Mobile Elevated Work Platforms (MEWP)

1. **Purpose / Background**
The purpose of this program is to ensure the safe operation of Mobile Elevated Work Platforms (MEWP's) including aerial lifts (bucket trucks and boom lifts), genie lifts (mast systems), and scissor lifts.

2. **Scope**
Mobile Elevated Work Platforms are used in maintenance, cleaning operations, and other applications throughout MIT. This MEWP Standard Operating Procedure (SOP) covers all employees, contractors and students of MIT, who are designated by their departments to operate, service, repair, maintain or supervise mobile elevated work platforms. Undergraduate student use of MEWP’s is prohibited without written approval from ones immediate Principal Investigator or Supervisor. Any person under 18 years old may not use MEWP’s. (Please see Appendix D for further clarification and requirements for individuals who are permitted to use MEWP’s.)

3. **Prerequisites**
Before the use of MEWP’s at MIT all personnel shall have training in the Fall Protection / Personal Fall Arrest Program.

4. **Procedures**

4.1. **Pre-Use Inspection**
- Prior to the operation of any MEWP the Pre-Use Inspection Checklist found in Appendix A, must be completed. This applies to the beginning of every work period, and whenever a new equipment operator takes control of the MEWP.
- Any defects found during the pre-use inspection must be reported to the supervisor, for immediate repair. The MEWP must also be locked, tagged, and taken out of service.
- Inspection forms specific to individual pieces of equipment may be created by the department which owns the equipment providing they are equal to, or more stringent, than the Pre-Use Inspection Checklist in Appendix A.
- Inspection forms must be kept either on the equipment or when completed, on file.
- An inspection record file shall be created and maintained for 3 years by the department responsible for the MEWP.

4.2. **Operating Procedures**
- MEWP’s must be operated and used in accordance with OSHA regulations, American National Standards Institute (ANSI) standards, and manufactures recommendations.
- Workplace assessment: Prior to, and throughout use; the user shall check the area in which the MEWP is to be used. This assessment shall include, but is not limited to:
  - Floor conditions
  - Housekeeping
  - Hazardous energy
  - Clearance and obstructions
4.3. **Spotter**

A spotter is an individual who is not operating the machine. Their single responsibility is to observe the MEWP, and the operator to ensure there is no injury to the operator or damage to the environment around the MEWP.

- Depending on the location and local work environment, safety spotters may be required during the use of MEWP.
  - Spotters shall be required when there is a potential for operator injury due to physical contact with power lines, facility systems, or structures.
  - Spotters shall also be required when there is potential for damage to sensitive facility structures, such as:
    - Congested work locations with overhead piping/mechanical chases above ceiling grids.
    - Areas of operation or ongoing work.
    - Areas of poor visibility.
    - Locations adjacent to hazardous materials.
    - Areas containing energized electrical equipment.
  - A safety spotter may be another co-worker located on the work platform or on the ground, depending on the area to be observed during movement.
  - The spotter shall work in conjunction with the operator to ensure the MEWP is utilized in a safe manner.
  - Spotters shall be in a visual line of site with the MEWP and be able to lower the MEWP in an emergency.
  - Spotters shall monitor all horizontal and vertical movements and provide guidance to the operator.
  - A spotter may spot for multiple lifts.
  - The spotter is meant to be a productive worker who can be called on to observe the MEWP during vertical or horizontal movement.
4.4. **Street and On Campus Travel**

- Prior to travel anywhere, booms and towers must be secured in the lower traveling position by the locking devices provided by the manufacturer, or equally effective means.
- Before travel on open roadways operators must secure necessary traffic permits from state and local authorities.
- Under all travel conditions, the operator shall limit travel speed according to conditions of ground surface, congestion, visibility, slope, and location of personnel, and other factors that may create hazards related to travel.
- Personnel are not allowed to ride in the basket during travel, unless it is approved in writing by the manufacturer.
- The MEWP shall not be driven on grades, side slopes, or ramps exceeding the rated capacity of the MEWP, as stated by the manufacturer.

