



# BREEAM Accredited Professional Pre-assessment Report

Seven Dials Court  
Shorts Gardens  
London  
WC2H 9AZ

3<sup>rd</sup> October 2019

Prepared for:

**Shaftesbury Covent Garden Ltd**

# Seven Dials Court, Shorts Gardens, London

BREEAM 2014 Refurbishment & Fit-Out Pre- Assessment

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## 1.0 EXECUTIVE SUMMARY

The predicted BREEAM ratings for the proposed development are shown in Table 1.1 below.

Table 1.1

Building Type	BREEAM Rating
Retail	59.61% - Very Good

There is a requirement under Camden policy – Local Plan adopted 2017 that requires non-residential developments to achieve the highest possible rating under the most up to date BREEAM or equivalent scheme.

### *Policy CC2 Adapting to climate change*

h. expecting non-domestic developments of 500 sqm of floorspace or above to achieve “excellent” in BREEAM assessments and encouraging zero carbon in new development from 2019.

The project would be considered within the Scope of BREEAM UK Non-domestic Refurbishment and Fit-out 2014 – Commercial – Retail and would be assessed against the criteria set down under the Part 1 & 3 assessment parts.

A pre-assessment estimator attached within the Appendix carried out by the appointed BREEAM AP demonstrates how the proposed retail development will meet a high “Very Good” criteria, - giving further detail of how each credit and criterion will be achieved, section by section, as well as an explanation for credits that are not achievable.

Given the relatively small scale of the project (<1,000m<sup>2</sup>) and the confined nature of the site with no external areas, the overall score of 59.61% achieving BREEAM Very Good is considered to be appropriate.

## 2.0 BREEAM AP Appointment

The client – Shaftesbury Covent Gardens Limited - sought to appoint a BREEAM Accredited Professional (AP) in order to get early stage advice in order to achieve BREEAM certification status for the proposed refurbishment/ reconfiguration of a restaurant and two retail units at Seven Dials Court, Shorts Gardens.

The BREEAM UK Non-domestic Refurbishment and Fit-out 2014 manual details the specific duties and requirements: -

### **One credit - Sustainability Champion (design)**

*9. A Sustainability Champion has been appointed to facilitate the setting and achievement of BREEAM performance targets for the project. The design stage Sustainability Champion is appointed to perform this role during the feasibility stage (Stage 1, Preparation and Brief stage, as defined by the RIBA Plan of Work 2013 or equivalent).*

*10. The defined BREEAM performance target(s) has been formally agreed (see Relevant definitions) between the client and design/project team no later than the Concept Design stage (RIBA Stage 2 or equivalent).*

*11. To achieve this credit at the interim design stage assessment, the agreed BREEAM performance target(s) must be demonstrably achieved by the project design. This must be demonstrated via the BREEAM assessor's design stage assessment report.*

### 3.0 BREEAM Overview

BREEAM schemes are an environmental assessment method for buildings. Each standard sets the best practice in environmental design and has become the de facto measure to describe a buildings environmental performance.

BREEAM has the following aims:

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

BREEAM has the following objectives:

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

The BREEAM UK Non-domestic Refurbishment and Fit-out 2014 scheme can be used to assess the environmental life cycle impacts of existing non-domestic buildings at the refurbishment and fit-out stages. The definition of 'refurbishment' encompasses a wide range of works to improve the performance, function and overall condition of an existing building. 'Fit-out' also encompasses a wide range of works, however it is more associated with internal works to the building including the first fit-out of a newly constructed building or re-fitting an existing building.

The BREEAM UK Non-domestic Refurbishment and Fit-out 2014 scheme provides a modular set of criteria that are applied depending upon the scope of works for a particular project type including:

- Part 1: Fabric and Structure
- Part 2: Core Services
- Part 3: Local Services
- Part 4: Interior Design

The scheme is split into these assessment parts to allow the scheme to reflect the aspects of a building that are tenant or landlord responsibilities, as well as the varied life cycle stages that each component or element is upgraded

In the case of Tintagel House, the works include parts 1 – 3 as noted above.

Credits are awarded over 10 categories of sustainability consisting of a number of issues, summarised in table 3.1 below.

