AERIAL LIFT SAFETY

OVERVIEW

The Aerial Lift Safety Program serves to provide guidance to management and employees working for the City of Mebane. It is the intent of this document to meet any local, state or federal mandates including those required pursuant to the regulations outlined under Occupational Health and Safety Administration's (OSHA) 29 Code of Federal Regulation 1910 and 1926. The City of Mebane Safety Committee Chair, or their designee, shall investigate any accident that occurs within the jurisdictional limits for city.

PURPOSE

The Aerial Lifts program is created to provide guidance and expectation for employees and visitors of the City of Mebane. The programs shall be reviewed at least annually, and, based on the ever changing work and natural growth of the City of Mebane so shall these documents be modified to reflect such growth and change. The city manager or their designee shall have responsibility for managing changes to the safety program.

RESPONSIBILITY

It is the responsibility of every employee to not only read, but also *understand* the information on these pages. Each employee of the City of Mebane should consider it a personal responsibility to engage in daily activity that is safe and consistent with these programs.

City of Mebane management has the expectation of each employee to understand their right to ask questions and seek more information if a program or task is not clear or well understood. If an employee has questions regarding the safety and health programs they should contact their supervisor for clarification.

The programs contained herein shall serve as a minimum guideline for entities coming on to City of Mebane property for the purposes of conducting business. Prior to conducting any project the entity shall establish compliance with the guidance set forth in this document.

Safety of employees, vendors, contractors and the public, city equipment and property will be considered the priority on any task and in no case shall it be compromised.

SCOPE

The following systems and procedures have been designed to prevent employees from falling off, onto or through working levels. Areas covered by this policy include, but are not limited to:

- Controlled access zones;
- Ramps, runways and other walkways;
- Holes;
- Leading edge work;
- Unprotected sides and edges;
- Roofing work;
- Wall openings; and

- Other walking/working surfaces.

Use of Aerial Lifts

All lifts owned, rented for use, or/and utilized by the City of Mebane shall meet the requirements in ANSI A92.2-1969. Only trained employees shall operate any lift and the training shall be documented and filed. Any modifications to the aerial lift shall be certified by the manufacturer prior to use. When backing any aerial lift the employee must utilize the reverse signal alarm or have a safety spotter to safety move the lift backwards. In high noise levels (above the audible level of the back up alarm) the safety spotter shall be used in conjunction with the safety back up alarm.

Lifts and any part of the equipment shall maintain a minimum clearance of ten (10) feet of electrical lines rated 50kV or less. Refer to the National Electric Code, OSHA 29 CFR 1910.952(c) and 1926.550 (a)(15)(i) for proper distances prior to operating the lift near electrical lines and equipment. No employee shall exceed the basket weight limit, lift weight capacity, boom weight limit, or manufacturer's weight limits for the lift being utilized. Refer to the manufacturer's recommendations and the manual for the lift being used prior to use.

Refer to the PIT Program for more details on heavy equipment use.

Testing

Lift controls, brakes, and other safety switches shall be tested at the beginning of each shift. If any safety devise is found not safe working condition the left shall be taken out of service and repaired prior to use.

Fall Protection

Fall protection shall be utilized when operating aerial lifts. The lanyard shall be attached to the boom or basket when working from an aerial lift. The employee must stand on the floor at all times to prevent the employee for falling from the working area. Employees must meet the requirements of 1926.453 (b)(2) at all times when using the aerial lift. At no point shall the employee climb on the edge or use ladders in the lift.

Definitions

- **Anchorage** means a secure point of attachment for lifelines, lanyards or deceleration devices.
- **Body belt (safety belt)** means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.
- **Body harness** means straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.
- **Buckle** means any device for holding the body belt or body harness closed around the employee's body.
- **Connector** means a device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the

system, such as a carabineer, or it may be an integral component of part of the system (such as a buckle or D-ring sewn into a body belt or body harness, or a snap-hook spliced or sewn to a lanyard or self-retracting lanyard).

- **Controlled access zone (CAZ)** means an area in which certain work (e.g., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

- **Dangerous equipment** means equipment (such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment, and other units) which, as a result of form or function, may be hazardous to employees who fall onto or into such equipment.

- **Deceleration device** means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyards, automatic self-retracting lifelines/lanyards, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

- **Deceleration distance** means the additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body belt or body harness attachment point at the moment of activation (at the onset of fall arrest forces) of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.

- **Equivalent** means alternative designs, materials, or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

- **Failure** means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

- **Free fall** means the act of falling before a personal fall arrest system begins to apply force to arrest the fall.

- **Free fall distance** means the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall. This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

- **Guardrail system** means a barrier erected to prevent employees from falling to lower levels.

- **Hole** means a gap or void 2 inches (5.1 cm) or more in its least dimension, in a floor, roof, or other walking/working surface.

- **Infeasible** means that it is impossible to perform the construction work using a conventional fall protection system (i.e., guardrail system, safety net system, or personal fall arrest system) or that it is technologically impossible to use any one of these systems to provide fall protection.

- **Lanyard** means a flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

- **Leading edge** means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

- **Lifeline** means a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

- **Low-slope roof** means a roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

- **Lower levels** mean those areas or surfaces to which an employee can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

- **Mechanical equipment** means all motor or human propelled wheeled equipment used for roofing work, except wheelbarrows and mop carts.

- **Opening-** means a gap or void 30 inches (76 cm) or more high and 18 inches (48 cm) or more wide, in a wall or partition, through which employees can fall to a lower level.

- **Overhand bricklaying and related work** means the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. Related work includes mason tending and electrical installation incorporated into the brick wall during the overhand bricklaying process.

- **Personal fall arrest system** means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

- **Positioning device system** means a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

- **Rope grab** means a deceleration device which travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

- **Roof** means the exterior surface on the top of a building. This does not include floors or formwork, which, because a building has not been completed, temporarily become the top surface of a building.

- **Roofing work** means the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

- **Safety-monitoring system** means a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

- **Self-retracting lifeline/lanyard** means a deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

- **Snap hook** means a connector comprised of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snap hooks are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection; or The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snap hook as part of personal fall arrest systems and positioning device systems is prohibited.

- **Steep roof** means a roof having a slope greater than 4 in 12 (vertical to horizontal).

- **Toe board** means a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

- **Unprotected sides and edges** mean any side or edge (except at entrances to points of access) of a walking/working surface, e.g., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches (1.0 m) high.

- **Walking/working surface** means any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

- **Warning line system** means a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

- **Work area** means that portion of a walking/working surface where job duties are being performed.

OPERATOR QUALIFICATIONS

Physical Qualifications

Aerial Lift operators shall inform their supervisor if they have any physical condition that may impair their ability to operate the lift. These conditions include:

- Adverse vision problems that cannot be corrected by glasses or contacts;
- Adverse hearing loss that cannot be corrected with hearing aids;
- Physical impairments that would impair safe operation of the PIT;
- Neurological disorders that affect balance or consciousness;
- Medication that affects perception, vision, or physical abilities;

Note that the operator does not have to inform the supervisor of specific details regarding their condition, only that their ability to operate the PIT may be impaired.

If the employee has any of the above conditions, the supervisor must inform Human Resources.

Training Requirements

Training consists of a combination of formal instruction, practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in handling the lift.

Policy Review and Critique Form

Review by:

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Date:

1 / 28 / 2015

Type of review:

Annual: _X_ Post-Emergency: ____

Problems leading to review:

_____

Problems noted during review:

_____

Action to be taken:

_____