

# Loading Equipment

- Trailer secure and on a level surface
- Inspect the deck for debris, blocking or chains
- Have a spotter help properly align the equipment up the ramps
- Be sure equipment is properly secured



# Maintenance Hazards



Workers under equipment that is insufficiently supported





# Materials Handling and Storage



# Stack and Store Materials Properly

- No more than 4:1 height to base ratio
- Secure all loads
- Stack, block, and interlock
- Keep at least 6' back from edges
- Be prepared for heavy weather





# Transporting & Unloading Material

- Pipes, stacks of material, etc., can roll off a truck when bindings are removed
- Unsecured material can fall from forklifts and other equipment



# Pneumatic Nailers

- Penetration checks must be made
- Safety's must be operational
- All proper PPE must be worn



# Powder Actuated Tools

- Never load the tool until you are ready to use it
- Always insert the fastener before cocking the tool
- Never cock the tool against the hand or point the tool at anyone
- Always check penetrations and use proper loads
- Wear appropriate PPE





# Incident Free

- Planning
- Training
- Inspection
- Oversight
- Lessons learned
- Re-evaluate



# Caught in Between Hazards



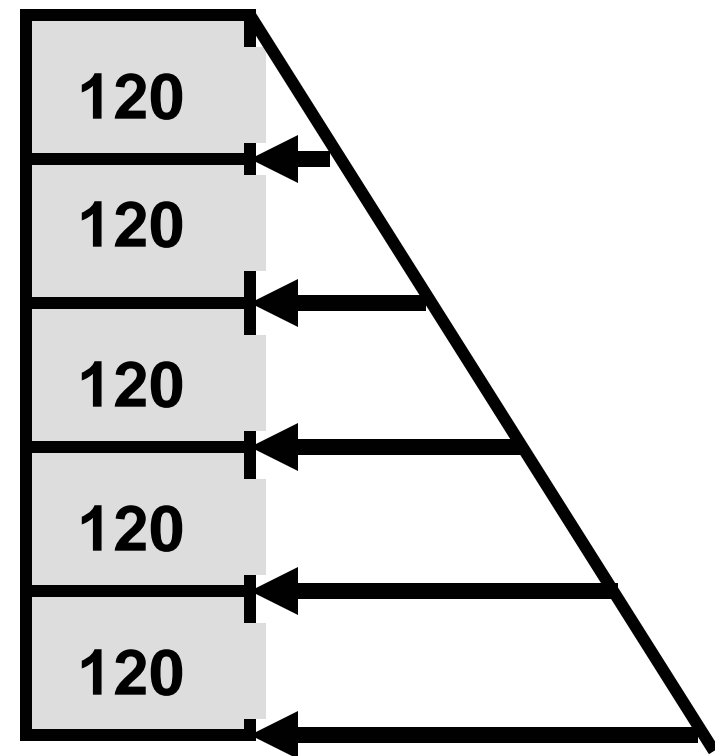


# Trench & Excavation



# Soil Mechanics

- Soil weighs about 100 – 140 lb/cu.ft.
- Each foot of depth adds more pressure side pressure
- Once the pressure exceeds the ability of the soil to support itself, failure is possible





