

# Fall Protection and OSHA: How to be Safe and Compliant



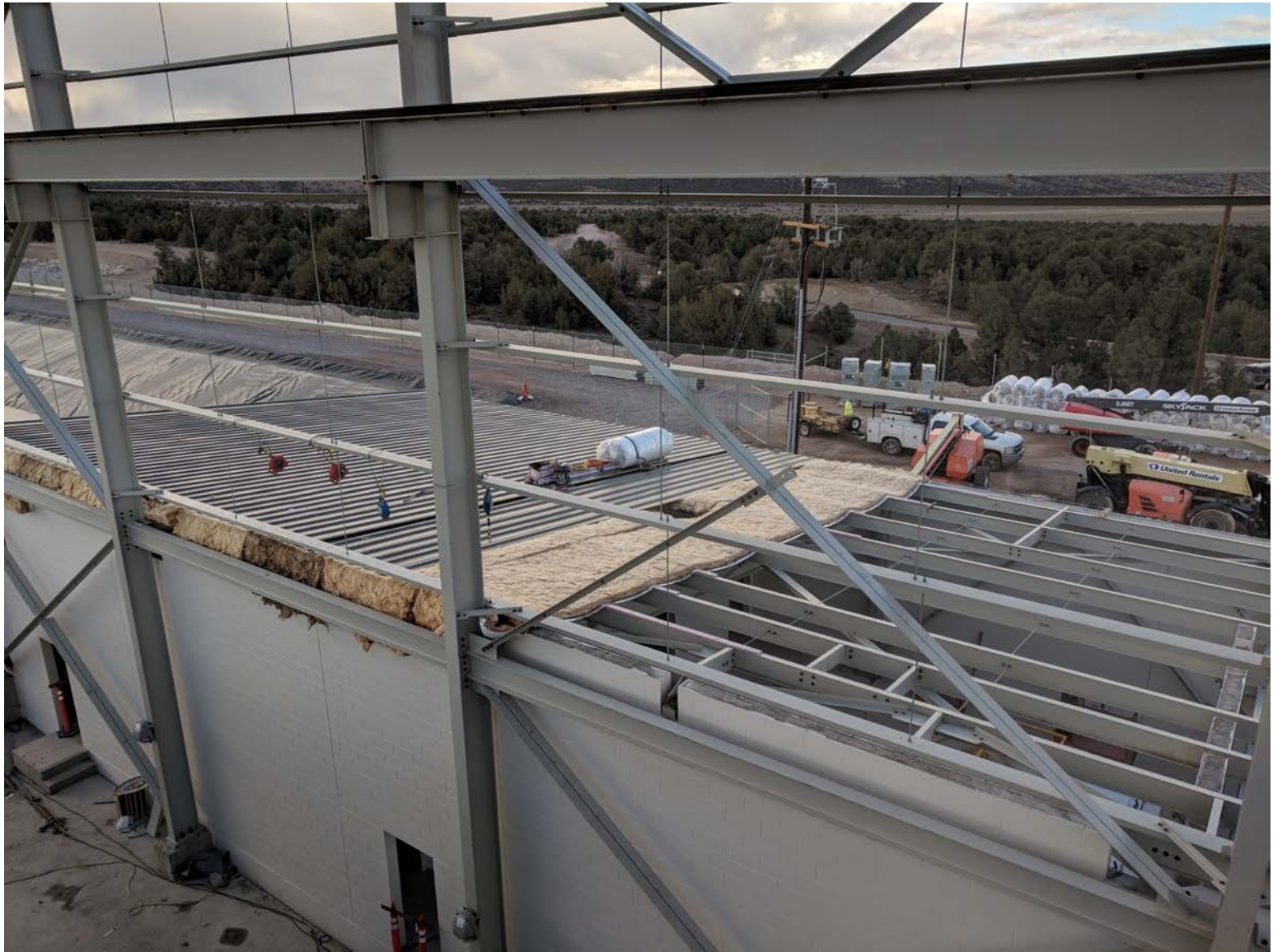
# Fall Protection and OSHA: How to be Safe and Compliant

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**INSTALLATION**

Capacity: 130lbs to 310 lbs, including weight of user

**WARNING**

See instruction manual for important information regarding fall clearance requirements and swing. This unit is not suitable for horizontal use nor for horizontal lifeline applications. Swing fall is not permitted when using this device. This unit is for use with an overhead anchorage only. Avoid contact with abrasive surfaces. Read and understand the manufacturer's user instruction manual, including labels and warnings, before use product. See manufacturer's user instruction manual for complete inspection procedures.

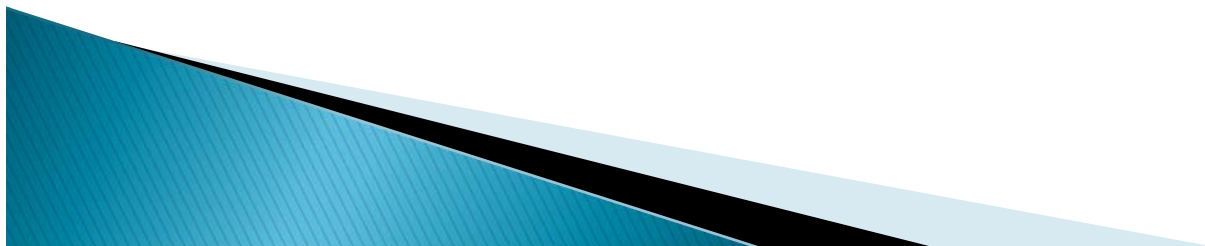
DO NOT REMOVE LABEL

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# OSHA's 2018 Top 10 Most Frequently Cited Violations







