**Please place this Maintenance Plan on your agency letterhead and have it signed by your human service official authorized to sign your grant agreements. Note, these are examples of elements to be included in the Maintenance Plan required for Section 5310 subrecipients, but should be adapted to meet the manufacturer’s minimum requirements for your specific vehicles and equipment. Each agency may (and should) include their own maintenance rules and procedures .**

Name of Agency

5310 Fleet Maintenance Plan

Date

**Name of Agency Maintenance Plan**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision** | **Date** | **Description of Change** | **Superseded****Document** |
| **Original** | **(Insert Date )** | **Original Release** |  |
| **Revision 1** | **(Insert Date)** | **Revised to be consistent with: (provide reason for revision)**  | **Original** |
| **Revision 2** | **(Insert Date)** | **Revised due to: (provide reason for revision)** | **Revision 1** |
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**Name of Organization:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Authorized By:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Maintenance Plan and Goals:**

The\_\_(Name of System)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_mission is to provide safe, clean, reliable and comfortable transportation to our clients and customers. To achieve this, we will provide a maintenance plan that is based on preventive, scheduled maintenance rather than reactive or unscheduled maintenance.

The \_\_(Name of Agency)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will follow the maintenance recommendations of our vehicle and equipment manufacturers in order to maintain a valid warranty, even if the vehicle or equipment is no longer under the manufacturer’s warranty. This includes a graduated maintenance program based on the manufacturer’s recommended maintenance intervals for climate and type of use for each individual vehicle we own.

The \_ (Name of Agency)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will include maintenance of ADA and accessibility equipment in our established maintenance program and not separately. This allows us to perform regular and frequent checks to keep the equipment in good working order and to promptly repair it when needed. If ADA and accessibility equipment is found to be inoperable, it will be removed from service at the end of shift and like equipment will be dispatched to accommodate persons with disabilities.

The \_ (Name of Agency)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will also include maintenance of security equipment and on-board technology, such as on-board cameras, mobile radios, mobile data terminals, AVL technology, and fareboxes (if appropriate).

The \_\_(Name of Agency)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ maintenance goals and objectives supports our mission statement with the following:

* **Goal**: Reduce overall maintenance costs and inconvenience to our clients/customers.
	+ **Objective**: Maintain a comprehensive preventive maintenance and warranty recovery plan.
* **Goal**: Adhere to the vehicle and equipment manufacturer’s maintenance recommendations.
	+ **Objective**: Maintain a graduated maintenance program based on intervals recommended by the manufacturer in order to maintain a valid warranty.
* **Goal**: Provide ADA and accessibility equipment that is in good working order.
	+ **Objective**: Include ADA and accessibility equipment in all routine maintenance inspections including the driver’s pre-trip inspection. Promptly remove inoperable equipment from service and dispatch like equipment to accommodate persons with disabilities.

**Maintenance Responsibilities and Scheduling:**

Annually, staff of \_\_(Name of Agency)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will meet to evaluate and assign maintenance responsibilities. Current responsibilities are attached to this plan. Each year a maintenance schedule will be established to meet the goals and objectives of this plan. Preventive Maintenance (PM) will be checked against the schedule and measured by use of Pre-Post-Trip Inspection Form and/or Driver Daily Trip Sheets which will be used to record mileage. All vehicles (including any 5310 funded vehicles) are checked daily by each driver during the preventative maintenance inspection and appropriate information is recorded in the drivers daily report book/sheet. The next oil change service mileage is attached to the vehicles for the next service due as a reminder to the driver to ensure oil changes are completed at the appropriate intervals (+ or – 10%) of the manufacturers’ recommended mileage/time for oil changes. The Attachment to this Plan shows the \_\_(Name of Agency)\_\_ PM mileage intervals it uses for each vehicle type operated.

**Pre- and Post-Trip Inspections**

Pre- and Post-Trip Inspections are an important element of a PM program. It is (Name of Agency)’s policy that each vehicle be inspected by the driver each day before beginning passenger service and after parking at the end of each driver’s work day.

