



Quadrangle

Case Study

Aluk Fenestration Solutions Transform the Quadrangle in Cheltenham

The Quadrangle building in the historic heart of Cheltenham, once a 1970s landmark, has been completely transformed into a contemporary mixed-use commercial development featuring exclusively AluK window, door and curtain walling systems.

Designed by AWW Architects from their Bristol studio and completed by Beard Construction, it now features an inner courtyard, ground floor retail space, four storeys of open plan workspace and the town's first rooftop restaurant.

The fenestration package was absolutely key to retaining the design language of the original building within a more contemporary aesthetic, whilst also meeting the requirement for improved thermal efficiency, more natural light and better natural ventilation.



Location
Cheltenham



Contractor
Beard Construction



Architects
AWW Architects



Fabricator
Aluminium Sashes



Systems
SG52 Curtain Walling,
SL52 Curtain Walling,
GT55 Entrance Door,
58BW Window System

Having been impressed with the design and quality of AluK products on previous projects, AWW specified a comprehensive mix of AluK systems at the Quadrangle – the SG52 capless curtain walling system to give a frameless appearance to the retail façade, the more conventional SL52 capped curtain walling system for the courtyard area and rooftop restaurant, the GT55 system for the entrance doors, and the tried and trusted 58BW window system for the 400+ windows fitted into the existing openings around the façade.

The entire fenestration programme was carried out by AluK fabricator Aluminium Sashes, which used its extensive experience in the repair and replace sector to overcome the challenges inherent in surveying, fabricating and fitting windows into openings which, in many cases, were irregular in shape and form and not aligned with the concrete slab finish.

Aluminium Sashes worked closely with AluK at planning and detailed design stage to achieve the contemporary look for the façade that the client and architect wanted. For example, where the original windows had a transom and modesty spandrel panel below, the slimmer sightline replacements replicated the line of the transom but with fritted glass below to provide a similar level of privacy with more natural light. They also designed a solution for fixing the anthracite grey windows to the metallic bronze louvre sections specified to break up the uniformity of the façade, give users the option of manual ventilation and to provide fresh air and exhaust points for the AHUs. The reinforcing bar in the windows has effectively become the carrier bar for the louvres and gives the impression that there are two colours in one window panel.

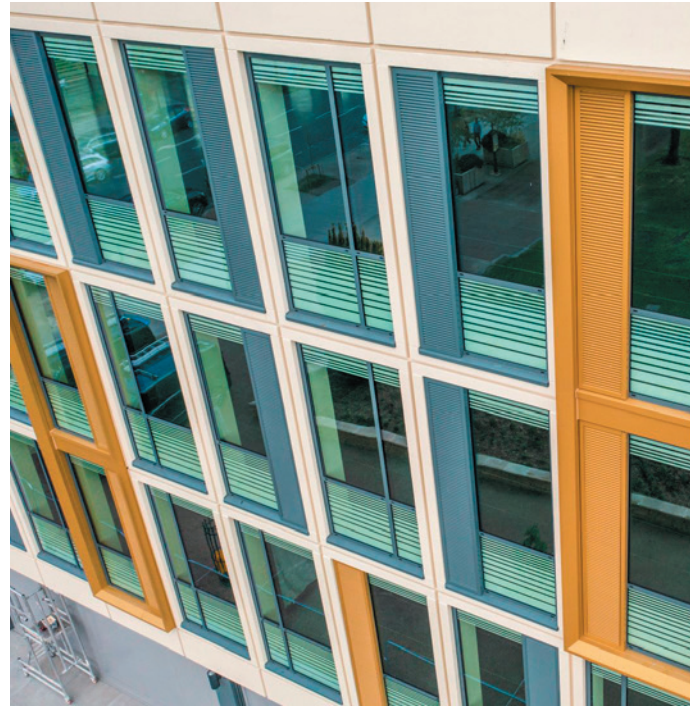


Dan Basey, Project Architect at AWW, is delighted with the fenestration outcomes. He said:

“Being able to work so closely with AluK and Aluminium Sashes at both design and construction stages enabled us to realise such a successful project. The integration of the distinct colour palette and finishes was a key driver of the scheme. The metallic bronze finish works really well with the more neutral anthracite grey, whilst also being sympathetic to the existing colour palette of the Regency-era buildings in the context of Imperial Square.

“An integration of both natural and mechanical systems to the rear of the windows’ louvre system is a simple but effective detail that seeks to improve the user-experience of those working in office spaces. This will hopefully become a well utilised feature as more attention is given to improving the air quality of our internal workspaces going forward.”

The fenestration choices were integral to the BREEAM Very Good Rating which has now been awarded to the Quadrangle. Dan Basey added: “The recyclable aluminium windows from AluK contributed to a BRE Green Guide A materials credit, while the 1.4W/m²K U-Values reduced the energy demands. The glazed façade with integrated louvres helped achieve both the BREEAM HEA 01 Views Out and Daylighting and the BREEAM HEA 02 Indoor air quality ratings.”



Sean Anderson, Managing Director of Aluminium Sashes, commented on the project: “Lots of fabricators shy away from commercial repair and replace projects like the Quadrangle because of the complexities involved, but we actually thrive on the challenge. Even when we were faced with things like a downstand beam within the structural opening of some of the windows which created a really awkward head detail, we were able to integrate areas of fritted glass to disguise it with ease.”

AluK’s National Sales Manager Neil Smith added: “Quadrangle is almost a showcase for the AluK product range and our collaborative approach with customers and specifiers. The planning, precision and attention to detail shown at every stage ensured that it delivers perfectly on the design intent, yet it has still proved a practical, and cost-effective choice.”