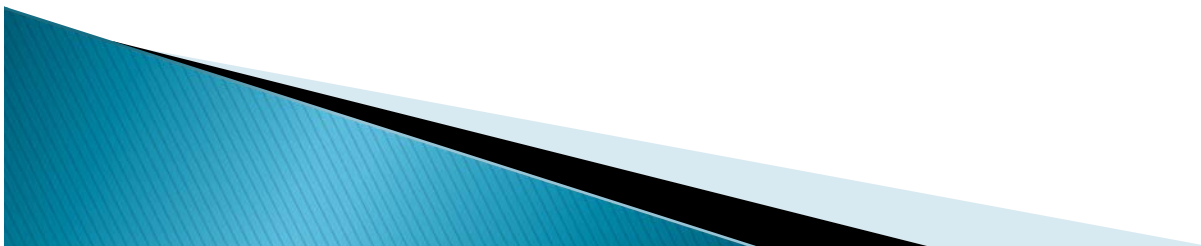
# OSHA's Fatal Four

Falls

Struck By Object

Electrocution

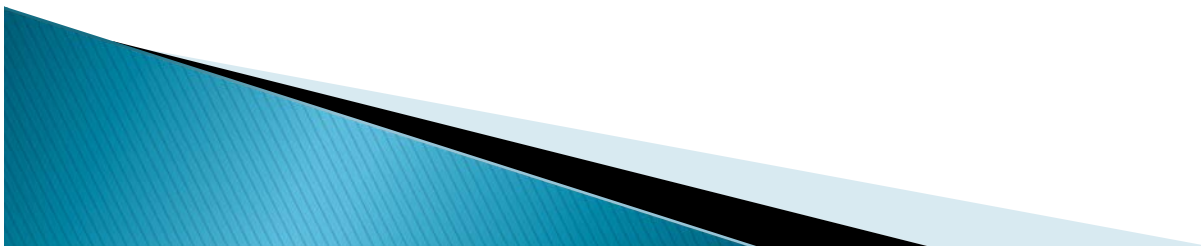
Caught in / Between



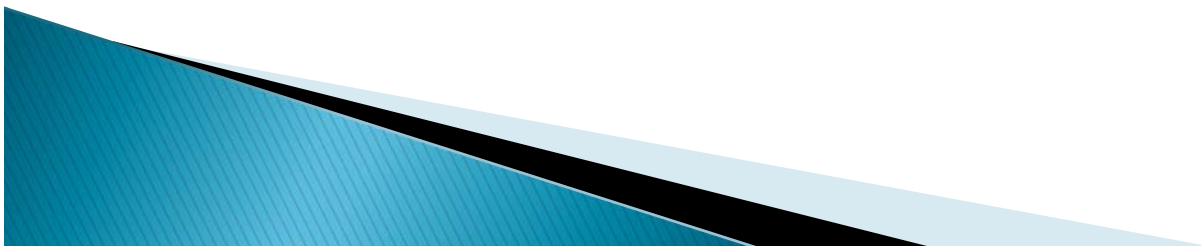


# Safety Program

- **Why do we need a safety program?**
- **What do we need in it?**



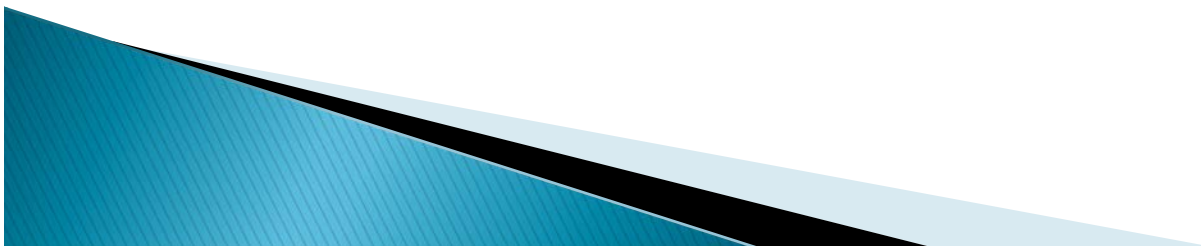
# It's the Law



# It's the Law

**29 CFR 1926.20(B)(1):**

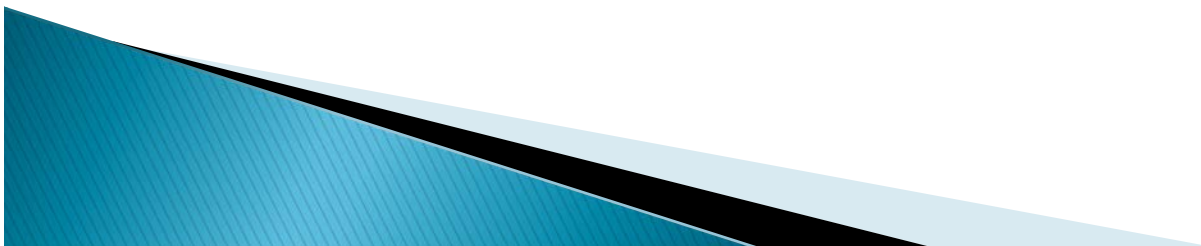
**“It shall be the responsibility of the employer to initiate and maintain such programs as may be necessary to [create a safe work environment].”**





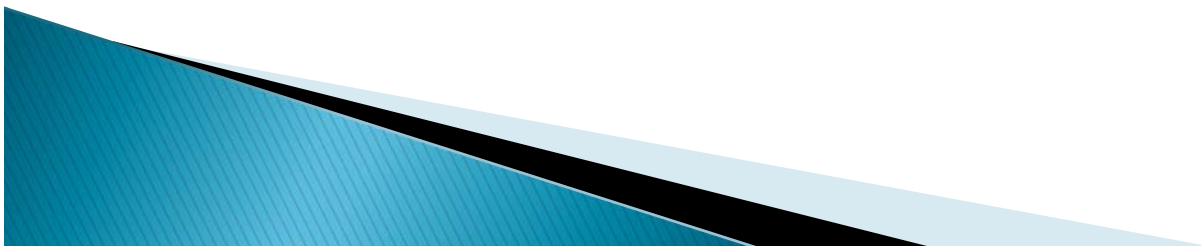
# Safety Program

- **Demonstrates your awareness of the safety responsibility**
- **Communicates expectations to employees**
- **Sets out steps to enforce your safety program through training, discipline, etc.**



# Safety Program

- **You must use it.**
- **Have it developed to fit your business**
- **Don't try to adapt someone else's program for your company.**



# 3 Critical Steps for Fall Protection

**Plan:** inspect the jobsite, anticipate fall hazards, and plan to eliminate those hazards

**Provide:** Provide all necessary fall protection equipment when it is needed, and in good condition.

**Train:** Train and test all workers who will work at heights above 6 feet.





# Hazard Recognition

**“The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazard or other exposure to illness or injury.”**



29 CFR 1926.21(b)(2)

# Competent Person

**You must have a competent person on site:**

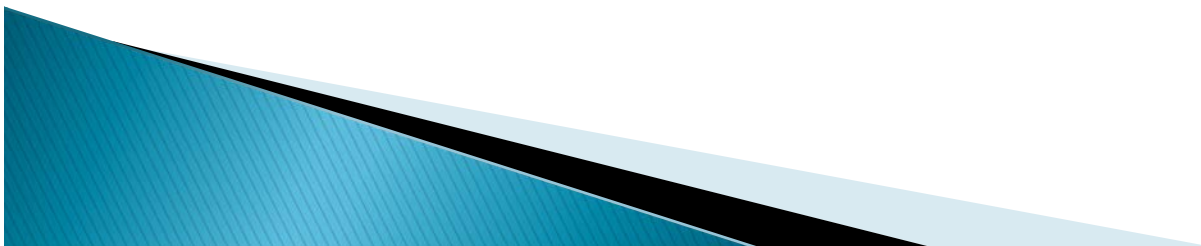
**Fall Protection**

**Scaffolding**

**Silica**

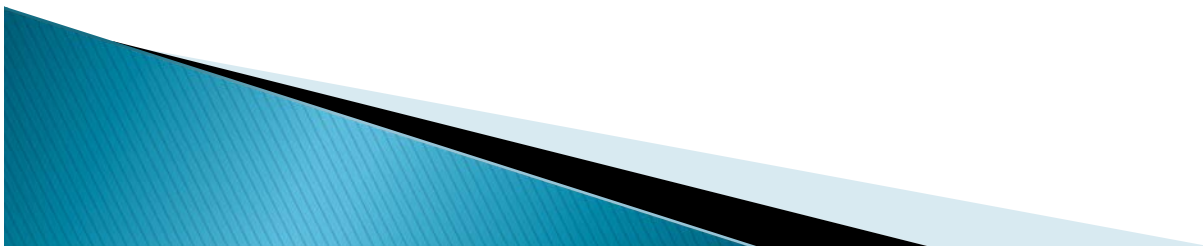
**Confined space**

**Asbestos**



# Duty to Use Fall Protection

Each employee on a walking or working surface 6 feet or more above lower levels must be protected from falling by . . .



