

The refurbishment of Kay House



Prior to development, Kay House was a dining and social block that served as halls of residence. It was a 1950s build with exposed concrete frame with masonry infill, single glazed windows and uninsulated flat roofs. All of the heating services were original, inefficient (electric water and space heating), and near end of life.

The aim of the refurbishment was to provide a new base for music and learning activities. With an investment of £2.3 million, the state-of-the-art new facilities included a recital hall, sound-proofed band practice room, cabaret space, chamber music room, jazz bar and sound studio that can record events in building.

Some of the energy efficient aspects installed in Kay House during the refurbishment include cavity wall and roof insulation, high efficiency condensing boilers, thermostatic radiator control, low e-solar control double glazing, variable speed heat pumping, BEMS control, instantaneous electric hot water, full occupancy detection lighting control, variable air volume based on CO₂ concentration to mechanical ventilation to the concert hall, zoned ventilation, efficient eclectic appliances in cafe and electrical sub metering on all main circuits and lighting.



The EDS team collecting the Greenbuild Award

Benefits of the refurbishment

Building performance—the building now has a Display Energy Certificate rating of B (previously G) and achieved a BREEAM rating of Very Good.

Improved space management - the refurbished building is now an adaptable energy-efficient world-class music facility and a significant new resource for use by both students and the wider community. It is flexible as a teaching facility in the day and as entertainment space in the evening.

Costs savings – the building saves around £12,000 per annum.

Carbon savings (Emissions rating) – the annual CO₂ savings are 39 tonnes.

Recognition - the project won the 2012 Green Build award in Education Buildings Retrofit and judges commended the project as “an inventive design which provides for a variety of uses and brings a 1950s building up to modern best practice”. The Greenbuild awards recognise excellence in sustainable buildings and place particular focus on projects that illustrate the understanding and importance of the building