# 100 chalk farm road london NW1 8EH

# 100



breeam 2011 new construction pre-assessment retail conisbee

august 2013

one housing group

# BREEAM 2011 New Construction Assessment Report: Rating & Key Performance Indicators

This assessment and indicative BREEAM rating is not a formal certified BREEAM assessment or rating and must not be communicated as such. The score presented is indicative of a buildings potential performance and is based on a simplified pre-formal BREEAM assessment and unverified commitments given at an early stage in the design process.

**Overall Indicative Building Performance** 

Building name	Restaurant & Supermarket in Mixed Use Development
Indicative building score (%)	72.28%
Indicative BREEAM rating	Pre-Assessment result indicates potential for BREEAM Excellent rating
Indicative minimum standards level achieved	Pre-Assessment result indicates the minimum standards for Excellent level

Summary of Indicative Building Performance by Environmental Section and Assessment Issue

		Indicative no.	Indicative	
lanagamant	Indicative no.	credits	contribution to	
anagement  Man01 Sustainable Procuremer	credits available 8.0	Achieved 3.0	score	Minimum standards level achieved  Pro Assessment result indicates the minimum standards for Outstanding level
Man02 Responsible Construction Practice		2.0	1.64% 1.09%	Pre-Assessment result indicates the minimum standards for Outstanding level  Pre-Assessment result indicates the minimum standards for Outstanding level
Man03 Construction Site Impact		5.0	2.73%	N/A
Man04 Stakeholder Participatio		3.0	1.64%	Pre-Assessment result indicates the minimum standards for Outstanding level
Man05 Life cycle cost and service life plannin		1.0	0.55%	N/A
Total indicative environmental section performance		14.0	7.64%	
alth & Wellbeing		2110	710170	
Hea01 Visual Comfor	t 4.0	2.0	2.00%	Pre-Assessment result indicates the minimum standards for Outstanding level
Hea02 Indoor Air Qualit		2.0	2.00%	N/A
Hea03 Thermal Comfo		2.0	2.00%	N/A
Hea04 Water Qualit		1.0	1.00%	Pre-Assessment result indicates the minimum standards for Outstanding level
Hea05 Acoustic Performanc	•	2.0	2.00%	N/A
Hea06 Safety and Securit		1.0	1.00%	N/A
Total indicative environmental section performanc		10.0	10.00%	
ergy				
Ene01 Reduction of CO2 Emission	s 15.0	8.0	5.63%	Pre-Assessment result indicates the minimum standards for Excellent level
Ene02 Energy Monitorin		2.0	1.41%	Pre-Assessment result indicates the minimum standards for Outstanding level
Ene03 External Lightin		1.0	0.70%	N/A
Ene04 Low and Zero Carbon Technolog	_	3.0	2.11%	Pre-Assessment result indicates the minimum standards for Outstanding level
Ene05 Energy Efficient Cold Storag		0.0	0.00%	N/A
Ene06 Energy Efficient Transportation System		N/A	N/A	N/A
Ene07 Energy Efficient Laboratory System		N/A	N/A	N/A
Ene08 Energy Efficient Equipmer	t 2.0	2.0	1.41%	N/A
Ene09 Drying Spac	e N/A	N/A	N/A	N/A
Total indicative environmental section performanc	e <b>27.0</b>	16.00	11.26%	
nsport				
Tra01 Public Transport Accessibility	3.0	3.0	2.67%	N/A
Tra02 Proximity to Amenitie	s 1.0	1.0	0.89%	N/A
Tra03 Cyclist facilitie	s 2.0	2.0	1.78%	N/A
Tra04 Maximum Car Parking Capacit	y 2.0	0.0	0.00%	N/A
Tra05 Travel Pla	n 1.0	1.0	0.89%	N/A
Total indicative environmental section performanc	e <b>9.0</b>	7.0	6.22%	
ater				
Wat01 Water Consumptio	n 5.0	3.0	2.25%	Pre-Assessment result indicates the minimum standards for Outstanding level
Wat02 Water Monitorin	g 1.0	1.0	0.75%	Pre-Assessment result indicates the minimum standards for Outstanding level
Wat03 Water Leak Detection and Preventio	n 2.0	2.0	1.50%	N/A
Wat04 Water Efficient Equipmer	t N/A	N/A	N/A	N/A
Total indicative environmental section performanc	e <b>8.0</b>	6.0	4.50%	
aterials				
Mat01 Life Cycle Impact	s 5.0	3.0	3.13%	N/A
Mat02 Hard Landscaping and Boundary Protectio	n 1.0	1.0	1.04%	N/A
Mat03 Responsible Sourcin	g 3.0	3.0	3.13%	Pre-Assessment result indicates the minimum standards for Outstanding level
Mat04 Insulatio	n 2.0	2.0	2.08%	N/A
Mat05 Designing for Robustnes	s 1.0	1.0	1.04%	N/A
Total indicative environmental section performanc	e <b>12.0</b>	10.00	10.42%	
aste				
Wst01 Construction Waste Managemer		3.0	3.75%	Pre-Assessment result indicates the minimum standards for Outstanding level
Wst02 Recycled Aggregate		1.0	1.25%	N/A
Wst03 Operational Wast		1.0	1.25%	Pre-Assessment result indicates the minimum standards for Outstanding level
Wst04 Speculative Floor and Ceiling Finishe		N/A	N/A	N/A
Total indicative environmental section performanc	e 6.0	5.00	6.25%	
nd Use and Ecology				
LE01 Site Selectio		1.0	1.00%	N/A
LE02 Ecological Value of Site and Protection of Ecological Feature		1.0	1.00%	N/A
LE03 Mitigating Ecological Impac		2.0	2.00%	Pre-Assessment result indicates the minimum standards for Outstanding level
LE04 Enhancing Site Ecolog		2.0	2.00%	N/A
LE05 Long Term Impact on Biodiversit		0.0	0.00%	N/A
Total indicative environmental section performanc	e <b>10.0</b>	6.00	6.00%	
lution				
Pol01 Impact of Refrigerant		3.0	2.31%	N/A
Pol02 NOx Emission		3.0	2.31%	N/A
Pol03 Surface Water Run o		5.0	3.85%	N/A
Pol04 Reduction of Night Time Light Pollutio		1.0	0.77%	N/A
	n 1.0	1.0	0.77%	N/A
Pol05 Noise Attenuatio				
Pol05 Noise Attenuatio  Total indicative environmental section performance		13.00	10.00%	
Pol05 Noise Attenuatio  Total indicative environmental section performance novation	e 13.0	13.00	10.00%	
Pol05 Noise Attenuatio  Total indicative environmental section performance	e <b>13.0</b> n 10.0			N/A



This assessment and indicative BREEAM rating is not a formal certified BREEAM assessment or rating and must not be communicated as such. The score presented is indicative of a buildings potential performance and is based on a simplified pre-formal BREEAM assessment and unverified commitments given at an early stage in the design process.

