Sustainability Statement

Fortess Grove

November 2015

REPORT REF: SS/FG/13112015 - RT

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DOCUMENT CONTROL SHEET:

Rev.	Issue Purpose	Checked	Signature	Author	Signature	Date
-	For Initial Comment	Paul Canessa		Ryan Thrower		13/11/2015

1. EXECUTIVE SUMMARY

1.1 NRG Consulting has been appointed by The Estate Charity of Eleanor Palmer to undertake a Sustainability Statement on a proposed development in Camden.

1.2 The scheme comprises of part demolition and part retention of existing warehouse structures to create 1,102m2 of commercial floorpsace over 3 levels, 8no. 3 bedroom and 1no. 2 bedroom dwellings, together with associated landscaping.

1.3 This document has been produced to satisfy:

- Camden Core Strategy Policy CS13

- Camden Council's Planning Guidance – Development Police DM22 - Promoting sustainable design and construction

1.4 BREEAM "Very Good" for the Offices is sought (and achieved) and a Pre-Assessment is available in Appendix 1

2. POLICY FRAMEWORK

LOCAL POLICIES

Policy DP22 - Promoting sustainable design and construction

The Council will require development to incorporate sustainable design and construction measures. Schemes must:

a) demonstrate how sustainable development principles, including the relevant measures set out in paragraph 22.5 below, have been incorporated into the design and proposed implementation; and
b) incorporate green or brown roofs and green walls wherever suitable.

The Council will promote and measure sustainable design and construction by:

c) expecting new build housing to meet Code for Sustainable Homes Level 3 by 2010 and Code Level 4 by 2013 and encouraging Code Level 6 (zero carbon) by 2016.
d) expecting developments (except new build) of 500 sq m of residential floorspace or above or 5 or more dwellings to achieve "very good" in EcoHomes assessments prior to 2013 and encouraging "excellent" from 2013;
e) expecting non-domestic developments of 500sqm of floorspace or above to achieve "very good" in BREEAM assessments and "excellent" from 2016 and encouraging zero carbon from 2019.

The Council will require development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures, such as:

f) summer shading and planting;
g) limiting run-off;
h) reducing water consumption;
i) reducing air pollution; and
j) not locating vulnerable uses in basements in flood-prone areas.

3. SUSTAINABLE DESIGN AND CONSTRUCTION MEASURES

3.1

Design	Comments
The layout of uses	See Design and Access Statement / Architect Drawings
Floorplates Size/Depth	See Design and Access Statement / Architect Drawings
Floor to ceiling heights	Floor to Ceiling Heights are compliant with the London Housing Design Guide.
Location, size and depth of windows	See Design and Access Statement / Architect Drawings
Limiting excessive solar gain	Window G-Values have been improved where necessary to limit Solar Gain as per the requirements of Criterion 3 of Part L.
Reducing the need for artificial lighting	All Internal and External Lighting levels for the Commercial element will be in-line with BREEAM and CIBSE requirements.
Shading methods, both on or around the building	Blinds will be installed to the Commercial element of the scheme.
Optimising natural ventilation	Due to the proposed use of the Commercial and the Energy Efficiency measures, Mechanical Ventilation is being installed to the scheme.
Design for and inclusion of renewable energy technology	PV is being installed. See the Energy Report for full information.
Impact on existing renewable and low carbon technologies in the area	There are no existing technologies.
Sustainable urban drainage, including provision of a green or brown roof	See Architects Drawings for extent of Green Roof provision.
Adequate storage space for recyclable material	Refuse and Recycling stores will be provided based on the requirements of Camden Council and BS5906.
Bicycle storage	Cycle Stores for both residential and commercial are being provided. See the Architect Plans for full provision but these meet and exceed minimum Camden requirements.
Impact on microclimate	As per the previous use of the site, the impact on the microclimate will be neutral at worst. Improvements to air quality is proposed. See the Air Quality Report for full information.

Fabric / Services	Comments
Level of insulation	Insulation levels exceed the requirements of Part L of the Building Regulations by circa 50% on average. See Section 4 of the Energy Report for full list of U-Values being achieved.
Choice of materials, including - responsible sourcing, re-use and recycled content	All materials will be responsibly sourced, where possible to one of the following standards: - BES:6001 - ISO:14001 - FSC/PEFC for Timber Elements Site Materials will be re-used on-site wherever possible.
Air tightness	An Air Tightness of 4 m^3/hm^2@50Pa is being sought. This is significantly better than the Part L minimum of 10 m^3/hm^2@50Pa
Efficient heating, cooling and lighting systems	High efficiency Boilers will be supplied to the dwellings and high efficiency Heat Pumps will be supplied to the Commercial Area. Where Cooling is provided to the Commercial, the SEER and EER will be in excess of the requirements as stated in the Non-Domestic Building Services Guide (2013) All residential lighting will have Low Energy Bulbs that have a luminous efficacy of over 45 lumens/circuit/watt. See Energy Report for full details of these measures.
Effective building management system	Due to the size and layout and proposed use for the Commercial element, a BMS is not being installed.
Metering	Houses will be individually metered. The Commercial Element will be sub-metered in accordance with the requirements of ENE 2 of BREEAM. This entails separate meters for: Systems that consume energy to perform the following functions within a building: a. Space heating b. Domestic hot water heating d. Cooling* e. Ventilation, i.e. fans (major)* f. Pumps g. Lighting h. Small power i. Renewable or low carbon systems (separately) j. Controls

Counteracting the heat expelled from plant equipment	There is no dedicated Plant Room for this project that will expel heat.
Enhancement of / provision for biodiversity	A suitably qualified Ecologist will be appointed and a Report commissioned with the aim of achieving several BREEAM Credits under the Land Use and Ecology Section. See the BREEAM Pre-Assessment in Appendix 1 for full compliance.
Efficient water use	See Section 6 of this document.
Re-use of water	Water Butts will be provided to the scheme.
Educational elements, for example visible meters	Smart Meters for Electricity and Gas will be provided to the Houses.
On-going management and review	As part of the BREEAM Assessment, monitoring of Electricity and Water will be undertaken for several years post completion. Furthermore, Seasonal Commissioning for the first 12 months after completion will be undertaken to ensure the systems operate optimally. An Aftercare Meeting and Review will be undertaken for the Commercial Unit.

