

# **Fall Protection Program**



**California State University, Chico**

**Department of Environmental Health and Safety**

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## Fall Protection Program Evaluation and Record of Revisions

Revision	By	Date	Description of Revision
1	YS	10-2012	Re-write of program
2	YS	10-2013	Review- no changes
3	YS	02-2014	Revisions- minor changes in wording
4	YS	11-2015	Addition of Alternative Fall Protection Plan, removed safety net section, CAZ, and other construction standards not applicable to general industry.
5	YS	06-2016	Review – no changes
6	YS	09-2017	Review – no changes

**Legend:**

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## 1.0

## PURPOSE

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The purpose of the CSU, Chico Fall Protection Program is to provide necessary information regarding safety measures and fall protection devices, equipment, and systems as required to meet the requirements set-forth in the California Code of Regulations, Title 8, Cal/OSHA. These safety measures include the use of appropriate fall protection equipment and/or systems. The safety measures and related safety equipment are required to be implemented at any time an employee is subject to a potential fall from an elevated work area or surface.

This program outlines the requirements for assessment and mitigation of fall hazards. Dependent on the nature and location of the work to be performed a variety of safety measures may apply based upon the slope, surface type, and other fall protection safety devices or systems that may or may not be present at the specific work site. The primary purpose of this program is to eliminate fall hazards; if the fall hazards cannot be eliminated, then employees are required to use personal fall protection systems.

The risk of falls can be reduced or eliminated by careful planning, thorough training prior to performing work, using appropriate safety equipment, following safe work practices and Cal/OSHA regulations, and providing close supervision of employees exposed to falls.

## 2.0

## PROGRAM RESPONSIBILITIES

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### 2.1 **Managers** are responsible for:

- Providing a workplace that eliminates or minimizes the potential for falls from any elevated work activities.
- Identifying employees who are affected by this program and ensuring they receive the required fall protection training.
- Providing required protective equipment to employees and provide technical support for fall protection issues.
- Identifying elevated work areas in cooperation with the Department of Environmental Health and Safety (EHS.)
- Stopping work when safety deficiencies are present, until such deficiencies are corrected.

### 2.2 **Supervisors** are responsible for:

- Making sure all affected employees have received fall protection training prior to starting work on elevated surfaces or other locations where a fall hazard may exist.
- Ensuring employees utilize the proper fall protection and personal protective equipment.
- Making sure employees are working in accordance with all CSU, Chico safety programs.
- Identifying elevated work areas in cooperation with the Department of Environmental Health and Safety (EHS.)
- Stopping work when safety deficiencies are present, until such deficiencies are corrected.

### 2.3 **Department of Environmental Health and Safety** is responsible for:

- Providing a Fall Protection Coordinator who will provide program oversight and coordinate compliance auditing with managers and supervisors to ensure the Fall Protection Program requirements are understood by all affected workers and are being adhered to.
- Providing coordination for the required training of managers, supervisors, and University employees regarding recognizing fall hazards and the proper application of fall protection procedures.
- Conducting periodic visits to elevated work areas for the purpose of observing work procedures.
- Evaluating elevated work locations as identified by managers and supervisors for fall protection requirements.
- Coordinating the acquisition of fall protection systems compliant with Cal/OSHA referenced ANSI standards.

- Periodically reviewing the Fall Protection Program for compliance with OSHA and Cal/OSHA requirements.
- Maintaining employee training records, documenting equipment issues, and reviewing the fall protection systems used at various worksites.

2.4 **University Employees** are responsible for:

- Completing all required fall protection training before starting work.
- Working in accordance with the Fall Protection Program requirements and all listed safety practices.
- Properly inspecting all required fall protection and personal protective equipment before each use and using the equipment properly.
- Stopping work immediately if any safety issues are identified.
- Immediately reporting any unsafe conditions or other safety issues to a supervisor or manager.

Cal/OSHA uses the general rule that any time a worker is at a height greater than 4-feet, a fall hazard exists. Where a fall hazard exists, steps must be taken to either eliminate the hazard or provide protection against it.

