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BREEAM 2008

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Kingsway LIF Holdings
Ltd
Club Quarters
Lincolns Inn Fields
CRUK

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Club Quarters
Lincolns Inn Fields
CRUK

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Introduction

Club Quarters

Lincolns Inn Fields

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Introduction

Eight Associates have been appointed, as registered BREEAM assessors, to provide a Preliminary Assessment of the likely score of the proposed redevelopment of the existing Cancer Research UK offices as a proposed Club Quarters Hotel, under BREEAM 2008 Bespoke criteria. The information it contains is based on the current Planning specification combined with information obtained from a meeting held with the Design Team on 9th September 2009.

Score Summary

The current predicted score is **63.21%**, which equates to a **VERY GOOD** rating. The desired rating for the development is a **VERY GOOD**, which would require a minimum score of **55%**.

Eight Associates strongly advise that a safety margin of between 3-5% in excess of the desired rating is achieved to ensure that the VERY GOOD rating is secured at Formal Assessment and Post Construction Review stages.

A detailed, specific BREEAM 2008 Bespoke criteria were not commissioned for the purpose of compiling this preliminary assessment. The BREEAM 2008 Bespoke criteria of a similar hotel were used. Therefore the score, but not the rating outlined in this assessment may be subject to change once the BRE issue their specific criteria for the project.

Building Summary

The current layout of the building was adapted into offices with a façade retention scheme in the 1980's. The building contains features of significant architectural interest. The proposed redevelopment into a hotel was discussed and the following specification proposed:

- 154 hotel bedrooms within 36-38 Kingsway
- 61 hotel bedrooms within 61 Lincolns Inn fields
- Kitchen, bar and restaurant facilities
- Cold storage plant
- No vehicle or manoeuvring areas
- No swimming pool
- Mixed-mode ventilation strategy
- Significant renewable energy obligation (solution to be determined after detailed study undertaken by Elementa Consulting)
- Installation of features of ecological interest, including a green wall in the internal courtyard area and a biodiverse brown roof.

Please note there are 5 residential units at 42 Kingsway which is not included in this BREEAM assessment.

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Camden Council Planning Requirements

The development is under the London Borough of Camden Local Authority. As part of their planning requirements, the council requires the following:

Achieve the following BRE assessment ratings:

- Achieve a VERY GOOD BREEAM rating

In addition:

- Achieve at least 60% of the credits within the energy and water sections under the Bespoke assessment
- Achieve at least 40% of the materials credits under all of the BRE assessment.
- Achieve a target of on-site renewable energy generation of at least 10% in line with the London Plan and Council policies. However, Camden acknowledge the re-use of existing buildings and conservation area considerations may limit the potential to achieve this target.

The credits outlined in this report demonstrate compliance with the above requirements.

Energy

In order to comply with Camden Council planning requirements, 60% of the credits available for the Energy section must be achieved. The total credits scored for the Energy section are 14/23 that represents a percentage score of 60.87%.

In addition to this, a target of 10% renewables energy generation is outlined in credit ENE 5.

Water

In order to comply with Camden Council planning requirements, 60% of the credits available for the water section must be achieved. The total credits scored for the Energy section are 5/8 that represents a percentage score of 62.50%.

Materials

In order to comply with Camden Council planning requirements, 40% of the credits available for the Materials section must be achieved. The total credits scored for the Energy section are 9/15 that represents a percentage score of 60.00%.

