FACILITIES & VEHICLE MAINTENANCE PLAN

Monterey-Salinas Transit District (MST)
Fiscal Year 2022
(July 1, 2021 – June 30, 2022)

Document Author:	**Chief Operating Officer**
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Revisions

Rev. No.	Date	Description
001	09/19/2017	Merged Facilities and Maintenance Plans into single document.
002	06/12/2018	Various revisions and additions to Plan.
003	08/25/2020	Added COVID-19 information and various revisions to Plan.

Recurring action items

Activity	Responsibility	Frequency
Review of FTA requirements and the contents of this plan. Update this plan as needed.	COO or designee	Annually

Executive Summary

This plan is responsive to the Federal Transit Administration (FTA) Circular FTA C 5010.1D which requires a written "Fleet Management Plan." The management plan includes an inventory of all vehicles. It also includes operating policies, peak vehicle requirements, maintenance and overhaul programs, system and service expansions, rolling stock procurements and related schedules, and spare ratio justification. This plan also includes MST's Facilities Management practices, plans, procedures, future activities, and a description of MST owned, operated, and maintained Facilities.

Executive Signature

Norman K. Tuitavuki, Chief Operating Officer — Date: 7/1/2021

Facilities & Vehicle Maintenance Plan
Monterey-Salinas Transit (MST)

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Introduction

Monterey-Salinas Transit District (MST), as a Federal Transit Administration (FTA) grantee, has acquired vehicles, property and facilities with which it administers, operates, and maintains public transit services for Monterey County and its neighboring regions. Providing adequate maintenance for these vehicles, properties, and facilities is an ongoing process with a substantial cost. MST relies on FTA funding to perform these duties; as a result, MST developed this Facilities & Vehicle Maintenance Plan (Plan) to comply with FTA requirements for continued support. In addition, this Plan guides staff to meet MST's Strategic Goals and the Mission of the agency.

Purpose

This Plan establishes the facilities and vehicle maintenance programs implemented by staff to ensure MST facilities, properties, vehicles, equipment, and other assets remain in good working condition and reach or exceed their mimimum life expectancy. The Plan describes MST's Facilities & Capital Projects and Vehicle Maintenance Department's responsibilities to perform preventive maintenance and non-routine repair services on all MST properties, facilities, vehicles, and equipment. It also provides descriptions of responsible parties, definitions of maintenance categories, procedures, as well as record keeping necessary to keep MST facilities, properties, vehicles, equipment, and systems in good working order. In addition, this Plan specifically describes the "system of periodic inspections and preventive maintenance" as required by FTA C 5010.1D.

Vehicle Maintenance Goals

The goals of this plan are to create and maintain high safety and maintenance standards for the MST fleet of revenue and non-revenue vehicles in order to maximize vehicle life, minimize unscheduled maintenance, and lower overall maintenance repair costs. MST intends to achieve these goals through the following performance targets and expectations:

- MST's fleet reliability goal is a standard of no less than 10,000 Miles Between Road Calls (MBRC) and a goal to meet or exceed 15,000 MBRC.
- Provide adequate number of vehicles to achieve daily pull-out requirements.
- Meet or exceed 80% on-time performance (OTP) for completing monthly Preventive Maintenance Inspections (PMI).
- Comply with Federal, State, and Local vehicle and maintenance related requirements.
- Achieve Satisfactory performance rating for California Highway Patrol (CHP) terminal inspections.
- Ensure MST's Contractor (currently MV Transportation) complies with this Plan and consistently meets or exceeds the performance targets and expectations herein.
- Implement alternative fuel and Zero Emissions Bus (ZEB) technologies including non-revenue vehicles to the extent feasible or mandated.

- Create and foster a culture based on teamwork, trust, reliability, and accountability; implement processes and procedures to improve maintenance operations based on internal and external Key Performance Indicators (KPI).

Facilities Maintenance Goals

The goals of this Plan are to create and maintain high safety and maintenance standards for the MST Facilities Department in order to provide safe, clean facilities while maximizing their useful life and minimizing overall costs. MST intends to achieve these goals through the following performance targets and expectations:

- Consistently clean, repair, and maintain all MST facilities, garages, bus stops and depots, and related assets and equipment.
- Meet or exceed 80% on-time performance (OTP) for completing scheduled Preventive Maintenance Inspections (PMI).
- Comply with Federal, State, and Local facilities and maintenance related requirements.
- Comply with all Hazardous Materials (HAZMAT) and Occupational Safety and Hazard (OSHA) and related rules, regulations, laws, and requirements.
- Ensure MST's Contractor (currently MV Transportation) complies with this Plan and consistently meets or exceeds the performance targets and expectations herein.
- Implement facilities and real-property improvements to support alternative fuel and Zero Emissions Bus (ZEB) technologies to the extent feasible or mandated.
- Create and foster a culture based on teamwork, trust, reliability, and accountability; implement processes and procedures to improve operations based on internal and external Key Performance Indicators (KPI).

Responsibility

MST Maintenance Department staff members are responsible for all vehicle maintenance, inspections, and repairs. The department is staffed with the following positions:

- **Assistant General Manager (AGM)** is responsible for the Capital Projects department for MST.

- **Chief Operating Officer (COO)** is responsible for the overall Operations for MST. The COO is responsible for day-to-day operations of the Maintenance and Facilities department. The COO is also responsible for ensuring all documentation (including spection tracking) relating to all MST vehicles, and all MST facilities are accurate and properly stored and maintained.

- **Maintenance Manager** is responsible for carrying out the direction of the COO, and directly oversees MST's Maintenance and Inventory Control departments; documentation relating to the vehicles, including warranty claims and inspection tracking are accurate and properly maintained; accurately processing and maintaining all Maintenance paperwork and documentation; assigning work, completing special projects; performs other duties as directed and assists Maintenance Supervisors with managing frontline employees.

- **Fleet Superintendent** is responsible for carrying out the direction of the Maintenance Manager, or COO; reports directly to the Manager and directly oversees MST's Fleet Supervisor group; accurately processing and maintaining all Maintenance paperwork and documentation; assigning work, completing special projects; ensuring MST Standard Operating Procedures (SOP) are accurate; up-to-date, and executed; and overseeing frontline Technicians, Utility Workers, and Contractors, within their assigned shift.

- **Facilities Manager** is responsible for day-to-day operations of the Facilities department and oversees all Facilities related frontline activities and operations. The Manager is responsible for carrying out the direction of the COO, accurately processing and maintaining all Facilities and Capital Projects paperwork and documentation; care and upkeep of all MST Facilities including bus stops, buildings and bus depots; assigning work to frontline employees; ensuring MST Standard Operating Procedures (SOP) are accurate, up-to-date, and executed; coordinating, assigning, and overseeing Contractors' work for compliance and quality assurances; performing other work and duties as assigned.

- **Fleet Supervisor** is responsible for carrying out the direction of the Superintendent, accurately processing and maintaining all Vehicle Maintenance paperwork and documentation, assigning work, completing special projects, ensuring MST SOP's are accurate, up-to-date, and executed; and overseeing frontline Mechanics, Technicians, Utility Workers, and Contractors, within their assigned shift.

- **Designated Lead Mechanic** (an appointed position) in the absence of the Maintenance Supervisor is responsible for assigning work, completing special projects, and overseeing frontline Maintenance employees. This position is not authorized to assess discipline or take part in disciplinary related actions.

- **Fleet Mechanic/Technician** is responsible for completing assigned work from the Supervisor or Shift Lead. These duties are related to maintenance of MST vehicles. These positions include Master Mechanic, Advanced Mechanic, Intermediate Mechanic, Entry Level Mechanic, and Electronics Technicians.
- **Utility Service Person** is responsible for completing assigned work from the Shift Supervisor to Shift Lead. These duties are related to the daily servicing and detailing of MST owned equipment.

- **Facilities Technicians (I, II, III)** are responsible for completing assigned work from the Shift Supervisor to Shift Lead. This position is responsible for the daily servicing,

maintaining, cleaning, building and constructing, and repairing of MST facilities, bus depots, bus stops, equipment, components, and performing other duties as assigned.

Definitions

Contracted Maintenance: Maintenance (scheduled or unscheduled) performed by contractors or vendors on revenue and non-revenue vehicles according to the MST Maintenance Plan, Policies, and Procedures or as directed.

Daily Servicing: As each bus returns from service, utility workers will perform the following daily service requirements: fueling; checking and servicing engine oil, transmission fluid, and coolant; cleaning and disinfecting bus interior; cleaning exterior of bus by driving through full bus wash system; parking bus in the assigned parking stall for the next day's service; and reporting any discrepancies found during the cleaning process to the Supervisor or Lead Technician.

Unscheduled Maintenance: These services are of a non-preventive nature and usually denote a situation that requires an unexpected and unscheduled repair (e.g., wheelchair lift not working, engine or transmission diagnostic code, farebox not working, etc.).

