

Case Study

Victoria Gate Arcade,
Leeds

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A Flagship Building

Novastruct's curtain walling, framing and doors have been used exclusively in two rooftop restaurants and the upper floor of the Victoria Gate Arcade, an award-winning addition to Leeds' vibrant shopping scene, anchored by the largest John Lewis department store outside of London.

The flagship Victoria Gate Arcade building, with a striking diagrid façade of polished and acid-etched concrete or reconstituted stone, sits between a multi-storey car park and the arcade which is clad in "pleated" bricks and features a geometrically intricate curving glass roof (installed by Seele) linking the John Lewis store to the city's Victoria Quarter which was acquired by developer Hammerson.



“A striking diagrid facade”



A masterplan by ACME architects allowed for a first-phase 42,000m² development of the two-storey, two-street arcade with 30 retail units, restaurants, cafes and a casino, the 21,000m² five-storey John Lewis store, and eye-catching car park for 800 cars. Windows, doorways and materials were all designed with care to form an overall design which celebrates the historic use of superior materials and finishes.

Building: Victoria Gate Arcade

Location: Leeds

Architect: ACME

Main Contractor: Sir Robert McAlpine

Installer: Bennett Architectural Aluminium Solutions

Meeting a Range of Requirements

Designed and planned using BIM by main contractor Sir Robert McAlpine, the Novastruct systems in the two rooftop restaurants were installed by Bennett Architectural.

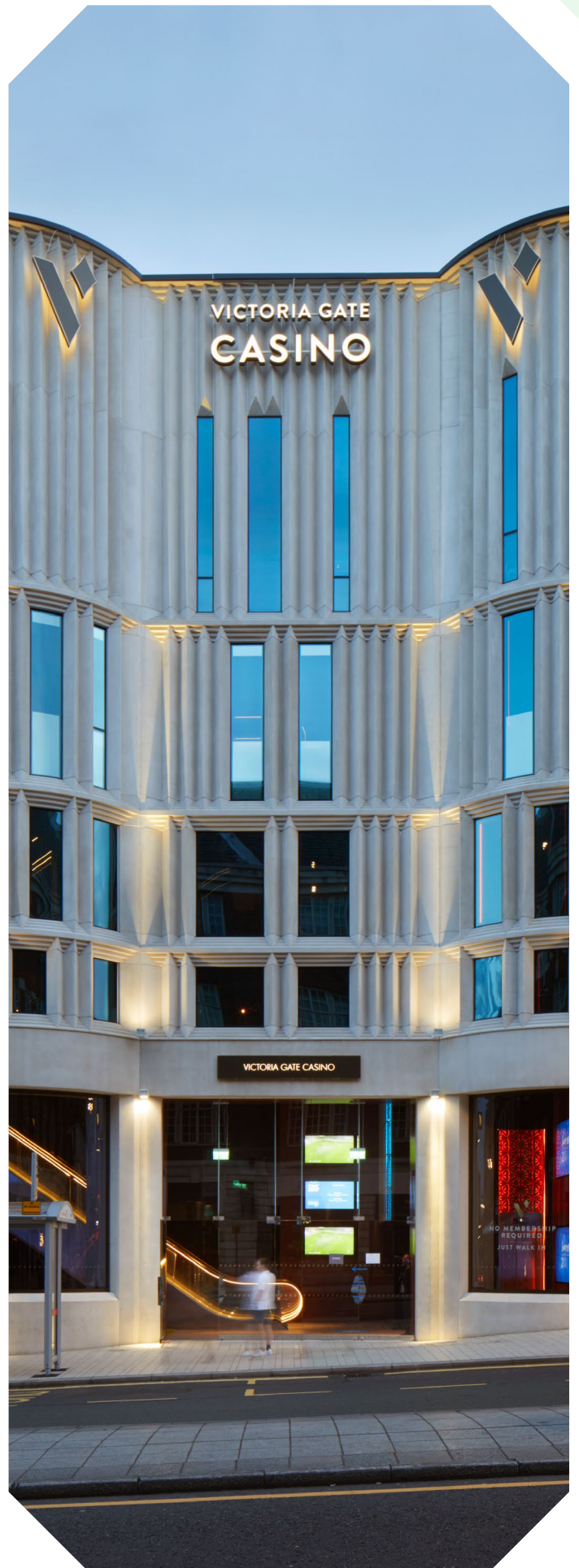
These included FSX 100 SSG (Structurally Silicone Glazed) curtain walling with regency gold anodised diagrid pressings and FSX 100 capped curtain walling (as clerestory windows) to the John Lewis rooftop restaurant and atrium.