4.5. **Fall Protection**

- The MEWP shall be equipped with a standard guardrail system that has been installed according to manufactures specification, and is in safe working condition.
- The floor and work platform must be kept in a clean and orderly fashion. The use of planks, ladders, or any other device on a MEWP for achieving additional height or reach is prohibited.
- Personnel must remain within the confines of the guardrail system with both feet firmly on the floor of the basket, any time the platform is elevated.
- Tying off to an adjacent structure while working inside the cage of an MEWP lift is prohibited.
- Employees shall remain tied-off until the work is finished and the basket has been safely lowered.

4.5.1. **Aerial Boom Lift**

- A full-body harness with a fall arrest lanyard must be worn at all times by those workers located within the lift cage. The fall arrest lanyard must be attached to the aerial boom lifts designated anchor point.

4.5.2. **Scissor Lift**

- A full-body harness with fall arrest lanyard shall be worn if the manufacturer recommends and has supplied tie-off points on the Scissor lift.

4.5.3. **Genie Lift (Mast System Lift)**

- A full-body harness with fall arrest lanyard shall be worn if the manufacturer recommends and has supplied tie-off points on the Genie lift.

4.6. **Clearance and Overhead Protection**

- Clearance must be maintained between the MEWP and overhead obstructions to prevent personnel from becoming caught between the MEWP and overhead obstructions.
- Care shall be taken to prevent rope, electric cords, and hoses from becoming entangled in the MEWP.
- The operator or spotter must ensure that the area surrounding the MEWP is clear of personnel and equipment before lowering the platform.

4.7. **Load Limits**

- Loads shall not exceed the established manufacture load ratings.
- All loads are to be distributed as recommended by the manufacturer. MEWP’s shall not be used as a crane (i.e. transport of materials, hoisting tools and equipment, etc.).
- Load limits for booms and baskets shall be posted in a visible location on the MEWP.
- Caution should be taken when lifting loads in windy condition. Refer to the operator’s manual for unacceptable conditions. (Manufactures differ in maximum wind speeds. Generally, unacceptable conditions are 22 to 28 mph and over. The NOAA website at [http://www.noaa.gov/](http://www.noaa.gov/) will provide hourly wind speeds).

4.8. **Outriggers**

- Outriggers, stabilizers, extendable axel, or other stability enhancing means shall be used as required by the manufacturer.
- When setting outriggers, remember the following:
  - Position outriggers on solid surface such as mud sills (wooden pads), concrete, asphalt, or steel plates.
  - Position outriggers on level ground.
  - If outriggers are positioned on soil, check the soil density to ensure that the surface is stable and not recently backfilled. See table below.
  - Always use cribbing (pads) when positioning outriggers on soil.
  - The weight bearing properties of a sidewalk. Note that some sidewalks are hollow.
  - Always bring the outrigger straight down, never at an angle.
  - Never stand behind an outrigger or between an outrigger and another object.

4.8.1. **Soil Type and Approximate Load-bearing Capacity**

<table>
<thead>
<tr>
<th>Soil Type</th>
<th>Approximate Load-bearing Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virgin Ground</td>
<td>22 PSI</td>
</tr>
<tr>
<td>Asphalt</td>
<td>29 PSI</td>
</tr>
<tr>
<td>Compressed / Crushed Stone</td>
<td>36 PSI</td>
</tr>
<tr>
<td>Clay / Silt Soil (firm)</td>
<td>43 PSI</td>
</tr>
<tr>
<td>Mixed Granular Soil</td>
<td>51 PSI</td>
</tr>
<tr>
<td>Firm, Compacted Gravel</td>
<td>58 PSI</td>
</tr>
<tr>
<td>Brittle, Weathered Rock</td>
<td>145 PSI</td>
</tr>
</tbody>
</table>

**Estimated Soil Pressure Equation**

\[
\frac{\text{Total Outrigger Force (Pounds)}}{\text{Area of Soil Contact (Square Inches)}} = \text{Soil Pressure (Pounds per Square Inch)}
\]

4.9. **Brakes**
Prior to operating the lift, the operator shall ensure that the brakes are set to prevent accidental movement.