Contingency Fleet: Buses that are inactive because they have reached the end of their minimum useful service life or due to the reduction of operational service requirements. They are placed in an inactive contingency fleet in preparation for emergencies. They may also be used for potential service expansion, disaster response and recovery, fuel shortages, or loaned to another transit agency for emergency-response evacuation or other emergency related purposes.

Preventive Maintenance Inspection (PMIs): A part of scheduled maintenance, preventive maintenance inspections aim to minimize road calls between inspections and reduce the overall number of unscheduled maintenance repair activities. Maintenance service may include (but is not limited to) engine oil and filter change, transmission oil and filter change, differential oil change, air conditioning system inspection and or service, wheelchair lift/ramp inspection and or service, chassis and body lubrication, bumper to bumper safety inspection, exhaust system back pressure test and recording, exhaust opacity test and recording (a Clean Air requirement), road test to verify the serviceability of the bus, inspection of all electrical equipment (including video cameras, farebox, destination signs, and radios), and the inspection of wearable items and or systems.

Scheduled Preventive Maintenance (PM): MST's Maintenance Department predetermines service and maintenance schedules as recommended by the Original Equipment Manufacturer (EOM) and the equipments historical performance. Scheduled PM activates are specifically designed to prevent maintenance related failures while a vehicle is active and in revenue service.

Trapeze Enterprise Asset Management (EAM): MST's asset management software application that tracks MST's rolling stock (buses, relief units, facilities vehicles, and other non-revenue vehicles) and electronically manages MST's purchasing of parts, materials, and supplies. Work Orders reside in EAM and allow MST to electronically manage the Work Order and work flow process of its Maintenance shops.

Employee-Owned Tools: In accordance with the Collective Bargaining Agreement, MST provides an annual "tool allowance" to all qualified Maintenance employees who fall within specific classifications. These employees are expected to purchase and maintain tools up to 1" in size opening to complete their assigned work.

MST-Owned Tools and Equipment: MST purchases, maintains, and provides access to specific tools and equipment to enable employees to complete their assigned work. This includes an inventory of tools greater than 1" in size opening and other tools and equipment which include – industrial battery chargers, testing equipment, A/C servicing systems, vehicle diagnostics software systems, heavy-duty floor jacks, and other tools and equipment.

Vehicle Maintenance Procedures

In order to ensure MST's vehicle assets remain in good working condition and reach or exceed their optimal life expectancy, both scheduled and unscheduled maintenance is necessary. The goal of a well-run preventive maintenance program is to reduce or limit "in service" failures (e.g., road calls, bus exchanges, and field repairs) between preventive maintenance inspections. Both scheduled and unscheduled maintenance aim to extend the life of the vehicle and increase the miles between "in service" failures by reviewing the condition of the equipment and modifying the process to reflect the most efficient and effective maintenance possible. The goal of this maintenance program is to ensure MST's fleet travels a minimum of 10,000 miles between road calls. The national average is 6,000 miles between road calls. In order to increase the mileage between road calls, MST aims to increase the number of scheduled maintenance inspections performed annually.

1. **Scheduled Preventive Maintenance** – A well-defined and prudently managed preventive maintenance program is the cornerstone of every successful fleet maintenance operation. Through our scheduled preventive maintenance program, MST vehicles are serviced and maintained by maintenance staff or qualified contracted vendors in accordance with the preventive maintenance inspection checklist. Regular maintenance is performed to ensure that all MST assets are in optimal operating condition.

    a. **Inspections** represent a key component of maintenance. These inspections routinely evaluate the condition of MST assets. Deficiencies found during the inspections are:
        - corrected immediately, or;
        - scheduled for repair based on the nature of the deficiency.

    Employees perform those tasks that are within MST's resources and its personnel's scope of training. All other scheduled preventive maintenance is contracted to professionals who

specialize in that specific area of expertise, such as our non-revenue vehicles. These vehicles require specialized training and equipment from the manufacturer of the vehicles.

i. **Preventive Maintenance Inspections (PMIs)**: The total number of preventive maintenance inspections (PMIs) needed to support each of MST's revenue fleets were determined by the following: The PM interval miles for each subfleet divided by the number of annual miles for each subfleet traveled, multiplied by the number of labor hours for each PM. PMI mileage intervals are based on Original Equipment Manufacturer (OEM) minimum requirements and MST's operating and maintenance experience. MST consistently reviews and adjusts its intervals and PMI activities to ensure optimal fleet performance and to prevent mechanical failures while operating in revenue service.

$$\frac{\text{PM interval miles for subfleet}}{\text{Number of annual miles traveled}} = \text{Number of PMIs to Complete} \times \text{Estimated Number of Labor Hours}$$

The Maintenance Department must budget the appropriate number work hours for the number of PMIs determined by this equation.

The ***sample (not actual)*** mileage indicator shown below, and the results of an oil analysis can affect MST's Preventive Maintenance due dates.

Service	Annual Mileage	PMI Interval	Needed PMIs
Commuter (MCI coaches)	35,000	5,000	7
Fixed-Route	48,000	6,000	8
Trolley	24,000	6,000	4

All Contingency Fleet vehicles will be scheduled for a PMI based on the Contingency Fleet Plan H:\Maintenance Dept\Fleet\Contigency Fleet Plan\MST Contingency Fleet Plan 20170928.

Buses in the contingency fleet are subject to a 6,000 mile preventive maintenance schedule. Periodic vehicle "start-ups" will occur between normal preventive maintenance inspections so the fleet remains ready for service at all times. All records associated with these buses will be maintained by MST. At a minimum, the

heavy duty diesel fleet will have a visual inspection and start up every 45 days with a full PMI at 90 days.

Fleets Requiring Special Attention: Fleets within these services (e.g., Electric Trolley, Gillig DDC Series 50, etc.) may need special attention at earlier intervals. This includes vehicles with engines equipped with a particulate filter after-treatment device, or oil sample analysis indicating a need for earlier engine inspection intervals.

The following is a list of the fleets, the services, and the PMI intervals scheduled based upon manufacturers' recommendation:

Revenue Vehicles	
Vehicle Type	**PMI Interval**
2003 GILLIG LOW FLOOR	6,000 mile
2003 OPTIMA TROLLEY	6,000 mile
2003 OPTIMA ***E-TROLLEY***	6,000 mile
2007 GILLIG LOW FLOOR	6,000 mile
2008 GILLIG LOW FLOOR	6,000 mile
2009 MCI COMMUTER	5,000 mile
2010 MCI COMMUTER	5,000 mile
2011 MCI COMMUTER	5,000 mile
2013 GILLIG SUBURBAN	6,000 mile
2015 FORD F550 ELDORADO	6,000 mile
2015 GILLIG LOW FLOOR	6,000 mile
2015 GILLIG SUBURBAN	6,000 mile
2015 MCI COMMUTER	5,000 mile
2018 GILLIG LOW FLOOR	6,000 mile

2018 GILLIG SUBURBAN	6,000 mile
2018 HOMETOWN TROLLEY	6,000 mile
2018 BYD BATTERY ELECTRIC BUS	6,000 mile
2021 GILLIG BATTERY ELECTRIC BUS	6,000 mile

Non-Revenue Vehicles	
Vehicle Type	**PMI Interval**
2001 FORD F550 SHOP TRUCK	5,000 mile
2004 CHEVROLET EXPRESS VAN	5,000 mile
2007 HONDA CIVIC	5,000 mile
2008 FORD F350 FACILITIES TRUCK	5,000 mile
2008 TOYOTA PRIUS	5,000 mile
2009 TOYOTA PRIUS	5,000 mile
2010 TOYOTA PRIUS	5,000 mile
2011 FORD F350 FACILITIES TRUCK	5,000 mile
2015 FORD F350 FACILITIES TRUCK	5,000 mile
2015 NISSAN LEAF ELECTRIC VEHICLE	5,000 mile
2015 TOYOTA TACOMA TRUCK	5,000 mile
2016 FORD F150 FACILITIES TRUCK	5,000 mile
2016 FORD F250 SHOP TRUCK	5,000 mile
2016 FORD TRANSIT VAN	5,000 mile
2016 NISSAN LEAF ELECTRIC VEHICLE	5,000 mile

2016 TOYOTA PRIUS V	5,000 mile
2017 FORD F350 FLATBED TRUCK	5,000 mile
2017 FORD F350 FACILITIES TRUCK	5,000 mile
2017 TOYOTA PRIUS V	5,000 mile
2018 FORD F350 FACILITIES TRUCK	5,000 mile
2019 FORD F250 SHOP TRUCK	5,000 mile
2019 FORD F250 SHOP TRUCK	5,000 mile
2022 FORD F350 FACILITIES TRUCK	5,000 mile

ii. A-Inspection (Brake, Tire, and Safety Inspection)

The Maintenance Department performs Brake, Tire, and Safety Inspections on every revenue vehicle at a 3,000 mile interval. Based on MST's operating experience, this results in every revenue vehicle undergoing this required inspection approximately every 20 calendar days.

