

BREEAM

Planning Pre-Assessment Report
BREEAM Bespoke 2006

Woodlands Mill, Crumpstall
Rev A
Project: 1609
07/07/2008

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Disclaimer

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This pre assessment is based on assessing against the draft BREEAM Bespoke 2006 criteria determined by the BRE, and information provided during the kick off meeting. As such this report represents a reasonable indication as to the likely rating of the scheme once the formal assessment is carried out, however the results should be viewed with caution and may not reflect the final score.

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Rev	Date	Document Description
0	10/07/2008	Pre-Assessment report based on draft BREEAM Bespoke 2006 criteria
A	11/07/2008	Planning Pre Assessment based on BREEAM Bespoke 2006 criteria

Prepared By: Wendy Hughes
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Introduction

Scott Hughes Design has been commissioned to carry out a BREEAM (British Research Establishment Environmental Assessment Method) Bespoke 2006 Pre-Assessment of the proposed redevelopment of Woodland Mill, Manchester.

BREEAM

Bespoke BREEAM is part of the BREEAM family of environmental assessment methods (BRE's Environmental Assessment Method). It is a voluntary scheme that aims to quantify and reduce the environmental burdens of buildings by rewarding those designs that take positive steps to minimise their environmental impacts. There are number of standard schemes under which certain building types can be assessed. These include Offices, Schools Retail and Court buildings. Where a non domestic building can not be assessed under one of these schemes it can be assessed under the Bespoke BREEAM scheme. With a Bespoke BREEAM assessment BRE will develop criteria specific to the building and the functions within it (and there is an additional fee for this work). Information to develop the criteria is collected via a building questionnaire for the design team to complete or, for technically complex buildings, a kick of meeting is held.

Projects are assessed using a system of credits. The credits are grouped within the following categories:

- Management (0.15)
- Health and Well Being (0.15)
- Energy
- Transport (Energy and Transport combined 0.25)
- Water (0.05)
- Materials and Waste (0.10)
- Land use & Ecology (0.15)
- Pollution (0.15)

The assessment process results in a report covering the issues assessed together with a formal certification giving a rating on a scale of PASS, GOOD, VERY GOOD and EXCELLENT.

Bespoke BREEAM Scoring

Within each of the BREEAM categories outlined above, there are a number of credit requirements that reflect the options available to designers and managers of buildings.

Due to the nature of Bespoke BREEAM projects not every credit is applicable to all function areas. To reflect this, credit scores are area weighted according to the floor area within the building that the credits have been achieved for. This recognises the environmental benefits of achieving a credit in an area that represents a large proportion of the building compared to where a credit is achieved in only a small proportion of the building.

An environmental weighting is applied to the scores achieved under each category, as indicated, in order to calculate the final BREEAM score. The weighting factors have been derived from consensus based research with various groups such as government, material suppliers and lobbyists. This research was carried out by BRE to establish the relative importance of each environmental issue.

Report Overview

Based on the draft BREEAM Bespoke 2006 criteria, the current design plan scores 58.98% which translates to a BREEAM rating of VERY GOOD.

BREEAM Rating Bands	
PASS	25
GOOD	40
VERY GOOD	55
EXCELLENT	70

RESULTS SUMMARY			Target for VERY GOOD Assessment
Sector	Total Available	Weighting	Sector Score
Management	12	0.15	13.67%
Health & Wellbeing	15	0.15	11.76%
Energy Transport	33	0.25	11.98%
Water	8	0.05	2.50%
Materials	16	0.10	3.23%
Land Use& Ecology	10	0.15	9.00%
Pollution	15	0.15	6.85%
Total Predicted Score			**58.98%**
Final Predicted BREEAM Rating			**VERY GOOD**

