

FALL PROTECTION PROGRAM

FOR

DUNSMUIR JOINT UNION HIGH SCHOOL DISTRICT

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PURPOSE

This program has been established for the protection of employees, to eliminate, prevent and control fall hazards and to establish a means to analyze elevated work tasks and determine appropriate personal protection against falls in accordance with Occupational Safety and Health Administration (OSHA) regulations:

"Fall Protection," 29 CFR 1926, Subpart M

"Walking and Working Surfaces," 29 CFR 1910, Subpart D

"Powered Platforms, Man Lifts, and Vehicle-Mounted Platforms," CFR 1910, Subpart F

"Scaffolds," 29 CFR 1926, Subpart L

STATEMENT OF POLICY

It is the policy of Dunsmuir Joint Union High School District to establish protocols and policies that protect the safety and health of its employees from occupational hazards/injuries, by implementing and enforcing safe work practices. Policies will comply with federal and state OSHA requirements. This program applies to conditions where employees are working unprotected at a height of 4 feet or greater, including work from ladders and from any level at which a fall may result in injury. Only those employees or contract employees who have been trained on fall protection are permitted at these elevations. Fall hazards must first be mitigated through engineering controls if applicable. When engineering controls are not feasible, then personal fall arrest systems, administrative controls, and training must be instituted.

ASSIGNMENT OF RESPONSIBILITY

A. Employer

It is the responsibility of Dunsmuir Joint Union High School District to provide fall protection to affected employees, and to ensure that all employees understand and adhere to the procedures of this plan and follow the instructions of the Superintendent.

B. Program Manager

It is the responsibility of the Lead Maintenance Emploeyss as the Fall Protection Program Manager to implement this program by:

1. Performing routine safety checks of work operations.
2. Enforcing Dunsmuir Joint Union High School District safety policy and procedures.
3. Correcting any unsafe practices or conditions immediately.

4. Training employees and supervisors in recognizing fall hazards and the use of fall protection systems.
5. Maintaining records of employee training, equipment issues, and fall protection systems used at Dunsmuir Joint Union High School District job sites and investigating and documenting all incidents that result in employee injury.

C. Employees

It is the responsibility of all employees to:

1. Understand and adhere to the procedures outlined in this Fall Protection Program.
2. Follow the instructions of the Superintendent.
3. Bring to management's attention any unsafe or hazardous conditions or practices that may cause injury to either themselves or any other employees.
4. Report any incident that causes injury to an employee, regardless of the nature of the injury.

TRAINING

- A.** All employees who may be exposed to fall hazards are required to receive training on how to recognize such hazards, and how to minimize their exposure to said hazards. Employees shall receive training soon after initial employment, change in work description, change in work equipment/tools used, and any updates to rules, procedures, and policies per employer.
- B.** A record of employees who have received training and training dates shall be maintained by the Superintendent. Training of employees by Keenan Safe Schools shall include:
1. Nature of the fall hazards employees may be exposed to.
 2. Correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems.
 3. Use and operation of controlled access zones, guardrails, personal fall arrest systems (PFAS), warning lines, and safety monitoring systems.
 4. Role of each employee in the Safety Monitoring System (if one is used).
 5. Limitations of the use of mechanical equipment during roofing work on low-slope roofs (if applicable).
 6. Correct procedures for equipment and materials handling, and storage and erection of overhead protection.
 7. Role of each employee in alternative Fall Protection Plans (if used).
 8. Requirements of the OSHA Fall Protection Standard, 29 CFR 1926, Subpart M.
 9. Dunsmuir Joint Union High School District requirements for reporting incidents that cause injury to an employee.
- C.** Additional training shall be provided on an annual basis, or as needed when changes are made to this Fall Protection Program, an alternative Fall Protection Plan, or the OSHA Fall Protection Standard.

FALL HAZARD CONTROL PROCEDURES

FALL AND SLIP PREVENTION VS. FALL PROTECTION

Fall Prevention is the method used to prevent exposure to elevated fall hazards such as unprotected edges, floors, walls, ramps, guardrails, isolating an area, and providing equipment such as aerial lifts. There are three basic methods to accomplish fall prevention:

1. Physical changes to the work area: eliminate a hazard by redesigning a work area.
2. Equipment or tool changes: eliminate a hazard through redesign, elimination, relocation, or repair of tools or equipment.
3. Procedural changes: changes the way a task is done.

