

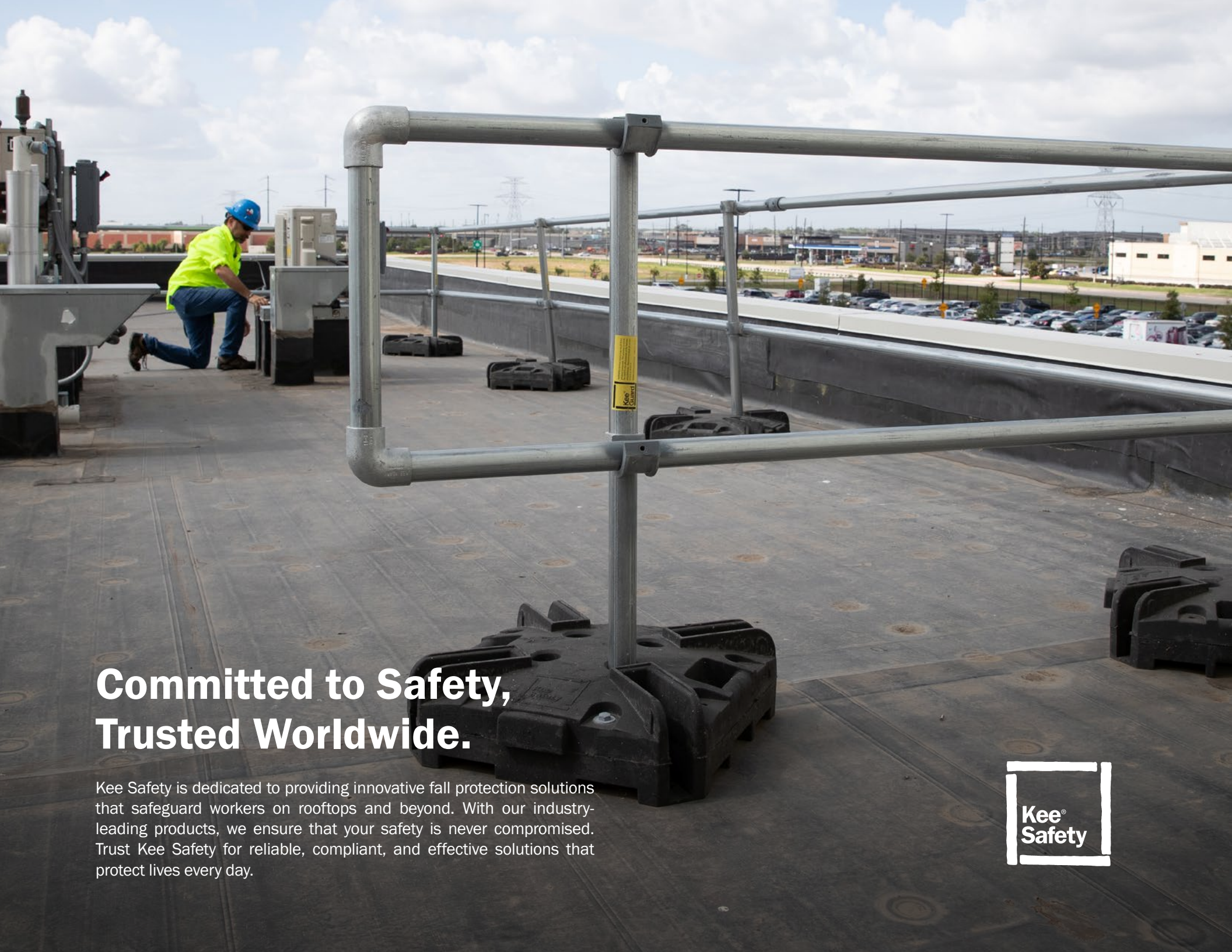


Kee Safety: **Simplifying OSHA** **Rooftop Fall Protection** **Requirements**

IDENTIFYING RISKS TO ENHANCE ROOFTOP SAFETY

SEPARATING PEOPLE FROM HAZARDS

www.keesafety.com



Committed to Safety, Trusted Worldwide.

Kee Safety is dedicated to providing innovative fall protection solutions that safeguard workers on rooftops and beyond. With our industry-leading products, we ensure that your safety is never compromised. Trust Kee Safety for reliable, compliant, and effective solutions that protect lives every day.



Overview

Understanding Rooftop Hazards — and How to Protect Against Them

Every year, thousands of workplace injuries and fatalities are linked to falls from height — many of them occurring on rooftops. The key to preventing these incidents is awareness, proper planning, and using the right fall protection systems.

What are the 3 most common rooftop hazards?

- Access Points
- Unprotected Skylights
- Roof Edges (especially on low-slope roofs)

Each of these hazards presents a unique risk, and OSHA has specific codes that address how they must be managed. Understanding these requirements is essential for maintaining compliance and keeping your workers safe.

Applicable OSHA Codes

OSHA 1910.28 outlines the required fall protection measures based on proximity to roof edges, presence of skylights, and ladderway openings. Non-compliance isn't just dangerous—it's costly.

