Case Study: Lanarkshire Beatson, Airdrie



Curtain walling, windows and doors by Kawneer feature on a high-spec cancer centre

Aluminium glazing systems from Kawneer have proved "pivotal" to the development of Lanarkshire Beatson, a particularly patient-orientated new cancer centre in Airdrie, which acts as a satellite radiotherapy facility for the Beatson West of Scotland Cancer Centre in Glasgow.

Building: Lanarkshire Beatson

Location: Airdrie

Architect: Keppie Design Main Contractor: Laing O'Rourke Installer: Architectural Glazing Systems



Kawneer helps mix state-of-the-art with stress relief

Installed by Architectural Glazing Systems, Kawneer's AA®100 zone-drained curtain walling, AA®541 top-hung casement windows (which incorporate a BRE Green Guide A-rated frame) and AA®545 medium-duty swing doors were specified by architects Keppie Design for the £22 million Lanarkshire Beatson project. Designed to BREEAM "Very Good" standards and funded by the Scottish Government's Health and Social Care Directorate, the new centre on the Monklands Hospital site in Airdrie is equipped with the most advanced technology to deliver the same world-class treatment provided at the Glasgow centre – primarily two state-of-the-art linear accelerators installed into dedicated shielded treatment rooms (bunkers). A third, radiation-proof decant bunker designed in conjunction with a radiation protection advisor allows seamless replacement and transition of the linear accelerators up to 10 years hence while other facilities in the state-of-the-art centre include a CT simulator and virtual simulation facilities. mould room and on-treatment review clinics.

Designed to meet demand for radiotherapy treatment over the next 10 years and to enable more patients to be treated closer to home, the new centre will enable around 80 patient treatments a day for people who require radiotherapy for lung, breast, prostate and colorectal tumours. The superstructure of the 3,000m² building is predominantly reinforced concrete with the radiotherapy bunkers and ground-floor slab formed in-situ while precast elements have been used where possible (columns, shear walls and first-floor slab). Steel frame construction was used for the first-floor plant rooms and some secondary elements. The external walls have been constructed using brick-slip and aluminium standing seam cladding systems both fixed back to SFS using aluminium carrier rails. The client had a clear vision that the new centre should be a bright, pleasant, patient-focused facility and Keppie's approach was to provide a calm and welcoming environment designed to reduce unnecessary stress for all those who will use the facility. The extensive use of [Kawneer's] glazing within the ground floor of the building lends a strong inter-visibility between the internal and external spaces, ensuring that users have exposure to natural daylight and access to high-quality, human-scale and semi-private garden spaces. This was essential to the underlying intent to create the very best possible healing and therapeutic environment within the building, through the integration of well-designed internal and external spaces.

Keppie's project architect David Morrison said: "Our decision to specify Kawneer was influenced by the contractor as Kawneer was on their supply chain but our past experience of Kawneer's products was also an influence. During the development of the design and specifications we met with Kawneer sales representatives to discuss options. The extensive glazing has been pivotal to creating a bright environment and ensuring that all patient waiting and sub-waiting areas have a direct connection with the outside garden spaces. As well as providing the required aesthetic, the capped curtain walling system utilised was able to meet the performance requirements in relation to both heat loss and solar control (to the south facing windows/curtain walling)."

The curtain walling and window frames were powder coated to match the aluminium cills, flashings and cappings used throughout the project to tie in as closely as possible with the aluminium standing seam cladding to the north block. The Lanarkshire Beatson has been shortlisted as a finalist in the Scottish Property Awards' 'Architectural Excellence' category for Public Buildings.









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