



SAFE ROOF PLANT ACCESS

CASE STUDY

THE PROBLEM

Regular maintenance of an existing exhaust fan on top of the rooftop's bulkhead had become limited due to safety concerns. The height and steep angle of the bulkhead, along with a lack of height safety infrastructure, had made maintenance too risky for most personnel. Accessing the isolated exhaust fan required the employment of temporary anchors, the use of fall arrest equipment and PPE, plus high levels of height safety training and skills.

INSTALLATION OBJECTIVE

A safe roof plant access system which enables regular maintenance of isolated exhaust fan on rooftop bulkhead.

DESIGN & INSTALLATION CONSIDERATIONS

The steep angle of the bulkhead required a bespoke installation that would provide the user with a 0-degree standing and walking surface whilst remaining securely fitted to the sloping roof (no unsupported cantilever).

LOCATION

Nerang Mall Installation,
Nerang, Queensland

SCOPE OF WORKS

Design and install a customised height safety system to provide safe and widely-useable access to the roof plant (exhaust fan) on top of the steep-angled rooftop bulkhead. Scope of customised installation begins at intersection of rooftop and bulkhead and ends at exhaust fan.

BESPOKE SOLUTION & CONSTRUCTION

- At the intersection of the rooftop and bulkhead, we installed a short fixed angled external ladder (which is typically used to provide safe access between different roof levels) with a standing platform at the base and a single angled handrail at the top (inside) for transitional support
- The top of the ladder connects to a leveled walkway which is secured by a series of supporting struts, each being handcut to accommodate the steep roof angle and then systematically fitted to the sloping roof structure.
- Handrails are installed from the top (outside) of the ladder and all the way along the walkway
- An elevated roof plant platform with guardrails has been installed around the exhaust fan itself. This is supported by posts which have again been customised for an angled installation
- The walkway and elevated roof plant platform are connected by a short section of external stairs with handrail support on both sides



VALUE ADDED FOR CLIENT

By installing a safe roof plant access system, the client has significantly de-risked future maintenance of this isolated exhaust fan. More regular maintenance of this roof plant and asset will now also be possible due to the safety improvements made and the useability of this access system by a wider variety of workers and/or contractors who do not need specialist skills to stay safe.



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