Fall Protection is a system of components designed to function together to arrest a free fall and minimize the potential for compounding injury. Fall protection should only be used when other options have been exhausted.

NOTE: The overall goal of fall prevention and protection is to ensure the safety of workers during the course of work being performed on the job site.

FALL AND SLIP HAZARDS AND PREVENTION

All work areas are to be reviewed and evaluated by the Lead Maintenance Employee per regular safety checks. All employees are responsible for inspecting his/her area for any potential hazard(s)/fall hazard(s) before any work is to be carried out. After that initial inspection by the employee, and there are any areas of concern, employees are to have the Lead Maintenance Employee evaluate the work area before any work is initiated, for any and all potential hazard(s)/fall hazard(s) and cleared or corrected before work is initiated.

Falls may be classified into three general categories:

1. Slips, trips and falls on the same level.
2. Falls on stairs.
3. Falls from elevations.

Slips and trips are generally caused by a lack of good housekeeping and inadequate maintenance of walking and working surfaces. If an employee is not equipped to eliminate a hazard, the appropriate personnel should be contacted to correct the problem. These hazards may include icy walkways, wet

floors, torn floor coverings, elevated surfaces, stair treads, and missing or broken handrails and guardrails.

Fall hazards from elevations include, but are not limited to, unprotected sides and edges of roofs, excavations, skylights, floor holes, ladders, wall openings, and all other walking or working surfaces where employees can possibly fall four feet or more to a lower level.

Employees should alert their supervisors of potential fall hazards not already identified and controlled. The following are fall hazards which require protection:

- A. Open sided floors, platforms, and runways four feet or more in height.
- B. Open sided floors, ramps, walkways etc. that are adjacent to or above dangerous operations must be guarded regardless of height.
- C. Wall openings from where there is a drop of more than 4 feet.
- D. Open windows from which there is a drop of more than 4 feet and the bottom of the window is less than 3 feet above the floor or platform.
- E. Unprotected edges from where there is a drop of more than 4 feet.
- F. Hatchways and chutes floor openings.
- G. Any opening more than 4 feet in elevation where a significant portion of the body is leaning over or through to perform work.
- H. Skylights that are even with the roof surface or that may otherwise serve as a walking/working surface.
- I. Scaffolds over 6 feet.
- J. Aerial lift devices.

Engineering Controls

A competent person shall determine if engineering controls can eliminate or lessen the hazard of the work area or job site. Engineering controls shall be provided where possible to minimize fall hazards. Engineering controls of fall hazards consist of the following:

A. Stationary Work Platforms

1. Every ladder way, floor opening or platform shall be guarded by a standard railing with standard toe-board on all exposed sides (except at an entrance to an opening), with the passage through the railing either provided with a swinging gate or so offset that a person cannot walk directly into the opening.

B. Skylights

1. Skylights that may be used as a walking or working surface must be protected by a standard railing, standard skylight screen, grill work with 4 X 4 inch openings or slate work with 2-inch openings.
2. Standard skylight screens must be capable of withstanding a minimum load of 200 pounds applied perpendicular to any point on the screen and will not deflect under ordinary loads and impact and break glass.

C. Covers

1. Covers for holes, including grates, shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.
2. Covers located on roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over it.
3. All covers shall be secured when installed so as to prevent accidental displacement by the wind, equipment, or employees.
4. Covers shall be marked to provide warning of the hazard when it is not readily apparent.
5. While a cover is not in place, the pit or trap opening shall be constantly attended by someone or shall be protected on all exposed sides by removable standard railings.

Roofing

The hazards associated with work on roofs include falling through openings and falling off edges. The protection of openings is discussed in the engineering controls section of this program.

Effective roof work fall protection techniques are intended to protect workers while providing the mobility and comfort necessary to perform work tasks. Several techniques are available and are described below.

A. Low-slope or Flat Roofs

Each employee engaged in roofing activities on low-slope roofs, with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or a combination of warning line system and guardrail system, warning line system and safety net system, or warning line system and personal fall arrest system, or warning line system and safety monitoring system. Or, on roofs 50-feet (15.25 m) or less in width, the use of a safety monitoring system alone [i.e. without the warning line system] is permitted.

B. Steep Roofs

Each employee on a steep roof with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems with toe-boards, safety net systems, or personal fall arrest systems.

C. Personal Fall Arrest System

1. The system of choice for fall protection on roofs is the personal fall arrest system.
2. Requirements for personal fall arrest systems are found in the Fall Protection Personal Protection Equipment section of this program.
3. Personal fall arrest systems for roof work must be designed by a qualified person.