**First Interval PM Checks (insert recommended mileage interval):**

At *(****manufacturers’ recommended mileage****)* miles vehicles are to have a multipoint check and fluids topped off, a lube job, and oil and filter change. A multipoint inspection includes:

* Check fluid levels and fill as needed including engine oil, brake fluid, window washing fluid, power steering, and transmission coolant reservoirs.
* Check battery strength and condition
* Body interior and exterior
* Brake system
* Steering and suspension
* Exhaust system
* Transmission and drive axle
* Lights, wiper blades, windshield
* Wheelchair lift mechanism
* Hoses and belts
* Tire tread and brake lining.

Tire replacement, rotation and other repairs are performed on an as needed basis.

Wheelchair lifts/ramps and wheelchair securement systems are serviced as needed, following equipment manufacturer guidelines.

**Scheduled Maintenance Plan:**

Note: the following is an example of a scheduled maintenance plan for a van or small bus. Your agency should follow the manufacturer’s recommendations for your agency’s particular types of vehicles.

Every **15,000** miles, perform above checks/inspections and replace air filter, inspect brake system, engine cooling system and hoses, wires and steering linkage.

Every **30,000** milesperform above checks/inspections and inspect exhaust system, replace engine air filter, fuel filter and transmission fluid. Vehicles with over 60,000 miles that have never had a transmission flush should not have a transmission flush.

Every 45,000 miles flush cooling system.

Every 60,000 miles is the same as 30,000 mile checkup.

Every 75,000 miles is the same as the 45,000 miles checkup.

Every 90,000 miles is the same as the 30,000 miles checkup.

Every 100,000 miles inspect accessory belts, replace spark plugs and replace rear axles lubricant.

Every 105,000 miles is the same as the 45,000 miles check up.

Every 120,000 miles is the same as the 30,000 miles checkup.

**Wheelchair Lift Maintenance Plan:**

Note: the following is an example of a scheduled maintenance plan for a specific type of lift. Your agency should follow the manufacturer’s recommendations for the specific equipment installed on your vehicles.

Under normal operating condition (10 or less cycles per day), service at least every six months (1,750 cycles) and a thorough inspection should be performed at the time of services. If more than 10 cycles per day, services should be increased to the Maintenance schedule below.

Make sure lift pivots points remain clear and are cleaned prior to lubrication. Use penetrating oil on knuckle links (both sides), hinges, and torsion springs (both sides). Torsion rods need to be lubricated with dry lubricant. Lubrication should be performed every six months or sooner, depending on usage.

**Scheduled Maintenance Listed by Cycles:**

**To be performed if 10 or less cycles per day:**

1. Overall Condition: Listen for abnormal noises as lift is operated (i.e. grinding or binding noises).
2. Control Pendant: Verify that control pendant is undamaged and cable connector is tight.
3. Threshold Warning System: Verify that the system properly detects objects in threshold areas and actuates an audible alarm.
4. Bridge plate Load Sensor Verify that the sensor inhabits downward movement of the platform when a weight is present on the lowered bridge plate.

**To be performed at 150 cycles:**

1. Overall Condition: Same a above and inspect the underside of the vehicles to be certain that nothing is out of the ordinary.
2. Electrical Wiring: Inspect electrical wiring for frayed wires, loose connections, etc.
3. Vehicle Interlock: Place the vehicles in the non- interlock mode and verify that the lift does not operates.
4. Decals: Verify that lift decals are properly affixed, clearly visible, and legible. Replace if necessary.
5. Handrails: Verify that handrail fasteners are properly tightened.
6. Lift Mounting and Support Points: Verify that the vehicle mounting and support points are in proper order and free of damage. Verify that the mounting bolts are sufficiently tight and free of corrosion.
7. Main Lift Pivot: Be certain that the traveling frame pins are installed properly, free from damage, and locked into position.
8. Platform Pivot Points: Verify that the platform moves freely without binding and does not wobble. Check that the platform operates properly during lift functions without obstruction.
9. Bridge plate: Verify that the bridge plate operates without binding during lift functions. Verify that the bridge plate deploys fully as platform stops at floor level. Verify that the bride plate rests flat against the base plate.
10. Inner Rollstop: Verify that the rollstop operates properly during lift functions without obstruction. Be certain that the inner rollstop deploys fully as the platform stops at the proper vehicle floor level.
11. Hydraulic Power Unit: Check and add fluid when it is at ground level. Verify that there are no hydraulic fluid leaks. Check that the backup pump manual release valve is snug. Verify that the manual backup pump operates properly. With the platform at ground level, be certain that the pump hydraulic fluid level is level is at required full level.

**To be performed at 1,800 cycles:**

Same as above and the following:Cleaning and Lubricating: Clean lift with mild soap and water and wipe dry. Prevent rust by coating all surfaces with light weight oil. Spray penetrating oil where specified following the directions on container. Remove excess grease from surrounding areas.

**To be performed at 3,600 cycles:**

Same as above and the following:Hydraulic Cylinder, Hoses, and Fittings: Check cylinder for evidence of leaks. Inspect hydraulic hoses for damage. Verify that all fittings are tightly secured.

**Other Vehicle Equipment:**

The (Name of Agency) also has the following items of independently manufactured equipment (that is, equipment not made by the OEM) installed on its vehicles:

* List each item of equipment and its maintenance requirements
* Ex. Radios – to be inspected monthly
* Ex. Surveillance Cameras – to be inspected and serviced every 3 months
* Fare Boxes – to be inspected and serviced semi-annually

The (Name of Agency) will provide an updated Attachment to this Maintenance Plan showing all independently manufactured equipment and their respective maintenance schedules and will adhere to these schedules through the efforts of (Name of Agency’s) in-house staff approved by the manufacturer or the use of manufacturer’s approved outside vendors.

**Note, all vehicle maintenance records are to be kept by vehicle via hard copy in an individual vehicle file for the life of the vehicle. (Name of Agency) may keep electronic records as well and may utilize maintenance software as it deems appropriate.**

**Warranty:**

The \_\_\_(Name of System)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will check all repairs to ensure that manufacturer warranty will cover/not cover the cost of the repair. Any repairs covered directly by the manufacturer will be documented and kept in the vehicle maintenance file and labeled as warranty. Any warranty reimbursements received will be tracked and applied against other maintenance costs for the covered vehicle. All such information is to be kept in the vehicle maintenance file.

**Attachments: (Name of Agency) will attach copies of the following information which shall also become part of the (Name of Agency’s) Fleet Maintenance Plan.**

* Attach a copy of Maintenance responsibilities
* Attach a copy of your organization’s Table of Organization
* Attach a copy of your current PM schedule (mileage and/or time) by vehicle type. Note, you must have a separate interval for each vehicle type you operate which is based upon the manufacturer’s recommended mileage and/or time intervals.
* Attach a copy of your current PM/Inspection/Service schedule for each type of independently manufactured item of equipment you own on or off of your vehicle fleet
* Attach an inventory (Form 6 from your most recent ATP) of all vehicles funded with FTA and/or MTA funds. At a minimum, include VIN #, your organization #, make/model of vehicle, manufacturers recommended mileage between oil changes, date put in-service, odometer reading, original cost of vehicle number of seats and wheelchair tie-downs, and general condition of vehicles (Excellent, Good, Fair, Poor).
* Attach an inventory (Form 6a from your most recent ATP) of all equipment funded with FTA and/or State funds that is on or off your vehicle fleet.
* Attach copies of all Preventive Maintenance forms and check lists, include Driver Daily Trip Sheets and Pre-and-Post Vehicle Trip Inspection forms.
* Attach a list (or copy) of all warranties for each vehicle you own.