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
MANAGEMENT					
M1	Commissioning	2	1.34	2	A design team member will be appointed to monitor commissioning on behalf of the client, to ensure that it is carried out in line with current Building Regulations and (where applicable) best practice. Seasonal commissioning will also be carried out during the first year of occupation, post construction.
M4	Considerate Contractors	2	1.34	2	The Contractor will comply with the Considerate Constructors Scheme and will achieve a score of at least 32 under formal certification, with no section scoring under 3.
M5	Construction Site Impacts	4	1.34	4	The site management the site management will achieve 6 of the following; will monitor, report & set targets for: energy ;water consumption & construction waste arising from site activities and adopt best practice policies with respect of pollution arising from the site to the air or to ground/surface water and they will also separate and recycle the construction waste into at least 5 waste streams. All site timber is obtained from responsible sources.
M8	Consultation	2	1.34	1	Consultation has been, or is being, undertaken and feedback given to the local community and building users. In addition, advice should also have been sought from any relevant national and local history, archaeological bodies or military history groups regarding the heritage value of the building/site/surroundings.
M12	Building User Guide	1	1.34	1	A simple Building User's Guide will be produced including information on the operation and environmental performance of the building, relevant for the 'non-technical' building manager and occupants/tenants.
M24	Post Construction Testing - Acoustics	1	0.34	1	Post-construction acoustic testing will be carried out and that indoor ambient noise levels & reverberation times are in accordance with the requirements of HW17 - Acoustic Performance.

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
HEALTH & WELLBEING					
HW1	Daylighting	1	1.28	0.48	80% of the floor area of all of the rooms except the dance hall, banqueting suite and bars will achieve a 2% daylight factor with either adequate room depth criteria and a view out of the sky and a uniformity ratio of >0.4. Therefore only a partial credit has been awarded.
HW2	View Out	1	0.03	1	All office areas will achieve an adequate view out.
HW3	Glare Control	1	0.03	1	There will be occupant controllable internal blinds on all office areas to control glare on all external windows.
HW4	High Frequency Lighting	1	1.29	1	All fluorescent luminaries will be fitted with high frequency ballasts (HFB's). Drawings should show light bulb specifications or they should be stated in the lighting specification.
HW5	Internal & External Lighting Levels	1	1.29	1	All internal and external lighting will be specified in accordance with the appropriate maintained illuminance levels(In LUX) recommended by CIBSE.
HW6	Lighting Zones	1	1.29	1	Lighting in all occupied areas will be zoned to allow separate control
HW8	Potential for Natural Ventilation	1	1.29	0	This credit cannot be achieved as there are insufficient opening windows in the dance hall and banqueting suite
HW9	Internal Air Pollution	1	1.29	0	This credit will not be achieved as windows are <10m from the adjacent roads or car parking.
HW10	Indoor Air Quality	1	1.29	1	CO2 levels will be monitored and will be regulated in the banqueting hall and dance hall and where there are unpredictable occupancy patterns.
HW11	Ventilation Rates	1	1.29	1	The Ventilation within each space within the development will achieve the CIBSE B2, or Building Regulation's, recommended minimum fresh air rates including the office areas which will achieve 12 ltrs/sec
HW14	Thermal Comfort	1	1.29	1	An assessment will be made of thermal comfort levels at design stage, the results will then be used to evaluate appropriate servicing options and confirm that the appropriate thermal comfort levels will be achieved.
HW15	Thermal Zoning	1	1.29	1	Local occupant control will be available for temperature adjustment within each area and the area zoning will allow for separate control of the 7m perimeter zones and the central zones.
HW16	Microbial contamination	1	1.29	1	All water and HVAC systems will be designed to meet the requirements of HSE Approved Code of Practice and Guidance, L8 'Legionnaires disease; The control of Legionella in water systems', 2000.
HW17a	Acoustic Performance - Internal noise levels	1	1.12	1	The indoor ambient noise levels in occupied spaces will be in accordance with BS8233:1999
HW17	Acoustic Performance - Reverberation Times	1	0.31	1	The reverberation times for the dance hall,will be in compliance with BS8233 1999 table 8

