interior panels for damage						Oil sample	
		Inspect interior walls/ceiling for damage/wear/graffiti						Refill windshield washer fluid	
		Inspect w/c seats/belts for operation/securement						Apply lube to all window slides and latches	
		Inspect windshield/windows for damage/graffiti						TRANSMISSION	
		Check operation of window latches and slides						Inspect lines/cooler/retarder for leaks/ damage/ securement	
		Check passenger seats for damage, graffiti/mounting						Inspect mounts for wear and damage	
		Check triangle kit for damaged components						Inspect lines for wear and rubbing	
		Inspect emergency exits for operation and decals						RADIATOR	
		BRAKE INSPECTION						Inspect for damage, leaks, dirt, and debris	
		Visual inspect and note percentage of brake lining left:						Inspect lines for wear and rubbing	
		LF%	RF%	LR%	RR%			W/C LIFT	
		Inspect brake lines for chaffing, clamps,leaks,routing						Blow or vacuum under wheel chair ramp	
		Inspect all brake valves for leaks and damage						Check brake interlock with w/c deployed	
		Inspect brake chambers for leaks and condition						Check pans/ guards/latches for operation/damage	
		Inspect slack adjusters. Maximum stroke: 1.5-2.0"						Check throttle & brake interlock w/exit door activated	
		Visual brake lining Inspection for looseness or damage						Clean/Lubricate Chain/Counter Balance Assy w/motor oil	
		ENGINE COMPARTMENT						Cycle lift and check for proper operation	
		Check all hoses for rubbing						Inspect entire structure for cracks and damage	
		Check coolant level in tank. Adjust as needed						Operate kneeler/Check alarm/warning lights/ air leaks	
		Check operation of engine compartment lights						REGEN, CHECK CODES, PRINT SNAPSHOTS	
		Check surge tank/ cap/pressure cap/site glass for leaks						ADDITIONAL TASKS FOR B 24k LEVEL INSPECTION	
		Drain water from fuel/water separator						Change crank case filter	
		Inspect air compressor for air, oil, and coolant leaks						Change hydraulic fluid and filter re-fill with ATF	
		Inspect air induction system for leaks and securement						Rotate front tires	
		Inspect air lines for leaks, chaffing, and clamps						ADDITIONAL TASKS FOR C 48k LEVEL INSPECTION	
		Inspect air restriction indicator for flag or damage						Load test/ record readings on all batteries(min 9.6 VDC)	
		Inspect battery jumper plug replace if damaged						Battery #1: VDC	
		Inspect belts and automatic tensioners						Battery #2: VDC	
		Inspect charge air cooler for wear, damage, or leaks						Battery #3: VDC	
		Inspect Davco fuel filter (replace if the fuel is in the black)						Battery #4: VDC	
		Inspect electrical wiring for chaffing and clamps						4wheel alignment,check rod lengths adj if necessary)	
		Inspect engine for oil, coolant leaks, abnormal noises						Replace air drier(300,s 800,s & 1000,s)	
		Inspect engine mounts for wear and securement						Replace purge valve (300,s 800,s & 1000,s)	
		Inspect gauges and switches in rear-run control box						Replace primary/secondary fuel filter (If not Davco filter)	
		Inspect hydraulic system for leaks						Replace radiator cap	
		Inspect hydraulic tank for proper level and leaks						Replace Air Filter	
		Inspect transmission fluid level. Adjust as needed						Clean Rear Inside A/C and Heater Coils	
		TIRES & WHEELS						Torque Rear Axle Studs 100 lbs.	
		Check tightness on all wheel lugs and wheel flags						Torque Driveline Caps 125 lbs.	
		Check for grease leaking around front and rear hubs						ADDITIONAL TASKS FOR D 96k LEVEL INSPECTIONS	
		Check for missing valve caps and damaged stems						Change DEF dosing unit filter	
		Check hub odometer for securement and damage						Change all belts, tensioners and idler pulleys	
		Check kingpins for excessive movement						Differential fluid sample	
		Check Tire psi, TPS monitor (set air pressure to 120 psi)						Drain differential; install and torque plug; refill	
		Inspect tires for damage / check wheel flags						Drain transmission; install and torque plug; refill	
		Inspect wheels for damage, cracks						Every 300,000 Replace Rear Air Bags and Rear Shocks	
		LF:	LRI:	LRO:				Rebuild Air Driers 1200 -1700 - 1800 - 1900	
		RF:	RRI:	RRO:				Replace coolant filter	
		EXTERIOR						Replace front air bags	
		Inspect reflectors for securement, damage, & wear						Replace Front Shocks	
		Inspect panels and skirts for secure., damage, & wear						Replace water pump and thermostat	
		Check all exterior lights for proper operation						Transmission fluid sample	
		Drain air tanks. Inspect for oil discharge						Reset Oil Life Monitor	
		Check bike rack for damage and operation						Reset Filter Monitor	
		BATTERY							
		Lube battery slides/apply battery seal on terminals							
		Check battery hold downs for securement and cond.							
		Check cables/terminals for corrosion, fraying,tightness							
		Check charge rate (27-28 VDC w/fast idle on)							

Maintenance Procedures

Fuel & Daily Fluid Checks

1. Purpose

To ensure that all critical vehicle fluids are checked for the proper level and the vehicle is fueled and ready for service.

2. Procedure

It is critical that all fluids are checked and recorded by the drivers or designated utility employees using the following procedures:

- Fueling of vehicle shall be completed prior to performing the critical fluid checks
- Once fueling is complete, record gallons used in the fuel log
- Hood will be raised, and a visual inspection of oil, transmission and antifreeze should take place.
- Antifreeze overflow tank will be inspected for proper level. **Never remove the radiator cap to fill the antifreeze on a warm engine.** Removing the cap may cause burns due to pressure in the system. Note quart usage in log.
- Windshield wash tank will be inspected and added to if needed
- Engine oil level will be inspected by removed the dipstick, wiping it off, reinstalling and again removing to check level. Note quart usage in log.
- Start vehicle and check transmission fluid level.
- **Be careful of moving parts. Keep hands away from pulleys, belts and exhaust area of the engine.**
- Remove transmission dipstick, wipe off, reinstall and again remove to check level. Note quart usage in log.
- Once all fluids have been checked and topped off as necessary, quantities should be recorded on a daily fluid check log or DVI report.

Onsite fueling

- Tank reading will be performed both before and after daily fueling by use of dipping the tank with the appropriate stick and recording the reading. This does not apply to electronic monitors.
- Fuel pump readings will also be taken directly from the pump both before and after daily fueling.
- Vehicle will be moved to the designated fueling area and mileage recorded in the fuel log.
- Fueling of vehicle shall be completed prior to performing the critical fluid checks.
- Once fueling is complete, record gallons used in the fuel log.

GODURHAM VEHICLE MAINTENANCE PLAN

- Hood will be raised, and a visual inspection of oil, transmission and antifreeze should take place.
- Antifreeze overflow tank will be inspected for proper level. Never remove the radiator cap to fill the antifreeze on a warm engine. Removing the cap may cause burns due to pressure in the system. Note quart usage in log.
- Never remove the radiator cap from a warm or hot engine.
- Windshield wash tank will be inspected and added to if needed.
- Engine oil level will be inspected by removing the dipstick, wiping it off, reinstalling and again removing to check level. Note quart usage in log.
- Start vehicle and check transmission fluid level.
- Be careful of moving parts. Keep hands away from pulleys, belts and exhaust areas of the engine.
- Remove transmission dipstick, wipe off, reinstall and again remove to check level. Note quart usage in log.
- Once all fluids have been checked and topped off as necessary record on the fuel log.
- Once all vehicles that have been in service have completed this cycle for the day, a final stick and pump reading will be taken and noted on the log.
- Log will be turned in to the appropriate department daily.

Safety Equipment

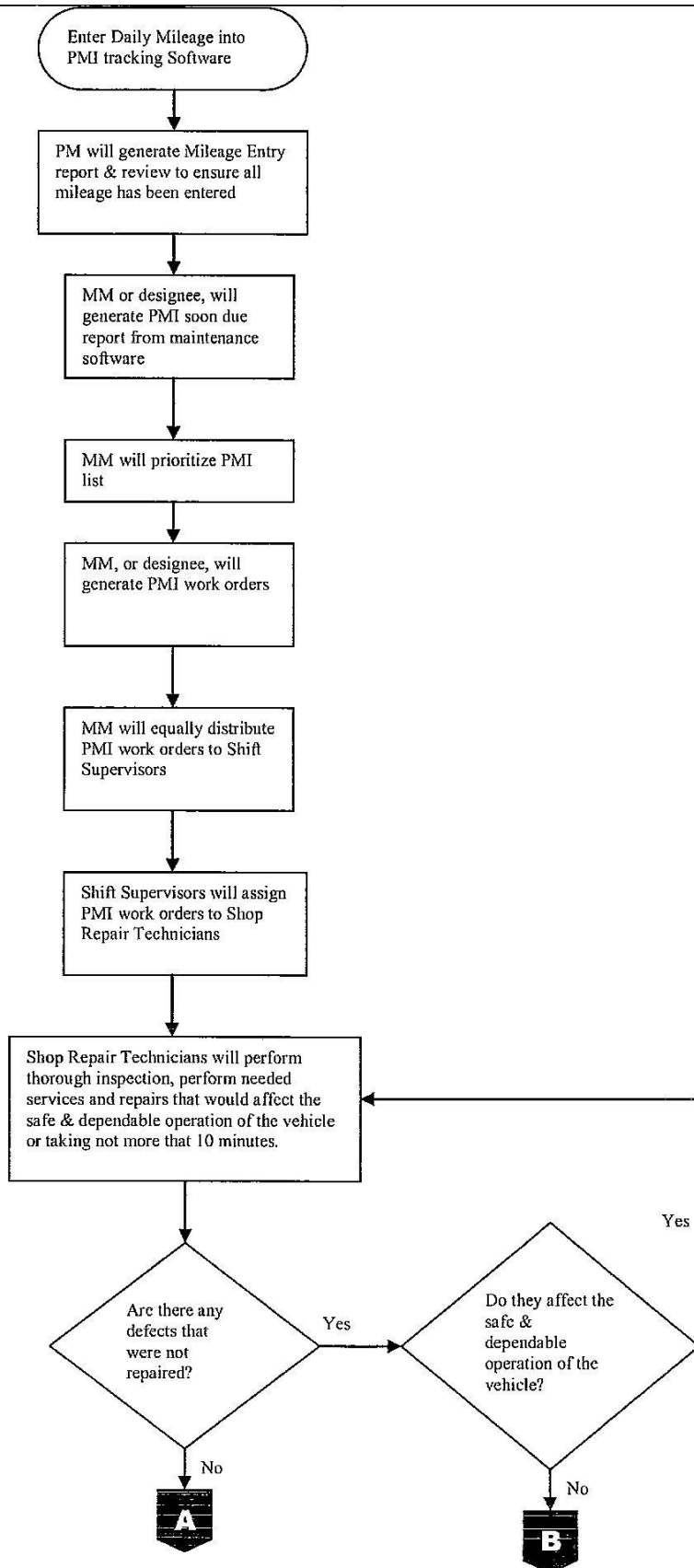
Required equipment:

- Safety glasses
- Gloves

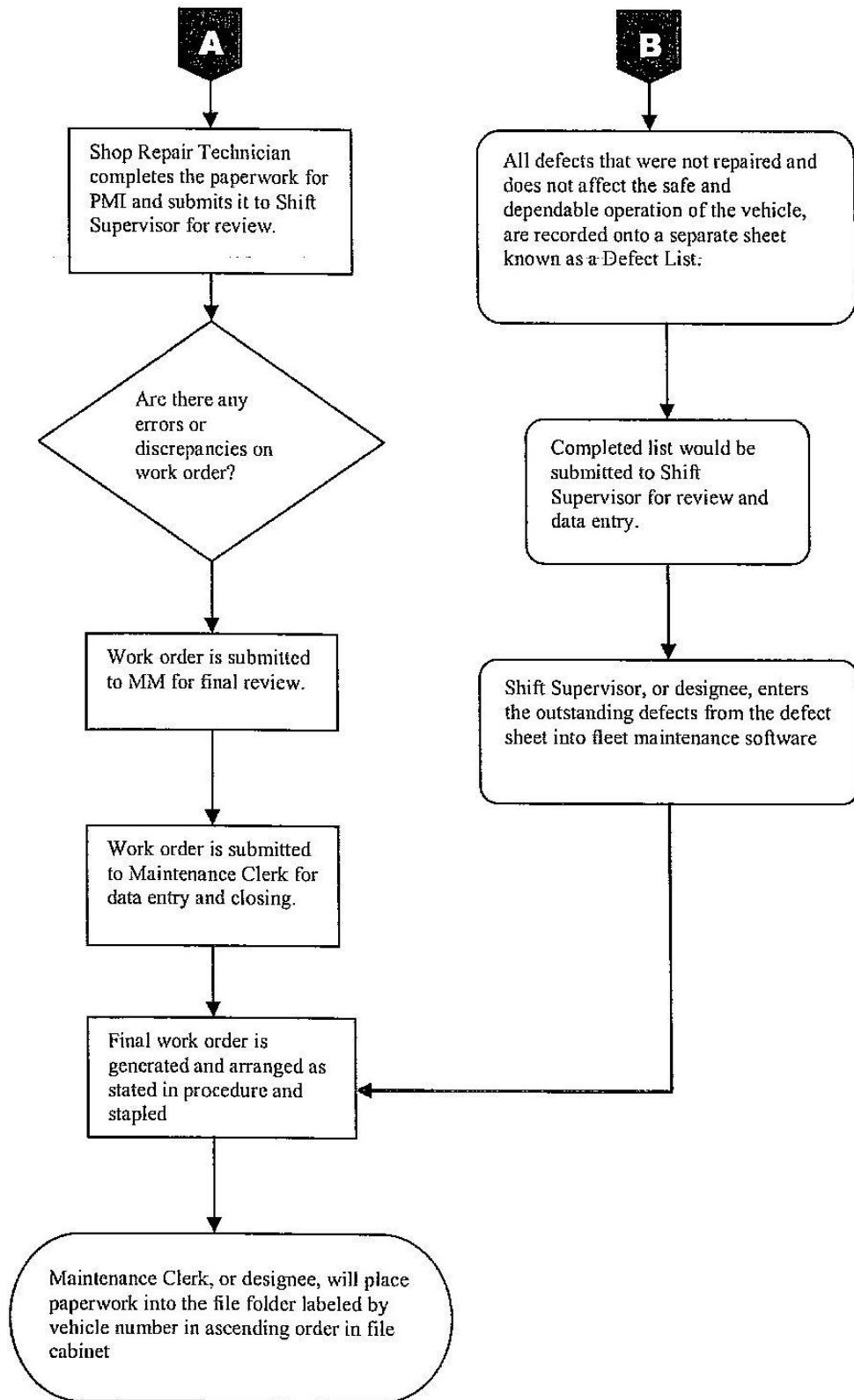
Required equipment:

- Paper towels
- Gallon and quart containers for fluids
- Hose reels if applicable
- Clip board
- Flashlight

GODURHAM VEHICLE MAINTENANCE PLAN



GODURHAM VEHICLE MAINTENANCE PLAN



Maintenance Policy Addendum

Vehicle Equipment Preventative Maintenance

1. Purpose

To ensure on-board technical equipment is maintained at an optimum level to prevent unexpected failure.

2. Procedure

The Technical Equipment Department is required to conduct preventative maintenance on all electronic equipment associated with the operation of a transit vehicle. Specific components are performed to OEM specifications not to exceed 120 days. Equipment includes:

- Farebox
- Destination Sign System
- Automatic Vehicle Location (AVL) / Talking Bus System
- Passenger Chime
- Automatic Passenger Counters (APC)
- Zonar
- Radio

Vehicle Surveillance System

The vehicle surveillance system will be tested and checked every sixty (60) days. A walk through will be administered once a week on all vehicles entering the Durham Station.

A checklist with a defect sheet will be maintained on file in the Technical Equipment Department. All PM's and repairs will be entered into DCTC maintenance software, FASTER.