	, 5
Building name Re	Restaurant & Supermarket in Mixed Use Development
Indicative building score (%) 72	72.28%
Indicative BREEAM rating Pr	re-Assessment result indicates potential for BREEAM Excellent rating
Indicative minimum standards level achieved Pr	Pre-Assessment result indicates the minimum standards for Excellent level

	No. of BREEAM credits available	8		Available contribution	on to overall score	4.36%
No. of	BREEAM innovation credits available	1		Minimum sta	ndards applicable	Yes
					Indicative credits	Shell & Cor
-Assessment question/criteria			Response	Credits available	achieved	option?
Will roles, responsibilities and a tr	aining schedule be defined in accordan	ce with BREEAM?	Yes	1	1	N/A
Will a BREEAM AP be appointed at RIBA s			No	1	0	N/A
	d to monitor and report progress during		No	1	0	N/A
Willa BREEAM AP be appointe	ed to monitor and report progress during	ig RIBA stage F-L?	No	1	0	N/A
Will a thermographic sur	vey be conducted and any defects unco	vered remedied?	No	1	0	N/A
Will com	oliant commissioning of building service	es be carried out?	No	1	0	N/A
Will compliant sea	sonal commissioning of building service	es be carried out?	Yes	1	1	N/A
Will water/energy consumption data be เ	ecorded and aftercare support provide	d for 12 months?	Yes	1	1	N/A
Will water/energy consumpt	ion be recorded/reported for 3 years p	ost construction?	No	1	0	N/A
Tota	I indicative BREEAM credits achieved	3				
	•					
			ult indicates the	minimum standards	for Outstanding lev	۵
Total indicative	contribution to overall building score BREEAM innovation credits achieved Indicative minimum standard(s) level	1.64% 0 Pre-Assessment res	ult indicates the	minimum standards	for Outstanding lev	el

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# **Man02 Responsible Construction Practices**

No. of BREEAM credits available	2	Available contribution to overall score	1.09%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Shell & Core
Pre-Assessment question/criteria option?

Which considerate construction scheme will be used or required to be used by the principal contractor? Considerate Constructors Scheme

For the required scheme, what will be the target performance level set for the site/contractor? A CCS score between 32 and 35.5.

N/A

Total indicative BREEAM credits achie
Total indicative contribution to overall building so
Total indicative BREEAM innovation credits achie
Indicative minimum standard(s) lo

#### Comments/notes:

Responsibility: PRP and One Housing Group and Contractor when appointed. Minimum target for CCS is 32.



# **Man03 Construction Site Impacts**

2.73%	Available contribution to overall score	5	No. of BREEAM credits available
No	Minimum standards applicable	0	No. of BREEAM innovation credits available
iell & Core	Indicative credits		

			malcative creats	Silcii & Corc
Pre-Assessment question/criteria	Response	Credits available	achieved	option?
Will site energy consumption be metered/monitored?	Yes	1	1	N/A
Will site water consumption be metered/monitored?	Yes	1	1	N/A
Will the transport of construction materials and waste to/from site be measured/monitored?	Yes	1	1	N/A
Will timber be sourced in accordance with the Government's Timber Procurement Policy?	Yes	1	1	N/A
Will/does the principal contractor operate a compliant Environmental Management System?	Yes	1	1	N/A
Will the principal contractor adopt best practice pollution prevention policies & procedures?	Yes	1	<b>.</b>	IN/A

5	Total indicative BREEAM credits achieved
2.73%	Total indicative contribution to overall building score
N/A	Total indicative BREEAM innovation credits achieved
N/A	Indicative minimum standard(s) level

#### Comments/notes:

Responsibility: PRP and One Housing Group and Contractor when appointed. 1.Responsibility has been assigned to an individual(s) for monitoring, recording and reporting energy, water and transport consumption data resulting from all construction processes. To ensure the robust collection of information, this individual(s) has the appropriate authority, responsibility and access to the data required.



Indicative credits Shell & Core

# **BREEAM 2011 New Construction Pre-Assessment Estimator**

#### **Man04 Stakeholder Participation**

No. of BREEAM credits available	4	Available contribution to overall score	2.18%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Pre-Assessment question/criteria	Response	Credits available	achieved	option?
Will an appropriate level of consultation activities be undertak	en? No	1	0	N/A
Will an access statement be developed and appropriate building user facilities provid	ed? Yes	1	1	N/A
Will building user guides and relevant user information be provid	ed? Yes	1	1	
Will a post occupancy evaluation assessment be undertaken and information disseminat	ed? Yes	1	1	

Total indicative BREEAM credits achieved	3
Total indicative contribution to overall building score	1.64%
Total indicative BREEAM innovation credits achieved	N/A

Indicative minimum standard(s) level Pre-Assessment result indicates the minimum standards for Outstanding level

#### Comments/notes:

Responsibility: PRP and One Housing Group. An extra Credit can be awarded if a Consultation Plan has been prepared. Minimum Consultation Plan content includes the following:

- 1. Functionality, Build Quality and Impact (including aesthetics)
- 2. Provision of appropriate internal and external facilities (for future building occupants and visitors/users)
- 3. Management and operational implications
- 4. Maintenance resources implications
- 5.Impacts on the local community e.g. Local traffic/transport impact
- 6. Opportunities for shared use of facilities and infrastructure with the community/appropriate stakeholders, if relevant/appropriate to building type.
- 7. Compliance with statuary (national/local) consultation requirements



#### Man05 Life cycle cost and service life planning

No. of BREEAM credits available 3	Available contribution to overall score	1.64%
No. of BREEAM innovation credits available 0	Minimum standards applicable	No

			Indicative credits	Shell & Core
Pre-Assessment question/criteria	Response	Credits available	achieved	option?
Will a feasibility stage Life Cycle Cost (LCC) analysis be commissioned and completed?	Yes	1	1	N/A
Will a strategic and system level LCC be commissioned and completed?	No	1	0	N/A
Will a technical design LCC to be commissioned and completed?	No	1	0	N/A

Total indicative BREEAM credits achieved	1
Total indicative contribution to overall building score	0.55%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A

#### Comments/notes:

Responsibility: One Housing Group - Criteria for One credit

1.A Life Cycle Cost (LCC) analysis has been carried out based on the proposals developed during RIBA Work Stages C/D (concept design/design development) or equivalent.