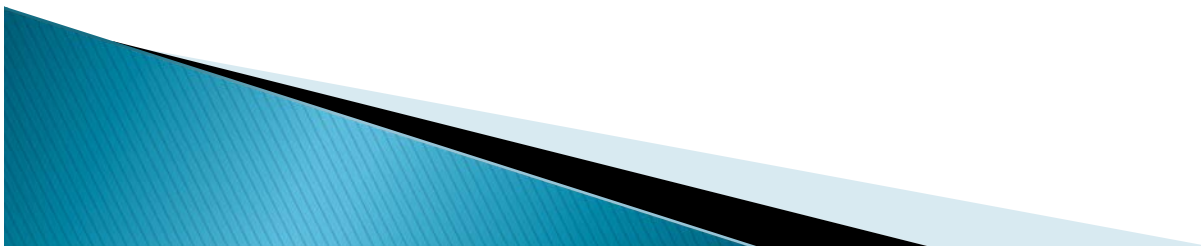


# Duty to Use Fall Protection

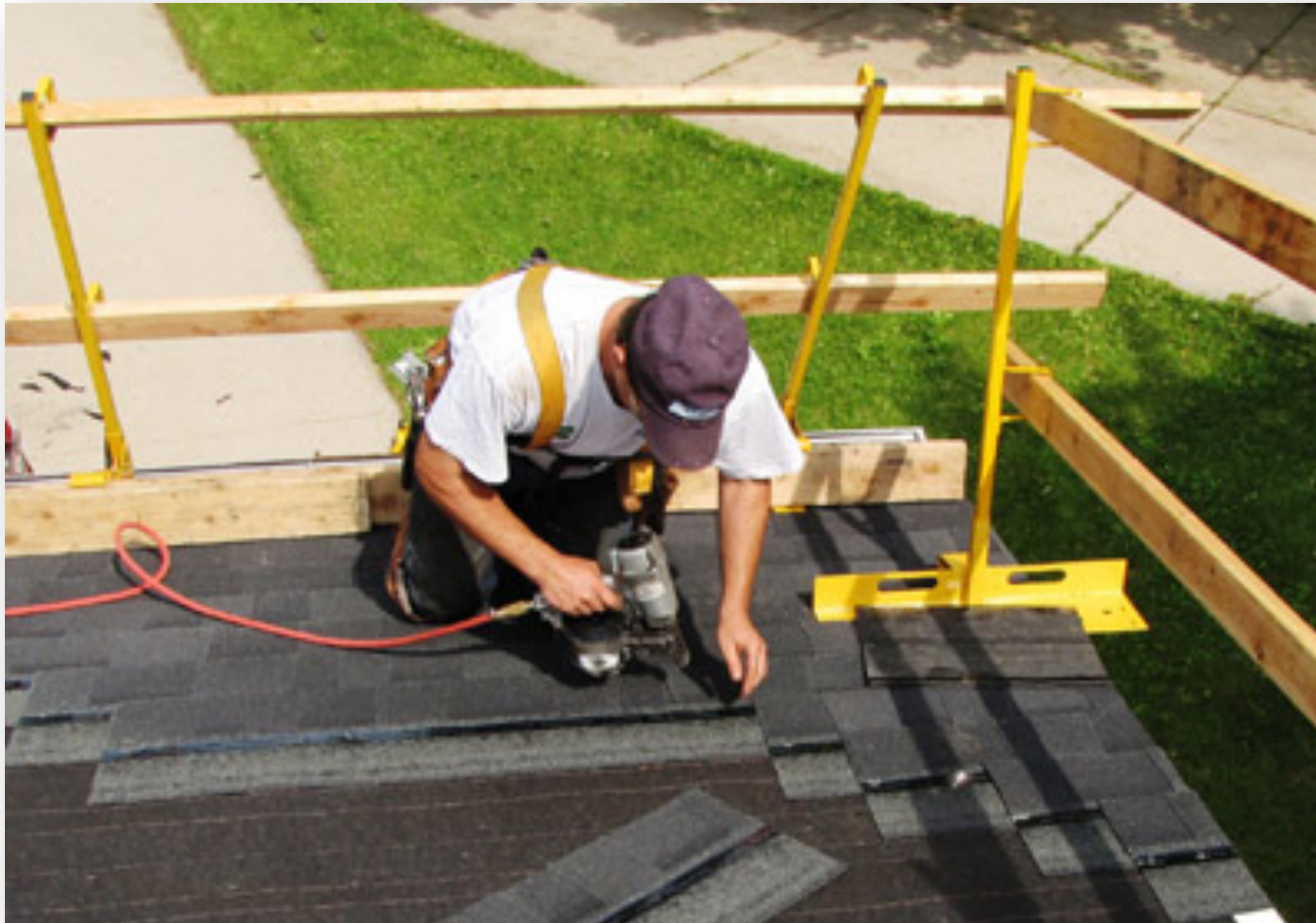
Guardrails

Safety Nets

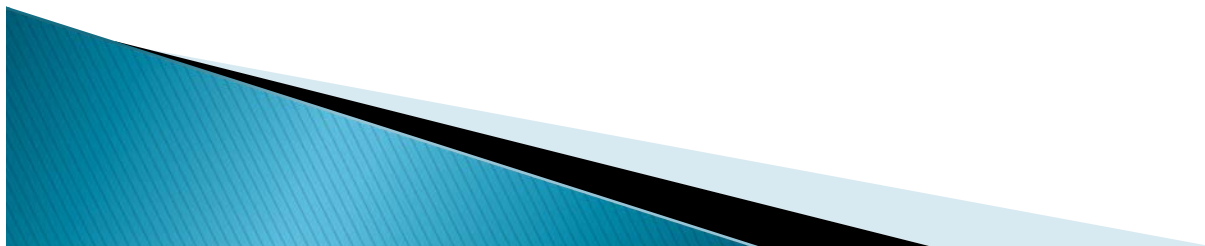
Personal Fall Arrest Systems



# Guardrails



# Guardrails





# Safety Nets



# Safety Nets





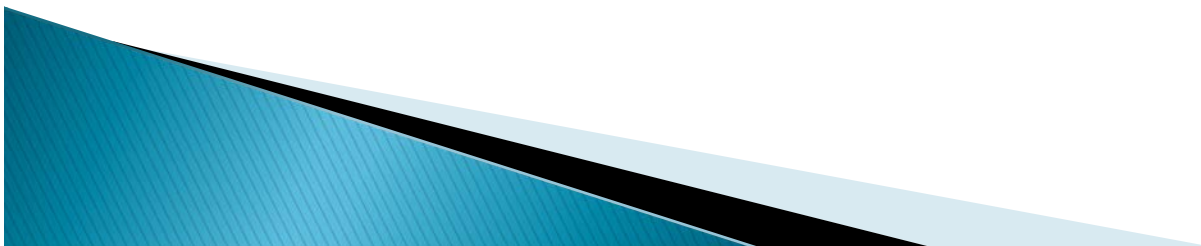
# Personal Fall Arrest System



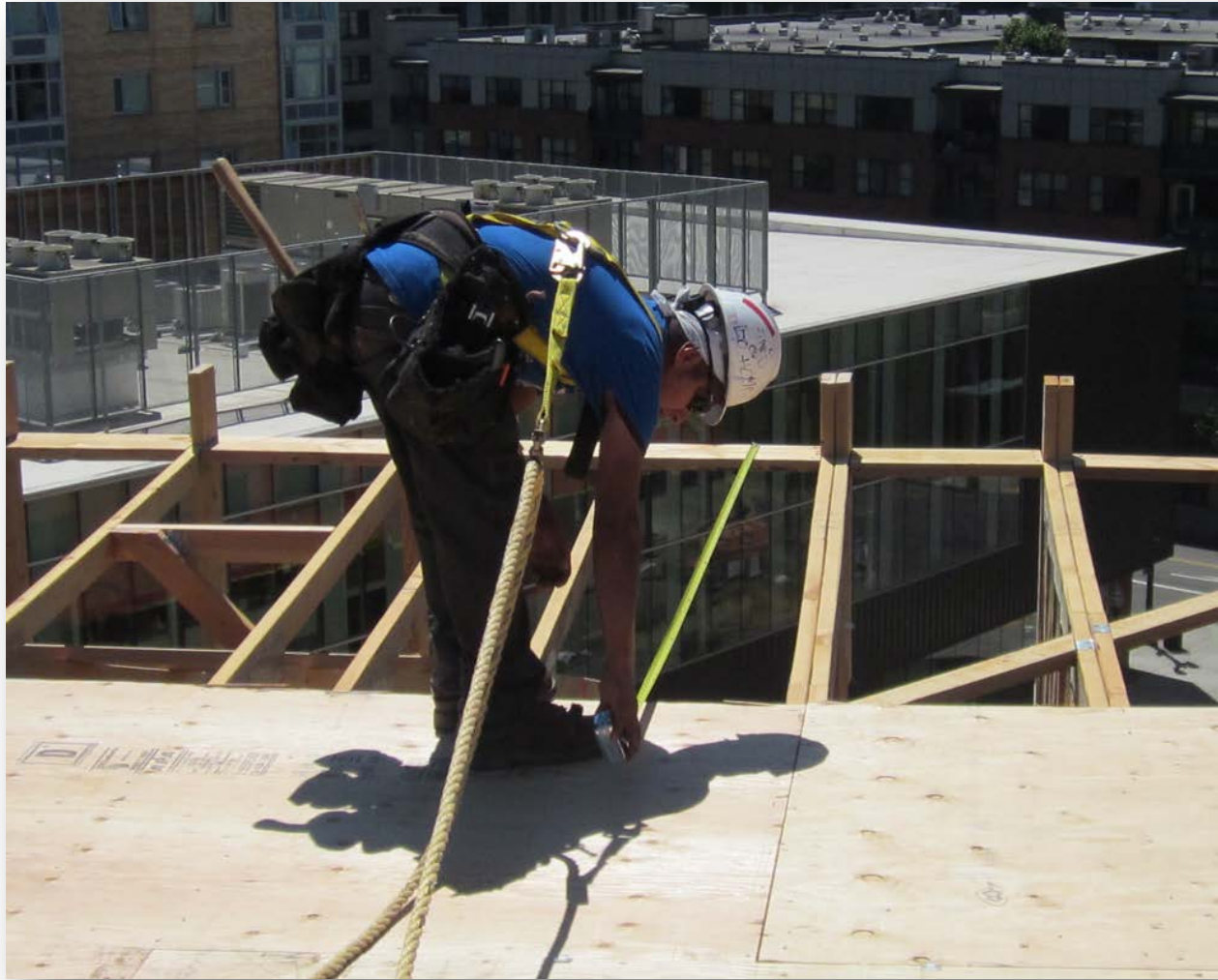
# Personal Fall Arrest System

**The fall arrest system components are:**

- 1. Body harness**
- 2. Lanyard / lifeline**
- 3. Anchorage point**



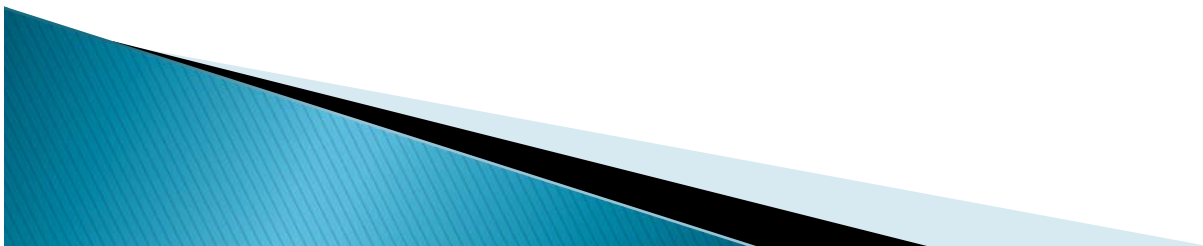




# Personal Fall Arrest System

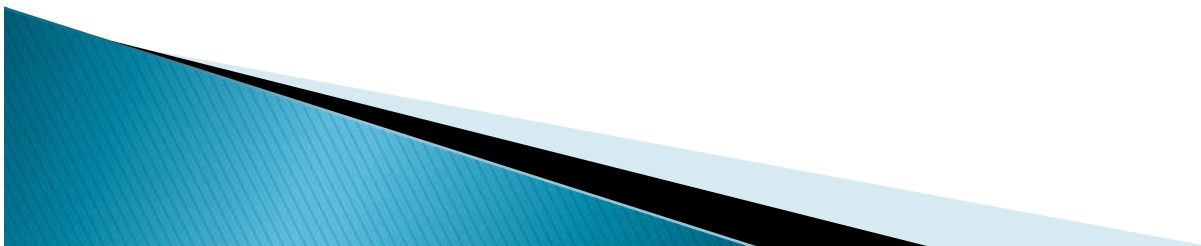
Must have a safety factor of at least two:

**2 X the impact force of a worker  
free falling six feet.**