Table 3.1: BREEAM 2014 Refurbishment and Fit-out environmental sections and assessment issues

Management	Health & Wellbeing
<ul style="list-style-type: none"> <li>• Project brief and design</li> <li>• Life cycle cost and service life planning</li> <li>• Responsible construction practices</li> <li>• Commissioning and handover</li> <li>• Aftercare</li> </ul>	<ul style="list-style-type: none"> <li>• Visual comfort</li> <li>• Indoor air quality</li> <li>• Safe containment in laboratories</li> <li>• Thermal comfort</li> <li>• Acoustic performance</li> <li>• Safety and security</li> </ul>
Energy	Transport
<ul style="list-style-type: none"> <li>• Reduction of energy use and carbon emissions</li> <li>• Energy monitoring</li> <li>• External lighting</li> <li>• Low carbon design</li> <li>• Energy efficient cold storage</li> <li>• Energy efficient transportation systems</li> <li>• Energy efficient laboratory systems</li> <li>• Energy efficient equipment</li> <li>• Drying space</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable transport solutions</li> <li>• Proximity to amenities</li> <li>• Cyclist facilities</li> <li>• Maximum car parking capacity</li> <li>• Travel plan</li> </ul>
Water	Materials
<ul style="list-style-type: none"> <li>• Water consumption</li> <li>• Water monitoring</li> <li>• Water leak detection</li> <li>• Water efficient equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental impact of materials</li> <li>• Hard landscaping and boundary protection</li> <li>• Responsible sourcing of materials</li> <li>• Insulation</li> <li>• Designing for durability and resilience</li> <li>• Material efficiency</li> </ul>
Waste	Land Use & Ecology
<ul style="list-style-type: none"> <li>• Project waste management</li> <li>• Recycled aggregates</li> <li>• Operational waste</li> <li>• Speculative floor and ceiling finishes</li> <li>• Adaptation to climate change</li> <li>• Functional adaptability</li> </ul>	<ul style="list-style-type: none"> <li>• Site selection</li> <li>• Ecological value of site and protection of ecological features</li> <li>• Minimising impact on existing site ecology</li> <li>• Enhancing site ecology</li> <li>• Long term impact on biodiversity</li> </ul>
Pollution	Innovation
<ul style="list-style-type: none"> <li>• Impact of refrigerants</li> <li>• NOx emissions</li> </ul>	<ul style="list-style-type: none"> <li>• Innovation</li> </ul>

<ul style="list-style-type: none"> <li>• Flood risk management and reducing Surface water run-off</li> <li>• Reduction of night time light pollution</li> <li>• Reduction of noise pollution</li> </ul>	
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## Scores and Rating

There are four main elements that determine the building rating:-

### 1. BREEAM rating benchmarks

Table 3.2 below summarises the overall percentage score that is required to classify within each rating.

Table 3.2

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

### 2. BREEAM environmental weightings

Table 3.3 below outlines the environmental weightings that are adopted in each section to convert the credits awarded into an overall percentage score.

Table 3.3

BREEAM Section	Core Weighting	Part 1 Only	Part 2 Only	Part 3 Only	Part 4 Only	Parts 1 & 2	Parts 2 & 3	Parts 3 & 4
Management	12%	15.0%	16.7%	16.5%	20.0%	13.0%	16.5%	14.1%
Health and Wellbeing	15%	14.8%	14.4%	15.3%	19.9%	11.0%	15.3%	15.9%
Energy	19%	16.4%	24.5%	24.3%	2.5%	18.8%	24.3%	22.5%
Transport	8%	10.0%	11.2%	11.1%	13.4%	8.6%	11.1%	9.5%
Water	6%	0.0%	7.5%	7.4%	10.1%	5.7%	7.4%	7.1%
Materials	12.5%	15.6%	5.4%	5.3%	19.3%	13.4%	5.3%	13.7%
Waste	7.5%	9.4%	9.3%	9.2%	11.2%	8.1%	9.2%	7.9%
Land Use and Ecology	10%	12.5%	0.0%	0.0%	0.0%	10.7%	0.0%	0.0%
Pollution	10%	6.3%	11.0%	10.9%	3.6%	10.7%	10.9%	9.3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

## Minimum BREEAM standards

To achieve a BREEAM rating, the minimum percentage score must be achieved (table 3.2) and the minimum standards (number of credits) applicable to that rating level, table 3.4 below.