GODURHAM VEHICLE MAINTENANCE PLAN

TECHNICAL EQUIPMENT PREVENTATIVE MAINTENANCE			
Vehicle:	Name:		
Date:	Intervals:	120 Days (Cameras - 60 Days)	
X if okay O if repairs are required		Work order number:	
Farebox:		Passenger Counters:	
Trim Unit		Front door sensor	
Bill Validator		Front door reflector	
Bill Transport		Rear door sensor	
Card swipe reader		Rear door reflector	
Coin validator		Run weekly diagnostic report	
Cashbox			
Passenger Display		Zonar:	
Operational control unit		Handheld	
Farebox Label		Zone tags	
		Download status	
Destination Sign System:			
Front sign display		Radio:	
Dash sign display		Handheld	
Curbside sign display		Silent Button	
Rear sign display		Antenna status	
Passenger display (interior)			
Operational control unit		Camera (60 Days):	
		Status light	
Talking Bus/AVL system:		Camera display	
DR600 status / DR700 status		Playback recorded video	
Modem status / Passenger WIFI		Play live video	
GPS status		Audio status	
Interior speakers		Current bus number	
Exterior speakers		Hard drive	
Foot mic		Firmware	
Hand mic			
Boom mic		Cashbox Bin/Probe:	
Selector switch		Timer	
Bus talk auto		Slides	
Operational control unit		Dump handle	
		Gears	
Passenger Chime:		Probes	
Pull cord street side			
Pull cord curbside			
Rear pull cord			
Wheelchair stop request pads			

Maintenance Procedures

Vehicle Cleaning

1. Purpose

To ensure that all vehicles meet or exceed contractual requirements for interior and exterior cleanliness.

2. Procedure

Daily

The following is a guideline that can be used for daily bus cleanliness. All vehicles must be kept clean and free of refuse and debris. The following lists are rules regarding daily bus cleanliness:

- No food or drinks allowed on the vehicle unless approved by City. This includes drivers.
- Drivers will inspect their vehicles daily to assure that there is no graffiti on the vehicle's interior components. The drivers will note this on their DVI report and will attempt to clean and remove all graffiti that had been placed on the vehicle for that day.
- Some divisions will require drivers sweep their vehicles at the end of each shift. Larger divisions will use utility people to accomplish this task.

Exterior Cleaning

Vehicle will be washed at least once per week or as needed or required by City agreement in order to assure a clean professional looking vehicle. The following will be performed:

- All exterior body panels will be cleaned with detergent and a vehicle washing brush or run through a wash rack. This will be done to remove all road dirt, soot, and tar and oil residue on the vehicle.
- All tires and wheels will be cleaned using the appropriate brushes. This will be done to remove road dirt, brake dust and marks from white lettering of tires (if applicable).
- All mud flaps will be cleaned.
- Wheel wells cleaned.
- Windows and mirrors will be cleaned, and water spots removed.
- All lighting lenses will be cleaned, thoroughly rinsed and dried.

Interior Cleaning

The interior of the vehicle must be clean and professional looking inside. A clean vehicle gives the impression of professionalism and pride, all traits of DCTC. The interior will be cleaned at least once per week or as needed or required by City agreements.

GODURHAM VEHICLE MAINTENANCE PLAN

- The vehicle will be vacuumed in areas that a vacuum can be used.
- Floors will be swept and mopped. Light colored areas, such as the white standee lines and white edges of the steps should be cleaned with a stiff bristled brush to remove grime from the grooves of the rubber.
- Modesty panels cleaned with a mild detergent to remove dust, footprints and dirt accumulation.
- Clean vinyl passenger seats with mild soap and water.
- Clean the stanchions grab rails and handrails with soap and water. Remove all accumulated dirt, dust, grime and oils.
- With a wet rag, wipe down the ceiling and walls, drying immediately with a dry towel. This is to remove the accumulation of dust that adheres to the ceiling and walls.
- Clean the instrument panel.
- Clean steering wheel with the use of detergent and water. This will remove the accumulation of oils and dirt.
- Instrument panel glass will be cleaned with the use of an appropriate glass cleaner.
- Graffiti, any oily prints and dust accumulation will be removed from the windows by cleaning the window with an appropriate glass cleaner.

Record Keeping

- It is critical that all vehicle cleaning be documented on a vehicle wash log and kept in the maintenance files.

Supplies

Required supplies:

- Environmentally friendly antibacterial soap
- Environmentally friendly exterior bus wash soap
- Glass cleaner
- Mop and bucket
- Broom and dustpan
- Dusting rag
- Washrag and brush
- Paper towels

Required safety supplies:

- Safety glasses
- Facemask
- Rubber gloves

Notes

Areas of interest

- Rags should be replaced frequently to prevent streaking.
- Mops should be rung out frequently to also prevent streaking.
- Mop water should be replenished as it becomes ditty to prevent build up and streaking.

Maintenance Procedures

Vehicle Work Orders

1. Purpose

To ensure that all vehicle maintenance performed by both DCTC employees and outside repair shops have documented work orders.

2. Procedure

Any repairs that are performed on fleet vehicle owned and/or operated by DCTC, will be documented onto an approved work order. The General Manager and Maintenance Manager will work together to develop a work assignment procedure to ensure that work on the vehicles are being performed on schedule.

The technician will write a work order for PM inspections and repairs performed on the vehicle.

The Technician will record the following labor information:

- A task code indicating what area or part the technician performed repairs.
- A work accomplished code that describes what work was performed on the specified task code.
- The number of hours and minutes required to perform the repairs.
- Comments or diagnostic readings for each line item.

It will be required that the Technician record any diagnostic readings and provide a summary of the results providing a diagnostic outcome. The technician will enter the following part information:

- The part number will be recorded as noted on the bin label and I or package.
- A short part description
- Part cost
- Core information if applicable

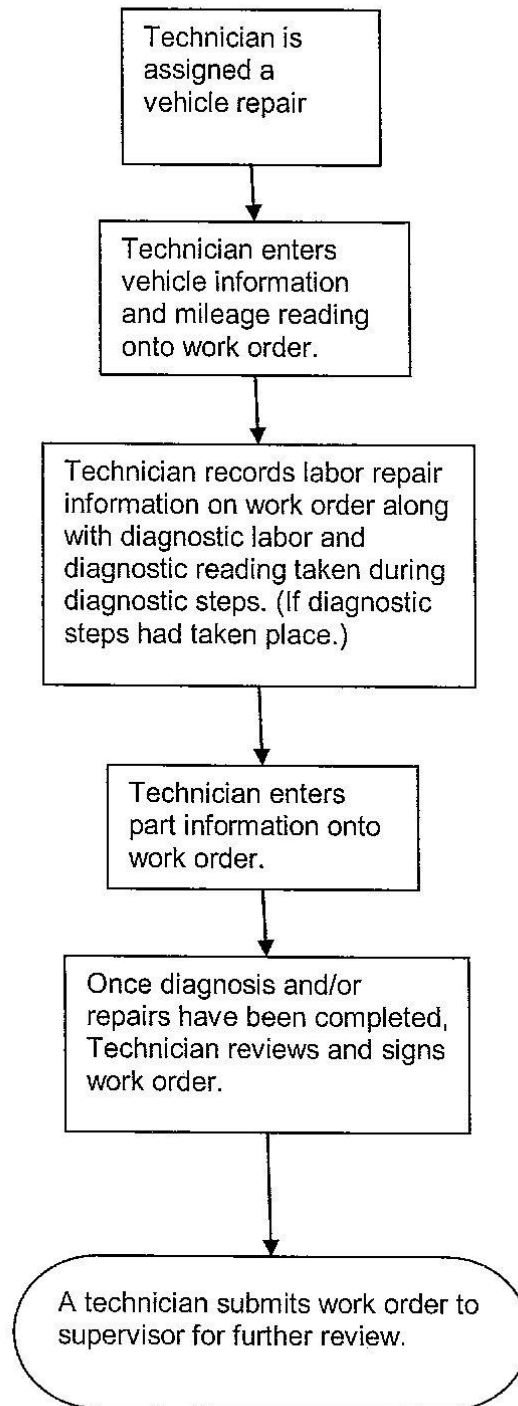
The Technician shall make sure that all repairs are performed safely and according to all legal, O.E.M. and DCTC guidelines. The Technician will sign the work order validating repairs were perform according to the guidelines and specifications outlined.

GODURHAM VEHICLE MAINTENANCE PLAN

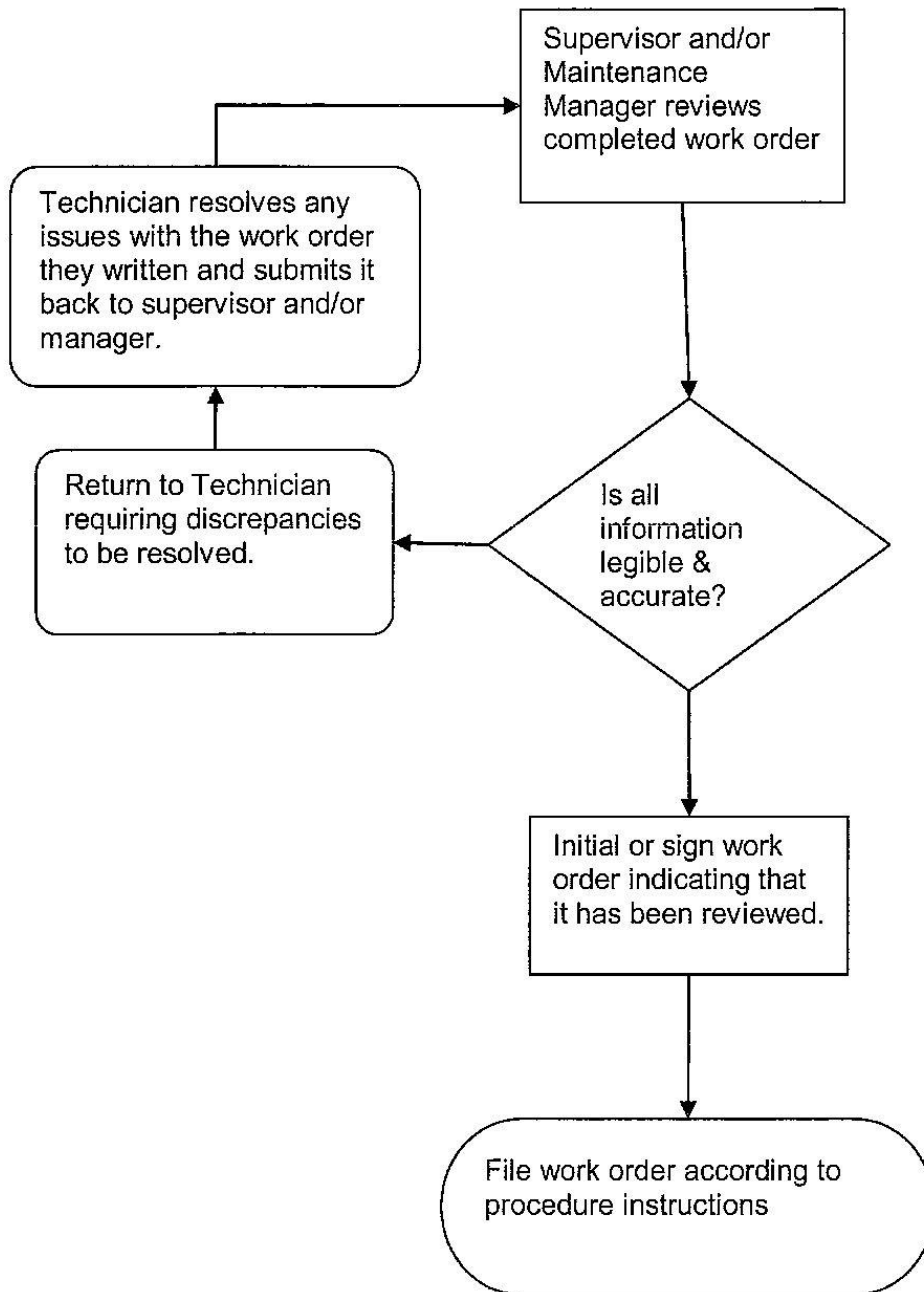
The Technician will submit the work order to their immediate Supervisor for review. The work order must be legible with the correct vehicle information on the work order.

The work order will be submitted to the Maintenance Manager or Supervisor who will sign the work order indicating it has been reviewed prior to filing.

**Technicians flow
chart**



Supervisor / Maintenance Manager process



Maintenance Procedures

Body Repair Tracking

1. Purpose

To ensure that all body repairs that occur as the result of an accident, road damage or vandalism is recorded, scheduled for repair, and vehicles meet or exceed contractual appearance standards.

2. Procedure

When any company owned or operated vehicle is involved in an accident or suffers damage due to fire, is loss due to theft or suffers damage as a result of an act of god, this policy governs the repair and/or replacement of the company vehicle.

This policy does not apply to those situations where the City provides the collision/comprehensive insurance. In this case, the City's policy relating to repairs will apply.

When an accident occurs, the following process is followed in order to repair the company owned or offered vehicle.

- 1) The division will file an accident report with the safety department.
- 2) The safety department will provide the claim number.
- 3) The division will use a quality and competitive body shop for all body repairs estimates. Obtain 2 estimates to repair the vehicle for all damages over \$1500.00. The body shop must reference the claim number on the estimate if available.
- 4) The division will fax the estimates to the claims department.
- 5) In the event the low estimate exceeds \$2,000, the claims department will have the estimate reviewed by a 3rd party expert assigned by the executive vice president maintenance. The 3rd party expert will either approve the repair estimate or advise the claims department to seek additional estimates or to use in-house or a preferred vendor in another city.
- 6) In the event the low estimate exceeds \$5,000, in addition to performing the 3rd party review, the claims department will fax the estimate to the company's physical damage insurer providing the insurer with notice of the claim. In addition, the vice president of maintenance for the company will review the estimate and determine if the vehicle should be repaired or totaled.
- 7) After review of the estimates, if the vehicle is to be repaired, the claims department will fax an "Authorization to Repair" notice to the body shop and will also notify the division by email of the approval to repair the vehicle. The body shop will mail the invoice for repairs directly to the claims department for payment processing and recording to the claim in the claims software system.
- 8) In some areas of the country DCTC GODURHAM has floating body repair men who should be scheduled to perform the needed repairs whenever possible.

GODURHAM VEHICLE MAINTENANCE PLAN

- 9) After review of the estimates, if the vehicle is totaled, the claims department will notify the division to prepare a CER to replace the vehicle. Fleet Coordinator will determine disposal of the vehicle.
- 10) The claims department shall maintain records of body work and claims on the Portal site for shop managers and Division Management Teams to monitor the approval and processing of payments for claims.

Maintenance Procedures Monthly Mileage Reporting

1. Purpose

Accurate mileage reporting allows for better cost tracking to compare to standards of the industry which measure cost per mile and used for Accident Frequency Ratio and vehicle insurance. By accurately reporting the mileage, we can report how many miles are traveled annually.

2. Procedure

Maintenance Managers will be responsible for tracking monthly mileage for all DCTC GODURHAM operated revenue and non-revenue fleet vehicles. To assure mileage accuracy, the Maintenance Manager is responsible to instruct personnel to physically read the mileage from every vehicle assigned to their division. This includes vehicles that are out of service and have not been used for the month. This should be performed at the end of the last day of the month after the vehicle has completed service.

Do not use the mileage recorded on the DVI reports or run sheets to complete this report.

The company approved **Monthly Mileage Report** will be used to assure we are accurately capturing all miles traveled for our fleet.

The maintenance department supervisory staff or clerk will enter the ending mileage into the spreadsheet in the appropriate spaces. The Maintenance Manager will review the mileage report for accuracy. Monthly mileage reports will be submitted on or before the fifth (5th) day of each month. The reports should be entered into the mileage section Faster. Manager shall provide reasons for vehicles that have traveled less than 500 miles in a reporting period.

GODURHAM VEHICLE MAINTENANCE PLAN

Maintenance Procedures

Tire and Wheel

1. Purpose

This process is developed to make sure that tires are filled with the proper air pressure for maximum life and better drivability, and to ensure that wheels and wheel fasteners are properly installed and tightened to manufacturer's specifications.

