BLACKBURN TRADING ESTATE, HEATHROW
C A GROUP LIMITED

‘Quantum’ curved built-up metal roof and PRIME V cladding from CA Group Limited has been installed at the Blackburn Trading Estate in Heathrow as part of development work for Canmore Developments, creating a more aesthetically pleasing structure.

The scheme, which encompasses a number of combined warehouse and office blocks, was delivered together with Winvic Construction and features a combination of ‘Quantum’, CA Group’s curved built-up metal roof, and PRIME V, a product from the company’s rainscreen portfolio.

David Johnson, project development engineer for CA Building Products, commented: “The developer had a clear vision for this scheme from the outset. We were tasked with delivering a look and feel which was far removed from the conventional warehouse, creating instead an aesthetically pleasing structure more readily associated with the office side of the build.

“We worked closely with the architects, Michael Sparks Associates, and other team members to develop a solution which not only exceeded expectations, from an aesthetic perspective, but also incorporated a number of sustainable features which will reduce the building’s running costs, as well as its emissions.”

According to Johnson, many of the cost saving features on the project were achieved through the introduction of CA Group’s ‘Quantum’ curved roof, which has a proven track record among planning teams and local residents due to its reduced height and streamlined form. This reduced height translates into a reduction in internal air volume and the operational costs associated with the heating and chilling of large structures.

Rooflights were installed over the apex of the roof to distribute a more balanced distribution of natural daylight, reducing internal shadows and lighting costs, together with the associated CO_2 emissions. The reduced height of ‘Quantum’ lowers the internal air volume and the operational costs associated with the heating and chilling of a large structure. The building also achieved a high level of air tightness with an air-permeability rating of 1.75 $m^3.h.m^2$ @ 50 Pa.

The cladding featured on the office walls was chosen from the PRIME portfolio, developed by CA Building Products. Johnson explained: “PRIME represents the unification of CA’s rainscreen offer. We have taken our extensive know-how in this area and developed a suite of products suitable for a range of applications. The systems have been fully tested by the Centre for Window and Cladding Technology and are backed by meaningful guarantees."

The issue of end of life disposal costs, associated with some blown foam insulations on the market, has been avoided through the use of fibre insulation throughout the building. The use of fibre insulation also ensures that, in the event of a fire, the building itself does not add to the fire load and toxic smoke emissions are also dramatically reduced.

Leaks on the project have been avoided by the elimination of through fixings, the biggest cause of water ingress in a building of this type. Issues associated with gutter design have also been addressed with the requisite thickness of 1.2mm being applied to both the steel and membrane coating, minimising any damage caused by foot traffic. The final roof assembly has been categorised as Class B (non-fragile) in accordance with the HSE Advisory Committee for Roofwork (ACR) guidance documentation.

Neville Campbell of Michael Sparks Associates, added: “In our opinion the successful end result is due to the performance, attention to detail and installation of the system by all involved in the development. Michael Sparks Associates and CA Group have worked together for many years with many hundreds of thousands of metres of cladding installed, with very few problems. Early design discussions between the two of us have been essential in the production of successful, high quality and aesthetically pleasing buildings.”

CA Building Products

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