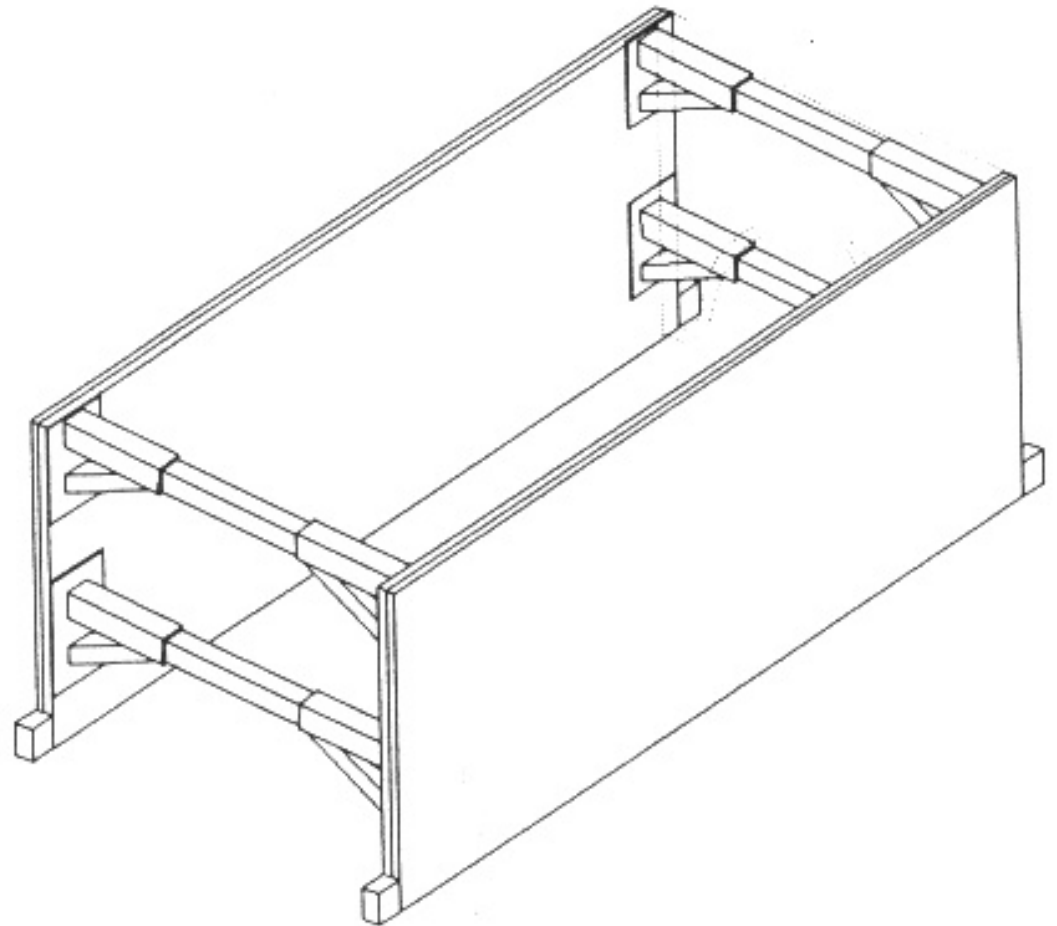
# Basic Requirements

## CFR 1926.650-654

- Work must be supervised by a “Competent Person”
- Protection is required over 5 feet deep or if there is a possibility of a cave-in
- Excavations must be inspected daily and/or with changes
- Access/Egress is required over 4 feet deep
- A rescue plan must be in place

# Trench Shields or Boxes

- Engineered for Type C soils
- Can be used with all classes of soils
- Shields can be moved horizontally with workers inside
- Worker must stay inside shields







# Barricade Excavations

- Excavations must be barricaded or marked if they are not readily visible



# Utility Strikes



# Rescue

- A rescue plan must be in place
- Rescue of a buried worker is a slow and tedious process





