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BREEAM Offices 2008

Sustainability Plan

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Introduction 6 Erskine Road BREEAM Offices

Introduction	Eight Associates have been appointed, as registered BREEAM assessors, to outline the likely score of the Office development at 6 Erskine Road under BREEAM 2008 for Offices. The information this report contains is based on the current specification and information provided during ongoing design team meetings.
Planning Conditions	The development falls under the London Borough of Camden. The Council require the development to meet a BREEAM Excellent rating in accordance with Development Policy DP22 - Promoting sustainable design and construction
	The development will also target at least 60% of the credits in each of Energy and Water and 40% of the credits in Materials categories to be carried out by a recognised independent verification body in respect of the Property.
Score Summary	The scheme is currently expected to score 71.91%, which equates to an EXCELLENT rating (≥ 70%). This includes scores of at least 60% in the Energy and Water sections, and 40% in the Materials section, under BREEAM, thus complying with the aforementioned Planning requirements.
	Please note that Eight Associates recommend a safety margin of around 3% - 5% in order to secure a rating during the Formal Assessment stages.
Building Summary	The development at 6 Erskine Road comprises two new build sections and the extensive refurbishment of two existing buildings, for use as offices. The services will be upgraded and renewable energy will be incorporated into the scheme. The building is being designed with high environmental considerations in order for the desired EXCELLENT BREEAM rating to be achieved.

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The BREEAM Standard 6 Erskine Road BREEAM Offices

The BREEAM Standard

BREEAM (Building Research Establishment's Environmental Assessment Method) is the worlds leading and most widely used environmental assessment method for buildings. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance.

Building projects are assessed at the design and post-construction stages using a system of environmental issues grouped within the following categories:

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use & Ecology
- Pollution
- Innovation

The assessment of the building results in a final report and BRE Global BREEAM certificate detailing the performance of the assessed building against the environmental issues covered by Standard. The building's performance is expressed as a BREEAM rating of PASS, GOOD, VERY GOOD, EXCELLENT or OUTSTANDING.

BREEAM is developed, operated and maintained by BRE Global Ltd and the operation and direction of the method is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry stakeholders. Further information about BREEAM, including copies of the BREEAM standards, can be found at www.breeam.org.

Aims of BREEAM

- To mitigate the impacts of buildings on the environment
- To enable buildings to be recognised according to their environmental benefits
- To provide a credible, environmental label for buildings
- To stimulate demand for sustainable buildings

Objectives of BREEAM

- To provide market recognition to low environmental impact buildings
- To ensure best environmental practice is incorporated in buildings
- To set criteria and standards surpassing those required by regulations and challenge the market to provide innovative solutions that minimise the environmental impact of buildings
- To raise the awareness of owners, occupants, designers and operators of the benefits of buildings with a reduced impact on the environment
- To allow organisations to demonstrate progress towards corporate environmental objectives

Rating Summary eight associates 6 Erskine Road

Rating Summary

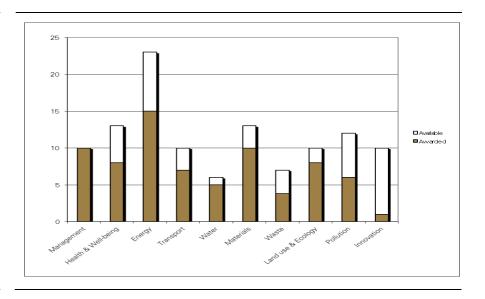
The following score summary represents the scheme's preliminary score based on the assumptions in the following pages. Please contact the assessor if a score sheet is required.

Unclassified	<25%
Pass	≥25% -<40%
Good	≥40% - <55%
Very Good	≥55 %-<70%
Excellent	≥70%

Credit allocation	Credits available	Credits achieved	% Achieved	Env. Weighting	Score
Management	10	10	100.00%	12.00%	12.00%
Health & Well-being	13	8	61.54%	15.00%	9.23%
Energy	23	15	65.22%	19.00%	12.39%
Transport	10	7	70.00%	8.00%	5.60%
Water	6	5	83.33%	6.00%	5.00%
Materials	13	10	76.92%	12.50%	9.62%
Waste	7	3.8	54.29%	7.50%	4.07%
Land Use & Ecology	10	8	80.00%	10.00%	8.00%
Pollution	12	6	50.00%	10.00%	5.00%
Innovation	10	1	10.00%	10.00%	1.00%