4.10. **Wheel Chocks**
- Wheel chocks provide additional protection against accidental movement or slippage of vehicles by bracing the wheels on either side.
- Wheel chocks should be utilized before operating a MEWP, if recommended by the manufacturer. Wheel chocks are most important when moving basket, shifting weight, or on an incline.

4.11. **Power Lines**
- A spotter should be used when operating an MEWP near power lines.
- Only MEWP with insulated baskets may be used for overhead power line work.
- The MEWP’s insulation should be inspected before use near power lines for decay and damage that could reduce its level of protection.
- MEWP’s that are not insulated must maintain at least a 10 foot distance between all parts of the MEWP, and energized electrical lines.
- Operators should always consider lines, wires, and conductors as energized, even if they appear to be insulated.
- MIT employees that are not electrical workers and tools/loads shall remain at least 10 feet from power lines.

4.12. **Tip-Overs**
- To avoid tip-overs;
  - Do not exceed the manufactures load capacity limits.
  - Do not raise the platform on a slope or drive onto a slope when basket is elevated.
  - Do not position onto uneven or soft surfaces when elevated.
  - Do not use MEWP in windy conditions. Refer to the operator’s manual for unacceptable conditions. (Manufactures differ in maximum wind speeds. Generally, unacceptable conditions are 22 to 28 mph and over. The NOAA website at [http://www.noaa.gov/](http://www.noaa.gov/) will provide hourly wind speeds).
  - Avoid excessive horizontal forces when working from a MEWP.
  - Do not wrap the basket with any form of material (tarps, cloth).
- If the MEWP basket or supporting assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel shall be removed from the platform/basket before attempts are made to free the platform using ground controls.

4.13. **Pedestrian Traffic**
- Operators are responsible for their surroundings, and the safety of the people in the vicinity of the MEWP.
- All movement performed in areas close to electric lines, over hangs, or in close proximity to pedestrians, should be performed with the aid of a spotter.
In the event that MEWP work needs to be conducted in the vicinity of pedestrian traffic, operators must take precautions to ensure that the work is isolated from pedestrian traffic.
  o MEWP basket shall never be positioned or moving above pedestrians and/or other workers.

4.14. **Signs, Caution Tape, and Barriers**

- If MEWP work is going to be used in an area near pedestrian traffic than operators should isolate the work area by establishing a perimeter and safely diverting the pedestrian traffic.
- Warnings such as, but not limited to flags, roped-off areas, flashing lights, safety cones, danger signs, or barricades should be used to create the perimeter of the work area.
- The perimeter should be delineated in such a way that the boom and basket remain in the work area during all work positioning.
- Example 1 – If the work area is limited, operators may only position the boom as far as the established perimeter.
- Example 2 – If the work area is located in a pedestrian throughway such as a sidewalk, pedestrian traffic must be safely diverted.
- Example 3 – If pedestrian traffic is to be diverted onto a street, a police detail should be hired to direct traffic.
4.15. **Types of lifts**

4.15.1. **Bucket Trucks**
- Cherry pickers and bucket trucks are types of aerial lifts that contain a bucket-like platform attached to a long arm (boom). As the arm unfolds, the platform rises. These lifts are commonly used by utility workers and landscapers.

![Bucket Truck Diagram](image)

4.15.2. **Articulated Boom Lift**
- Articulating boom lifts (Knuckle Booms) are able to extend up and over machinery and other obstacles and are able to reach elevated locations not easily approached by a straight (telescoping) boom lift. Typically, the turntable is capable of rotating up to 360 degrees in either direction. The boom can be raised or lowered from vertical to below horizontal and extended (telescoped) while the work platform remains horizontal and stable. It can be maneuvered forward or backward and steered in any direction by the operator from the work platform, in some cases while the basket is elevated. Most articulating models can be driven with the boom extended to its full elevation. Operators should insure that the articulating boom is designed for this before attempting to drive the lift with the boom extended.
4.15.3. Telescoping Boom Lift

- Telescoping (straight or stick boom) boom lifts are used for applications that require high reach capability. The lift's turntable can be rotated up to 360 degrees in either direction for easier positioning. The boom can be raised or lowered from vertical to horizontal and extended while the work platform remains stable. The operator in the platform can maneuver and steer in any direction, in some cases while the boom is extended. Operators should insure that the articulating boom is designed for this before attempting to drive the lift with the boom extended.