4. BREEAM 2014 'OFFICES' PRE-ASSESSMENT

4.1 This Pre-Assessment is based on the BREEAM 2014 Manual – Version 4 as issued by the BRE.

BREEAM establishes a set of categories under which specific credit requirements are grouped. These are:

Management

Health and Wellbeing

Energy

Transport

Water

Materials

Waste

Land Use & Ecology

Pollution

4.2 Scoring and Rating Assessed Buildings

BREEAM ratings benchmarks:

The BREEAM rating benchmarks for new construction projects assessed using the 2014 version of BREEAM are as follows:

BREEAM Rating	% Score
Outstanding	≥ 85
Excellent	≥ 70
Very Good	≥ 55
Good	≥ 45
Pass	≥ 30
Unclassified	< 30

4.3 Mandatory Requirements: The following outlines the minimum requirements to meet specific ratings.

		BREEAM Rating / Minimum No. Credits				
BREEAM Issue		PASS	Good	Very Good	Excellent	Outstanding
Man 01	Sustainable Procurement	1	1	1	1	2
Man 02	Responsible Construction Practices				1	2
Man 04	Stakeholder Participation				1	1
Hea 01	Visual Comfort	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Hea 04	Water Quality	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Ene 01	Reduction of CO_2 Emissions				6	10
Ene 02	Energy Monitoring			1	1	1
Ene 04	Low or Zero Carbon Technologies				1	1
Wat 01	Water Consumption		1	1	1	2
Wat 02	Water Monitoring		Criterion	Criterion	Criterion	Criterion
Mat 03	Responsible Sourcing	Criterion	Criterion	Criterion	Criterion	Criterion
Wst 01	Construction Waste					1
Wst 03	Operational Waste				1	1
LE 03	Mitigating Ecological Impact			1	1	1

4.4 Innovation

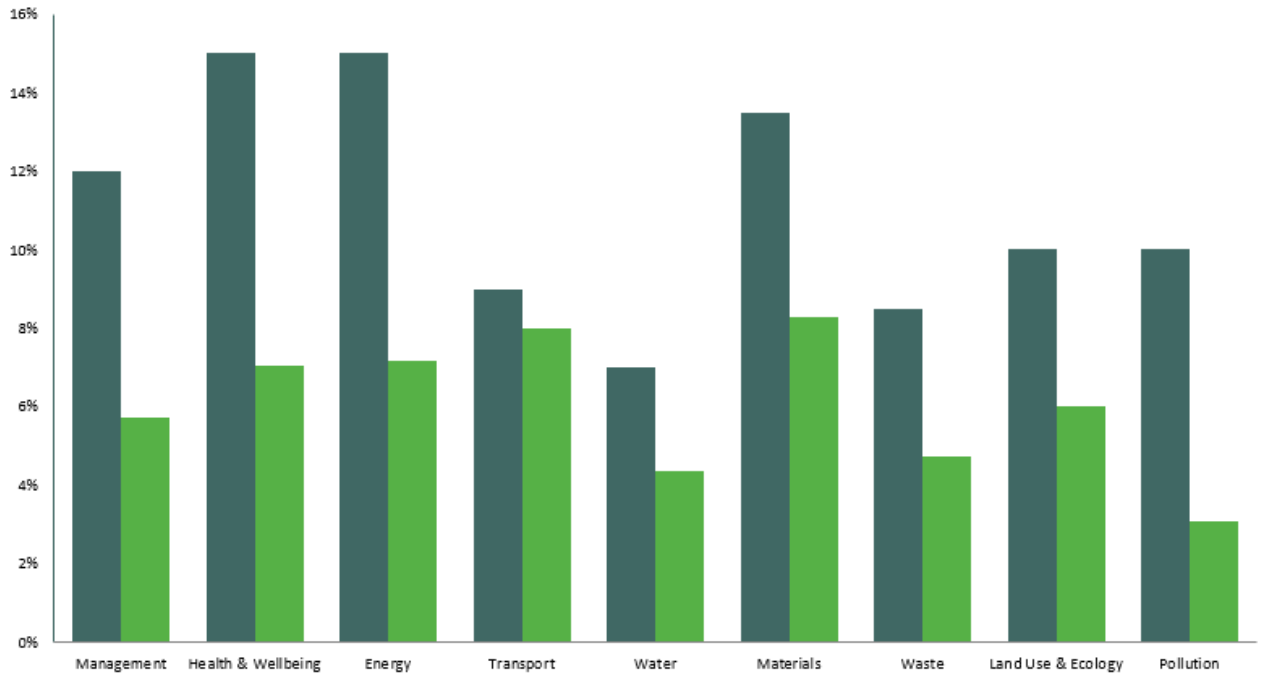
In addition to the categories above the BRE introduced innovation credits into the BREEAM 2008 schemes and have maintained exemplary level requirements within the 2014 scheme manual for all project types. Innovation credits provide recognition for designs which innovate in the field on sustainable performance, above and beyond the level that is currently recognised and rewarded by standard BREEAM issues. Innovation credits are awarded for either complying with pre-defined BREEAM issue exemplary level requirements or via application to BRE Global to have a particular building feature, system or process approved as 'innovative'. These innovation credits do not have an environmental weighting but each one achieved will contribute an additional 1% to the final score up to a maximum of 10%.

4.5 Summary

Overall Building Performance

Building name	Fortess Grove
Indicative BREEAM rating	Very Good
Indicative Total Score	56.3%
Min. standards level achieved	Very Good level

Building Performance by Environment Section



4.6 A full copy of the Pre-Assessment can be found in the Appendices.

5. WATER EFFICIENCY

5.1 Building Regulations 17k has a maximum requirement of 125litres/person/day and encourages the conservation of potable water.

5.2 The specification proposed has been produced in-line with the calculation method used to assess compliance against the water performance targets in Building Regulations 17.K and is in-line with the Government's *The Water Efficiency Calculator for new dwellings – September 2009.*

5.3 Copies of the Manual and the Calculation Tool itself can be found here:

Guide -
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/11722/The_Water_Efficiency_Calculator_for_new_dwellings.pdf

Calculator Tool

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/205789/The_water_efficiency_calculator_tool.xls

5.4 Based on this, the proposed specification for the development is as follows:

	House Type	Description	
	ALL	**FOR PLANNING**	
Installation Type	**Is a Dual or Single Flush WC specified?**	**Dual**	
	WC	Full flush volume	**4**
		Part flush volume	**2.6**
	Basin Taps	Flow rate (litres/min)	**3**
	Kitchen Sink Taps	Flow rate (litres/min)	**8**
	Are both Bath & Shower present?	**Bath & Shower**	
	Bath	Capacity to overflow	**150**
	Shower	Flow rate (litres/min)	**6**
	Has a Washing Machine been specified?	**No**	
	Washing Machine	litres/kg of Dry Load	**8.17**
	Has a Dishwasher been specified?	**No**	
	Dishwasher	litres/place setting	**1.25**
	Internal Potable Water Usage	**Total Consumption** ***(litres/person/day)***	**89.5**

5.5 With the above proposed specification, the development achieves a Water Efficiency of less than 90ltrs/person/per day and therefore is in excess of Building Regulations requirement and equivalent to that of the Code for Sustainable Homes Level 4 target.