Rating Summary

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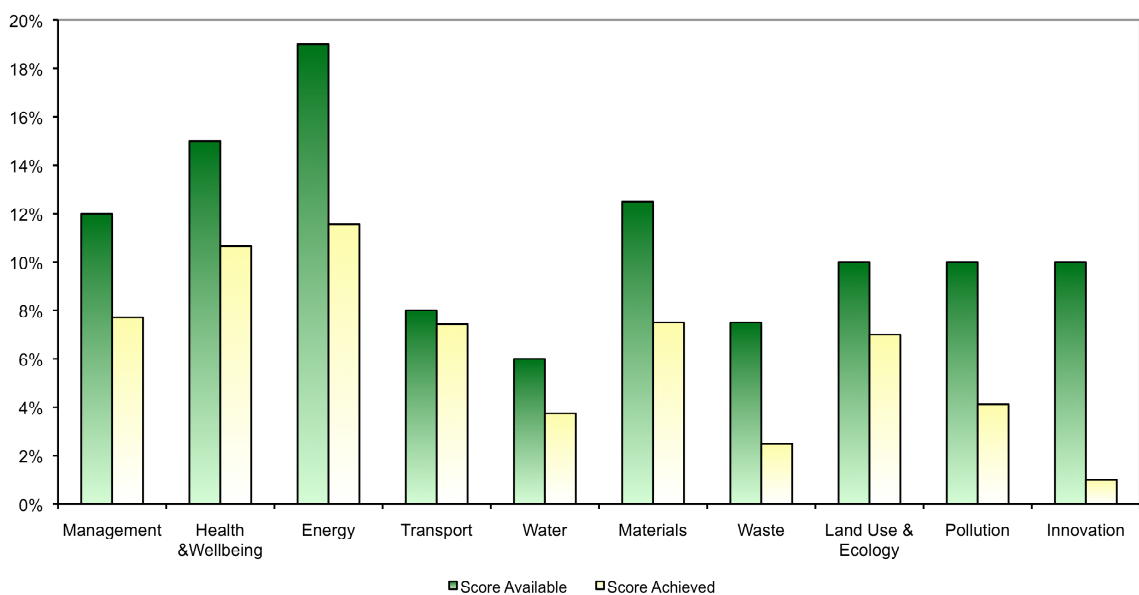
Minimum Score Required

Pass:	30%
Good:	45%
Very Good:	55%
Excellent:	70%
Outstanding:	85%

Current Rating Summary

Credit allocation	Weighting	Achieved	Score
Management	12.00%	64.29%	7.71%
Health & Well-being	15.00%	70.99%	10.65%
Energy	19.00%	60.85%	11.56%
Transport	8.00%	92.86%	7.43%
Water	6.00%	62.50%	3.75%
Materials	12.50%	60.00%	7.50%
Waste	7.50%	33.16%	2.49%
Land use & Ecology	10.00%	70.00%	7.00%
Pollution	10.00%	41.25%	4.12%
Innovation	10.00%	1.00%	1.00%
Total			63.21%
Rating			VERY GOOD

Assessed Building's BREEAM Performance by Section



Management

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Mandatory requirement (V.Good) met?

Likely Credits

Man 1 – Commissioning	A commissioning monitor will be appointed and the M&E specification will require compliance with CIBSE and BSRIA commissioning guidelines.	1 of 2	✓
Man 2 – Considerate Constructors	The Contractor will be required to register the development under the Considerate Constructors Scheme (CCS) and will be committed to achieve at least 32/40 points and score of no less than 3 in each section.	2 of 2	
Man 3 – Construction Site Impacts	The Contractor will be required to monitor energy and water use on site, with a named individual responsible for weekly/monthly recording and on-site graphical display of usage patterns. Targets for energy and water use will be set for the project. The Contractor will be required to comply with Environment Agency on-site guidelines for pollution to watercourses (Environment Agency Site Pollution Prevention Guides 1, 5 & 6) and best practices in terms of air (dust) pollution. In addition to this, the contractor will ensure that at least 80% of site timber will be reused, recycled or sourced from FSC/PEFC suppliers and 100% will be legally sourced (non-CITES listed).	3 of 4	
Man 4 – Building User's Guide	A non-technical building user guide will be produced for the attention of the facilities manager, staff and other operators, detailing the operation of the building and the level of its environmental performance, in line with BREEAM content requirements.	1 of 1	
Man 6 – Consultation	Consultation will be undertaken in accordance with a consultation plan, with timescales and methods of consultation clearly defined. Consultation will include liaison with the local community and potential other building users, collation of experience/knowledge from existing buildings of the same type and cover the extensive requirements set by the BRE. Feedback will be given to the consultation group regarding suggestions made and will outline their consideration and outcome.	1 of 2	

Management

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Likely Credits

Mandatory requirement (V.Good) met?

Man 8 – Security

An Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police force will be consulted from RIBA Stage C and their recommendations will be incorporated into the design of the building in order to conform to the principles and guidance of Secured by Design.

1 of 1

Man 12 – Life Cycle costing

Life Cycle Cost (LCC) analysis does not currently comprise part of the scope of works.

0 of 2

Health & Well-being

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Likely Credits

Mandatory requirement (V.Good) met?