71.91% Rating **EXCELLENT**

Graphical Breakdown of credits awarded



Management 6 Erskine Road BREEAM Offices

INTRODUCTION	The following pages show how the proposed scheme performs against the BREEAM office criteria.		
Man 1 – Commissioning	A commissioning monitor will be appointed and the M&E specification will require compliance with CIBSE and BSRIA commissioning guidelines. A specialist commissioning agent will be appointed for any complex systems, such as air conditioning, mechanical ventilation, Building Management Systems and renewable energy sources.	2 of 2	
Man 2 – Considerate Constructors	The Contractor will be required to register the scheme under the Considerate Constructors Scheme (CCS) and will be committed to achieve at least 35 points and at least a score of 7 in each section.	2 of 2	
Man 3 – Construction Site Impacts	On-site Energy/Water Monitoring The Contractor will be required to monitor energy and water use on site, with a named individual responsible for minimum monthly recording and on-site display of results. Targets to be set for the project. On-site Pollution The Contractor will be required to implement best practice policies on-site in respect of pollution to air (dust) and water (include reference to the following within the tender prelims: Environment Agency Site Pollution Prevention Guides 1, 5 & 6). Environmental Policies The Contractor will be required to operate an Environmental Management System (e.g. ISO 14001) and have an environmental materials policy for the sourcing of construction materials to be utilised on site. Temporary Works Timber The Contractor will be required to specify reclaimed or FSC/PEFC certified timber for at least 80% of temporary works timber, with 100% of timber being legally sourced.	4 of 4	
Man 4 – Building User's Guide	A non-technical building user guide will be produced for the attention of the facilities manager detailing how the building operates and the environmental performance of the building in line with BREEAM requirements.	1 of 1	
Man 8 – Security	An Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police force will be consulted at the design stage (RIBA stage C) and their recommendations will be incorporated into the design of the building and its parking facilities (if relevant) so that these conform to the principles and guidance of Secured by Design.	1 of 1	

Health & Well-being 6 Erskine Road BREEAM Offices

Hea 1 – Daylighting	Due to the layout of windows and office space, it is not foreseen that daylighting factors will meet the levels required for this credit to be awarded.	0 of 1
Hea 2 – View Out	Due to the depth of some of the offices not all relevant areas will be within 7 meters distance of a wall with a window, meaning this credit is unlikely to be achieved.	0 of 1
Hea 3 – Glare Control	All offices will be equipped with occupant controllable blinds.	1 of 1
Hea 4 – High Frequency Lighting	All fluorescent luminaires will have high frequency ballasts.	1 of 1
Hea 5 – Internal and External Lighting Levels	All internal and external lighting will be specified to CIBSE recommended levels.	1 of 1
Hea 6 – Lighting Zones	The areas will have zoned lighting according to use with appropriate usercontrols.	1 of 1
Hea 7 - Potential for Natural Ventilation	Whilst parts of the proposed development will be capable of providing fresh air entirely via a natural ventilation strategy, other areas will be mechanically ventilated, meaning this credit is unlikely to be achieved.	0 of 1
Hea 8 – Internal Air pollution	The frontage of Leeder House opens directly onto a road, meaning this credit cannot be awarded.	0 of 1
Hea 9 – VOCs	All paints, varnishes, finishes and furniture will be specified with a low VOC emission and content in line with British Standards.	1 of 1
Hea 10 – Thermal Comfort	Modelling demonstrating that thermal comfort levels are in accordance with CIBSE Guide A will not be undertaken, meaning this credit can not be awarded.	0 of 1
Hea 11 – Thermal Zoning	The heating and cooling systems will allow occupant control of zoned areas within all occupied spaces.	1 of 1
Hea 12 – Microbial Contamination	All water and HVAC systems are designed to meet the requirements of HSE Approved Code of Practice and Guidance L8 "Legionnaires disease the control of legionella bacteria in water systems" 2000.	1 of 1
Hea 13 – Acoustic Performance (noise levels)	The acoustic performance of the building will meet the levels required for this credit.	1 of 1

