

EDGE PROTECTION

WHAT IS EDGE PROTECTION?

Edge protection helps prevent people, tools, and materials from falling:

- > around the perimeters of a work area
- > around openings
- > where brittle material cannot safely support the weight of a person.

Edge protection comes in different forms:

- > **A proprietary system** is a system bought “off the shelf”.
- > **Scaffolding** in the form of a temporary edge protection system for working at height.
- > **Guardrailing and/or physical barrier** constructed from materials or components that form a guardrail and/or physical barrier.

Where the hazard of working at height cannot be eliminated, edge protection should be used to isolate workers from a fall.

When is edge protection required?

Edge protection is the preferred control for preventing falls from roofs on single-storey buildings because it isolates multiple workers from the risk of a fall.

If this is not practicable then the use of scaffolding (more detail below), mobile elevating work platforms or temporary work platforms are more acceptable alternatives.

Provide edge protection on all the exposed edges of a roof, including the perimeter of buildings, skylights or other fragile roof materials, and any openings in the roof. This also applies to openings and edges of floor areas.

PLANNING THE WORK

Plan for when you will need edge protection, how it will be installed, and how to manage risks to safety during installation. Sourcing and erecting edge protection may take time, and the configuration will depend on a number of factors, such as how many workers will be in the work area at any one time, and the pitch of the roof.

INSTALLING EDGE PROTECTION

Install edge protection as early as possible on a job so multiple groups of contractors, sub-contractors and workers can use it throughout the project (eg builders, electrical workers, and roofers).

Construction and installation must take into account the forces that are likely to be applied to the edge protection as a result of the work undertaken. **Do not install it from the roof.**

Inspect edge protection regularly, especially after a storm or other occurrence that could affect its ability to prevent falls from height.

Proprietary system

- > Installed by a competent person with suitable training in safe work methods.
- > Must be installed according to the manufacturer's instructions and specifications.

Scaffolding

- > Installed by a certified scaffolder if highest component will be 5 m or more above the ground, otherwise by a competent person with suitable training in safe work methods
- > Guardrailing should be installed progressively from below so the scaffolder is not exposed to risk from a fall. See over page for recommended configurations.
- > Must comply with Australian/New Zealand Standards and the Best Practice Guidelines for Scaffolding in New Zealand.

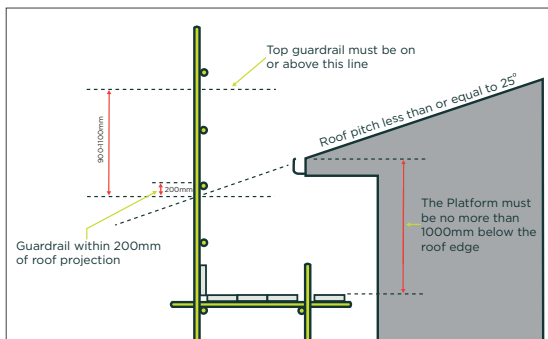
Note: Where a person may fall 5 m or more (ie the highest platform is 5 m or more above the ground), the work must be notified to WorkSafe.

Guardrails

- > Must be installed by a competent person.
- > Includes top rail, mid rails at 450 mm intervals and toe board or bottom rail.
- > Materials must be appropriate and adequate for the task and the system.

Scaffolding as roof edge protection

Roof pitch less than or equal to 25 degrees

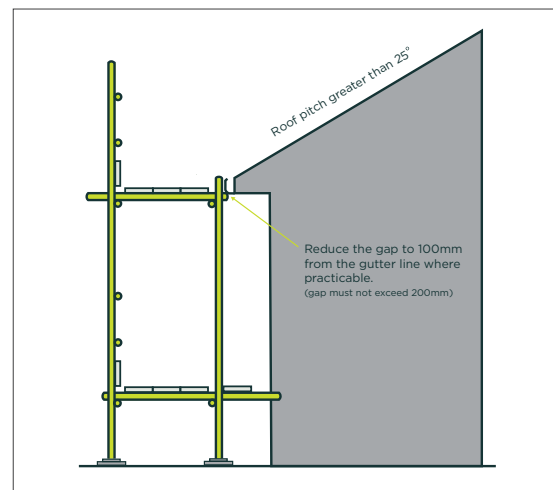


- > Locate the platform as near to the gutter line as practicable and no more than 1 m below the lower edge of the roof surface.
- > Install the mid rail and bottom rail at 450 mm intervals. A rail or the toeboard must be positioned within 200 mm of where the roof line projection intersects the guardrailing.
- > Install the top guardrail 900 - 1100 mm above this line.

Select the best work method to **eliminate**, **isolate** or **minimise** (in that order) the risk of the significant hazard.

Effort is proportion to risk - the greater the risk, the greater the control. Remember, **doing nothing is not an option**.

Roof pitch greater than 25 degrees



A roof with a pitch greater than 25 degrees has more potential for someone to slip and fall, so the requirements are different.

- > Locate the platform as close to 100 mm from the gutter line as practicable (the gap must not exceed 200 mm). This can be achieved by using a hop up bracket from the outside standard at the roof edge line.
- > Where the platform is located below the roof edge, it should be within 300 mm.

- > Install the mid rail and bottom rail at 450 mm intervals.
- > Install the top guardrail 900 - 1100 mm above where the roof line projection intersects the guardrailing.

OTHER SOURCES OF INFORMATION

- > Best Practice Guidelines for Scaffolding in New Zealand (SARNZ publication)
- > WorkSafe fact sheets:
 - Short duration work at height
 - Be safe working on roofs
- > AS/NZS 4994 Temporary roof edge protection for housing and residential buildings
- > AS/NZS 4994.2 Temporary roof edge protection - Installation and dismantling

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This fact sheet is part of the *Working Safely at Height Toolkit* that supports the Best Practice Guidelines for Working at Height in New Zealand.

- > Fact Sheet 1: Planning a safe approach to working at height
- > Fact Sheet 2: Selecting the right equipment for working safely at height
- > Fact Sheet 3: Short duration work at height
- > Fact Sheet 4: Edge protection
- > Fact Sheet 5: Temporary work platforms
- > Fact Sheet 6: Total restraint system

For additional guidance on safe working at height see:

- > Be Safe Working on Roofs
- > Safe Working with Ladders and Stepladders
- > Health and Safety In Contracting Situations