Hea 1 – Daylighting	The building benefits from extensive areas of glazing and is likely to achieve an average daylight factor of 2% plus a uniformity ratio of 0.4 for at least 80% of the floor area in occupied spaces. This will include the bedrooms reception/lobby and function rooms. Daylighting calculations will be produced to demonstrate that these requirements will be met.	1 of 1	
Hea 2 – View Out	The requirements for this credit cannot be met in the offices. Therefore this credit cannot be achieved.	0 of 1	
Hea 3 – Glare Control	Blinds or curtains will be provided to both the reception/lobby area and offices. Therefore this credit will be awarded.	1 of 1	
Hea 4 – High Frequency Lighting	All fluorescent luminaires will be installed with high frequency ballasts and will be specified as part of the M&E scope of works.	1 of 1	✓
Hea 5 – Internal and External Lighting Levels	All internal and external lighting will be specified to CIBSE recommended levels (LG6 & LG7 and Part Two of the 'Code for Lighting' 2002 and its 2004 addendum).	1 of 1	
Hea 6 – Lighting Zones and Controls	All relevant building areas will have zoned lighting according to use with appropriate user-controls: • Lobby/reception area • In offices, zones of no more than 4 workplaces (40m²) • Function rooms • The kitchen • The restaurant • The bar • All hotel bedrooms	1 of 1	
Hea 7 - Potential for Natural Ventilation	The openable window area in each occupied space will be in excess of 5% of its gross internal floor area. The hotel bedrooms will benefit from comfort cooling and be capable of natural ventilation from openable windows. Therefore, two levels of user control are demonstrated and the credit can be awarded.	1 of 1	

Health & Well-being

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Likely Credits

Mandatory requirement (V.Good) met?

Hea 8 – Internal Air Quality	Openable windows will be less than 20m away from the road, which is considered a source of external pollution. Therefore, this credit cannot be awarded.	0 of 1	
Hea 9 – VOCs	This credit is not sought.	0 of 1	
Hea 10 – Thermal Comfort	Thermal comfort levels in occupied spaces of the building will be modelled in accordance with CIBSE Guide A. Full dynamic thermal analysis will be undertaken and the results will demonstrate that thermal comfort levels are within the criteria set out in table 1.5 of the Guide.	1 of 1	
Hea 11 – Thermal Zoning	Thermal zoning controls will be installed to all occupied spaces, including the reception/lobby, offices, function room, kitchen, restaurant, bar and hotel bedrooms. Zoning will allow separate occupant control of each perimeter area (i.e. within 7m of each external wall) and the central zone (i.e. over 7m from the external walls).	1 of 1	
Hea 12 – Microbial Contamination	All water and HVAC systems will be designed to meet the requirements of the HSE's 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 – Internal noise levels and sound insulation	A UKAS accredited acoustic consultant will be appointed to carry out pre-completion testing to ensure compliance with the performance standards set out in BS8233:1999, tables 5 and 6.	1 of 1	

Energy

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Likely Credits

Mandatory requirement (V.Good) met?

Ene 1 – Reduction of CO₂ Emissions

Carbon emissions to be calculated from SBEM calculation results to give an indication of annual carbon emissions. The proposed scheme is a refurbishment. At present, an EPC CO₂ index rating of 44 has been estimated for the development, based on results from similar developments.

7 of 10

Ene 2 – Sub Metering of Substantial Energy Uses

Electric sub-metering of substantive energy uses will be provided via pulsed meters. Substantive energy uses in the building will include (where present): space heating, hot water, cooling, major fans, lighting and small power.

1 of 1



Ene 3 – Sub Metering of High Energy Load Areas and Tenancy

Sub metering of high energy load areas will be provided, to the kitchen, bar and restaurant.

1 of 1

Ene 4 – External Lighting

All external lighting will be regulated on a PIR or daylight sensor. At least 80% of these will have efficacies and a colour-rendering index in line with BREEAM requirements.

1 of 1

Ene 5 – Low zero carbon technologies

Elementa Consulting will carry out a fully compliant Renewable Energy Feasibility Study. A 10% reduction in the carbon emissions of the building will be achieved through the installation of renewable energy generating technologies.

2 of 3

Ene 8 – Lifts

The lifts in the building will either be extensively refurbished or replaced. Regardless of this, the design team have confirmed that a transport analysis will be carried out to establish the ideal counterbalancing ratio of the lifts. 2 models of lift engine will be analysed and the unit with the lowest energy consumption will be specified.

2 of 2

In addition to this, all internal lift lighting will be supplied by energy efficient LED's and the lifts will be designed to operate in standby mode during off peak and idle times.

Transport

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Likely Credits

Mandatory requirement (V.Good) met?