How should I protect against these hazards?

Guardrail systems, skylight covers, and controlled access zones are among the most effective fall protection solutions.

At Kee Safety, we specialize in systems that separate people from hazards. From modular guardrails to non-penetrating skylight screens, we offer OSHA-compliant solutions designed for real-world rooftop challenges.

Explore Kee Safety Solutions

Our team of fall protection experts can help you choose the right system, tailored to your facility's unique risks.

Hazard Overview

Access Points

OSHA Code Addressing Hazard: 1910.28(b)(3)(iv)

*Each employee is protected from falling into a ladderway floor hole or ladderway platform hole by a guardrail system and toeboards erected on all exposed sides, except at the entrance to the hole, where a self-closing gate or an offset must be used. **



Access Points: Spotting Hazards on the Roof

1

Unprotected Roof Hatch

Unprotected roof hatches are a leading fall hazard on commercial roofs, especially during routine maintenance or inspections. The risk of falling through an open hatch can result in serious injury or death.

Kee Hatch® provides a secure, compliant solution for safe entry and exit. It surrounds the hatch with guardrails and a self-closing gate, reducing risk without disrupting roof access. Easy to install and integrate, Kee Hatch helps protect workers and maintain OSHA compliance.



2

Unprotected Fixed Ladders

Fixed ladders are essential for rooftop access but pose serious fall hazards—especially near the opening and along the sides. Without protection, workers are at risk of severe injury or worse.

Kee Guard® Ladder Access Kits address these risks with permanent guardrails and a self-closing safety gate. The system provides secure protection around ladder openings, ensuring safe access between roof levels while minimizing fall risk.



Assessing Risk

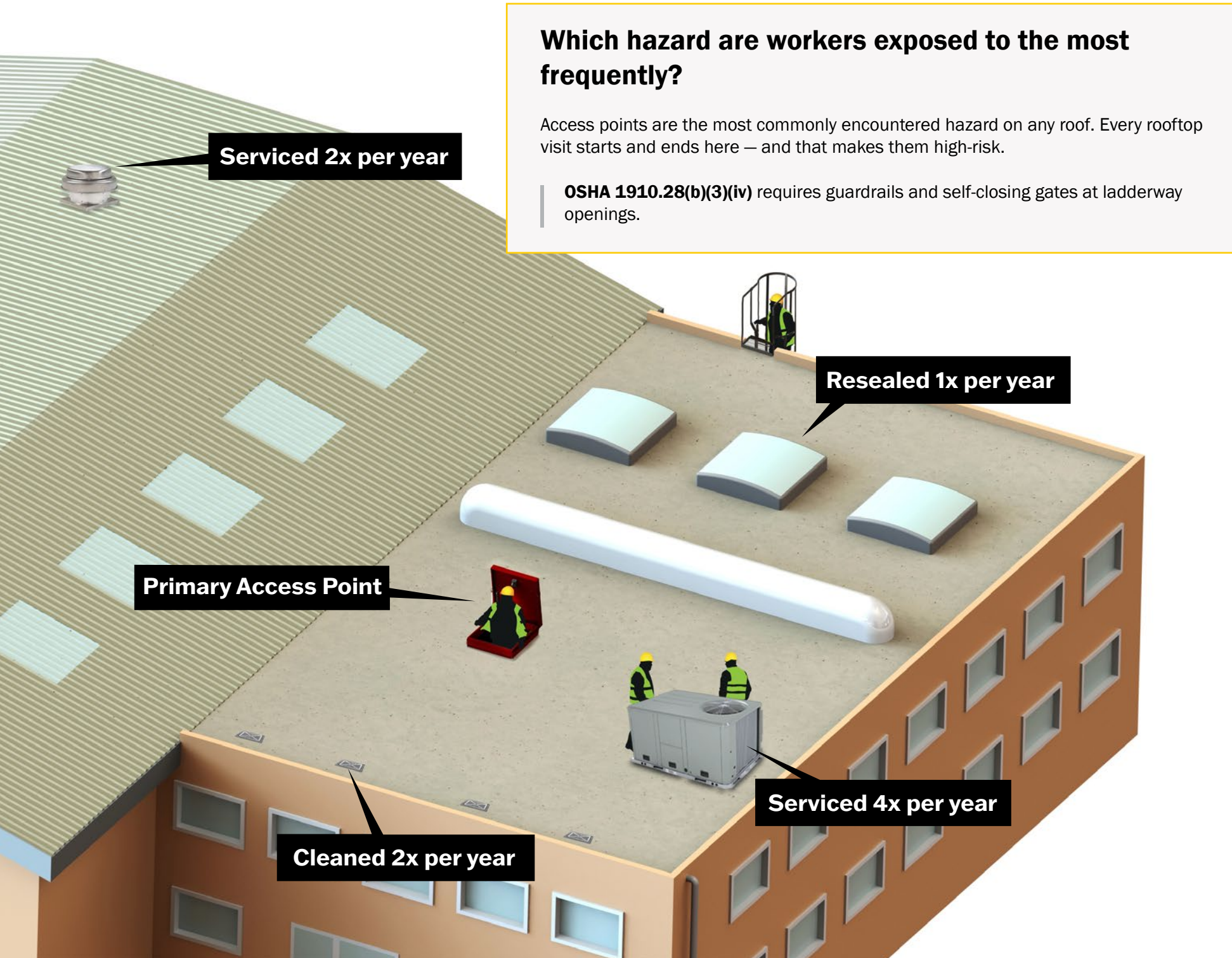
In any workplace, identifying and managing rooftop hazards is essential to ensuring a safe environment. The **Risk Assessment Matrix** provides a simple but powerful tool to evaluate hazards based on two key elements:

POTENTIAL SEVERITY	LIKELIHOOD					
		1 NEAR IMPOSSIBLE	2 UNLIKELY	3 POSSIBLE CHANCE	4 LIKELY	5 ALMOST CERTAIN
	1 INSIGNIFICANT	1	2	3	4	5
	2 MINOR INJURIES	2	4	6	8	10
	3 NOTABLE INJURIES	3	6	9	12	15
	4 MAJOR INJURIES	4	8	12	16	20
	5 DEBILITATING INJURY DEATH	5	10	15	20	25

Frequency of Exposure

Why Frequency of Exposure Matters
Not all rooftop hazards are encountered equally. Some are only accessed once a year—others, every single day. That’s where Frequency of Exposure comes in. Even a low-severity hazard becomes high-risk when workers are exposed to it frequently.

		FREQUENCY OF EXPOSURE				
		1 NEAR IMPOSSIBLE	2 UNLIKELY	3 POSSIBLE CHANCE	4 LIKELY	5 ALMOST CERTAIN
POTENTIAL SEVERITY	1 INSIGNIFICANT	1	2	3	4	5
	2 MINOR INJURIES	2	4	6	8	10
	3 NOTABLE INJURIES	3	6	9	12	15
	4 MAJOR INJURIES	4	8	12	16	20
	5 DEBILITATING INJURY DEATH	5	10	15	20	25



Which hazard are workers exposed to the most frequently?

Access points are the most commonly encountered hazard on any roof. Every rooftop visit starts and ends here — and that makes them high-risk.

OSHA 1910.28(b)(3)(iv) requires guardrails and self-closing gates at ladderway openings.

FAQ

Access Points

1

Can I use chains instead of a self-closing gate?

Using a chain as ladder protection is not recommended or compliant with OSHA regulations. Chains cannot close themselves, and relying on someone else to reattach the chain poses safety hazards. Reattaching the chain while descending the ladder puts the worker in a precarious position. A self-closing gate always provides reliable protection, eliminating user error. OSHA mandates the use of guardrails, toeboards, self-closing gates, or offsets at ladderway entrances to prevent falls. Replace chains with compliant gates on ladders and ensure OSHA-compliant equipment. Seek professional assistance for assessments and compliance.



2

When do I need a vertical climbing device on my ladder?

Fixed ladder systems are prevalent in various industries such as cell phone towers, oil platforms, storage silos, water towers, and wind turbines. However, workers climbing these permanently fixed ladders often have a false sense of security. OSHA regulations require the use of a vertical lifeline or a ladder equipped with a cage system for fixed ladders over 24 feet. It is recommended to use vertical lifelines instead of ladder cages as cages do not prevent vertical falls. If a worker slips on a ladder rung with a cage system, they can fall to the ground or collide with the cage, making rescue challenging.





Hazard Solution: Kee Hatch

- Fully OSHA compliant
- Specially designed for safe egress and ingress through roof hatches
- Provides protection to the roof opening when the hatch is open
- Suitable for all roof hatches
- Easily integrates with existing openings and ladderways
- Kee Hatch Access Guardrail is a safe and reliable solution for rooftop access and fall protection



Hazard Solution: Kee Guard Ladder Kit

- Uses ladder Clamps to mounts to all ladder types
- Offset mounted gate for easy roof access
- Will not penetrate roof, void warranties, or cause roof leaks
- Simple to install
- Cost effective, simple, OSHA compliant Solution