2.The Life Cycle Cost analysis is:a.Conducted in accordance with the process outlined in PD 156865:20081 (a supplement to BS ISO 15686-5:2008)

b.Based on the concept design/design development proposals

c.Completed for the following stages and uses a study period of 60 years, shown in real and discounted cash flow terms:i.Construction

ii.Operation - includes as a minimum, utilities, cleaning, management costs

iii.Maintenance - includes as a minimum, planned maintenance, replacements and repairs costs



HEALTH & WELLBEING	Section Weighting	15.00%		Indicative	Section Score	10.00%
lea01 Visual Comfort						
	No. of BREEAM credits available	4		Available contributio	n to overall score	4.00%
	No. of BREEAM innovation credits available	1		Minimum sta	ndards applicable	Yes
					Indicative credits	Shell & Core
re-Assessment question/criteria			Response	Credits available	achieved	option?
	Will all fluorescent lamps be fitted with high fre	equency ballasts?	Yes	N/A	N/A	N/A
Will all relevant buildir	g areas be designed to achieve the appropriate d	aylight factor(s)?	No	2		N/A
	n provide adequate glare control and view out fo		Yes	1	1	N/A
Will internal/external lighting be specifie	d in accordance with the relevant CIBSE Guides/B	ritish Standards?	Yes	1	1	N/A
Will all relevant buildir	g areas be designed to achieve exemplary level d	aylight factor(s)?		1	0	N/A
	Total indicative BREEAM credits achieved	2				
Total i	ndicative contribution to overall building score	2.00%				
Total	ndicative BREEAM innovation credits achieved	0				
	Indicative minimum standard(s) level P	re-Assessment res	ult indicates the	minimum standards	for Outstanding lev	el

#### Comments/notes:

Responsibility - Daylighting Consultant, Thornley & Lumb and TM Architects. For an additional Credit at least 35% of the area show achieve a Daylighting Factor of 2%. EITHER (a) OR {(b) and (c)} in the table below:

(a) - A uniformity ratio of at least 0.4 or a minimum point daylight factor of at least 0.8% (spaces with glazed roofs, such as atria, must achieve a uniformity ratio of at least 0.7 or a minimum point daylight factor of at least 1.4%). Due to particular lighting issues in teaching spaces the uniformity ratio can be reduced to 0.3 as defined in BB 87

Environmental Design Standard1(this deviation from the criteria can only be considered in circumstances where BB 87 is applicable). (b) - A view of sky from desk height (0.7m) is achieved. (c) The room depth criterion d/w +d/HW < 2/(1-RB) is satisfied.

#### Where:

d = room depth, w = room width, HW = window head height from floor level & RB = average reflectance of surfaces in the rear half of the room.



Indicative credits Shell & Core

# **BREEAM 2011 New Construction Pre-Assessment Estimator**

#### **Hea02 Indoor Air Quality**

No. of BREEAM credits available	4	Available contribution to overall score	4.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

			marcacive or cares	311011 00 0010	
Pre-Assessment question/criteria	Response	Credits available	achieved	option?	
Will an air quality plan be produced?	Yes	1	1	N/A	l
Will the building be designed to minimise sources of internal air pollution?	Yes	1	1	N/A	l
Will the relevant products be specified to meet the VOC testing and emission levels required?	Yes	1	1	N/A	ĺ
Will formaldehyde and total VOC levels be measured post construction?	No	1	0	N/A	ĺ
Will the building be designed to, or have the potential to provide, natural ventilation?	No	1	0	N/A	l

Total indicative BREEAM credits achieved	2
Total indicative contribution to overall building score	2.00%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A

#### Comments/notes:

Responsibility: TM Architects and Thornley & Lumb

Criteria for Additional One Credit - 1.An indoor air quality plan has been produced which considers; (a) Removal of contaminant sources, (b) Dilution and control of contaminant sources, (c) Procedures for pre-occupancy flush out & (d) 3rd party testing and analysis.

2. For air-conditioned and mixed-mode buildings: the building's air intakes and exhausts are over 10m apart to minimise recirculation and intakes are over 20m from sources of external pollution.

3. For naturally-ventilated buildings: openable windows/ventilators are over 10m from sources of external pollution.

4. The building has been designed to provide fresh air and minimise internal pollutants (and ingress of external polluted air into the building) in accordance with the criteria of the relevant standard for ventilation.

5. Areas of the building subject to large and unpredictable or variable occupancy patterns have CO2 or air quality sensors specified and:

(a) In mechanically ventilated spaces, the sensors either have the ability to alert the building owner/manager when CO2 levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, i.e. automatic opening windows/roof vents.



#### **Hea03 Thermal Comfort**

	No. of BREEAM credits available	2	Available contribution to overall score			2.00%
	No. of BREEAM innovation credits available	0	Minimum standards applicable		No	
Pre-Assessment question/criteria			Response	Credits available	Indicative credits achieved	Shell & Core option?
	Will thermal modelling of the desi	gn be carried out?	Yes	1	1	N/A
	Will the modelling inform the development of a thermal zoning and	control strategy?	Yes	1	1	N/A
	Total indicative BREEAM credits achieved	2				
	Total indicative contribution to overall building score	2.00%				
	Total indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				

#### Comments/notes:

Responsibility: Thornley & Lumb 1. Thermal modelling has been carried out using software in accordance with CIBSE AM11 1Building Energy and Environmental Modelling. 2. The modelling demonstrates that the building design and services strategy can deliver thermal comfort levels in occupied spaces in accordance with the criteria set out in CIBSE Guide A Environmental Design2; or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type). 3. The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating / cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance with CIBSE AM11). 4. The building complies with any requirement, in terms of "time out of range" (TOR) metric, from the appropriate industry standard (as above) OR where there is no appropriate industry standard available or TOR recommendation made, the building services engineer confirms that the TOR is acceptable for the purpose and function of the building. 5. The TOR metric (%) is reported, via the BREEAM scoring and reporting tool, based on the modelling above (and therefore specified building servicing strategy) and includes maxi, and mini, temperatures for both summer and winter settings.



#### **Hea04 Water Quality**

No. of BREEAM credits available	1		Available contribution	on to overall score	1.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable		Yes	
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Will all water systems be designed to comply with the relevant HSE Approved Code of Practic	te and Guidance?	Yes			N/A
Where humidification is to be provided, will a failsafe humidification syst			1	1	N/A
Will a wholesome supply of accessible, clean and fresh drinking water be supplied for	or building users?	Yes			N/A
Total indicative BREEAM credits achieved	1				
Total indicative contribution to overall building score	1.00%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	Pre-Assessment re	sult indicates the	minimum standards	for Outstanding lev	vel .

#### Comments/notes:

Responsibility: Thornley & Lumb & TM Architects

1.All water systems in the building are designed in compliance with the measures outlined in the Health and Safety Executive's

"Legionnaires' disease - The control of legionella bacteria in water systems". Approved Code of Practice and Guidance, 20001 and, where relevant, other industry/sector best practice guidance (see Compliance notes).

2. Where humidification is required, a failsafe humidification system is provided.

Building Occupants Criteria - b.Permanently staffed buildings/office areas:i.Chilled, mains-fed point-of-use water supply or point-of-use water coolers.

ii. Provision in each staff kitchenette, or in a suitable location on each floor level, and in a staff canteen (if provided).



