



SEPARATING PEOPLE FROM HAZARDS

Rooftop Safety Audit



- ENSURE THAT ALL HIGH-RISK PORTIONS OF THE ROOF ARE INSPECTED
- REDUCE RISK TO YOU AND YOUR EMPLOYEES

Access

When accessing your roof, there are three important components to keep in mind. The roof must be:

1. Safe
2. Secure
3. Simple to navigate

Ask yourself some questions when inspecting the roof.

- How are people accessing the roof? Is it through a roof scuttle/hatch, ladder, or walk out door?
- Is the area properly lit?
- Is there metal work in place? (Ex. railing or ladder rungs, landing platform)
- Is it being properly maintained and free of obstructions and jagged edges?

The best thing you can do when looking at these areas is use common sense. If it looks dangerous or questionable, do something or say something. Don't push it off. Address the issue immediately before someone is injured or worse.

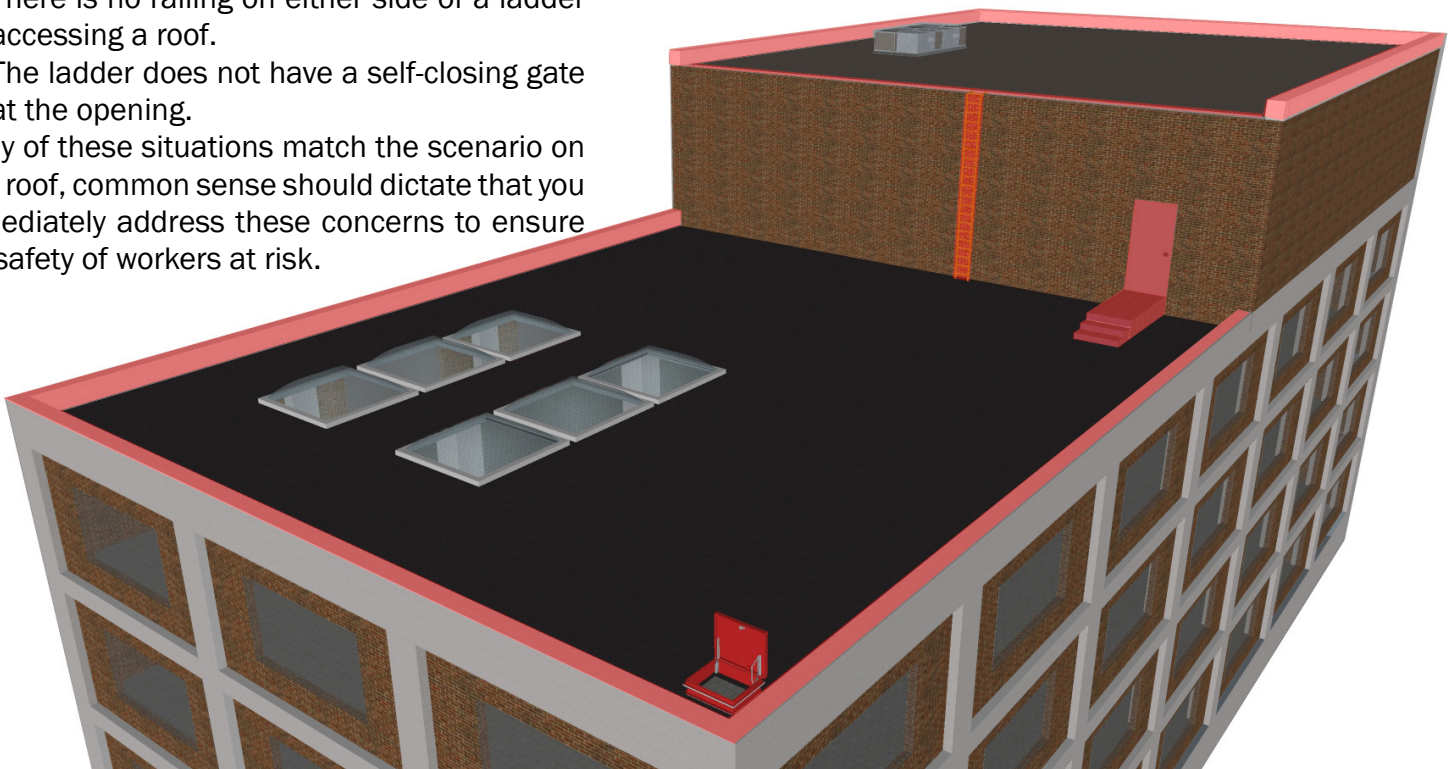


Unprotected Edge and Open Sides

Assuming the access point is safe, secure and simple we now turn our attention to what is right around us. Did coming through that entry point just put us in immediate danger? Here are a few examples of an unsafe entry point or unprotected edge.

