

# BREEAM BESPOKE

## BLETCHLEY LEISURE CENTRE



### About the building

The construction of the new Bletchley Leisure Centre for Milton Keynes Council is central to the Council's strategy for regenerating Central Bletchley, which also includes a multi-storey car park, public realm improvements and road re-alignments.

The facilities in the new leisure centre include a 25 m competition pool, four squash courts, sports hall, health and fitness suite, dance studio, café, indoor bowling facilities and multi-purpose function rooms.

From the outset Milton Keynes Council sought to establish a sustainable approach to the regeneration project and set a target BREEAM rating of Excellent for the leisure facilities.

### Key facts

BREEAM rating:	Excellent
Score:	79.60% (Design Stage), 79.64% (PCR)
Size:	The gross floor area is 9572 m <sup>2</sup> , the total functional area for the purpose of the BREEAM assessment is 6212 m <sup>2</sup>
Stage:	Design and Post-Construction
BREEAM version:	BREEAM Bespoke 2006

### Overview of environmental features

- Biomass boiler
- Increased insulation
- Extensive sub-metering
- Consideration of natural ventilation wherever possible
- Responsible sourcing of materials
- A-rated materials wherever possible
- Minimising water consumption
- Consideration of pollution risks in use wherever possible

### The BREEAM assessment

The building scored well through:

- Excellent construction management
- Good access to public transport
- Good consideration of health and wellbeing
- Good consideration of energy use and energy management
- Consideration of materials, including responsible sourcing

### Building services

The leisure centre's hot water and space heating demand is met by a biomass boiler with back up high efficient, low NOx gas boilers. The building utilises natural ventilation for cooling in the bowls and sports hall areas, using Monodraught units. The atrium is also cooled with natural ventilation. A thermal wheel uses heat from extract air to warm the fresh air intake. There are inverter driven motors on all fans and most pumps, allowing motor speeds to be reduced when demand is reduced and so achieving higher efficiencies.

There is zone control of heating, and the small amount of air conditioning is served from air source condensers fitted with heat recovery units. Variable refrigerant volumes are also used to exchange warmth between warm rooms and cooler rooms. Rain water harvesting is used to supply the majority of the WCs.

### Green strategy

The project manager at SDC championed the BREEAM requirements and ensured that credits were achieved wherever possible. For example, the development achieved a score of 36.5 in the Considerate Constructor's Scheme (defined as exemplary level under BREEAM 2008), and achieved 100% in the management section. The project manager ensured that details of the building were published around the site and that the public were kept informed of progress. Whilst not included in BREEAM, the leisure centre is an exemplar for disability access, with consideration made to incorporate special features for good access.

The design team took particular care to minimise the environmental costs in use, for example incorporating a biomass boiler and reducing water consumption wherever possible. Sanitary specification generally went beyond BREEAM requirements, and incorporated push to operate showers to minimise water use and 6/4 litre dual flush WCs to non-ampulant facilities.

### Project team details

Client – Milton Keynes Council

Contractor – SDC

Architect – Holder Mathias Architects

Building services – Venables Associates

Structural Engineer – BWB Consulting

BREEAM Assessor – Rickaby Thompson Associates

"As a leading and expanding 'New City' we see sustainability measures as vital to developing successful communities and facilities. Achieving BREEAM Excellent was absolutely central to our requirements for the new leisure centre. This has provided a significant reduction in running costs and therefore Council subsidy, and is ultimately one of the key measures that has helped the Council to save over £3 Million in revenue funding during a 15 year period. At a time where public sector funds and discretionary services are under significant pressure, the Council is delighted with the result and the state-of-the-art facilities that the community can now enjoy."

Paul Sanders, Milton Keynes Council