5.6 For the Commercial, Water Calculations in-line with WAT 1 of BREEAM 2014 have been undertaken with the aim of achieving 4 of the 5 credits.

Based on the Specification of:

W/C's – 4/2.6ltr dual flush.
Basin Taps – 5ltrs per minute.
Kitchen Taps – 10ltrs per minute

The following is achieved:

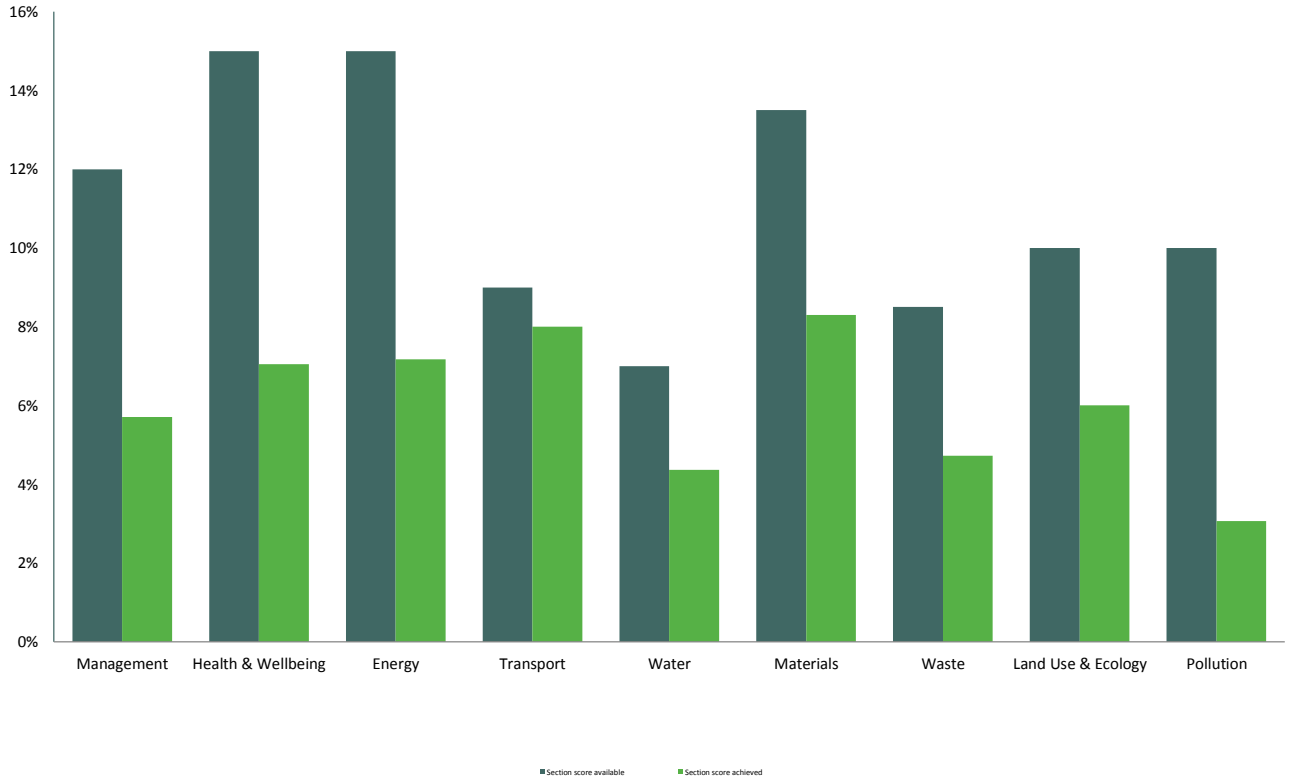
	Litres/person/day	m^3/person/yr
Water consumption - modelled baseline performance benchmark (excludes fixed uses)	40.60	10.27
Microcomponent water consumption - modelled performance (excludes fixed uses)	19.72	4.99
Modelled water demand met via greywater and rainwater sources	0.00	0.00
specified has the minimum % efficiency improvement for component specifications been met	Yes	
Net modelled water consumption (excludes fixed uses)	19.72	4.99
Percentage improvement	51.43%	
Total Wat 01 BREEAM credits achieved	4 credits	
Total Wat 01 BREEAM Innovation credits achieved	Exemplary level not achieved	
Key performance indicator - use of freshwater resource (includes fixed uses)	21.30	5.39

Appendix 1

Overall Building Performance

Building name	Fortess Grove
Indicative BREEAM rating	Very Good
Indicative Total Score	56.3%
Min. standards level achieved	Very Good level

Building Performance by Environment Section



Environmental Section	No. credits available	Indicative no. credits Achieved	% credits achieved	Section Weighting	Indicative Section Score
Management	21	10	47.62%	12.00%	5.71%
Health & Wellbeing	17	8	47.06%	15.00%	7.05%
Energy	23	11	47.83%	15.00%	7.17%
Transport	9	8	88.89%	9.00%	8.00%
Water	8	5	62.50%	7.00%	4.37%
Materials	13	8	61.54%	13.50%	8.30%
Waste	9	5	55.56%	8.50%	4.72%
Land Use & Ecology	10	6	60.00%	10.00%	6.00%
Pollution	13	4	30.77%	10.00%	3.07%
Innovation	10	2	20.00%	N/A	2

BREEAM UK New Construction 2014 Pre-Assessment Estimator: Assessment Issue Scoring

BREEAM® UK

Cells that are white with a black border require the user to input information, either by selecting from the available options or entering the required data.

Cells that are light grey (with/without black border) contain information for the user and/or automated calculation. They do not require the user to input or select data.