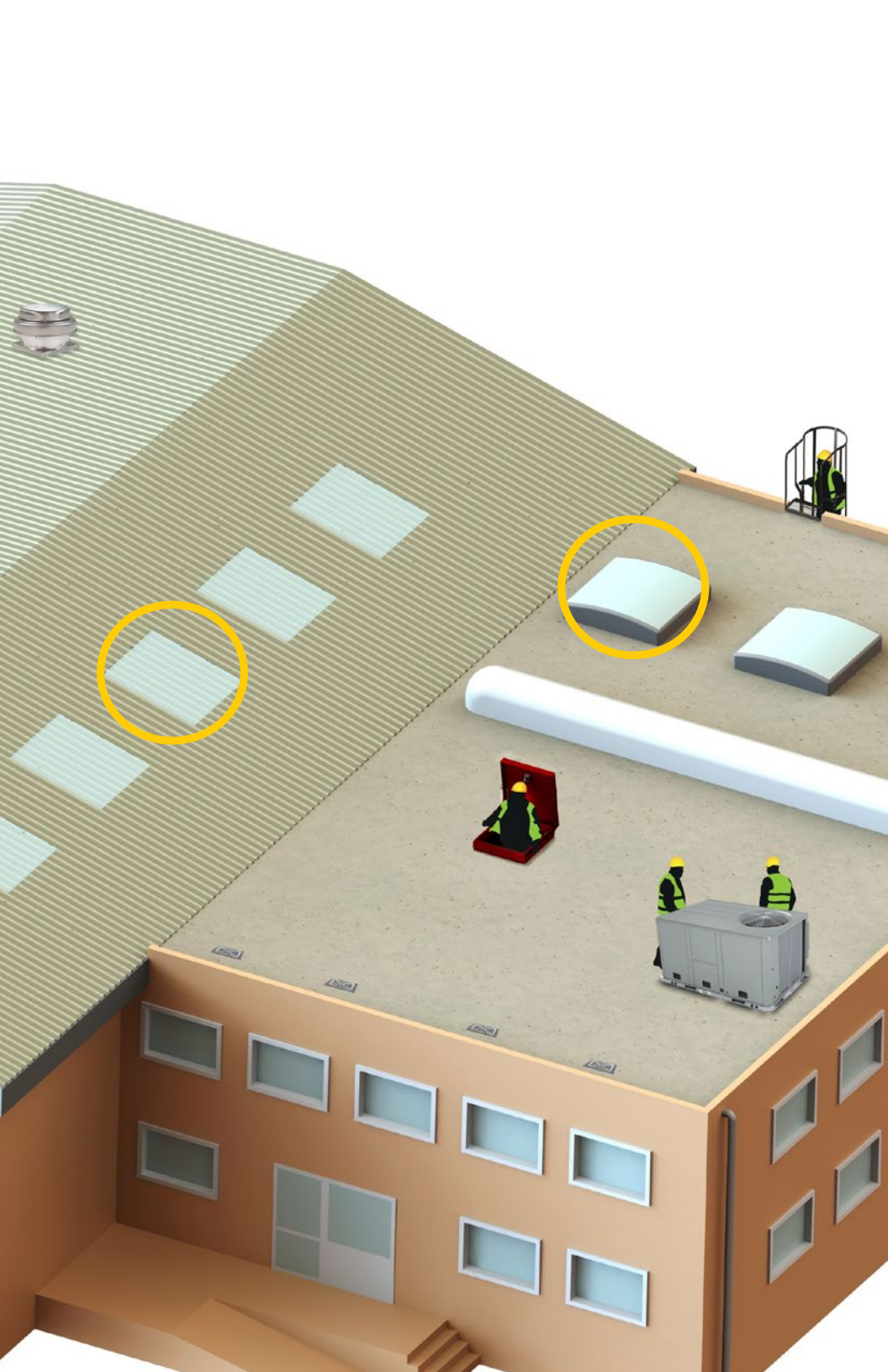
Hazard Overview

Unprotected Skylights

OSHA Code Addressing Hazard: 1910.28(b)(3)(i)

Each employee is protected from falling through any hole (including skylights) that is 4 feet (1.2 m) or more above a lower level by one or more of the following:

- Covers
- Guardrail Systems
- Travel Restraint Systems; or
- Personal Fall Arrest System



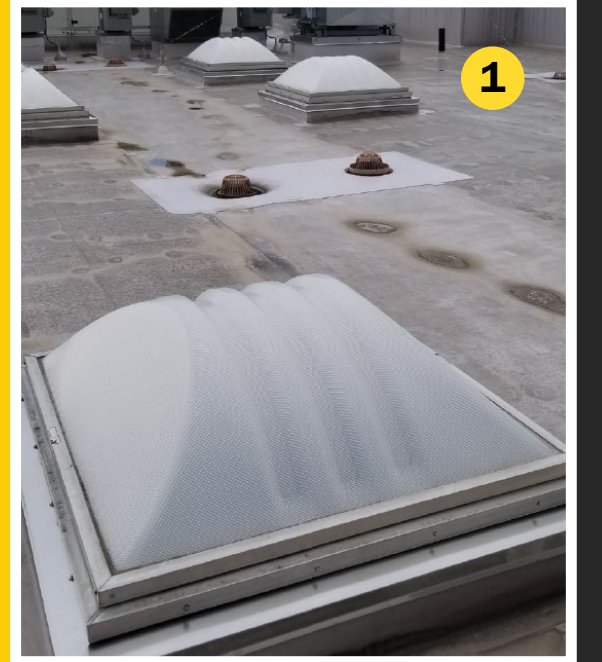
Rooftop Openings: Spotting Hazards on the Roof

1

Unprotected Dome Skylights

You're statistically more likely to fall through a roof than off it—and dome skylights are a major contributor. Over time, UV exposure weakens skylight domes, increasing the risk of breakage and serious falls.