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
ENERGY					
E1	Reduction of CO2 Emissions	15	0.78	2.59	A 6% improvement on the 2006 Building Regulation CO2 emission requirements will be achieved by the new build elements with a -25% improvement on the refurbishment elements.
E2	Sub-metering of Substantial Energy Uses	1	0.78	1	Direct sub metering will be provided for substantive energy uses within the building covering lighting, small power and any other major energy consuming plant.
E3	Sub-metering of Areas/Tenancy	1	0.78	1	Sub metering of energy use by major areas will be installed within the building, i.e. Kitchen, Ground floor restaurant/reception, banqueting hall, dance hall ,first floor restaurant.
E4	External Lighting	1	0.78	1	80% of the external lighting will have an average efficiency of 70 lumens/watt or more and will be controlled by timers or daylight sensors.
E(Eco)4	Provision of Energy Efficient White Goods - Fridges / Freezers	1	0.04	1	All fridges, freezers and fridge freezers will have an A+ rating under the EU Energy Efficiency Labelling Scheme.

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
TRANSPORT					
T1	Provision of public transport	5	0.78	3	There is a public transport node within 250m of the site which has a service frequency of less than 15 mins.
T3	Proximity to Key Amenities	1	0.78	1	The site is within 500 metres of Post box and a Grocery shop.
T4	Proximity to Other Amenities	1	0.78	1	The site is within 1000m of at least 5 of the following amenities: a. Postal Facility b. Grocery shop (only qualifies where more than 500m from the site) c. Bank/cash point d.Pharmacy e. Doctors surgery/medical centre f. Community centre g. Leisure centre h. Open access public place i. Place of worship j. Public house k. Primary school l.Childrens play area
T5	Cyclist Facilities	2	0.78	0	Outside the scope of work - credit not sought
T6	Pedestrian & Cyclist Safety	1	0.78	0	Outside the scope of work - credit not sought
T8	Travel Plan	1	0.78	1	A travel plan will be developed and tailored to the specific needs of the users of the assessed development.
T9	Maximum Car Parking Capacity	2	0.78	2	Less than or equal to one car parking space will be provided for every 4 building users.
T10	Travel Information Space	1	0.78	1	There will be a dedicated space within the development for the provision of up-to-date public transport information

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
WATER					
W1	Water Consumption	3	0.62	2	All WCs will be specified as 6/4litre dual flush WCs and instructions on the appropriate operation of the flushing device will be provided on the cistern. AND All taps will be specified as aerated taps or auto shut off , there will be no showers or urinals.
W2	Water Meter	1	0.62	1	A water meter with a pulsed output will be installed on all mains supplies to the building.
W3	Major Leak Detection	1	0.62	0	Outside the scope of work - credit not sought
W4	Sanitary Supply Shut Off	1	0.62	0	Outside the scope of work - credit not sought
W5	Water Recycling	1	0.62	0	Outside the scope of work - credit not sought
W6	Irrigation System	1	0.62	1	Irrigation for external planting will be provided via rainfall only, or from rainwater harvesting

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
MATERIALS & WASTE					
MW1	Materials Specification - Major Building Elements	7	0.61	2.64	The major building elements of existing building are being reused, with the exception of the windows and floor finishes which are unlikely to achieve an A rating. The new building will only score for the upper floor if precast units are used and for the roof if a lightweight construction is used. The external walls of terracotta rainscreen, the internal block walls, the metal windows and floor finishes are unlikely to achieve an A rating. A partial credit of 2.8 should be achievable
MW2	Hard Landscaping & Boundary Protection	1	0.61	0	This credit is not achieved as <80% of the external hard surfaces, including roads and parking areas, will achieve an 'A rating', as defined in the Green Guide to Specification.
MW5	Reuse of Building Façade	1	0.61	0.46	Greater than 50% of the total existing facade (by area) is re-used . However For the extension there will be no re-use of building facade.
MW6	Reuse of Building Structure	1	0.61	0.46	Greater than 50% of the total existing building structure (by mass) is re-used . However For the extension there will be no re-use of building structure.
MW7	Recycled Aggregates	1	0.61	0	There will be no significant use of recycled crushed aggregate, crushed recycled masonry or alternative recycled aggregates specified for high grade aggregate uses.
MW8	Responsible Sourcing of Materials	1	0.61	0	There will be no specific sourcing of sustainable materials.
MW10	Designing for Robustness	3	0.61	1	Areas of the building fabric, that will be exposed to high pedestrian, vehicular and trolley movements, will be protected from impact and damage.
MW12	Storage of Recyclable Waste	1	0.61	1	There will be a central dedicated, labelled storage space provided for materials that can be recycled, with good access and within easy reach of the building. The size requirements for the storage space will beat least 2m2 per 1000m2 of net floor area
MW17	Composting	1	0.31	0	Composting facilities for organic waste will not be provided on site .

