




Standard Maintenance Procedure W, P&S	SMP 25.4	Page 1 of 7
	Date of issue: August 31, 2017	Revision: 1
HI-RAIL MOUNTED AERIAL LIFT EQUIPMENT OPERATION		

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1.0 PURPOSE

To provide guidelines for the safe operation of Hi-Rail aerial lift equipment.

2.0 DEFINITIONS

Aerial Lift Equipment – Equipment outfitted with devices designed to lift personnel to working heights over eight (8) feet.

Hi-Rail equipment – Vehicles equipped with flanged wheels and rubber tires that allow the equipment to be operated on tracks or roadway.

Overhead Contact System (OCS) – The system of overhead wires and support structures which supplies electrical power to pantograph of trains (LRV).

Minimum Approach Distance (MAD) – The closest distance an employee is permitted to approach an energized or a grounded object (**Reference: NFPA 70E table 130.4(D) (b).**)

Personal Protective Equipment (PPE) – PPE is an item or items used to protect the eyes, face, head, body, arms, hands, legs and feet such as



Standard Maintenance Procedure W, P&S	SMP 25.4	Page 2 of 7
	Date of issue: August 31, 2017	Revision: 1
HI-RAIL MOUNTED AERIAL LIFT EQUIPMENT OPERATION		

goggles, hardhats, respirator, gloves, rain gear, disposable coveralls, Class II Hi-visibility reflective vests, safety shoes, protective shields and barriers.

Qualified Person – A status attained by an employee who has successfully completed all required training for, has demonstrated proficiency in, and has been certified by the employer to perform the duties of a particular position or function.

3.0 REQUIREMENTS

- 3.1 All personnel must be qualified before operating any aerial lift equipment.
- 3.2 All personnel shall perform a Pre/Post Trip inspection before/after operating any aerial lift equipment.
- 3.3 All personnel must pass a hi-rail operation training course for each type of vehicle or equipment provided by KCM.
- 3.4 All personnel shall pass the Rulebook and Track Operations Test provided by KCM.
- 3.5 All personnel shall operate all vehicles and equipment in compliance with established Rules, Policies and Procedures at all times.
- 3.6 Manuals for the aerial lift equipment must be available inside the truck at all times and all personnel must be trained on, and familiar with, the manufacturer's documentation.
- 3.7 All King County Metro (KCM) employees are required to complete a refresher training course provided by KCM, on each piece of aerial lift equipment every two years.
- 3.8 Hi-Rail aerial lift equipment performing work other than a driving visual inspection, must be operated/supported by a minimum of two workers. One worker may work in the lift while the other worker serves as a

**King County**Department of Transportation
Metro Rail Operations Section

Standard Maintenance Procedure W, P&S	SMP 25.4	Page 3 of 7
	Date of issue: August 31, 2017	Revision: 1
HI-RAIL MOUNTED AERIAL LIFT EQUIPMENT OPERATION		

ground worker and/or safety watcher, and driver when the bucket is not deployed within the MAD. Equipment built for more than one worker on the lift may be used for such, but always requires one worker at ground level.

- 3.9 Aerial lift equipment is used to provide a working platform for personnel performing tasks that cannot be reached from the ground or cannot be safely performed from ladders. Aerial lift equipment which is used for "Energized" work must be built and tested to ANSI A92.2 specifications. Annual dielectric testing of insulated aerial lift equipment used for "Energized" work is required.
- 3.10 Personnel who perform work from the aerial lift equipment must wear a Fall Protection Harness or Gear that is in good working order at all times during aerial work. All fall protection must be inspected daily and prior to every use. Only a full body harness attached to shock absorbing lanyard and connected to the approved anchor points, may be used for Fall Protection.

4.0 PROCEDURES

- 4.1 Perform a pre-trip inspection.
- 4.2 Aerial equipment operating without Hi-Rail gear deployed shall always use outriggers with pads before taking the boom out of the rack or stowed position.
- 4.3 Aerial lift equipment operating with Hi-Rail equipment deployed shall always use both outriggers with pads when taking the boom/bucket over the sides of the truck body.
- 4.4 Perform a post trip inspection.