Building name	Fortess Grove
Building score (%)	56.30%
Building rating	Very Good
Minimum standards level achieved	Very Good level

MANAGEMENT

Man 01 Project brief and design

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will stakeholder consultation (project delivery) take place?	No	1	0
Will stakeholder consultation (third party) take place?	No	1	0
Will a sustainability champion (design) be assigned?	No	1	0
Will a sustainability champion (monitoring progress) be assigned?	No	1	0

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

Comments/notes:

Man 02 Life cycle cost and service life planning

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an elemental life cycle cost (LCC)analyses be carried out?	No	2	0
Will a component level LCC plan be developed?	No	1	0
Will the predicted capital cost be reported?	No	1	0
Expected capital cost of the project (if available)		£/m^2	

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

Comments/notes:

Man 03 Responsible construction practices

No. of BREEAM credits available	6	Available contribution to overall score	3.43%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Is all site timber used in the project 'legally harvested and traded timber'?	Yes		
Will/does the principal contractor operate a compliant Environmental Management System?	Yes	1	1
Will a construction stage sustainability champion be assigned?	No	1	0
Will a considerate construction scheme be used by the principal contractor? (One credit where 'compliance' has been achieved. Two credits where 'compliance' is significantly exceeded.)	2	2	2
Will construction site impacts be metered/monitored?	Yes		
Will site utility consumption be metered/monitored?	Yes	1	1
Will transport of construction materials and waste be metered/monitored?	Yes	1	1
Will exemplary level criteria be met?	Yes	1	1

Key Performance Indicators: Construction site energy use

Energy consumption (total) - site processes		Information not available at design stage
Energy consumption (intensity) - site processes		Information not available at design stage
Distance (total) - materials transport to site		Information not available at design stage
Distance (total) -waste transport from site		Information not available at design stage
Energy consumption (total) - materials transport to site		Information not available at design stage
Energy consumption (total) - waste transport from site		Information not available at design stage
Energy consumption (intensity) - materials transport to site		Information not available at design stage
Energy consumption (intensity) - waste transport from site		Information not available at design stage

Key Performance Indicators: Construction site greenhouse gas emissions

Process greenhouse gas emissions (total) - site processes		Information not available at design stage
Greenhouse gas emissions (intensity) - site processes		Information not available at design stage
Greenhouse gas emissions (total) - materials transport to site		Information not available at design stage
Greenhouse gas emissions (total) - waste transport from site		Information not available at design stage
Greenhouse gas emissions (intensity) - materials transport to site		Information not available at design stage
Greenhouse gas emissions (intensity) - waste transport from site		Information not available at design stage

Key Performance Indicators: Construction site use of freshwater resources

Use of freshwater resource (total) - site processes		Information not available at design stage
Use of freshwater resource (intensity) - site processes		Information not available at design stage

Total BREEAM credits achieved	5
Total contribution to overall building score	2.86%
Total BREEAM innovation credits achieved	1
Minimum standard(s) level	Outstanding level

Comments/notes:

Man 04 Commisioning and handover

No. of BREEAM credits available	4	Available contribution to overall score	2.29%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will commissioning schedule and responsibilities be developed & accounted for?	Yes	1	1
Will a commissioning manager be appointed?	Yes	1	1
Will the building fabric be commissioned?	No	1	0
Will a building user guide be developed prior to handover?	Yes	1	1
Will a training schedule be prepared for building occupiers/managers?	Yes		

Total BREEAM credits achieved	3
Total contribution to overall building score	1.71%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Note: the first Man 04 credit must be achieved before the second and the third credits can be awarded.

Man 05 Aftercare

No. of BREEAM credits available	3	Available contribution to overall score	1.71%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will aftercare support be provided to building occupiers?	Yes	1	1
Will seasonal commissioning occur over 12months once substantially occupied?	Yes	1	1
Will a post occupancy evaluation be carried out 1 year after occupation?	No	1	0
Will exemplary level criteria be met?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	1.14%
Total BREEAM innovation credits achieved	1
Minimum standard(s) level	Outstanding level

Comments/notes:

HEALTH & WELLBEING

Hea 01 Visual Comfort

No. of BREEAM credits available	4	Available contribution to overall score	3.53%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the design provide adequate glare control for building users?	Yes	1	1
How many credits will be targeted for the daylighting criteria?	1	1	1
Will the design provide adequate view out for building users?	No	1	0
Will internal/external lighting levels, zoning and controls be specified in accordance with the relevant CIBSE Guides/British Standards?	Yes	1	1
Will exemplary level criteria be met?	No	1	0

Note: For Daylighting, 1 credit is available for Law courts, Prisons, Multi-residential, Industrial, Offices and Other building types. 2 credits are available for: Retail, Education and Healthcare building types
Note: For Shell and Core and Shell Only building types, criteria 10 and 13 External lighting only apply

Total BREEAM credits achieved	3
Total contribution to overall building score	2.65%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Hea 02 Indoor Air Quality

No. of BREEAM credits available	5	Available contribution to overall score	4.41%
No. of BREEAM innovation credits available	2	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an air quality plan be produced and building designed to minimise air pollution?	Yes	1	1
Will building be designed to minimise the concentration and recirculation of pollutants in the building?	No	1	0
Will the relevant products be specified to meet the VOC testing and emission levels required?	No	1	0
Will formaldehyde and total VOC levels be measured post construction?	No	1	0
Will the building be designed to, or have the potential to provide, natural ventilation?	No	1	0
Will exemplary level VOCs (products)criteria be met?			

Key Performance Indicators: Indoor air quality

Concentration levels of formaldehyde	INA	Information not available at design stage
Total volatile organic compound (TVOC) concentration	INA	Information not available at design stage

Total BREEAM credits achieved	1
Total contribution to overall building score	0.88%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Hea 03 Safe containment in laboratories — **Assessment issue not applicable**

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will an objective risk assessment of proposed laboratory facilities' design be completed?			
Will the manufacture & installation of fume cupboards and containment devices meet best practice standards?			
Will containment level 2 & 3 labs meet best practice safety & performance criteria?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 04 Thermal comfort

No. of BREEAM credits available	3	Available contribution to overall score	2.65%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will thermal modelling of the design be carried out?	No	1	0
Will the building design be adapted for a projected climate change scenario?	No	1	0
Will the modelling inform the development of a thermal zoning and control strategy?	No	1	0

Key Performance Indicators: Thermal comfort

Predicted Mean Vote (PMV)	
Predicted Percentage Dissatisfied (PPD)	

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

Comments/notes:

Hea 05 Acoustic Performance

No. of BREEAM credits available	3	Available contribution to overall score	2.65%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Credits	Credits available	Credits achieved
Will the building meet the appropriate acoustic performance standards and testing requirements for: a. Sound insulation b. Indoor ambient noise level c. Reverberation times?	3	3	3

Note: 4 credits available for Multi-Residential Accomodation & Other: Residential institutions (restricted to 1 for shell only and shell & core projects). 3 credits available for all other building types.

Total BREEAM credits achieved	3
Total contribution to overall building score	2.65%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Hea 06 Safety and Security

No. of BREEAM credits available	2	Available contribution to overall score	1.76%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Where external site areas are present, will safe access be designed for pedestrians and cyclists?	No	1	0
Will a suitably qualified security consultant be appointed and security considerations accounted for?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.88%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

ENERGY

Ene 01 Reduction of energy use and carbon emissions

No. of BREEAM credits available	12	Available contribution to overall score	7.83%
No. of BREEAM innovation credits available	5	Minimum standards applicable	Yes

Note: Data for the Ene 01 Calculator for non-domestic buildings is sourced from the Building Regulations Output Document from the approved software (in the technical data sheet in the 'Energy & CO2 Emissions Summary' table). Please note that the Energy & CO2 Emissions Summary uses the term 'Indicative Target' instead of 'Notional'.