Tra 1 – Provision of Public Transport	There is good accessibility to the public transport network from the development within approx. 500m of the building. According to the BREEAM Tra 1 calculator, 5 credits are likely to be achieved under this credit.	5 of 5
Tra 2 – Proximity to Amenities	The development is located within 500m of a post box, grocery shop and a cash machine. Therefore the credit can be awarded.	1 of 1
Tra 3 – Cyclist Facilities	There are likely to be 361 building users, including staff and visitors. Due to the city centre location, cycle storage for 5% of this figure (36 secure, well lit and covered spaces) is required and will be provided. In addition, one male and one female shower for staff (hotel users can use the showers in their own rooms) and compliant changing facilities and lockers for clothes will be provided.	2 of 2
Tra 4 – Pedestrian and Cyclist Safety	This credit can be awarded by default, as access to the building is provided directly from the public highway.	1 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 building users, following a site-specific transport assessment/survey.	1 of 1
Tra 6 – Maximum Car Parking Capacity	There will be no car parking spaces available to the users of the hotel. Therefore maximum credits can be awarded.	2 of 2
Tra 7 – Travel Information Point	There are a number of 'live' traffic information points within 250m of the building, at bus stops and the nearby London Underground station. Therefore this credit can be awarded.	1 of 1
Tra 8 – Deliveries and Manoeuvring Areas	This credit cannot be awarded, as there will be no delivery or manoeuvring areas for the building.	0 of 1

Water

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Mandatory requirement (V.Good) met?

Likely Credits

Wat 1 – Water Consumption	Dual flush WC's with an effective flush volume of 4.5 litres will be installed within the building. These will be labelled with instructions to ensure proper usage.	1 of 3	✓
Wat 2 – Water Meter	A water meter with pulsed output will be specified to all building mains water supplies.	1 of 1	✓
Wat 3 – Major Leak Detection	An audible major leak detection system will be specified for the development, which will cover all mains water supply between and within the building and the site boundary. The system will be specified in line with BREEAM requirements.	1 of 1	
Wat 4 – Sanitary Supply Shut Off	All WC/urinal areas will have a PIR / infra-red activated cold water shut off system, utilising solenoid valves.	1 of 1	
Wat 5 – Water recycling	This credit is not sought, due to the fact the presence of a biodiverse green roof.	0 of 1	
Wat 6 – Irrigation Systems	The design team have confirmed that there are no dedicated, mains-supplied irrigation systems specified for the external areas. Where present, planting will rely solely on manual watering.	1 of 1	

Materials

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Likely Credits

Mandatory requirement (V.Good) met?

Mat 1 – Materials Specification – Major Building Elements

The building will retain a large proportion of the existing building elements. The design team will ensure all elements, where new, are A or A+ rated under the Green Guide to specification (www.thegreenguide.org.uk). The proposed and existing buildups are as follows:

4 of 6

- External Walls – Approximately 80% reused in situ
- Windows – Where not reused in situ, timber framed
- Roof – A green roof on the existing roof will be provided onto 42 Kingsway and a brown roof on a concrete deck (Bespoke rating required) will be incorporated onto 61 Lincolns Inn Fields.
- Upper floor slabs – 80% reused in situ
- Internal walls – None structural walls removed generally.
- Floors / finishes – Carpet or ceramic finishes

Any existing materials that are reused within the building will automatically achieve an A or A+ rating. An estimated 4 credits are likely to be achieved.

Mat 2 – Hard Landscaping and Boundary Protection

The majority (>80%) of hard landscaping and boundary protection will be modified. The specification of the new elements is not known. Therefore this credit is not awarded at present.

0 of 1

Mat 3 – Reuse of Building Façade

The existing façade will be re-used and will account for at least 80% of the total façade of the total proposed development.

1 of 1

Mat 4 – Reuse of Building Structure

This credit cannot be awarded as less than 80% of the existing building structure by gross volume will not be reused without significant strengthening or alteration works. The reused structure will not comprise at least 50% by gross building volume of the final total building structure.

0 of 1

Mat 5 – Responsible Sourcing of Materials

The Design Team will ensure that all timber building elements specified are FSC/PEFC certified and all other elements are sourced from suppliers who can provide ISO14001/EMAS certification for process and extraction stage. All existing elements will achieve a score under this credit by default.

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Mandatory requirement (V.Good) met?