4.15.4. Genie Lifts (Mast System Lifts)

- Genie lifts use a rigid mast system that extend upwards and elevates the platform basket.

4.15.5. Scissor Lifts

- Scissor lifts use criss-cross braces that extend and stretch upward. As the criss-cross braces rise, the platform attached to the top of the braces also rises.
4.16. Maintenance Requirements

- MEWP must be maintained according to manufacturer’s requirements.
- MEWP can be “field modified” for uses other than those intended by the manufacturer, provided the modification has been certified in writing by the manufacturer. It shall also conform to all applicable provisions of ANSI A92.2-1969 for Vehicle-Mounted Elevating and Rotating Platforms; 1910.66 Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms; and 1910.68 Manlifts.
- Operating and maintenance manuals shall be available for each MEWP located on MIT property. Operating manuals shall be obtained or provided with each rental, lease, or sale delivery, and shall be stored in a weather resistant storage compartment located on the MEWP.
- The engine shall be shut down while fuel tanks are being filled, fueling shall be done in a well-ventilated area free of flame, spark, or other hazards. If possible, fueling should be done outdoors.
- Batteries shall be charged in a well-ventilated area free of flame, sparks, or other hazards that may cause fire or explosion.
- Operators shall immediately report any problems or malfunctions that become evident during operation to their supervisor. Any lifts with problems or malfunctions shall be immediately removed from service, locked and tagged, and repaired prior to continued use.
- Operation / maintenance of MEWP shall comply with safety related bulletins as received from the manufacturer, dealer, or owner.

5. Roles & Responsibilities

5.1. Supervisors

- Attend and complete the MEWP safety training.
- Understand the general requirements of the MEWP program.
- Ensure employees complete MEWP safety training.
- Ensure that modifications are not made to MEWP(s) without manufacturer’s prior approval.
- Ensure signs, caution tape, barriers / fences and other means of diverting pedestrian traffic are in place prior to operating the lift.
- Understand the various types of MEWP(s) and the hazards associated with them.
- Observe the operation of MEWP(s) in the department, and correct unsafe practices.
5.2. Operators

- Ensure that modifications are not made to MEWP(s) without manufacturer’s prior approval.
- Perform MEWP pre-use safety inspection prior to each use (Appendix A).
- Attend and complete the MEWP safety training.
- Understand the general requirements of the MEWP program.
- Conduct a work area inspection prior to using the MEWP.
  - Ensure the MEWP is not located next to a building air intake. If there is no other option, for the placement of the MEWP, attempt to turn the air intake off or give prior notice to the building occupants.
- Report damaged or worn personal fall arrest system components to the supervisor.
- Inspect batteries for proper electrolyte fluid levels; no cracks or holes; cells are secured and not leaking; no frayed electrical cables; no broken or cracked insulation; tight connections; and no clogged vent caps.
- Inspect gas cylinders for worn parts.
- Ensure that equipment for protection against accidental vehicle movement (brakes, wheel chocks, outriggers) are in place prior to operating MEWP.
- Maintain at least 10 ft. clearance from power lines and other dangerous obstacles.
- Ensure signs, caution tape, barriers / fences and other means of diverting pedestrian traffic are in place prior to operating the lift.
- Understand the various types of MEWP(s) and the hazards associated with them.
- Observe the operation of MEWP(s) in the department, and correct unsafe practices to your supervisor.

5.3. Departments Assigned MEWP(s)

- Implement and administer the MEWP program.
- Review the MEWP program annually for compliance and effectiveness.
- Make recommendations for revisions to the MEWP SOP if necessary.
- Maintain records of MEWP’s purchaser, instruction manuals, and other pertinent information.
  - Fill out pre-acceptance inspection checklist.
  - Maintain all records of repair on MEWP for the lifetime of the machine.
- Complete Supervisor / 3rd Party Annual Assessment form (Appendix B).