- Your roof hatch is 3' away from the leading edge with the hatch opening up to the leading edge.
- The parapet is less than 39" (if there is even a parapet).
- There is no railing on either side of a ladder accessing a roof.
- The ladder does not have a self-closing gate at the opening.

If any of these situations match the scenario on your roof, common sense should dictate that you immediately address these concerns to ensure the safety of workers at risk.



Equipment

Frequently, the worker's purpose for being on the roof is to service a piece of equipment. This may be emergency servicing or routine maintenance.

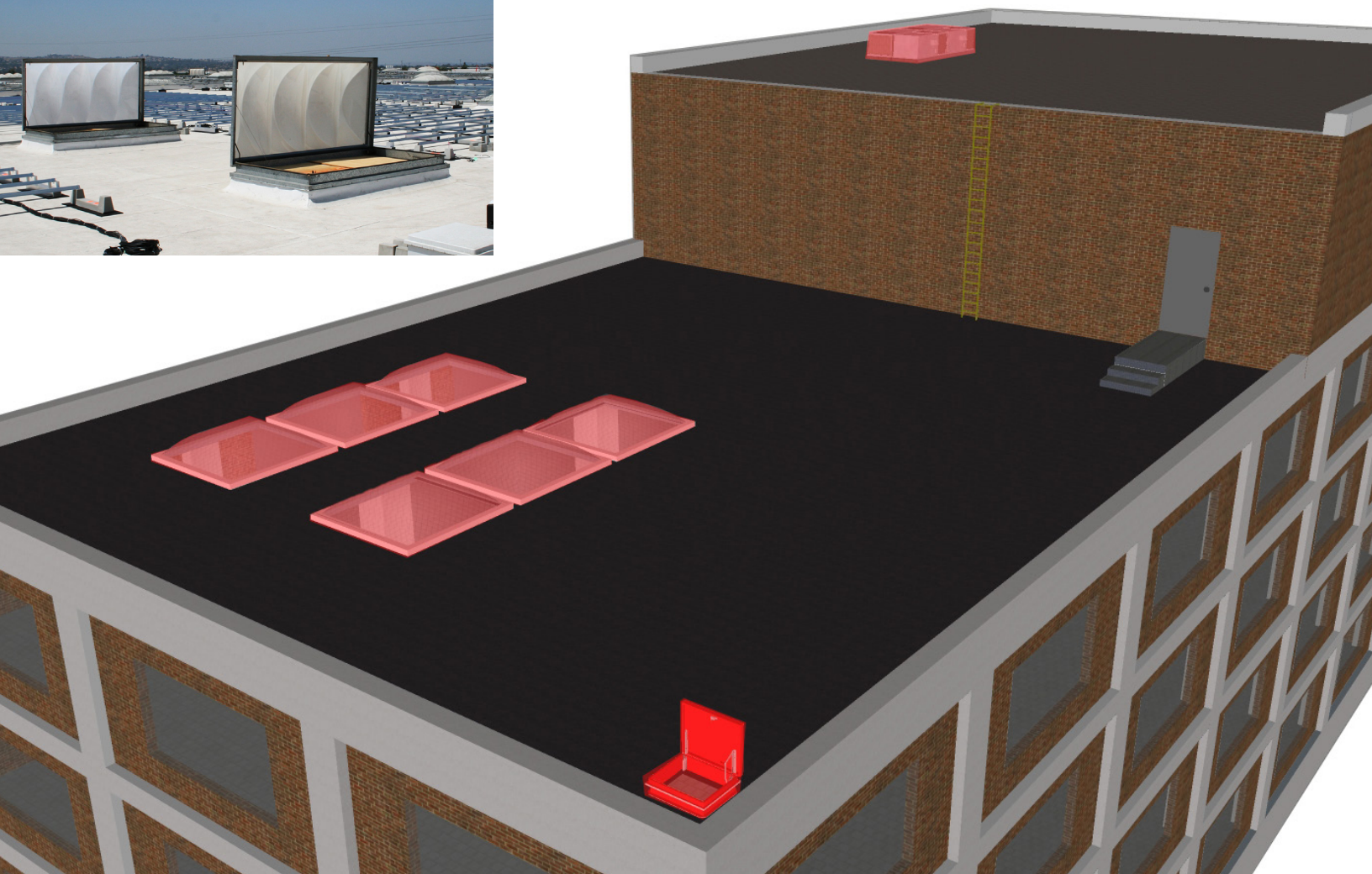
Is the equipment close to the edge of the roof?

