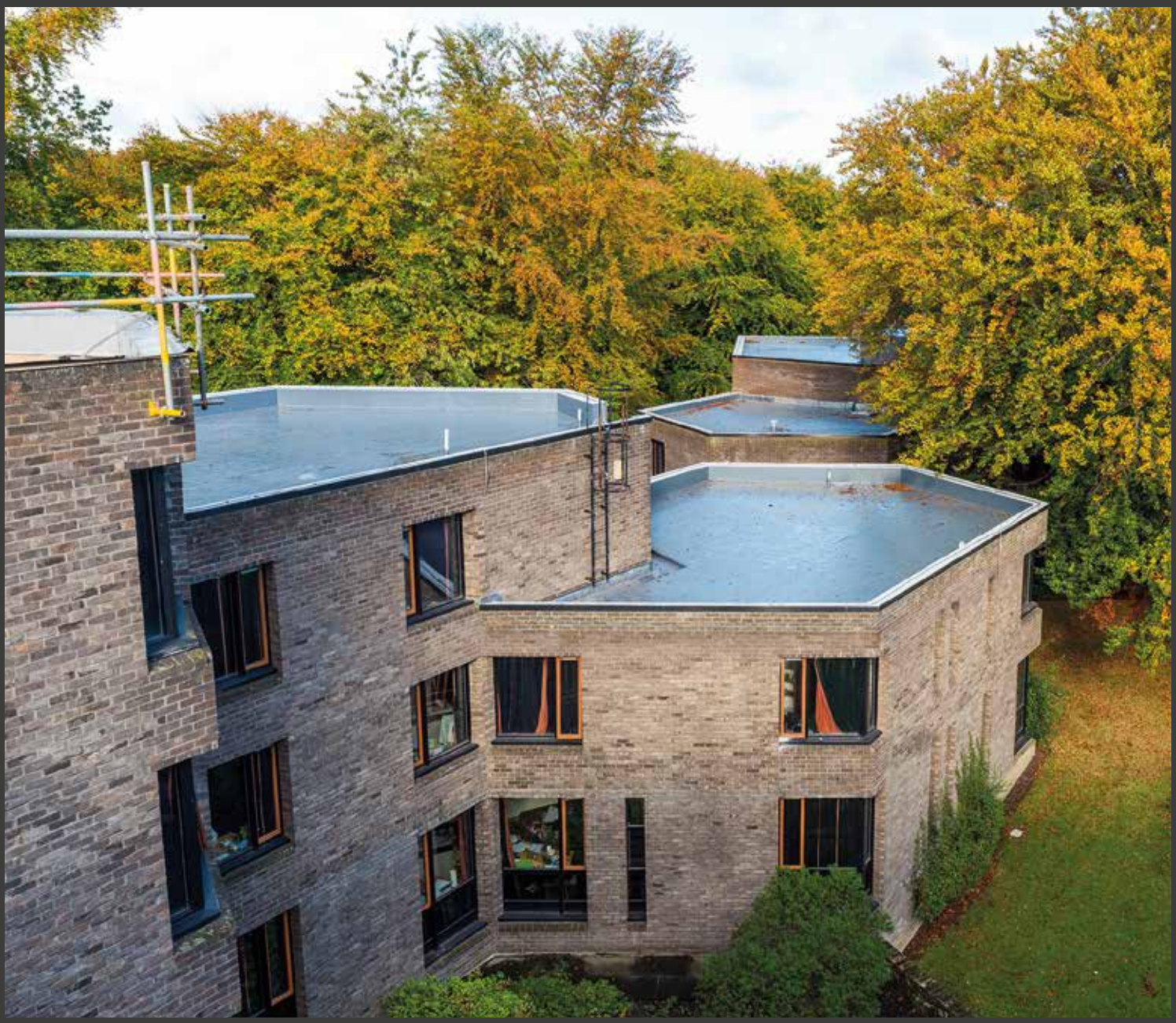
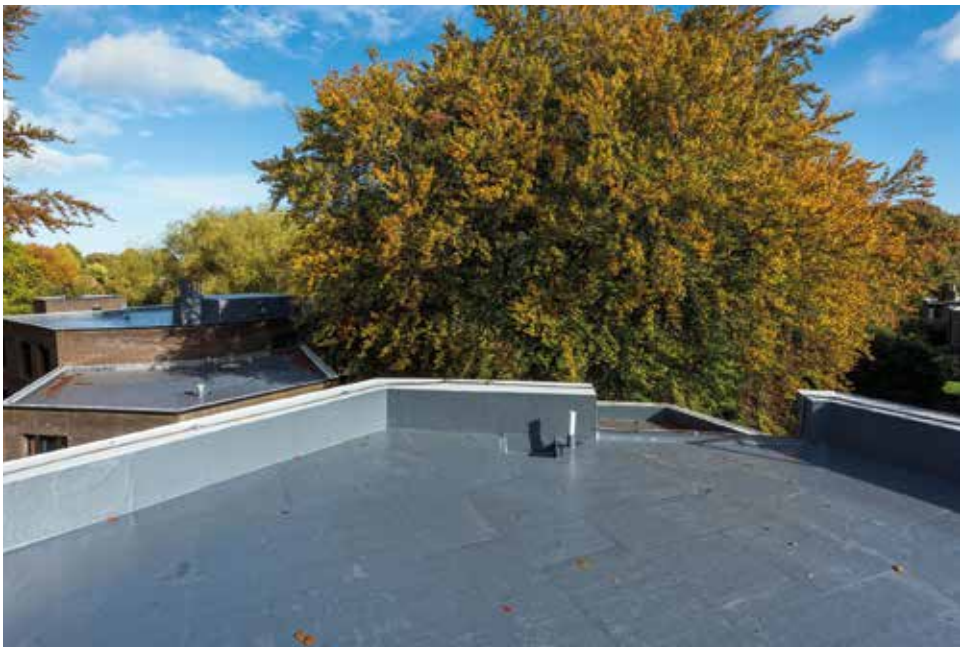