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
LAND USE & ECOLOGY					
LE1	Re use of land	1	1.50	1	Greater than 75% of the site has been previously built on or used for industrial purposes within the last 50 years.
LE2	Contaminated land	1	1.50	0	The site is unlikely to be contaminated
LE3	Land of low ecological value	1	1.50	1	The land can be defined as that of low ecological value as there are no ecological features, including trees or hedges on the site.
LE4	Mitigating Ecological Impact	2	1.50	2	There will be no negative change in the ecological value of the land as a result of the development.
LE5	Ecological Enhancement	3	1.50	1	The design team (or client) will seek, and will act upon, advice on enhancing the site's ecological value from an adequately qualified ecologist.
LE6	Long term impact on biodiversity	2	1.50	1	The client has committed to achieving the mandatory requirements set out in the BRE Guidance note LE6 Long term impact on biodiversity and at least 2 of the additional requirements.

General Information				Target for achieving VERY GOOD	
REF	Description	Credits Available	Worth of 1 weighted credit	Credit expectation	Comment
POLLUTION					
P1	Refrigerant GWP - Building Services	1	0.91	0	The ventilation system specified uses a refrigerant which is almost certainly has a GWP <5.
P2	Preventing Refrigerant Leaks	1	0.91	1	A refrigerant leak detection system will NOT be specified, BUT there will be provision for a refrigerant pump down.
P4	Insolent GWP	1	0.91	1	All insulating materials will avoid the use of substances with a global warming potential (GWP) of 5 or more, in either manufacture or composition.
P6	NOx Emissions of Heating Source	3	0.91	0	The dry NOx emissions from the air conditioning systems are based on electric power source and >100 mg/kWh therefore no credits will be achievable
P7	Flood Risk / Water Run Off	3	0.91	3	The development is situated in a low flood risk area and Sustainable Urban Drainage Techniques will be specified to attenuate 50% of the peak flow rate of water run off, from hard surfaces to natural watercourses or municipal drainage systems, during a design storm event.
P8	Minimising Watercourse Pollution	1	0.91	1	Petrol/oil separators/interceptors will be specified for areas at risk from pollution i.e. vehicle manoeuvring areas, car parks, waste disposal facilities, delivery facilities or plant areas.
P11	Renewable & Low Emission Energy	3	0.91	0	A feasibility study will not be performed (at RIBA stage C) considering renewable and low emission energy and no renewable energy will be incorporated in the scheme
P12	Reduction of Night Time Light Pollution	1	0.91	0	The external lighting is unlikely to comply with ILE Guidance notes for reduction of obtrusive light 2005. (See Guidance Note P12) As the building will be lit from the outside at night time.
P13	Noise Attenuation	1	0.91	1	An Acoustician will demonstrate that sources of noise from the development will not give rise to the likelihood of complaints from neighbours. I.e. the noise from the development does not increase the background levels by more than 5dB
P14	Kitchen Wastewater Filtration	1	0.50	1	Grease traps will be fitted on wastewater discharge drains in all restaurant areas. The separation equipment will be fitted with bottom discharge and bypasses to allow for easy maintenance.