The General Industry Safety Orders (GISO) in Subchapter 7 of Title 8 establishes minimum occupational and health standards that apply to all places of employment in California. Additional industry, occupation, or equipment specific safety orders are located in 14 other subchapters. Safety orders in these subchapters that address “like conditions” will take precedence over the safety orders in the GISO wherever they are inconsistent with the General Industry Safety Orders. Therefore, Construction Industry Standards for fall protection are referenced and included in the CSU, Chico Fall Protection Program.

The CSU, Chico Fall Protection Program and required training applies to the following operations and activities:

- Work on all elevated surfaces over 6-feet high including but not limited to: roofs, catwalks, skylights, boilers, chillers, etc.
- Elevated work at over 4-feet above the ground on poles, towers or similar structures.
- Work using elevating personal platforms such as scaffolds, aerial platforms, some scissor lifts, forklift-mounted platforms, cherry pickers, etc.
- Work involving vertical openings including ground level entry into excavations, trenches, holes, pits, vessels, and other confined spaces.
- Work involving vertical openings other than ground level access into vessels and other permit-required or non-permit required confined spaces.
- Work involving fixed ladders exceeding 20-feet in unbroken length *if* the ladder is not equipped with approved cage protection.
- Work performed on thrust outs or similar locations, such as trusses, beams, purlins, or plates of 4-inches nominal width, or greater, at elevations exceeding 15-feet above ground, water, or floor level below and where temporary guardrail protection is not present.
- Work involving traveling on walkways or bridges *over* excavations greater than 6-feet in depth and wider than 30-inches shall be provided with standard guardrails.
- Work that exposes an employee to a fall of 7-½ feet or more from the perimeter of a structure, unprotected sides and edges, leading edges, through shaft ways and openings, *sloped roof surfaces more than 7:12*, or other sloped surfaces steeper than 40 degrees requires personal fall arrest, personal fall restraint or positioning systems unless adequately protected in accordance with Title 8.

**Aerial Lift Device:**

Equipment such as powered platforms, vehicle-mounted elevated and rotating work platforms, extensible boom platforms, aerial ladders, articulating boom platforms, vertical towers and powered industrial truck platforms.

**Alternative Fall Protection Plan:**

A written plan that is developed and implemented by a competent person which permits work to be performed in a designated area, without conventional fall protection, and requires alternate measures to be used to reduce any fall hazard. There must be *constant supervision and communication* provided by a safety monitor.

**Anchorage or Anchor Point:**

A secure point of attachment for lifelines, lanyards, or deceleration (grabbing) devices.

**Anteproscaenium Lighting Bridge:**

A feature of a public assembly building (theatre) where the architect, engineer, and builder have provided a position where employees can access through engineered fixed ladders, ships ladders, or stairways, and where a physical building component is permanently attached to building structural components for the purpose of providing a place to mount theatrical lighting instruments and effects, and does not expose the employee to an unencumbered fall hazard from the position.

**Approved:**

Safety measures, procedures, and fall protection equipment meeting the description and standards as listed in California Code of Regulations, Title 8; Cal/OSHA.

**Body Belt:**

A strap with means for both securing it about the waist and for attaching to a lanyard, lifeline, or deceleration device. Used for positioning and/or restraint. Also may be known as a safety belt. *Note:* Body Belts are NOT permitted to be used as part of a fall arrest system.

**Body Harness:** (also referred to as full-body harness):

An interconnected set of straps that is secured on a person in a manner that distributes the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders with a means for attaching the harness to other components of a personal fall restraint or fall arrest system.

**Box Boom:**

A feature of a public assembly building (theatre) where the architect, engineer, and builder have provided a position where employees can access vertically mounted lighting instruments or effects using an engineered fixed ladder and work landing.

**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.

**Connector/Connection Device:**

A device that is used to couple (connect) parts of a personal fall arrest system or positioning device system together.



**Deceleration Device:**

Any mechanism, such as a rope, grabbing device, rip stitch lanyard, specially woven lanyard or automatic self-retracting lifeline/lanyard, which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limits the energy imposed on a person during fall arrest.

