



Commercial Case Study

Epwin Window Systems specified for refurbishment programme at Cumbria secondary school

Project:
John Ruskin School

Sector:
Education

Epwin Window Systems Approved Window Contractor:
World Group

Contractor:
Top Notch Contractors Ltd

Product:
Epwin Window Systems Curtain Walling and Optima Sculptured PVC-U Window System

Location:
Coniston, Cumbria

EpwinTM
window systems

48 Optima casement windows, 24 insulated 70mm insulated panels and 240 metres of Epwin Window Systems' curtain walling were installed at the John Ruskin School as part of the school's refurbishment programme.

A thriving community comprehensive secondary school, John Ruskin is situated in the heart of Coniston, within the Lake District National Park in Cumbria.

The school's windows and curtain walling system were originally constructed from single glazed timber and were in a very poor state of repair. The single glazing meant very poor thermal performance, which contributed to higher energy bills and excessive carbon emissions in the winter. In the summer, the solar gain and the fact that some of the windows could no longer be opened meant classrooms were becoming too hot with limited ventilation, which was negatively impacting on the learning environment.

The school had received funds to upgrade the windows and curtain walling system as part of a wider programme of refurbishments. The leadership team were keen for upgrades

to happen before the next winter. They were also keen to avoid disruption to lessons so the project – from survey to completed installation – needed to happen in a three-week period during the school's 2022 summer holidays.

The school appointed experienced local contractors Top Notch Contractors to manage the full programme of refurbishments. The window and curtain walling element of the contract was awarded to World Group. Based in Carlisle, World Group is a family-owned business with a highly skilled workforce experienced in carrying out commercial contracts.

Epwin Window Systems delivers the specifications required. The project required a 48 casement windows and a new curtain wall screen consisting of 24 insulated 70mm panels. The curtain wall section was 240 metres with a total screen area of 140 m².

The purpose-designed Epwin Window Systems Curtain Walling System combines quality, sustainability, aesthetics, price and performance – making it the ideal choice when creating large areas of fenestration. This high-performing thermally broken aluminium system is PVC-U clad both internally and externally, which means colours and materials can perfectly match a building's windows for a seamless end result which was important on this project. Furthermore, the Curtain Walling system incorporating Epwin Window Systems' window products, offers a cost-effective solution compared with a full powder coated aluminium system, with typical savings of between 10%-15%. And in the current economic climate, cost savings to the education or local council sectors is crucial.

John Ruskin School's exposed location in the Lake District National Park meant the specifications were demanding. The products needed to be able to withstand anticipated wind speeds of 98 mph, have water resistance of 300 Pa and air permeability of 300 Pa. A minimum U Value of 1.6 W/m²K had to be achieved to meet Part L of Building Regulations.

World Group worked closely with Epwin Window Systems' Specification Manager Gary Millership who designed a solution that met the exacting project requirements. The solution gave a U value of 1.3 W/m²K, exceeding the requirements of Part L of Building Regulations and helping to make the school more thermally efficient by design. In order to meet the requirements of Part F of Building Regulations, which covers building ventilation, the number of opening windows were increased, and additional trickle vents were incorporated.

A further layer of complexity was revealed at the survey stage as some

of the curtain walling would need to be fixed to a steel beam. To allow this to happen, 250mm² plates were added to the busy fabrication schedule.

A carefully scheduled and managed design, manufacture and installation schedule

The strict three-week timescale for performing the survey, ordering materials and arranging the fabrication of the curtain wall and windows meant there was no room for error. From the initial design and pricing, through to survey, fabrication and installation, the technical team at Epwin Window Systems and the commercial management team at World Group worked together closely to ensure nothing slipped from the schedule.

Happily, the experience and expertise of all involved meant that the project was successfully completed on time.

A more thermally efficient school environment

The new windows and curtain wall system have dramatically improved the school's building environment. Considerably enhanced thermal performance means the classrooms stay cooler in the summer. In the winter, the school has reduced heating costs and lower carbon emissions, which is helping to reduce overheads as well as the impact on the planet.

Gary Millership concluded: "When you consider that this project was awarded to World Group at the eleventh hour, with the aim of installing the new curtain wall screen and windows during the school summer holidays, this was a great success and a testament to all parties involved. The professionalism and skill of the installation team at World Group was second to none and we are delighted to have helped them deliver this firstclass refurbishment project."

Before



After



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