The Kee Dome® system creates a secure, modular barrier around skylights, allowing safe rooftop access for maintenance crews without the risk of falling through glazed areas. It's a simple way to enhance rooftop safety, protect workers, and stay compliant with safety regulations.

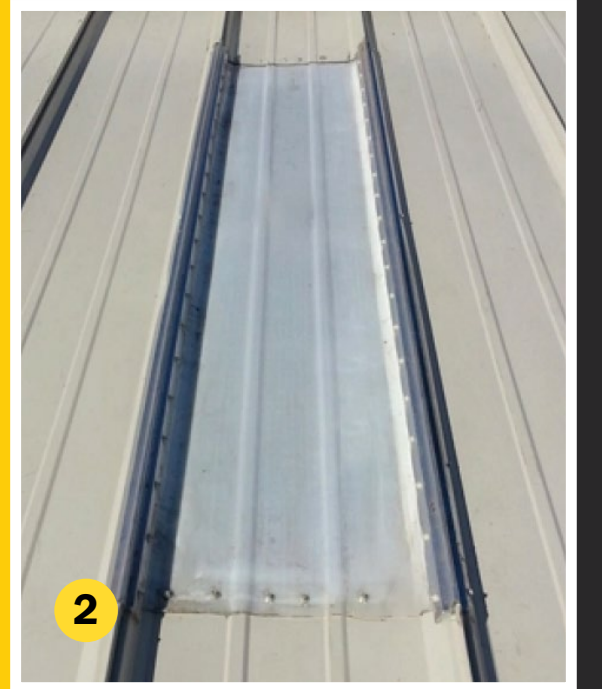


2

Exposed Panel Skylights

Skylights that sit flush with metal roofing panels can be nearly invisible to workers—making them a serious fall hazard. It's easy to step on one without realizing the danger, risking severe injury or worse.

Kee Cover® provides a strong, protective screen over these hidden openings, preventing accidental falls while maintaining light transmission. It's a critical safety upgrade for any metal roof, helping you protect workers and stay compliant during rooftop maintenance.



FAQ

Rooftop Openings

1

Is my skylight fall protection rated?

Skylights are typically manufactured out of a polymer or plastic dome. Over time, UV degradation breaks down the strength of that dome, much like plastic deck furniture starts to breakdown in the sunlight over the years. As time passes, the dome becomes brittle, making the falls through skylights one of the top causes of rooftop falls. Many skylights have stickers on the side that state “danger risk of fall” However, if you do not see that warning sticker on the curb of your skylight you are not necessarily safe, it is very likely the sticker may be completely sun-faded.



2

I have bars under my skylight, do I need to protect the dome?

Bars welded under a skylight are typically referred to as “burglar bars” and are designed to keep would-be thieves from breaking the skylight to access the facility and steal the equipment. OSHA requires that all skylight “covers” are required to be able to take twice the intended load, and the bars or wiring under the skylight may not be able to withstand the loadings. Additionally, bars below the dome do not eliminate all hazards associated with a fall. In the event of a fall, the dome will break and potentially cause lacerations on the injured party. Furthermore, debris and biological containments will fall into the people or process below the skylight.



Kee Cover Skylight Screen: Enhanced Skylight Protection

Kee Cover Skylight Screens provide robust protection by securing skylights and preventing falls through these vulnerable roof openings. Designed to be durable and compliant with safety standards, they ensure a safer environment for rooftop work.



Hazard Solution: Kee Cover

- Kee Cover® Skylight Screens provide protection from falling through fragile roof lights
- Specifically designed to cover unprotected roof lights
- Does not block out the light that the roof lights are supposed to let into a building
- Offers an effective solution for fragile roof light protection
- Helps to prevent falls from height and comply with safety regulations
- Kee Cover® Skylight Screens are a reliable and cost-effective way to enhance roof light safety



Hazard Solution: Kee Dome

- Kee Dome® is a modular system designed to prevent falls through skylights, roof lights, and dome lights
- Offers effective protection for workers accessing rooftops for repair and maintenance work
- Specifically designed to reduce the risk of falls through glazed areas
- Easy to install and compatible with a range of glazing systems
- Modular design makes it suitable for a wide range of applications and configurations

Hazard Overview

Unprotected Edges

OSHA 1910.28 (b)(13) - Work on low-slope roofs.

(i) When work is performed **less than 6 feet** from the roof edge, the employer must ensure each employee is protected from falling by a guardrail system, safety net system, travel restraint system, or personal fall arrest system.

(ii) When work is performed **at least 6 feet but less than 15 feet** from the roof edge, the employer must ensure each employee is protected from falling by using a guardrail system, safety net system, travel restraint system, or personal fall arrest system. The employer may use a designated area when performing work that is both **infrequent and temporary**.