**Deceleration Distance:**

The additional vertical distance a falling person travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which a deceleration device begins to operate.

**Fixed Ladder:**

A ladder, including an individual rung ladder, which is permanently attached to a structure, building, or equipment.

**Guardrail System:**

A barrier at least 42 inches high which includes posts, a mid-rail, and toe boards if required. The guardrail is intended to prevent personnel from falling from working levels more than 30-inches above the floor, ground, or other working areas of a building.

**Hole:**

A void or gap 2-inches or more in its least dimension in a floor, roof, or other walking/working surface.

**Lanyard:**

A flexible line of rope or strap that generally has a connector at each end for connecting the body harness to a deceleration device, lifeline, or anchor point. Lanyards should have a breaking strength of 5000-pounds.

**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 additional floor, roof, decking, or formwork sections are placed, formed, or constructed.

**Lifeline:**

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). This serves as a means for connecting other components of a personal fall arrest system to the anchorage. Lifelines should have a breaking strength of 5000-pounds.

**Low Slope Roof:**

A roof having a slope of less than or equal to 4 in 12 (vertical to horizontal). A roof with approximately a 19.5 degree slope or less.

**Lower Levels:**

Those areas or surfaces to which an employee can fall. Such areas 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 or void 30-inches or more high and 18-inches or more wide in a wall or partition, through which personnel can fall from the working level to a lower level.

**Personal Fall Restraint System:**

A system composed of body belts or harnesses attached to a life-line. The system consists of an anchorage, connectors, and body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. The anchorage base must support four (4) times the intended load and be rigged to allow the movement of the employee only as far as the edges of the working area.

**Personal Fall Arrest System:**

A system that arrests falls from the working level. The system consists of a horizontal life line secured to the back and above the person's waist to a harness. The system prevents falling for more than 6-feet to avoid hitting lower surfaces. Each person must be attached to their own lifeline with only one (1) person on each lifeline. The anchorage point must be able to support at least 5000-pounds per employee.

**Vertical or Horizontal Positioning Devices or System:**

An approved anchor used with a series of approved connecting devices and a body harness that allow individuals to have free hands in order to be able to perform work in areas such as against an elevated wall (vertical positioning) or adjacent to a roof edge or other fall hazard (horizontal positioning).

**Qualified Person, Attendant or Operator:**

A person designated by the employer who by reason of their training and experience has demonstrated their ability to safely perform their duties and, where required, is properly licensed in accordance with federal, state, or local laws and regulations.

**Restraint Line:**

An approved device which is attached between the employee and an anchorage; the arrangement is designed to prevent the employee from walking or falling off of an elevated surface.

**Rope Grab (Grabbing Device):**

A deceleration device that travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest a fall.

**Safety Monitoring System:**

A safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

**Scaffold:**

Any temporary elevated or suspended platform, and its supporting structures, used for supporting employees or materials or both.

**Self-Retracting Lifeline (SRL):**

A deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal movement and which, after onset of a fall, automatically locks the drum and arrests the fall (usually within 2-feet or less.)

**Snaphook:**

A connector consisting 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. Only locking snap hooks are permitted to be utilized.

**Steep Roof:**

A roof having a slope greater than 4 in 12 (vertical to horizontal.)

**Toe Board:**

The lowest protective barrier of a guardrail system that prevents material and equipment from falling off of the working surface to lower levels.

**Tie-Off:**

A procedure of connecting directly or indirectly to an anchorage point using an approved connection device (i.e. strap, lanyard, etc.)

**Unprotected Sides and Edges:**

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 parapet, other type of wall or guardrail system that is not at least 42-inches (1-meter) high.

**Walking/Working Surface:**

Any surface, whether horizontal or vertical, on which an employee walks or works including, but not limited to floors, roofs, ramps, bridges, formwork, and runways. Does not include ladders, vehicles, or trailers on which employees must be located to perform their duties.

**Warning Line Systems:**

A form of 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. (Applicable to construction only)

**Work Area:**

That portion of a walking or working surface where job duties are being performed.