# Anchor

- ▶ **Most important part of the personal fall arrest system.**
- ▶ **Must hold at least 5,000 lbs.**
- ▶ **Or be designed, installed by, and used under the supervision of a qualified person.**



# Qualified Person

An individual “who, by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.”

– 29 CFR 1926.32(m)

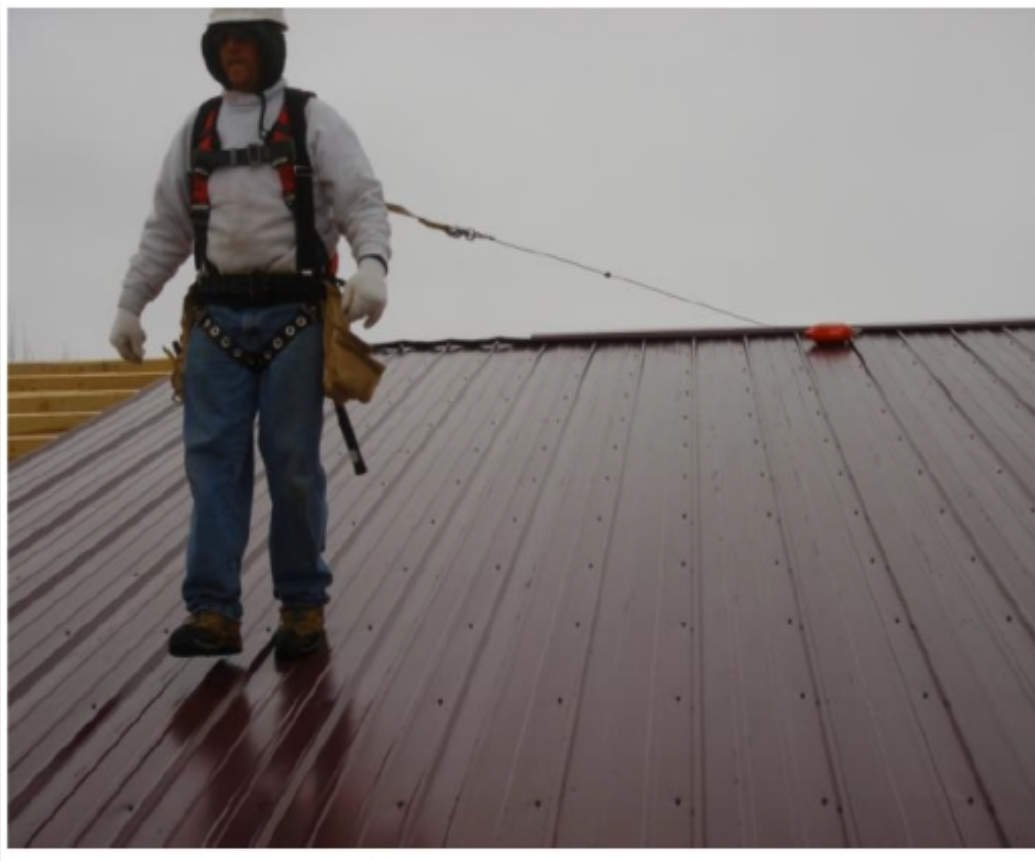


# Anchor Systems





# Single Point Anchor



# Permanent Anchor



# Body Harness

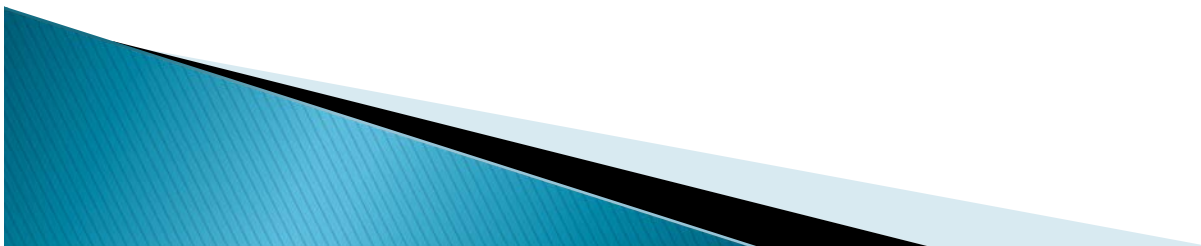


**Body harness must be worn properly.**

**D-ring must rest between the shoulders and the chest strap must be secured.**

# Body Harness

- ▶ **Inspected before use**
- ▶ **Adjusted to fit the worker**
- ▶ **Free from other visible damage.**