How do you wish to assess the number of BREEAM credits achieved for this issue?	Enter building performance data into the Ene01 calculator

Ene 01 Calculator

Country of the UK where the building is located	England	Confirm building regulation and version to be used:	

New Construction (Fully fitted)

Building floor area	1079	m2
Notional building heating and cooling energy demand	185.36	MJ/m2yr
Actual building heating and cooling energy demand	215.53	MJ/m2yr
Notional building primary energy consumption	200.67	kWh/m2yr
Actual building primary energy consumption	184.98	kWh/m2yr
Target emission rate (TER)	30.60	kgCO2/m2yr
Building emission rate (BER)	29.4	kgCO2/m2yr
Building emission rate improvement over TER	3.9%	
Heating & cooling demand energy performance ratio (EPR_{ED})	0.000	
Primary consumption energy performance ratio (EPR_{PC})	0.164	
CO_2 Energy performance ratio (EPR_{CO2})	0.056	
Overall building energy performance ratio (EPR_{NC})	0.219	

Where specified, please confirm the energy production from onsite or near site energy generation technologies	INA	kWh/m^2 yr
Equivalent % of the building's 'regulated' energy consumption generated by carbon neutral sources and used to meet energy demand from 'unregulated' building systems or processes?		
Is the building designed to be 'carbon negative' ?		
If the building is defined as 'carbon negative' what is the total (modelled) renewable/carbon neutral energy generated and exported?		

Note: this data is sourced from the Building Regulations Output Document (technical data sheet)

Total BREEAM credits achieved	2
Total contribution to overall building score	1.30%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Very Good level

Comments/notes:

Ene 02 Energy monitoring

No. of BREEAM credits available	2	Available contribution to overall score	1.30%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a BMS or sub-meters be specified to monitor energy use from major building services systems?	Yes	1	1
Will a BMS or sub-meters be specified to monitor energy use by tenant/building function areas?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	1.30%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Ene 03 External lighting

No. of BREEAM credits available	1	Available contribution to overall score	0.65%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will external light fittings and controls be specified in accordance with the BREEAM criteria?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.65%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 04 Low carbon design

No. of BREEAM credits available	3	Available contribution to overall score	1.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria	Compliant?	Credits available	Credits achieved
Will passive design measures be used in line with an analysis be carried out during concept design stage (RIBA stage 2 or equivalent)?	No	1	0
Will free cooling measures be implemented in the whole building in line with the passive design analysis?	No	1	0
Will a LZC technology be specified in line with a feasibility study carried out by the completion of the Concept Design stage (RIBA Stage 2 or equivalent)?	Yes	1	1

KPI - Low and/or zero carbon energy generation

Total on-site and/or near-site LZC energy generation	INA	kWh/yr

Total BREEAM credits achieved	1
Total contribution to overall building score	0.65%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 05 Energy efficient cold storage

Assessment issue not applicable

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Note: You have stated in the building and project details tab that the assessed building does not have any commercial/industrial refrigeration and storage systems; therefore this issue is not applicable to the assessment.

Assessment criteria	Compliant?	Credits available	Credits achieved
Will the refrigeration system be designed, installed & commissioned in accrodance with BREEAM criteria?		N/A	N/A
Will the refrigeration system demonstrate a saving in indirect greenhouse gas emissions?		N/A	N/A

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A

Minimum standard(s) level	N/A

Comments/notes:

Ene 06 Energy efficient transportation systems

No. of BREEAM credits available	3	Available contribution to overall score	1.96%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Will a transportation system analysis be carried out to determine and specify the optimum number, size and type of lifts that is most energy efficient?	Yes	1	1
Will the relevant energy-efficient features criteria be met?	Yes	2	2

Total BREEAM credits achieved	3
Total contribution to overall building score	1.96%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 07 Energy efficient laboratory systems — **Assessment issue not applicable**

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Assessment criteria	Compliant?	Credits available	Credits achieved
Pre-requisite: Criterion 1 of Hea 03 - risk assessment of laboratory facilities			
Have the occupants' laboratory requirements & performance criteria been confirmed during the preparation of the initial project brief to minimise energy demand?			
Best Practice Energy Practices in Laboratories (table 27)			
Will the laboratory meet criteria item b) Fan power?			
Will the laboratory criteria item c) Fume cupboard volume flow rates?			
Will the lab meet item d) Grouping / isolation of high filtration/ventilation activities?			
Will the laboratory meet criteria item e) Energy recovery - heat?			
Will the laboratory meet criteria item f) Energy recovery - cooling?			
Will the laboratory meet criteria item g) Grouping of cooling loads?			
Will the laboratory meet criteria item h) Free cooling?			
Will the laboratory meet criteria item i) Load responsiveness?			
Will the laboratory meet criteria item j) Cleanrooms?			
Will the laboratory meet criteria item k) Diversity?			

Will the laboratory meet criteria item l) Room air-change rates?	

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 08 Energy efficient equipment

No. of BREEAM credits available	2	Available contribution to overall score	1.30%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment criteria

Instruction: Please confirm the building function area/equipment present and whether it contributes to the 'significant majority' of the unregulated energy consumption in the building.

Which of the following will be present and likely to be a/the major contributor to 'unregulated' energy use?	Present	Major impact
Ref A Small power and plug in equipment?	Yes	Yes
Ref B Swimming pool?	No	
Ref C Communal laundry?	No	
Ref D Data centre?	No	
Ref E IT-intensive operation areas?	No	
Ref F Residential areas?	No	
Ref G Healthcare?	No	
Ref H Kitchen and catering facilities?	No	

	Compliant	Credits available	Credits achieved
Will the significant majority contributor(s) to 'unregulated' energy use above meet the BREEAM criteria?	Yes	2	2

Total BREEAM credits achieved	2
Total contribution to overall building score	1.30%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Ene 09 Drying space — **Assessment issue not applicable**

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Note: This issue is not applicable to the building type and/or sub-building type selected in the Assessment Details page.

Assessment criteria	Compliant?	Credits available	Credits achieved
Will internal/external drying space and fixings be provided?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

TRANSPORT

Tra 01 Public Transport Accessibility

No. of BREEAM credits available	3	Available contribution to overall score	3.00%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Building type category (for purpose of Tra01 issue assessment)	Business (office/industrial)

Note: Buildings in Greater London - Transport for London hosts a Planning Information Database that allows users to search for a specific London location by street name, co-ordinates or postcode and then calculate the Accessibility Index (AI) for that location.
The Total AI is confirmed for the Point of Interest (POI) within the Summary Report, which can be downloaded and used as evidence of compliance for the assessed building. Go to: www.webptals.org.uk

Note: The Accessibility Index required for this assessment issue is sourced from the separate BREEAM Tra 01 calculator.
Note: A credit for a dedicated bus service is only available where the building has not achieved any credits for it public transport accessibility index (refer to the technical guide for further detail).