D. Designated Areas

As an alternative to installing guardrails, a designated area may be established. The following conditions and requirements must be met in order to use designated areas in lieu of other fall protection measures:

1. The work must be of a temporary nature, such as maintenance on roof top equipment.
2. Designated areas shall be established only on surfaces that have a slope from horizontal of 10 degrees or less.

3. The designated area shall consist of an area surrounded by a rope, wire, or chain and supporting stanchions.
4. After being erected with the line attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion.
5. The line shall have a minimum breaking or tensile strength of 500 pounds.
6. The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
7. The line shall be installed in such a manner that its lowest point is no less than 34 inches or more than 39 inches from the work surface.
8. The line forming the designated area shall be clearly visible from any unobstructed location within the designated area up to 25 feet away.
9. The stanchions shall be erected as close to the work area as is permitted by the task.
10. The perimeter of the designated area shall be erected no less than 6 feet from the unprotected side or edge.
11. Access to the designated area shall be by a clear path formed by two lines attached to stanchions.

HVAC Specifications

OSHA's fall protection standard for construction, 29 CFR Part 1926, Subpart M (beginning at §1926.500), generally requires fall protection when there is a fall distance of 6 feet or more. In a few, very specific situations (low-slope roof work, some leading-edge work, precast concrete erection and residential construction; see §1926.501(b)(2), (12), and (13)), because of feasibility limitations, the standard permits the use of a warning line, in combination with other measures, instead of conventional fall protection (guardrail systems, personal fall arrest systems or safety net systems) to keep employees away from an edge.

Installation of HVAC equipment does not fall within the categories listed; *i.e.*, leading-edge work, precast concrete erection or residential construction. Therefore, the warning line at the 6-foot option does not apply.

As explained where certain conditions are met, the use of a warning line 15 feet back from the edge will be considered a *de minimis* violation of the guardrail criteria in §1926.502(b). The conditions that must be met for the application of this policy are as follows:

1. A warning line is used 15 feet or more from the edge.
2. The warning line meets or exceeds the requirements in §1926.502(f)(2).
3. No work or work-related activity is to take place in the area between the warning line and the edge.
4. The employer effectively implements a work rule prohibiting the employees from going past the warning line.

Therefore, where these conditions are met, you may use a warning line 15 feet back from the edge to protect the HVAC workers.

PERSONAL FALL ARREST SYSTEMS

Personal protective equipment shall be used to minimize fall hazards where engineering controls do not eliminate the hazard or in conjunction with engineering controls. Fall protection equipment is divided into five functional categories: 1) fall arrest; 2) positioning; 3) suspension; 4) retrieval; 5) restraint.

A. Fall Arrest

The use of a personal fall arrest system is the required personal protective equipment for fall hazards. A personal fall arrest system consists of a full-body harness, lanyard, and anchor point OR a full-body harness, lanyard, lifeline, anchor point, and deceleration/grabbing device. All fall protection equipment shall meet or exceed appropriate American National Standards Institute (ANSI) standards. All fall protection equipment must bear the marking of the manufacturer and approvals for specified use. Requirements for a personal fall arrest system include, but are not limited to the following:

1. Body Harness - Only full-body harnesses shall be used. The use of a body belt is prohibited.
2. Connecting Device - Shock-absorbing lanyards and lifelines.
3. Lanyards and lifelines shall have a minimum breaking strength of 5000 pounds.
4. Lanyards shall not exceed six feet in length. Lanyards used on aerial lift devices should not exceed 4 feet in length to reduce slack.
5. Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body harnesses shall be made from synthetic fibers.
6. Connecting assemblies shall have a minimum tensile strength of 5,000 pounds.
7. Self-retracting lifelines and lanyards shall have a tensile strength of at least 3000 pounds and limit free fall to two feet or less (5,000 pounds for rip stitch lanyards, and tearing and deforming lanyards).
8. Personal fall arrest systems shall limit the maximum arresting forces to 1800 pounds with a full body harness.
9. The maximum free fall distance is six feet for all systems.
10. The maximum deceleration distance is 3.5 feet.

11. Personal fall arrest systems shall have sufficient strength to withstand twice the potential impact energy of the falling employee.
12. Lifelines shall be protected against cutting and abrasions.
13. Horizontal lifelines shall be designed, installed and used under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of two. On suspended scaffolds or similar work platforms with horizontal lifelines which may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.
14. Each employee shall be attached to a separate lifeline when vertical lifelines are used. On suspended scaffolds or similar work platforms with horizontal lifelines which may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.

