The University of Wales at Bangor has a mixed building stock, with over half dating from the 1960’s. An estate analysis was carried out in 2000 which found that the accommodation available exceeded current needs, and that the condition of many of the buildings nearing the end of their useful life was a strategic concern. Hence this proposal for demolition of two existing buildings and the construction of a new block to house existing departments. This building – the Environment Centre for Wales - would be the hub of environmental research within Wales and is a joint project between NERC (the government funded Natural Environment Research Council) and the university. A phased construction and demolition process is planned, with the Orton building demolished last to create a new green space.

There is a commitment to high quality design from the client and the architect. The building will be ‘badged’ to advertise environmental issues and solutions, and will be designed to achieve a BREEAM ‘Excellent’ rating. Most of the building will be cooled with passive ventilation but the laboratories will have mechanical air conditioning because of their specific requirements for a controlled environment. The development will include solar electricity generation and solar water heating; a CHP (combined heat and power) plant; ground source heat pumps; and rainwater harvesting and reuse. Local materials and craft-based technologies will be highlighted in the design.
The massing of the new building reflects the very different massing of the adjacent buildings. The design responds to the site topography and the Campus Plan in its orientation, location and layout. Laboratories and offices are split according to function, on either side of a central atrium, with minimally fenestrated laboratories to the north and timber-clad offices facing the south and the views. This reflects the desire of the NERC-sponsored CEH (Centre for Ecology and Hydrology) to be separate from, but integrated with, other departments. The layout plan encourages the economical use of space by sharing facilities. The highly glazed lower ground floor is open to the public and incorporates a café and seminar rooms.

The local planning authority (LPA) support this application, although there is some concern about possible traffic and parking problems, with the proposed new Asda development across the main road. The LPA were assured that this campus development would not affect traffic rates into and out of the university.

Panel's Response

The panel commends the sustainable development approach of the architect and in particular the flexibility designed-in to facilitate future refurbishment. The modular construction, generous floor-to-ceiling heights and minimum dedicated circulation space are all part of this agenda.

However, the question arises whether such a rich palette of materials and finishes is appropriate. At present, materials appear to collide and overlap in a slightly awkward way. The entrance end elevation in particular needs refinement. The overall effect would be improved if the junctions were simplified and the façade better articulated. The progression of the design should focus on developing the two main contrasting volumes, allowing other considerations to recede in importance. The glazing forms and shapes of the timber and masonry components should be differentiated from one another.

The decision to demolish is justified in terms of the poor quality of many of the existing buildings, an excess of accommodation and the creation of a new green open space as a focal point for the campus. The latter will feature a set of different Welsh habitats with mixed woodland to the road frontage, rising through a herb-rich meadow area in the centre, to moorland and mountain species of plants closest to the new building. This space is seen as a teaching resource in itself and will relate to the research activities taking place within the building. Ideally this piece of landscaping would ‘bleed’ across the road towards the new Asda development.

Construction materials with minimum overall environmental impact should be specified for this flagship environmental building, matched with the need to be robust and price sensitive. The inclusion of biocomposite materials such as fibreboards and flax or hemp based insulation would be an ideal opportunity to test and market some of the products of ongoing materials research.

Summary

The panel congratulates the client on their aspirations and the development of a masterplan. Within that, it is important to set some common themes to unify future designs.
and set the palette of materials. The first scheme to be implemented after the masterplan will inevitably set future standards, so high quality at the outset is important.

We are confident that the current proposals, based on a sound brief, high aspirations and a competent design team will deliver an exciting and innovative building and offer our strong support for this development.

End