- IBC requires a railing to be present at equipment that is located within 10' of the fall hazard.
- OSHA recommends railing if equipment is within 15' of the fall hazard (Assuming a good safety plan is already in place).

A safe workspace will allow a worker to focus on their task at hand without being concerned about the risk of falling. Remove all foreseeable risk from the equation to minimize the chance of a costly accident.

Openings

Skylights, smoke hatches/vents, courtyards, and other areas of the roof that are considered openings, need to be protected. If the skylight manufacturer does not label the skylight as fall protection rated, OSHA considers that to be a hole in the roof and it will need to be covered by either a screen or surrounded by a railing. You wouldn't leave a hole in your floor at your house unprotected if you invited someone in, don't leave them open on your roof at work either. Do your part to separate people from hazards.



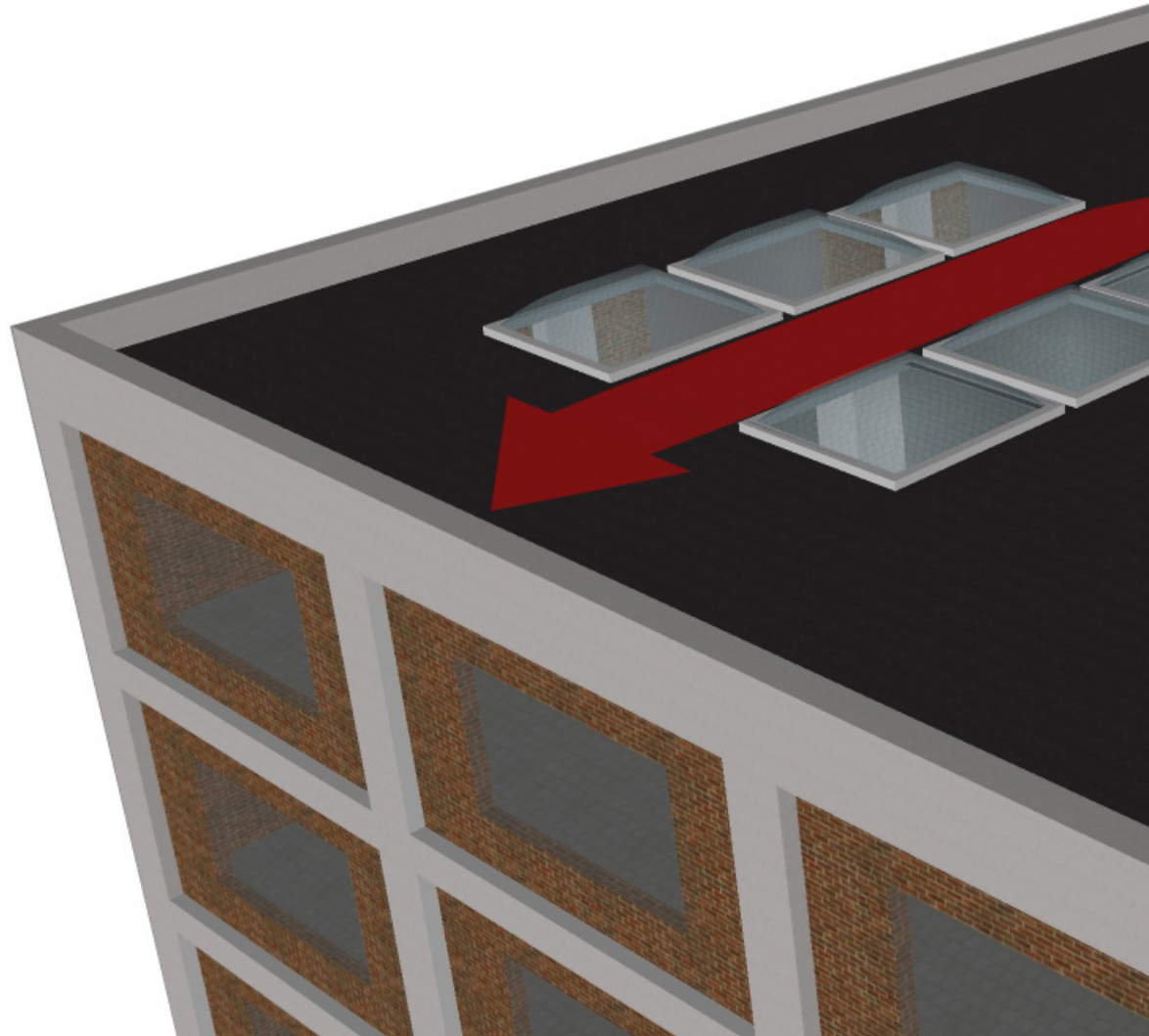
Walkways

The first thing to ensure is that access to the roof is safe, secure, and simple to navigate. Beyond that, consider why people access the roof in the first place.

What is a worker's purpose for going on the roof? Where do they need to go upon the roof in order to achieve that purpose?

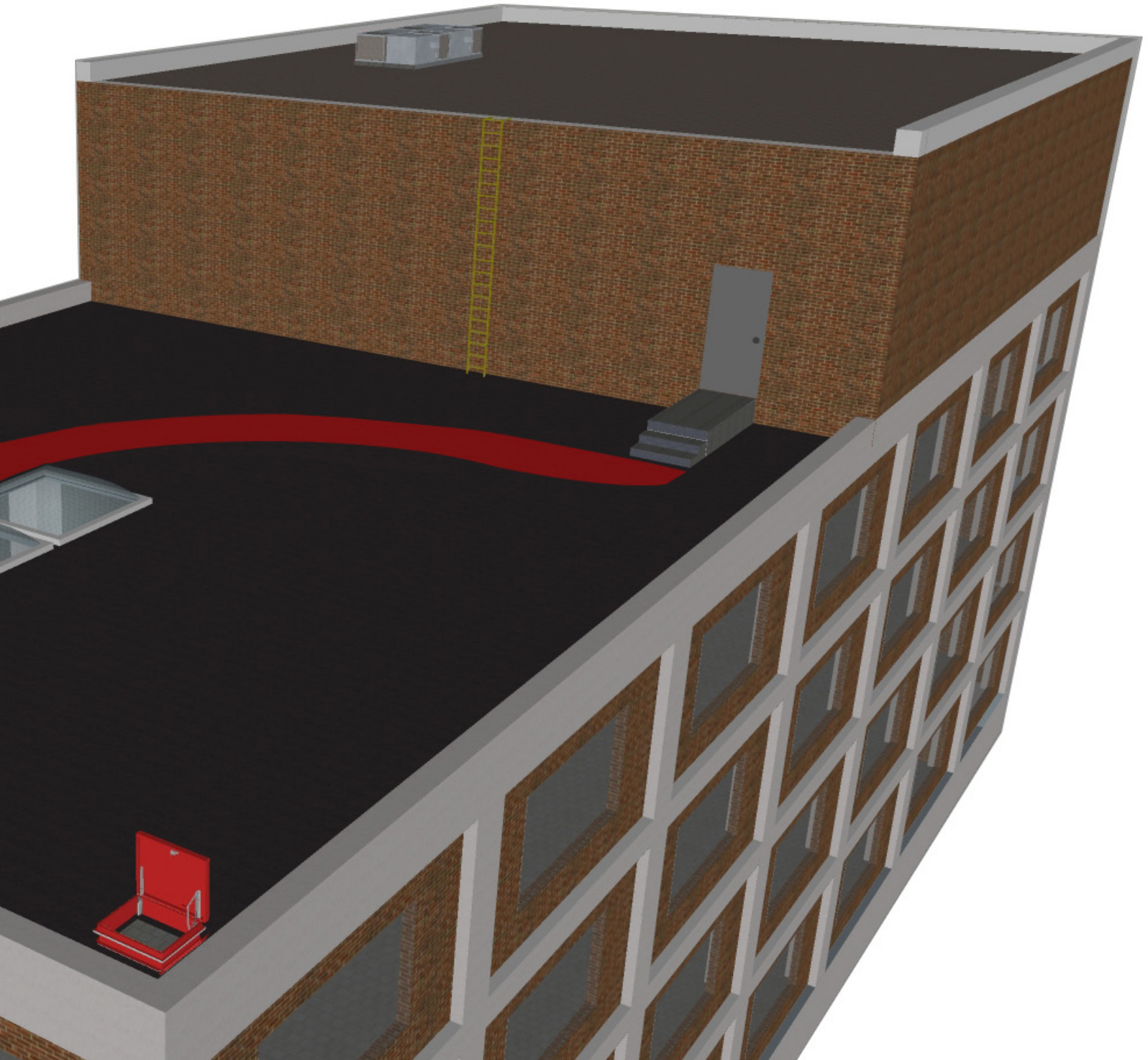
Once you have determined all of the reasons for a worker to gain access to the roof, ask yourself some questions about their walkway.