- Minor defects found during this inspection are repaired on the equipment.
- Defects that are time intensive and safety related are assigned a separate work order; this vehicle is held out of service until the repairs are completed. These repairs are then assigned or scheduled by the shift supervisor or designated lead mechanic.

MST monitors its Contracted Services by performing monthly follow-up inspections after the Contractor has performed a PM. MST performs adherence and quality inspections upon return of the vehicle to MST and on randomly selected Contractor assigned vehicles using this same inspection process.

MST staff notes any defects and/or problem areas of the vehicle and documents their findings on a Work Order in EAM and any critical mechanical or safety issues may cause the vehicle to be placed Out of Service (OS). MST staff reviews their findings with the Contractor. The Contractor performs the required maintenance services to correct the documented defects and/or problems and presents the vehicle to MST for inspection and confirmation of repair. MST staff will inspect and confirm the repairs have been completed or defer the vehicle back to the Contractor for additional repair and/or correction. This process will continue until the Contractor has successfully repaired the vehicle to MST's standards.

b. Repair and Maintenance

The preventive maintenance defect repair work is as critical to the success of a preventive maintenance program as the inspection process itself. The quality of the repair work is the key to meeting the goal of 10,000 miles between service equipment failures. The hours required to accomplish defect repair work generated by the PMI program will average two hours of repair work for each PMI program work hour. After the PMI defect repairs are complete, the bus interior is detailed.

c. Special Projects/Campaigns

MST has developed a process to identify and evaluate the continuing need for special projects and maintenance campaigns to repair, modify, refine, engineer, and implement processes and repairs to systems deemed undependable and problematic. One such example is the 150,000 mile Generator Replacement program. Others may include manufacturer recalls, safety bulletins, or modifications.

2. Unscheduled Maintenance – The Maintenance staff performs unscheduled maintenance inspections and service to vehicles based on work orders MST generates. In addition, maintenance can be dictated by observation or newly available data in the form of technical bulletins, manufacturer notifications, recall notifications, etc.

a. Requests

i. Driver's Defects are usually minor repair requests. These are defects found during the operator's pre-trip, normal in-service operation and/or post-trip inspections. These defects do not affect the ability of the bus to complete their assigned run. Operators will enter the defect through ZONAR or physically note the defect (when ZONAR is not available) on a defect card provided and turned into the Control Center. Maintenance will collect these cards periodically throughout each shift and assign work orders to each defect. The work orders are then assigned to Technicians for repair. Examples of these requests may include: interior lights that are not working, squeaks or rattles, loose seats, destination sign lights that are not working, etc.

The Maintenance Department assigns personnel to perform work based on the urgency and type of service required. When possible, similar non-emergency tasks are deferred, scheduled, and performed together to increase efficiency.

ii. Verbal Notice: The Maintenance Department encourages verbal requests for emergencies, urgent repairs, and minor defects. Work orders are created upon notification of all verbal requests.

iii. E-mailed Requests: Written (usually in the form of an email) requests for unscheduled maintenance as determined by MST staff.

iv. Field Repairs: Minor unscheduled defects that are repaired while the bus is in service will not cause route delay (e.g., repairing a jammed farebox trim unit).

v. **Road Call Repairs**: These services are non-preventive and usually denote a mechanical failure of a bus while in revenue service. This causes a delay in service and necessitates removing the bus from service until repairs are made. Road calls or other vehicle breakdowns will be handled in the most expedient manner possible. Employees responding to these calls will leave the gate within ten minutes of the call. Each road call will be tracked in the electronic maintenance management system, Trapeze Enterprise Asset Management (EAM) and reviewed by the COO at the end of each month. The review is meant to identify and correct any deficiencies found in the process. Examples of these deficiencies may include the wheelchair lift not working, engine or transmission trouble codes, farebox not working, etc.

3. **Contracted Maintenance:** Staff uses the formal contract or purchase order process to request the following services as needed:

a. Contracted Services (Ongoing Contracts)

- Contractor operating specific MST Transit Services using MST owned vehicles:
  - ✓ Oversight of PM program to be completed once a month
  - ✓ Oversight of the Brake and Safety inspections to be completed once a month
  - ✓ Random vehicle inspections conducted by MST Technicians completed monthly.
- Tire Lease and Service
- Towing
- Uniforms
- Shop supplies and cleaning supplies
- Fasteners
- Paint and Body Repair

b. Regularly Contracted Services

- Glass Repair and Replacement
- Upholstery Repair and Replacement
- Bus Wraps and Exterior Paint and Body Work

Maintenance Prioritization: The Maintenance Department assigns personnel to perform the required task(s) based upon the urgency and type of service, maintenance, or repair required. The Department performs maintenance and repairs as required in response to verbal requests, written and e-mailed requests, road calls and scheduled preventive maintenance or inspections. The system functions when all areas of the agency work together to meet the goals and vision. All procedural details are specifically described in the Department's Standard Operating Procedures (SOP).

4. **COVID-19:** MST has implemented new processes and procedures, and revised existing processes and procedures in response to the COVID-19 pandemic to ensure vehicles and facilities are safe for normal operation.

a. **Bus and Vehicle Cleaning and Disinfecting Procedures:** MST cleans and disinfects the interiors of all vehicles used in revenue and non-revenue services with a hospital-grade at the end day and prior to the next operating day.

- USP's are required to don personal protective equipment (PPE) prior to entering a vehicle to begin cleaning and disinfecting activities (full hazmat suit or overalls, gloves, N95 face masks, face shields or goggles).
- USP's complete their normal interior cleaning processes (full interior wipe down, sweep and mop, complete cleaning of drivers' area).
- USP's disinfect the interior of the vehicle with a hospital-grade disinfectant applied with a hand-held fogging machine. The hand-held fogging machine emits a fine mist of the disinfectant that sticks to interior surfaces. The mist finds its way to cracks and crevices of the interior that would otherwise be very hard to reach.

b. **Responding to Requests for COVID-19 Deep Cleaning and Disinfecting:** Upon request, staff will immediately respond and provide deep cleaning and disinfecting of specific vehicles, office space, or facilities.
- Designated personnel (USP, Mechanic, etc.) are required to don PPE prior to entering a vehicle or facility to begin cleaning and disinfecting activities (full hazmat suit or overalls, gloves, N95 masks, face shields or goggles).
- Personnel will complete full interior wipe down and mop of the vehicle or facility.
- Personnel will disinfect the interior of the vehicle or facility with a hospital-grade disinfectant applied with a hand-held fogging machine.
    - Personnel **will not apply fog** to electronic devices (computers, laptops, displays, etc.
    - Personnel will spray disinfectant onto a towel or rag and apply to electronic devices by hand to avoid possible damage.

c. **ZONAR:** MST uses ZONAR to ensure vehicles are cleaned and disinfected. An Electronic Verified Inspection Report (EVIR) is completed during the cleaning and disinfecting processes.
- USP's log into the ZONAR tablet of the assigned vehicle.
- USP's clean and disinfect the interior and physically scan the ZONAR Radio Frequency Identification (RFID) tag located inside the bus.
- EVIR's are processed and reviewed regularly to ensure compliance.

d. **Employee Training:** MST trains employees on the processes, procedures, and expectations related to COVID-19 which include:
- How and where to acquire PPE.
- How to properly don and doff PPE.
- How to store PPE to extend its effective useful life.
- When to employ PPE (before and during interior cleaning and disinfecting).
- Proper use of fogger and other equipment used for cleaning and disinfecting.
- SOP's that provide step-by-step instruction for cleaning and disinfecting.
- How to protect yourself against COVID-19 while on-duty and at home.

- Social distancing, wearing a mask, limiting travel, etc.
- What to do if an employee becomes infected.
- Regular and frequent employee communication regarding COVID-19 (memorandums, public forums, interactive online meetings, supervisor communication, etc.).

Parts

MST's parts are purchased and inventoried through MST's Enterprise Asset Management (EAM) system. MST's Purchasing Department actively monitors parts and supplies usage to determine and implement purchasing patterns. The goal of this style of purchasing is to minimize inventory levels while ensuring parts are available at the time of request.

In addition, staff adheres to MST's Procurement Guidelines to ensure the parts and services purchased are the lowest price or best value to the agency.

California Air Resources Board (CARB) Impacts

CARB rulings have a direct impact on the maintenance of MST's fleet. The "Fleet Rule for Transit Agencies" https://www.arb.ca.gov/msprog/bus/bus.htm must be followed and monitored to ensure compliance with CARB regulations. This is accomplished by regularly attending CARB meetings, subscribing to the CARB website for notices, and staying in contact with our statewide counterparts.

Additionally, MST staff actively participates in committees specifically created to address CARB impacts and activities; Zero Emmissions Bus (ZEB) and other technologies designed to eliminate or reduce emissions of transit buses.

