



Rooftop Walkway Makes Maintenance Easy

CASE STUDY

THE PROJECT

Design and install a height safety system to provide safe access to new solar panels the client was about to put onto the roof of their commercial building.

DESIGN CHALLENGES

The solution the client specified was a horizontal lifeline (also known as a static line). However, this presented some challenges:

- **PPE Requirements:** Static lines cannot be used without PPE, which means all users must have access to appropriate height safety gear.
- **Compliance Requirements:** Static lines require regular maintenance and are subject to annual inspection and re-certification.
- **Training Requirements:** All users of a static line must be sufficiently trained in height safety and/or a qualified height safety operator.

In addition, our design must overcome existing non-compliant roof access and anticipate the placement of new roof plant:

- **Roof Access:** Existing access to the roof was via a non-compliant ladder.
- **Roof Plant:** Design needs to work around yet-to-be-installed solar panels.

SITE

Commercial

LOCATION

Brisbane South

SCOPE OF WORK

Compliant Access
Roof Safety System

SAFETY SOLUTIONS

Vertical Cage Ladder
Perimeter Guardrail
Height-Safe Handrail

SAFETY EXPERTISE

Height Safety Risk Management
Height Safety System Design
Height Safety System Installation

KEY RESULTS

- ✓ Roof access upgraded — now safer and fully compliant
- ✓ Long-lasting, low maintenance roof safety system in place
- ✓ Maximised available area for client's solar panel installation



SYSTEM SOLUTIONS

By stepping back and talking with the client about their goals for the solar panels, we were able to design a system that would optimise for these:

- **Centralised Solar Panels:** We recommended installation of solar panels in centre of roof space to optimise available area for these and to allow for minimal disturbance from our new height safety system

Working through our Hierarchy of Control framework, we designed a solution with higher level safety controls that focused on fall prevention vs fall protection:

- **Perimeter Walkway:** We employed engineering controls — physical barriers such as the use of guardrails and handrails — to create a safe walkway around the perimeter of the solar panels. Unlike a static line, this walkway can be used without PPE or training. It's also a permanent, long lasting, low maintenance solution that doesn't require annual inspections.

Working with the client's existing ground level space, we upgraded to a compliant ladder to provide safer roof access:

- **Compliant Access:** Upgraded existing non-compliant ladder to a cage ladder for safe roof access and to achieve compliance with AS1657:2018 (Australian Standard for Ladders, Platforms, Walkways and Guardrails).

VALUE ADDED

Optimisation

Layout maximises area available for solar panels

Ease of Use

Designed a height safety system that's easy to use

Longevity

System is a long-lasting, low maintenance, low burden solution

Compliance

Now have a fully compliant roof access and roof safety system