Best Management Practice: Fall arrest systems can include a combination of equipment including connectors, full body harnesses, lanyards, energy absorbers, anchorage connectors, fall arresters, vertical lifelines, and self retracting lanyards. Manufacturers' ratings for arresting force are based upon the system designed; therefore, equipment should be from the same manufacturer when possible.

Anchorage - Anchorage Point and Connector

- A. Consideration must be given to the strength, location, and accessibility of anchorage points and pre-job planning is critical.
- B. Anchorage points should be located above shoulder height and placed to limit the potentials for a swing fall.
- C. The placement of the anchorage point must limit the total free fall distance to less than six feet.
- D. Anchorages used for personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms and be capable of supporting at least 5000 pounds per employee attached, or shall be designed, installed (temporarily or permanently), and used as part of a complete fall arrest system which maintains a factor of two and under the supervision of a qualified person.
- E. A qualified person shall determine all anchor points, both temporary and permanent. Permanent anchor points shall be properly marked.

- F. Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists.
- G. Anchorage point strength should be evaluated for minimum requirements considering the following variables: depending on the type of fall protection equipment being used, the number of people involved, the potential free-fall distance, and other factors.
- H. Below is a listing of those parts of building steel that have already been identified as being acceptable for anchorage points based upon good engineering design and if they have been maintained in good condition:
1. Building and crane columns
 2. Roof beams, and rafters
 3. Roof trusses
 4. Floor support beams
 5. Large section sway bracing between columns (back to back angles or channels)
 6. Engineered fall protection systems and other engineer-approved anchorage points
 7. If vertical beams are used, the anchor point must be directly above a horizontal member to prevent slippage.
 8. Column wraps must be used to protect when the anchorage has sharp edges that may cut a standard lanyard when exposed to the forces generated in a fall.

The following are not to be used for anchorage points:

- Conduit and supports
- Pipe and pipe supports and hangers
- Cable trays and supports
- Electrical conductors

B. Positioning

A positioning device is not a substitute for a personal arrest system and is limited to use as a 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.

Where a positioning device is used, it shall comply with the following:

1. Only a full-body harness shall be worn as part of a positioning device system. Body belts are not acceptable.
2. Positioning devices shall be rigged such that a free fall cannot be more than 2 feet.
3. Positioning devices shall be secured to an anchorage point capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds, whichever is greater.

C. Suspension

Personal suspension systems are used for window washing and painting and are designed to lower and support a worker to perform tasks. The components of a suspension system are:

1. Full-body harness
2. Work-line
3. Anchorage
4. A positioning device such as a scaffold

Since the suspension system components are not designed to arrest a free fall, a back-up fall arrest system should be used in conjunction with the personal suspension system that would activate only if the worker were to experience a free fall.

D. Retrieval

Personal retrieval systems are used for confined space entry and on-entry rescue. Personal retrieval systems consist of the following:

1. Full body harness
2. Retractable lifeline/rescue unit
3. Tripod

E. Restraint

A restraint line is a device which is attached between the employee and an anchorage point to prevent the employee from walking or falling off an elevated surface. It does not support an employee at an elevated surface, but rather prevents the employee from leaving the elevated surface or work position.

F. Rescue

Prompt rescue shall be provided for personnel who have fallen by contacting 9-1-1 and summoning for help. No work shall be performed in an area where an emergency cannot be immediately observed, prompt rescue initiated, and assistance summoned.

G. Other PPE

Any other personal protective equipment deemed necessary for the task must be worn. This may include, but is not limited to hard hats, gloves, safety glasses, and steel-toed boots. Hard hats shall be worn within an area beneath elevated work where objects could fall from a height and strike a worker.

INSPECTION AND MAINTENANCE OF EQUIPMENT

A. Impact Loading

Any fall arrest system or component that has been used to arrest a fall (impact loading) shall be immediately removed from service.

IMPORTANT NOTE: Any fall arrest equipment exposed to a fall must be taken out of service and permanently impaired so it cannot be used again.

B. Inspection

1. Visual equipment inspections shall be conducted by personnel prior to each use. If, upon inspection, a piece of equipment shows any signs of wear, it must immediately be removed from service and the supervisor notified.