Assessment Criteria	Compliant	Credits available	Credits achieved
Indicative public transport accessibility index (AI):	22.37	3	3
Will the building have a dedicated bus service?			N/A

AI	Indicative Accessibility Index for pre-assessment
0	Poor or no public transport provision
1	A single BREEAM compliant public transport node available
2	Some BREEAM compliant public transport nodes/services available
4	A selection of BREEAM compliant public transport nodes/services available
8	Good provision of public transport i.e. small urban centre / suburban area
10	Very Good provision of public transport i.e. small/medium urban centre
12	Excellent provision of public transport, i.e. medium urban centre
18	Excellent provision of public transport, i.e. large urban/metropolitan city centre

Total BREEAM credits achieved	3
Total contribution to overall building score	3.00%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Tra 02 Proximity to Amenities

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

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the building be in close proximity of and accessible to applicable amenities?	Yes	1	1

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

Comments/notes:

Tra 03 Cyclist facilities

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

Building type category (for purpose of Tra03 issue assessment)	Business - (office/Industrial)
How many compliant cycle storage spaces will be provided?	21
What cyclist facilities will be provided?	No compliant facilities

Assessment Criteria	Compliant?	Credits available	Credits achieved
Cycle storage spaces	Yes	2	1
Cyclist facilities	No		

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

Comments/notes:

Tra 04 Maximum Car Parking Capacity

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

Building type category (for purpose of Tra04 issue)	Business - (office/Industrial)
Building's indicative Accessibility Index (sourced from issue Tra01)	22.37

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will BREEAM's maximum parking capacity criteria for the building type/Accessibility Index be met?	Yes	2	2

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

Comments/notes:

Tra 05 Travel Plan

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

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a transport plan based on site specific travel survey/assessment be developed?	Yes	1	1

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

Comments/notes:

WATER

Wat 01 Water Consumption

No. of BREEAM credits available	5	Available contribution to overall score	4.38%	Note: The Wat01 data required for reporting purposes is sourced from BREEAM's Wat01 Calculator for New Non-Domestic Building.
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes	

How do you wish to assess the BREEAM credits to be achieved for this issue?	Use the Wat01 Calculator to define the number of credits achived

Please select the calculation procedure used	Alternative approach

Standard approach data

Water Consumption from building micro-components	
Water demand met via greywater/rainwater sources	
Total net water consumption	
Improvement on baseline performance	

Key Performance Indicator - use of freshwater resource

Total net Water Consumption		Indicator not assessed
Default building occupancy		Indicator not assessed

Alternative approach data

Overall microcomponent performance level achieved	Level 4
Please select:	

Total BREEAM credits achieved	3
Total contribution to overall building score	2.63%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Wat 02 Water Monitoring

No. of BREEAM credits available	1	Available contribution to overall score	0.88%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will there be a water meter on the mains water supply to the building(s)?	Yes	1	1
Will metering/monitoring equipment be specified on the water supply to any relevant plant/building areas?	Yes		
Will all specified water meters have a pulsed output?	Yes		
If the site/building has an existing BMS connection, will all pulsed meters be connected to the BMS?	N/A		

Total BREEAM credits achieved	1
Total contribution to overall building score	0.88%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Wat 03 Water Leak Detection and Prevention

No. of BREEAM credits available	2	Available contribution to overall score	1.75%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a mains water leak detection system be installed on the building's mains water supply?	No	1	0
Will flow control devices be installed in each sanitary area/facility?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.88%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Wat 04 Water Efficient Equipment — **Assessment issue not applicable**

No. of BREEAM credits available	N/A	Available contribution to overall score	N/A
No. of BREEAM innovation credits available	N/A	Minimum standards applicable	N/A

Note: You have stated in the building and project details tab that the assessed building does not have unregulated water uses (e.g.internal or external planting and/or soft landscaping or a vehicle wash system) therefore this issue is not applicable to the assessment.

Assessment Criteria	Compliant?	Credits available	Credits achieved
Has a meaningful reduction in unregulated water demand been achieved?			

Total BREEAM credits achieved	N/A
Total contribution to overall building score	N/A
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

MATERIALS

Mat 01 Life Cycle Impacts

No. of BREEAM credits available	5	Available contribution to overall score	5.19%
No. of BREEAM innovation credits available	3	Minimum standards applicable	No

Note: The Mat01 data required for reporting purposes is sourced from BREEAM's Mat01 calculator.

How do you wish to assess the number of BREEAM credits to be achieved for this issue?	Define the number of Mat 01 credits achieved

Assessment Criteria

Predicted total Mat01 credits achieved	3
Predicted total Mat01 points achieved	
Number of building elements assessed	5
Green Guide exemplary level compliant?	No
Has IMPACT compliant software been used?	No

Key Performance Indicator - embodied green house gas emissions by element	Total area of element m^2	Total impact $kgCO_2$ eq.	Area of element impact data relevant to m^2
External walls			
Windows			
Roof			
Upper floor construction			
Internal wall			
Floor finishes/coverings			

Note: where the element is not present in the building (or it is present but does not require assessment using BREEAM) please insert "N/A" in each of the relevant cells. If the element is present and assessed using BREEAM but the impact data is not available and/or not reported please insert "INA", i.e. Indicator Not Assessed, in the 'total impact' cell and 'area of the element that the reported impact data covers' cell . In such cases please continue to state the area of the element present as this is used to determine the proportion of the applicable building elements that the reported impact data covers.

Key Performance Indicator - embodied green house gas emissions for building (assessed elements only)

Total embodied green house gas emissions for building (by assessed elements)	Missing data	$kgCO_2$ eq.		$kgCO_2$ eq./m^2
Proportion of applicable building elements that data reported covers				

Total BREEAM credits achieved	3
Total contribution to overall building score	3.12%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	N/A

Comments/notes:

Mat 02 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

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will ≥80% of all external hard landscaping and boundary protection achieve a Green Guide A or A+ rating?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	1.04%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Mat 03 Responsible Sourcing

No. of BREEAM credits available	4	Available contribution to overall score	4.15%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

Note: The Mat03 data required for reporting purposes is sourced from BREEAM's Mat03 calculator.