# **Hea05 Acoustic Performance**

No. of BREEAM credits available	2	Available contribution to overall score			2.00%
No. of BREEAM innovation credits available	0		Minimum standards applicable		No
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Will/has a suitably qualified acoustician be appointed to provide appropri	_	Yes			21.12
Will the building meet the relevant acoustic performance standards and test	ing requirements?	Yes	2	2	N/A
Total indicative BREEAM credits achieved	2				
Total indicative contribution to overall building score	2.00%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	N/A				
Comments/notes:					
Responsibility: Sharps Redmore Acoustic Consultants					



# **Hea06 Safety and Security**

No. of BREEAM credits available	2	Available contribution to overall score			2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable			No
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Where external site areas are present, will safe access be designed for pedestrians a	•	Yes	1	1	N/A
Will a suitably qualified security consultant be appointed and security considerations acc	ounted for?	No	1	0	N/A
Total indicative BREEAM credits achieved	1				
Total indicative contribution to overall building score	1.00%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	N/A				

# Comments/notes:

Responsibility: PRP, TM Architects and One Housing Group



ERGY	Section Weighting	19.00%	Indicative Section Score	11.26%
M. Dadustian	of CO. Emissions			
of Reduction (	of CO <sub>2</sub> Emissions			
	No. of BREEAM credits available	15	Available contribution to overall score	10.56%
	No. of BREEAM innovation credits available	5	Minimum standards applicable	Yes
	How do you wish to assess the number of BREEAM credits achieved for this issue?	Define a target n	number of BREEAM credits achieved	
	Select the target number of BREEAM credits for the Ene01 issue	8	BREEAM Innovation credits	



Total indicative BREEAM credits achieved	8	
Total indicative contribution to overall building score	5.63%	
Total indicative BREEAM innovation credits achieved	0	
Indicative minimum standard(s) level	Pre-Assessment r	result indicates the minimum standards for Excellent lev

# Comments/notes:

Responsibility: Thornley and Lumb, PRP & One Housing Group

BREEAM Outstanding requires a minimum EPRNC of 0.60 (10 credits) and a 40% reduction in CO2 emissions arising from regulated building energy consumption.

1. Catering kitchens target ≤ 50 dB LAeq,T

2. Restaurant areas target 40-55dB LAeq,T



# **Ene02 Energy Monitoring**

	No. of BREEAM credits available	2	ļ.	Available contributi	on to overall score	1.41%
	No. of BREEAM innovation credits available	0		Minimum sta	andards applicable	Yes
re-Assessment quest	tion/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
	Will a BMS or sub-meters be specified to monitor energy use from major building s	services systems?	Yes	1	1	N/A
	Will a BMS or sub-meters be specified to monitor energy use by tenant/buildin	g function areas?	Yes	1	1	N/A
	Total indicative BREEAM credits achieved  Total indicative contribution to overall building score  Total indicative BREEAM innovation credits achieved	2 1.41% N/A	- freedom the		for O talending la	
	Indicative minimum standard(s) level F	re-Assessment re	suit indicates the r	ninimum standards	for Outstanding lev	ei
omments/notes:						
esponsibility : Thorn	ley and Lumb, One Housing Group & PRP					



Ene03 E	xternal	Lighting
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No. of BREEAM credits available	1		Available contribution to overall score		0.70%
No. of BREEAM innovation credits available	0		Minimum standards applicable		No
				Indicative credits	Shell & Core
re-Assessment question/criteria		Response	Credits available	achieved	option?
Will external light fittings and controls be specified in accordance with the	BREEAM criteria?	Yes	1	1	N/A
Total indicative BREEAM credits achieved	1				
Total indicative contribution to overall building score	0.70%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	N/A				
omments/notes:					
esponsibility : Thornley and Lumb					



# **Ene04 Low and Zero Carbon Technology**

No. of BREEAM credits available	5	Д	vailable contribution	on to overall score	3.52%
No. of BREEAM innovation credits available	1		Minimum sta	indards applicable	Yes
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Compliant LZC feasibility study	to be undertaken	Yes	2	1	N/A
What will be the intended scope of the	feasibility study?	Operational stage	carbon savings/em	nissions	
Target percentage net reduction in operational sta	ge CO2 emissions	25.00%	2	2	N/A
Please confirm the intended energy source of the Low and/or zero	o carbon system?	Solar			
	Please select	No	1	0	N/A
				-	
Total indicative BREEAM credits achieved	3				
Total indicative contribution to overall building score	2.11%				
Total indicative BREEAM innovation credits achieved	0				
Indicative minimum standard(s) level	Pre-Assessment re	sult indicates the n	ninimum standards	for Outstanding lev	vel
Comments/notes:					
Responsibility: Thornley and Lumb & TM Architects					



# BREEAM 2011 New Construction Pre-Assessment Estimator

# **Ene05 Energy Efficient Cold Storage**

	No. of BREEAM credits available 2	,	Available contribution	on to overall score	1.41%
	No. of BREEAM innovation credits available 1		Minimum sta	andards applicable	No
F	Pre-Assessment question/criteria	Response	Credits available	Indicative credits achieved	Shell & Core option?
	Will the refrigeration system be designed, installed and commissioned in accrodance with BREEAM criteria?	Yes	1	0	N/A
	Will the refrigeration system demonstrate a saving in indirect greenhouse gas emissions?	Yes	1	0	N/A
	Will the refrigeration system be a type described as a 'Future Technology' in the Refrigeration Road Map?	No	1	0	N/A

Total indicative BREEAM credits achieved	0
Total indicative contribution to overall building score	0.00%
Total indicative BREEAM innovation credits achieved	0
Indicative minimum standard(s) level	N/A

#### Comments/notes:

commences notes.	
Responsibility: PRP & One Housing Group - Note the following Credits must first be achieved to obtained 6th Credit Man 01 and 1st Credit Ene 05.	



Ene06 Energy Efficient Transportation Systems  Assessment Issue No			e Not Applicabl	
N/A	Available contribution to overall score		N/A	
N/A		Minimum standards applicable		
	Response	Credits available	Indicative credits achieved	Shell & Core option?
N/A				
	N/A N/A N/A	N/A Response  N/A N/A N/A N/A	Response Credits available  N/A  N/A  N/A  N/A	N/A  Available contribution to overall score  Minimum standards applicable  Indicative credits achieved  N/A  N/A  N/A  N/A  N/A



Ene07 Energy Efficient Laboratory Systems				Assessment Issu	e Not Applicable
No. of BREEAM credits available	N/A		Available contribution	on to overall score	N/A
No. of BREEAM innovation credits available	N/A		Minimum sta	andards applicable	N/A
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
			3		
Total indicative BREEAM credits achieved	N/A				
Total indicative contribution to overall building score	N/A				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	N/A				
Comments/notes:					

#### **Ene08 Energy Efficient Equipment**

No. of BREEAM credits available	2	Available contribution to overall score	1.41%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