Visual inspection prior to use shall include the following:

- a. Examine the fabric for cut/tears, abrasion, enlarged eye holes, loose or damaged stitching, burns, metal splatter or any other conditions that may indicate weakening.
 - b. Examine all hardware (snap hooks, buckles, D-rings, etc.) for cracks, dents, corrosion, loose anchorage, or any other condition that may indicate weakening. The D-ring should pivot freely. D-ring back pads should also be inspected for damage.
 - c. Attachment of buckles. Attachments of buckles and D-rings should be given special attention. Note any unusual wear, frayed or cut fibers, or distortion of the buckles.
 - d. Tongue/grommets. The tongue receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Webbing should not have additional punched holes.
 - e. Check retracting web lanyards and lifelines for proper functioning by pulling sharply away from the device. The unit should lock up within a couple of inches.
 - f. Check all snap hooks for proper functioning by opening and then releasing the hook. When released, the snap should lock in the closed position.
2. An annual documented inspection (or more frequently if required by the equipment manufacturer) must be completed by a competent person (management personnel that are familiar with the use and design of the equipment) for wear, damage or corrosion.

3. Documented periodic inspection of retractable lanyards and lifelines may require that the unit be inspected by the manufacturer. Refer to the manufacturer's product information and instructions for guidelines. If required, documentation of the inspection should be requested from the manufacturer.

C. Maintenance

When needed, fall protection devices will be cared for, according to the manufacturer's standards and directions. Stow equipment in designated cases/pouches, in a clean area away from sunlight, chemicals, natural elements, manmade hazards, and extreme temperatures which could degrade equipment. Check the manufacturer's recommendations for cleaning, maintenance and storage information.

D. Working on Equipment

1. Employees working on elevated surfaces, machinery or equipment, less than 6 feet from the edge, must be tied off unless the edge is protected by a standard railing or other obstruction, which would preclude a fall.
2. Employees working over a hazardous area such as tanks containing liquids, impalement objects, hazards, people, generators, etc., must use fall protection equipment, regardless of the potential fall distance, unless protected by a standard railing or other obstruction (at least 42 inches in height) that would preclude a fall.
3. Employees are restricted from performing the following:
 - Climbing or walking on equipment or over guard railings to access equipment.
 - Climbing or walking on unprotected edges where safety warning lines are not present.
 - Climbing or walking on elevated surfaces to perform work, where authorization and/or training for specific job function, has not been done by a competent person.

TERMINOLGY/DEFINITIONS

Aerial Lift	Mechanical devices such as man-baskets, scissor lifts, and bucket trucks used for access and work at heights.
Anchorage	A secure point of attachment for lifelines, lanyards, or deceleration devices. Anchorages to which personal fall arrest equipment is attached shall be capable of supporting at least 5,000 pounds (22.2kN) or two times the impact load force, under the supervision of a qualified person.
Arresting Force	The amount of force exerted on an employee when a fall protection system stops a fall; usually the highest force experienced during the fall.
Body Harness	A combination of straps that can be secured about the body in a manner that will distribute the fall arrest forces over the thighs, pelvis, waist, shoulders and buttocks, and that can be secured to other components of a personal fall arrest system.
Competent Person	A person who is capable of recognizing existing and predictable hazards and has the authority to take corrective action. Additionally, a person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as in their application and use with related equipment. To be considered a competent person, an eight (8) hour training class must be completed for general fall protection and an additional four (4) hour training class must be completed for scaffolds. To be considered a competent person for equipment inspections, the manufacturer’s training guidelines shall be followed.
Connector	A device which is used to couple (connect) parts of the personal fall arrest system and positioning device system together. It may be an independent component of the system, such as a carabineer, or it may be an integral component or part of the system (such as a buckle, D-ring sewn into a body harness, or a snap-hook spliced or sewn to a lanyard or self-retracting lanyard).
Deceleration Device	Any mechanism, such as a rope grab, rip-stitch, lanyard, specially-woven lanyard, tearing or deforming lanyards, automatic self-retracting lifelines/lanyards, etc. that serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limits the energy imposed on an employee during fall arrest.
Deceleration Distance	The additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, form the point at which the deceleration device begins to operate. It is measured as the distance between the location of the employee’s 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.