Energy 6 Erskine Road BREEAM Offices

Ene 1 – Reduction of CO ₂ Emissions	An EPC rating of \leq 32 will be achieved, allowing 9 credits to be awarded. For the details energy analysis, please refer to energy strategy report.	9 of 15
Ene 2 – Sub Metering of Substantial Energy Uses	Electric sub-metering of substantive energy uses will be provided via pulsed meters. Substantive energy uses include: space heating, cooling plant, major fans, small power and lighting.	1 of 1
Ene 3 – Sub Metering of Areas / Tenancy	The building will include sub-metering of energy use by each tenancy area; therefore this credit is likely to be achieved.	1 of 1
Ene 4 – External Lighting	All external light fittings for the building will have an efficacy of at least 50 lamp lumens/circuit watt and a colour rendering index (Ra) greater than or equal to 60. All external lighting will be regulated on a PIR or daylight sensor.	1 of 1
Ene 5 – Low zero carbon technologies	A feasibility study in line with BREEAM requirements has been carried out to specify local low or zero carbon technologies. An Air Source Heat Pump and both solar thermal and photovoltaic panels will be installed in order to meet a minimum 15% reduction in the buildings CO ₂ emissions.	3 of 3

Transport 6 Erskine Road BREEAM Offices

Tra 1 – Provision of Public Transport	There is good accessibility to the public transport network from the development; thus full credits are likely to be awarded.	3 of 3
Tra 2 – Proximity to Amenities	The development is located within 500m of a post box and grocery shop and within 1000m of other local amenities.	1 of 1
Tra 3 – Cyclist Facilities	Cycle storage for 23 cycles will be provided in line with BREEAM requirements and planning requirements. In addition, compliant showers, changing facilities and lockers for clothes will be included in the proposed scheme.	2 of 2
Tra 4 – Pedestrian and Cyclist Safety	At present, it is not envisaged that BREEAM compliant pedestrian and cycle access routes will be provided.	0 of 1
Tra 5 – Travel Plan	A travel plan in line with all BREEAM guidelines and requirements will be developed with respect to the needs of the users of the office areas.	1 of 1

Water 6 Erskine Road BREEAM Offices

Wat 1 – Water Consumption	It is likely that the following sanitaryware specification will be incorporated within the development, which would result in two credits being achieved: • 6/3 litre dual flush WCs • Urinals with PIR • Washbasin taps with flow rate of max. 6 litres/min • Showers with flow rate of max. 6 litres/min (at 3 bar)	2 of 3
Wat 2 – Water Meter	A pulsed water meter will be specified to all building mains supplies.	1 of 1
Wat 3 – Major Leak Detection	A major leak detection system will be installed for the development.	1 of 1
Wat 4 – Sanitary Supply Shut Off	A sanitary supply shut off system will be specified.	1 of 1

Materials 6 Erskine Road BREEAM Offices

Mat 1 – Materials Specification – Major Building Elements	Building materials have been confirmed by the Architect and entered into the relevant BREEAM calculator, resulting in the award of 3 credits under this issue.	3 of 4
Mat 2 – Hard Landscaping and Boundary Protection	At least 80% of hard landscaping will achieve an A or A+ rating as defined by the Green Guide to Specification, allowing this credit to be awarded.	1 of 1
Mat 3 – Reuse of Building Façade	The majority of the development is a refurbishment allowing much of the building façade to be retained.	1 of 1
Mat 4 – Reuse of Building Structure	The majority of the development is a refurbishment allowing much of the building structure to be retained.	1 of 1
Mat 5 – Responsible Sourcing of Materials	It will be an employer's requirement for the contractor to source the majority of main non-timber building elements from suppliers with an ISO14001/EMAS certification at both extraction and process stage and to source all timber from FSC/PEFC sources.	1 of 3
Mat 6 – Insulation	The insulation specified will have a low embodied impact determined by the Green Guide to Specification ratings and will have a high thermal performance in relation to its thickness.	2 of 2
Mat 7 – Designing for Robustness	The design team is committed to designing for robustness; materials and features will be specified so as to protect vulnerable parts of the internal and external areas of the building.	1 of 1