#### Pre-Assessment question/criteria

majority Which of the following will be present and likely to be a/the major contributor to 'unregulated' energy use: contributor Present Small power/plug in equipment? No Swimming pool? No Communal laundry? No No Data centre? IT-intensive operation areas? No No Residential areas? Healthcare? No Kitchen and catering facilities? Yes Yes

Significant

	Indicative		Indicative credits	Shell & Core
	compliance?	Credits available	achieved	option?
Will the significant majority contributor(s) to 'unregulated' energy use (above) meet the BREEAM criteria?	Yes	2	2	N/A

2	Total indicative BREEAM credits achieved
1.41%	Total indicative contribution to overall building score
N/A	Total indicative BREEAM innovation credits achieved
N/A	Indicative minimum standard(s) level

#### Comments/notes:

Responsibility: PRP, One Housing Group, Thornley Lumb & TM Architects - Where the project team can demonstrate that the project has incorporated at least one energy efficiency measure outlined in each of the following sections of CIBSE Guide TM508: 1.Section 8 (Drainage and kitchen waste removal)

2. Section 9 (Energy controls - specifically controls relevant to equipment),

3. Section 11 (Appliance specification, fabrication specification - not utensil specification),

4. Section 12 (Refrigeration),

5. Section 13 (Warewashing: dishwashers and glasswashers),

6. Section 14 (Cooking appliance selection),

7. Section 15 (Water temperatures, taps, faucets and water saving controls)



Ene09 Drying Space					Assessment Issu	e Not Applicable
	No. of BREEAM credits available	N/A		Available contributi	on to overall score	N/A
	No. of BREEAM innovation credits available	N/A		Minimum sta	andards applicable	N/A
Pre-Assessment question/criteria			Response	Credits available	Indicative credits achieved	Shell & Core option?
	Total indicative BREEAM credits achieved	N/A				
	Total indicative contribution to overall building score	N/A				
	Total indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				
Comments/notes:						



TRANSPORT	Section Weighting	8.00%	Indicative Section Score	6.22%
Tra01 Public Transport Accessibilit	у			
	No. of BREEAM credits available	3	Available contribution to overall score	2.67%
	No. of BREEAM innovation credits available	0	Minimum standards applicable	No
Pre-Assessment question/criteria		D : / 55: /:	1 1)	
	e building type category (for the purpose of Tra01 issue assessment)?			
What	is the degree of public transport provision for the building's location?		of public transport, i.e. large urban/metropolitan city cent	re
	Building's indicative Accessibility Index	18		
	Does the building have a dedicated bus service?			
	Total indicative BREEAM credits achieved	3		
	Total indicative contribution to overall building score	2.67%		
	Total indicative BREEAM innovation credits achieved	N/A		
	Indicative minimum standard(s) level	N/A		
Comments/notes:				
Responsibility : Tully De'ath				



	No. of BREEAM credits available	1		Available contributi	on to overall score	0.89%
	No. of BREEAM innovation credits available	0		Minimum sta	andards applicable	No
re-Assessment question/criteria			Response	Credits available	Indicative credits achieved	Shell & Core option?
	Will the building be in close proximity of and accessible to applic	cable amenities?	Yes	1	1	N/A
	Total indicative BREEAM credits achieved	1				
	Total indicative contribution to overall building score	0.89%				
	Total indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				
omments/notes:						
esponsibility : Tully De'ath						



Indicative credits Shell & Core

# BREEAM 2011 New Construction Pre-Assessment Estimator

Tra03	<b>Cyclist</b>	facilities
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No. of BREEAM credits available	2	Available contribution to overall score	1.78%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

What is the building type category (for the purpose of Tra03 issue assessment)	Business - offices, Industrial
	÷-

Pre-Assessment question/criteria		Response	Credits available	achieved	option?
	Will cycle storage spaces be provided?	Yes	2	2	N/A
	Will cyclist facilities be provided?	Yes	۷ .	2	N/A

Total indicative BREEAM credits achieved	2
Total indicative contribution to overall building score	1.78%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A

# Comments/notes:

Responsibility: Tully De'ath & TM Architects



No. of BREEAM credits available	2	Available contribution to overall score	1.78%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for the purpose of Tra04 issue)?	Business - offices,	Industrial
Buildings indicative Accessibility Index (sourced from issue Tra01)	18	

Pre-Assessment question/criteria

Nill the building meet BREEAM's maximum parking capacity criteria for this building type/Accessibility Index?

Indicative credits Shell & Core option?

Credits available achieved option?

N/A

Total indicative BREEAM credits achieved	0
Total indicative contribution to overall building score	0.00%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A

#### Comments/notes:

Commency notes.
Responsibility: Tully De'ath & TM Architects



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	No. of BREEAM credits available	1	Available contribution to overall score			0.89%
	No. of BREEAM innovation credits available	0		Minimum standards applicable		
					Indicative credits	Shell & Core
re-Assessment question/criteria			Response	Credits available	achieved	option?
	Will a transport plan based on site specific travel survey/assessmer	nt be developed?	Yes	1	1	N/A
	Total indicative BREEAM credits achieved	1				
	Total indicative contribution to overall building score	0.89%				
	Total indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				
omments/notes:						
esponsibility : Tully De'ath						



WATER	Section Weighting	6.00%	Indicative Section Score	4.50%
Wat01 Water Consumption				
	No. of BREEAM credits available	5	Available contribution to overall score	3.75%
	No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes
				Shell & Core option?
Select the level th	at corresponds closely to the target or likely water component	ent specification?	P Level 3 - Three credits	N/A
	Total indicative BREEAM credits achieved	3		
	Total indicative contribution to overall building score	2.25%		
	Total indicative BREEAM innovation credits achieved	0		
	Indicative minimum standard(s) level	Pre-Assessment r	result indicates the minimum standards for Outstanding leve	el
Comments/notes:				
Responsibility: PRP, One Housing Group, TM A	rchitects & Thornley and Lump			



# **Wat02 Water Monitoring**

No. of BREEAM credits available	1	Available contribution to overall score			0.75%
No. of BREEAM innovation credits available	0		Minimum sta	ındards applicable	Yes
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Will there be a water meter on the mains water supply	to the building(s)?	Yes	1	1	N/A
Will metering/monitoring equipment be specified on the water supply to any relevant pla	int/building areas?	Yes			
Will all specified water meters hav			1		
If the site/building has an existing BMS connection, will all pulsed meters be conn	ected to the BMS?	N/A	]		
Total indicative BREEAM credits achieved  Total indicative contribution to overall building score  Total indicative BREEAM innovation credits achieved  Indicative minimum standard(s) level	1 0.75% N/A Pre-Assessment re	sult indicates the I	minimum standards	for Outstanding lev	rel
Comments/notes:					
Responsibility: PRP, One Housing Group, TM Architects & Thornley and Lumb					