SIKA AT WORK
TREVELYAN COLLEGE, DURHAM UNIVERSITY

Liquid Plastics



DECOTHANE HELPS ADDRESS COMPLEX 'TREVS GEOMETRY AT DURHAM UNIVERSITY

BACKGROUND

A Decothane warm roof system from Sika Liquid Plastics has been used to update the roof of Durham University's renowned Trevelyan College 30 years after Decothane liquid roofing technology first transformed the UK's roofing sector's approach to flat roofs.

REQUIREMENT

The college combines teaching and residential accommodation in a distinctive building of 1960s construction, which features a complex network of 18 hexagonal roofs.

These roofs are positioned at varying levels and many are overlooked by other areas of the building. While some of the works were delivered outside of term time, the building is at least partially occupied all year round.

SIKA LIQUID PLASTICS SOLUTION

The Decothane Ultra 25 system's low odour formulation provided the ideal solution for carrying out the project in an occupied building and was installed with Decotherm flat board insulation by Sika Liquid Plastic's QA (Quality Assured) roofing contractor, O'Connor Roofing Services, as a warm roof overlay, using the existing asphalt as a vapour control layer.

This specification offered a robust, seamless finish that both addressed the thermal performance and waterproofing requirements of the structure while offering an attractive finish, visible from other buildings and the park land surrounding the college.

To ensure that the most invasive works were carried out when occupancy was at its lowest levels, O'Connor Roofing Services prioritised two roofs that had previously been refurbished with an inverted roof build up because these heavily-ballasted areas had to be stripped back to the asphalt substrate.

This strip out revealed that there were existing falls in these two hexagonal roofs to aid drainage into existing outlets so the installation team had to be meticulous in ensuring precision cutting of the Decotherm insulation to match both the existing falls and the precise angles of the roof shape.

A number of other roof areas also presented very specific challenges on the Trevelyan College project. The lowest roof area, known as the 'well roof', features windows around the perimeter that open onto this area and there is a 15ft 'steeple' roof light with a copper veral felt substrate in the centre. O'Connor Roofing Services raised the level of the detailing to prevent any risk of water ingress through the window openings.

For most areas of the building, the main challenge was the unique size and shape of each roof and Decothane Ultra 25 cold-applied liquid membrane formula was the ideal solution for managing the complexities of these varied angles.

The brick parapet walls have been the main cause of water ingress and were degraded and uneven, so these were over boarded prior to application of the liquid membrane. This created a neat surface that could be completely encapsulated as part of the roof refurbishment project, enabling the installation of a continuous, seamless waterproof surface across the roof and parapet. This attractive, homogenous finish also removed the need for future maintenance of the brickwork or lead flashings.

O'Connor Roofing removed numerous redundant roof lights, encapsulating the apertures with the Decothane Ultra 25 system and replacing them with Sika Decolights.

Roy O'Connor from O'Connor Roofing Services comments: "This was an exceptionally difficult project that required a methodical approach to addressing the challenges of each area. The Decothane system and Sika's supportive approach to working with contractors were vital in addressing those challenges and achieving a high quality, durable and attractive result."

PROJECT PARTICIPANTS

Product: Decothane Ultra
Size: 2500m²
Client: Trevelyan College
Contractor: O'Connor Roofing

bsi. ISO 9001 Quality Management FM 12504 | ISO 14001 Environmental Management EMS 588023 | OHSAS 18001 Occupational Health & Safety Management OHS 588025

SIKA LIQUID PLASTICS
Sika House,
Miller St,
Preston,
PR1 1EA
United Kingdom

Contact
Phone +44 1772 259781
Fax +44 1772 255670
E-Mail liquidplastics@uk.sika.com
www.liquidplastics.co.uk
@LiquidPlastics

Liquid Plastics

Sika®