Free Fall	The act of falling before a personal fall arrest system begins to apply force to arrest the fall.
Free Fall Distance	The vertical displacement of the fall arrest attachment point on the employee's body harness between onset of the fall and just before the system begins to apply force to arrest the fall. The distance excludes deceleration distance, the lifeline/lanyard extension before they operate and fall arrest occurs.
Guardrail System	A barrier erected to prevent employees from falling to lower levels.
Hazardous Area	Any area, which if fallen into, can cause severe injury or death. This includes, but is not limited to, impalement hazards, molten metal or bath, wastewater tanks or pits, electrical hazards, drowning or open tanks of toxic chemicals.
Horizontal Lifeline	A rail, rope, wire, or synthetic cable that is installed in a horizontal plane and used for attachment of a worker's lanyard or lifeline device while moving horizontally.
Independent Anchorage	A point of attachment that is not part of the working or walking surface or equipment rigging points.
Independent Lifeline	A lifeline that is not attached to the work surface – one lifeline per person.
Lanyard	A flexible line of webbing, rope, or cable that may be 2, 4, or 6 feet long and used to secure a body belt or full body harness to a lifeline or anchorage point.
Leading Edge	The edge of a floor, roof or formwork for a floor or other walking/working surface (such as a deck) which changes location as 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	A vertical line from a fixed anchorage or between two horizontal anchorages, independent of walking or working surfaces, to which a lanyard or device is secured. Part of a fall protection system used as back-up safety for an elevated worker.
Locking Snap Hooks	A connecting snap hook that requires two separate forces to open the gate – one to deactivate the gate keeper and a second one to depress and open the gate which automatically closes when released. The locking snap hook is used to minimize roll-out or accidental disengagement.
Low Slope Roof	A roof having a slope less than or equal to 4 foot vertical rise to every 12 feet of horizontal length.
Lower Levels	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.
Opening	A gap in the wall or partition that is 30 inches or more high and 18 inches or more wide through which employees can fall to lower levels.

Personal Fall Arrest System	Shall, when stopping a fall, limit maximum arresting force on an employee to 1,800 pounds (8kN) when used with a body harness.
Positioning Device System	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 backwards.
Qualified Person	Someone with a recognized degree or professional certificate and extensive knowledge and experience in the subject/field who is capable of design, analysis, evaluation and specifications in the subject work, project or product.
Retracting-Lifeline	A fall arrestor whose integral line extends as a worker moves downward and automatically removes slack as the worker moves up toward the unit.
Roll Out	Unintentional disengagement of a snap hook caused by the gate being depressed under torque or contact with single action snap hooks that do not have a locking gate keeper.
Rope Grab	A deceleration device that travels on a lifeline and automatically engages the lifeline and locks so as to stop the fall of an employee.
Snap Hook	A connector comprised of a hook-shaped member with a normally closed keeper that may be opened to permit the hook to receive an object and released to automatically close and retain the object.
Steep Roof	A roof having a slope greater than or equal to 4 foot vertical rise to every 12 feet of horizontal length.
Standard Railing	A railing system comprised of vertical supports and three horizontal components: the top rail, mid rail and toe-board. The top rail is typically 42 inches nominal from the upper surface of the top rail to the floor, platform, runway, or ramp level. Nominal height of mid rail is 21 inches.
Tie Off (Anchorage)	The act of a worker securing the end of a lanyard to an anchorage point. The terms tied off and tying off, are related to tie off. An anchorage point is sometimes referred to as a tie off point.
Toe-board	A low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for employees. It should be 4 inches nominal in vertical height, with not more than ¼ inch clearance above floor level.
Warning Line System	A barrier on a roof that warns employees that they are approaching an unprotected roof side or edge, and that designates an area where roofing work may take place without the use of guardrails, body harness or safety net.

FALL PROTECTION PROGRAM
INFORMATION RESOURCES

29 CFR 1910, Subpart D - Walking – Working Surfaces

29 CFR 1926, Subpart M - Floor and Wall Openings

29 CFR 1926, Subpart X - Stairways and Ladders

29 CFR 1926.104 - Safety Belts, Lifelines and Lanyards

29 CFR 1926.451 - Scaffolding

ANSI/ASSE Z359.2-2007 - Minimum Requirements for a Comprehensive Managed Fall Protection Program

ANSI/ASSE Z359.0-2007 - Fall Protection Code

ANSI/ASSE Z359.3-2007 - Safety Requirements for Positioning and Travel Restraint Systems

ANSI/ASSE Z359.4-2007 - Safety Requirements for Assisted-Rescue and Self-Rescue Systems, Subsystems and Components

ANSI/ASSE Z359.1-1992 (R1999) - Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components