The arcade rooftop restaurant also features FSX 100 curtain wall screens including feature curved glass units in channel glazing. In addition, the upper floor windows of the arcade feature Novastruct's FSX 100 faceted SSG entrance screens to the new casino and terrace, the ACS framing system to the multi-storey car park screens and doors.

The upper floor windows are also created from a bespoke SSG carrier frame in the concrete sub-frames with bonded glass units and film glazing.

ACME's director Friedrich Ludewig said: "Anodised aluminium was used throughout the scheme for most of the metal elements and for the glazing and doors. The Novastruct systems met the aesthetic and performance requirements well, especially the curtain walling to the John Lewis restaurant. This was a key design feature that needed to be right."

Rob Bennett of Bennett Architectural said: "The John Lewis rooftop restaurant presented some significant challenges for the Novastruct FSX 100 curtain wall system as well as from an engineering standpoint. Due to the complex geometry of the diagrid pattern, in conjunction with what was in effect, a freestanding wrap-around curtain wall, our design team had to engineer bespoke connection details, specialist support brackets and a hybrid carrier system that was integrated into the FSX 100 system. We worked in conjunction with a specialist glass engineering company to achieve this innovative solution."



Complex Detailing

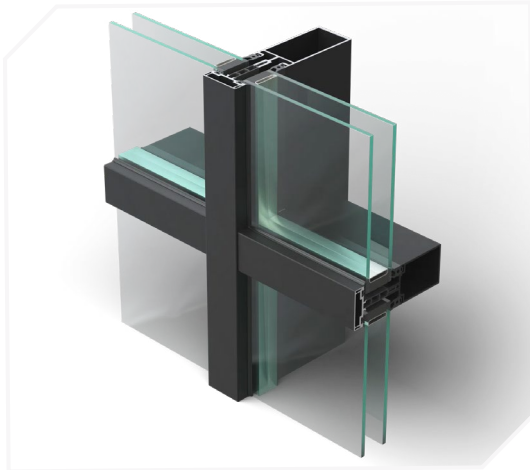
Rob Bennett added: "We also used AutoCAD and Revit 3D software to model the complete screen, including all the FSX 100 components which included compound mitre-cut profiles, bespoke connection details and bracket preps. The model also included the glass units, diagrid support brackets and pressings to make clash detection possible and ensure all items fitted prior to scheduling and manufacture.

"The project highlighted not only our innovation and technical competence but the flexibility of the Novastruct curtain wall system and the support provided by Novastruct's technical department."

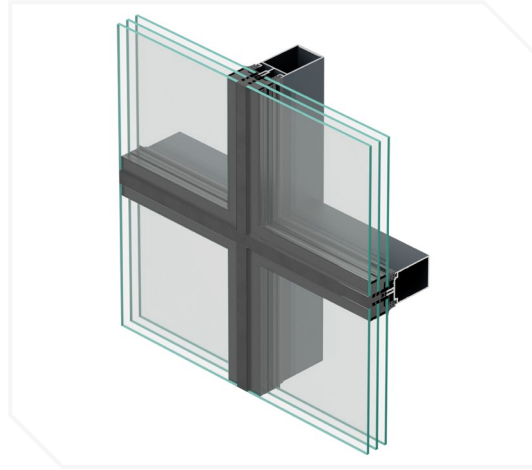
Victoria Gate won Retail Project of the Year at the World Architecture Festival and two awards at the Brick Awards - Commercial Building and Innovative Use of Brick and Clay Products. It was also commended worldwide as an urban regeneration project.



Product Specification Highlights



FSX 100 50mm Curtain Wall System



FSX 100 SSG Curtain Wall System



WSX 720 Reflex Open Out Casement Window

Project Photos: Jack Hobhouse

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