Mat 6 – Insulation

One credit will be awarded as all insulants used on site will be A or A+ rated under the Green Guide to Specification. 1 of 2

Mat 7 – Designing for Robustness

Materials and features will be specified to protect vulnerable parts of the internal and external areas of the building. This will include the following: 1 of 1

- Protection from the effects of high pedestrian traffic in main entrances and thoroughfares
 - Protection against any internal trolley movement in service areas.
-

Waste

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Likely Credits

Mandatory requirement (V.Good) met?

Wst 1 – Construction Site Waste Management

The design team will develop a Site Waste Management Plan (SWMP) in line with statutory guidance and BREEAM requirements to reduce waste throughout the construction phases.

1 of 4

Following this plan, the contractor will be required to show that less than 16.6m³ of waste will be generated per 100m² of gross internal floor area.

Wst 2 – Recycled Aggregates

This credit is currently not sought.

0 of 1

Wst 3 – Recyclable Waste Storage

A 12m² area dedicated to the storage of recyclable waste will be provided in the basement. This will be clearly labelled for recycling and fully complies with BREEAM size requirements.

1 of 1

Land Use and Ecology

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Likely Credits

Mandatory requirement (V.Good) met?

LE1 – Reuse of Land	The development is the internal refurbishment of a building on land previously occupied. Therefore the development can be classed as reusing land. Credit awarded.	1 of 1	
LE2 – Contaminated Land	At present the existing land is not deemed as contaminated. Therefore this credit will not be awarded	0 of 1	
LE3 – Ecological Value of Land and Protection of Ecological Features	The existing site has no ecological value. Therefore there are no ecological features that need to be protected. The credit is awarded on this basis.	1 of 1	
LE4 – Mitigating Ecological Impact	An ecologist will be appointed to advise on mitigating the ecological impact of the development. There will be no negative change in the ecology of the site. Therefore this credit will be awarded.	2 of 2	✓
LE5 – Enhancing Site Ecology	An ecologist will be appointed to carry out an ecological study of the site. All of the ecologist's recommendations for general enhancement of the site will be implemented. A green and brown roof will be installed in addition to a green wall in the internal courtyard area.	1 of 3	
LE6 – Long Term Impact on Biodiversity	The contractor will ensure that all relevant UK and EU legislation relating to protection and enhancement of ecology will be complied with on site. The ecologist will develop a landscape and habitat management plan covering at least the first 5 years after project completion. In addition, the contractor will be required to nominate a 'biodiversity champion' and to train the site workforce on how to protect ecology and to minimise disturbance to wildlife during the project. The contractor will also be required to monitor their effectiveness throughout key stages of construction and train the workforce on species protection. An additional two items from the list specified in the BREEAM guidance will be implemented on site.	2 of 2	

Pollution

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Mandatory requirement (V.Good) met?

Likely Credits

Pol 1 – Refrigerant GWP – Building Services	This credit cannot be awarded because it is likely that the refrigerants used on site will have a GWP in excess of 5.	0 of 1
Pol 2 – Preventing Refrigerant Leaks	A refrigerant leak detection system will not be installed. Therefore this credit cannot be awarded.	0 of 1
Pol 4 – NO_x Emissions of Heating Source	A mixed-mode ventilation strategy will be employed on site, with mechanical cooling to the hotel bedrooms. As the NO _x emissions of electricity are far in excess of the levels required, these credits cannot be factored into the assessment.	0 of 3
Pol 5 – Flood Risk / Water Run Off	A site-specific Flood Risk assessment (FRA) will be carried out. If this study concludes that the site is at low risk from flooding, two credits will be awarded.	2 of 3
Pol 6 – Minimising Watercourse Pollution	This credit is awarded by default, as there are no external areas at risk from watercourse pollution.	1 of 1
Pol 7 – Reduction of Night Time Light Pollution	All external lighting will comply with ILE light pollution guidelines (2005) to limit the upward flow of light and to restrict light glow and automatically switch off between 2300 and 0700 (except safety and security lighting).	1 of 1
Pol 8 – Noise Attenuation	A noise impact assessment will be carried out by a fully UKAS/ACA 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

Exemplar Credits

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		Likely Credits	Mandatory requirement (V.Good) met?
Wat 2 – Water Meter	It is expected that an additional ‘Exemplar’ credit will be awarded under this issue because the design team have confirmed that sub meters will be fitted to individual water consuming building areas (where applicable). The sub meters will have pulsed outputs to enable connection to the BMS for the monitoring of water consumption.	1 of 1	