

BATTLE McCARTHY®

Consulting Engineers & Landscape Architects



PROJECT:
BUILDING SCHOOLS FOR THE FUTURE, HULL

CLIENT:
ESTEEM

ARCHITECTS:
HKS Architects, JM Architects and Surface Architects

BM SERVICES:
Sustainability Champion

PROJECT VALUE:
£90m

CONTRACT DATES:
November 2008-July 2009

PROJECT STATUS:
Shortlisted for Final Selection Process.
Wining team to be announced in September 2009

DESIGN BRIEF

Battle McCarthy are part of the design team involved in the development of two schools as part of DfSE's Building Schools for the Future program, Winifred Holtby & Tweendykes and Archbishop Sentamu Academy

Battle McCarthy's role involved facilitating an integrated approach to the design of each school by ensuring that appropriate Economic, Social and Environmental issues are integrated effectively and with the right level of importance within the development of all proposals.

The primary aim was to develop the core principles and overarching goals to be achieved by the schools plus identifying the specific requirements of each development.

Through a series of meetings with the design team Battle McCarthy produced a Sustainable Development Manual (SDM) built on the work of the Regional Spatial Strategy and Hull Development Framework and in reference to BREEAM for Schools 2008, the constraints and opportunities of the sites and the desires of numerous stakeholders as well as with the particular skills of the design team. The result balances the needs of all the Economic, Social and Environmental issues that will affect each and every development .

- Local, National and International policies including sustainability checklists.
- Global, National and Local precedent studies
- The needs and desires of the end occupants and key education stakeholders
- Specific Best Practice guidance that relates to the sites and intended occupation
- The regional climate – environmental, social and economic
- The specific opportunities and constraints of each site and its immediate surroundings

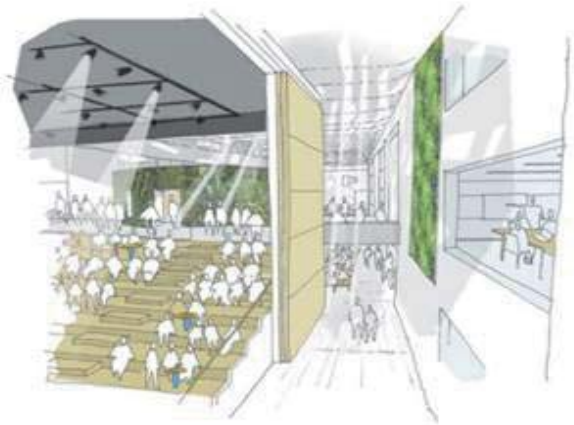
The SDM has been used to guide and provide focus to all of the teams ensuring a consistent and uniform approach but also ensuring that the right response to sustainability is achieved for each school.

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Since production of the SDM Battle McCarthy have been responsible for overseeing and facilitating the responses monitoring each approach to ensure it concurs with the core principles and overarching goals outlined.

Battle McCarthy was also responsible for the following:

- Ensuring a constructive collaboration of team members with a common purpose to produce sustainable solutions that are relevant and worthwhile
- Enabling cross fertilisation between design teams and the symbiosis between solutions
- Providing a resource to promote ideas and help identify solutions
- Focusing the attention of the design teams in the appropriate areas
- Forming a common interface for each team with the key stakeholders ensuring their issues are addressed throughout the framework
- Providing a consistent means of measurement amongst the schemes for ease of understanding by stakeholders



KEY SUSTAINABLE ACHIEVEMENTS

- Detailed analysis and response into the environmental qualities which make a school, pupils and staff, healthy and productive
- The Schools are committed to achieving a BREEAM rating of Very Good and currently achieve 'EXCELLENT'
- Incorporation of ecological features and building systems to actively promote sustainability in use
- Reduced energy consumption through bioclimatic design measures including earth tubes, environmental atria and thermal mass
- Carbon reduction strategies to reduce the total building CO2 emissions by over 60% (against a standard Building Regulations 2002 Compliant school)
- 35%-45% of the building's energy demand shall be supplied through on-site LZC energy sources
- Consideration of the use of CHP for on-site and off-site energy supply
- The school incorporates leak detectors, leak management, low water fittings and rainwater recycling to minimise water consumption.
- Site wide surface water strategy visibly integrated with the landscape and with the open space design
- 100% recycling of organic on-site waste and provision for recycling throughout the school
- Material selection based on whole-building assessment and balance material impact against comfort against durability, etc
- Provision of 280 bicycle stores (approximately 15% of total school population), sufficient showers and lockers for 100% of the pupils
- Public consultation to engage the public and potential users
- Life long educational learning and training facilities provided with flexible spaces
- Provision of numerous covered areas i.e. winter gardens, agora etc that incorporate nature, provide large levels of light and solar access but provide protection from the rain, wind and cold so that the enjoyment of being outside amongst nature can be extended throughout the year
- Life Cycle Value Appraisal including how it works today and in the future