## 5.0 **FALL PROTECTION HAZARD ASSESSMENT**

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A supervisor shall evaluate each worksite for fall hazards. The supervisor shall document his/her findings, and a complete list of fall hazards and protective measures will be maintained for each worksite.

### 5.1 Fall Protection Hierarchy

Solutions for fall protection hazards will be determined in the following order and priority:

1. Eliminate the fall hazard.
  - a) Engineer out the hazard, by installing guardrails or moving equipment to the ground.
  - b) Perform the work from ground level.
2. Use of Fall Restraint Systems.
  - a) Use of positioning devices and a body harness to prevent falls.
3. Use of Personal Fall Arrest Systems.
  - a) Use of Personal Fall Arrest Systems.
  - b) Development of a rescue plan.
4. Implementation of an Alternative Fall Protection Plan
  - a) A written plan that is developed and implemented by a qualified person which permits work to be performed in a designated area, without conventional fall protection, and requires alternate measures to be used to reduce any fall hazard. There must be *constant supervision and communication* provided by a safety monitor.

Work cannot be performed unless one or more of the listed Fall Protection Hierarchy solutions have been established.

### 5.2 Alternative Fall Protection Plan

The purpose of an Alternative Fall Protection Plan is to supplement the Universities existing Fall Protection Program and is designed to be used only when conventional fall protection methods are infeasible, impractical, or if establishing the means of fall protection creates a greater hazard to workers. An Alternative Fall Protection Plan is job site specific and is not intended to be used at multiple sites unless all hazards and situations are identical.

The Alternative Fall Protection Plan may include the use of conventional fall protection at a number of areas on the work site and identifies specific areas and activities that requires non-conventional means of fall protection. The Plan is designed to identify and address fall hazards with the project or task and to provide safe procedures to be used in order to prevent falls to lower levels.

Refer to Section 8.0: Alternative Fall Protection Plan

## 6.0 WORK THAT REQUIRES FALL PROTECTION

As a general rule, any construction work that occurs six (6) or more feet above a lower level must involve the use of fall protection. In general industry, work that occurs four (4) or more feet above a lower level requires fall protection. Employees must also use fall protection if there is a danger of falling into hazardous equipment.

A supervisor competent in the use of fall protection shall evaluate the worksite(s) in cooperation with the Department of Environmental Health and Safety, and together will determine the specific type(s) of fall protection to be used. The fall protection solutions will meet or exceed OSHA and Cal/OSHA fall protection requirements. An Alternative Fall Protection Plan will only be used if conventional fall protection is impractical and increases the hazards to the employees.

Cal/OSHA has listed construction and general industry work activities that have specific fall protection requirements. The University will provide fall protection that meets or exceeds these requirements.

<b>Minimum Height For Required Fall Protection</b>	<b>Type of Work or Activity</b>
<b>Required At Any Height</b>	On roofs, while an operator uses a felt-laying machine or other equipment that requires the operator to walk backwards.
	From boatswains chairs.
	From float scaffolds.
	From suspended scaffolds.
<b>4-Feet</b>	On poles, towers and similar structures
<b>6-Feet</b>	Placing or tying rebar in walls, columns or piers.
<b>7-½ Feet</b>	Work from the perimeter of a structure, through shaft-ways and openings.
	Work anywhere on roofs with slopes greater than 7:12.
	Work from thrust-outs or similar locations when the worker's footing is less than 3-1/12 inches wide.
	Work on suspended staging, floats, catwalks, walkways, or advertising sign platforms.
<b>15-Feet</b>	Work from slopes steeper than 40 degrees.
	Work from buildings, bridges, structures on construction members, such as trusses, beams, purlins, or plates that are of at least 4-inches nominal width.
	Ironwork other than connecting.
	Work on structural wood framing systems and during framing activities on wood or light gauge steel frame residential/light commercial construction.
<b>20-Feet</b>	Exception: For residential/light commercial frame construction, workers are considered protected when working on braced joists, rafters, or roof trusses spaced on 24-inches or less centers when they work more than 6-feet from unprotected sides or edges.
	During most roofing operations, with the exception of working from the perimeter of a structure.
<b>30-Feet</b>	Ironworkers connecting structural beams.

