

Finalist's case study

The University of Worcester Construction & Refurbishment Historical building with a celebrated past providing new inspiration and outstanding accommodation

Section 1 About the project

Summary

The Worcester Royal Infirmary was the primary teaching and surgical hospital in Worcestershire until its closure in 2002. Lying derelict for 8 years it has now been sensitively restored to provide attractive modern teaching spaces. The grade 2 listed building, which dates from 1754, has an important history and was where Sir Charles Hastings founded the British Medical Association in 1832.

Project partners

BDP

7 Hill Street
Bristol BS1 5RW, United Kingdom

Section 2 The results

The problem

Because of its poor condition, its grade 2 listing, the potential cost of refurbishment and the public attention that would accompany the refurbishment of a building so important to the people of Worcester, commercial developers showed little interest in the building. Acquired in 2006, demolition of a non-viable, unimportant modern extension was undertaken in 2007. Refurbishment work began in 2010 and was completed in 2011. The building, now called Charles Hastings Building, has been sensitively restored to much of its former grandeur and provides valuable teaching, seminar, offices and social spaces that are functional, comfortable and attractive. The former Worcester Royal Infirmary is now the much admired home of the successful University of Worcester Business School.

The approach

The design brief was to be sympathetic to the former life and history of the building, retaining as much of the original form and features as possible, also allowing the spaces to be used for up to date and varied methods of teaching within a pleasing environment. There is little doubt that most other potential uses that could have derived from refurbishment of the building – residential apartments, hotel rooms, offices etc. - would have



Profile

- A Higher Education Institution
- 10,000 students
- 1,000 staff
- Urban campus

Category supported by

Turley

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necessitated dividing the long, spacious former ward rooms into smaller cellular units, thereby destroying the scale, space and grandeur inherent in the historic form and design of the building.

Our goals

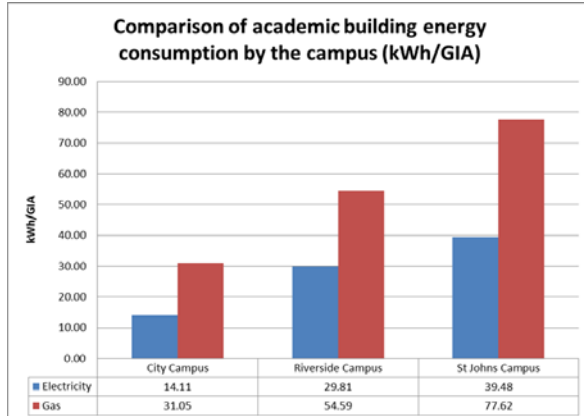
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Obstacles and solutions

Listed building	All M&E Services and IT infrastructure is distributed around the building within galvanised steel trays and surface fixed exposed conduit. This principle ensured that no damage was caused to the fabric of the building during installation. The services are easily accessible for maintenance/upgrading and can be removed at any time in the life of the building without causing material damage. The cable routing has been installed to a high standard making it an attractive feature that celebrates modern technology within an historic setting, rather than something to be hidden.
Lowering lighting demand	The large windows also provide a significant degree of natural light, thereby avoiding the need for artificial light during most of the day, except during extreme conditions in winter. The majority of glazing is original. The large windows also provide panoramic views over the Severn Valley to the Malvern Hills.
Artificial cooling	Natural ventilation is provided by operation of the original sash windows situated along the full length and at each end of all the rooms. In this way, ventilation is controllable locally and immediately by the occupants of the rooms. The large storey heights and full height windows ensure that heat and stale air is exhausted through the top opening whilst fresh air is introduced at the bottom.
Financial savings	In keeping with the listed status of the building and to avoid replacement costs, as many original features as possible were retained, including: lime plaster on timber lathes to walls and ceilings, timber staircases, timber sash windows, cast iron radiators, 1930's terrazzo floor finish, cast iron rainwater downpipes.

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Performance and results



Charles Hastings and the smaller Mulberry House staff office accommodation block make up the University City Campus academic buildings. It is the lowest user of energy for all comparable general teaching and office space buildings throughout the University estate. It receives a DEC C rating currently 68.

Section 3 The future

Lessons learned

Re-using an existing derelict building, especially when transferring them into the educational sector from previous uses is highly sustainable by prolonging the life of existing structures; this is a very cost effective approach. Charles Hastings has been sensitively restored to provide 3,258m² of attractive modern teaching spaces, a health and wellbeing centre, café and museum. A total refurbishment cost of £6M has resulted in a cost relative to net usable floor area of £1,841/m². Cost relative to a GIFA of 5,437m² was £1,100/m². A new build providing the same accommodation and facilities would have cost in the region of £2,300/m².

Sharing our project

Accommodated within the Charles Hastings Building is the Infirmary Medical Museum an important facility that records the former life of the building through the centuries from 1754 to the present day. Entry to the public is free, bringing more school children and others regularly into the Business School.

What has it meant to your institution to be a Green Gown Award finalist?

Being shortlisted provides independent recognition of our approach of re-using existing buildings, especially when transferring them into the educational sector from previous uses is highly sustainable, as it prolongs the life of existing structures. These awards are very significant in raising the profile of our commitment to achieving sustainability through innovative, practical projects and solutions benefiting society as a whole as well as our students and staff.

Further information

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