# Causes of Fatalities Crushing

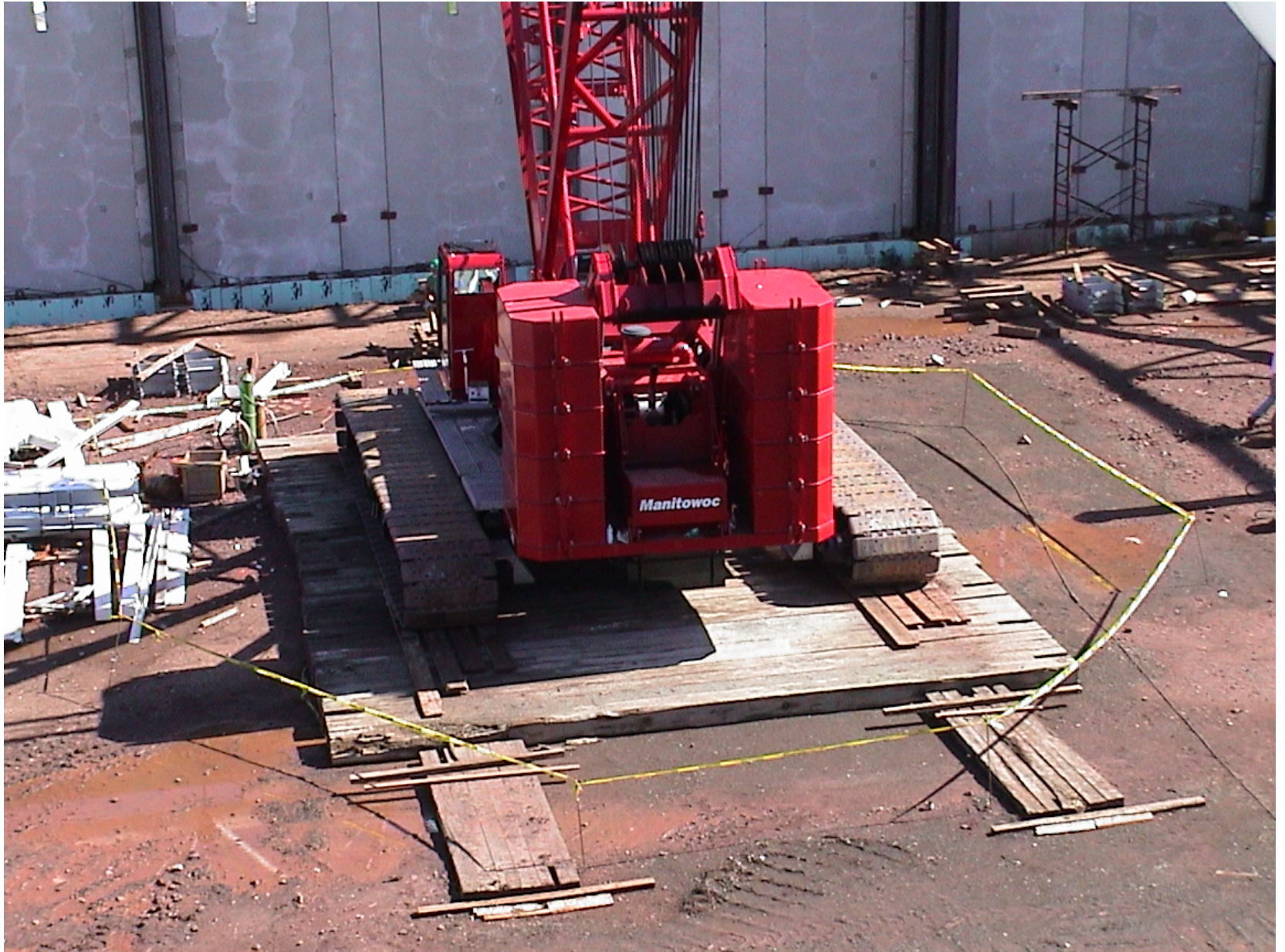


Caught under the truss boom during dismantling



Caught between crane and carriage

# Swinging/Rotating Equipment





# Barricade Swing Radius

- Barricade the swing radius
- Maintain 2' distance from fixed objects





# Mechanical Moving Parts



# Preventing / Controlling / Abating Maintenance Hazards

- Lockout equipment
  - Place an energy-isolating device over the energy source
  - Bleed off stored energy
  - Lock it until the repair/maintenance work is completed
- Tag out the equipment (when Lockout is not possible)
  - Place a tag over the energy source and start-up mechanisms
  - Label it with a written warning that remains in place until the work is done
  - Block disabled equipment

# Machine Guarding

- Install and maintain all guards on tools and heavy equipment





# Miter Saws



This guard is bolted open

Guards must cover the blade and only retract as the blade cuts through material.