## 7.0 TYPES OF FALL PROTECTION SYSTEMS

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### 7.1 Floor and Roof Openings, Covers and Skylights

To protect employees from falls, every floor and roof opening shall be guarded by a cover, a guardrail, or equivalent on all sides, or employees shall be provided with a personal fall protection system or fall protection plan.

1. All covers shall be properly secured to prevent accidental displacement.
2. Covers shall be color-coded or bear the markings "HOLE" or "COVER".
3. Floor and roof opening covers shall be able to support the greater of 400-pounds or twice the weight of employees, equipment, and materials that may be imposed on any one square foot of the cover at any time.
4. Covers located in roadways shall be able to support twice the axle load of the largest vehicle that might cross them.
5. Employees approaching within 6-feet of a skylight shall be protected from falling by use of an approved cover or guardrail system.

### 7.2 Guardrail Systems

Guardrail Systems shall be erected at unprotected edges, ramps, runways, or holes where it is determined that erecting such systems will not cause an increased hazard to employees. Cal/OSHA specifications shall be followed in the erection of guardrail systems. Some, but not all specifications are listed below:

1. For construction:
  - a. Railing must be made from select lumber (Doug Fir #1 or better 1500 Psi equivalent.)
  - b. Top rail must be 42- to 45-inches high.
  - c. Have a mid-rail halfway between top rail and the floor.
2. For general industry:
  - a. Top rail must be between 42-and 45-inches high.
  - b. The top rail must be smooth.
  - c. Have a mid-rail halfway between the top rail and the floor.

Mid-rails, screens, mesh, intermediate vertical members, and solid panels shall be erected in accordance with the OSHA Fall Protection Standard.

The guardrails must be surfaced to prevent injury to employees from punctures, abrasion, or lacerations.

Guardrails must be equipped with toe boards if used in an elevated area above 6-feet in height and where tools, equipment, or materials can fall onto employees below. (Ref. Section 7.8)

Gates or removable guardrail sections shall be placed across openings of hoisting areas or holes when they are not in use to prevent access.7.3

### Personal Fall Arrest Systems

Personal Fall Arrest Systems shall be issued to and used by employees as determined by the appropriate competent person and may consist of anchorage, connectors, body harness, deceleration device, lifeline, or suitable combinations.

Personal Fall Arrest Systems shall:

1. Limit the maximum arresting force to 1800-pounds when used with a body harness.
2. Be rigged so an employee cannot free fall more than 6-feet or contact any lower level.
3. Bring an employee to a complete stop and limit the maximum deceleration distance traveled to 3-½ feet.
4. Be strong enough to withstand twice the potential impact energy of an employee free falling 6-feet (or the free fall distance permitted by the system, whichever is less).
5. Have an approved attachment point (dee ring) in the center of the workers back near shoulder level or above the wearers head.
6. Be inspected prior to each use for damage and deterioration and be removed from service if damage or defects are detected.
7. Contain ropes and straps used in lanyards, lifelines, and harnesses made from synthetic fibers, unless special precautions are required for hot work.
8. Meet the design requirements of the OSHA Fall Protection standard and Cal/OSHA.

All components of a Personal Fall Arrest System shall meet the specifications of the OSHA Fall Protection Standard and Cal/OSHA, and shall be used in accordance with the manufacturer's instructions.

1. The use of non-locking snap hooks is prohibited.
2. Dee-rings and locking snap hooks shall be self-locking and double acting and:
  - a. Have a minimum tensile strength of 5000-pounds; and
  - b. Be proof-tested to a minimum tensile load of 3600-pounds without cracking, breaking, or suffering permanent deformation.

#### 7.4 Anchorage

Anchorage used for the attachment of personal fall arrest systems must support at least 5000 - pounds per person attached and shall be:

1. Used under the supervision of a qualified fall protection supervisor.
2. Capable of supporting twice the weight expected to be imposed on it.
3. Independent of any anchorage used to support or suspend platforms.
4. At least higher than the workers waist.

