



## Complete roof replacement scheme for business enterprise centre incorporating thermal performance upgrade to improve energy efficiency and reduce operating costs

Supporting businesses in Southampton since the 1990s, the New Forest Enterprise Centre is a hub of activity that promotes a community atmosphere for new and small businesses, comprising 37 offices and 34 light industrial workshop spaces.

The existing trapezoidal metal roof system was at the end of its life and in a state of disrepair. The factory-bonded coating was peeling away, numerous leaks from penetrations across the site and problematic external drainage had caused gutters to overflow during heavy downpours.

Multi-disciplinary construction consultancy, [Kendall Kingscott Ltd](#), instructed Technical Manager James Hiscock to specify a waterproofing solution that would eradicate the issues and, importantly, upgrade the thermal efficiency of the buildings to decrease energy consumption and reduce carbon emission for the organisation.

### Challenge

During the feasibility stages of the project, Garland UK's wide range of roofing systems was reviewed with the New Forest Enterprise Centre's Board of Trustees to ensure the waterproofing and thermal efficiency requirements were suitably met whilst maintaining the existing aesthetics of the buildings.

The existing roof included numerous intersecting valleys and hip and ridge details that needed careful consideration. The original external gutter design meant that during heavy downfalls, water would often back up the box gutters and enter the buildings via the eaves detail, which was poorly protected. The roof height was increased to allow for new insulation to be installed, which in turn, gave an opportunity to safeguard the perimeter detail from backing up with water in the future.

### Quick Facts

Project  
**New Forest Enterprise Centre**

Location  
**Southampton**

Garland System  
**R-MER CLAD**

Sector  
**Commercial**

Garland Technical Managers  
**Paul Boole & James Hiscock**

Approved Contractor  
**Gable Projects Ltd**

Due to the nature of the site, the New Forest Enterprise Centre needed to remain fully operational at all times, with minimal disturbance to the various businesses and occupants during the project. James Hiscock and the approved contractor, [Gable Projects Ltd](#), worked closely to devise a schedule to reduce the impact of works and phased scaffold requirements to service the roof.

## Solution

The existing metal roof system would stay in place, and a 4,400m<sup>2</sup> R-MER CLAD system was specified for its straightforward installation that would minimise disturbance and choice of finishes and coatings to maintain the building's existing aesthetics.

A vapour control layer was first installed on top of the existing sheet. This was followed by a bar and bracket system to create a void between the inner and outer skin, in which a 140mm glass fibre insulation was installed to improve the overall thermal performance of the buildings.

The R-MER CLAD butyl tape to ensure a watertight seal was used at all head and side laps, with fixings to the substructure located in the pan of the profile. Once in place, a new trim line perimeter gutter was installed on all eaves details, including the provision for new downpipes and overflow weirs. The existing wall facades were also replaced to ensure the centre is newly uniform in finish.

To complete the refurbishment, the existing solar panels at the site that had been lifted during the works were reinstated once the R-MER CLAD system was in place.

## Outcome

The project was visited twice weekly by the Technical Manager, with regular progress reports and visual updates shared with all parties to monitor the works. Before the roof refurbishment, the New Forest Enterprise Centre had a U-Value in excess of 0.35. On project completion, the U-Value had distinctly improved to 0.18, to meet standard building regulations.

Sarah Murray, Manager at the New Forest Enterprise Centre, adds, "We are so pleased with our new roof and have already noticed how much improvement has been made, particularly in this cold snap of weather."

Technical Manager, James Hiscock, adds, "Utilising R-MER CLAD on this project has seen terrific results for the client; not only has the thermal efficiency of the building improved, but leaks have also been eradicated, and significant quantities of waste to landfill have been mitigated."

On completion, the Board of Trustees was given a 20-year Single-Point Guarantee that accepts the full liability for the design, material and quality of the installation workmanship, ensuring New Forest Enterprise Centre can continue to provide fledgling businesses and SMEs in the area a place to flourish and grow for years to come.



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