# Lifeline / Lanyard

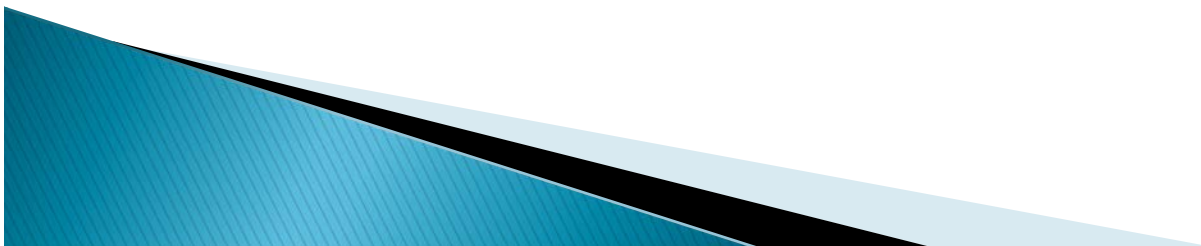


**Capable of supporting a minimum dead weight of 5,400 pounds.**

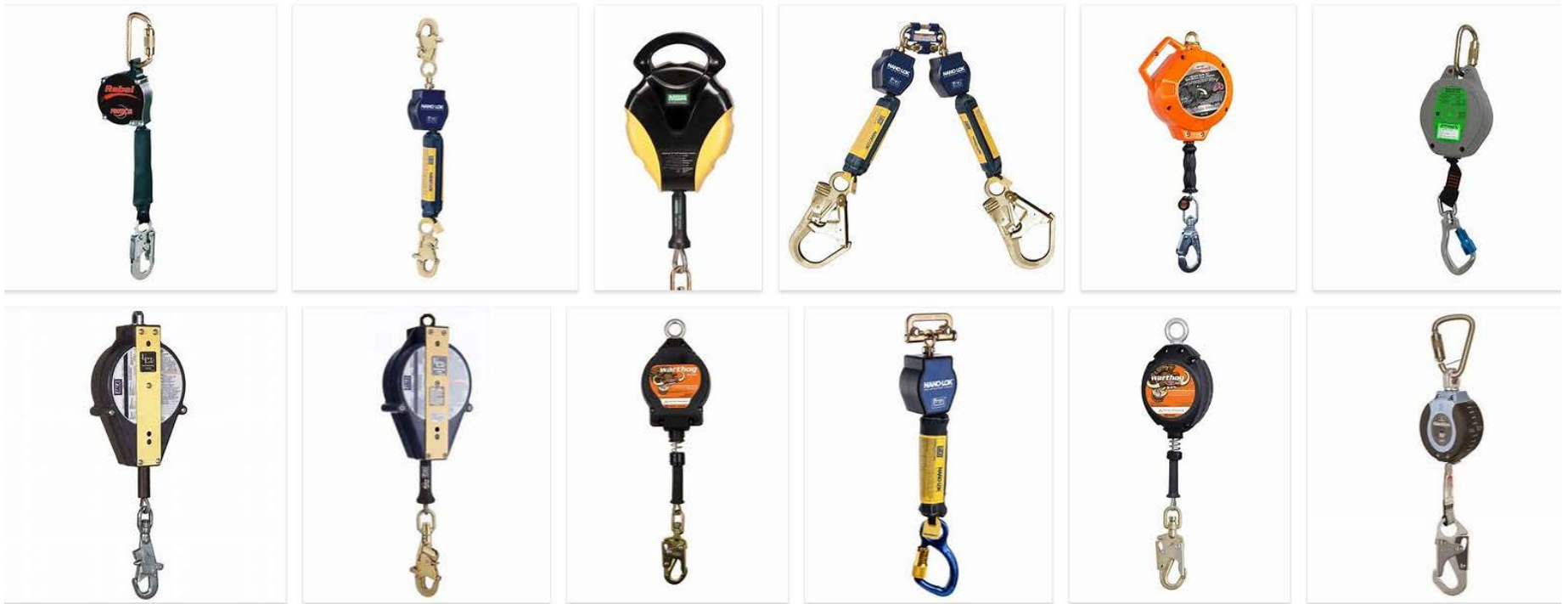


# Lanyard / Lifeline

**Lanyard shall be a minimum of 1/2-inch nylon, or equivalent, and allow a fall of no more than 6 feet.**



# Self-Retracting Lifeline



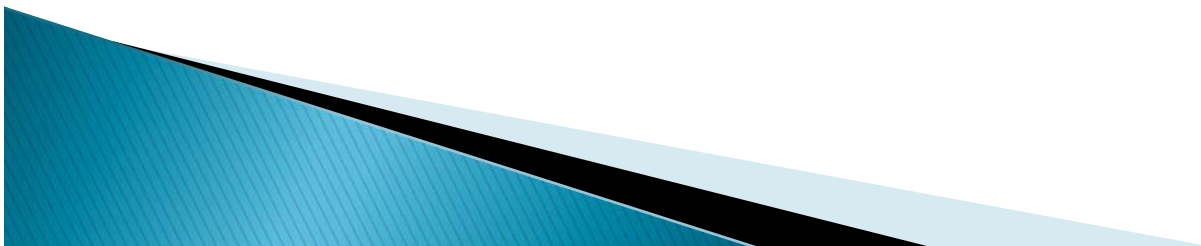
# Self-Retracting Lifeline



# Low Slope Roofs

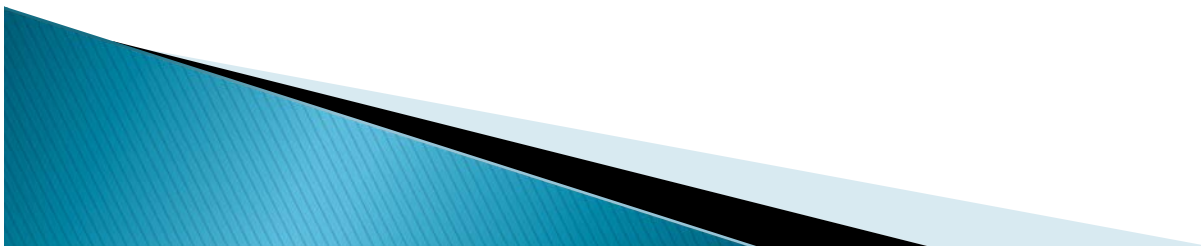
**Guardrail systems, safety net systems,  
personal fall arrest systems,**

