

BREEAM PRISONS

LITTLEHEY II YOUNG OFFENDERS' INSTITUTE



About the buildings

The buildings comprise two of four, 120-cell accommodation blocks at HMP Littlehey II, a young offenders' institute. A total of twelve buildings across the site achieved a BREEAM Excellent rating, including all of the house blocks, a sports hall, kitchen, administration building, education and multi-faith facilities, segregation unit, visitors' centre, reception and healthcare facilities, and workshops.

All Ministry of Justice (MoJ) developments are required to meet BREEAM Excellent with a view to reducing the carbon impacts of the UK estate.

Key facts

BREEAM rating:	Excellent
Score:	76.23%
Size:	1741.05 m ² x 2
Stage:	Design
BREEAM version:	Prisons 2006

Overview of environmental features

- Site wide biomass heating strategy
- Naturally ventilated
- Responsibly sourced materials
- Rainwater recycling
- SUDs (sustainable drainage system) strategy
- Site wide modifications rectified foul water drainage problems (the proposed sewage treatment option was omitted because the local treatment works then had sufficient capacity)
- Modifications to an existing balancing pond gave it sufficient capacity to avoid excessive costly rainwater storage underground
- The modular construction strategy significantly reduced waste onsite (this is not recognised in BREEAM Prisons 2006)
- Overall the buildings achieved more than 80% in the BREEAM categories of management, energy, water and land use and ecology

The BREEAM assessment

Management

Full credits achieved, including contractor related practices (a Considerate Constructor Scheme was in place and scoring very highly during audit, with 37 and 37.5 out of maximum scores of 40) and consideration of management during building operation.

Energy

The biomass heating system provides on average over 30% of annual heat usage. The modular construction has outstanding thermal performance and integrated high performance M&E design.

The energy and management strategies allowed for helpful monitoring and comparisons of the buildings across the site.

Materials

Premier Interlink's ISO 14001 demonstrates commitment and respect for the environment.

Waste

70% of all waste at the Premier Interlink factory is recycled or composted, and site figures of 80% and above were achieved on monthly audits.

Water

The low potable water use strategy includes rainwater recycling and electronically controlled sanitary fittings.

Ecology

The site wide landscaping design achieved full credits for enhancing site ecology. Ecological features were identified and protected during construction activity.

Pollution

Credits were awarded for the SUDs strategy, flood risk assessment, renewable energy use and designing out the use of refrigerants.

Transport

Due to the location of the site there was limited public transport access, but all other issues in this category were achieved. During construction the site ran its own park and ride scheme, using an Anglian Water car park as a collection and drop off point, to reduce traffic local to the site and the existing fully functioning prison.

A non-compulsory post-construction performance review will be undertaken imminently.

Building services

- Site wide biomass heating system
- Underfloor heating
- Substantial energy uses sub-metered
- The natural ventilation strategy omits the need for comfort cooling
- Predicted improvement over Part L of 28.14%
- Whole life performance analysis carried on building services

Project team details

Client – Ministry of Justice
Contractor – Wates Construction Ltd
Sub-contractor – Premier Interlink Waco UK Ltd
Architect – Capita Symonds/
Premier Interlink Waco UK Ltd
M&E – Capita Pearce Buckle/
Premier Interlink Waco UK Ltd
BREEAM Assessor – Inbuilt Ltd