- On a standing seam metal roof, or metal profile roof, do they have a level walkway system to avoid tripping over the seams/ crowns and valleys?
- On a flat roof have we thought about limiting unnecessary access to the leading edge? (A warning line system 15' back from the edge would provide a clearly visible barrier from danger.)
- Is this the path of least resistance? (It might be smarter to purchase a crossover stair system to get over piping rather than walk closer to the edge)
- Are there any skylights in high traffic areas that may be a walking hazard? (If the skylight manufacturer does not label the skylight as fall protection rated, OSHA considers it a hole in the roof which will need to be covered by either a screen or surrounded by a railing.)



If access to the entire roof is desired then the most comprehensive and safe system that can be deployed is a perimeter railing system that surrounds the entire roof surface. If the perimeter needs to be accessed, but only a couple of times a year, then a horizontal lifeline system may be more appropriate.

Another consideration is the training that is required for different systems. A railing system requires no training but a horizontal lifeline system requires that users be trained to comply with regulations.



Other Considerations

- Do you have a proper fall protection plan in place?
- Is everyone allowed on the roof or only authorized employees and contractors?
- Do you keep a log of people who go on the roof and come down off of the roof?

If you answered “No” to any of these questions, that issue must be addressed immediately.

Create a comprehensive plan

Accountability is crucial. Limiting access to the roof will limit liability and provide a safer working environment for everyone. Roofs should not be feared as a place to work. However, every year more people die in the workplace from falling than from any other instance. Take care of your people at work as if they were entering your own home. Life is more valuable than the bottom line.

Remember...

Often such discussions on safety matters can be lost in a mess of regulations, bureaucracy and standards, but at the end of the day, the safety of human lives should be of paramount importance. Common sense should be your primary tool in determining what measures to take in rooftop safety.

If the area is unsafe - Fix it. Make responsible decisions.



General Industry

Below is a list of the most relevant OSHA standards for General Industry in fall protection. These standards are central to the use of this audit.

1910.23(a)

"Protection for floor openings."

1910.23(a)(2)

Every ladderway floor opening or platform shall be guarded by a standard railing with standard toeboard on all exposed sides (except at entrance to 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.

1910.23(c)(1)

Every open-sided floor or platform 4 feet or more above adjacent floor or ground level shall be guarded by a standard railing (or the equivalent as specified in paragraph (e)(3) of this section) on all open sides except where there is entrance to a ramp, stairway, or fixed ladder.

1910.23(e)(5)(iv)

The mounting of handrails shall be such that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point on the rail.

1910.23(a)(4)

Every skylight floor opening and hole shall be guarded by a standard skylight screen or a fixed standard railing on all exposed sides.



1910.23(e)(8)

Skylight screens shall be of such construction and mounting that they are capable of withstanding a load of at least 200 pounds applied perpendicularly at any one area on the screen. They shall also be of such construction and mounting that under ordinary loads or impacts, they will not deflect downward sufficiently to break the glass below them. The construction shall be of grillwork with openings not more than 4 inches long or of slatwork with openings not more than 2 inches wide with length unrestricted.

1910.66(e)(3)

Employees working on roofs while performing building maintenance shall be protected by a perimeter guarding system which meets the requirements of paragraph (c)(1) of 1910.23 of this part.



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