

Finalist's case study

Nottingham Trent University Construction and Refurbishment 'A seamless Transition Between Old & New...'

Section 1 About the project

Summary

In a city where sustainable development is promoted in policy and action, and within a university where embedding environmental awareness and activity is key, the Newton Arkwright project has blended the old and new seamlessly. Comprising three elements, the 1950's built Newton building, the 19th century Gothic-style Arkwright and the modern Central Court architecture provide a striking learning and teaching environment.

Project partners

Financially the project was managed and arranged internally via NTU. The principle contractors were Bowmer and Kirkland whilst Hopkins were the architects.

Section 2 The results

The problem

These linchpin buildings were inefficiently used and required updating in order to be useful in the future.

The approach

In 2006 NTU's most exciting construction and refurbishment to date took place on the Newton and Arkwright buildings on the City Site. The refurbishment and construction was completed in a two phase approach costing £90 million and in May 2011 Sir David Attenborough officially opened the building. Throughout the process internal departments and schools were consulted to identify their wants and needs and a working relationship with Nottinghamshire Wildlife Trust was established as a result of the nesting Peregrine Falcons on the building top floors.

Our goals

To provide a highly utilised learning environment that would enhance the university image, improve student recruitment and fulfill the university's construction and eco credentials. On a broader scale it was also a goal to ensure the building would be part of the Nottingham City centre makeup and provide for generations.



The University of
Nottingham

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Profile

Example:

- HEI
- 25,000 students (includes full and part time students)
- 3000 staff
- 3 Campuses, Urban and rural

Category supported by

Turley

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Obstacles and solutions

- Grade II* listed buildings restrictions: Alternative methods of refurbishment and construction were adopted to fulfill user requirements whilst preserving the façade of the building, for example, internally glazing the 2172m² as part of the triple glazing scheme.
- Nesting Peregrine Falcons: Mitigation managed by NTU working with Nottinghamshire Wildlife Trust meant that despite work being carried out the birds remained on site throughout the process and successfully reared chicks.
- Increase use - Increased consumption? There was expansion of the Nottingham District Heat (NDH) System during the refurbishment, NDH uses 16% less CO₂ than gas fired boiler. The sedum roof on the building boasts efficient insulation properties and the triple glazing installed improved temperatures throughout the building. Other features such as the smart lifts and the BMS that controls the heating and cooling of the building impact greatly on the efficiency of this, now, highly utilised building.

Performance and results

Student feedback highlights that 'the Arkwright studios are great spaces', and as a result of the refurbishment the frequency in teaching rooms has doubled. The building is more than a teaching and learning space, it is also a place to meet colleagues, lecturers, purchase seasonal, locally sourced nutritional meals, utilise welfare facilities in line with NTU's commitment to encourage sustainable transport methods, and recognise NTU's main aim to shape lives and society. Externally the building was recognised for its architectural excellence through the Royal Institute of British Architecture (RIBA), the RIBA president at the time (2011), expressed that the winners such as NTU 'demonstrate that even in constrained times committed clients working with talented architects can achieve architectural excellence'.

Section 3 The future

Lessons learned

The success of the building accomplishments has inspired current and future regeneration projects on the estate. The building highlights the university's commitment to become increasingly sustainable and demonstrates the ability to holistically encompass various elements of sustainability whilst creating a central hub and landmark within, not just the university, but also the city.

Sharing our project

Since opening the building NTU have hosted a number of events showcasing the facilities. The NTU website dedicates a number of pages illustrating methods of restoration work and features that the building boasts, this is available to the public in addition to photographs of the work in progress and the teaching and social spaces upon completion. A number of tours have been offered and delivered to external companies looking to replicate features of the iconic redevelopment.

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

Being listed as a finalist for the Green Gown 2014 Award is a great achievement. The listing is seen as recognition of the commitment demonstrated by the university to sympathetically restore the listed buildings on the estate to a standard that fulfills the wants and needs of the generations of users to come.

Further information

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