Waste 6 Erskine Road BREEAM Offices

A Site Waste Management Plan (SWMP) in line with statutory guidance and BREEAM requirements to reduce waste throughout the construction phases will be developed at detailed design.	2 of 4
Following this plan, the contractor will be required to divert at least 75% by weight or 65% by volume of non-hazardous construction waste generated on site from landfill and to either reuse, reclaim, return to the supplier or recycle.	
The site waste management plan and the contactor will also show that less than 16.6m³ of non hazardous construction waste is generated per 100m² (excluding demolition and excavation waste).	
This credit can be awarded by default for the refurbishment section of the development as no new aggregate is being used. It is not targeted for the new build section of the development.	0.8 of 1
An area of at least 2m ² per 1000m ² net floor area will be provided as dedicated storage space to cater for recyclable materials generated by the building during occupation. It will be located in an accessible place on site and will be appropriately labelled.	1 of 1
	BREEAM requirements to reduce waste throughout the construction phases will be developed at detailed design. Following this plan, the contractor will be required to divert at least 75% by weight or 65% by volume of non-hazardous construction waste generated on site from landfill and to either reuse, reclaim, return to the supplier or recycle. The site waste management plan and the contactor will also show that less than 16.6m³ of non hazardous construction waste is generated per 100m² (excluding demolition and excavation waste). This credit can be awarded by default for the refurbishment section of the development as no new aggregate is being used. It is not targeted for the new build section of the development. An area of at least 2m² per 1000m² net floor area will be provided as dedicated storage space to cater for recyclable materials generated by the building during occupation. It will be located in an accessible place on site and will be

Land Use and Ecology 6 Erskine Road BREEAM Offices

LE1 – Reuse of Land	At least 75% of the proposed development's footprint is on land that has previously been used for industrial purposes in the last 50 years, meaning this credit will be achieved.	1 of 1
LE2 – Contaminated Land	The site has no known ground-based contamination; therefore the credit cannot be awarded.	0 of 1
LE3 – Ecological Value of Land and Protection of Ecological Features	The existing site is of low ecological value, with no significant trees or other ecological features present on site.	1 of 1
LE4 – Mitigating Ecological Impacts	There will be no negative change in the site's ecological value as a result of the development.	2 of 2
LE5 – Enhancing Site Ecology	An ecologist will be appointed at detailed design and the design team will follow the recommendations to ensure that there will be a positive increase in the ecological value of the site.	2 of 3
LE6 – Long Term Impact on Biodiversity	An ecologist will be appointed at detailed design to develop a Landscape and Habitat Management Plan. This will cover at least the first 5 years after project completion and will be developed in line with the City of London and nationwide 'Biodiversity Action Plan' (BAP).	2 of 2
	A further credit will also be achieved with the contractor to nominate a biodiversity champion and to train the site workforce to monitor, record and enforce the protection and enhancement of the site's ecology.	

Pollution 6 Erskine Road BREEAM Offices

Pol 1 – Refrigerant GWP – Building Services	Refrigerants will not have a GWP of 5 or less, meaning this credit cannot be awarded.	0 of 1
Pol 2 – Preventing Refrigerant Leaks	A leak detection system will be installed for the development.	1 of 2
Pol 4 – NO _x Emissions of Heating Source	The proposed development incorporates condensers; these will make use of grid electricity, resulting in high levels of NO_x emissions.	0 of 3
Pol 5 – Flood Risk / Water Run Off	A site-specific Flood Risk assessment (FRA) will be carried out to confirm the development is located in a zone defined as having a low annual probability of flooding.	2 of 3
Pol 6 – Minimising Watercourse Pollution	The design team are committed to providing compliant oil/petrol separators within all surface drainage areas in accordance with PPG3.	1 of 1
Pol 7 – Reduction of Night Time Light Pollution	External lighting will comply with ILE light pollution guidelines (2005) to limit the upward flow of light and to restrict light glow.	1 of 1
Pol 8 – Noise Attenuation	A noise impact assessment will be carried out by a fully registered and qualified acoustician in compliance with BS 4142:1997. Results/recommendations from the assessment will ensure the rating level of the noise source(s) from the site and building is equivalent to or less than the background noise level.	1 of 1