# Wat03 Water Leak Detection and Prevention

No. of BREEAM credits available	2		Available contribution	on to overall score	1.50%
No. of BREEAM innovation credits available	0	Minimum standards applicable		No	
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Will a mains water leak detection system be installed on the building's ma	ains water supply?	Yes	1	1	N/A
Will flow control devices be installed in each san	itary area/facility?	Yes	1	1	N/A
Total indicative BREEAM credits achieved  Total indicative contribution to overall building score  Total indicative BREEAM innovation credits achieved  Indicative minimum standard(s) level	2 1.50% N/A N/A				
Comments/notes:					
Responsibility: TM Architects & Thornley and Lump & One Housing Group					



			Assessment Issu	e Not Applicable
N/A	Available contribution to overall score			N/A
N/A		Minimum standards applicable		
	Response	Credits available	Indicative credits achieved	Shell & Core option?
N/A				
	N/A N/A N/A	N/A Response  N/A N/A N/A N/A	N/A  Response Credits available  N/A  N/A  N/A  N/A	N/A  Minimum standards applicable  Indicative credits Response Credits available achieved  N/A  N/A  N/A  N/A



MATERIALS	Section Weighting	12.50%	Indicative Section Score	10.42%
lat01 Life Cycle Impacts				
	No. of BREEAM credits available	5	Available contribution to overall score	5.21%
	No. of BREEAM innovation credits available	1	Minimum standards applicable	No
re-Assessment question/criteria				
	How do you wish to assess the number of BREEAM credits achieve	ed for this issue?	Define a target number of BREEAM credits to be achieved	
	Select the number of BREEAM credits being targeted for	the Mat01 issue	3 BREEAM Innovation credits	
	Total indicative BREEAM credits achieved	3		
	Total indicative contribution to overall building score	3.13%		
	Total indicative BREEAM innovation credits achieved	0		
	Indicative minimum standard(s) level	N/A		
,				
omments/notes: esponsibility: TM Architects & Contrac				

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# Mat02 Hard Landscaping and Boundary Protection

No. of BREEAM credits available	1	Available contribution to overall score		1.04%	
No. of BREEAM innovation credits available	0	Minimum standards applicable		No	
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Will ≥80% of all external hard landscaping and boundary protection achieve a Green Gui	de A or A+ rating?	Yes	1	1	N/A
Total indicative BREEAM credits achieved	1				
Total indicative contribution to overall building score	1.04%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	N/A				

# Comments/notes:

Responsibility: TM Architects & The Ecology Consultant & Contractor	Criteria - Where at least 80% of all external hard landscaping and boundary protection (by area) achieves an A or
A+ rating, as defined in the Green Guide to Specification. Green Guide ratings	for the specification(s) of each element can be found at: www.thegreenguide.org.uk



#### **Mat03 Responsible Sourcing**

No. of BREEAM credits available	3	Available contribution to overall score	3.13%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

#### Pre-Assessment question/criteria

How do you wish to assess the number of BREEAM credits achieved for this issue? Define a target number of BREEAM credits		
Select the number of BREEAM credits being targeted for the Mat03 issue	3	BREEAM Innovation credits
Will all timber used on the project be sourced in accordance with the UK Govt's Timber Procurement Policy?	Yes	

Total indicative BREEAM credits achieved	3
Total indicative contribution to overall building score	3.13%
Total indicative BREEAM innovation credits achieved	0

Indicative minimum standard(s) level Pre-Assessment result indicates the minimum standards for Outstanding level

#### Comments/notes:

Responsibility: PRP, One Housing Group, TM Architects, Thornley and Lump & Contractor

3.Confirmation that all timber used on the project is sourced in accordance with the UK Government's Timber Procurement Policy. Note:

a.It is a minimum requirement of BREEAM certification (for any rating level) that compliance with criterion 3 is confirmed (see Compliance note for further information).

b.In meeting this requirement, there is no minimum number of BREEAM credits that need to be achieved for this assessment issue (the BREEAM credit benchmarks for responsible sourcing are calibrated on the basis of assessing all major building materials and not for any single material).



#### Mat04 Insulation

	No. of BREEAM credits available	2	Available contribution to overall score		2.08%	
	No. of BREEAM innovation credits available	0	Minimum standards applicable		No	
Pre-Assessment question/criteria			Response	Credits available	Indicative credits achieved	Shell & Core option?
	Is the building targeting an insulating ind	lex of 2 or more?	Yes	1	1	N/A
	Will the building's insulating materials be resp	onsibly sourced?	Yes	1	1	N/A
	Total indicative BREEAM credits achieved	2				
	Total indicative contribution to overall building score	2.08%				
	Total indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				

# Comments/notes:

Responsibility: TM Architects and Contractor

Any new insulation specified for use within the following building elements must be assessed:a.External walls

b.Ground floor

c.Roof

d.Building services

5.At least 80% by volume of the thermal insulation used in the building elements identified in Item 1 must be responsibly sourced i.e. each insulation product must be certified in accordance with either tier levels 1, 2, 3, 4, 5 or 6 as described in BREEAM issue Mat 03. The table below shows the key processes and supply chain processes required for common insulation products.



#### **Mat05 Designing for Robustness**

No. of BREEAM credits available	1	Available contribution to overall score		1.04%	
No. of BREEAM innovation credits available	0	Minimum standards applicable		N/A	
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?
Will suitable durability/protection measures be specified and installed to vulnerable areas	of the building?	Yes	1	1	N/A
Total indicative BREEAM credits achieved	1				
Total indicative contribution to overall building score	1.04%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	NI / A				

#### Comments/notes:

Responsibility: TM Architects Suitable durability and protection measures to vulnerable parts of the building can include:

1.Bollards/barriers/raised kerbs to delivery and vehicle drop-off areas. 2.Robust external wall construction, up to 2m high

3. Corridor walls specified to Severe Duty (SD) as per BS 5234-21 and, for healthcare buildings, Health Technical Memorandum 56 – Partitions2

4. Protection rails to walls of corridors

5.Kick plates/impact protection (from trolleys etc) on doors

6. Hard-wearing and easily washable floor finishes in heavily used circulation areas (i.e. main entrance, corridors, public areas etc)

7. Designing out the risk without the need for additional materials specification to protect vulnerable areas.



WASTE	Section Weighting	7.50%	Indicative Section Score	6.25%
Wst01 Construction Waste Management				
	No. of BREEAM credits available	4	Available contribution to overall score	5.00%
	No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

#### Pre-Assessment question/criteria

How do you wish to assess the number of BREEAM credits achieved for this issue?	Define a target nu	mber of BREEAM credits to be achieved	
Select the number of BREEAM credits being targeted for the Wst01 issue	3	BREEAM Innovation credits	

Total indicative BREEAM credits ac	ed 3
Total indicative contribution to overall building	ore 3.75%
Total indicative BREEAM innovation credits ac	ed 0
Indicative minimum standard(	vel Pre-Assessment

#### Comments/notes:

Responsibility: One Housing Group, PRP and Contractor

1.Non-hazardous construction waste (excluding demolition and excavation waste) generated by the building's design and construction meets or exceeds the following resource efficiency benchmarks, less than or equal to 3.4m3 / 100m2.