5.4. Environment Health and Safety Office

- Maintain and update the MIT MEWP Program.
- Conduct MEWP Safety Training.
- Upon request, evaluate work areas and employee work practices.
- Observe the operation of MEWP(s) on campus, and correct unsafe practices to the supervisor.

5.5. Contractors

Contractors shall comply with all local, state, federal, and manufacture safety requirements, and assure that all of their employees performing work on MIT
properties have been trained on the use/hazards of the MEWP they are using. Contractors must also comply with the requirements outlined in the MIT Contractor Safety Program. Contractors shall use their own MEWP. MIT will not provide MEWPs to contractors, only to trained members of the MIT community. The hiring supervisor, of the contractor using MEWP’s on campus, shall inspect the contractor operation to insure the best practices of this program are being followed while on MIT premises.

5.6. Variances from this Procedure
Any form of variance from this MEWP SOP shall be submitted in writing to the MIT EHS Office and the Supervisor of the particular operation, prior to the start of work.

<table>
<thead>
<tr>
<th>Competent Person(s) / Trainers at MIT</th>
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<tbody>
<tr>
<td><strong>Boom Lifts</strong></td>
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<tr>
<td>Akerley, Ed</td>
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<td>Saffie, Gary</td>
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<tr>
<td><strong>Genie Lifts</strong></td>
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6. Training

6.1. General
All MEWP operators shall be trained in accordance with the manufactures operating and maintenance manual, OSHA regulations, ANSI regulations, the operators work instructions, and the requirements listed in this SOP before operating a MEWP. Only properly trained and authorized personnel shall be permitted to operate the MEWP.

The operator shall be trained either on the same model MEWP or one having operating characteristics and controls consistent with ones to be used during actual work site operation. MIT Employees will complete a classroom training conducted by EHS. The formal EHS training consist of a general overview of the MEWP’s functions, controls, and common hazards.

Additional, hands on training shall be conducted by a competent person, and administered by the purchasing DLC, or EHS. The competent person (see definition) can be MIT personnel, or be provided by the company selling the MEWP. This hands on training will entail, the employee operating the MEWP for a period of time, under the direction of said competent person, to demonstrate proficiency and knowledge in the operation of the equipment.

6.2. Operator
Prior to operating any MEWP the trainee will read and understand the manufacturers operating instruction(s) and user safety rules, or receive training by a qualified person on the contents of the manufactures operating instruction(s) and user safety rules.

- Receive instruction on the intended purpose and function of each control.
- Understand by reading or having a competent person explain all decals, warnings, and instructions displayed on the MEWP.
- Be informed of the MEWP operating limitations and restrictions as defined by the manufacturer.

6.3. **Spotter**
- Trained to perform their assigned roles/responsibilities as defined.
- Understand the basic operating procedures of each MEWP they monitor.
- Understand the operation of the MEWP ground station controls and possess complete understanding of the overriding capability of the work platform controls.
- Indicate any unsafe conditions to operator.

6.4. **Maintenance Personnel**
- All personnel performing repair or preventative maintenance on MEWP shall be trained in accordance with manufacturer requirements.

6.5. **Retraining**
Retraining is needed anytime a worker demonstrates that they lack the knowledge necessary to use MEWP’s in accordance with MIT’s MEWP policy or the manufacturer’s recommendations, when changes in the workplace render previous training obsolete, or if there have been changes to the current MEWP program.

6.6. **Training Records**
Training shall be documented. Training records shall be kept as part of the EHS-MS training system. Names and dates of MIT personnel receiving “Mobile Elevated Work Platform (MEWP)” training should be sent to the DLC’s EHS Coordinator, and emailed to environment@mit.edu or mailed to the EHS Office at N52-496.

7. **Monitoring Requirements**
7.1. **Departments with MEWP(s)**
- Review documents prepared by individual supervisors. Documents may include, but not be limited to:
  - Employee evaluation on use of MEWP.
  - Visual operating observations.
  - Daily Pre-Use Inspection Form (Appendix A) including the resolution of any deficiencies noted by operators.
  - Complete Supervisor / 3rd Party Annual Assessment form (Appendix B).