Assessment Criteria	Compliant	Credits available	Credits achieved
All timber and timber based products are 'Legally harvested and trader timber'	Yes		
Is there a documented sustainable procurement plan?	No	1	0
Percentage of available responsible sourcing of materials points achieved	36.00%	3	2

% RSM points achieved	Mat 03 RSM credits
≥ 18	1
≥ 36	2
≥ 54	3

Please confirm the route used to assess Mat03	Route 1: Lowest RSCS point score

Total BREEAM credits achieved	2
Total contribution to overall building score	2.08%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Mat 04 Insulation

No. of BREEAM credits available	1	Available contribution to overall score	1.04%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Note: The Mat04 data required for reporting purposes is sourced from BREEAM's Mat04 calculator.

Assessment Criteria		Credits available	Credits achieved
What is the building's targeted insulating index?	2.50	1	1

Note: An insulation index the same as or greater than 2.5 is required to achieve this credit.

Total BREEAM credits achieved	1
Total contribution to overall building score	1.04%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Mat 05 Designing for durability and resilience

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

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will suitable durability/protection measures be specified and installed to vulnerable areas of the building?	Yes	1	1
Will suitable durability/protection measures be specified and installed to exposed parts of the building?	Yes		

Total BREEAM credits achieved	1
Total contribution to overall building score	1.04%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Mat 06 Material efficiency

No. of BREEAM credits available	1	Available contribution to overall score	1.04%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will material efficiency measures be identified & implemented during all RIBA stages?	No	1	0

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

Comments/notes:

WASTE

Wst 01 Construction Waste Management

No. of BREEAM credits available	4	Available contribution to overall score	3.78%
No. of BREEAM innovation credits available	1	Minimum standards applicable	Yes

How do you wish to assess the number of BREEAM credits to be achieved for this issue?	Define a target number of BREEAM credits		
Select the number of BREEAM credits being targeted for issue Wst 01:	3	BREEAM Wst01 Innovation credits:	0

Assessment Criteria	Compliant?
Construction resource management plan	
Compliant Pre-demolition audit	
Does the excavation waste meet the exemplary level requirements?	

Key Performance Indicators - Construction Waste

Measure/units for the data being reported		
Non-hazardous construction waste (excluding demolition/excavation)		
Total non-hazardous construction waste generated		Note: At the pre-assessment stage this figure is estimated based on the target benchmark reported above.
Non-hazardous non-demolition const. waste diverted from landfill		Note: At this stage this will be a target benchmark or estimation, if/where reported in the SWMP. Where data not available enter 'INA' (indicator not assessed) in the cell.
Total non-hazardous non-demolition const. waste diverted from landfill		Note: At the pre-assessment stage this figure is estimated based on the target benchmark reported above.
Total non-hazardous demolition waste generated		Note: At this stage this will be a target benchmark or estimation, if/where reported in the SWMP. Where data not available enter 'INA' (indicator not assessed) in the cell.
Non-hazardous demolition waste diverted from landfill		Note: At this stage this will be a target benchmark or estimation, if/where reported in the SWMP. Where data not available enter 'INA' (indicator not assessed) in the cell.
Total non-hazardous demolition waste to disposal		Note: At the pre-assessment stage this figure is estimated based on the target benchmark reported above.
Material for reuse		Note: At this stage this will be a target benchmark or estimation, if/where reported in the SWMP. Where data not available enter 'INA' (indicator not assessed) in the cell.
Material for recycling		Note: At this stage this will be a target benchmark or estimation, if/where reported in the SWMP. Where data not available enter 'INA' (indicator not assessed) in the cell.
Material for energy recovery		Note: At this stage this will be a target benchmark or estimation, if/where reported in the SWMP. Where data not available enter 'INA' (indicator not assessed) in the cell.
Hazardous waste to disposal		Note: At this stage this will be a target benchmark or estimation, if/where reported in the SWMP. Where data not available enter 'INA' (indicator not assessed) in the cell.

Total BREEAM credits achieved	3
Total contribution to overall building score	2.83%
Total BREEAM innovation credits achieved	0
Minimum standard(s) level	Outstanding level

Comments/notes:

Wst 02 Recycled Aggregates

No. of BREEAM credits available	1	Available contribution to overall score	0.94%
No. of BREEAM innovation credits available	1	Minimum standards applicable	No

Assessment Criteria	Total
What is the target total % of high-grade aggregate that will be recycled/secondary aggregate?	0%

Note: At the pre-assessment stage of assessment the percentages will most likely be based on targets, confirmed using documentation that describes the intended source of the recycled/secondary aggregates and that the required amount (to achieve the quoted percentages) can be provided.

% of high-grade aggregate that is recycled/secondary aggregate - by application

Structural frame	
Bitumen/hydraulically bound base, binder and surface courses	
Building foundations	
Concrete road surfaces	
Pipe bedding	
Granular fill and capping	

Note: Please refer to the Assessor FAQ (on the BREEAM Extranet) for Wst02 to correctly calculate the Total % of high-grade aggregate that is recycled/secondary aggregate for this issue.

Note: If the application is not specified as part of the assessed building select "N/A" from the corresponding drop-down list in the cell. If it is present and contains no recycled/secondary aggregates then select 0%.

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

Comments/notes:

Wst 03 Operational Waste

No. of BREEAM credits available	1	Available contribution to overall score	0.94%
No. of BREEAM innovation credits available	0	Minimum standards applicable	Yes

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will operational recyclable waste volumes be segregated and stored?	Yes	1	1
Will static waste compactor(s) or baler(s) be specified where appropriate?	N/A		
Will vessel(s) for composting suitable organic waste where appropriate?	N/A		

Instruction: if the specification of the additional operational waste facility/facilities is not applicable due to the absence or lack of a consistent volume of the appropriate waste stream(s) then select "N/A".

Total BREEAM credits achieved	1
Total contribution to overall building score	0.94%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	Outstanding level

Comments/notes:

Wst 04 Speculative Floor and Ceiling Finishes

No. of BREEAM credits available	1	Available contribution to overall score	0.94%
No. of BREEAM innovation credits available	0	Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
The building's occupant(s)/tenant(s) will specify floor/ceiling finishes	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.94%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Wst 05 Adaption to climate change

No. of BREEAM credits available	1	Available contribution to overall score	0.94%
No. of BREEAM innovation credits available	1	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a climate change adaptation strategy appraisal for structural and fabric resilience be conducted by the end of Concept Design (RIBA Stage 2 or equivalent)?	No	1	0
Will exemplary level criteria – Responding to adaptation to climate change be met?	No	1	0

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

Comments/notes:

Wst 06 Functional adaptability

No. of BREEAM credits available	1	Available contribution to overall score	0.94%
No. of BREEAM innovation credits available	0	Minimum standards applicable	N/A

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a building specific functional adaptation strategy appraisal be conducted by Concept Design (RIBA Stage 2 or equivalent) and will functional adaptation measures be implemented?	No	1	0

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

Comments/notes:

LAND USE & ECOLOGY

LE 01 Site Selection

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

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will at least 75% of the proposed development's footprint be located on previously occupied land?	Yes	1	1
Is the site deemed to be significantly contaminated?	No	1	0

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

Comments/notes:

LE 02 Ecological Value of Site and Protection of Ecological Features

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

Ecological value of the land defined using	A Suitably Qualified Ecologist

Assessment Criteria	Compliant?	Credits available	Credits achieved
Can the land within the construction zone be defined as 'land of low ecological value'?	Yes	1	1
Will all features of ecological value surrounding the construction zone/site boundary be protected?	Yes	1	1

Total BREEAM credits achieved	2
Total contribution to overall building score	2.00%

Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Suitably Qualified Ecologist to be appointed.

