

Sustainable building – Castle College South, Sheffield City Council

- **Local authority area:** Sheffield City Council
- **Stakeholders:** SCC development management officer, The Sheffield College (developer), Jefferson Sheard (architect), Finnegan (contractor)

Summary

This project involved the sustainable redevelopment of The Sheffield College's City College South site, at Granville Road, Sheffield. Planning permission was granted in 2005, and parts of the campus were occupied from 2007/8. The scheme was completed in 2010.

Key learning points

- Roof top turbines can be difficult and expensive to maintain. It may not be a good idea to have them above a glass atrium in case they break.
- There is a need to consider future residential development when siting turbines – the adjacent school located a caretaker's cottage close to the boundary with the college, and there is an issue with noise from the turbines.
- Turbines can work in valleys, if designed and sited to make use of the funnel effect of wind.

Background

- The Sheffield College needed to redevelop its Castle College South site, and wanted to do so in a sustainable way.
- The scheme included the following sustainable design features:
 - 3 x 15kw roof-mounted wind turbines
 - 1 x 6kw pole-mounted turbine
 - Sedum green roofs to the nursery and top of café area
 - Solar and wind powered lighting to the external areas
 - Photovoltaic panels to the south façade of the building
 - An atrium for solar gain (facing west-south-west)
 - Natural lighting and ventilation
 - A SUDS attenuation pond, so there is no run-off from the site
 - Existing college buildings insulated and re-clad
 - Cycle parking
 - Improvements to the adjacent tram stop, including and enhanced

- public zone to encourage use of the tram
- A landscaped forecourt area

Method

- The applicant initially approached the Council for pre-application advice on what type of development would be appropriate on the site. The Development Management officer, Margaret Smith, suggested a number of sustainability features that could be included.
- The Sheffield College were also keen to develop a sustainable campus, and agreed to incorporate all the features suggested. The architects for the project, Jefferson Sheard, were also keen to design a sustainable scheme.
- There were no real barriers as the drive for environmental sustainability came from all stakeholders.
- The planning application took no longer to process than a standard application at the time (2005).

Result - Key outcomes and impact

- Sheffield College created a sustainable development, incorporating a number of environmental features that satisfied the needs of all key stakeholders.

Key contact

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