



**A BUILDING THAT  
WAS COOLER  
IN SUMMER  
AND WARMER  
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WHILE THE  
ROOF LOOKED  
PRISTINE.**

## ST JOHN'S AMBULANCE BUILDING – GISBORNE

**CHALLENGE: THE ROOF OF THE ST JOHNS AMBULANCE BUILDING IN GISBORNE WAS IN DESPERATE NEED OF ATTENTION.**

The 250m<sup>2</sup> trimline trapezoidal profile roof was creating many problems. The roof, which had good fall in some places, but next to none in others, had been installed by a building contractor who had failed to use stop-ends and put any fall in the gutters, so it was ponding and leaking in some key areas. The architect in charge of the re-roof wanted

to achieve four things:

- Make the roof watertight
- Avoid restricted building work if possible
- Use the opportunity to add value to the building while...
- ...causing the least disruption to tenants.

### Solution

The architect made contact with Viking Roofspec, who recommended installing a Viking Warm Roof System, as it would meet all of the architect's challenges. Rather than re-pitch and replace the leaking steel roof, a Warm Roof system was chosen as this could be installed directly over the top of the existing roof surface.

The installation began with polyiso sheets being cut into fingers using a bench saw, and then installed in the troughs of the trapezoidal roof with a Dual Cartridge F.A.S.T. adhesive system (applied by a pneumatic caulking gun). This was done for compression resistance; extra insulation; and increased wind uplift resistance. A complete layer of 75mm thick polyiso was then installed on top of this surface. As the installation was taking place in winter, the roof

was completed in sections and then covered with a tarpaulin to ensure no water ingress took place.

Fall was created in the gutters using tapered polyiso sheets which have 2.0% slope (1:50 which is 1.2 degrees). This ensured that water would not pond and would therefore drain away appropriately.

The finishing touch on the Warm Roof was the white Enviroclad TPO waterproofing membrane that was adhered over this full layer of polyiso. This was used due to its 90% + S.R.I. (Solar Reflectivity Index), which meant the building would be cooler; especially during the hot Poverty Bay summer months.

### Result

St Johns received 250m<sup>2</sup> of professionally installed Warm Roof. In contrast to the steel roof having been installed by a non-roofer (a building contractor), the Viking Approved Applicator who installed the Warm Roof was licensed to correctly install the product, resulting in a professional job. The Warm Roof also delivered on the architect's four goals. The Viking Enviroclad membrane (with its 3.0m wide sheets and heat welded seams) was adhered over the polyiso panels, ensuring that the roof would be watertight. This was done without disruption to tenants, as the Warm Roof was installed directly over the top of the old roof (so the building interior wasn't exposed). Not only did the building owner now have a watertight roof, he had also added value to the building in the form of extra thermal efficiency (approximately R-3.1). He now had a building that was cooler in summer and warmer in winter, while the roof looked pristine.

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