CARB – Related Activities

MST regularly reviews laws, procedures, requirements, and related information originating from FTA, DOT, and other regulatory organizations to ensure compliance. Additionally, MST consistently seeks grant opportunities to fund projects designed to improve transit service delivery. Accordingly, MST partnered with Gillig, LLC to manufacture two (2) Zero Emmissions Buses (ZEB). These forty-foot Gillig ZEBS were received in the Spring of 2021 and placed into service in the summer of 2021.

Prior to delivery, MST installed two (2) Chargepoint electric chargers at its Monterey facility. Additional chargers will be installed at its Salinas facility to provide flexibility and improve operational performance within MST's operating area. The Salinas facility charge infrastructure is expected to be completed by the summer of 2022.

MST purchased two (2) thirty-foot, low-floor electric buses from Build Your Dreams (BYD) in 2019 and placed these buses into revenue service in the city of Salinas. The BYD buses have performed extremely well with very little maintenance failures. The buses have performed to

the mileage range specificied by BYD, achieving approximately 138 miles per charge. These buses are increasing MST's knowledge of ZEBs, while reducing reliance on fossil fuels and overall emissions.

MST is exploring hydrogen-fuel cell buses (HFC) and hydrogen fueling strategies. Similar to ZEBs – HFCs offer zero-emission vehicle transportation, but can provide much more range over ZEBs. Some transit agencies are reporting achieving as much as 300 miles per fill while operating HFCs. Additionally, HFCs can be filled (fueled) in as little as 10 minutes – offering users increased operational range and fleet flexibility. Hydrogen fueling strategies and options are being discussed, considered, and implemented nationwide. MST will continue monitoring and exploring this exciting technology so the agency is prepared to make sound zero-emissions decisions.

MST has awarded a contract to create a ZEB Roll-Out Plan as required by California's Innovative Clean Transit (ICT) Regulation. The contractor will investigate all ZEB technologies and work with MST to create this Plan. During the study period – MST expects its contractor to engage staff, analyze MST's fleet, develop a recommended ZEB mode, and provide a detail schedule of estimated costs to implement the Plan. The analysis will consider operational and financial impacts of a full fleet conversion; examine the difference in the capital and operating costs of Battery Electric Buses (BEB) and HFCs versus diesel powered buses and all capital costs related to acquiring ZEBs, fueling and charging ZEBs, maintaining and operating ZEBs, and other incremental and related costs.

These efforts support the agency's strategic goal to promote policies and practices that encourage sustainability and resource conservation. MST will continue to seek state and federal grants to help transition to a zero emission fleet in the coming years.

Training

The transit industry has become the testing ground for many new ideas and technologies. Regulatory changes and electronic system integration in the industry make it necessary to provide comprehensive training programs to ensure MST's employees are qualified, educated, and effective. Training requires more than a few hours a year at a vendor's location. Historically, MST has had difficulty attracting and recruiting well-trained and experienced transit vehicle Technicians. Entry-level staff requires extensive training and thus few qualified Technicians are available within MST's local region.

The solution to this problem is to develop highly skilled Maintenance employees internally through an effective training program. MST is actively developing a training program that provides on-the-job training and brings vendors to MST to provide specialized training when necessary. In order to ensure success in this technologically advanced industry, MST must first look internally at its maintenance employees as the future work force and for potential promotional opportunities.

MST is a member of the California Transit Training Consortium (CTTC). MST's COO currently serves on CTTC's Board of Directors. CTTC's focus is to provide training resources to the transit

industry through a network comprised of community colleges, universities, public transit agencies, and other public and private organizations.

As a member, MST has direct access to training specifically designed and centered on public transit and Maintenance Operations.

Additionally, MST has partenred with Hartnell College to create and implement a Maintenance Technician Apprenticeship. MST is actively engaged with the state of California, Hartnell staff, and the Amalgamated Transit Union (ATU) to finalize and implement the Apprenticeship. The intent of the Apprenticeship is to increase the number of eligible, trained, and qualified available for hire by MST. Other intents include expanding job opportunities for the communities MST serves and improving MST's vehicle maintenance training programs.

Lifts, Ramps, and Other Accessibility Equipment

This comprehensive maintenance program ensures MST's vehicles and associated equipment are maintained in good operating condition and in compliance with the Americans with Disabilities Act (ADA). MST's preventive maintenance vehicle programs meet or exceed the requirements of 49 CFR Parts 27, 37, and 38 and California State laws.

All accessibility features on vehicles, including lifts, ramps, signage, mobility securement devices, and public address systems are maintained in good operating condition. MST's maintenance programs provide for regularly scheduled maintenance inspections of these features as well as preventive maintenance as recommended by the Original Equipment Manufacturers (OEM).

MST coach operators are required to report damaged or inoperative accessibility equipment and features as soon as possible. Vehicles with inoperative accessibility equipment and/or features are removed from revenue service and replaced with a spare vehicle as quickly as possible, to avoid or limit service disruption. MST repairs the inoperative equipment and/or features and ensures the vehicle is safe and accessible before returning the vehicle to revenue service.

Comparison of Maintenance Efficiency with Peers

MST monitors the NTD website for efficiency comparisons with other agencies. MST also uses the American Public Transportation Association (APTA), California Transit Association (CTA), California Association of Coordianted Transportation (CalACT), and other industry associations to compare efficiency standards. We recognize the importance of performance indicators and we use these indicators to maintain an efficient operation. The COO monitors spending according to the budget and uses these comparisons to maximize our efficiency and effectiveness.

Documentation

MST utilizes Enterprise Asset Management (EAM) software by Trapeze in its record-keeping system to ensure documented records of maintenance activities are accurately maintained and archived. The EAM system is designed to maintain accuracy and order, and represents the inventory and maintenance history of MST's assets. EAM tracks all functions related to vehicle maintenance, including repair and preventive maintenance work orders; operating expenses including fuel, oil, and parts; and vehicle availability. MST's complete documentation system is not medium-specific, as record-keeping media may change with improvements in material and supply management technology. It contains the following foundational elements:

A. Preventive Maintenance Inspection Checklist(s): documenting inspections, repairs and other maintenance activities.
B. Acquisition documents necessary for maintenance, including originals or copies of warranties, service contracts and agreements, purchase requisitions and orders, sales receipts, etc.
C. Work Orders that contain specific defects reported or discovered and the related maintenance activities completed, parts installed, and other relevant information specific to the Work Order.
D. Complete and verifiable asset inventory with current custody documentation. A budget-tracking database to reconcile and support asset acquisition documentation.
E. A budget-tracking database to reconcile and support asset acquisition documentation.

Facilities Maintenance Plan

The mission of MST's Facilities Department is to provide safe, clean facilities and maximize their useful life minimizing overall costs.

MST originally built its Monterey operations and maintenance facility in 1978. The building was used for administrative personnel as well as maintenance and operations. Separated in 2016, the Monterey Bay Operations and Maintenance Facility was completely reconstructed in 2018 to focus efforts on operations and maintenance. The administrative functions were moved and relocated to the Lichtanski Administrative Building (LAB), an office complex at 19 Upper Ragsdale Drive, Monterey, CA 93940.

Facilities Department Overview

The Facilities department is managed by MST's Facilities Manager who reports to MST's Chief Operating Officer (COO). This position oversees the work efforts of the support staff and technicians. Additionally, this position often coordinates MST's Capital Projects. The Manager works directly with MST's contractors and vendors to complete work in accordance with MST's design specifications, service requirements, or as directed.

A Lead Facilities Technician reports directly to the Manager and helps to oversee the daily activities, work schedules, and other related responsibilities of the frontline employees who are responsible for the maintenance and upkeep of MST's operating divisions, MST owned transit centers, and all of MST's bus stops. MST maintains approximately 1,300 bus stops and 110 passenger shelters located primarily on the Monterey Peninsula and in the Salinas Valley, extending to Paso Robles in the south and San Jose in the north. One facilities staff member is specifically tasked with daily cleaning and maintenance of "The Jazz" bus stops along MST's BRT corridor which extends from Sand City through Seaside and into Monterey and Cannery Row.

The Facilities Manager is also responsible for managing MST facility upgrades and some construction projects. Additional responsibilities include obtaining approval for bus stop construction, coordination of support services with outside contractors and the repair of equipment, major components in bus garages and at MST's three divisions and transit centers.

This Facilities Maintenance Plan outlines some of the maintenance and repair efforts conducted routinely by the Facilities Department throughout the year.

The Facilities Maintenance Plan outlines service/maintenance schedules based on Original Equipment Manufacturer (OEM) maintenance requirements for various assets, equipment and systems, and contract vendors who maintain specific equipment.

MST's Facilities staff organizes work based on a schedule that evenly distributes the work load of maintenance tasks over a twelve-month period. This includes conducting monthly PM inspections at each facility, including daily inspections/cleaning of bus stops and transit stations/centers. Facilities staff use outside contractors to perform scheduled and unscheduled maintenance and/or repairs to some equipment, including but not limited to electrical

equipment, electrical vehicle charging infrastructure, HVAC systems, garage bay doors, in-ground hoists and plumbing.

