

Case Study

Heron Hall Academy,
London

Education

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A Renovated/New-Build Academy

Steel-style Novastruct windows were selected for the rescue of a partly derelict college. GT 70 S slimline renovation windows as fixed lights and top-hung casements are complemented by FSX 100 curtain walling and DSX 190 TB doors on the redeveloped Heron Hall, a former Middlesex University site.

Now the 1,680-student secondary school and sixth form Heron Hall Academy, the redevelopment comprised the refurbishment, remodelling and extension of an unoccupied 1930s Grade II listed technical college over two years by main contractor Willmott Dixon.

The glazing systems by Novastruct were installed over a year by JPJ Installations – the GT 70 S windows replacing the original steel windows on the Art Deco façade and the mullion-drained curtain walling and DSX 190 TB heavy duty commercial entrance doors on the concrete frame extension.



“Refurbishment, remodelling, extension”



Building: Heron Hall Academy
Location: London
Architect: ArchitecturePLB
Main Contractor: Willmott Dixon
Installer: JPJ Installations Ltd

Complementing the Original

Katie Robinson, project architect with designers ArchitecturePLB, said: "Willmott Dixon had used Novastruct on a previous refurbishment school project and therefore asked us to work with them to develop the designs. The Crittall windows are key to the character of the original building and therefore it was fundamental the replacements were faithful to the original design.

"Window replacement was considered key in meeting current Part L requirements. It was a contentious issue that was much debated with the planners as it was key to making the project affordable. Aluminium was chosen due to the need to achieve a thermally-broken double-glazed unit with a narrow profile.

"We were able to keep the profile of the frames to a minimum and replicate the protruding fins on the original windows. We could also achieve a narrow frame depth which enable us to retain the important heritage item of the existing terrazzo cills insitu during the works. These would have broken up if they had needed to be removed.

"The building's glazing is of vital importance to its architectural character but was in a very poor condition. Its single glazing and steel frames precluded retention in teaching spaces where modern environmental performance standards were required. Elsewhere however, we were able to preserve and repair key windows. These included the strip windows in nonteaching spaces, the vertical bays to the tower and stairwells and a curved bay in the northern courtyard.

"Where windows had to be replaced, extensive investigations and negotiation with the local heritage officer were required to find an affordable solution that mimicked the frame dimensions of the Crittall originals and allowed retention of the internal terrazzo cills."

In line with current thinking, the new wing was designed to complement rather than replicate the original. Its arrangement reflects that of the original building whereby the major communal spaces, in this case the new dining hall, are arrayed down its centreline to connect the teaching wings to west and east. It is visually separated from the original by new glazed stairwells while Novastruct ribbon windows were used to reflect the proportions and horizontal emphasis of the listed building.



A Successful Alternative Solution

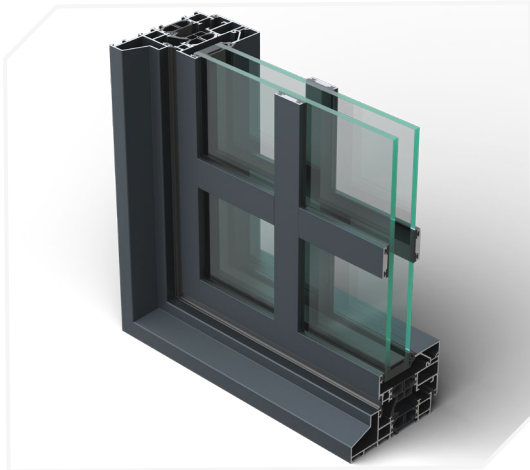
ArchitecturePLB's alternative design solution, following careful and considered analysis of the site and existing buildings, made the project viable. Instead of retaining and refurbishing a range of poor-quality one- and two-storey extensions, they proposed their wholesale removal, allowing them to recreate a previously infilled courtyard, reinstating the original plan form, and bringing daylight and views back into the heart of the building. The removed elements are replaced with a new three-storey block featuring Novastruct's curtain walling, purpose-designed to connect the original wings and accommodate new dining and specialist teaching facilities.

Although an inherently more expensive solution, ArchitecturePLB's alternative design intensified the efficient use of the site, replacing existing single-storey with new three-storey accommodation. This meant the building took less of the available site, allowing more to be released for residential development.

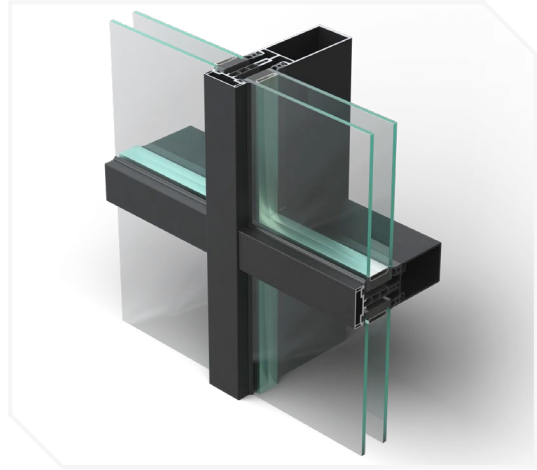
The scheme was shortlisted for a RICS Award in the conservation category.



Product Specification Highlights



GT 70 S Open-In Window



FSX 100 50mm Curtain Wall System



DSX 190 TB Door

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