## 7.5 Fall Positioning Systems

Body belt or body harness systems shall be set-up so that an employee cannot fall more than 2-feet, and shall be secured to an anchorage capable of supporting twice the potential impact load or 3000-pounds, whichever is greater. Body belts shall not be used for fall arrest. The use of non-locking snap hooks is not permitted.

## 7.6 Personal Fall Restraint

Harnesses and body belts may be used for personal fall restraint. Anchorage points used for fall restraint must be able to support four times the intended load. Restraint devices must be rigged to allow the movement of employees only as far as the edges of the working level.

## 7.7 Excavations

Fall protection will be provided to employees working at the edge of an excavation that is 6-feet or deeper. Employees in these areas are required to use the fall protection systems as designated in this program.

1. Excavations that are 6-feet or deeper shall be protected by guardrail systems, fences, barricades, or covers.
2. Walkways that allow employees to cross over an excavation that is 6-feet or deeper shall be equipped with guardrails.

## 7.8 Protection from Falling Objects

When guardrail systems are in use, the openings shall be small enough to prevent potential passage of falling objects. The following procedures must be followed by all employees to prevent hazards associated with falling objects.

1. No materials (except masonry and mortar) shall be stored within 4-feet of working edges.
2. Excess debris shall be removed regularly to keep work areas clear.
3. During roofing work, materials and equipment shall be stored no less than 6-feet from the roof edge unless guardrails are erected at the edge.
4. Stacked materials must be stable and self-supporting.
5. Canopies shall be strong enough to prevent penetration by falling objects.
6. Toe boards erected along the edges of overhead walking/working surfaces shall be:
  - a. Capable of withstanding a force of at least 50-pounds; and
  - b. Solid with a minimum of 3-½-inches tall and no more than one-quarter (1/4) inch clearance above the walking/working surface.
7. Equipment shall not be piled higher than the toe board unless sufficient paneling or screening has been erected above the toe board.



## 7.9 Inspection, Maintenance and Storage

As with all personal protective equipment (PPE), the equipment is only protective when it is functioning properly. The same holds true for fall protection equipment. Fall protection equipment must be visually inspected by the user prior to each use and at least twice annually by a competent person to ensure the equipment is in good working order and ready for use. The inspections shall be documented.

Fall protection equipment must be inspected to ensure the equipment is properly functioning. Manufacturer's recommendations must be followed for proper inspection, maintenance and storage of fall protection equipment.

If a fall arrest system is used to control a fall, all affected components of the system must be taken out of service and inspected to ensure they are in functional condition. Some components, such as the shock absorbing lanyard or retractable lifeline, must be returned to the manufacturer for recertification following their use in a fall situation.

Soiled or contaminated body wear (harnesses) can be cleaned in warm water using a mild soap and scrub cloth. The equipment must be thoroughly rinsed with fresh water following any detergent cleaning. Other fall protection equipment can be surface cleaned with water. Harsh chemicals should never be used to clean the fall protection equipment. Upon the completion of cleaning, the equipment must be allowed to dry thoroughly and placed in a clean and dry location to allow for proper storage.

Labels must be visible and legible on all fall protection equipment. If not, they must be removed from service, regardless of equipment condition.

## 7.10 Rescue Plans

Every job site or work evolution must have a rescue plan that provides direction in the event that a fall occurs and an employee requires rescue. The CSU, Chico Fall Protection Program does not include employee rescue options.

1. Emergency Services Rescue – The following considerations must be met:
  - a. Rescuers must be able to reach the location of a fallen worker in a timely manner.
  - b. Emergency services must be on duty the entire time work is being performed.
  - c. Emergency services must have the training and equipment to reach the worker at height.
  - d. Emergency services must have sufficient backup capacity to provide assistance even if there is another emergency.
  - e. Emergency services must be informed on the hazards of suspension trauma.