**Or a properly installed warning line.**

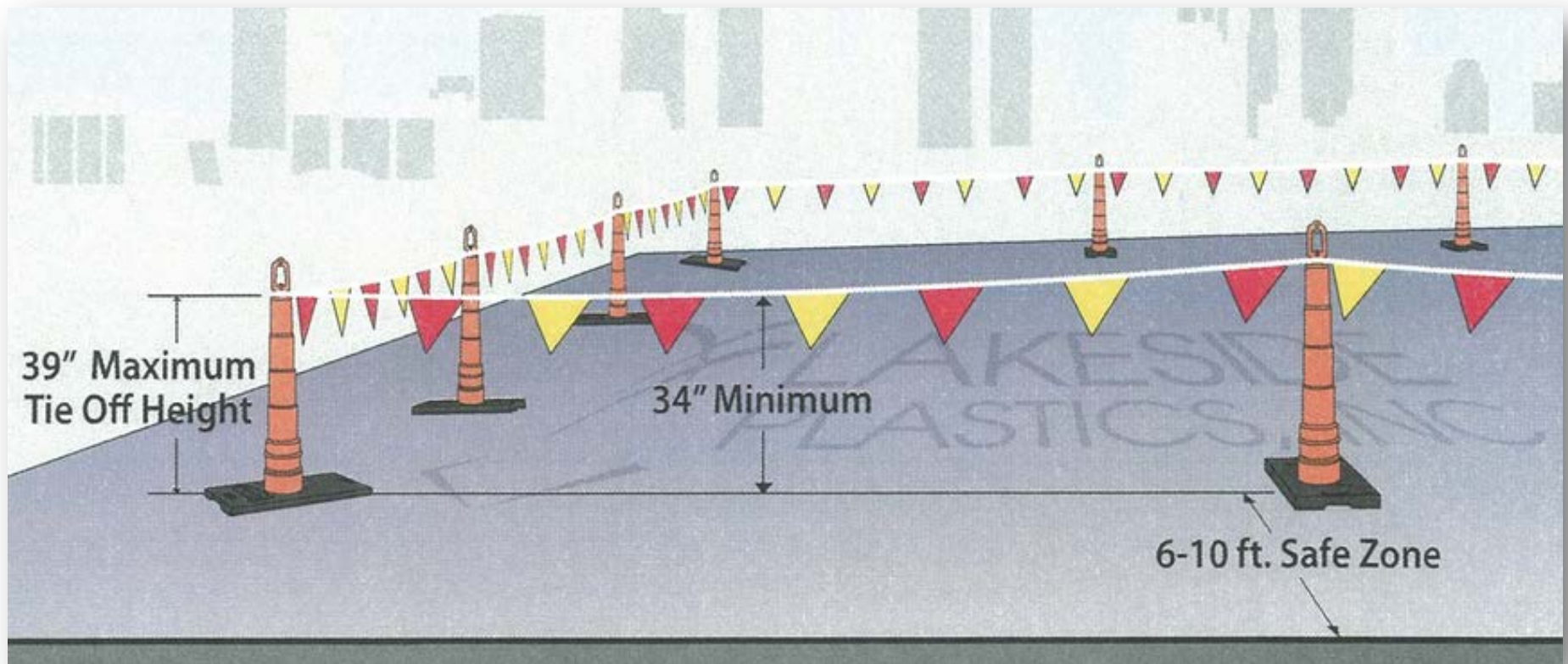


# Warning Lines

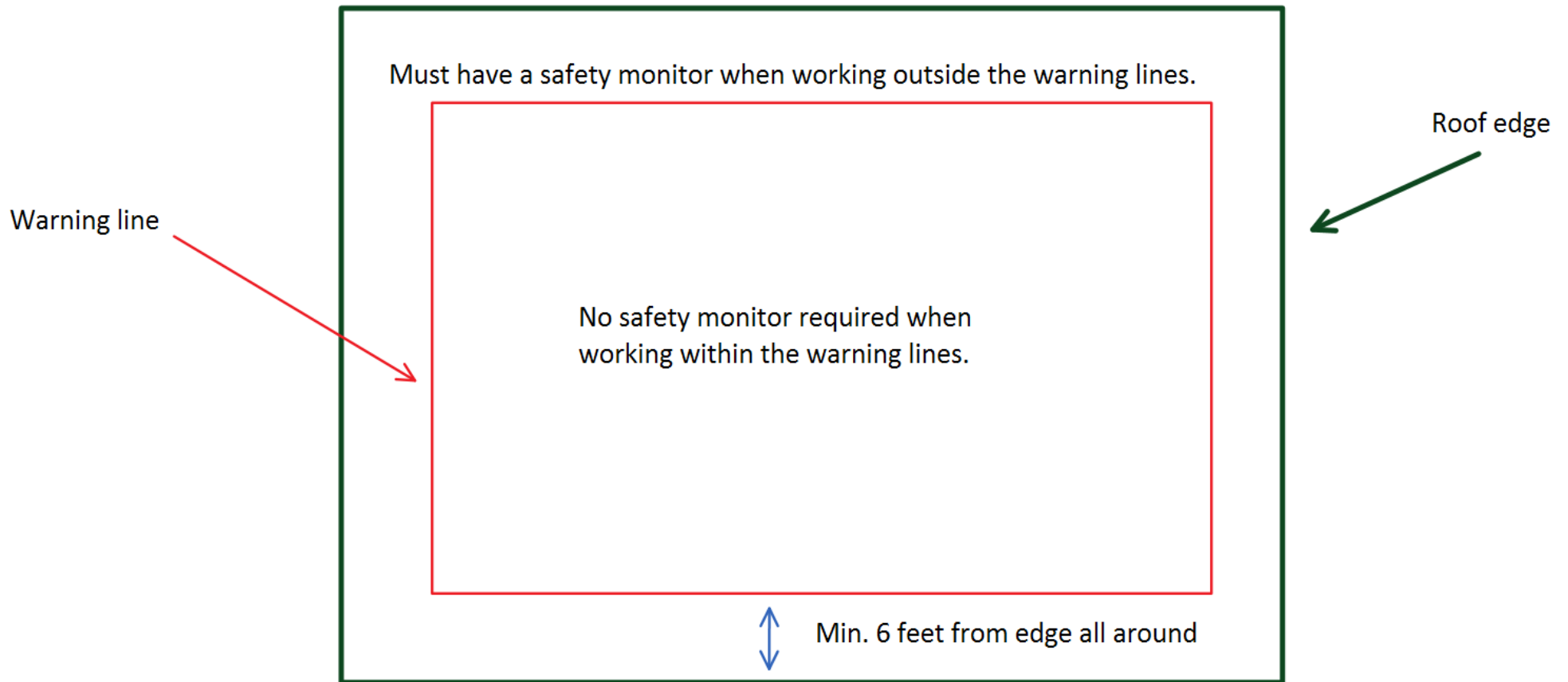
**Barriers erected on a roof to warn employees that they are approaching an unprotected edge.**







# Warning Lines



# Low Slope Roof

If working outside the  
must use a combi

war

**Or warning line  
system and  
safety monitoring  
system.**

ty net

stem and personal fall

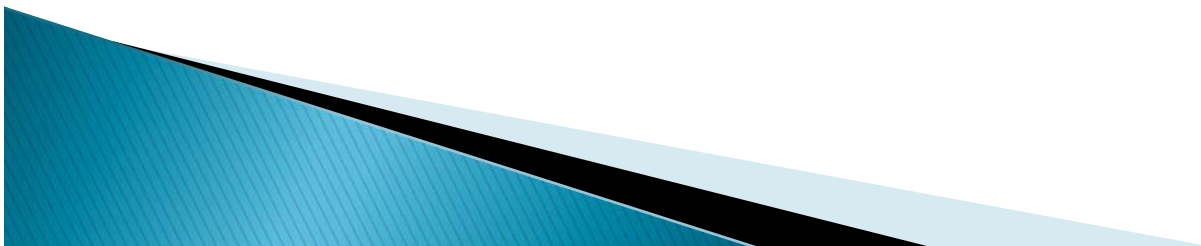
in



# Low Slope Roofs

**On roofs 50-feet or less in width the use of a safety monitoring system alone is permitted.**

***[i.e. without the warning line system]***



# Ladder Safety



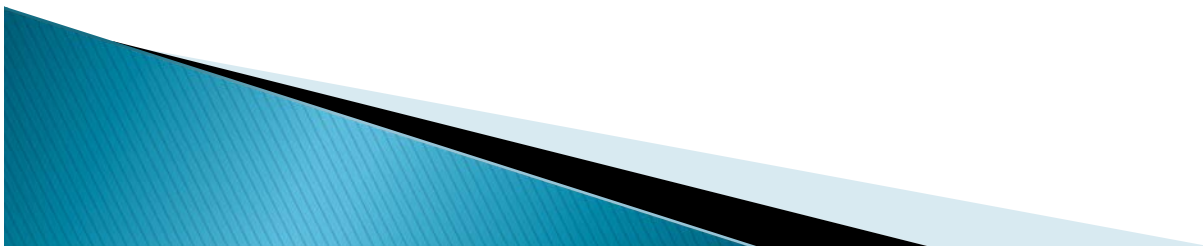






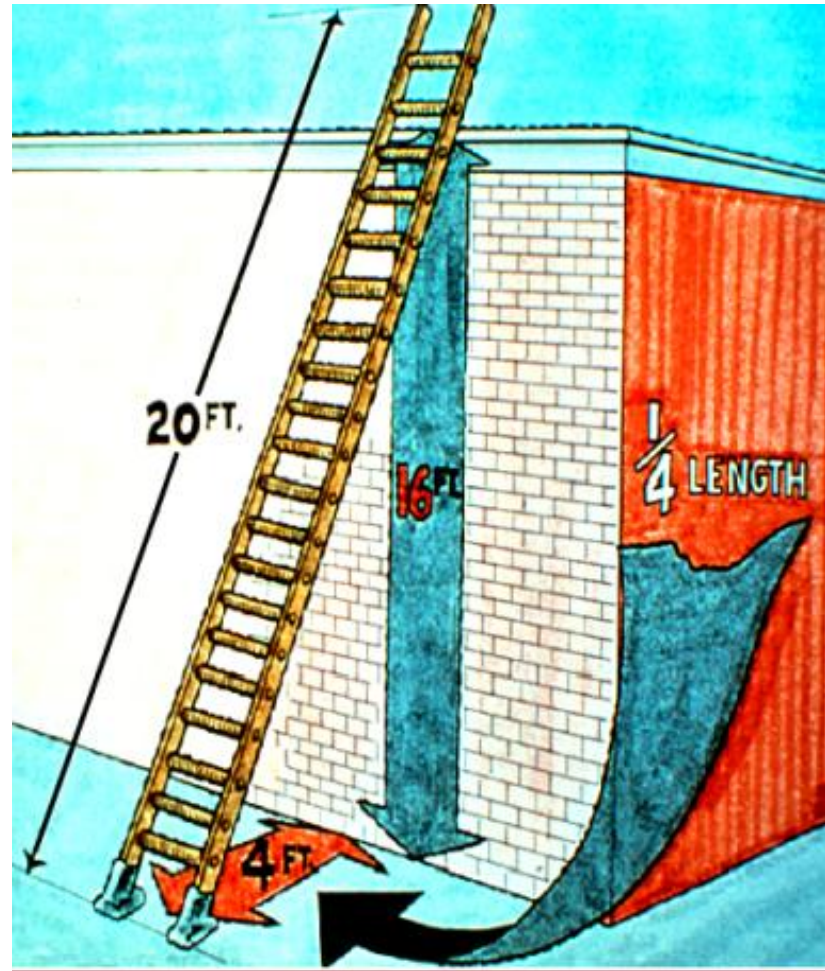
# Ladder Safety

**When used to access elevated area, must extend at least 3 feet above the point of support.**



# Ladder Safety

Ladder angle:  
The horizontal distance from the top support to the foot of the ladder is  $\frac{1}{4}$  the length between the foot and top support.

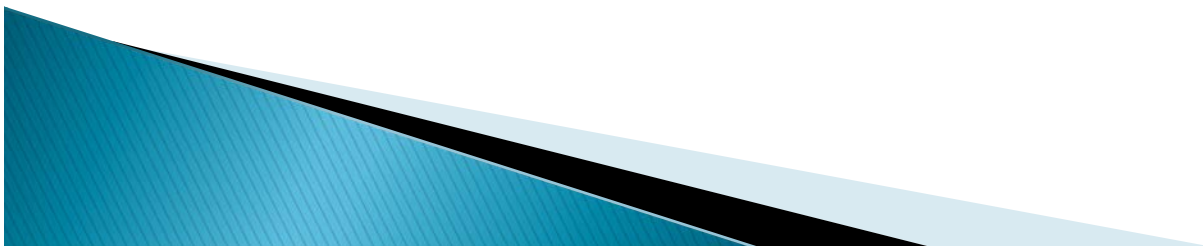




# Ladder Safety

## Don't Let it Slip!

- ▶ Always use rubber feet on concrete surfaces.
- ▶ Be careful on slick concrete or if icy conditions are present.
- ▶ Always be sure the ladder has firm footing with both feet planted firmly on the floor or ground surface.





