Kawneer glazing systems to feature on world’s first Passivhaus leisure centre

The complete portfolio of Kawneer products will be used at St Sidwell’s Point in Devon.

Work is expected to start shortly on the installation, on the world’s first Passivhaus leisure centre, of architectural glazing systems by leading UK manufacturer Kawneer.

The systems – two types of curtain walling, three types of doors, windows and brise soleil – will be installed by Kawneer-approved specialist sub-contractor AB Glass for main contractor Kier at St Sidwell’s Point in Exeter.

The 4,850m² project will replace an ageing swimming pool with an eight-lane national/county-standard pool and four-lane learner pool, both with movable floors, together with dry sports facilities including gym, café and crèche, and health and spa amenities.

Benefits of the Passivhaus design include a 70% saving on energy costs when compared to a current good practice pool, a 50% reduction in water use, outstanding internal water and air quality, excellent daylight levels and lower maintenance costs due to a high-quality building fabric.

Step up Kawneer’s Passivhaus-certified AA®100 capped curtain walling, which will be used around the building envelope and some locations internally, and RT®82HI windows which feature exceptional levels of thermal performance and airtightness, partly due to larger-than-normal thermal breaks.
These Passivhaus-certified products will be installed by AB Glass alongside Kawneer’s AA®100 FR and AA®720 FR fire-rated curtain walling and doors as internal screens, AA®190 TB external entrance doors, AA®720 standard and AA®720 HI doors internally and externally, and AA®130 brise soleil.

The flagship in Exeter City Council’s £330 million regenerating city centre masterplan, which also includes housing, offices, restaurants and retail, is expected to open to the public, alongside a new bus station, in the spring of 2021, and attract more than 500,000 visits a year.

Exeter City Council and Passivhaus designers Gale & Snowden architects have delivered several Passivhaus multi-unit housing schemes but this is the first commercial Passivhaus development they have embarked on together.

The hybrid construction comprises an in-situ concrete frame with aerated concrete blockwork infill and mineral wool batts on an insulated in-situ ground floor slab. The design also features a metal standing seam roof on CLT (Cross Laminated Timber) and glulam beam structure and a liquid-applied warm roof on a steel frame structure.

The Passivhaus Institute is acting as Passivhaus certifier and modelling the design in a bespoke multi-zone PHPP (Passive House Planning Package). As such, the energy performance figures are different to standard Passivhaus calculations due to the high pool and changing area temperatures.

Alan Brayley, managing director of AB Glass, who will have a team of up to 30 on the project for an estimated 30 weeks, said: “We are thrilled to have been awarded this contract. This is an innovative project that we are very excited to be involved in. The environmental credentials of this building are such that we believe some of the standards and skills we will be implementing here will be in high demand in the future as many more buildings look to emulate what we see here.”

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