2. Procedure

Tires used on DCTC vehicle must be of the approved type designated by the company. All tires must match or exceed D.O.T. specifications. All tires shall be the correct size and load rating according to OEM recommendations.

DCTC GODURHAM's Minimum tread depth policy is listed below. Vehicles that have tread depth readings that do not meet these specifications must be placed out of service until new tires are installed:

- Front tires at or less than 4/32"
- Rear tires at or less than 2/32"

Operators will inspect the tires daily and note the condition of the tires on the Drivers Vehicle Inspection Report.

Technicians will measure and record all tire readings on every PM inspection. The technicians will use the standard tread depth measure gauge to measure tread depth of all tires. Tread depth measurement will be taken on the tire at the area of greatest wear. Assuring that the tread depth gauge does not contact the "tread wear bar", take the measurement. Record the lowest reading.

In all cases the technician will measure at least 3 (Three) different positions around the tire to attain the correct reading. The technician will note the lowest reading as well as abnormal tire wear. Technicians will also note any abnormal tire wear and provide a diagnosis as to the cause of the abnormal wear.

New Tires

Shall be installed on all steering axles and vehicles 25 feet or less this includes sedans, vans, and cutaways.

GODURHAM VEHICLE MAINTENANCE PLAN

Recap Tires

May be used on all vehicles greater than 25 feet on rear axles only. Recaps can only be installed on an ALL-STEEL tire casing. Approval is needed from General Manager.

Rear dual tires are to have matching tread depths, within 2/32".

All tires are to be purchased through DCTC National Account Vendor only.

Air Pressure Adjustment

Due to increasing tire wear, it is now required that air pressure be checked and adjusted at the following times:

- Tire pressure will be checked once per week at a minimum.
- Any time a vehicle is brought in the shop for any repair
- At every PM

Wheel and Fastener Service and Inspection

All wheel lug nuts and studs will be inspected for wear, damage to the threads and stretching of the studs. Vehicles utilizing wheels with the "acorn" type Jug nuts, technicians will inspect the wheel for wear where the cone shape portion of the wheel enters the wheel. If wear is excessive replace the wheel and lug nuts with the correct wheel designed for that vehicle. The inspection will take place on every Preventive

Maintenance Service or Inspection and anytime wheels are removed from the vehicle when performing a tire service. Care should be taken around the lug nuts and mating surfaces when having rims repainted and powder coating is the preferred option to refinishing wheels.

Assure all threads are clean and dry. Threads that are burred shall be dressed. If threads are damaged beyond repair, then both the stud and nut will be changed. Any threads that are in question should be brought to the attention of the shop manager and the vehicle will be placed out of service pending further repairs.

Tire Security

All tires will be stored using a tire rack or storage container. All tires are stored indoors. Tires will remain secure while not being directly monitored.

Wheel Lug Nut Torque

Anytime wheel service is performed, or any service performed that includes removing the tire and wheel, when reinstalling the tire and wheel, technicians will use a good quality torque device kept in good condition to tighten the wheel lug nuts to specified torque in the sequence listed by the manufactures shop repair manual.

Technicians will attain lug nut torque specifications from the shop repair manual for that vehicle and record the specification on the repair order, along with the torque sequences.

Torque wrenches must be checked for accuracy every six (6) months Torque wrench calibration will be performed two (2) times annually. Torque sticks are not approved for use by DCTC and all wheels must be tightened to the proper specifications using a quality calibrated torque wrench.

All vehicle wheel lug nuts must be tightened to manufacture specifications.

Maintenance Procedures

Seasonal Maintenance

1. Purpose

To ensure that certain vehicle systems that are operated under extreme operating conditions at certain times of the year are serviced during non-peak operating times and prepared for the next peak operating time.

2. Procedure

Cooling System

The cooling system should be serviced during the colder winter months in preparation for the hot summer weather. The cooling system should be inspected through a normal Preventive Maintenance program. A more thorough inspection and service shall be performed once a year, not limited, to the following:

- Radiator Cap and cap mating surface
- Clean out radiator fins
- Check radiator tubes for restrictions
- Check fan and fan drive for proper operation.
- Inspect all hoses and replace as needed
- Check for proper thermostat operation
- Check coolant recovery or expansion bottle.
- Check coolant PH level, Bromide (if applicable), and for the proper levels of additives.

This can be accomplished by different test strips that can be purchase from our national account vendor. Flush cooling system as needed and refill with the proper treated coolant mixture.

In extremely warm climates it is very important to ensure that you have optimum coolant flow as well as air flow through the fins of the radiator. It may be required to clean the radiator fins more often keep the fins free from being clogged by debris.

Air Conditioning

During the colder winter months when the air conditioner isn't needed, is usually a good time to service the air conditioning system to increase efficiency and prepare for the peak operating times during the late spring and summer. To operate efficiently you should make sure of the following:

- You have good unobstructed refrigerant flow. Contaminated refrigerant can clog orifices causing an extra restriction to refrigerant flow and decrease efficiency. Old thick refrigerant oil can cause restriction decreasing refrigerant flow as well as any moisture in the refrigerant turning to ice.
- You have the proper coating over the condenser allowing for the proper condensation of the refrigerant.
- Sensors and switches adjust and working correctly allowing for the proper control of the temperature.
- Proper filtration and drying are occurring in the refrigerant.
- There is a proper level of refrigerant in the system and you have no leaks.

An annual air conditioning service should be performed to ensure maximum efficiency during the late spring, summer and early fall months. Using the correct checklist for the type of vehicle you are working on, inspect and service as needed the air conditioning components.

The General Manager and Maintenance Manager shall work together to schedule the annual air conditioning service for all vehicles.

Maintenance Procedures Scheduled Repair Tracking

1. Purpose

To ensure that all defects that do not affect the safe and dependable operation of the vehicle are noted on DVI reports, and PM inspections are properly scheduled, tracked and repaired within a reasonable amount of time. A reasonable amount of time is no longer than 30 days from the date when the defect was originally noted.

2. Procedure

Any defects that are noted on the Driver Vehicle Inspection (DVI) report that do not affect the safe and dependable operation of the vehicle, or do not fall in contractual out of service guidelines, that were not repaired will be placed on a separate defect sheet to be scheduled for later repair when the service isn't affected.

GODURHAM VEHICLE MAINTENANCE PLAN

When performing a PM inspection, any defects that cannot be repaired in ten (10) minutes, that do not affect the safe and dependable operation of the vehicle, and do not fall within contractual out of service guidelines will also be recorded on a separate defect sheet for repairs to the vehicle when service isn't affected.

The Maintenance Manager and/or Maintenance Supervisor will review the defect sheets daily to determine the schedule for repairs. Defects will be scheduled beginning with priority repairs being performed first then repairing other defects chronologically.

As repairs to defects on the list are satisfactorily completed, the technician's initials and work order number shall be recorded on the defect list next to the associated defect indicating repairs have been made.

If your division is using the fleet maintenance software Faster to track scheduled defect repairs, please reference the FASTER section on tracking defects for scheduled repair.

INVENTORY CONTROL AND WARRANTY PROCEDURE

Inventory Control and Warranty Procedure

Inventory

A full inventory is counted one time a year in addition to the weekly cycle counts that are done when the quick requisition report is run from the Faster System. The Parts Manager adjusts the inventory after verifying the correct counts and if the correct work order is not found to charge out the parts. After the quick requisition list is checked, the Parts Manager then faxes out to vendors for daily price quotes. The price quotes are checked and selected by the Parts Manager, and the parts are ordered based on the order quantities set in the Faster System.

Month End

At each month end, the inventory reports are run and the value from the Faster System report is reconciled with the value the Accounting Department is carrying on the books. These reports include the parts usage, parts received, purchase orders issued, and parts returned to stock. To ensure the accuracy of these reports the Controller, the General Manager and the Maintenance Manager must review and sign off on the month end reports.

Bus Down for Parts

If a bus is down for parts (none in stock), the supervisor on duty fills out a parts request form and turns it into the Parts Manager. The mechanic then puts the information on a clipboard marked 'BUS DOWN' and then forwards the request to the Parts Manager who then orders the part. Once completed, the Parts Manager then puts the date due and who is shipping the part on the 'BUS DOWN' board. Once the part is received, the Parts Manager will mark off the bus on the 'BUS DOWN' board and notify the supervisor on duty.

Receiving

Parts that have been ordered are received at the parts counter. Once the part is signed for the Parts Manager will forward the packing slip to Receiving. The Parts Manager then match the packing slip to the purchase order. When the invoice arrives, it is matched to the purchase order and the purchase order is received in. After the purchase order is received in, the paperwork is sent to the Accounting Department and the Accounting Supervisor will pay the invoice.

Warranty

All warranty repairs are completed on separate work orders and they are turned in to the Parts Manager to process for collection. The Maintenance Manager verifies that the work is warranty and that all the paperwork is completed. The paperwork is then sent to file with OEM.

Any warranties that can be done at the OEM (ex. Cummins) are called in by the Maintenance Manager or his designee and the paperwork is completed there, and a copy is put in the file.

INVENTORY CONTROL AND WARRANTY PROCEDURE

The Maintenance Manager and Parts Manager are responsible for determining if any repair should be covered under an existing warranty. The Maintenance Manager or Parts Manager will then contact the OEM or vendor to seek warranty coverage. For equipment items, determination is made by the Maintenance Manager after reviewing the warranty conditions in the equipment manual. The local authorized representative of the equipment manufacturer is contacted to obtain warranty repairs.

Extended component warranties are normally written by individual vendors through the coach manufacturer. DCTC then contact these companies and works directly with their service departments for the period of time covered by the warranty.



Facility Maintenance Plan

Go Durham Facility Maintenance Plan

MISSION

The facilities department shall provide a safe, clean, orderly, cost-effective facility that supports and contributes to GODURHAM's mission statement.

“To provide safe, reliable, convenient and accessible transportation for the citizens and visitors of the Triangle region. We are committed to meeting the diverse needs of the community while exceeding customer expectations in a cost-effective and responsible manner. The GODURHAM team is professional, knowledgeable and proud to serve our customers.”

PURPOSE

The purpose of an effective Facility Maintenance Plan is to achieve the following goals:

- Preserve taxpayers' investments in public buildings.
- Preventative maintenance can extend the life of building components, thus sustaining the buildings' value and the significant tax dollars they represent.
- Help buildings function as they were intended and operate at a peak efficiency, including minimizing energy consumption.

Because preventive maintenance keeps equipment functioning as designed, it reduces inefficiencies in operations and energy usage.

- Prevent failures of building systems that would interrupt occupants' activities and the delivery of public services.
- Buildings that operate trouble-free allow public employees to do their jobs and serve the public. Because preventive maintenance includes regular inspections and replacement of equipment crucial to operating a building, maintenance staffs reduce the problems that might otherwise lead to a breakdown in operations.
- Sustain a safe and healthful environment by keeping buildings and their components in good repair and structurally sound.

Protecting the physical integrity of building components through preventive maintenance preserves a safe environment for employees and the public.

- Provide maintenance in ways that are cost-effective.
- Preventive maintenance can prevent minor problems from escalating into major system and equipment.

Go Durham Facility Maintenance Plan

- Failures that result in costly repairs. In avoiding costs of major repairs, preventive maintenance creates efficiencies. Increasing preventive maintenance can reduce time spent reacting to crises, which is more cost-effective way to operate.

SAFETY & SECURITY

General Safety Procedures

- Emergency Phone Numbers: Fire: 911
- Ambulance: 911
- Wear Appropriate Clothing and Personal Protective Equipment (PPE) for the work being done. Wear Correct gloves when cleaning washrooms or locker rooms or when using toxic chemicals
Wear safety glasses or goggles when working close to liquid chemicals or when using hand tools
Wear steel toe shoes or boots when operating equipment
- Wear hard hat when working beneath objects
- Wear approved helmet, apron and gloves when welding.
- Follow manufacturer's instruction when mixing chemicals. Always mix chemicals in a well-ventilated area with spill protection.
- Always read the Material Safety Data Sheet (MSDS) prior to working with new products for the first time or whenever there are questions about how to properly handle the material. MSDS is available in the maintenance office and where materials are used.
- NEVER use chains and padlocks to secure exit doors closed. Security is of great importance to us. In the interest safety exit doors must function properly.
- Always use proper lifting techniques when lifting heavy objects. Lift with your legs. Keep your back straight, and do not twist the body and lift at the same time.
- The Lock-Out Tag-Out system will be utilized whenever working on electrical circuits.
- Do not use tools that are broken or that have missing guards, shields, or other protective components. Report broken tools to the facilities coordinator.
- No employee is authorized to operate a GODURHAM owned or leased motor vehicle without first completing the GODURHAM Driver Training program.
- No employee shall attempt to perform tasks for which he or she has not been trained and
- Authorized to perform by the Maintenance Supervisor.

Video Surveillance

In addition to badge access requirements in restricted areas and police patrols at Durham Station, Go Durham utilizes video surveillance to provide security at our facilities. Video surveillance cameras are provided at Durham Station as well as our administrative office/ base locations. There is a total of 61 cameras located at Durham Station (15 internal and 46 external); 16 cameras located at the administrative

Go Durham Facility Maintenance Plan

office/ base (7 internal and 9 external). Video cameras are monitored daily by on duty police officers, dispatch staff and IT professionals.

Chemical Hazards

Use, Storage, and Disposal of Chemicals

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

Chemical Use:

No one should use any substance, even household products, without understanding what dangerous exist and how to use the product safely. Chemical substances should be used only in the manner and propose for which they were intended. Before using any chemical the person should learn about possible hazards, disposal and emergency treatment measures, and handling procedures, all of this information can be found either on the label on the product or the MSDS which is available at each site for all chemicals. 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. Among the points to remember when working with chemicals:

- Avoid using hazardous chemicals for any task that can be completed 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 combine, they react to form an extremely toxic gas. Acids with Alkalis and Chemicals with petroleum products such as cleaning liquids are also hazardous combinations. Other safety points:

- Never transfer chemicals into an unlabeled container
- Store potentially flammable chemicals in approved container 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 have a systematic, easy to reach arrangement.

Chemical Disposal:

Go Durham Facility Maintenance Plan

Improper disposal of substances such as cleaning chemicals used on the job can cause serious problems. MSDS contain information about the safe disposal procedures for the chemical substances used.

- Never flush corrosive or volatile materials into the sewage system
- Always discard unused portions of mixed chemicals unless information on the label specifically states 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 spills.

Electrical Hazards

Working with electricity can be a deadly 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. Electricity is encountered throughout any building. 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, break rooms and offices. Everyone should be alert for such potential problems throughout the building. 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 any time a person uses or services 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 happens 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 work electric cord or missing the ground 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 scrub 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 designed for this.

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) are important precautions to take against fire hazards. Being aware of the use of smoke detectors and fire alarms, storage of flammable and combustible materials, required means of egress and other related topics is critical to fire safety. Areas that often contain fire hazards are storage rooms that tend to accumulate trash, equipment rooms, furnace rooms, and the custodial closet. The facilities coordinator is in a unique position to recognize and eliminate potential fire hazards in many of these areas.

Any time a problem is noted, the facilities coordinator should notify either the maintenance supervisor or a building administrator.

GODURHAM employees' tasks can sometimes affect the level of fire resistance of an area. In many cases, the structural integrity of all or part of a building is necessary for adequate fire protection. GODURHAM staff members should never cause holes in partitions or doors, mar the surface of walls, floors, and floor coverings, or create gaps between frames and windows or doors without considering whether a possible fire hazard will arise. Damage is not the only way a fire hazard relating to building structures can be unintentionally created. By not using built in safeguards properly, the risk of fire damage is greatly increased. You should NEVER leave fire doors open, wedge smoke doors so automatic closing cannot occur or prop open doors or lids on flammable storage cabinets. The same is true for exit doors. There is never any justification for blocking routes of egress or for chaining exit doors closed, no matter how inconvenient a situation may be.

Four major sources of fire hazards are 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 a person can do to eliminate many of these other hazard sources.

- 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 fire hazard areas such as electrical and mechanical rooms. Dust can be flammable so should be removed from surfaces and equipment frequently.

