



Toolbox Talks are intended to facilitate health and safety discussions. For additional Toolbox Talks, please visit <http://www.ehs.iastate.edu/shops>

When accessing a roof you may be exposed to potential hazards. Heights, unprotected edges, perimeter walls, skylights, and physical exposure to natural elements can put workers at risk for slips and falls. The right policies and protection devices will ensure that employees can perform work in a safe environment.

**Roof Access Limited:**

- Properly trained (Roof Safety)
- Contact the FP&M Service Center (515-294-5100)
- Buddy system if necessary (Work in pairs)

**Risks:**

- **Ladders** – Use caution when using ladders, ensure portable ladders are secured or tied off to the building. Use the 4 to 1 rule.
- **Skylights** – Ensure these areas are guarded or covered.
- **Parapet walls** – Some buildings have no barrier on the roof ledge and others have walls that are too short to prevent a fall.
- **Heat** – Workers can be susceptible to dehydration when performing a task under the hot sun on a roof.
- **Footing** – It can be difficult to maintain footing on steep pitches, ice, snow, moisture, wind, or flat roofs with gravel. Ensure proper footwear is worn.
- **Electrical** – Workers need to be aware of tasks that take them near power lines, conduit, and HVAC equipment.
- **Chemical exposure** – Workers should be aware of where chemical fume hood exhausts are located and take reasonable care while working on and around fume hood system blowers and ducts.
- **Physical injuries** – Roof work involves activities that can cause strain, such as standing for long periods of time, kneeling, lifting, using tools, and climbing ladders.

**Before work:**

- Scope of work and time estimate
- Personnel to perform
- Fall protection needed?
- Fall protection present?
- Weather conditions
- Equipment needed

**Discussion Date:**

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**Supervisor:**

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**Participants:**

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## Is Fall Protection Needed?

- 4 x 6 Rule
- Is the work higher than 4 feet above the ground surface?
- Is the work within 6 feet of a leading edge, unprotected skylight, opening or hatch?
- If yes to both, then fall protection is needed.



## Protection Devices:

- **PPE** - All workers should be outfitted with the appropriate personal protective equipment. This includes harnesses as well as weather appropriate clothing, sunglasses, and gloves.
- **Walkway paths** – paths designate where to walk, avoiding potential obstacles and tripping hazards.
- **Engineering controls** – skylight screens, safety posts, grab bars, guard rails, and roof anchors.



## ABCs of Fall Restraint:

- **A – Anchor Point:** Anchors are a secure point of attachment. Anchorages differ by type of installation and structure. They must provide a sufficient factor of safety for fall arrest.
- **B – Body Harness:** Harnesses provide a connection point on the worker to the personal fall arrest system. Distribute fall forces over the upper thighs, pelvis, chest and shoulders.
- **C - Connection:** The life-line or lanyard that connects your body harness to the anchor point.



**Emergency:** If you fall, how will someone get you down? Wherever fall protection systems are in use, a rescue plan must be in place. The rescue plan is a procedure, planned in advance, to safely retrieve a person who has fallen from an elevated work surface in a full body harness. The rescue plan should include at a minimum;

- Deploy suspension trauma safety straps, step into the loop to relieve pressure to the arteries in the legs
- 2<sup>nd</sup> worker calls 911, then calls the supervisor
- Do not attempt a fall rescue



## After work:

- Exit roof
- Contact the FP&M Service Center (515-294-5100)