2.There is a compliant Site Waste Management Plan (SWMP).

3.Where existing buildings on the site will be demolished a pre-demolition audit of any existing buildings, structures or hard surfaces is completed to determine if, in the case of demolition, refurbishment/reuse is feasible and, if not, to maximise the recovery of material from demolition for subsequent high-grade/value applications. The audit must be referenced in the SWMP and cover:a.ldentification of the key refurbishment/demolition materials.

b.Potential applications and any related issues for the reuse and recycling of the key refurbishment and demolition materials.



No. of BREEAM credits available	1	Available contribution to overall score	1.25%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

## Pre-Assessment question/criteria

How do you wish to assess the number of BREEAM credits achieved for this issue?		umber of BREEAM credits to be achieved
Select the number of BREEAM credits being targeted for the Wst02 issue	1	BREEAM Innovation credits

Total indicative BREEAM credits achieved	1
Total indicative contribution to overall building score	1.25%
Total indicative BREEAM innovation credits achieved	0
Indicative minimum standard(s) level	N/A

Responsibility: One Housing Group, PRP and Contraction	ctor		



### **Wst03 Operational Waste**

No. of BREEAM credits available	1	Available contribution to overall score			1.25%
No. of BREEAM innovation credits available	0		Minimum sta	ndards applicable	Yes
Pre-Assessment question/criteria  Will appropriate facilities for the storage of operational recyclable waste vo	lumes he provided?	Response Yes	Credits available	Indicative credits achieved	Shell & Core option?
If relevant, will a static waste compactor(s) or baler(s) be	•				N/A
If relevant, will a vessel for composting suitable organic waste be	•		1	İ	N/A
Total indicative BREEAM credits achieved  Total indicative contribution to overall building score  Total indicative BREEAM innovation credits achieved	1.25% N/A				
Indicative minimum standard(s) level	Pre-Assessment re	sult indicates the i	minimum standards	for Outstanding lev	rel
Comments/notes:					
Responsibility : One Housing Group, PRP and Contractor					



Wst04 Speculative Floor and Ceiling Finishes				Assessment Issu	ie Not Applicabl	
No. of BREEAM credits available	N/A		Available contribution to overall score			
No. of BREEAM innovation credits available	N/A	Minimum standards applicable			N/A	
Pre-Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Core option?	
Total indicative BREEAM credits achieved	N/A					
Total indicative contribution to overall building score	N/A					
Total indicative BREEAM innovation credits achieved	N/A					
Indicative minimum standard(s) level	N/A					
Comments/notes:						



AND USE & ECOLOGY	Section Weighting	10.00%		Indicativ	e Section Score	6.00%
E01 Site Selection						
	No. of BREEAM credits available	2	,	Available contribution	on to overall score	2.00%
	No. of BREEAM innovation credits available	0		Minimum sta	andards applicable	No
re-Assessment question/criteria			Response	Credits available	Indicative credits achieved	Shell & Core option?
Will at least 75% of the proposed de	velopment's footprint be located on previously been	•	Yes	1	1	N/A
	Is the site deemed to be significantly	contaminated?	No	1	0	N/A
	Total indicative BREEAM credits achieved	1				
To	tal indicative contribution to overall building score	1.00%				
То	tal indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				
omments/notes:						
esponsibility : The Ecology Consultancy						



## **LE02** Ecological Value of Site and Protection of Ecological Features

No. of BREEAM credits available	1	Available contribution to overall score	1.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

			Indicative credits	Shell & Core
Pre-Assessment question/criteria	Response	Credits available	achieved	option?
Can the land within the construction zone be defined as 'land of low ecological value'?	Yes	1	1	N/A
Will all features of ecological value surrounding the construction zone/site boundary be protected?	Yes	1	1	N/A

Total indicative BREEAM credits achieved	1
Total indicative contribution to overall building score	1.00%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A



### **LE03 Mitigating Ecological Impact**

No. of BREEAM credits available	2	Available contribution to overall score	2.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

## Pre-Assessment question/criteria

What is the likely change in ecological value (plant species richness) as a result of the si	tes development?	No negative change or improvement in plant species richness
Total indicative BREEAM credits achieved	2	
Total indicative contribution to overall building score	2.00%	
Total indicative BREEAM innovation credits achieved	N/A	
Indicative minimum standard(s) level	Pre-Assessment re	sult indicates the minimum standards for Outstanding level

Responsibility : The Ecology Consultancy & Contractor



### **LE04 Enhancing Site Ecology**

No. of BREEAM credits available	3		Available contribution	n to overall score	3.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable		No	
Assessment question/criteria		Response	Credits available	Indicative credits achieved	Shell & Coro
Will a suitably qualified ecologist be appointed to report on enhancing and protect		Yes	3	2	N/A
Will the suitably qualified ecologists general recommendations be					
What is the targeted/intended improvement in ecological value as a result of enhar	cement actions?	Small improvem	ent in plant species r	chness	
Total indicative BREEAM credits achieved  Total indicative contribution to overall building score	2 2.00%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	N/A				
nments/notes:					
oonsibility : The Ecology Consultancy					



#### **LE05 Long Term Impact on Biodiversity**

	No. of BREEAM credits available	2		Available contributi	on to overall score	2.00%
	No. of BREEAM innovation credits available	0		Minimum sta	andards applicable	No
					Indicative credits	Shell & Core
Pre-Assessment question/criteria			Response	Credits available	achieved	option?

Will the building meet BREEAM's mandatory criteria for this BREEAM issue?

Will a Biodiversity Champion be appointed to monitor/minimise impacts of site activities on biodiversity?

Will the contractor provide training for the site workforce on how to protect ecology during the project?

Will the contractor record actions to protect biodiversity and monitor their effectiveness during construction?

Will a new ecologically valuable habitat, appropriate to the local area, be created?

Where flora/fauna habitats exist on site, will the contractor programme site works to minimise disturbance?

Total indicative BREEAM credits achieved	0
Total indicative contribution to overall building score	0.00%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A

Commence; notes:		
Responsibility: The Ecology Consultancy & Contractor		

POLLUTION	Section Weighting	10.00%		Indicativ	e Section Score	10.00%
Pol01 Impact of Refrigerants						
	No. of BREEAM credits available	3		Available contribution	on to overall score	2.31%
	No. of BREEAM innovation credits available	0		Minimum sta	indards applicable	No
			_		Indicative credits	Shell & Core
Pre-Assessment question/criteria			Response	Credits available	achieved	option?
	Will refrigerant containing systems be installed in the a		Yes	2	2	N/A
	Is the Global Warming Potential of the specified refrigerant(s) likely What is the target range Direct Effect Life Cycle CO <sub>2</sub> eq. emission	•	Yes	kgCO2eq/kW cool	th canacity	
	Will a refrigerant leak detection and containment system be sp	•	Yes	1	1	N/A
	Total in dispting DDFFAM and its achieved	2				
	Total indicative BREEAM credits achieved	3				
	Total indicative contribution to overall building score	2.31%		_		
	Total indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				

#### Comments/notes:

Responsibility - Thornley & Lumb 1. Where the building does not require the use of refrigerants within its installed plant/systems.

