Green Gown Awards 2013

finalist's case study

Dissemination supported by: HIGHER EDUCATION FUNDING COUNCIL FOR ENGLAND hefce

Nottingham Trent University
Construction and Refurbishment
Saving Space in Science

NOTTINGHAM TRENT UNIVERSITY

Profile

- HEI
- 28,000 students (includes full and part time students)
- 3000 staff
- Clifton Campus- Urban

Category supported by

cubo College & University Business Officers

Section 1 About the project

Summary

The Rosalind Franklin refurbishment, based on the Clifton campus has been a cornerstone in the School of Science and Technology teaching and learning facilities at Nottingham Trent University. Design and planning have accommodated maximum utilisation and minimum impact on the surrounding environment throughout the project.

Project partners

The Rosalind Franklin refurbishment project was managed and run by NTU Teams and the 160 solar panels on its South facing roof came as a result of funding from Salix. Visits were made to other universities to review their approach in laboratory design and implementation of technology, this allowed NTU to gain a rounded judgement of a system most suitable for their needs.

Section 2 The results

The problem

As the School of Science and Technology has a significant presence on the Clifton Campus at NTU, it was recognised that the main existing building was becoming outdated for the method of hands on teaching adopted at NTU. The structure of the building being used suited general practice teaching however in a science based approach the utilisation of the space was low and the general appearance of the teaching space was below that of future student expectations.

The approach

The opportunity to utilise the ex-Toyota training centre on the Clifton Campus was of great appeal, this ensured that the sites overall utilisation would be improved. The needs of the users would be designed into and around the building, although the original footprint of the building did not suffice, an extension to the current building in preference to a complete new build was favoured. The environmental impact was also of high consideration during the refurbishment process.

Our goals

The main goal of this refurbishment was to develop a science building that would accommodate a series of undergraduate Bioscience and Chemistry courses in addition to facilitating pioneering research conducted within NTU working with x-rays. The building should improve utilisation, stand out to future students and have a minimal impact on the surrounding environment.

Obstacles and solutions

Utilisation of a current building with existing services not all of which are suitable for the end building design.	Multiple teams worked together to ensure that all facilities and needs were met within building. As much as 80% of the building was reused, internal doors, ceiling tiles, carpets, toilet blocks and blinds have been kept to minimise waste and the impact on the carbon footprint of the building.
Developing a level 2 containment lab facility	All workbooks and commonly referenced resource books have been made available electronically ensuring that the students, who are allocated a tablet each when working within the lab, have access to all the necessary resources whilst within the lab and have access to all documents they createand save when away from the lab. Electronic resources avoid paper items being taken into and out of the containment lab.
Utilising one large open space to improve utilisation whilst maintaining a top standard student experience.	Student earpieces and lecturer microphone headsets are the centre points of technology that allows a multi teaching method.40 radio channels set between the ear and microphone pieces ensure that there is minimal interference between simultaneous sessions.

Performance and results

The work carried out has resulted in Rosalind Franklin being an example of how NTU refurbishments can holistically address environmental factors from the offset; produce a first class learning environment; and accommodate a variety of building users. The environmental impact has been kept to a minimum without restricting or removing the practical experience that the students require to become leading professionals of the future.

Section 3 The future

Lessons learned

Working with a range of interested parties internally, including technicians, academics and students, as well as learning from others within the sector has enabled NTU to provide facilities that enhance the courses on offer to students NTU now provide facilities that will develop the professionals of the future.

Sharing your project

Rosalind Franklin as case study has been shared and showcased in a number of ways. Presentations have been delivered at university wide events, such as the Safe, Successful Sustainable Laboratories Conference,

showcasing Rosalind Franklin as a cornerstone facility for science teaching and learning and offering the opportunity for Q&A from the sector. Technicians working across NTU are part of wider groups such as the University Bioscience Managers' Association; events and meetings allow opportunity to share experiences and advice with others. Since the opening of the building, by Professor Robert Winston, NTU have promoted the building via the institution webpage and allowed schools and other institutions to tour and experience the environment for themselves. A feature within the publication 'Laboratories for the 21st Century in STEM Higher Education- A compendium of current UK practice and an insight into future directions for laboratory-based teaching and learning' is another way in which the building achievements have been disseminated.

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

To be a finalist is recognition for NTU of a huge achievement emphasising the institutions ability to utilise the estate to its maximum potential without compromising the user experience. Externally being a finalist demonstrates to prospective staff and students that NTU are leaders within their sector with the highest standard of facilities.

Further information

http://www.ntu.ac.uk/apps/news/136251-23/New_Developments_Keeping_The_Campus_Green_And_Introducing_New_Teaching_Met.aspx