By following the preventative maintenance intervals as outlined by OEMs and in this Plan, MST's Facilities Department provides a safe environment for customers and employees and helps minimizes facility and equipment cost/repairs throughout their useful life.

Scheduled Facilities Maintenance:
The following processes are used to maintain MST's facilities, garages, bus stops and related assets. The Facilities Manager and/or the lead Facilities Technician schedule recurring work activities for staff, including PM's, or other prescheduled work activities at each facility, location or for specific bus stops. Routine daily work plans include inspection and cleanup efforts at transit centers and bus stops and shelters. Bus stops and shelters along MST's BRT Jazz corridor receive daily inspection and cleaning. MST staff conduct emergency repairs and/or cleanup efforts as needed at bus stops or at MST's facilities.

In-ground hoists and shop bay doors receive a high degree of attention due to their constant use and mission critical status. MST contracts with vendors who maintain both the in-ground and portable hoists. The in-ground hoist at TDA requires periodic service and repairs.

Preventive maintenance details are documented on a hardcopy inspection form, which is used as a check-list by MST staff. Any repairs, adjustments or corrections completed during the inspection are noted and filed in service record binders at each division. Contacted vendors provide work orders/invoices noting any repairs and follow-up inspection or service requirements.

Unscheduled Maintenance:
Unscheduled (corrective) maintenance and repair activities for MST's facilities are necessary due to a wide variety of causes, including normal wear and tear, accident damage, vandalism and/or weather related.

Unscheduled maintenance/repairs include work necessary due to premature failure, items that are impractical or impossible to include on a preventative maintenance program schedule. These items may include water leaks, light fixture failures, fuel/fluid dispenser failures, or vandalism. While many of these items are checked during the monthly PM inspections, some unforeseen failures occur on a periodic basis.

It is the goal of the Facilities Department to maintain assets to maximize their useful life while minimizing overall lifecycle costs and also providing a safe, hazard free environment for MST's customers and employees.

Facilities Maintenance Management System
The Facilities Department has automated and transitioned some processes PM and repair work into MST's Trapeze Enterprise Asset Management (EAM) system. The management of PM and repair activities will be similar to the system used by MST's Maintenance Department for fleet maintenance. The EAM system is a work order driven system whereby electronic work orders

are generated against facilities locations and assets to schedule maintenance and repair activities. Labor and materials will be assigned directly at the work order level, capturing costs for various locations and assets for the purpose capturing costs and forecasting replacement cycles.

The use of outside contractors for scheduled, or unscheduled maintenance, can be cost effective when specialized skills or certifications are required. The table listed on the following page shows *some* of the assets and service intervals conducted by MST Facilities staff and outside contractors. The use of outside contractors for specific preventative maintenance or repairs is required in order to maintain some of MST's industrial and/or electrical equipment, which require specific licenses or certifications.

Maintenance & Equipment Inspection Schedules:

MST Staff Inspections	
Location	Intervals
MST Bus Stops & Jazz (BRT) Service Corridor	Daily
Transit Centers	Daily/Weekly
TDA Facility	Monthly
CJW Facility	Monthly
Fuel Island Dispenser	Monthly
Fluids and Lubes in Maintenance Shops	Monthly
Bus Washers	Monthly
Inspection of MST Standard Bus Stop Shelters	Monthly / As Required
MST's Bus Stop Shop & Mobility Center Offices	As Required
Radio/Communications System Platform	Daily
Computer Servers	Daily
Security Cameras	Daily / Weekly
Electronic lock card system	Daily

Contracted Services & Inspections			
Location	Intervals	Location	Intervals
Janitorial Services – Administrative Buildings & Transit Centers	Daily	Fire Extinguisher Service – Inspection and Recharge	Annually
Landscape Services	Bi-monthly	Testing: Gasoline tank, Fuel Monitor Devices, Vapor Test	Annually
Pest Control	Monthly	Testing: Waste Water, Back Flow Devices	Annually
Designated Underground Storage Tank Inspection	Monthly	Testing: Underground Storage Tank Containment	Every Two Years
Water Treatment Service	Quarterly	Portable Hoists – Inspection	Yearly
In-Ground Hoists	Quarterly	Fire Sprinkler System Inspection	Every Five Years
Shop Bay Doors	Quarterly	Bus Yard & POV Parking Lots and Lighting	Monthly
Emergency Generator/ 2 locations	Quarterly	Security Alarm	As Required
Server Room – Halon System	Annually	Various Building & IT Space HVAC	Quarterly
WAVE wireless charging station	Semi-annually	Monterey County Radio/Antenna System	Weekly

Mission Critical Facilities and Equipment:

MST has identified facilities and equipment essential for the continued operation of transit services in the event of an emergency or during a major system failure. While the loss of some systems and equipment may impact MST's ability to deliver service the same day, or in the short term, there are options for continued operations if some key facilities, equipment or systems are lost or temporarily out of service. For example, MST has the ability to direct all

radio communications through the Salinas (CJW) operating facility if the Monterey base station fails.

In 1985, MST's headquarters sustained an arson fire which destroyed the entire administration and operations building. The morning of the fire MST staff was able to dispatch every bus out of the yard with no missed service. Over the next 18 months staff worked out of three 40' trailers which housed operations, dispatch and administrative staff. Additionally, the 6.9 magnitude Loma Prieta earthquake in 1989, with its epicenter near Santa Cruz, caused service disruptions and equipment and buildings needed inspection to verify there were no hazards at MST's facilities. Both of these examples provide a historical reference based on MST's direct previous experience for prioritizing "mission critical" equipment/systems as a Highest Priority, an Urgent Priority or a Medium Priority. In the event of a catastrophic event, the list below provides some priorities and options for MST staff.

Mission Critical Priority Assets:

1 = Highest Priority; 2 = Urgent Priority; 3 = Medium Priority

Asset	Priority
Admin/Operating Facilities (LAB, TDA, CJW, KCO, JLW)	4
Maintenance Facilities (TDA, CJW, KCO, JLW)	3
Elevator – at TDA	1
Escalators	N/A
Passenger Stations/Shelters	2
Parking Lots	4
Right-of-way (guideways, tracks)	N/A
Electric distribution & control equipment	1
Wireless charging system	1
Electric vehicle (bus and passenger) charging stations	10
Plumbing systems	2
Overhead doors	2
Vehicle maintenance lifts	1
Bus washer/recycling system	2

HVAC units	2
Emergency Generator	1
Power substations	N/A
Security equipment	
Alarm and electronic card lock	1
Camera systems	2
Electric gate and perimeter fence	2
Fueling/dispensing systems	1
Under/above ground tanks	1
IT infrastructure-Computers/Servers	1
Halon system	1
Radio/communications platform	1
Antennas, repeaters, towers	1
Fire suppression equipment	1
Revenue collection system	1
Exterior/Interior Lighting systems	2
DPF filter cleaning machines	2

Administration and Operating Facilities: Loss of admin/operations will require leasing on-site trailers and off-site office space. MST previously leased trailers for on-site office space for 18 months after its admin/operations building was destroyed by fire in the mid 1980s.

Maintenance Facilities: Short term, 1-4 months; curtail service if maintenance functions/capability are reduced in the event MST's garages are destroyed; install temporary industrial type tent structure and/or leasing an off-site garage are options.

Passenger Stations: Transit centers/stations can be used after an emergency provided no hazardous conditions are present. Based on placement of structures at MST's transit centers the loss of structures may allow bus operations to continue, or be shifted directly to adjacent sidewalks, with on-street bus parking.

Parking Lots: Public parking is not required at MST transit centers; employee parking can be moved off site near MST operating divisions in the event of the loss of parking. MST does have temporary options at a neighboring school bus yard and/or parking area off Ryan Ranch Rd.

Electric Distribution/Wireless Charging: The "WAVE" wireless charging station is critical to the daily operation of MST's electric trolley.

Plumbing Systems: Short term, portable toilets and water systems can be set up at operating/bus divisions. Public access to restroom facilities at MST's transit centers is not mission critical.

Overhead Doors: Garage bay doors are considered a security priority. If bay doors are unusable the security of the fleet, equipment and tools can be enhanced through 24 hour work shifts in the garage and/or the use of security guard service.

Maintenance Lifts: Functioning in-ground hoists are a high priority/mission critical; if they are unusable/destroyed then portable hoists serve as back-ups and are considered mission critical.

Bus Washers: Functioning bus washers are an urgent priority; given the relatively small fleet in each division, for the short term, they are not mission critical; vehicles can be washed manually on a reduced schedule until repaired/replaced.