# Scaffolds

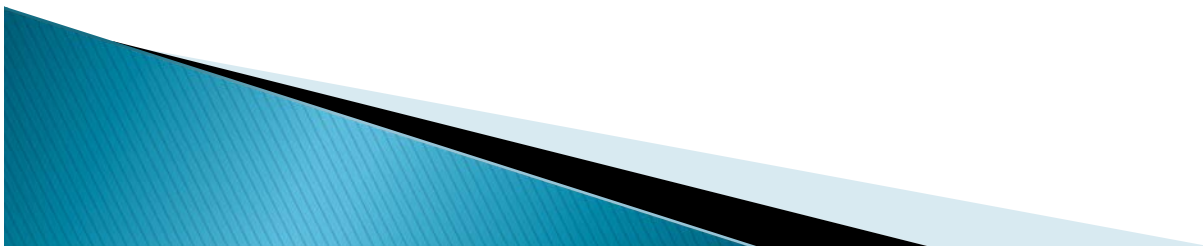


# Scaffolds



# Scaffolds

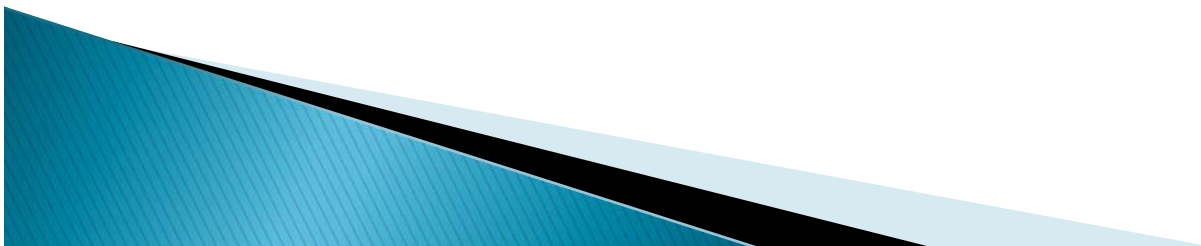
- ▶ Construction industry scaffold standard requires both competent persons and qualified persons.
- ▶ Competent person to erect and dismantle scaffold.
- ▶ Qualified person to design scaffold.
- ▶ Competent and qualified are not the same thing!



# Competent Person: Scaffolding

**Must have competent person to inspect the scaffold**

- 1. every day**
- 2. before each use**
- 3. When conditions change**









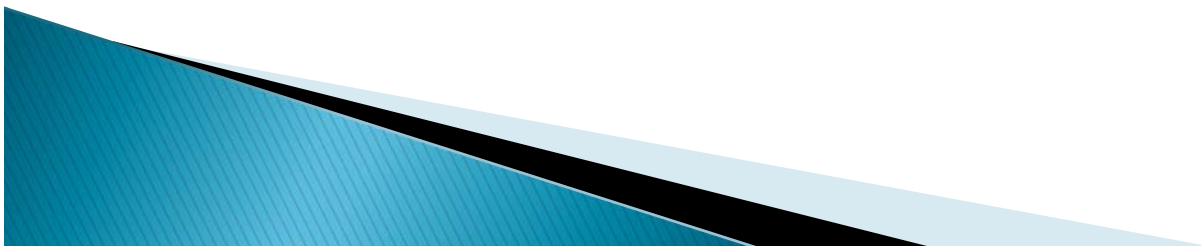
# Scaffolds

- ▶ **Scaffold bases must rest on a base plate and a mud sill.**
- ▶ **The base plate is designed to level and support the scaffold.**



# Scaffolds

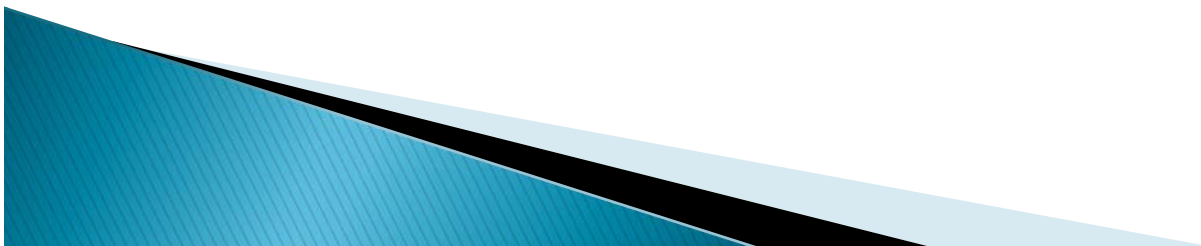
**Can be no more than 14 inches from the face of the work, unless guardrail systems are erected along the front edge and/or personal fall arrest systems are used.**



# Scaffolds



**Scaffold  
platforms must  
be fully and  
properly  
planked.**



# Scaffolds

**Never stack blocks, bricks, or use ladders on top of scaffolds for extra height.**



# Scaffolds



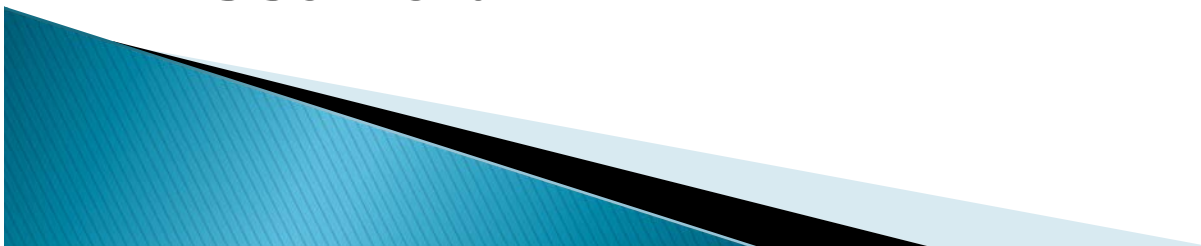


# Scaffolds

**Workers must have a safe way to access the scaffold.**

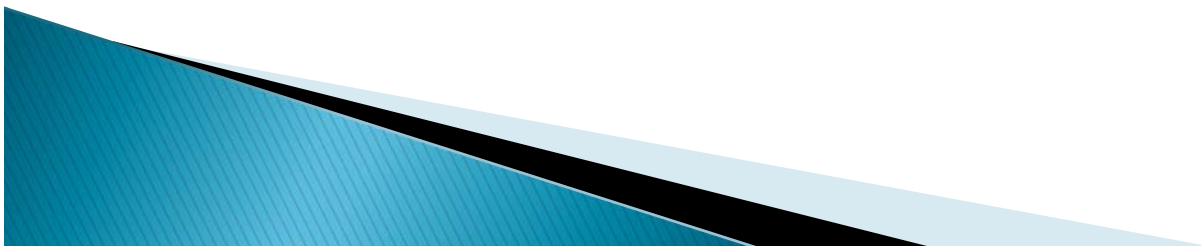
**Never use blocks, bricks, walk boards, and other unsafe methods to access a scaffold.**

- ▶ **Use only ladders designed for use with scaffolds.**
- ▶ **The ladder must be firmly secured to the scaffold.**



# Scaffolds

**Supported scaffold poles, legs, posts, frames, and uprights must be perpendicular to the ground and braced to prevent swaying or displacement.**



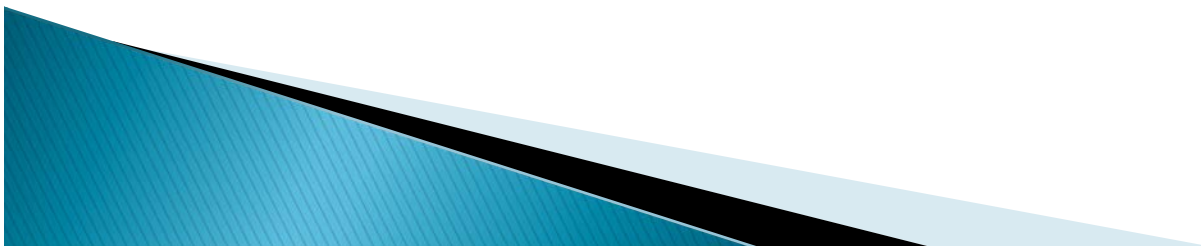
# Scaffolds

**Employees on scaffolds working more than 10 feet above the lower level must have fall protection:**

**Guardrails**

**or**

**Personal fall arrest systems**



# Scaffolds

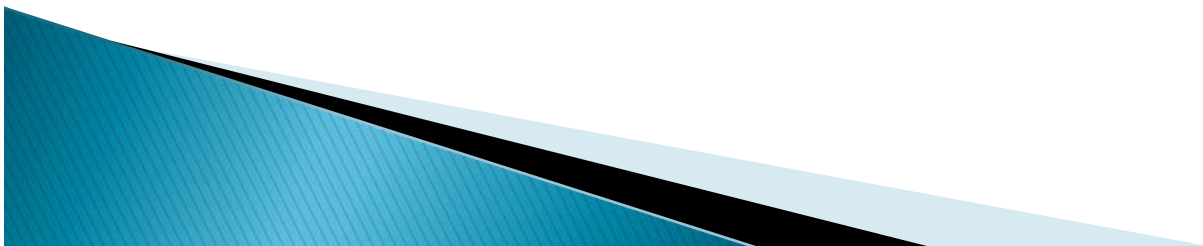


**Guardrails are the most common fall protection system for scaffolds.**

**All open edges, including the sides, must be guarded when using guardrails.**

# Scaffolds

**Barricade all access points into the building that can be reached by walking underneath the scaffold; designate a controlled access zone.**





