

## Bents Green BSF Scheme Summary

**Commencement on site:** *November 2009.*  
**Expected Completion Date:** *May 2011.*  
**Scheme budget:** *£13,200,000*  
**New build teaching - 3018m<sup>2</sup>, Refurbished teaching - 1100m<sup>2</sup>,  
Refurbished residence - 963m<sup>2</sup>**

Bents Green School is located on Ringinglow Road, approximately 4.5 miles west of the City Centre. The school has a local and national reputation as a centre of excellence in the education of children and young people with communication and interaction difficulties.

The site is accessed via a gated driveway, which sweeps its way past a single storey gate lodge and former coach house, both of which were constructed in the 1770's. The coach house is a stone fronted, substantial two and three storey building, currently used as residential accommodation. This is to be retained and refurbished to provide a facility in line with current Care standards.

Attached to the coach house is a single and a two storey extension and link block that was constructed in the 1960's, which contains the educational area. This has a mixture of a wood and stone facade beneath a slate roof. This building is to be predominantly demolished with the two storey flat roofed block at the far end being retained and refurbished to form post 16 accommodation. Following demolition a space will be created between the existing coach house and post 16 block, and it is this area that will be developed to provide the new educational facility. The new build facility will be two to three stories in height. To support the objective of having a tranquil and calm facility, the building will be predominantly timber clad to blend with its wooded surroundings, and the timber will be offset by a variegated grey 'multi' brick forming a robust plinth. All the main roofs are proposed to have a habitat.

Access can also be gained to the rear of the site from Folkwood Grove, where the sites main car park is located, together with six garages. The intention is that this is configured to ensure that the pedestrian entrance achieves total separation from the vehicular entrance.

The external design is to be developed to create a landscape that is an important contributory educational resource for the school. This will be achieved by delivering the following elements:

- Welcoming arrival with a separate vehicular and pedestrian entrance and route of access
- Informal soft and hard play areas, including courtyards
- Open greenspace
- Kick about space and adventure play ground area
- Existing mature trees retained where possible
- Formal tree and shrub planting
- Cycle provisions
- Boundary and security fencing

At the heart of the design approach for the campus is the desire to provide a place of tranquillity, order, and calm, to support the students and provide the spaces they need to progress on their social communication learning journey. This is most evident in the new building, but this approach will run through the refurbishment works too, particularly in the connections to the new building and associated revisions to the circulation spaces. The layout of the buildings is designed to be simple, with entrances and vertical circulation readily identifiable. Underpinning the whole development is the necessity for the proposal to be sustainable in environmental and social terms. The following specific measures have been integrated into the proposed development:

- Extensive reuse of existing structures
- Reuse of materials salvaged from demolition (e.g. reclaimed stone to be re-used in gabion walls)
- Retention of the maximum practicable quantity of existing landscaping and trees, with special attention paid to retaining the highest quality specimens
- Provision of residential care home spaces (not previously available in the city) will support the local autistic community and prevent young people having to move away from their families and communities in order to find care
- Use of environmental modelling to maximize natural ventilation and daylight through building design
- Provision of habitat roofs
- Provision of recreation decks on roofs, reducing the requirement for hard landscaping
- Use of locally sourced materials and/or BRE “A” rated materials wherever possible
- The variation of glazing area and specification to suit the required internal environment
- Use of thermally efficient high-performance timber windows in the new-build and residence
- Provision of external solar shading to control solar gain through sensitive elevations
- Provision of high levels of insulation in the new-build, informed by the use of thermal modelling to optimise building envelope u-values
- Improvements to thermal performance of existing building where elements are refurbished or replaced
- Design for inherent robustness & longevity
- Incorporation of local project renewables as teaching resource
- Provision for incorporation of further renewables at a later date
- Incorporation of rainwater harvesting and recycling
- Use of rainwater attenuation to control rainwater run off
- A commitment to achieving a BREEAM “very good” rating
- Provision of automatic lighting system to supplement and enhance daylight levels
- Utilization of natural indirect light to provide diffused light as the primary source of illumination
- Design of artificial lighting to supplement any insufficient daylight levels
- Provision of automatic dimmable lighting controls to provide a smooth transition between varying light conditions
- Provision of infrared movement detectors with delay settings within ancillary areas

## Facts & Figures

- The building cost in £/m<sup>2</sup> is £908/m<sup>2</sup>
- Building services costs in £/m<sup>2</sup> is £435/m<sup>2</sup>
- External Works Costs in £/m<sup>2</sup> is £69/m<sup>2</sup>
- The gross floor area for the completed new & refurbished building is 5218m<sup>2</sup>
- The total area of the development site including existing sports pitches is 15083m<sup>2</sup>
- The total area of teaching space is 1702m<sup>2</sup>
- The total area of circulation space is 1271m<sup>2</sup>
- The total area of storage space is 173m<sup>2</sup>
- The predicted electricity consumption is 40 kwh/m<sup>2</sup>
- The predicted fossil fuel consumption in kwh/m<sup>2</sup> is 150
- The predicted water use in m<sup>3</sup>/person/year is 4.48
- The % predicted water use to be provided by rainwater or greywater is 0.15%