7.2. **Supervisors**
- Review documents prepared by operators to ensure accuracy and consistency.
Review all requests for repairs, and document completed repairs.
Ensure that an MEWP does not remain in use if safety concerns are noted on the Daily Pre-Use Inspection Form.
Visually observe each MEWP operator at least annually to assess their use of MEWP competency and compliance with this SOP. Supervisors shall place the following information in each operators file to document their observations: Operators name, date, time, location, MEWP used, and supervisors' comments relative to the performance observed.

7.3. MIT EHS Office
- Review all records received, and evaluate the completeness and accuracy.
- Monitor the submission of required records and reports.
- Maintain record of all documents received.
- Provide additional training as may be necessary to ensure compliance with MEWP program.
- Review and respond to all comments and suggestions received from DLC's, supervisors, or operators pertaining to the MEWP program.
- Correct unsafe practices of MIT employees or contractors and report to supervisor.

7.4. Review of Program
The review of the MEWP program will encompass changes in regulations, safety hazards as related to MEWPs, changing demands of the program for MIT, changes in technology, or lessons learned.

8. Record Management
MEWP owners shall keep the operator/instruction manual on the lift, according to the procedures described in this SOP. Additionally, DLC's / supervisors shall maintain copies of all operation/instruction manuals, the pre acceptance inspection checklist, daily pre-use inspections, Annual inspections, hands on training attendance, repair documentation, and any other documentation pertaining to the MEWP. All documentation shall be maintained for the lifetime of the MEWP.

9. References
9.1. Standards
OSHA Standard 29 CFR 1910.67 Vehicle-mounted elevating and rotating work platforms
OSHA Standard 29 CFR 1926.453 Aerial Lifts
ANSI / SIA 92.6 Self Propelled Elevating Work Platforms
ANSI / SIA A92.2-1900 Vehicle Mounted Elevating and Rotating Devices
ANSI / SIA A92.3 Manually Propelled Elevating Work Platforms
ANSI / SIA A92.5 Boom-supported Elevating Work Platforms

9.2. Other SOP/ SOGs
Fall Protection SOP
Scaffolding SOP (Pending)
9.3. **Supplementary Documents**


10. **Definitions**

- **Authorized Personnel (Authorized Person)** - Personnel approved as assigned to perform a specific type of duty or duties at a specific location or locations at a work site.

- **Competent Person** - One who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

- **Delivery** - Transfer of care, control, and custody of the MEWP from one person or entity to another person or entity.

- **Directional controls** - Controls that initiate functions that affect movement of the platform or the MEWP.

- **Guardrail system** - A vertical barrier erected to prevent personnel from falling to lower levels.

- **Hazardous location** - Any location that contains, or has the potential to contain, an explosive or flammable atmosphere as defined by ANSI/NFPA 505.

- **Instability** - A condition of an MEWP in which the sum of the movements that tend to overturn the unit exceeds the sum of the movements tending to resist overturning.

- **Interlock** - A control or mechanism that, under specified conditions, automatically allows or prevents the operation of another control or mechanism.

- **Manufacturer** - A person or entity that makes, builds, or produces an MEWP.

- **MEWP (Mobile Elevated Work Platform)** - A mobile device that has an adjustable work platform that can be elevated in order to perform work above the ground level. Examples of MEWP’s include scissors lifts, aerial boom lifts, articulating boom lifts, genie lifts etc.

- **Modification** - To make a change(s) to an MEWP that affects the operation, stability, safety factors, rated load or safety of the MEWP.

- **Operator** - A qualified person who controls the movement of the MEWP.

- **Outriggers** - Devices that increase the stability of the MEWP and that are capable of lifting and leveling the MEWP.

- **Override** - To take over MEWP movement control functions of the work platform control station by personal at the ground station controls.

- **Owner** - A person or entity that has possession of an MEWP by virtue of proof of purchase.

- **Platform** - The portion of an MEWP intended to be occupied by personnel and tools.