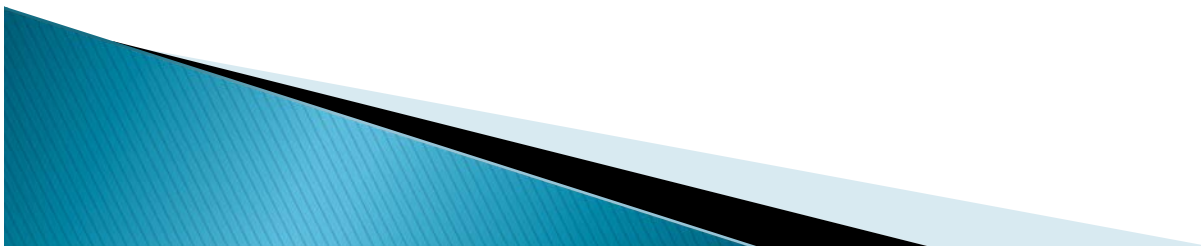
# Scaffolds

## **Don't:**

- **stockpile materials on scaffolds**
- **overload scaffolds**


## **Do:**

- ▶ **Get off in a storm or high winds**
- ▶ **Keep the area around the scaffold clear**



# Scaffolds

A **detailed checklist** should be used to inspect scaffold before it is used. Here are some components of a scaffold construction checklist:

- ▶ Ensure guardrails meet required height (39–45 in.).
  - ▶ Midrails and toeboards must be in place.
  - ▶ Ensure scaffold planking is properly in place.
  - ▶ Ensure all crossbraces are in place.
  - ▶ Ensure all base plates are in place; mudsills must be used when working on uneven ground. Be sure even mudsills have sound level footing.
- 

# Scissor Lift

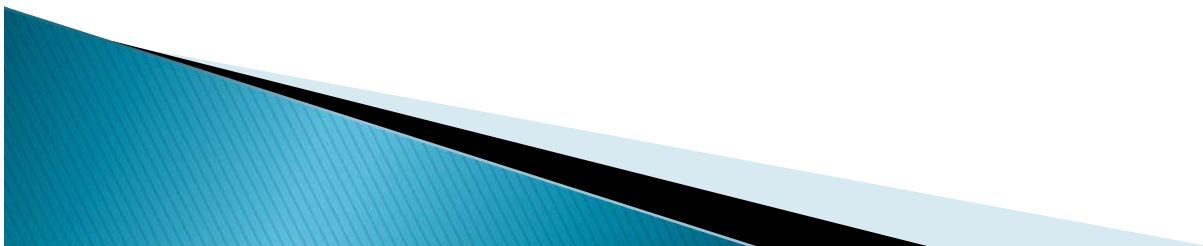


# Scissor Lifts

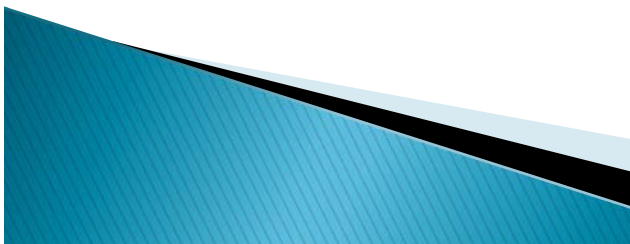
Covered by the scaffold standard.

No need to tie off if there is a guardrail all around the elevating working surface.

The gate must be closed!



# Scissor Lifts





# Aerial Lifts

Tie off! Must wear full body harness with lanyard and lifeline when working in a bucket.



# Wall Openings

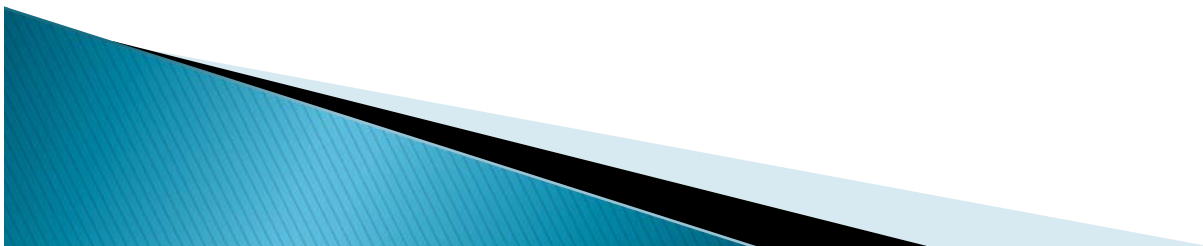


# Wall Openings

Guard where the fall is at least 6 feet

and

there is no parapet at least 39 inches.



# Wall Openings



# Wall Openings





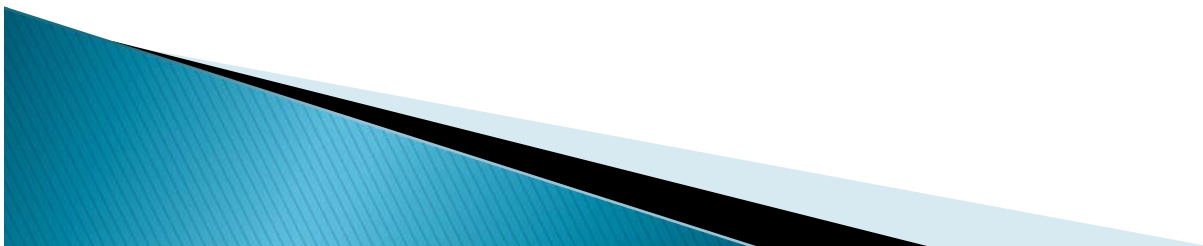
# Unguarded Floor Openings

Unguarded floor openings must be guarded with a standard guardrail, or covered with a fixed cover.



# Unguarded Floor Openings

This includes any opening measuring 12 inches or more in its least dimension in a floor, platform, pavement, or yard, through which persons may fall.





# Unguarded Floor Openings





# Unguarded Floor Openings





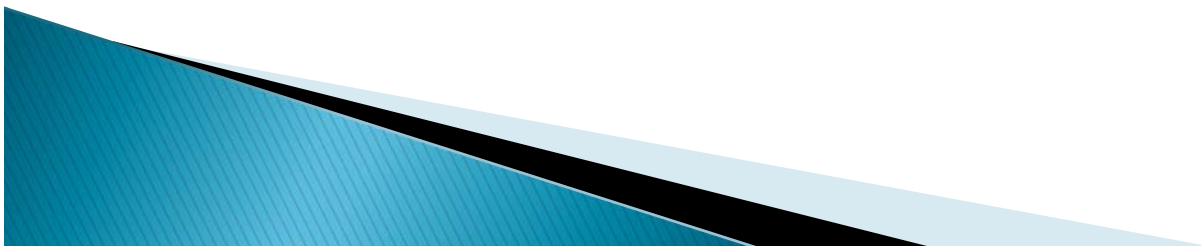
# Walking / Working Surfaces

Never assume that  
the walking /  
working surface  
will support  
employees safely.



# Walking / Working Surfaces

- ▶ **Each day before work, determine whether the walking/working surfaces can support employees safely.**
- ▶ **Work on surfaces only when they have the requisite strength and structural integrity.**



# Walking / Working Surfaces

- ▶ **Competent person should examine the walking / working surface.**
- ▶ **Anticipate any work or changes that might affect structural integrity and plan for those (ex. roof tear off).**
- ▶ **DOCUMENT THIS INSPECTION!**
- ▶ **Retain for length of job + 12 months (or longer if claim anticipated)**