(iii) When work is performed **15 feet or more** from the roof edge, the employer must:

(A) Protect each employee from falling by a guardrail system, safety net system, travel restraint system, or personal fall arrest system or a designated area. The employer is not required to provide any fall protection, provided the work is both **infrequent and temporary**; and

(B) Implement and enforce a work rule prohibiting employees from going within 15 feet (4.6 m) of the roof edge without using fall protection in accordance with paragraphs (b)(13)(i) and (ii) of this section.



Roof Edges: Spotting Hazards on the Roof

1 Zone Defense: Unprotected Edges

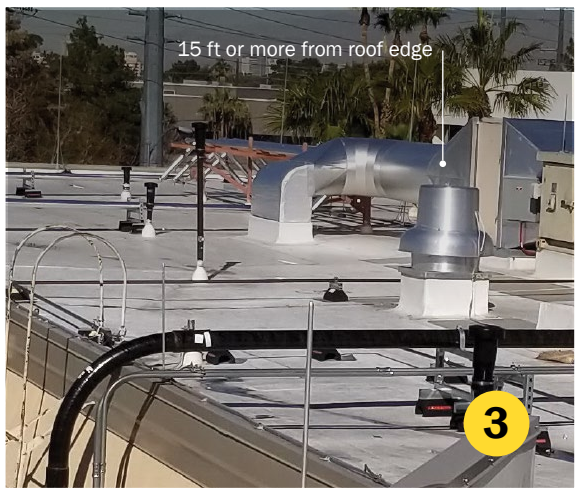
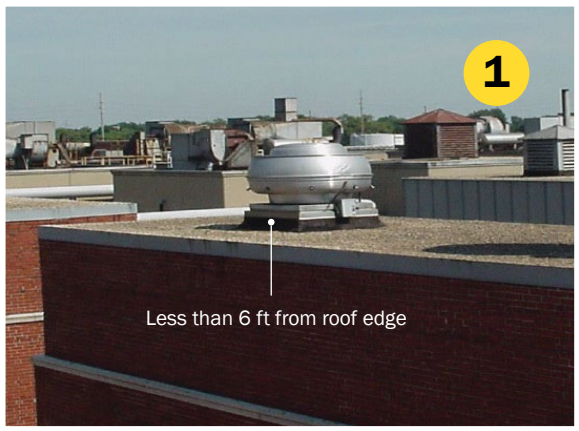
When work is performed less than 6 feet (1.8 m) from the roof edge, OSHA allows for employers to protect its people by using a guardrail system, safety net system, travel restraint system, or personal fall arrest system.

2

When work is performed at least 6 feet (1.8 m) but less than 15 feet (4.6 m) from the roof edge, OSHA allows a guardrail system, safety net system, travel restraint system, or personal fall arrest system. The employer may use a designated area when performing work that is both infrequent and temporary.

3

When work is performed 15 feet (4.6 m) or more from the roof edge, the employer must: protect each employee from falling by a guardrail system, safety net system, travel restraint system, or personal fall arrest system or a designated area.





Kee Guard: Reliable Edge Protection

Kee Guard Top Fix offers secure, non-penetrative edge protection for roofs, ensuring worker safety and preventing falls. Designed to be easily installed on various roof types, it complies with safety standards and provides a durable solution for maintaining a safe working environment.

FAQ

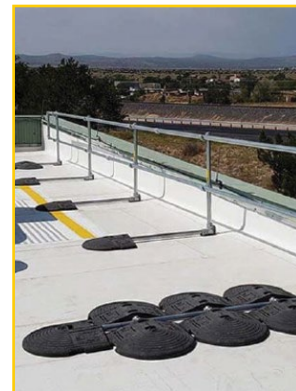
Unprotected Edges

1

How does OSHA define temporary or infrequent rooftop access?

Infrequent access refers to occasional, non-routine visits—typically fewer than four times per year. OSHA considers monthly access “frequent,” while safety experts generally agree that quarterly or less is infrequent.

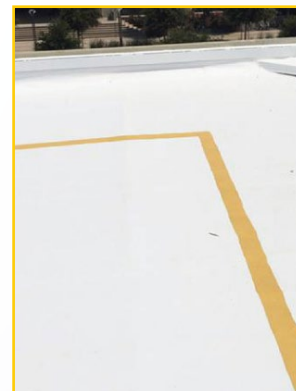
Temporary work is short in duration—usually no more than one to two hours—and should be completed in a single trip without multiple visits for diagnosis or tools. This minimizes exposure to fall hazards at access points and roof edges.



2

Can I use a painted line as a “Designated Area?”

Simply put: No. OSHA safety guidelines do not permit the use of painted lines for “Designated Areas.” Instead, OSHA requires a physical barrier between the worker and the leading edge. This decision was made after careful consideration, prioritizing worker safety and the visibility of warning lines at a height between 34 to 39 inches. This height ensures effective warning for workers approaching designated areas, even when equipment or objects are nearby, minimizing potential hazards and promoting a secure work environment. The primary issue with painted lines is that they disappear when covered with snow, dust, or debris.



