

## Guardrails:

The majority of serious injuries and fatalities among construction workers in Ontario are caused by falls. A fall danger must be eliminated for all employees.

### How to eliminate the fall hazard:

Guardrails are the most common and basic technique used for the prevention of fall hazards not just at construction sites but also in various workplaces.

The most frequently used method for fall safety is guardrails. It is considered to be the most convenient method among all the fall protection safety measures.

Guardrails must be put in place anywhere employees are at risk of falling:

- Along the exposed edges of roofs and floors
- On formwork, scaffolds, and other work surfaces
- Around openings in floors, roofs, and around skylights.

Guardrails must be positioned no farther than 30 cm (1 foot) from an exposed edge.

In order to withstand the power of employees slamming into or backing up against them, guardrails must be high enough and sturdy enough. Guardrails must be able to withstand load as specified by the Construction Projects Regulation (O. Reg. 213/91, s. 26.3(5)).

### A typical wooden guardrail system must have:

- A top rail, mid rail, and toeboard secured to vertical supports
- A top rail between 0.9 m (3 ft) and 1.1 m (3 ft 7 in) high
- A toeboard installed flush with the surface and at least 89 mm (3 1/2 in) high (or 100 mm (4 in) high if not made of wood)
- Posts no more than 2.4 m (8 ft) apart.

When made from materials that are as sturdy and long-lasting as hardwood guardrails, wire rope and fabricated metal frame and wire mesh systems can also be utilized as guardrails.

Posts that are securely anchored are crucial. You can employ posts that slot into sleeves cast directly into the slab, screw-clamp posts, clamp binding posts, or vertical shoring jacks.

All guardrails should be frequently examined, especially wooden ones.

Guardrails occasionally need to be taken down in order to land materials or perform installations along floor or roof edges. The open edge should be roped off and marked with warning signs in certain circumstances. Workers entering the cordoned-off area must be restrained and wear fall protection.

Guardrails are the safest approach to safeguard employees near floor and roof openings, but sometimes they are not practicable. You might need to use a cover as protection.

Planks, plywood, or steel plates are used to create protective coverings that are attached to the entrance. Any weight that may be put on them should be supported by their strength.

Workers have occasionally removed coverings from apertures before falling through. Covers should be carefully marked in bold paint with warning signs like DANGER! to stop this. DON'T TAKE AWAY! NEVER LOAD!