# Grinders & Abrasive Saws

- Guards must remain in place and eye protection must be worn
- Best practice is to use face shields and hearing protection



# Dumping Trucks

- Stay clear of dump trucks while they are dumping
- Trucks can become unstable with the boxes raised
- Watch for spillage out of the end gates
- If an end gate chain breaks, you could be covered in material





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# Fall Hazards

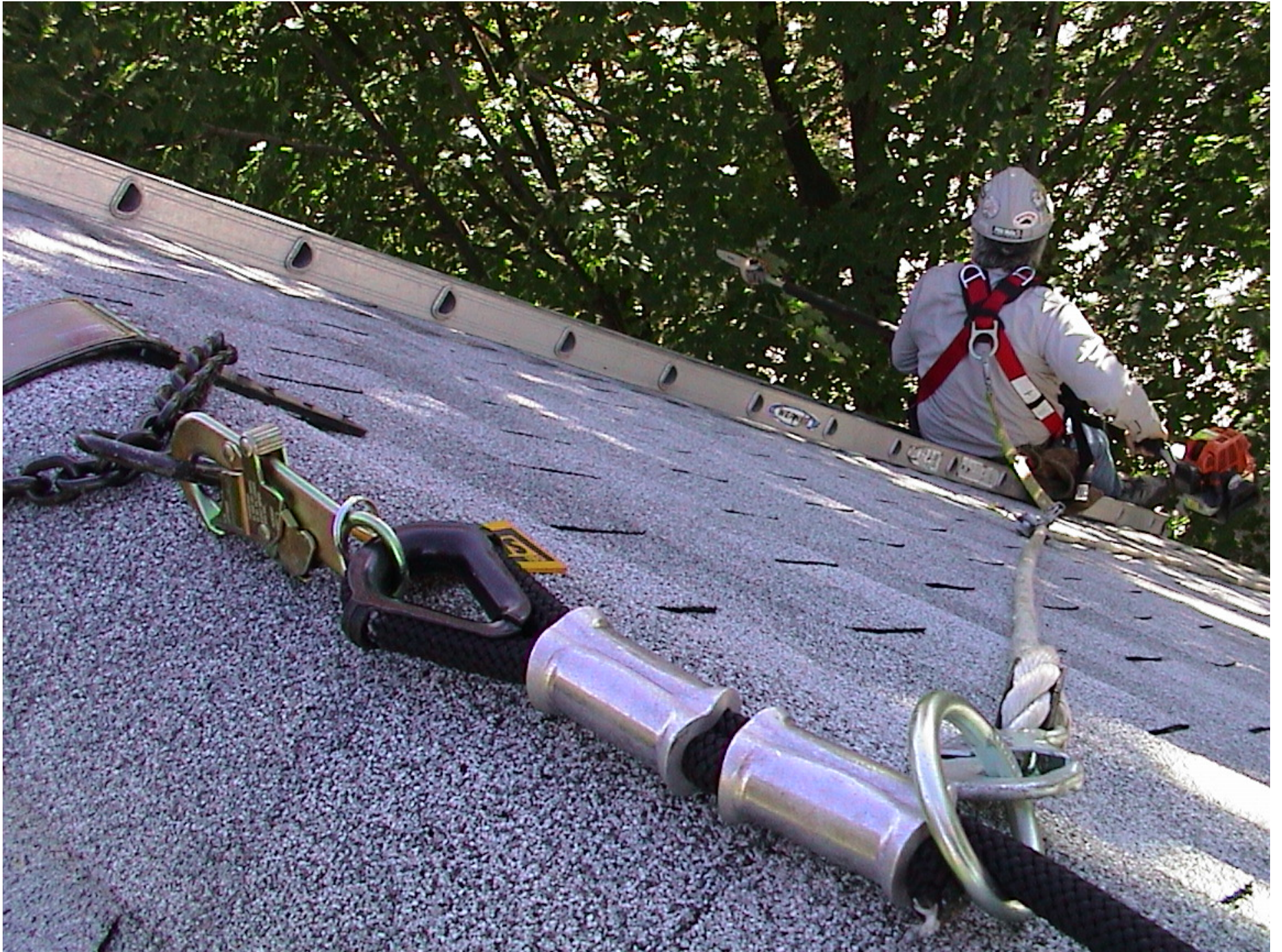






# Roofs

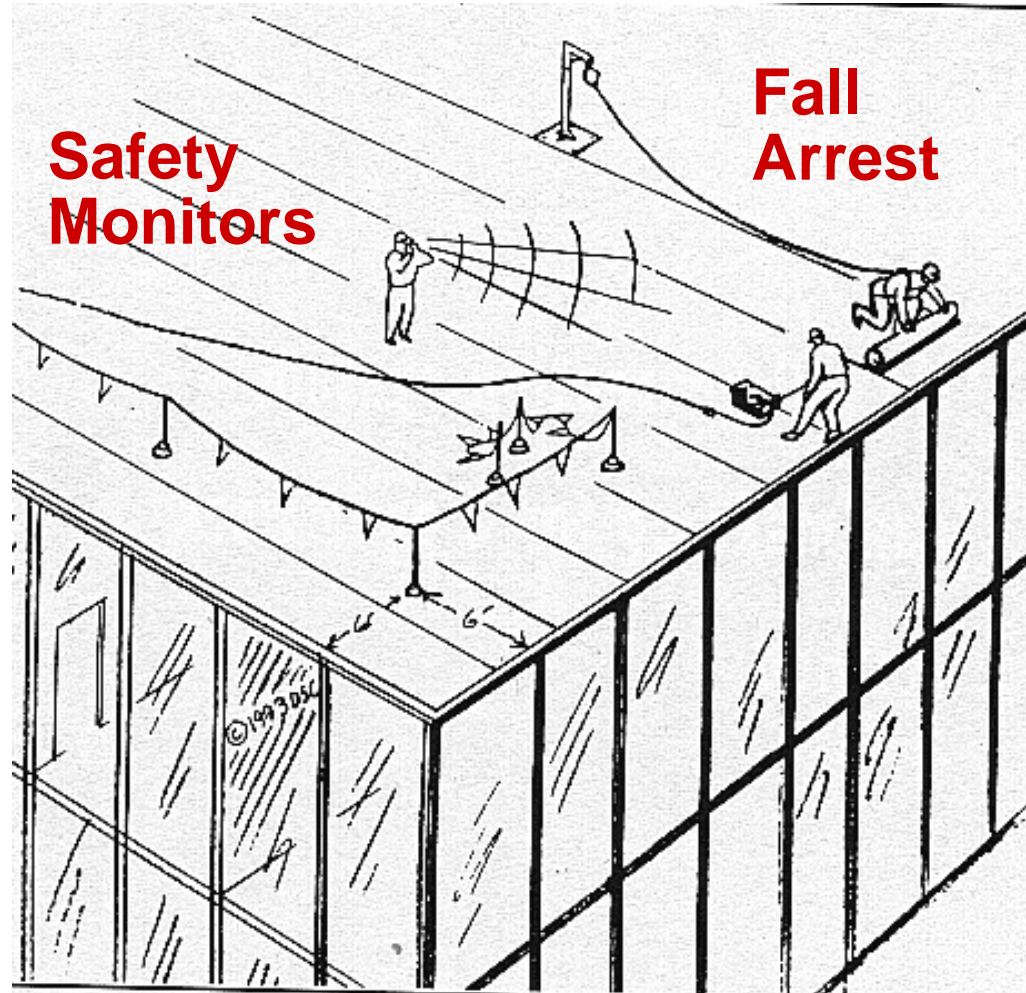






# Methods of Roof Fall Protection

**Guardrails  
and  
warning  
lines**





# Outside Warning Lines

- Parapet up to at least 39"
- Fall Restraint
- Safety Monitors



# Open Sided Floors

- Open edges on decks, roof, mezzanines, etc. over 6' high must be protected