OSHA 1910.28(b)(13): What It Means for You

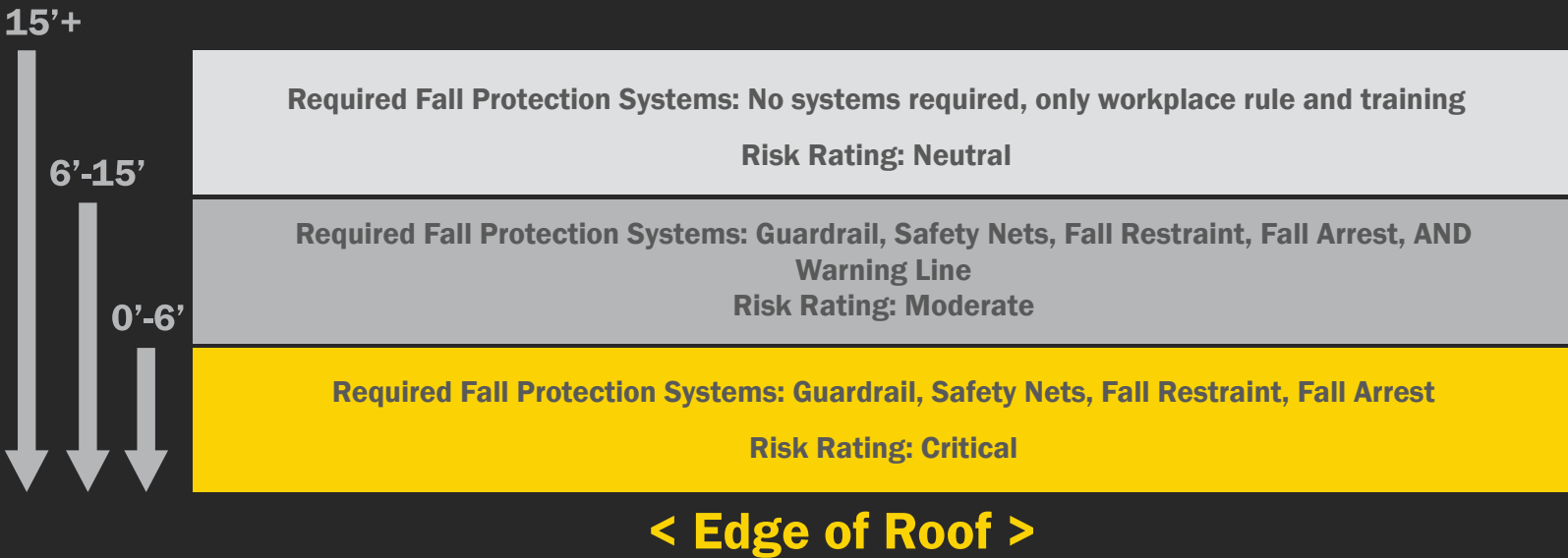
Rooftop work near an unprotected edge is one of the most dangerous tasks a worker can perform. That’s why OSHA clearly outlines what fall protection is required—based on how close the work is to the edge.

This regulation defines three zones:

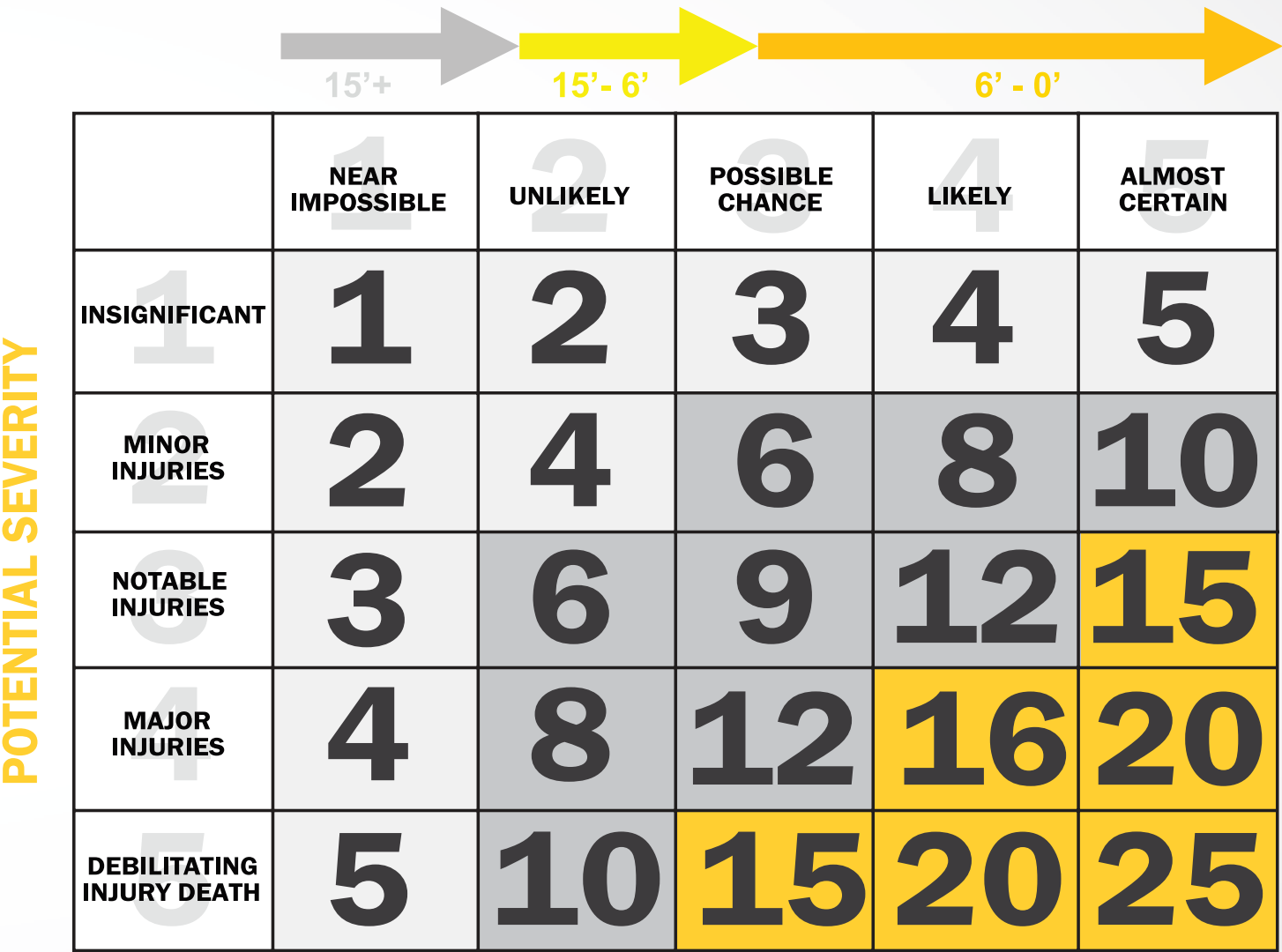
- **0–6 feet:** Highest-risk zone. Fall protection is mandatory. No exceptions.
- **6–15 feet:** Fall protection is still required unless the work is both infrequent and temporary.
- **15+ feet:** Protection is not required only if workers stay back and are trained to avoid the edge.

The closer the work is to the edge, the more robust your fall protection system must be.

Kee Guard® is designed specifically for these high-risk zones, providing permanent, OSHA-compliant edge protection that doesn’t penetrate the roof surface. It’s the gold standard for guarding critical areas without disrupting your building envelope.between compliance and citation—or between safety and a serious incident. Understanding these zones helps safety managers apply the right solution in the right place, every time.



Risk Increases with Proximity to the Edge





Hazard Solution: Kee Guard

- Kee Guard is the industry-leading modular, free-standing safety railing system
- OSHA compliant and suitable for virtually any flat roof up to a 5° slope
- Provides superior rooftop fall protection and keeps your workforce safe
- Recognized as the safety rail standard for rooftop fall protection worldwide
- A cost-effective and reliable solution for enhancing rooftop safety and protecting workers from falls



Hazard Solution: Kee Mark

- Non-penetrating
- Designed for permanent use
- Meets OSHA requirements for demarcation
- Cost effective component of an OSHA compliant rooftop

Prioritizing Safety

Maximizing Rooftop Safety: A Four-Level Hierarchy of Fall Protection Solution

A comprehensive rooftop safety plan follows the Hierarchy of Fall Protection—the gold standard for managing fall risks. It begins with a site inspection to identify hazards, followed by system recommendations that progress from risk elimination to personal protective measures.

Collective systems, like guardrails, require no training and offer the highest level of passive protection. Work restraint and fall arrest systems provide critical safety but demand greater user training, oversight, and maintenance.



Ensuring Safety, Every Step of the Way

At Kee Safety, our mission is to deliver innovative fall protection solutions that keep workers safe across a wide range of industries. From rooftop guardrails and lifeline systems to skylight and hatch protection, our products are engineered to separate people from hazards and meet the highest safety standards.

Our solutions—including Kee Line, Kee Guard, Kee Hatch, Kee Dome, and Kee Mark—are designed to integrate seamlessly into your safety protocols, helping you protect workers while improving efficiency on the job.

Every facility is different, which is why we offer expert consultation to assess site-specific risks and recommend tailored safety solutions. Our team is committed to helping you create a safer, more compliant work environment.

Thank you for considering Kee Safety as your partner in fall protection. To learn more or speak with a safety expert, visit www.keesafety.com. Together, we can build a safer future.

Kee Safety: Your Fall Protection Experts

Kee Safety is the leading expert and global manufacturer of safety components and fall protection systems. We are fully committed to Separating People from Hazards. Kee Safety has a proud history of engineering, manufacturing, and supplying the most trusted fall protection solutions, safety railing systems, and safe access equipment for working at height.



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