### 7.11 Accident Investigations

All incidents that result in injury to workers, as well as near misses, regardless of their nature, shall be reported and investigated. Investigations shall be conducted by the Department of Environmental Health and Safety (EHS), a competent fall protection supervisor, and the safety committee (if applicable).

The investigation will occur as soon after an incident as possible to identify the cause and means of prevention to eliminate the risk of reoccurrence.

In the event of such an incident, the Fall Protection Program (and alternative Fall Protection Plans, if in place) shall be reevaluated by EHS to determine if additional practices, procedures, or training are necessary to prevent similar future incidents.

### 7.12 Training Requirements

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 them. Employees shall receive training as soon after employment as possible, and before they are required to work in areas where fall hazards exist.

A record of employees who have received training and training dates shall be maintained by the appropriate department or competent person.

Training of employees 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 personal fall restraint, fall arrest systems, and other any other fall protection equipment or systems to be used.
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 and all Cal/OSHA General Industry Standards related to Fall Protection.

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.

## 8.0

# ALTERNATIVE FALL PROTECTION PLAN

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This Alternative Fall Protection Plan is specific to the following project:

<b>Job Location/ Building(s):</b>	
<b>Date(s) of Work:</b>	
<b>Plan Prepared by:</b>	
<b>Plan Approved by:</b>	
<b>Plan Supervised by:</b>	

### I. PURPOSE

CSU, Chico is dedicated to the protection of its employees from occupational injuries. All employees have the responsibility to work safely on the job and to adhere to the Universities Fall Protection Program.

The purpose of the Alternative Fall Protection Plan is to supplement the Universities existing Fall Protection Program and is designed to be used **only** when conventional fall protection methods or systems are not feasible and/or create a more hazardous situation for workers.

This Fall Protection Plan may include the use of conventional fall protection at a number of areas on the project, and identifies specific activities that require non-conventional means of fall protection. In these cases, conventional fall protection systems may not be the safest choice for this project. This Plan is designed to protect employees from recognized fall hazards associated with this job and to establish safe work procedures to prevent falls.

### II. ASSIGNMENT OF RESPONSIBILITY

#### A. Manager or Supervisor Responsibility:

- Designate a qualified person to develop and monitor the Alternative Fall Protection Plan.
- Ensure that all employees understand and adhere to the procedures of this plan and the instructions of the crew supervisor or foreman.
- Assign a competent person to be responsible for managing this Fall Protection Plan.
- Provide appropriate fall protection equipment to employees as detailed in this Plan.

#### B. Employee

- Bring to the attention of management any unsafe or hazardous conditions or practices that may cause injury to themselves or other employees.
- Report any incident which causes an injury to yourself or a co-worker.

- Each employee will be trained in these procedures and will be expected to strictly adhere to them except when doing so would expose him/her to a greater hazard. If, in the employee's opinion, the procedures in this Plan pose a risk, the employee is to notify the fall protection supervisor and have their concern(s) addressed *before* proceeding with work.
- Employees have the right and responsibility to stop work when unsafe conditions are present.

**C. Fall Protection Supervisor**

(Insert name here) will function as Manager of this Fall Protection Plan and has the following responsibilities:

- Implement this Fall Protection Plan.
- Perform continual observational checks of work operations to identify hazards.
- Enforce the University Fall Protection Program and the procedures listed within this Plan.
- Coordinate with supervisors and/or leads to correct any unsafe practices or conditions immediately.
- Provide training on this Plan to all affected employees before work begins on the project.

**III. Affected Employees**

The Following Employees Are Included In This Plan

**IV. Reasons For Not Using Conventional Fall Protection**

Methods of Fall Protection	Reason(s) Why They Cannot Be Used
Engineering out the hazard	
Administrative Controls: Changing the work process	
Use of guardrails	
Use of a positioning system	
Use of a fall restraint system	
Use of personal fall arrest systems	

**V. Alternative Procedure Locations**

Locations Where Conventional Fall Prevention Cannot Be Used

**VI. Fall Protection Alternative Procedures**

Special Fall Protection Procedures