

THE MCGRATH CENTRE ST CATHARINE'S COLLEGE, CAMBRIDGE

Product: Bespoke shaped Flushglaze modular rooflight by Glazing Vision Limited

Architect: RHP Architects



The McGrath Centre is a multi-purpose building featuring Glazing Vision's Flushglaze modular rooflight, specified to address the requirement for enhanced light and space.

The college has undergone numerous transitions since its opening in 1473, and is now a popular academic choice for undergraduates. Offering excellent extra-curricular activities

and academic study, the college is known for its lively and diverse community amongst both students and staff.

The new addition of the McGrath Centre provides a range of facilities, from meeting rooms to bars, auditoriums to lectures, performances to social occasions.

In particular, the foyer provides an openly versatile space; it is ideal for guest receptions, exhibitions or for simple refreshment breaks, with a retractable wall providing the additional option of separating this open space from the auditorium.

CASE STUDY 03

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Using rooflights to create natural lighting in a workspace

The auditorium itself is a major feature within the new-build. It was important for RHP architects, who worked on site, to create a particularly spacious feel to the room, in order for both lecturers and students to benefit from a positive work environment. State of the art lighting and retractable seating was fitted to improve the overall appearance and create more floor space when necessary.

Glazing Vision designed and manufactured a high specification bespoke shaped modular Flushglaze rooflight for the flat roof which was installed above the auditorium, significantly increasing the amount of natural light that enters the building. The clean minimal framework and diffused light further enhances the modern design of the McGrath Centre.

Glass that reduces glare

Due to the functional nature of the space, part of the brief set out by the architects was to reduce the potential amount of glare created by having such a large expanse of glass installed overhead. Therefore Okalux glass was used which features insulated glass elements containing 'capillary tubes' in the cavities; these tubes are designed to break up incident daylight and diffuse it throughout the interior of the building.

The result offers not only excellent thermal performance with a high degree of light transmission, but also ensures an even spread of light throughout the space with no bright or dark zones, perfect for a learning environment.

Refining the design for framework integration

Measuring six metres long and almost five metres wide at the widest point, the sheer size of the feature and its position in relation to other buildings on site meant that the installation process was always going to present a challenge.



The rooflight had to be accurately installed within an existing steel framework, which necessitated changes to the original design in order to make the various components integrate effectively. A centrally placed steel fitch plate was integrated with the existing steels in the building and was used as the main support for the rooflight, whilst the ten separate individually shaped sections of glass were secured off the steel spine using aluminium back to back angles. Even though it was a rigorous process, Glazing Vision's high level of precision and expertise ensured that the installation was carried out efficiently.

The even spread of light that encompasses the auditorium would have been impossible to achieve without Glazing Vision's bespoke roof light. Due to the building being situated within a courtyard sufficient light could not have been gained from either side of the building. However, the modular rooflight has brought a central focus to the room and a dynamic feel to the workspace.

Ultimately, the McGrath Centre project has been able to further enhance what the college has to offer, creating a public facility to make education at St Catharine's both an enjoyable and rewarding experience.

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