- **Qualified Person** - A person who by reason of knowledge, experience, or training, is familiar with the operation to be performed and the hazards involved.

- **Shall**: The word “shall” is to be understood as regulatory requirement.

- **Stabilizers** - Devices that increase the stability of the MEWP but are not capable of lifting or leveling the MEWP.

- **Unrestricted rated work load** - The maximum designed carrying capacity of the MEWP allowed by the manufacturer in all operating configurations.
- **User** - A person(s) or entity having care, control and custody of the MEWP. This person or entity may also be a dealer, owner, leasor, leasee, or operator.
<table>
<thead>
<tr>
<th><strong>Inspection Item &amp; Description</strong></th>
<th><strong>Pass / Fail Status</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Operating and emergency controls are in proper working condition – Emergency Stop Device(s).</td>
<td>P / F</td>
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<tr>
<td>2. Functional upper drive control interlock (i.e. foot pedal, spring lock, or two hand controls).</td>
<td>P / F</td>
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<tr>
<td>3. Emergency lowering function operates properly.</td>
<td>P / F</td>
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<tr>
<td>4. Lower operating controls successfully over-ride the upper controls.</td>
<td>P / F</td>
</tr>
<tr>
<td>5. Both upper and lower controls are adequately protected from inadvertent operation.</td>
<td>P / F</td>
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<tr>
<td>6. Control panel is clean and all buttons/switches are clearly visible.</td>
<td>P / F</td>
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<tr>
<td>7. All switch &amp; mechanical guards are in good condition and properly installed.</td>
<td>P / F</td>
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<tr>
<td>8. All safety indicator lights work</td>
<td>P / F</td>
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<tr>
<td>9. Drive controls function properly &amp; accurately labeled (up, down, right, left, forward, back).</td>
<td>P / F</td>
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<tr>
<td>10. Motion alarms are functional.</td>
<td>P / F</td>
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<tr>
<td>11. Operator manual present and legible and safety decals are in place and readable.</td>
<td>P / F</td>
</tr>
<tr>
<td>12. All guard rails are structurally sound and in place, including basket chain.</td>
<td>P / F</td>
</tr>
<tr>
<td>13. Work platform &amp; extension slides are clean, dry, &amp; clear of debris.</td>
<td>P / F</td>
</tr>
<tr>
<td>14. Work platform extension slides in and out freely with safety locking pins in place to lock setting on models with extension platforms.</td>
<td>P / F</td>
</tr>
<tr>
<td>15. Inspect for defects such as cracked welds, fuel leaks, hydraulic leaks, damaged control cables or wire harness, etc.</td>
<td>P / F</td>
</tr>
<tr>
<td>16. Tires and wheels are in good condition, with adequate air pressure in pneumatic</td>
<td>P / F</td>
</tr>
<tr>
<td>17. Breaking devices are properly operating</td>
<td>P / F</td>
</tr>
<tr>
<td>18. The manufactures operations manual is stored on MEWP (in language of operator)</td>
<td>P / F</td>
</tr>
<tr>
<td>19. Ground / Floor conditions: Drop offs, holes, surface density, uneven or sloped surface</td>
<td>P / F</td>
</tr>
<tr>
<td>20. Housekeeping: Debris, floor obstructions, cords, material and supplies</td>
<td>P / F</td>
</tr>
<tr>
<td>21. Utilities: Electrical power cables or panels, chemical lines, gas lines, drain lines, etc.</td>
<td>P / F</td>
</tr>
<tr>
<td>22. Overhead obstructions</td>
<td>P / F</td>
</tr>
<tr>
<td>23. Pedestrian Travel: the work area has been established, and has appropriate barriers and signage to safely diver pedestrian traffic</td>
<td>P / F</td>
</tr>
</tbody>
</table>

---

**Inspectors signature:**

1) ______________________________ 3) ______________________________
2) ______________________________ 4) ______________________________
5) ______________________________ 6) ______________________________
7) ______________________________
### MEWP Appendix: B

#### Supervisor / 3rd Party Annual Assessment Form

This form is an annual assessment of each MEWP in the DLC area of responsibility.

<table>
<thead>
<tr>
<th>Name of Inspector:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name / Type of MEWP:</td>
<td>Model Equipment #:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Y / N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only trained and authorized personnel used the MEWP?</td>
<td>Y / N</td>
</tr>
<tr>
<td>The operator manuals are located and properly stored on the MEWP at all times?</td>
<td>Y / N</td>
</tr>
<tr>
<td>Ensure that all daily or pre-use safety inspection was conducted and documented?</td>
<td>Y / N</td>
</tr>
<tr>
<td>Ensure the proper fall protection was used when required?</td>
<td>Y / N</td>
</tr>
<tr>
<td>Ensure that trained spotters were used when required?</td>
<td>Y / N</td>
</tr>
<tr>
<td>All maintenance was done by authorized personnel?</td>
<td>Y / N</td>
</tr>
</tbody>
</table>

If the answer is NO, please describe the plan to remedy the situation:
MEWP Appendix: C

Pre-Acceptance Inspection Checklist

This checklist is to be completed upon delivery, but prior to acceptance of any new MEWP purchased at MIT

<table>
<thead>
<tr>
<th>Name of Inspector:</th>
<th>Date:</th>
<th>Purchasing DLC:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name / Type of MEWP:</th>
<th>If all answers are “Yes” then the MEWP can be allowed on MIT property.</th>
<th>If any answer is “No” then the MEWP is not allowed on the site until the deficiency is corrected</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEWP Checklist</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the MEWP controls adequately labeled to indicate direction of movement?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does MEWP move steady?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the MEWP stop smoothly?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The MEWP shows no signs of electrical or mechanical malfunctions?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the emergency stop function properly?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do the MEWP movement controls require two points of contact for vertical or horizontal movement?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the potential for an object to inadvertently activate both points of contact been eliminated?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have two hand actuating safety devices or equivalent been adequately guarded or separated?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If one of the vertical or horizontal movements is controlled by a toggle switch, is the toggle switch spring loaded to a neutral position to prevent a bypass of the dual control?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The acceptance of this lift at MIT does NOT qualify it for operation. The owner of the lift and operator MUST still ensure that all requirements of OSHA, state, local and MIT programs (including the Daily Pre-Use Inspection Form) have been met prior to the operation of the MEWP.
MEWP Appendix: D

MEWP User Qualification

Employee and Student Qualifications

According to the scope of the Mobile Elevated Work Platforms (MEWP) SOP, only MIT employees are permitted to use bucket trucks, boom lifts, genie lifts, and scissor lifts without written approval. The individual is considered an MIT employee if they are described by one of the following criteria.

- The individual is paid by MIT or receives any other type of compensation or service from MIT; or
- The individual is not on the MIT payroll but is directly supervised by MIT personnel (even if the worker is uncompensated or is compensated by another organization). This definition includes volunteers; interns; visiting scientists; all post docs and graduate students; research associates; and temporary workers and contractors if MIT personnel directly supervise them. (Please see below for further discussion if the individual is described by this statement).

Due to the hazardous nature of working with MEWP’s, undergraduates shall not work on or near MEWP’s without written approval by their immediate Principal Investigator (PI) or Supervisor. Written approval shall only be granted after a risk assessment is performed and reviewed by the PI or supervisor with the individual.

Per Massachusetts Labor Laws, individuals under the age of 18 years old are prohibited from using MEWP’s.

The above descriptions, regarding MIT employees, are taken from Section 3.2.2 of the MIT SOP on Reporting Work-Related Injuries and Illnesses, and OSHA standard 29 CFR 1904, Recording and Reporting Occupational Injuries and Illnesses.

Please also note the following Human Resources Policies
This is from the MIT Policies and Procedures responsibilities of supervisors, that links to the EHS Manual:

Principal Investigator (PI)/Supervisor - is responsible for compliance with EHS regulations and good practices in his or her laboratory or non-research facility.

Employees, students, contractors and visitors are responsible for compliance with EHS regulations and requirements in their research or work areas.

Human Resources policies are for employees. They do not have a volunteer policy and HR tells DLCs that they can’t have non-MIT people working as volunteers.