OR alternatively, where the building does require the use of refrigerants, the three credits can be awarded as follows:

#### Two credits

2.Where the systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELC CO2e) of ≤ 100 kgCO2e/kW cooling capacity. To calculate the DELC CO2e the following information is sourced from the design team and entered into the BREEAM Pol 01 calculator (a) to (d): i.Annual refrigerant leakage rate (% of refrigerant charge): ii.Annual purge release factor (% of refrigerant charge): iv.Probability factor for catastrophic system failure (%) v.Recovery efficiency (% of refrigerant charge): For further detail refer to the Relevant definitions and Calculation procedures sections within Additional Information. OR 3.Where air-conditioning or refrigeration systems are installed the refrigerants used have a Global Warming Potential (GWP) < 10.



## Pol02 NO<sub>x</sub> Emissions

Pre-Assessment question/criteria

No. of BREEAM credits available	3	Available contribution to overall score	2.31%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Shell & Core Response Response option?

Please enter the target/maximum  $NO_x$  emission level for space heating system Response 
Total indicative BREEAM credits achieved	3
Total indicative contribution to overall building score	2.31%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A

#### Comments/notes:

Resposnsibility: Thornley and Lumb - The Target Nox emssions levels for space heating is 40mg/kWh for 3 Credits to be awarded.



## Pol03 Surface Water Run off

3.85%	Available contribution to overall score	5	No. of BREEAM credits available
No	Minimum standards applicable	0	No. of BREEAM innovation credits available
Shell & Core	Indicative credits		

Pre-Assessment question/criteria	Response	Credits available	achieved	option?
What is the actual/likely annual probability of flooding for the assessed site?	Low	2	2	N/A
Will a compliant Flood Risk Assessment be undertaken?	Yes	2	2	N/A
Will the site meet the BREEAM criteria for peak rate surface water run off?	Yes	1	1	N/A
Will the site meet the criteria for surface water run off volume, attenuation and/or limiting discharge?	Yes	1	1	N/A
Will the site be designed to minimise watercourse pollution in accordance with the BREEAM criteria?	Yes	1	1	N/A

Total indicative BREEAM credits achieved	5
Total indicative contribution to overall building score	3.85%
Total indicative BREEAM innovation credits achieved	N/A
Indicative minimum standard(s) level	N/A

Comments/notes.		
Responsibility : Conisbee Civil Engineer		



#### **Pol04 Reduction of Night Time Light Pollution**

	No. of BREEAM credits available	1	Available contribution to overall score		0.77%	
	No. of BREEAM innovation credits available	0	Minimum standards applicable		No	
Pre-Assessment question/criteria			Response	Credits available	Indicative credits achieved	Shell & Core option?
	Will the external lighting be designed to reduc	e light pollution?	Yes	1	1	N/A
	Total indicative BREEAM credits achieved  Total indicative contribution to overall building score	1 0.77%				
	Total indicative BREEAM innovation credits achieved	N/A				
	Indicative minimum standard(s) level	N/A				

#### Comments/notes:

Responsibility: Thornley and Lumb 1.The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 20111, (see Additional Information - Buildings located in Scotland must also refer to the Compliance notes below for additional criteria).

2.All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 hr and 07:00 hr. This can be achieved by providing a timer for all external lighting set to the appropriate hours.

3.If safety or security lighting is provided and will be used between 23:00 hr and 07:00 hr, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2of the ILP's Guidance notes, for example by using an automatic switch to reduce the lighting levels at 23:00 hr or earlier.

4.Illuminated advertisements, where specified, must be designed in compliance with ILE Technical Report 5 – The Brightness of Illuminated Advertisements



#### **Pol05 Noise Attenuation**

No. of BREEAM credits available	1	Available contribution to overall score		0.77%	
No. of BREEAM innovation credits available	0	Minimum standards applicable		No	
				Indicative credits	Shell & Core
Pre-Assessment question/criteria		Response	Credits available	achieved	option?
Will there be, or is there noise-sensitive areas/buildings within 800m radius of th	ne development?	Yes	1	1	
Will a noise impact assessment be completed and, if applicable, noise attenuation mea	asures specified?	Yes			N/A
Total indicative BREEAM credits achieved	1				
Total indicative contribution to overall building score	0.77%				
Total indicative BREEAM innovation credits achieved	N/A				
Indicative minimum standard(s) level	N/A				

#### Comments/notes:

Responsibility: Sharps Redmore Acoustic Consultants

1.The credit can be awarded by default where there are or will be no noise-sensitive areas or buildings within 800m radius of the assessed development.

- 2. Where there are or will be noise-sensitive areas or buildings within 800m radius of the assessed development a noise impact assessment in compliance with BS 74451 has been carried-out.
- 3. The noise impact assessment must be carried out by a suitably qualified acoustic consultant holding a recognised acoustic qualification and membership of an appropriate professional body (see Relevant definitions in the Additional Information section).
- 4. The noise level from the proposed site/building, as measured in the locality of the nearest or most exposed noise-sensitive development, is a difference no greater than +5dB during the day (07:00 hr to 23:00 hr) and +3dB at night (23:00 hr to 07:00 hr) compared to the background noise level.
- 5. Where the noise source(s) from the proposed site/building is greater than the levels described in criterion 4. measures have been installed to attenuate the noise at its source to a level where it will



INNOVATION	Section Weighting	10.00%		Indicativ	e Section Score	0.00%
Inn01 Innovation						
	No. of BREEAM innovation credits available	10	F	vailable contribution	on to overall score	10.00%
				Minimum sta	indards applicable	No
Pre-Assessment question/criteria			Exemplary level achieved	Credits available	Indicative credits achieved	
The Assessment question, enterta	Man01 Sustaina	ole Procurement		1	0	
	Man02 Responsible Const			1	0	
		1 Visual Comfort	No	1	0	
	Ene01 Reduction of	of CO2 Emissions	No	5	0	
	Ene04 Low and Zero Ca		No	1	0	
	Ene05 Energy Effici			1	0	
		ter Consumption		1	0	
		ife Cycle Impacts		1	0	
	Mat03 Responsible Sour Wst01 Construction Was		No	1	0	
		cled Aggregates		1	0	
	VV3tOZ NCC	yelea Aggi egates	140	1	U	
	Total indicative BREEAM credits achieved	0				
	Total indicative contribution to overall building score	0.00%				
	Indicative minimum standard(s) level	N/A				
Comments/notes:						