



Jesus College - University of Cambridge



Benefit: Warmer and quieter

Type: Refurbishment

Listing: Grade II

Selectaglaze has helped Jesus College, part of the University of Cambridge, to improve heat efficiency and sustainability in a Grade II Listed building.

Jesus College is known for its Listed buildings, sustainable design projects, and modern architecture. In 2014 it embarked on the West Court development by purchasing the Grade-II listed buildings belonging to its neighbours, Wesley House.

The College commissioned Niall McLaughlin Architects to design the plans and Cocksedge Building Contractors to carry out the refurbishment and reconfiguration of the site. The College wished to sensitively refurbish the Grade II Listed building to make it as heat efficient and sustainable as possible, while also keeping its beautiful original features.

However, as a Grade II Listed building, creating a specific sustainable agenda with the introduction of insulation and secondary glazing posed some challenges. The



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main contractor, Cocksedge, approached Selectaglaze, the UK's leading provider of secondary glazing, for advice and assistance. The primary windows were draughty, allowing heat to escape and suffering from noise during ingress and egress. The College stipulated that the original materials and architectural design were to be maintained and that the secondary glazing had to be considerate with regard to the heritage of Jesus College.

Selectaglaze has considerable experience working in Listed buildings and it previously worked on the College's Chapel Court student accommodation refurbishment, where it treated over 300 openings. Based upon this successful track record, Selectaglaze installed over 100 secondary glazing units in West Court. The original primary windows, iron casements set into stone mullions, look fantastic, so it was important that the secondary glazing did not detract from them. A combination of casement and horizontal sliders were chosen to provide the best match with the original design and to avoid the introduction of new sightlines. Finished in anodised bronze, they complement the overall feel of the building.

The College hopes to reduce its annual energy costs as a result of Selectaglaze's work. In addition, secondary



glazing is widely used to reduce noise during ingress and it is more effective than new double glazed windows in the majority of cases. Therefore, those staying there have found the accommodation to be far more peaceful, with little or no distraction coming from the outside.

Secondary glazing involves the fitting of an additional internal window inside the rooms of a building and it is a fully reversible adaptation, so that it is widely accepted by most heritage bodies. Selectaglaze secondary units are available in a variety of styles and finishes. They are fully factory assembled, allowing rapid installation with minimal disruption to teaching schedules, and work is often arranged during holiday periods.

Secondary glazing traps an insulating layer of air, which can reduce heat loss by 50%. With the introduction of low emissivity glass, U-values of around 1.8 can be achieved. High performance twin seals help virtually to eradicate draughts. In addition, noise during ingress is significantly reduced. A gap between the primary and secondary glazing of at least 100mm achieves a reduction of 45dB - rising to more than 50dB if specialist acoustic glass is specified.