Heating Ventilation Air Conditioning (HVAC) Systems: In the short term HVAC systems are an urgent priority. MST's service area is not subject to severe heat or cold weather conditions. Operations can continue until the building HVAC system is repaired or staff may be required to use temporary or off-site facilities (trailers). MST's climate control system for its server rooms is considered mission critical and non-critical server equipment may be taken off-line to minimize heat buildup in the server room. Additionally, portable cooling unit may be brought in to help cool the server room.

Emergency Generators: Considered mission critical for powering lights, office equipment, communications systems, shop equipment and fueling systems. This unit is routinely tested and serviced on a regular schedule.

Security, Alarm & Electric Locks: Lockable exterior doors are considered mission critical; electric card lock system is considered a priority. In an emergency guard service can be provided for additional security of facilities.

Surveillance Cameras, Gates/Fences: Reliability of MST's camera system is an urgent priority, however, in the event of a camera failure buses can still operate. The security the bus yard and facilities (gate and fencing) is a high priority. In the event of a major component failure, or earthquake, a temporary gate can be installed and guard service placed at facilities.

Fueling Systems: Fuel systems, including underground storage tanks and dispensing units are mission critical; in an emergency/disaster fuel can be delivered and dispensed via a tanker truck or portable above ground fuel tanks temporarily installed.

Information Technology (IT) Infrastructure: Computer system servers and back-up systems are a high priority for the preservation of data. In addition to the emergency generator as a power supply, key systems also have a UPS emergency power supply as a back-up temporary power source.

Radio and Communications: MST's communications platform is the "Trapeze TransitMaster" system and is considered mission critical; the radio tower is located on Mt. Toro and is maintained by the County of Monterey, which also maintain the tower/equipment for County emergency services. The TM system also has a back up UPS power supply.

Fire Detection: Facility and bus fire detection and suppression systems are mission critical; MST's facility fire suppression systems is tested and monitored by an outside vendor.

Revenue Collection: MST's revenue collection system is essential for the collection of daily cash fares and ridership statistics; spare parts are on hand for exchange in the event of a unit failure. Fareboxes are maintained by MST's Electronic Technicians.

Lighting: Exterior and interior lighting units are maintained by MST Facilities staff and by an electrical contractor. In the event of loss of the PG&E power grid, lighting, computer systems, garage activities and fueling systems are powered by MST's emergency generator.

DPF Cleaning Equipment: MST's diesel particulate filter (DPF) cleaning machine is considered mission critical for cleaning diesel filters required to keep the fleet operating and in compliance with State emission requirements. In the event of the failure of one or both of the DPF machines MST uses an outside contractor to clean particulate filters.

Electric Vehicle and Bus Charging Equipment: MST's electric vehicle and bus charging equipment is considered mission critical for ensuring MST's fleet of battery electric buses and electric vehicles are charged and ready for operation. In the event of a failure of any charge equipment or related infrastructure, this fleet will remain out of service and replaced with gasoline or diesel-powered vehicles. MST continues to explore options to provide redundant electrical power to the charge equipment and will implement a viable and working solution at an opportune time.

MST owns and operates WAVE inductive charger, BYD properitery bus chargers, ChargePoint (for Gillig) bus chargers, and several electric chargers for non-revenue vehicles at the TDA and CJW facilities.

Plan Approval

Approved By:

Norman K. Tuitavuki, Chief Operating Officer

7/1/2021

Date

Appendix A – Sample 3,000 Mile Brake and Tire Safety Inspection

MONTEREY-SALINAS TRANSIT
3,000 Mile Brake and Tire Safety Inspection

COACH _____ MECHANIC _____ *Inspection*

DATE _____ COMPUTER MILEAGE _____ *Repairs*

WORK ORDER # _____, #_____

INSTRUCTIONS Place ✓ if work was performed. Place ⊗ if defective and corrected. Record work completed
Place X if defective. Place - if not applicable or not done.

_____ Air compressor cuts in at 85 P.S.I. / Min. cuts out at 120 P.S.I. (cut in 110 / cut out @130 w/sync valve)
_____ Test for static air pressure loss.
_____ Test for applied air pressure loss.
_____ Test low air warnings (light/alarm between 55 & 75 P.S.I.)
_____ Test spring brakes (apply automatically 20-40-P.S.I.)
_____ Drain air tanks, test check valves.
_____ Check condition of brakes.
_____ Inspect air hoses/lines.
_____ Check brakes for proper adjustment. RF _____", LF _____", LR _____", RR _____".
(80-90 PSI service brake application type 30 chamber must be less than 2". Type 20-24 less than 1 3/4" stroke).
_____ Check steering and suspension.
_____ Test service brakes.
_____ Test parking brakes.

CHECK FLUIDS
____ Engine Oil
____ Transmission Fluid
____ Power Steering Fluid
____ Coolant
____ Change Engine Oil & Filter (Series 50 Only)
____ Engine Oil Sample
** Tracking #:_____
____ Inspect rims and lug nuts (torque to 475 ft lbs.)
____ _____
____ _____

_____ ECM Miles _____, VIB Miles _____ and Hub Miles _____

WHEEL POSITION	TIRE ID	USED TIRE	GROOVED (NOT A RECAP)	RECAP	TREAD DEPTH	PSI	LIST DEFECTS	REPLACEMENTT IRE ID	TREAD DEPTH	PSI
LF					/32"				/32"	
LRI					/32"				/32"	
LRO					/32"				/32"	
RF					/32"				/32"	
RRI					/32"				/32"	
RRO					/32"				/32"	

_____ Inspect, cycle and clean the Wheelchair Lift or Ramp.
_____ Clean engine as needed and check for fluid leaks._____
_____ Inspect external ads, ad frames & ad screws on Kings.
_____ Check operation and condition of entrance and exit doors. Test safety devices.
_____ Check the driver's window (make sure they slide easily).
_____ Check surveillance system light (Green light: flashing at startup then solid); notify Supervisor if defect found.

OPERATION CODE 00003 TIME STANDARD 2HRS. REVISED 8/10/16

Appendix B – Sample Preventive Maintenance Inspection

MONTEREY-SALINAS TRANSIT
Preventive Maintenance Inspection
1100's, 1700's, 1800's, 2000's, 2100's

COACH _____ MECHANIC _____ DATE_____

Inspection *Repairs*

COMPUTER MILEAGE _____ WORK ORDER # _____, #_____

6,000 / 12,000 / 24,000 / 36,000 / 48,000 Mile Inspection (Circle Type of PM Being Performed)

INSTRUCTIONS
Place ✓ if work was performed.
Place X if defective.
Place ⊗ if defective and corrected. Record work done on a work order.
Place - if not applicable or not done.

_____ Check all Gauges & Warning Devices.

_____ Check stop request and internal/external PA systems

_____ Check Horns.

_____ Check Defroster.

_____ Check HVAC Operation.

_____ Check Drivers Fan.

_____ Check Air Compressor Cut In _____ Cut Out _____.

_____ Check Low Air Warning Light & Alarm.

_____ Check Throttle _____ Check Fast Idle _____ Lubricate throttle pedal pivot points.

_____ Check Idle shut down time. Document shut down time: _____ minutes.

_____ Check Fire Extinguisher. _____ First Aid Kit. _____ Safety Triangles.

_____ Ck Windshield Wipers, Lube wiper arm pivot points. _____Ck Windshield Washers. _____ Fill Reservoir.

_____ Check Entrance and Exit Doors. Including door panel alignment, door seals, pivot point wear, opening & closing speeds, buffer adjustment, sensitive edges, etc. per OEM maintenance manual.