Standard Maintenance Procedure W, P&S	SMP 25.4	Page 4 of 7
	Date of issue: August 31, 2017	Revision: 1
HI-RAIL MOUNTED AERIAL LIFT EQUIPMENT OPERATION		

5.0 RESPONSIBILITIES

5.1 Aerial Workers must:

- 5.1.1 Obtain training, certification and recertification required to operate aerial lift equipment.
- 5.1.2 Maintain a means of communications with the Link Control Center (LCC) in accordance with SOP 2.1 Two Way Radio Procedures, the vehicle driver and/or ground worker.
- 5.1.3 Ensure that personnel never bridge the point of insulation when performing energized work and have required PPE.
- 5.1.4 Remain in view and maintain communications with the driver when performing mobile operations with bucket trucks.
- 5.1.5 Remain below any aerial obstruction or safety issue when performing mobile operations.
- 5.1.6 Ensure that all terrain where mobile operations are performed is solid and not subject to cave-in (if outriggers are required heavy duty pads under outrigger foot shall be used at all times).
- 5.1.7 Keep the boom at the lowest possible level, with minimal extension, to perform the task required.
- 5.1.8 Wear all prescribed PPE, including Fall Protection Gear, for all aerial tasks and other required tasks.
- 5.1.9 Wear approved and tested rubber gloves with leather protectors when performing "Energized" or "De-energized" work in accordance with SMP 28.13 PPE. Never depend solely on the aerial lift equipment to provide personal insulation.



Standard Maintenance Procedure W, P&S	SMP 25.4	Page 5 of 7
	Date of issue: August 31, 2017	Revision: 1
HI-RAIL MOUNTED AERIAL LIFT EQUIPMENT OPERATION		

Exception: If the OCS in the work area has been "De-energized" [tested for Voltage with a calibrated 2kV dc meter and grounded from Positive (OCS) to Negative (Rail) with a proper ground device].

5.2 Equipment Operator (Driver) must:

- 5.2.1 Obtain training, certification and recertification required to operate aerial lift equipment.
- 5.2.2 Perform a pre-trip inspection as recommended by the equipment O&M Manual daily prior to operating.
- 5.2.3 Maintain communication and view with the aerial lift operator at all times.
- 5.2.4 Ensure that personnel never bridge the point of insulation when performing "Energized" work.
- 5.2.5 Ensure the aerial lift operator remains in clear view when performing mobile operations with Bucket trucks.
- 5.2.6 Ensure that the aerial lift operator remains below any aerial or safety obstruction when performing mobile operations.
- 5.2.7 Never exceed a speed of 5 MPH when performing mobile "patrolling" operations.
- 5.2.8 Ensure that all terrain where mobile operations are performed is solid and not subject to cave-in (for stationary work, if outriggers are required, heavy duty pads under outrigger feet will be used at all times).
- 5.2.9 Wear all prescribed PPE for each task.
- 5.2.10 Be aware that the aerial vehicle frame or body may become energized when "Energized" work is being performed.



King County

Department of Transportation
Metro Rail Operations Section



Standard Maintenance Procedure W, P&S	SMP 25.4	Page 6 of 7
	Date of issue: August 31, 2017	Revision: 1
HI-RAIL MOUNTED AERIAL LIFT EQUIPMENT OPERATION		

5.2.11 Driver shall not play the truck AM/FM radio while on hi-rail.

5.2.12 Driver shall unlock all doors and truck side bins or boxes before hi-railing with aerial vehicle.

5.2.13 Driver shall not cut off or switch off the ignition of the truck, during hi-railing of any aerial vehicle or while a vehicle is on rail, except in an emergency.

5.3 Ground Workers must:

5.3.1 Obtain training, certification, and recertification required to operate aerial lift equipment.

5.3.2 Maintain communication and view with the lift operator at all times.

5.3.3 Ensure that personnel never bridge the point of insulation when performing "Energized" work.

5.3.4 Ensure the equipment lift operator remains in view when performing mobile operations with Bucket trucks.

5.3.5 Support the aerial worker(s) as required. Keep the equipment operator(s) (aerial) in view at all times that "Energized" work is being performed.

5.3.6 Maintain vigilance and note that the aerial lower control must be switched to ground should an emergency occur.

5.3.7 Be aware that the aerial vehicle frame or body may become energized when "Energized" work is being performed.



Standard Maintenance Procedure W, P&S	SMP 25.4	Page 7 of 7
	Date of issue: August 31, 2017	Revision: 1
HI-RAIL MOUNTED AERIAL LIFT EQUIPMENT OPERATION		

6.0 APPENDICES

None

7.0 SUMMARY OF CHANGES

Initial Issue – 09/05/2012

Revision 1 – 08/04/2017

- Changed Title by adding Hi-Rail Mounted
- Updated Signature block
- Added MAD definition
- Changed 3.7 from semi-annually to every two years
- Added new 5.2.2
- Minor edits throughout