LE 03 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

Data sourced for calculating the change in ecological value from	Suitably Qualified Ecologist site survey of plant species

Assessment Criteria

What is the likely change in ecological value as a result of the sites development?	≥0 species (i.e. no negative change)	Plant species richness	Note: the change in ecological value is sourced from BREEAM's LE03/LE04 calculator.

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

Comments/notes:

LE 04 Enhancing Site Ecology

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

Assessment Criteria	Compliant?	Credits available	Credits achieved		
Will a suitably qualified ecologist be appointed to report on enhancing and protecting site ecology?	Yes	2	1		
Will the suitably qualified ecologist's general recommendations be implemented?	Yes				
What is the targeted/intended improvement in ecological value as a result of enhancement actions?	<6 species (small positive change)			Plant species richness	Note: the change in ecological value is sourced from BREEAM's LE03/LE04 calculator

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

Comments/notes:

LE 05 Long Term Impact on Biodiversity

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

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will a Suitably Qualified Ecologist be appointed to monitor/minimise impacts of site activities on biodiversity?	No	2	0
Will a landscape and habitat management plan be produced covering at least the first five years after project completion in accordance with British Standards?			
Number of applicable measures to improve biodiversity confirmed by SQE:			
Number of applicable measures implemented:			

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

Comments/notes:

POLLUTION

Pol 01 Impact of Refrigerants

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

Note: The data required for this assessment issue is sourced from the separate BREEAM Pol 01 calculator.

Assessment Criteria		Credits available	Credits achieved
Refrigerant containing systems installed in the assessed building?	Yes	2	0
Do all systems (with electric compressors) comply with the requirements of BS EN 378:2008 (parts 2 & 3) & where refrigeration systems containing ammonia are installed, the IoR Ammonia Refrigeration Systems Code of Practice?	Yes		
Global Warming Potential of the specified refrigerant(s) 10 or less?	No		
What is the target range Direct Effect Life Cycle CO2eq. emissions for the system?		kgCO2eq/kW coolth capacity	
Cooling/Heating capacity of the system		kW	
Will a refrigerant leak detection and containment system be specified/installed?	No	1	0

Instruction: If the total Direct Effect Life Cycle CO2eq. emissions from the system have not been calculated state "INA", i.e. Indicator Not Assessed, in the relevant cells.

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

Comments/notes:

Pol 02 NO_x Emissions

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

Assessment Criteria

NO_x emission level - space heating	750.00	mg/kWh
NO_x emission level - cooling		mg/kWh
Does this building meet BREEAM's definition of a highly insulated building?		
Energy consumption: heating and hot water		kWh/m2 yr

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

Comments/notes:

Note: Credits for this issue are determined on the basis of NOx emissions from space heating systems only, and for some building types space and water heating systems. However, where cooling is specified information on the performance of the cooling system is required for the purposes of reporting and benchmarking.

Instruction: If the building has not specified mechanical cooling then insert zero in the 'NOx emission level - cooling' box. If cooling is, or will be specified then enter the NOx emissions level for the system. If heating and cooling is provided by the same system then pro-rata the overall NOx emissions according to modelled heating/cooling demand in the building and enter the relevant values in each box.

Instruction: If the building meets the definition of a 'highly insulated building' and the NOx emission level is low enough to claim more than 1 BREEAM credit, select 'N/A' from the drop-down list against the option for 'highly insulated building'. The reporting tool will award credits based on the NOx emission level entered. If you select 'yes' against the 'highly insulated building' option only a single credit can be awarded, in accordance with the compliance note 'Highly insulated building'.

Note: The energy consumption for heating or heating and cooling (where cooling specified) is sourced from the approved software's Building Regulations Output Document (technical data sheet). This information is used to report the KPI for total NOx emissions, it is not required to award the available BREEAM credits (insert "INA" if not known).

Pol 03 Surface Water Run off

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

Assessment Criteria	Compliant?	Credits available	Credits achieved
What is the actual/likely annual probability of flooding for the assessed site?	Low	2	2
Will a Flood Risk Assessment be undertaken?	Yes		
Will the site meet the BREEAM criteria for peak rate surface water run off?	Yes	1	1
Will the site meet the criteria for surface water run off volume, attenuation and/or limiting discharge?	No	1	0
Will the site be designed to minimise watercourse pollution in accordance with the BREEAM criteria?	No	1	0

Total BREEAM credits achieved	3
Total contribution to overall building score	2.31%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 04 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

Assessment Criteria	Compliant?	Credits available	Credits achieved
Will the external lighting specification be designed to reduce light pollution?	Yes	1	1

Total BREEAM credits achieved	1
Total contribution to overall building score	0.77%
Total BREEAM innovation credits achieved	N/A
Minimum standard(s) level	N/A

Comments/notes:

Pol 05 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

Assessment Criteria	Compliant	Credits available	Credits achieved
Will there be noise-sensitive areas/buildings within 800m radius of the development?	Yes	1	0
Will a noise impact assessment be carried out and, if applicable, noise attenuation measures specified?	No		

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

Comments/notes:

INNOVATION

Inn 01 Innovation

No. of BREEAM innovation credits available	10	Available contribution to overall score	10.00%
		Minimum standards applicable	No

Assessment Criteria	Compliant?	Credits available	Credits achieved
Man 03 Responsible construction practices	Yes	1	1
Man 05 Aftercare	Yes	1	1
Hea 01 Visual Comfort	No	1	0
Hea 02 Indoor Air Quality	No	2	0
Ene 01 Reduction of energy use and carbon emissions	No	5	0
Wat 01 Water Consumption	No	1	0
Mat01 Life Cycle Impacts	No	3	0
Mat03 Responsible Sourcing of Materials	No	1	0
Wst01 Construction Waste Management	No	1	0
Wst02 Recycled Aggregates	No	1	0
Wst 05 Adaption to climate change	No	1	0

Number of 'approved' innovation credits achieved?	

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

Comments/notes: