

SAFE WORK ON A ROOFTOP SITE - A HIERARCHY OF CONTROLS

Rooftop accidents occur in the Telecoms, Construction, Solar and other industries. The primary factors to consider during roof work include access to and egress from the roof, the roof surface and the work location.

As with any risk assessment approach, a hierarchy of controls exist that should be followed in sequential order, to safely manage the risk involved in each of the three factors. Practically speaking, sometimes the most viable solution involves a combination of overlapping control measures.

ACCESS TO AND EGRESS FROM THE ROOFTOP:

- **Eliminate:** All plant and machinery are installed on the ground floor of the building – no need to access the rooftop.
- **Substitute:** A built-in stairway provides safe access to and egress from the rooftop.
- **Engineer:** A positively inclined fixed access ladder and purpose-built walkways that incorporate a guardrail provide safe access to and egress from the rooftop.
- **Administrative & PPE:** A permit-to-work system is in place and access to the roof is carefully controlled through a site-induction, demarcation of unsafe areas and personnel monitoring processes. A fixed access ladder, fall protection system and/or temporary access system provide access to and egress from the rooftop.

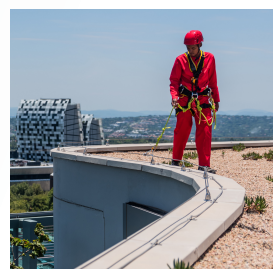


THE WORK LOCATION:

- **Eliminate:** There is no work located on the roof – all plant and machinery is located on ground level.
- **Substitute:** Plant and machinery is located in the center of the roof, away from openings, fragile surfaces and roof edges.
- **Engineer:** A positively inclined fixed access ladder and purpose-built walkways that incorporate a guardrail provide safe access to and egress from the work location.
- **Administrative and PPE (including Anchors, Gravity Horizontal System, Gravity Vertical System, etc.):** A permit-to-work system is in place and access to the work location is carefully controlled through a site-induction, demarcation of unsafe areas and personnel monitoring process. PPE:
 - **Best option:** A work restraint system is in place that prevents persons from becoming exposed to a direct fall risk at the work location.
 - **Safe option:** Fall protection systems are used to protect persons working in a direct fall risk position at the work location.

THE ROOF SURFACE:

- **Eliminate:** There is no roof surface – an open-air building with no covering.
- **Substitute:** The roof surface is a single integrated solid structure with high load capacity (such as a concrete slab), no openings and completely closed in on all sides.
- **Engineer:** Any openings or fragile surfaces are covered and the roof edges are fitted with guard rails to render the entire roof surface safely navigable.
- **Administrative and PPE (including Anchors, Gravity Horizontal System, Gravity Vertical System, etc.):** A permit-to-work system is in place and access onto the roof surface is carefully controlled through a site-induction, demarcation of unsafe areas and personnel monitoring process. PPE:
 - **Best option:** A work restraint system is in place that prevents persons from becoming exposed to a direct fall risk.
 - **Safe option:** Fall protection systems are used to protect persons working in a direct fall risk position at openings in the roof surface or at open edges.



Contact Gravity for advice and to design, supply and implement the best roof work strategy.

