POLICY

1.1. This policy provides the minimum requirements for the use of aerial and scissor lifts. This work instruction applies to all aerial lifts, including extensible and articulating boom platforms, aerial ladders, vertical towers, vertical mast lifts, and scissor lifts.

2. PROCEDURE

2.1. Only trained, qualified, and authorized employees are to operate lifts.

2.2. Plan the work. Inspect work area for hazards, such as overhead and ground level obstructions and electrical hazards, other lifts, conflicting work operations, traffic, potholes, and wind speeds above manufacturer limits do not operate above 30 mph.

2.3. Maintain required distances for work near or on live electrical lines.

2.4. Always select the proper type of lift based on the intended use.

2.5. Modifications to Areal/ Scissors Lifts equipment shall not be allowed unless approved in writing by the manufacture.

3. GENERAL REQUIREMENTS

3.1. Aerial lifts should only be operated on firm, level surfaces. Lifts shall not be driven on grades, side slopes, or ramps with slopes exceeding manufacturers incline limits.

3.2. If the machine has a separate power source to operate the movement of the base (e.g. truck mounted) vs the movement of the platform, the vehicle engine must be shut off and the key removed before using the platform.

3.3. Truck mounted aerial devices shall be lowered and secured prior to driving the truck or vehicle on the highway.

3.4. When so equipped, outriggers or stabilizers and extendable axels shall be fully extended and placed on firm level surfaces or mats. Outrigger or stabilizer mats and pads should be:

3.4.1. At least three times larger in surface area than the float they support,

3.4.2. Flat where the outrigger or stabilizer contacts it to prevent the lift from sliding off, and

3.4.3. Strong enough to withstand the loads imposed by the outrigger.

3.5. Lift controls must be operated in a smooth, controlled manner at all times. Avoid sudden starts, stops, or change in direction. Never jam the controls from one travel direction to another.

3.6. Keep all body parts inside the machine while moving the equipment.

3.7. When boom lifts must be moved on an incline, the boom should always be positioned uphill of the wheels and the wheels chocked if it is parked on an incline. See manufacturer instructions for incline limits.

3.8. Never use the boom to push or pull the aerial lift base or any other object.

3.9. Boom and basket load limits specified by the manufacturer shall not be exceeded.

3.9.1. Care shall be taken to prevent electric cords, rope, and hoses from becoming entangled in the aerial platform. Only the tools and materials required to perform the work are permitted in the platform and must fit completely inside the basket. Small tools and materials should be kept in a properly secured container on the floor of the platform.

3.10. Supporting equipment, material, or rigging loads from the boom, handrails, or platform prohibited.

3.11. If lift or supporting assembly becomes caught or otherwise prevented from normal motion by adjacent structures or obstacles, such that, control reversal does not free the lift, all personnel shall be removed from the platform before additional attempts are made to free the lift using the ground controls.

3.12. A fire extinguisher of not less than 5 BC rating must be available and secured on the platform of lifts.

4. FALL PROTECTION

4.1. An approved fall restraint system and 100% tie-off shall be utilized when operating articulating-boom aerial lifts. Anchor points shall be prescribed by manufacture manual and be accessible to employees prior to operations of equipment.

4.2. Guardrails shall be in place and access gates closed while lift is in use.

4.3. Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders, or other objects in the platform to gain a work position or as a climbing device to access other work levels.

4.4. The floor of the platforms must be kept clear of trash, debris, etc.

4.5. Lifts shall not be moved when the platform is elevated with personnel in the basket unless the travel surface is level, the equipment is designed for that purpose, and manufacturer's instructions allow it. For aerial lifts the platform should be below horizontal for traveling. The operator shall limit travel speed according to conditions of ground surface, congestion,

visibility, slope, location of personnel, and other factors that could cause collisions or injuries.

5. PROTECTION OF PERSONNEL IN IMMEDIATE WORK AREA

5.1. The counterweight swing radius of articulating or extendible boom lifts must be barricaded to prevent crushing injuries to employees on the ground.

5.2. When the lift will be operated in elevated positions, the area underneath the work must be barricaded.

5.3. Elevated platforms must be attended at all times or lowered to grade.

5.4. When lowering elevated platforms, the operator must inspect the area around the machine to ensure that no personnel, equipment, or obstructions are in the path of travel. If the area in the path of movement is not visible, i.e., in a cloud of steam or fog, the basket should not be lowered until vision is restored or the area is otherwise determined to be clear.

5.5. A spotter must be utilized whenever the operator cannot see the machine base during movement of the base. A spotter should be used when operating lifts in close proximity to obstructions, operating equipment, vehicles, or personnel.

6. USE OF LIFTS TO WORK NEAR LIVE ELECTRICAL LINES

6.1. Lifts shall not be operated where any part of the equipment, employees, tools, or materials will come closer to or above any energized electrical line than specified in the following table except for qualified electricians using insulated aerial lifts approved for electrical service.

6.2. An overhead wire shall be considered to be an energized line unless it has been disconnected and is visibly grounded in the work area. Power lines on wooden poles generally carry from 110 to 69,000 volts. Power lines on steel towers usually carry from 69,000 to 345,000 volts.

Required Clearances from Live Electrical Lines	
Nominal Voltage, kV (Phase to Phase)	Minimum Required Clearance ft.
0 – 50	10
51 – 200	15
201 – 350	20
351– 500	25
501 – 750	35
751 – 1,000	45 +

Voltages above 1,000 kV require greater distances (1kV = 1,000 volts).

INSPECTIONS

6.3. Visual Pre-Use Inspections

Prior to use, all aerial lifts must be inspected by the operator. The subsequent operator using the lift during the same shift shall ensure that a pre-shift inspection was completed prior to use. Lift controls shall be tested prior to each use to determine whether they are in safe working condition. The ground controls shall be checked first for those units with ground controls. Visual inspection should include items such as the following:.

6.3.1. Controls plainly and legibly marked as to their function.
6.3.2. Evidence that safety devices and interlocks are operational.
6.3.3. Personal protective equipment for operator and riders, e.g., fall protection, glove
6.3.4. Hydraulic system for tight connections, hose damage, and leaks.
6.3.5. Cables and wiring.
6.3.6. Loose or missing parts
6.3.7. Legible warning placards and decals (replace defective placards or decals prior to equipment use).
6.3.8. Outriggers, stabilizers, and extensible axles.
6.3.9. Guardrail systems and gate latches.
6.3.10. Other items recommended by manufacturer.

6.4. Documented Periodic Inspections

A documented periodic inspection must be performed by a competent person for each lift upon its arrival at the site,

6.4.1. At least quarterly or every 200 hours of operation (whichever comes first), and after any incident involving the lift.

6.5. Annual Inspections

6.5.1. **Insulating** booms of aerial devices used for work on energized high voltage conductors and equipment shall have a dielectric test performed every 12 months.

7. **TRAINING**

Lift operators shall be trained by a designated Competent Person. Manufacturer's representatives are recognized as being competent on their equipment and may be considered to be Competent Persons to satisfy the requirements of this work instruction.

Training shall include: instruction, written test, and operator skill demonstration. All training shall be documented and kept in the project files. Any subcontractor operating such equipment are required to have proper operator training and verification of such shall be provided to MAPP prior to operation of any equipment on site.