Go Durham Facility Maintenance Plan

- 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 emergency.
- Know what actions to take in case of fire. Prompt action can save lives and property. Fire Exit diagrams are posted throughout the facility. Know your exit paths Evacuation plan training is given to each employee annually
- Know who the fire marshal and safety officer are

Fire Extinguishers

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

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

Use the proper type fire extinguisher for the 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

- **P**ull the pin
- **A**im the extinguisher nozzle at the base of the flames.
- **S**queeze the trigger while holding the extinguisher upright.
- **S**weep the extinguisher from side to side, covering the fire with the extinguishing agent.

Physical Hazards

Another important area for safety awareness is in physical activity, such as lifting heavy loads and working on a ladder. Physical hazards occur most frequently wherever the technician is working. Wherever a ladder, mop, tools, or other equipment is used, there is potential for accidents for either the technician or others. Stairs, hallways, mechanical or boiler rooms and GODURHAM grounds are all likely places for tripping, 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 the technician can change or improve to help avoid this type of hazard. In this section we will discuss lifting techniques slip and fall hazards, ladder and stairway safety, power and hand tool safety and also dealing with the heat.

Proper Lifting Technique

The steps to be taken when lifting a heavy object are listed below:

- Size up the load. If too heavy to handle easily, get help or the proper equipment (such as a hand truck). Delaying the job a few moments to get assistance is better than risking an injury.
- 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.
- 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.
- 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.
- Never twist the body. Move the feet to change direction.
- Bend knees to put down the load. Be sure fingers are not caught underneath the object as it is put down.
- Wear proper protective gear, such as gloves, protective foot gear 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.
- 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

Slipping and Falling Hazards

Most floors and other surfaces look safe. Each year however, thousands of accidents occur by falling or slipping. Falls are the second most common cause of fatal injuries. The technician must be aware of many factors that cause slipping and falling-- either of the employee or others in the building.

Go Durham Facility Maintenance Plan

- Clothing can cause falls of 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.
- Be alert. Watch for things that can trip persons, such as wires, cords, litter or equipment in the aisles and walkways. This is important both inside buildings and on the grounds. When possible, remove or rearrange such objects so they are not in the way.
- Wet floors cause a particular hazard. When cleaning floors, place a "caution" wet floors" sign to warn people using 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 wet surface, the technician should place feet carefully and move slowly.
- 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.
- Falls are commonly caused by tripping over obstacles in walkways. The technician can thoughtlessly create this type of hazard for others on the grounds. 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.

Stairway and Ladder Safety

Working at a distance above the ground also creates a potential falling hazard. There are many tasks that require the use of a ladder, scaffold, or other type of support. Stairways and ladders are among the most frequently used items on the job. Routine use of stairs and ladders can lead to carelessness. Accident figures show that traveling up and down stairs is not always as safe as it looks. Safety on ladders and stairways involves understanding what they were designed for and how to use them. GODURHAM has step ladders and extension ladders to help with the work needed.

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 them selves
- 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 ladder is fully open and the spreaders are locked.

Go Durham Facility Maintenance Plan

- 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
- No longer than 24-foot per section

Rules for using extension ladders safely:

- Have a co-worker 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 ladders 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. Check each ladder in these ways:

- 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.

Go Durham Facility Maintenance Plan

- 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:

A stairway is a series of steps and landings that has four or more risers. Stairways let you move from one level to another. Most stairway accidents occur because technicians 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 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.

Hand and Power Tool Safety

The mechanics and facilities coordinator use many tools for performing job tasks. It is easy to understand the need for safe working practices with, for instance, a large and powerful tool. However, even a small screwdriver can be hazardous if used improperly. Keeping tools in a state of good repair is an important way to avoid physical hazards. Ladders, jacks, hand trucks and all tools that are in good condition give more "margin of safety" to the person using them.

- 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.
- Never use a defective tool.
- Always wear protective gear such as gloves, goggles, and hearing protection when performing any task involving hazardous tool usage.
- Do not overload a tool's capacity or try to hurry its operation.
- Disconnect power cord before adjusting tools, such as changing the blade on a saw.
- Always be conscious of where parts of the body are in relation to the tool being used.
- Keep tools in proper shape. A sharp knife is less dangerous than a dull one that must be forced through what is being cut.

Go Durham Facility Maintenance Plan

- Use only tools for which training has been received.
- Do not reach into waste containers or push trash into a partly full container with bare hands. Put waste with sharp edges in sturdy containers.
- Be aware of sharp edges on furniture or other objects being moved. Even the edges of a cardboard carton can cut badly.
- Do not put hands or head into places that have not been visually inspected for possible hazards.

Heat Stress

Your body is affected by heat stress on the job more than you might think. 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 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 muscle and surrounding tissues. Since your body works well at a constant inner temperature of 98.6 o 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.

CUSTODIAL SERVICES

Cleaning Frequency:

Custodial services is to be performed between the hours of 5:00pm and 12:00am daily, except DCTC-GODURHAM Holidays.

Office and Cubicles

Daily:

- Empty Trash Receptacles
- Police Litter
- Vacuum Carpeted floors Completely
- Remove Carpet Stains
- Spot Clean Building Surfaces
- Damp Mop Non-Carpeted Floors

Weekly:

- Remove Cobwebs from Walls, Ceiling, and Baseboards
- Dust building Surfaces

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- Dust furniture surfaces

Monthly:

- Spray Buff and Burnish Non-Carpeted Floors

As Requested by DCTC:

- Shampoo Carpet
- Strip and Refinish Floors

Conference Room and Training Room

Daily:

- Empty Trash Receptacles
- Police Litter
- Vacuum Carpeted floors Completely
- Remove Carpet Stains
- Spot Clean Building Surfaces
- Damp Mop Non-Carpeted Floors

Weekly:

- Remove Cobwebs from Walls, Ceiling, and Baseboards
- Dust building Surfaces
- Dust furniture surfaces

Monthly:

- Spray Buff and Burnish Non-Carpeted Floors as Requested by DCTC Shampoo Carpet
- Strip and Refinish Floors

Lounge / Break Rooms

Daily:

- Clean and Disinfect Fixtures Damp Mop Non-Carpeted Floors Disinfect Surfaces
- Empty Trash Receptacles
- Refill Dispensers
- Police Litter
- Spot Clean Building Surfaces
- Spot Clean Furniture I Appliance surfaces Vacuum Carpeted area completely Remove Carpet Stains
- Oust building Surfaces
- Dust Furniture Surfaces

Weekly:

- Remove Cobwebs from Walls, Ceiling, and Baseboards

Monthly:

- Spray Buff and Burnish Non-Carpeted Floors

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As Requested by DCTC:

- Strip and Refinish Floors
- Shampoo Carpeted Areas

Electrical Repair / Facilities Maintenance Office

Daily:

- Police Litter

Monthly:

- Damp Mop non-carpeted floors
- Dust building surfaces Dust furniture surfaces Empty Trash Receptacles
- Spot Clean Building Surfaces
- Spray Buff and Spray Buff and Burnish Non-Carpeted Floors
- Wet Clean Floors ext.,

As Requested by DCTC:

- Strip and Refinish Floors

Corridors

Daily:

- Clean and Disinfect Drinking Fountains
- Damp Mop Non-Carpeted Floors
- Empty Trash Receptacles Police and Vacuum Floor Mats Police Litter
- Spot Clean Building Surfaces
- Spot clean Furniture I Appliance Surfaces

Weekly:

- Remove Cobwebs from Walls, Ceiling, and Baseboards
- Dust building Surfaces
- Dust furniture surfaces
- Spray Buff and Spray Buff and Burnish Non-Carpeted Floors
- Wet Clean Floors

As Requested by GODURHAM:

- Strip and Refinish Floors

Storage Areas

Daily:

- Clean and Disinfect Fixtures Clean and Refill Floor Drains Damp Mop Floors

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- Police Litter
- Spot clean Body Surfaces

Weekly:

- Dust Building Surfaces Empty Trash Receptacles Police litter
- Remove Cobwebs from Walls, Ceiling, and Baseboards

Monthly:

- Spot clean building Surfaces
- Damp Mop Non-Carpeted Floors
- Remove Cobwebs from Walls, Ceiling, and Baseboards
- Custodial Closets

Restrooms and Showers

Daily:

- Clean and Disinfect Fixtures Clean and Refill Floor Drains Damp Mop Floors
- Disinfect surfaces
- Dust building surfaces Dust Fixture Surfaces Empty Trash Receptacles Refill dispensers
- Police Litter
- Spot Clean building surfaces

Weekly:

- Remove Cobwebs from Walls, Ceiling, and Baseboards

Monthly:

- De-scale Toilets and Urinals

Quarterly:

- Wet clean and Machine Scrub Floors

As Requested by GODURHAM:

- Strip and Refinish Floors

Exterior Entry Ways

Daily:

- Empty Trash Receptacles
- Police Litter
- Spot Clean Building
- Sweep Entrances, Sidewalks and Porches

Weekly:

- Remove Cobwebs from Walls, Ceiling, and Baseboards

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Air Vents and Returns

Weekly:

- Dust / Damp Wipe
- Remove Cobwebs

Assembling Equipment and Supplies

At the beginning of each shift, the custodian should assemble all tools and materials needed to clean thoroughly. This will minimize frequent return trips to the custodial closet to get something else.

- Custodian cart with caddy
- Spray bottles with appropriate solutions to clean glass, counters, sinks, disinfect surfaces, and spot cleaning
- Dust cloths
- Paper towels
- Putty knife/razor blade scrapper
- Dust mop (treated if needed)
- Wet mop (if needed)
- Mop bucket and press (if needed)
- Vacuum cleaner complete
- Plastic liners (small and large)
- Counter brush
- Dustpan
- Gum remover
- Protective glasses and gloves

GROUNDS MAINTENANCE

Summer

- Grass shall be cut based on weather according to the schedule established by the Contractor and Procurement Manager.
- All grass areas shall be over seeded and re-sodded as necessary.
- Asphalt surfaces shall be sealed every five years.

Fall

- Grass cutting shall continue until the growing season has ended.
- Leaves shall be raked and removed weekly.

Winter

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- Snow and ice shall be removed from entry ways and sidewalks at least 30 minutes prior to the start of operations.
- Sidewalks and entry ways shall be sanded/salted as necessary.
- When snow continues to fall after the start of operations, the entrances and sidewalks shall be cleared at least every two hours.
- Snow plowing shall clear all parking lots and driveways at least one hour prior to the start of operations. A decision to plow once operations have started shall be made by the Maintenance Manager. Maintenance staff shall assist in coordinating the movement of vehicles as necessary.

Spring

- All grass surfaces shall be raked as soon as weather conditions allow.
- All storm drains and culverts shall be cleared of debris.
- Mulch shall be placed around planted shrubs.
- Pesticides shall be applied as directed by the Grounds Supervisor.
- Spring athletic fields shall be marked prior to the first competition and as necessary thereafter.
- Trash shall be picked up and trash containers emptied after every event.

INTEGRATED PEST MANAGEMENT (IPM)

Four Points of IPM:

- Prevention of pest population.
- Application of pesticides only as needed.
- Selecting the least hazardous pesticides effective for control of targeted pests.
- Precision targeting of pesticides to areas not contacted or accessible to the employees or visitors.

What is IPM?

Integrated pest management (IPM) is a decision-making process following a set of detailed procedures describing how particular pest problems will be avoided or managed. Such pest management tactics may involve the activities of all users of a facility.

How a facility is used has great bearing on the types of pest problems which may occur. Integrated Pest Management (IPM) maintains a high standard of pest control while reducing reliance on pesticides. IPM is:

1. monitoring pests to detect problems early;
2. acting against pests only when necessary;
3. choosing the most effective control option with the least risk to people and the environment;
4. applying our growing knowledge about pests to create long-term, low-risk solutions.

Routine pesticide applications, made on a regular calendar-based schedule, are not part of IPM. Allowing pests to flourish, increasing health risks to building occupants and others, is also not part of IPM.

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IPM Policy

Pest management practices will be based on the following principles:

- Whenever possible, prevention of pests will be the primary strategy to hinder their establishment and reduce the need for pesticide use.
- Knowledge of the pest's identity, biology and life cycle will establish the basis for selection of appropriate management strategies.
- Monitoring of pest numbers and record-keeping will be used to identify pests and sites requiring management action.
- Management strategies will be selected after consideration of the full variety of available options. Strategies will include all practical structural, nonchemical and biological management measures. Chemical measures will be utilized only as a last resort, when other methods fail.
- When necessary, monitoring results will be used objectively to determine action thresholds (the defined level of unacceptable numbers of a particular pest) at which least toxic controls will be employed.
- Educational activities will be conducted to enhance the cooperation and understanding among staff, students and the public.

About KEY PESTS

A key pest is one that is usually encountered at unacceptable levels at least once each year. Geographic region and climate; surrounding landscape features; and type of construction, age and condition of buildings influence which pests become key pests for our facility. Typical key pests in and around our buildings include ants, birds, cockroaches, yellow jackets and rodents. Typical pests on grounds are weeds and crabgrass. Routine or regularly scheduled pesticide applications can mask key pests, which may not become apparent for some time after routine pesticide applications have been stopped. For key pests, it makes sense to plan ahead and determine which inspection and monitoring procedures will be used to detect problems early and how many pests or how much pest damage can be tolerated before action must be taken. Levels of weed tolerance and standards for turf maintenance are included in the IPM plan.

Key pests include:

- Ants
- Bees, wasps and yellow jackets
- Flies
- Cockroaches (prevention only)
- Mice
- Weeds, crabgrass

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PREVENTATIVE MAINTENANCE

Weekly

Emergency Generator (Weekly Maintenance)

For Standby Generator these procedures shall be performed weekly.

- A walk around inspection prior to starting
- Ensure the Control Switch/Key is off.
- Check the engine oil and coolant levels replenish if necessary
- Diesel engines normally consume lube oil at a rate of .25% to 1% of the fuel consumption.
- When adding coolant to the radiator systems always pour slowly to help prevent air from becoming trapped in the engine.
- Check the fuel level -fill as necessary
- Check the condition and tension of the fan and engine alternator belts, tighten as necessary.
- Check all hoses for loose connections or deterioration tighten or replace as necessary.
- Check the battery terminals for corrosion, clean as necessary.
- Check battery electrolyte levels; fill with distilled water as necessary.
- Check the control panel and generator set for heavy accumulation of dust and dirt, clean as necessary. This can cause an electrical hazard and give rise to cooling problems.
- Check air filter for restriction, replace as necessary.
- Check the area around the generator set for any items that could inhibit operation or cause injury. Ensure cooling air ventilation screens are clear.
- Visually check the entire generator set for signs of leaks from the fuel system, cooling system or lubrication seals.
- Periodically drain the exhaust system condensate traps if equipped.
- Ensure the alternator output Circuit breaker is in the off (handle down) position.

Every Two Weeks

Emergency Generator (Every Two Weeks)

Perform an operational check on the generator by starting and running the set for ONLY 5 minutes.

General Facility Inspections (Every Two Weeks)

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

Lighting: Exterior and Interior (Every Two Weeks)

All lighting systems will be inspected biweekly. 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 (Training Room, common areas, offices, hallways, exits, etc.)

Various fixture and lamp types are used according to area needs, including fluorescent, incandescent, high intensity discharge (HID), mercury vapor, metal halide and arcs, or high-pressure sodium (HPS). It is

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important to fully wash, rather than dry-wipe, exterior surfaces to reclaim light and prevent further deterioration. Illumination will be maintained according to the Illuminating Engineering Society's recommended levels.

- Cleanliness, Voltage consistency, Glassware conditions, diffusing louver conditions.
- Counter reflector conditions, Fixture support conditions, Stanchion conditions, and Luminary conditions.
- Wire conditions, Ballast 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.

MONTHLY MAINTENANCE

Building condition and safety evaluation (Monthly Maintenance)

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

Gas Connections

The following check shall be performed 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

Go Durham Facility Maintenance Plan

- 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

Do not open and close valves

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

Restrooms

The following checklist shall be applied monthly to all restrooms within the 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
- 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.):

- Stability
- Surface conditions for deficiencies such as sharp or worn areas or vandalism
- Part conditions
- Security
- Overall condition

Go Durham Facility Maintenance Plan

Partitions:

- Stability
- Surface conditions for deficiencies such as sharp or worn areas or vandalism
- Part conditions
- Security
- Overall condition Overall cleanliness
- Overall privacy
- Overall appearance for damage and vandalism such as graffiti

Trash Receptacles:

- Sanitation conditions
- Stability
- Overall condition

Mirrors:

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

Break Rooms

Break Rooms 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, 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

Equipment:

Note: When checking equipment, first consult operating or area personnel for any deficiencies. For each item, check overall condition, switches, timers, piping and valves for leaks, wiring, pilots, doors, gaskets, and belts, where applicable. Always follow manufacturers' guidelines.

- Refrigerator(s)
- Microwave Oven
- Coffee Maker
- Toaster
- Floor condition
- excessive wear
- stains
- tripping hazards
- Furniture: counters, tables, benches, and chairs
- Stability
- Surface condition for deficiencies such as rough areas or protruding hardware
- Overall condition

Go Durham Facility Maintenance Plan

Training Room

While the bus training room usage can vary and require special equipment, The Training Room has, in recent years, grown to accommodate audiovisual, computer, and collaborative learning equipment. All of these elements create a need for more intensive maintenance and greater diligence during the monthly PM process.

Staff should check with administration regarding off-hours use of these areas and equipment, which may limit their availability for maintenance procedures. PM for, Lighting, Fire Extinguishers, Doors and Windows, and HVAC Systems also applies to Training Room 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: desks, chairs, tables, and shelves

- Surface conditions for deficiencies such as excess wear, rough areas, or protruding hardware
- Part conditions
- Cleanliness
- Stability
- Overall condition
- Clock function

Audio/Visual Equipment:

- Overhead equipment condition and stability
- Housing condition
- Electrical service condition
- Part conditions
- Screen operation and condition
- Speaker system operation
- Electrical cord and outlet conditions
- Overall condition

Computer System/Workstations:

- Electrical integrity/surge protector conditions
- Equipment condition
- Cleanliness
- Overall operation
- Workstation and member parts function
- Overall condition

Flooring:

- Excessive wear
- Stains
- Tears
- Tripping hazards

Go Durham Facility Maintenance Plan

Trash Receptacles:

- Location
- Cleanliness
- Overall condition
- Overall condition for debris and safety hazards

Emergency Generator (Monthly Maintenance)

Monthly perform an operational and load check on the generator set by starting and running the set on at least 50% load {50KW) load for 1 to 2 hours.

If generator has been run for 8 hours or more in the month:

- Check the coolant level by a properly trained person.
- Check the water in fuel pre-filter
- Check the oil level
- Check for sufficient oil pressure

Fire Extinguishers (Monthly Maintenance) - See also "Annual Inspection of Fire Extinguishers"

- Check the gauge on the extinguisher.
- It should register in the green area
- Make a note of where the needle is at this time (you will compare this location later)
- Check the Tag
- Ensure the extinguisher had been inspected within the past 30 days
- Ensure the extinguisher hydrostatic inspection has not expired
- Check the hose for damage or obstruction. Look in the end of the hose for insect nests.
- Remove the extinguisher from the mount
- Check the mount for stability
- Ensure the location has a three-foot clearance from obstructions
- Ensure signage is in place identifying the extinguisher location
- With the extinguisher in your hands invert it five times to loosen the agent inside the extinguisher.
- Check the Gauge again
- The gauge should still be in the green
- Did the gauge position change from step one? If so, remove the extinguisher from service.
- Check the silver pin is in place
- Check the seal is in place

Landscape / Hardscape (Monthly Maintenance)

Due to the comprehensive nature of preventive maintenance, select critical areas within the landscape domain should be inspected monthly? Note: Make sure the actual number of drains and their locations correspond with those shown on the "as built" drawings.

- Proper water flow
- Piping conditions
- Cover conditions

Go Durham Facility Maintenance Plan

- 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, dead trees in need of removal.

Asphalt

Asphalt surfaces at the facility receive extensive wear and tear from contact with buses, cars, trucks and pedestrians. Because such deficiencies as potholes, broken edges, and eroded areas can jeopardize life safety, it is essential for facility 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, Other athletic activity areas (Basketball Goal)
- Parking bumper conditions and position
- Speed bump conditions
- Striping and pavement signage conditions
- ADA accessibility
- Signage (See also Signage checklist)
 - 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

Signage

Signage is not only important for directing 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

Go Durham Facility Maintenance Plan

- Overall condition for deficiencies such as excessive wear, missing or broken parts, obstruction from view, or message inaccuracy

Exterior Stairs, Decks, and Landings (Monthly Maintenance)

The following is a PM checklist for exterior stairways, decks, and landings. Facility personnel should carefully check the building materials, particularly concrete, on a monthly basis. {The Exterior Lighting checklist is also applicable to these areas.}

Concrete

- Expansion joint conditions
- Metal spacer conditions
- Overall condition for deficiencies such as alkali-aggregate expansion, cavitation {honeycombing, spalling around projections}, chips, cracks, crazing, dusting, efflorescence, charred and spalled surfaces, stains, lifted areas, pock marks/pop-outs, scaling, tripping hazards, unevenness, or voids.

Railings

- Stability
- Hardware conditions
- Overall condition

Wood material (if applicable)

- Stability
- Overall condition for deficiencies such as dry rot, termites, instability, worn edges, cracks, holes, and splintering

Coverings

- Surface condition
- Overall integrity
- Overall condition

Footings/Foundation

- Stability
- Overall condition for deficiencies such as cracks and broken or missing components

Pest Control (Monthly Maintenance)

Orkin is contracted for pest control. There are two bait boxes outside the building, and several traps and sticky boxes placed throughout the facility. An Orkin representative will inspect these devices monthly.

Go Durham Facility Maintenance Plan

SEMI-ANNUAL MAINTENANCE

Emergency Generator (Semi-Annual Maintenance)

Every 6 months or 250 hours repeat the daily procedures every time run.

- Check all control system safety devices by electrically simulating faults.
- Clean all battery cap vents.
- Tighten all exhaust connections.
- Tighten all electrical connections.
- Check the amount of coolant.
- Check for water in the fuel pre-filter.
- Check the drive belts.
- Check compressor air filter if one is fitted.
- Start the engine and observe the instrument panel to ensure that all gauges and meters are operating properly.
- If a spare arbor has been fitted, this should be removed and thoroughly cleaned to remove any carbon build-up.

Boiler (Semi-Annual Maintenance)

Every six months these inspections and maintenance must be performed on the boiler.

- Clean combustion air fan area as required. (Located in top right chamber of boiler).
- Combustion air fan must be checked and lubricated with non-detergent 20 weight oil.
- Water Circulation Pump Oil as necessary use SAE30 weight oil or lubricant specified by pump manufacturer.
- Main burner flame pattern: use the view port below the water connection.
 - **Normal flame:** Blue without yellow tips and a well define inner cone and with no flame lifting.
 - **Yellow Tip:** Can be caused by blockage or partial obstruction of air flow to the burner.
 - **Yellow Flames:** can be caused by blockage of primary air flow to the burner, Venturi tubes not properly in place or excessive gas input. This condition **MUST** be corrected immediately.
 - **Lifting Flames:** can be caused by over firing the burner or excessive primary air.
- Look for soot accumulation around the burners and flue.
- Any sign of soot at the burners indicates a need for cleaning; the cleaning procedure must **ONLY** be performed by a qualified serviceman or installer.

HVAC Systems (Semi-Annual Maintenance)

Planned Maintenance inspections in spring and fall. In general, the contractor must as appropriate clean, adjust maintain, tighten and lubricate the HVAC equipment. These inspections are to include but are not limited to:

- Performance Quality Evaluation
- Cleaning of condensate Drains, Condenser coils every Spring (Annually)
- Calibrate all safety controls and thermostats.
- Tighten all electrical connections, mounts fittings and clamps at the units and all conduit
- Adjust belts and all other mechanical adjustments.

Go Durham Facility Maintenance Plan

- Inspect all belts replace all necessary
- Lubricate motors, bearings and linkages
- Replace all filters.
- Contractor to provide all belts and filters.
- Change all belts at Spring inspection (Annually)

Structural Members (Semi-Annual Maintenance)

Preventive maintenance entails a comprehensive visual inspection of each building material twice a year. Particular emphasis during this inspection process should be on load-bearing support areas that can be observed externally during a walking tour. The greatest cause of building demise is the penetration of water. Particular attention should be given at this time to evaluate the potential for access by water into building materials.

- Beam integrity for deficiencies such as rot, termites, bowing, splitting, slippage, or fungus
- Foundation condition for deficiencies such as cracking, slippage, or water encroachment
- Joist conditions for deficiencies such as rot, termites, bowing, splitting, or fungus
- Overall building integrity for signs of structural failure
- Sill conditions for deficiencies such as rot, termites, or fungus
- Stud conditions for deficiencies such as rot, termites, bowing, splitting, or fungus
- Wall conditions
 - Masonry for deficiencies such as cracks, scaling, mortar, crumbling, or efflorescence
 - Wood for deficiencies such as termites, peeling paint, dry rot, popping, or fungus
- Overall condition

Overhead Doors (Semi-Annual Maintenance)

This facility has 15 overhead steel doors. Motor Operated doors require no special maintenance other than periodic checking to see that mechanical parts were necessary is lubricated and all electrical compartments are clear of dirt. Service technician should first familiarize himself with proper sequence of operation of the operator and all related controls. Power to operator must be shut off when removing or replacing covers on electrical components, making adjustments or performing maintenance.

Annual Inspections will be conducted by a third-party contractor, and are to include (but not limited to):

- Check wire connections for tightness and wire insulation for defects of abrasions.
- Check to see that all conduit connections are secure.
- Check wires to safety edge if unit is equipped with safety to reverse feature.
- Activation Devices
- Safety Devices
- Hand chain/ Sprocket
- Limit Switches, Coil cord/ Reel
- Drive Mechanism, chains and Sprockets
- Electric Motor
- Locks, Slide bolts
- Curtain, Sections, Slats
- Pulleys, Bearings
- Barrel, Shaft, End Plates

Go Durham Facility Maintenance Plan

- Cables, Belts, Springs
- End blocks, Wind Bars
- Guides, Tracks, Wall Angles
- Bottom bars

Each item above must be inspected, lubed, or adjusted as needed by the manufacturer recommendation. In addition, there is one roll up drop fire door at the parts counter. This door must be inspected by a qualified inspector annually and tagged. This inspection is to include all the above and the drop test to certify the door each year.

ANNUAL MAINTENANCE

Backflow Devices (Annual Maintenance)

Backflow devices prevent the flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any source other than intended. All backflow devices shall be tested annually by a certified contractor. Maintenance personnel shall monitor the contractor's performance and obtain written certification upon completion of work.

Backflow devices (shall be tested only by a certified contractor). Devices are typically tested in December each year. Documentation is filed with the City of Durham.

Boiler (Annual Maintenance)

Once a year the following inspections and maintenance is needed.

- Examine the venting system. Check all joints and pipe connections for tightness, corrosion or deterioration.
- Clean screens in the venting air intake system as required.
- The entire system including the venting system shall be inspected by a qualified service agency.

Electrical Systems (Annual Maintenance)

Electrical systems and closets shall be inspected annually. Maintenance personnel will be familiar with the locations of all electrical equipment, including circuit breakers, fuses, main feeders, sub feeders, panel boards, and substations. All wiring shall be in compliance with the National Electric Code. The safety of workers is paramount; staff shall ensure that power is shut off and/or lines are de-energized where work is performed and that the LOCK-OUT TAG-OUT system is used. Electrical equipment will be serviced by outside contractors unless there is a licensed journeyman electrician among the in-house staff.

Distribution system

Equipment Cleanliness:

- Wire and cable conditions for deficiencies such as corrosion, dirt, moisture, and fire hazards
- Connection conditions
- Lock security and lubrication

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- Utility room cleanliness and safety
- Overall integrity
- Overall condition for deficiencies such as loose wires, debris, corrosion, potential power failure, and water encroachment

Circuit Breakers:

- Oil level and potential leakage
- Hardware conditions
- Porcelain condition
- Cotter pin conditions
- Air supplier operation
- Overall condition for deficiencies such as corrosion, noise, and excessive temperatures
- Fuses
- Insulator conditions for deficiencies such as burns or cracks
- Contact surface conditions for deficiencies such as burning, pressure, and misalignment
- Fuse holder conditions
- Hardware condition
- Overall condition

Emergency Generator (Annual Maintenance)

The emergency generator should be maintained annually. However, during the year, the fuel level, battery charge, cleanliness, and wiring shall be checked monthly. PM shall also be performed after each use of the generator.

- Operation
- Fuel level
- Oil and engine air filter conditions
- Battery charger condition
- Battery conditions for proper charge and connection
- Gauge conditions
- Circuit breaker conditions
- Activation device conditions (starter, pull cord, switches, etc.)
- Spark plug conditions
- Terminal conditions
- Belt conditions for deficiencies such as wear and stress
- Wiring conditions
- Cleanliness
- Overall condition

Fire Extinguishers (Annual Maintenance)

There are 23 fire extinguishers throughout the facility. The following annual PM checklist is for fire extinguishers throughout the facility. This inspection and certification must be conducted by a licensed specialty contractor and should be scheduled in advance to ensure that the date on extinguishers will not expire. Monthly inspections of fire extinguishers' general condition, housing, and location per code shall be conducted as part of preventive maintenance procedures throughout the facility.

- Certification

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- Charge
- Housing condition
- Hose condition
- Proper location per code
- Overall condition

Hot Water Heaters (Annual Maintenance)

Preventive maintenance of hot water heaters shall be performed annually

- Circulation pump connections
- Gas flame color (gas pilot should be blue with yellow at tip)
- Burner conditions for deficiencies such as corrosion, inordinate flame pattern, and cinders
- Pilot function
- Tank plate and jacket conditions for deficiencies such as corrosion or rust
- Door and lock function
- Drain valve lubrication and function
- Earthquake strap and bolt conditions
- Gas shut-off valve lubrication and function
- Piping supply lines for leaks
- (Note: Use soap and water and/or hand-held gas detector)
- Pressure relief valve function
- Temperature setting
- (Note: Use commercial grade thermometer)
- Draft diverter conditions
- Flue and chimney conditions
- Vent condition
- Utility room for deficiencies such as dirt, debris, and storage of materials
- Overall condition for deficiencies such as rusts in water, water and fuel leaks, and unusual sounds or odors

Roofing (Annual Maintenance)

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. 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 interior 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.

Inspect the following areas:

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- 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 such as contaminants such as exhaust or vegetation buildup
- Subsurface conditions (including insulation) for signs of moisture penetration
- Membrane conditions
- Chimney conditions
- Parapet integrity
- 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
- Shingle conditions
- Overall condition

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 shall ensure that these areas are free of debris such as leaves and branches, and that large debris has also been removed from the roof. Inspect the following areas:

- 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
- Seam and elbow conditions
- Gutter positioning toward downspouts
- Overall condition for deficiencies such as corrosion, rust, blockage, obstructions, and disconnection

Sewer Laterals (Annual Maintenance)

All drain lines in the physical facility connect to the main drain, which is referred to as the "sewer" beyond the foundation. All sewer lines outside of the foundation have clean-out points at various locations. Reaming from these points requires the use of a high-power hose, hydro-jet, or power equipment. Sewer laterals should be annually reamed from clean-out points by a qualified contractor.

- Caulking condition adjacent to building exit point
- Plug conditions
- Pipe integrity

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- Plaster condition adjacent to building exit point
- Overall condition for deficiencies such as soil erosion (if line exits ground)

Storm Drains (Annual Maintenance)

Storm drains or sewers are underground systems used to collect and dispose of surface water. They shall be cleaned and flushed annually to ensure blockages are removed and piping is functional.

Inspect the following areas:

- Grate conditions
- Cover conditions
- Adjacent concrete or asphalt conditions
- Drainage
- General safety conditions
- Overall condition for deficiencies such as dirt buildup mound drain that might preclude proper directional flow

EVERY FIVE YEARS

Fire System Certification (Every Five Years)

Comprehensive servicing and certification of the entire fire suppression system should be done every five years in accordance with current local, state, and federal requirements, including NFPA-defined guidelines. A licensed state contractor must be used, and this work shall be validated by local fire authorities.

The following items should be inspected by the contractor during this process.

- Signal initiation
- Manual alarm operation
- Water flow system components including:
 - Valves
 - Piping
 - pressure regulators gauges
 - sprinkler heads shut-off operation
- Smoke detection systems
- Voice systems
- Automatic extinguishing systems Signage, visual notifications Supervisory signals
- Maintenance testing and protocol Central station monitoring
- Code compliance

Fire system certification (should be tested only by a certified contractor)

EVERY TEN YEARS

FACILITY EQUIPMENT PREVENTATIVE MAINTENANCE

Addendum to Facility Maintenance Program (1/1/2015).

Walk Behind Floor Scrubber / Parking Lot Sweeper (Quarterly Maintenance)

- Quarterly Preventative Maintenance Inspection will be performed to manufactures specifications.
- All components are tested for proper operation to factory specs.
- Replacement of all parts that fail factory specifications
- Machine tested and ready for operation.

Rotary Parallelogram Lift Systems (Generation 3 Flush & Surface Lifts)

- Annual Preventive Maintenance Inspection (By an Amortized dealer)
- Inspect an adjust all safety locks
- Inspect Safety stop bar
- Inspect Hydraulic System
- Inspection of electrical motors and wiring
- Inspect for any structural damage
- Lubricate all pins
- Repair or replace any safety defect found per manufactures specification
- Test for proper operation per manufactures specifications

Steril Koni Mobil Lift

- Annual Preventive Maintenance Inspection (By an Amortized dealer)
- Inspect an adjust all safety locks
- Inspect Hydraulic System
- Inspect for any structural damage
- Inspect and Lubricate all moving parts
- Inspect Hydraulic System
- Inspect electrical cables for damage
- Inspection of electrical motors and wiring
- Repair or replace any safety defect found per manufactures specification
- Test for proper operation per manufactures specifications

Go Durham Facility Maintenance Plan

Monthly Jack Stand Safety Inspection Log

Date: _____

Inspected By: _____

Jack Stands
Tall

Any Damage and/or
missing parts?

If Yes. Explain what is damaged
and/or missing

Circle one

11	Yes	No	_____
12	Yes	No	_____
13	Yes	No	_____
14	Yes	No	_____
15	Yes	No	_____
16	Yes	No	_____
17	Yes	No	_____
18	Yes	No	_____
41	Yes	No	_____
42	Yes	No	_____

Short

<u>1</u>	Yes	No	_____
<u>2</u>	Yes	No	_____
<u>3</u>	Yes	No	_____
<u>4</u>	Yes	No	_____
<u>5</u>	Yes	No	_____
25	Yes	No	_____
26	Yes	No	_____
27	Yes	No	_____
28	Yes	No	_____
29	Yes	No	_____
30	Yes	No	_____

Air Lift

20	Yes	No	_____
----	-----	----	-------

Jacks

6	GRAY TSL. 50.000 lbs.	Yes	No	_____
40	Blue	Yes	No	_____

Monthly Ladder Inspection Checklist



Inspection Date _____ Inspected by _____ Ladder _____

General	Needs Condition Repair	OK
Joints tight between the side rail and steps.....	<input type="checkbox"/>	<input type="checkbox"/>
Metal hardware is secure.....	<input type="checkbox"/>	<input type="checkbox"/>
Splits inside rails.....	<input type="checkbox"/>	<input type="checkbox"/>
Gouges, dents greater than 10% of thickness.....	<input type="checkbox"/>	<input type="checkbox"/>
Worn, crushed, cracked, split, splintered, missing, rungs Steps, tops or platforms.....	<input type="checkbox"/>	<input type="checkbox"/>
Play of 3/4 inch in the rails due to loose rungs or steps.....	<input type="checkbox"/>	<input type="checkbox"/>
Broken or bent guide irons, spreader or locks.....	<input type="checkbox"/>	<input type="checkbox"/>
Rusted or corroded spots.....	<input type="checkbox"/>	<input type="checkbox"/>
Damaged or worn non-slip bases.....	<input type="checkbox"/>	<input type="checkbox"/>
Rivets sheared, pulled through, uncurled, loosened.....	<input type="checkbox"/>	<input type="checkbox"/>

Stepladders

Loose or bent hinge spreaders.....	<input type="checkbox"/>	<input type="checkbox"/>
Stop on hinge spreaders broken.....	<input type="checkbox"/>	<input type="checkbox"/>
Loose hinges.....	<input type="checkbox"/>	<input type="checkbox"/>
Damage to the pail shelf.....	<input type="checkbox"/>	<input type="checkbox"/>

If any item needs repair, tag the ladder 'Do Not Use' and

**Durham Station
Transfer Center weekly inspection**

<u>Bus Platform</u>	<u>Any Issues</u>	<u>If Yes explain</u>
Graffiti	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Gum	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Oil spills	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Slip,Trip,Fall Hazards	YES <input type="checkbox"/> NO <input type="radio"/>	_____

<u>Cab/Taxi Area</u>	<u>Any Issues</u>	<u>If Yes explain</u>
Graffiti	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Gum	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Slip,Trip,Fall Hazards	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Oil spills	YES <input type="checkbox"/> NO <input type="radio"/>	_____

<u>Greyhound/Mega Bus Area</u>	<u>Any Issues</u>	<u>If Yes explain</u>
Graffiti	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Gum	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Slip,Trip,Fall Hazards	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Oil spills	YES <input type="checkbox"/> NO <input type="radio"/>	_____

<u>Go Durham Bus Docking Area</u>	<u>Any Issues</u>	<u>If Yes explain</u>
Graffiti	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Gum	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Slip,Trip,Fall Hazards	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Oil spills	YES <input type="checkbox"/> NO <input type="radio"/>	_____

<u>Building Entrances</u>	<u>Any Issues</u>	<u>If Yes explain</u>
Graffiti	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Gum	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Slip,Trip,Fall Hazards	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Doors	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Locks	YES <input type="checkbox"/> NO <input type="radio"/>	_____
ADA	YES <input type="checkbox"/> NO <input type="radio"/>	_____

<u>Building Exterior</u>	<u>Any Issues</u>	<u>If Yes explain</u>
Graffiti	YES <input type="checkbox"/> NO <input type="radio"/>	_____
Slip,Trip,Fall Hazards	YES <input type="checkbox"/> NO <input type="radio"/>	_____

<u>Building Interior</u>	<u>Any Issues</u>	<u>If Yes explain</u>
Graffiti	YES <input type="checkbox"/> NO <input type="radio"/>	_____

Go Durham Facility Maintenance Plan

Slip,Trip,Fall Hazards YES NO _____
 Lighting YES NO _____
 Doors YES NO _____
 Cleanliness YES NO _____
 Safety Hazards YES NO _____

Security Any Issues If Yes explain
 Cameras YES NO _____

GO DURHAM
 Daily Lot and Pond Inspection

Date: _____

Inspected By: _____

Bus #	Spill	Fluid	Cleaned
301			
302			
303			
308			
320			
321			
322			
324			
325			
326			
327			
328			
329			
330			
331			
501			
801			
802			
803			
804			
805			
806			
1001			
1002			
1003			

Bus#	Spill	Fluid	Cleaned
1201			
1202			
1203			
1204			
1205			
1701			
1702			
1703			
1704			
1705			
1706			
1707			
1708			
1709			
1710			
1711			
1712			
1801			
1802			
1803			
1901			
1902			
1903			
1904			

Go Durham Facility Maintenance Plan

1004				Number of Storm water baskets replaced	
1005					
1006				<u>POND</u>	YES
1007					
1008				Absorbent Booms Need Changing?	
1010				If YES were, they changed	
1011					
1012					
1013				Fluid Types	
1014				Oil	Hydraulic
1015				Transmission	Anti-Freeze
1016				Def Fluid	Fuel
1017					
1018				Notes	
1019					
1020					

Go Durham Monthly Extinguisher Inspection

<i>Extinguisher</i>	<i>Location</i>	<i>INT</i>	<i>Comments</i>
1820 F.E. #1	Service Lane		
1820 F.E. #2	Service Lane		
1820 F.E. #3	Maintenance Hallway		
1820 F.E. #4	Maintenance Hallway		
1820 F.E. #5	Maintenance Shop		
1820 F.E. #6	Maintenance Shop		
1820 F.E. #7	Maintenance Shop		
1820 F.E. #8	Maintenance Shop		
1820 F.E. #9	Bulk Storage Room		
1820 F.E. #10	Parts Room		
1820 F.E. #11	Fair Box Room		
1820 F.E. #12	Conference Room		
1820 F.E. #13	Breakroom		
1820 F.E. Forklift	Parts Room		
1820 F.E. Forklift	Fluid Room		
1820 F.E. Fluid Room	Fluid Room		
1820 F.E. Catwalk 1	Catwalk		
1820 F.E. Catwalk 2	Catwalk		
1820 F.E. Mezzanine	Mezzanine		
1903 F.E. #1	Rear Door		
1903 F.E. #2	Side Door		
1903 F.E. #3	Front Door		

Go Durham Facility Maintenance Plan

Administrative F.E. #1	Front Door		
Administrative F.E. #2	Side Door		
Administrative F.E. #3	Rear Door		

Inspectors Signature: _____	Date: _____
Inspectors Signature: _____	Date: _____
Supervisor Signature: _____	Date: _____
Director Signature: _____	Date: _____

Go Durham Daily Facility Check Sheet

Inspector: _____

DATE: _____

INSPECTION START _____

INSPECTION END _____

Problems Found

	SERVICE LANE	YES	NO	NOTES	CLEANED OR REPAIRED	INT/DATE
1	CHECK DRIP PAN (FULL OR DIRTY)					
2	CHECK FOR TRIP/SLIP HAZARDS					
3	CHECK FUEL NOZZLE (NO LEAK)					
4	CHECK PRESSURE WASHER					
5	CHECK CLEANER FLUIDS					
6	CHECK FLUID LINES FOR DAMAGES/LEAKS					
7	CHECK UPSTAIRS/DOWNSTAIRS DOORS (CLOSED)					
8	CHECK UNBLOCKED FIRE EXTINGUISHERS					
9	CHECK FOR RAGS/TRASH					
10	CHECK ALL OUTLETS/PLUGS (GROUND/DAMAGE)					
11	CHECK ALL TRASH CANS					
	CUSTODIAL CLOSET	YES	NO		CLEANED OR REPAIRED	INT/DATE
12	CHECK CUSTODIAL CLOSET (TRASH/FULL MOP BUCKETS)					
	HALLWAYS	YES	NO		CLEANED OR REPAIRED	INT/DATE
13	CHECK DRINKING FOUNTAINS (CLEAN/EMPTY DRAIN)					
14	CHECK FLOORS					
15	CHECK TRASH CANS					
16	CHECK COFFEMAKER (CLEAN/EMPTY)					
17	CHECK UNDER STEPS					
18	CHECK FOR TRASH ON TOP OF LOCKERS					

Go Durham Facility Maintenance Plan

	BATHROOMS	YES	NO		CLEANED OR REPAIRED	INT/DATE
19	CHECK SINKS AND SOAP					
20	CHECK URINALS					
21	CHECK TOILETS					
22	CHECK TOILET PAPER TOWELS					
23	CHECK FLOORS FOR TRASH					
	OFFICES (DONALD/EARL/BOB/CASEY/JAMES)	YES	NO		CLEANED OR REPAIRED	INT/DATE
24	CHECK TRASH CANS					
25	CHECK FLOORS					
	PARTS ROOM	YES	NO		CLEANED OR REPAIRED	INT/DATE
26	CHECK WALKWAY					
27	CHECK DISCONNECTION BOX CLEARANCE (3FT)					
28	CHECK FLOORS FOR OIL OR TRASH					
29	CHECK ALL DOORS (CLOSED)					
30	CHECK FORKLIFT (GAS OFF/FORKS DOWN)					
	BOLT BIN ROOM	YES	NO		CLEANED OR REPAIRED	INT/DATE
31	CHECK WALKWAY					
32	CHECK DISCONNECTION BOX CLEARANCE (3FT)					
33	CHECK FLOORS FOR OIL OR TRASH					
34	CHECK ALL DOORS (CLOSED)					
	BREAK ROOM	YES	NO		CLEANED OR REPAIRED	INT/DATE
35	CHECK MICROWAVE					
36	CHECK TABLES					
37	CHECK PAPERTOWELS					
38	CHECK FLOORS					
39	CHECK TRASH					

Go Durham Facility Maintenance Plan

	MAINTENANCE SHOP	YES	NO	NOTES	CLEANED OR REPAIRED	INT/DATE
40	CHECK ALL AIR LINES (DAMAGES/ROLLED UP)					
41	CHECK DRIP PANS (FULL/DIRTY)					
42	CHECK ALL OIL DRUMS (FULL/DIRTY)					
43	CHECK DISCONNECTION BOX CLEARANCE (3FT)					
44	CHECK EYEWARE/HEARING PROTECTION FULL					
45	CHECK FOR TRIP/SLIP HAZARDS					
46	CHECK ALL DOORS (CLOSED)					
47	CHECK DAMAGED TOOLS/EQUIPMENT					
48	CHECK FOR RAGS/TRASH					
49	CHECK ALL CONTAINERS LABELED PROPERLY					
50	CHECK ALL OUTLETS/PLUGS (GROUND/DAMAGE)					
51	CHECK FLUID LINES FOR DAMAGES/LEAKS					
52	CHECK ALL TRASH CANS					
53	CHECK SHOP FLOORS (OIL SPILLS/TRASH)					
54	CHECK HANDWASH STATION					
55	CHECK TABLES					
56	CHECK GRINDING WHEEL, MASK FOR DAMAGE					
57	CHECK ALL DOORS (CLOSED)					
	TIRE ROOM	YES	NO		CLEANED OR REPAIRED	INT/DATE
58	CHECK WALKWAY					
59	CHECK DISCONNECTION BOX CLEARANCE (3FT)					
60	CHECK FLOORS FOR OIL OR TRASH					
61	CHECK ALL DOORS (CLOSED)					

Go Durham Facility Maintenance Plan

	ROGERS ROOM	YES	NO		CLEANED OR REPAIRED	INT/DATE
6 2	CHECK WALKWAY					
6 3	CHECK DISCONNECTION BOX CLEARANCE (3FT)					
6 4	CHECK FLOORS FOR OIL OR TRASH					
6 5	CHECK ALL DOORS (CLOSED)					
					LOT CHECK RESPONSIBILITIES	
	TOTAL NUMBER OF ISSUES FOUND			CHECK UPSTAIRS BATHRMS, PARKING LOT TRASH CANS		
	TOTAL NUMBER OF REPAIRS MADE			CHECK AND CLEAN BUS LOT FOR SPILLS		
				SHUT DOWN BUSES RUNNING PAST 7:30AM		
	FRIDAYS			CHECK ALL DRAIN GUARDS AND POND BOOM		
	SWEEP AND MOP ALL OFFICES			CHECK GROUNDS FOR TRASH		
	CLEAN WINDOWS			CHECK BUS WASH FOR TRASH/LEAVES/GREASE		
	DRAIN AIR COMPRESSOR			CHECK TRASH CANS		
	CLEAN REFRIGERATOR			CLEAN SHOP		
	CLEAN AND INSPECT UST					
	SIGN OFF ON ALL EYE WASH STATIONS					
	FIRST FRIDAY OF EVERY MONTH					
	SIGN OFF ON ALL FIRE EXTINGUISHERS					
	INSPECT JACKS STANDS					
	INSPECT LADDERS					
NOTES						

Storm Water

1. Purpose

To ensure all DCTC GODURHAM operated facilities are following Federal and State Regulations regarding storm water run-off.

2. Procedure

Storm Water Run-Off Compliance

The Federal EPA has established guidelines for Storm Water Run-off that applies to certain companies that may discharge chemicals including oil, grease and fuel. Seek the assistance of your Regional Vice President, or Director of Maintenance for resources for an Environmental Consultant if needed. Do not contact a governmental agency for EPA questions unless directed to do so by a General Manager.

The Company is dedicated to compliance with guidelines when they apply and to helping its customers when guidelines apply to them.

Regardless of whether or not the regulations apply, the Division and its parking lot must be kept free of all unnecessary chemicals and contaminants. Any needed chemicals and possible contaminating materials must be covered and kept out of rain and run-off water.

Information on control measures for oil and fuel spills must be in the Shop and on file in the Safety Department. All maintenance and safety personnel must be trained in executing the control measures and all needed materials and equipment for such control must be readily available. This specifically includes all fueling stations.

Waste Oil Fluids Storage and Disposal

1. **Purpose**

To ensure that all waste oil is stored and disposed of in accordance with all State and Federal Regulations.

2. **Procedure**

Storage

All oils and bulk fluids should be stored in above ground storage tanks with secondary containment. This is accomplished either by using a double wall storage tank or secondary containment when using drums. The capacity of the secondary containment must equal the volume of the tank or drum plus 10 %.

Waste oils must be stored separately from other types of wastes such as antifreeze and solvents.

Disposal

The only acceptable practices for disposal are either Re-refining, which should be done whenever possible or Incineration which must be done in accordance with Federal and State Regulations.

In some states waste oil must be handled as hazardous waste and must be manifested. Each shop manager is responsible to work with their assigned director of maintenance to determine the state specific regulations for disposal.

All waste oil haulage and disposal facilities used by the company that is picking up the waste oils must be fully permitted in accordance with local, state and Federal regulations.

Spills

All waste oil spills must be picked up with absorbent materials. If a cloth type of absorbent is used it must be squeezed out into a waste oil tank. If a dry type of absorbent is used such as Oil Dry, used absorbent must be discarded in the trash only if waste oil is not classified as hazardous waste in that specific state. In states where oil is considered Hazardous, the absorbent must be stored separately and disposed of by a licensed waste hauler and a copy of said manifest kept in the Environmental file.

3. **Records**

All waste oil disposal manifests must be kept in the facilities environmental file indefinitely.

Go Durham Facility Maintenance Plan

Used Oil Filter Disposal

1. **Purpose**

To ensure that all used oil filters are disposed of in an accordance with all State and Federal Regulations.

2. **Procedure**

The acceptable practice for disposal of used oil filters is state specific, in some states used oil filters must be handled as hazardous waste and must be manifested. Each shop manager is responsible to work with their assigned Director of Maintenance to ensure disposal is done in accordance with Federal and State Regulations.

If used oil filters must be disposed of as hazardous waste, they should be crushed before placing in a drum for disposal.

All used oil filter haulage and disposal facilities used by the company that is picking up the used oil filters must be fully permitted in accordance with local, state and Federal regulations

3. **Records**

All used oil filter disposal manifests must be kept in the facilities environmental file indefinitely.

Hazardous Materials Management Plans

1. **Purpose**

To ensure that all facilities are in compliance with submittal of Hazardous Materials Management plans in accordance with Local, State and Government Regulations.

2. **Procedure**

A Hazardous materials plan may be required by local or state regulations. This plan a detailed list of chemicals, annual quantities used which includes all types of oils, fuels and any chemical used on site. The plan also must include spill procedures and identify other companies that can be called in the event of a large spill such as diesel fuel or gasoline at the facility.

Every General and shop manager is responsible to work with their Director of Maintenance to determine what the regulations are for a specific facility location.

Note

DCTC GODURHAM will be subject to severe fines if a plan is required and we are not in compliance.

3. **Records**

All Chemical plans must be kept in the facilities environmental file and updated annually.

Facility Floor Drain Maintenance

1. **Purpose**

To ensure that all facility floor drains, and oil water separators are cleaned on a regular schedule and that waste is disposed of in accordance with all State and Federal Regulations.

2. **Procedure**

Water Discharge

All detergents used to wash vehicles or floors must be biodegradable and phosphate- free.

Water must be discharged into storm drains or sanitary sewer systems in accordance with and state regulations. Some states require wastewater discharge permits; the Directors of maintenance can assist the Maintenance Managers with providing or researching regulations.

Cleaning

Drains and separators should be cleaned on a regular basis. Facilities that have automatic bus washers will need to have oil water separators cleaned more frequently due to the high volume of water that is drained through them.

Disposal

The sludge generated from the treatment systems may contain oil, grease, sand and heavy metals such as zinc and lead. The only acceptable practices for disposal, is either incineration, disposal in a land fill or recycling in accordance with Federal and State Regulations.

In some states waste sludge must be handled as hazardous waste and must be manifested. Each shop manager is responsible to work with their assigned director of maintenance to determine the state specific regulations for disposal.

All waste sludge haulage and disposal facilities used by the company that is picking up the waste oils must be fully permitted in accordance with local, state and Federal regulations.

Spills

All waste sludge spills must be picked up with absorbent materials. Disposal of used absorbent will depend on material spilled.

3. **Records**

All waste sludge disposal manifests must be kept in the facilities environmental file indefinitely.

Go Durham Facility Maintenance Plan

Under Ground Storage Tanks

1. **Purpose**

To ensure that Under Ground Storage Tanks (UST's) are installed and maintained in accordance with all Local, State and Federal Regulations.

2. **Procedure**

All UST's must meet all Local, State and Federal regulations. This includes all UST's which may be on property that is leased by DCTC GODURHAM.

Annual tank and pipe testing must be performed per local and state regulations.

All UST's and piping must be tested prior to leasing and when moving out of a facility.

All UST's must have Leak Detection monitoring equipment.

All dispensers and associated piping must be protected from damage by moving vehicles by the use of cement filled bollards.

All repairs which may be required must comply with all National Fire Protection Association codes.

Record Keeping

The Maintenance Manager is responsible for monitoring leak detection, daily inventory, usage and monthly reconciliation reports. This is can be accomplished either electronically if an automated dispensing system is used or the use of handwritten reports.

Spills

Each facility should have a Spill Prevention and Counter Control measures plan. This plan requires a list of phone numbers of DCTC GODURHAM Management, Local Authorities and Environment clean -up companies that can be called in the event a large spill occurs.

This list must be posted, and all employees trained on what actions need to take place if a spill occurs.

All spills which are greater than 25 gallons must be reported to the State Authority within 24 hours. All other spills must be picked up with absorbent materials. If a cloth type of absorbent is used it must be squeezed out into a waste oil tank. If a dry type of absorbent is used such as Oil Dry, used absorbent must be discarded in the trash only if waste oil is not classified as hazardous waste in that specific state. In states where oil is considered Hazardous, the absorbent must be stored separately and disposed of by a licensed waste hauler and a copy of said manifest kept in the Environmental file.

3. **Records**

All daily usage, monthly reconciliation and testing reports must be kept in the facilities environmental file indefinitely.

Purchase Orders

1. Purpose

The purchase order tracking process is to ensure that we accurately track all items purchased and received utilizing a purchase ordering number system.

2. Procedure

The following Maintenance accounting procedures are to be followed when ordering parts:

- Every maintenance invoice should have a purchase order number on the invoice issued by the person who is ordering the parts. If the invoice arrives without a P/O number, vendor should be contacted immediately.
- If you purchase a part and it has a core charge on the invoice, log the core in the next line of your P/O log, use the next P/O number for the credit to ensure you know what it is when vendor returns the credit to you. Additionally, when the core charge comes back to you then you know what account to credit.
- The same would apply if you returned a part for credit assign a purchase order number to it to ensure that you get the credit for the returned parts.
- The purchase order number will consist of the following:
 - DCTC will precede the number as indicated in the following.
 - the first Three numbers are the division number
 - the second two numbers are the month
 - The next two numbers are the year.
 - The last numbers will start at 001 each month and ascend for any purchase.

Example: Division 201 first PO of October 2010 would be DCTC 201101100 I

Invoice Processing

All vendor invoices go directly to the DCTC accounts payable center. The invoices are given to the General Manager for approval. The Maintenance Manager should provide and updated PO log to the General Manager on a daily basis so the General Manager can reconcile the PO log to the vendor invoice prior to approval.

Maintenance Managers need to review the vendor statements at the end of each month. Any invoices on the statement are older than 50 days need to be researched to determine why they haven't been paid. This also applies to credits on statements, if the credit is older than 50 days research and determine why we haven't taken the credit against a current unpaid invoice. Review preliminary and final financial statements each month and compare it to your PO log and invoice log. All credits and debits should be entered on the financial reports matching your logs.

During the financial prelim process, Maintenance Managers are responsible for reviewing their purchase orders recorded and tracked on the GL tracker and compare them to the financial income statement located on Fundware. Any outstanding invoices shall be accrued, and any invoices listed on the income statement and not found on the GL tracker will be investigated and verified for accuracy. All invoices shall be resolved prior to reaching three months old.

This process will assist you in controlling purchases and/or duplicate invoices.

When the maintenance department is reviewing invoice batches it is extremely important the following guidelines be followed:

- Major expenses approvals are on large invoices.
- If you are processing a core charge or credit as pmt of a batch, the debit for the vendor MUST exceed the credit amount and be attached to an invoice.
- If you have a large credit or overpayment, contact your accounting supervisor to help you with the problem as you may have to request a check from the vendor.
- At the end of your month, copy your P/O log and rename it to the next month. Then delete line-by-line all of the processed invoices. The remainder will be an extremely accurate accrual of the maintenance department for the previous month.
- It is preferred that the PO log be kept both on Paper and duplicated to an Excel spreadsheet at least once per week.

If the maintenance software provides the PO number that will be sufficient. All purchases must go through the maintenance software and tracked in the PO Log.

Parts Core Tracking

1. Purpose

Core tracking process was developed to accurately track and claim core costs.

2. Procedure

Cores

Some parts that are purchased can be rebuilt and have a residual value defined as a "core" charge. When the part removed is in good usable condition is returned to the vendor, the core charge will be returned as a credit. All maintenance items requiring a core will generally be noted on the invoice. Cores must be returned in a timely manner and all applicable credits should be received and processed within 30 days. It is beneficial to have tll e cores charges waived by the vendor and each division needs to contact the vendor to see if that is available. If that is not available, the following procedure should be followed.

Process

When it has been determined that a core will need to be returned the following will take place:

- Identify part needing a core by adding a red dot to the box or part itself if applicable. This will let the technician know that a core is needed.
- All cores must be kept in one defined location (i.e. core shelf)
- Once core is available, contact will be made with the appropriate vendor for return and credit.
- Once credit is received it should be processed and billed to the appropriate maintenance budget line item.

Inventory Management

1. Purpose

To ensure that proper inventory levels are being maintained by the division in order to support the application and fleet size without overstocking.

2. Procedure

The Maintenance Manager is responsible for establishing sufficient inventory levels to ensure that vehicles are being maintained without excessive downtime due to lack parts availability.

Initial inventory of spare parts should be established, and the parts usage shall be monitored on a monthly basis to determine optimum inventory levels. This can be accomplished by using our fleet maintenance software, Faster, spreadsheets or manually tracking your inventory using an inventory log.

Listed below is the recommended inventory value for the various vehicle types:

- Sedans/Vans \$100.00 to \$200.00 per vehicle.
- Raised roof vans and cutaways \$300.00 to \$400.00 per vehicle.
- Fixed route transit buses or over the road coaches \$2000.00 to \$2500.00

For example, if you have 100 cutaway vehicles, then your total inventory value should be within \$30,000.00 and \$40,000.00. This may vary due to fleet make up at your division.

Physical inventory counts will be performed on an annual basis or more frequently per request from the Accounting Department. These counts are extremely important and must be completed accurately and on time.

Stock Room Organization

1. Purpose

To ensure the parts stock room is organized to maximize the efficiency of locating parts and ease of performing inventory counts.

2. Procedure

A secure part storage shall be chosen to store the inventory stock. The part room shall be organized to ensure easy location of inventory pmts. It is recommended that the parts room be organized by vehicle systems, e.g. brake parts, engine parts, lighting, suspension, etc. As illustrated in Figure 1, arrange make a map of the parts storage area and the way storage shelves are organized.

Some vendors, such as Barnes, may provide bin boxes for small parts up on request.

MAINTENANCE TRAINING

Vehicle Lift Equipment Training

1. Purpose

Vehicle lift equipment training is important for proper safe lifting of vehicles on different types of lifting devices and the correct use of safety stands.

2. Procedure

All maintenance personnel at each division who will be using lifting equipment must be trained on the proper and safe way to lift the vehicles. The following training must be completed **prior to operating any vehicle lifting equipment**.

1. Take attendance with a printed sheet of each technician in the class. All attendees must sign their name in the space provided on the attendance sheet.
2. Perform .5 hour of classroom instruction on "safe and correct vehicle lifting." This should include review of the vehicle manufacturer's maintenance manual on instructions for proper lifting of vehicles.
3. Perform approximately .5 hours of application and observation of the actual operating of the lift.
4. Each student will have an objective task list regarding vehicle lifting. The instructor or Maintenance Manager will initial each task correctly completed by the student. The manager and student will sign the bottom of the task list in the spaces provided.

All maintenance personnel will attend these classes at their division prior to operating any vehicle lifting equipment. The following outline must be instructed to assure the technicians are proficient in the correct and safe operation of all types of lifting devices used by the company.

Types of Lifting Devices

- Hydraulic floor jack
- Bumper jack
- Vehicle lift or hoist
- Transmission jacks
- Ramps

Jack Safety Stands

- To be used any time a vehicle is raised more than 4" from the ground.

Load Capacity

- Must be on each lifting device.
- Must have proper rating for weight of equipment to be lifted.

Operation

- Correct location for each lifting situation.
- Make sure you are on a solid level surface.
- Stay alert and make sure all lifts are working properly and the vehicle raises and lowers in a level position.

MAINTENANCE TRAINING

- Lower vehicle down onto safety stands and lower the lift down until the safety lock catches. Always make sure there is a mechanical lock that is in good working order on each lift.
- When a shift change occurs, prior to beginning work, it is the responsibility of the new person assigned to work on the vehicle to inspect the lift and safety stands.
- All lifts should be lowered to the ground if there is going to be an extended time that the vehicles are not being worked on and at night if the shop is closed.

Maintenance and Inspection

- Inspect vehicle lifting devices on a routine basis.
- Lubricate all points indicated by the manual.
- Check cables and chains for any damage.
- Check for any hydraulic leaks.
- Check for safety lock operation.
- Check for level and stability.
- Inspect and check for proper operation.

Technician Training

1. Purpose

To ensure that employee training and development is an intricate part of DCTC maintenance program. This will improve technician awareness, morale, set performance expectations and education for advancement opportunities.

2. Procedure

Training goals and objectives

It is the responsibility of the Division Manager to assist the Maintenance Manager to identify training needs of the maintenance staff. Each Division Management team must review what training is needed for each upcoming year and budget appropriate funds to accomplish this. The division should also review what amount of labor hours will be used for training so that it can be budgeted for properly. Most vendors will provide free training if requested especially with the volume DCTC purchases from the vendor.

Some options that are available include:

- Equipment vendor training
- Online training through Ford Motor Company
- Parts suppliers
- Local trade schools
- Local community junior colleges
- Vehicle original equipment Manufactures
- National Institute for Automotive Service Excellence (ASE) <http://www.asecert.org>

Assistance can be obtained from the assigned Director of Maintenance for the division.

Recruiting

1. Purpose

To ensure that budgeted staff positions are filled expeditiously to minimize disruption to service or the need for outside assistance.

2. Procedure

Recruiting the Classified Ad

It is imperative that the General Manager and Maintenance Manager communicate about divisional staff needs and shortages. Knowing what is needed as well how to successfully attract those applicants is crucial to the overall success of division staffing.

- 1) General Manager discusses budgeted positions with the Maintenance Manager at the beginning of the fiscal year or thereafter as needed based on changes within the contract or through department attrition.
- 2) Maintenance Manager notifies the General Manager and when they become aware of an open position and what type of position is needed based on the budget for that year.
- 3) Maintenance Manager and General Manager will contact the General Manager for the job placement on the DCTC Career website. When the job is posted on the DCTC career site then a copy of it will be posted on the employee information board at the division and outside the Maintenance Manager office.
- 4) Maintenance and General Manager will contact the area Director of Maintenance for recommendations with the development of a classified ad for the vacant position. The General Manager will determine what periodical or internet job search site they want the classified ad posted in as well as what section. This information along with the ad will be forwarded to the Assistant General Manager and they will get the pricing on the ad. The pricing as well as the classified proof will be sent back to the General Manager, Maintenance Manager and area Director of Maintenance for review and approval.

Interviewing Potential Candidates

After the ad is placed the next step is to develop a process to interview all applicants equally. Each applicant will complete an employment application before an interview is conducted.

- 1) Develop standard questions for each specific type of position. The Director of Maintenance can assist with the technical questions, the local Safety Manager or Area Safety Manager can provide questions that involve overall safety and the General Manager can provide questions that will assist in determining if a potential applicant is a good fit for the division.
- 2) When the questionnaire is completed send a copy of the questions to the Assistant General Manager for final approval. The Recruitment Manager will ensure that all questions are permitted legally.
- 3) When the questionnaire is approved then develop a form that list the answers that you would expect from the question asked.
- 4) Develop a grading scale for the interview process so that consistency throughout the interview process is maintained. At the end of the interview tally the score card and compare the scores of all the applicants. The applicant with the best overall score should be offered the position.

The Hiring Process

The hiring process is the last piece of the recruitment process and is very specialized and consists of many different stages. Any error during this process could potentially cause a significant delay in the hiring of a potential applicant; therefore, it is recommended that this portion of the recruitment process is handled through the safety and training department or a person designated by the General Manager.

Employee Scheduling

1. Purpose

To ensure that contractual compliance is met, and that the skill set for each shift is optimized to produce a safe, efficient and productive maintenance operation.

2. Procedure

Each division Maintenance Manager is required to maintain a copy of the operating contract for their division in the maintenance office specific to the requirements for maintenance.

The General Manager will review the operating contract with Maintenance Manager to determine if there are any specific contractual requirements that relates to maintenance schedule. The contractual staffing schedule takes precedence and must be completed before any other staffing schedules are created.

It is the responsibility of the Maintenance Manager to create the schedule and then submit it to the General Manager for approval. Directors of Maintenance are an excellent source for assistance in creating schedules.

The Maintenance Manager will create, and revise staff schedules based on the operational needs of the division. The schedule is created by reviewing the days and hours of operation, the number and type of staff positions budgeted as well as the peak demand for the vehicles during the operating hours.

It is critical to have the maintenance staff scheduled during non-peak operating times such as evenings and weekends.

The schedule will list each employee name, their classification and the days and hours of their weekly schedule. All schedules will be created off the 40-hour week platform for full time employees. Each schedule will also incorporate at a minimum of a half (0.5) an hour lunch for any full-time employee.

Daily Mileage Entry

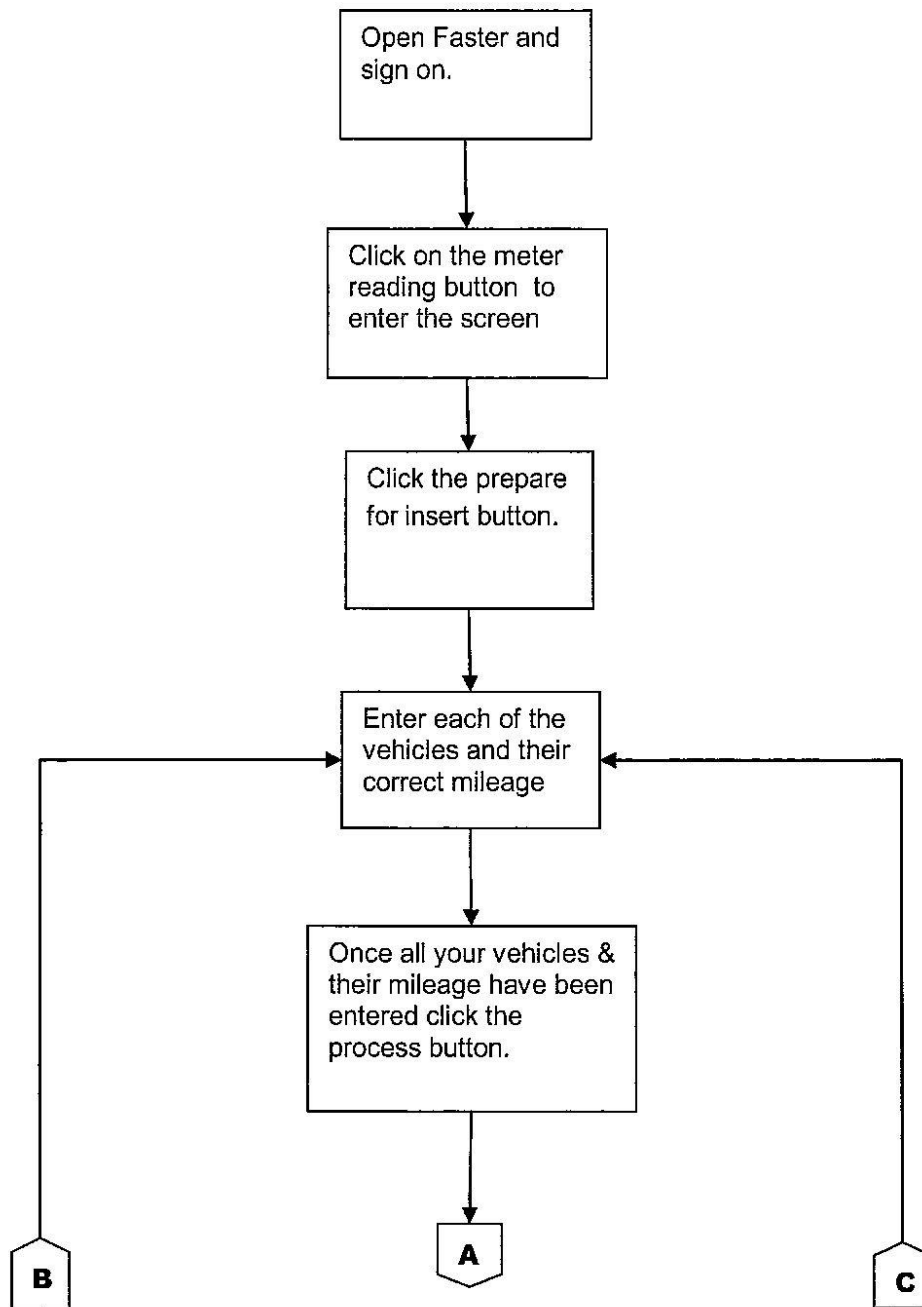
1. **Purpose**

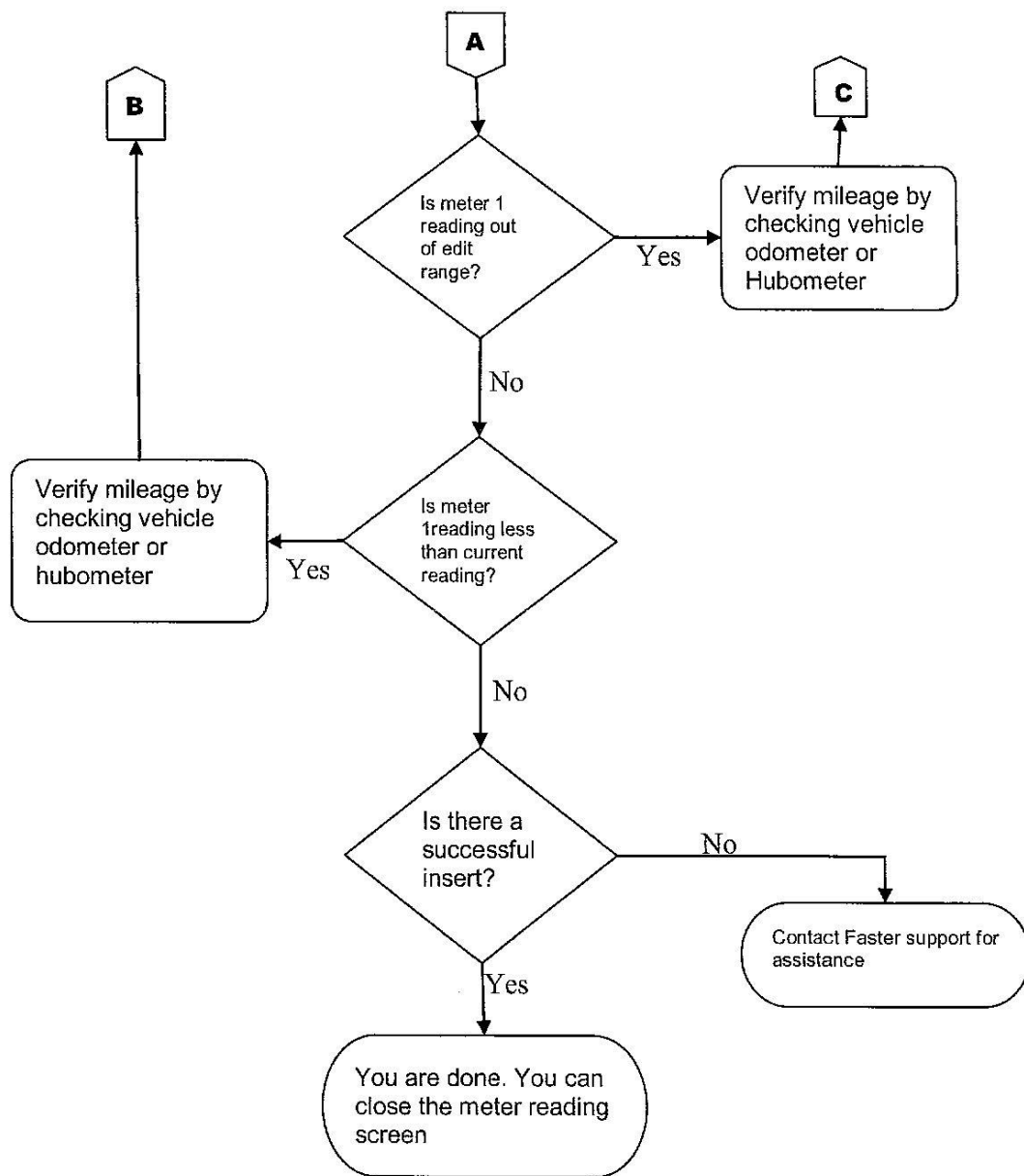
This procedure is designed to ensure that mileage is entered into FASTER software with high accuracy by making sure mileage from the correct mileage source is being entered for each vehicle.

2. **Procedure**

Each day the person designated to enter the vehicle mileage will attain the resource that mileage is recorded. Example of some resources are DVI reports or fuel sheets where mileage is entered by a Utility person fueling the vehicles.

The person responsible for entering the vehicle mileage will open and sign onto FASTER.





Bus Stop Maintenance Standards

The City of Durham has made a commitment to the maintenance of clean and comfortable bus stops for its transit users.

Transit ridership and the perception and public support for transit is affected by the condition in which bus stops and passenger facilities are maintained. The Transit Division intends to provide passenger waiting areas that will not only make transit a pleasurable experience, but also increase the number of passengers using transit.

Several of Durham's bus stops have shelters, benches, receptacles and bicycle racks, within the City. It is the goal of the Information Service Team to ensure that the following standards are met to ensure quality maintenance of those facilities for the enjoyment of Durham transit users.

- Written or voice response to customer issues within 2 business days; and resolution of stop issues within 5 to 10 business days depending upon the complexity of the issue.
- Monthly visual inspection of each transit stops on each route
- Reporting of any amenity in need of repair or replacement
- Contracting or coordinating with the appropriate repair and/or maintenance providers and making certain that their work is done in a satisfactory and timely manner
- Current repair/maintenance repairs are contracted to Done Right First Time Contractors – work includes, but is not limited to:
 - Repair of shelters, including repair/replacement of panels and roofs
 - Repair of existing concrete pads
 - Construction of new concrete pads
 - Removal of damaged shelters
 - Installation of shelters
 - Cleaning of a shelter, including washing and yard maintenance surrounding the amenity
 - Artwork installation (shelter panels)
 - Other related jobs to shelter maintenance
 - Trash Collection and minor landscaping completed by City of Durham, Public Works staff.
 - Sign installation and maintenance completed by City of Durham, Sign and Signal Shop staff.
 - Issue requiring engineering design and complex construction are referred to the GoTriangle Capital Development Team.
- Maintain a complete listing of each transit stop location and inventory of associated amenities at each stop.

General Specifications for Power washing at Bus Stops:

- Cleaning of the listed bus shelters shall be completed in a timely manner. Contractor will conduct a visual check for each of the locations listed and immediately report items

Bus Stop / Shelter Maintenance

needing special repairs or that needs any other attention that assures the bus stop area meets or exceeds cleanliness standards.

- Power wash concrete pads to remove and keep all stains and foreign debris off the concrete pads.
- Remove all foreign substances from transit furniture, concrete pad and sidewalk within a ten (10) square foot radius around the structure.
- Shelters, pads, and furniture shall be power washed using:
 - Water
 - A Cleaning Agent
 - A soft wash waxing cleaning agent that enhances the clear glass finish and paint finish
 - Rinse with spot free water
 - Wipe dry the furniture
- Contractor shall be responsible for but not limited to:
 - Making the bus stops free of all debris (cigarette butts, cups, newspapers, gum, food, etc.)
 - Making the bus stop free of insects, bees, weeds, brush, overhanging trees, etc.
 - Graffiti removal.
 - Removal and disposal of any literature that does not contain the official logo of the GoDurham or GoTriangle transit systems.
 - Notifying the Transit Amenities Specialist (TAS) of any bus stop damage(s) including missing signage.
 - Notifying the TAS of any overflowing trash cans at contracted stops.
 - Notifying the TAS of contracted stops that have shopping carts.
 - Notifying the TAS of any perceived type of hazard or safety issues at contracted stop locations.
 - Contractor shall have the highest consideration of the safety, comfort, cleanliness and convenience of the transit passengers and adjacent property owners at all times while performing this work.
 - Contractor shall perform work activities at times that shall maximize safety and minimize disruption to the community, transit passengers and transit operators.
 - Contractor's vehicles shall make every attempt to not impede normal traffic flow. In the event that Contractor's vehicles remain in the street, Contractor shall use adequate warning equipment to maintain safety of its own equipment, employees, and Durham citizens and travelers.
 - Contractor shall immediately contact the TAS of all incidents that may result in a citizen complaint to the City.
 - Contractor will submit a schedule for power washing. The schedule must be approved by the TAS. All changes in scheduling must be approved by the TAS as they occur. The Contractor should make every effort to stay on schedule each day and shall complete all work as scheduled unless unforeseen circumstance out of the control of the Contractor causes delays. All scheduled items not completed during the week must be reported to the TAS on Monday of the following week with an explanation of why the work was not completed and when this work will be completed. This report shall be in written format.

Bus Stop / Shelter Maintenance

- Contractor shall comply with all Federal, State, and local environmental requirements. If the Contractor has any questions or concerns regarding environmental requirements, they should refer to documents located at <http://durhamnc.gov/DocumentCenter/View/10428> (Proper Containment, Collection, and Disposal of Wastewater from Surface Washing) and <http://durhamnc.gov/DocumentCenter/View/2908> (Vendors for Automotive Fluid and Wash Water Containment Products) or contact the City of Durham, Department of Public Works, Pollution Prevention Coordinator for guidance.
- Transit Amenities Specialist (TAS) will determine if the work not done on schedule constitutes non-compliance. Non-compliance may result in payment refusal.
- If, in the opinion of the TAS, performance becomes unsatisfactory the Contractor may be given up to two (2) days to correct the problems. If the Contractor does not initiate corrective action within two (2) days, the City has the right to immediately complete the work to its satisfaction. Any and all costs associated to complete the work may be deducted from any amounts owed to the Contractor.
- The primary Durham TAS is Frederick Ferrell, (919)417-6377 or fferrell@gotriangle.org; Backup coverage TAS is Liston Peoples, (919) 485-7574 or lpeoples@gotriangle.org.