Case Study: Viking Epiclad





THE BUILDING RECEIVED ITS SECOND SUCCESSFUL VIKING EPICLAD INSTALLATION, WHICH THE TEAM WERE VERY HAPPY WITH.

KIDZ FIRST CHILDREN'S HOSPITAL - MIDDLEMORE HOSPITAL, AUCKLAND

CHALLENGE: AN 1,800M2 BUILDING AT THE KIDZ FIRST CHILDREN'S HOSPITAL AT MIDDLEMORE IN AUCKLAND HAD BEEN PROTECTED BY VIKING'S EPICLAD EPDM MEMBRANE FOR THE LAST 16 YEARS. THE MEMBRANE HAD SURPASSED THE BUILDING CODE'S MINIMUM 15 YEAR DURABILITY REQUIREMENT, BUT INCREASING DAMAGE OVER THE YEARS FROM VARIOUS TRADES HAD TRIGGERED AN ASSESSMENT OF ITS FUTURE. WHILST THERE HAD BEEN NO EVIDENCE OF WATER INGRESS INTO THE CONCRETE SUBSTRATE FROM THE DAMAGED MEMBRANE AREAS ABOVE, THERE WAS NO GUARANTEE THERE HADN'T BEEN ANY, SO THE MIDDLEMORE HOSPITAL PROPERTIES TEAM DECIDED IT WAS TIME TO GIVE THE OLD ROOF A BIRTHDAY.

Solution

Rather than strategically overlay pieces of membrane and/or elastoform flashing tape on the affected areas of the roof (which if executed properly, would have extended the life of the roof for a few more years), the Middlemore Properties Team chose to embark on a 100% re-roof as the membrane was nearing the end of its 20 year product warranty period anyway. Additionally, a new roof would give them that extra assurance they required as it was important to them that the taxpayer got value for money for the protection of this important public facility. The Properties Team decided to specify Viking's Epiclad membrane once again, for two reasons: (i) it had kept Kidz First's staff and more importantly, its precious young patients, dry since its installation 16 years earlier and (ii) various other membrane types on neighbouring Middlemore buildings had not demonstrated the same degree of weathertightness and longevity.

The project went out to tender, with Viking Roofspec having supplied a list of Approved

Applicators who were given the opportunity to submit their competitive bids directly to the Properties Team.

After several consultations with Viking Roofspec Technical staff, the successful applicator installed exactly to Viking's robust specification for this roof being: fully-adhered 6m wide x 15.2m long rolls of 1.5mm thick Epiclad membrane, to minimise the number of joins.

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For added assurance, 150mm wide lap tape was imported exclusively for this job (the market norm being just 50mm wide) thus providing 200% greater protection at the seams. 36 substrate vents were also installed, (one for every 50m2) to extract any moisture that may possibly have been in the concrete substrate.

To counter the potential issue of damage to the new roof, a network of robust TPO walkway mats with a grippy tread plate pattern were installed on top, to channel tradesmen and their tools / machinery in the same direction and therefore keep them off the membrane.

The previous roof had also exhibited excessive ponding in a couple of corners due to negative gradient, so the Viking Approved Applicator installed some tapered polyiso insulation under the Epiclad membrane; therefore promoting watershed back towards the nearest drains.

Result

The Kidz First building received its second successful Viking Epiclad installation which the Properties Team was very happy with. Although the Epiclad membrane had been successful at protecting this building the first time around, the improvements in specification for the overlay eg: 6m wide rolls (versus 3m); 150mm laptape (versus 50mm); TPO walkway mats and tapered polyiso insulation board - collectively contributed towards creating an even more robust installation than the first. This time the membrane system is expected to last well beyond the 20 year warranty period.

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