_____ Check All Lights _____

_____ Check Back Up Alarm.

_____ Check for Body or Accident Damage.

_____ Check all Mirrors.

_____ Check Drivers Seat & Seat Belt. _____ Passenger Seats. _____ W/C Seat & Seat Belts.

_____ Check Handrails, Seat Panels and Loose or Missing Screws.

_____ Check Flooring and Steps.

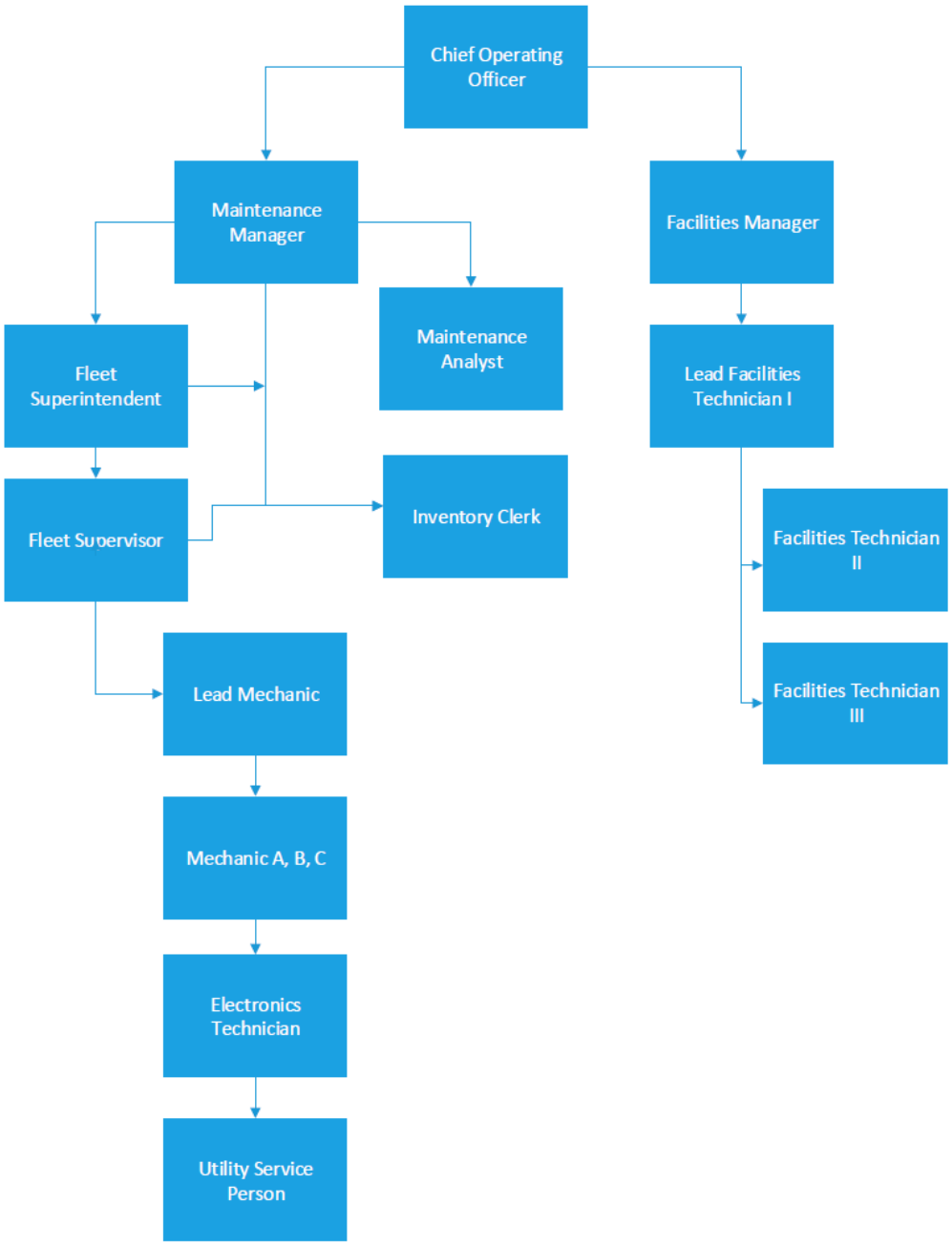
_____ Check Emergency Exits, Windows, and Roof Hatches.

_____ Check for Static and Applied Air Loss.

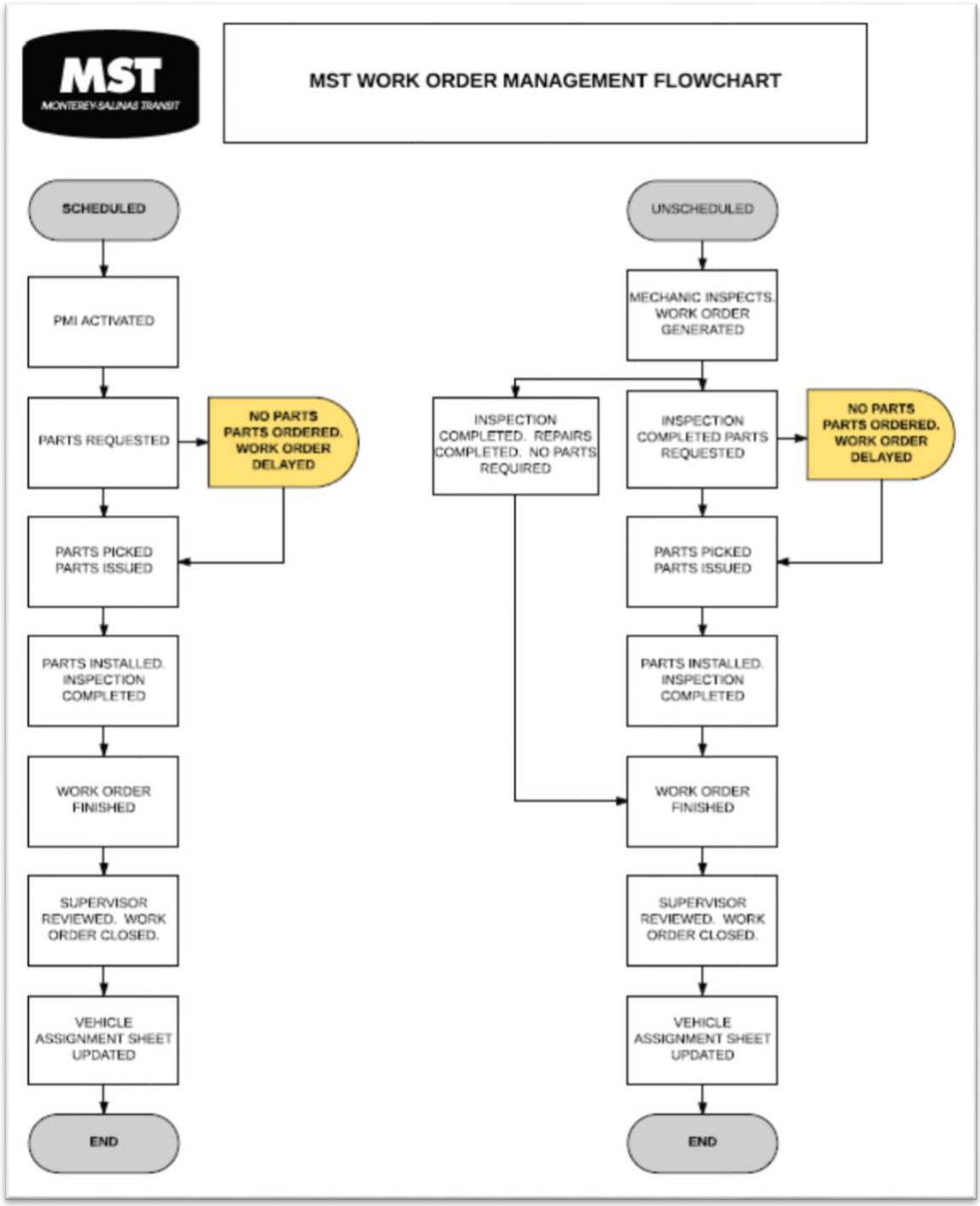
_____ Drain Air Tanks, Test Check Valves, Check Tank Mountings.

_____ Check and Test Operation of the Parking Brake.

Appendix C – Organization Chart – Fleet and Facilities Maintenance



Appendix D – Work Order Flowchart



Appendix E – Contingency Fleet Plan

Also located at H:\Maintenance Dept\Fleet\Contingency Fleet Plan\MST Contingency Fleet Plan 20170928.docx

This section outlines the periodic need and justification for Monterey-Salinas Transit District (MST) contingency bus fleet. The Contingency Fleet Plan is required by the Federal Transit Administration prior to establishing a contingency fleet.

Buses may be placed in an inactive contingency fleet in preparation for emergencies. No bus may be placed into the contingency fleet before the vehicle has reached the end of its minimum useful service life; except, if MST is forced to reduce service, and as a result, MST's vehicle requirement is reduced. Any rolling stock not included in a contingency plan will be considered part of the active fleet or awaiting delivery to be auctioned off, after completing its useful service life.

Vehicles in the contingency fleet are not part of the active fleet and are not calculated in the spare ratio. The FTA recognizes two types of vehicles: active and contingency. During a period of vehicle replacement, some buses could be inactive. This is a temporary condition and will not be considered active or contingency. The MST Contingency Plan accounts for rolling stock in a contingency fleet due to numerous reasons, including procurement schedules for fleet replacement, expansion and other justification for a contingency fleet as noted below. Buses delivered for future expansion that have been replaced, but are in the process of being disposed of will be identified and separated from other spares so as to provide an accurate spare ratio.

Buses held in a contingency fleet will be properly stored, maintained, and documented in a contingency plan. That documentation will be used once the first bus is placed in a contingency status. The plan will be updated as necessary, to support the Agency's need of a contingency fleet.

Policy Statement

MST established and maintains a contingency bus fleet. When applicable, the contingency fleet is in addition to the normal spare ratio allowed by Federal regulations and will only be used when circumstances warrant. The buses in this fleet will be used for emergency contingencies, including occasional in-service use to ensure mechanical reliability and fleet readiness. (Additional definitions are listed below)

Definitions:

Contingency Bus Fleet – The buses identified in the MST contingency fleet may be used during emergency operation, including but not limited to civil evacuations due to an earthquake, fire, flood or other natural or man-made disasters. Vehicles may also

be used for potential service expansion, fuel shortages, or loaned to another transit agency. Vehicles may also be used due to the loss of an operating base and for other undefined emergencies or service requirements.

A sudden unanticipated reduction in the availability of buses in the active bus fleet could require that buses in the contingency fleet be placed back into service. Such an event could occur if a significant number of buses were damaged or destroyed by fire, flood, or other natural disaster.

Additional use of contingency buses may also include but is not limited to a fleet wide defect or a major component recall impacting a significant portion of a fleet, or other fleet wide failure, including the failure of a major component of a group or sub fleet of buses, e.g., an engine or transmission failures.

Buses in the contingency fleet may also be used for behind-the-wheel and/or Technician training and are subject to occasional in-service use to ensure mechanical reliability and fleet readiness. Any bus placed into the contingency fleet must meet the FTA minimum retirement standards.

Service Life – Vehicle life of rolling stock begins on the date the vehicle is placed in revenue service and continues until it is removed from service. Minimum service lives for buses are listed below under FTA Useful Life Policy.

Each vehicle placed into a contingency fleet will be examined for reliability versus the need for disposal prior to placement in the contingency fleet. The MST contingency standards are based on FTA guidelines.

Maintenance of the Contingency Fleet – Buses in the contingency fleet are subject to a 6,000 mile preventive maintenance schedule for the vehicles. Periodic vehicle "start-ups" will occur between normal preventive maintenance inspections so that the fleet remains ready for service at all times. All records associated with these buses will be maintained by MST.

At a minimum, the heavy duty diesel fleet will have a visual inspection and start up at every 45 days with a modified, but more extensive PM at 90 days.

Appendix F – FTA Useful Life Policy

FTA C-9300.1B
Useful life of rolling stock begins on the date the vehicle is placed in revenue service and continues until it is removed from service.

Minimum useful life for buses, vans, trolleys, and ferry boats is determined by years in service or accumulation of miles, whichever comes first, as follows:

- **Large, heavy-duty transit buses** including over the road buses (approximately 35'–40', and articulated buses): at least 12 years of service or an accumulation of at least 500,000 miles.

- **Small size, heavy-duty transit buses** (approximately 30'): at least ten years or an accumulation of at least 350,000 miles.

- **Medium-size, medium-duty transit buses** (approximately 25'–35'): at least seven years or an accumulation of at least 200,000 miles.

- **Medium-size, light-duty transit buses** (approximately 25'–35'): at least five years or an accumulation of at least 150,000 miles.

- **Other light-duty vehicles used in transport of passengers (revenue service)** such as regular and specialized vans, sedans, light-duty buses including all bus models exempt from testing in the current 49 CFR Part 665: at least four years or an accumulation of at least 100,000 miles.

Appendix G – Contingency Fleet Request Form

MST
MONTEREY-SALINAS TRANSIT

PREAUTHORIZATION FORM: USE OF CONTINGENCY FLEET

Request Initiated By:_____ Date:_____
MST or MV Inc. Authorized Representative

Authorization Request Approved By: _____ Date:_____
Director of Transportation Services or AGM/COO

Vehicles Requested/Required: _____
(List Vehicle ID)

Anticipated Period of Use*:_____

Check Intended Use of Contingency Fleet and Provided Brief Explanation:

1. Emergency Response*:_____
   a. Example: Earthquake, fire, flood, natural/man made disaster
2. Evacuation*:_____
   a. Example: Emergency event, Office of Emergency Services/Multi-Agency Drill
3. Service expansion:
   a. Fleet Expansion due to:_____
4. Fleet Wide Mechanical Failures:_____
   a. Example: Mechanical failures impacting a significant portion of a fleet
5. Mechanic training* to ensure mechanical reliability and fleet readiness:
   a. Explain and list days of use:_____
6. Other Undefined Emergencies:_____

* MST Preauthorization Not Required for Emergency Response, Evacuation or Mechanic Training

After placing vehicle(s) back in contingency status, list dates and the number of days used with total mileage:

_____

_____

8

Appendix H – MST Owned and Operated Vehicles

Model year	Manufacturer	Length	Type
2003	GILLIG	40′	LOW-FLOOR
2003	GILLIG	40′	LOW-FLOOR
2003	GILLIG	40′	LOW-FLOOR
2003	GILLIG	40′	LOW-FLOOR
2003	GILLIG	40′	LOW-FLOOR
2003	GILLIG	40′	LOW-FLOOR
2003	GILLIG	40′	LOW-FLOOR
2003	GILLIG	40′	LOW-FLOOR
2003	OPTIMA	30′	BATTERY ELECTRIC TROLLEY
2003	OPTIMA	30′	DIESEL TROLLEY
2003	OPTIMA	30′	DIESEL TROLLEY
2007	GILLIG	35′	LOW-FLOOR
2007	GILLIG	35′	LOW-FLOOR
2007	GILLIG	35′	LOW-FLOOR
2007	GILLIG	35′	LOW-FLOOR
2007	GILLIG	35′	LOW-FLOOR
2007	GILLIG	35′	LOW-FLOOR
2007	GILLIG	35′	LOW-FLOOR
2007	GILLIG	35′	LOW-FLOOR
2008	GILLIG	40′	LOW-FLOOR
2008	GILLIG	40′	LOW-FLOOR
2008	GILLIG	40′	LOW-FLOOR
2008	GILLIG	40′	LOW-FLOOR
2008	GILLIG	40′	LOW-FLOOR
2009	MCI	45′	COMMUTER COACH
2009	MCI	45′	COMMUTER COACH
2010	MCI	45′	COMMUTER COACH
2011	MCI	45′	COMMUTER COACH
2013	GILLIG	40′	LOW-FLOOR COMMUTER
2015	GILLIG	40′	LOW-FLOOR
2015	GILLIG	40′	LOW-FLOOR
2015	GILLIG	40′	LOW-FLOOR
2015	GILLIG	40′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	35′	LOW-FLOOR
2015	GILLIG	40′	LOW-FLOOR COMMUTER
2015	GILLIG	40′	LOW-FLOOR COMMUTER

Model year	Manufacturer	Length	Type
2015	GILLIG	40′	LOW-FLOOR COMMUTER
2015	MCI	45′	COMMUTER COACH
2015	MCI	45′	COMMUTER COACH
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	35′	LOW-FLOOR
2018	GILLIG	40′	LOW-FLOOR COMMUTER
2018	GILLIG	40′	LOW-FLOOR COMMUTER
2018	GILLIG	40′	LOW-FLOOR COMMUTER
2018	GILLIG	40′	LOW-FLOOR COMMUTER
2018	GILLIG	40′	LOW-FLOOR COMMUTER
2018	BYD	30′	BATTERY ELECTRIC LOW-FLOOR
2018	BYD	30′	BATTERY ELECTRIC LOW-FLOOR
2019	HOME TOWN	35′	DIESEL TROLLEY
2019	HOME TOWN	35′	DIESEL TROLLEY
2019	HOME TOWN	35′	DIESEL TROLLEY
2019	HOME TOWN	35′	DIESEL TROLLEY
2019	HOME TOWN	35′	DIESEL TROLLEY
2019	GILLIG	40′	LOW-FLOOR COMMUTER
2021	GILLIG	40′	BATTERY ELECTRIC LOW-FLOOR
2021	GILLIG	40′	BATTERY ELECTRIC LOW-FLOOR

Model year	Manufacturer	Type
2001	FORD	F-550
2001	FORD	F-550
2004	CHEVROLET	EXPRESS 3/4 TON VAN
2004	CHEVROLET	EXPRESS 3/4 TON VAN
2007	HONDA	CIVIC
2008	TOYOTA	PRIUS
2009	TOYOTA	PRIUS
2009	TOYOTA	PRIUS
2009	TOYOTA	PRIUS
2009	TOYOTA	PRIUS
2009	TOYOTA	PRIUS
2010	TOYOTA	PRIUS
2010	TOYOTA	PRIUS
2010	TOYOTA	PRIUS
2011	FORD	F-350
2015	FORD	F-350
2015	NISSAN	BATTERY ELECTRIC VEHICLE
2015	NISSAN	BATTERY ELECTRIC VEHICLE
2015	TOYOTA	TACOMA
2016	FORD	TRANSIT VAN
2016	FORD	F-250
2016	FORD	F-150
2016	NISSAN	NISSAN
2016	TOYOTA	PRIUS
2016	TOYOTA	PRIUS
2017	FORD	F-350
2017	FORD	F-350
2017	TOYOTA	PRIUS V
2017	TOYOTA	PRIUS V
2017	TOYOTA	PRIUS V
2017	TOYOTA	PRIUS V
2018	FORD	F-350
2019	FORD	TRANSIT VAN
2019	FORD	F-350
2019	FORD	F-350
2019	FORD	F-350
2022	FORD	F-350
2022	FORD	F-350