Table 3.4

Minimum Standards by BREEAM Rating Level					
BREEAM issue	Pass	Good	Very Good	Excellent	Outstanding
Man 03: Responsible construction practices	None	None	None	One credit (Considerate construction)	Two credits (Considerate construction)
Man 04: Commissioning and handover	None	None	None	Criterion 9 (Building User Guide)	Criterion 9 (Building User Guide)
Man 05: Aftercare	None	None	None	Parts 2 and 3 only: One credit (Seasonal Commissioning)	Parts 2 and 3 only: One credit (Seasonal Commissioning)
Ene 01: Reduction of energy use and carbon emissions	None	None	None	Parts 1,,3 and 4(full assessments) Six credits, varies for other assessment types	Parts 1,,3 and 4(full assessments) Ten credits, varies for other assessment types
Ene 02: Energy monitoring	None	None	Part 2,3 and 4 One credit (First sub-metering credit)	Part 2,3 and 4 One credit (First sub-metering credit)	Part 2,3 and 4 One credit (First sub-metering credit)
Wat 01: Water consumption	None	One credit (where applicable)	One credit (where applicable)	One credit (where applicable)	Two credits (where applicable)
Wat 02: Water monitoring	None	Part 2: Criterion 1 only	Part 2: Criterion 1 only	Part 2: Criterion 1 only	Part 2: Criterion 1 only
Mat 03: Responsible sourcing of materials	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Wst 01: Construction waste management	None	None	None	None	One credit
Wst 03: Operational waste	None	None	None	One credit	One credit



### 3. BREEAM credits for innovation

Innovation credits provide additional recognition for a building that innovates in the field of sustainable performance, above and beyond the level that is currently recognized and rewarded within standard BREEAM issues.

#### **Current Assessment – Design parameters**

For this pre-assessment, the following design parameters were used within the BREEAM Calculator Tool to commence the assessments:

- Scheme - BREEAM UK Non-domestic Refurbishment and Fit-out 2014
- Building Type – Commercial – Retail
- Project type – Part 1 & 3 Refurbishment & Fit-Out

#### **Functions/facilities specified in the building: -**

- Improve layouts and external aesthetics of commercial spaces fronting Shorts Gardens improving letting viability (as a result of rationalised layouts) and public realm experience (street scene, character);
- Upgrade of 3 Shorts Gardens plot eliminates space for anti-social behaviour, loitering whilst ensuring existing residents have a controlled entry/ exit point.
- Change of use at first floor (currently restaurant mezzanine) ensures residents not affected by noise, smell etc.
- Upgrade of plant equipment ensures longevity, safety and ease of access for future maintenance;
- Introduction of additional cycle storage, refuse storage and general upgrades improve user opportunity/ experience;
- Infill of 3 Shorts Gardens plot returns the street scene to former massing executed with character to facades and shopfronts facing the public realm

Each credit available by the pre assessment tool was then considered by the assessor and the design team and a decision made on whether it could be achieved based on the evidence available and the design intentions likely.

#### 4.0 SCHEME PROPOSAL

The proposal is to replace the existing shopfronts facing Shorts Gardens. This includes aesthetic overhaul with 3no. dedicated unit entrances in-keeping with the overall street scene. The rationale for shopfront setting out is to aesthetically tie the retail skirt with the main residential facade above whilst providing unit occupiers greater flexibility.

The proposal includes infill development at 3 Shorts Gardens with contextual shopfront aesthetic at ground floor and mannered residential facade above. Replacement shopfronts at 5-11 Shorts Gardens allow external appearance improvement whilst reflecting new internal layouts/ distribution of land uses within.

Seven Dials Court improvements within the residential courtyard including landscaping, new secure access and entry points, removal of unsightly duct and plant enclosures (particularly, at ground floor facing Neal's Yard) and façade upgrades generally via introduction of glazing units, access doors etc;

Removal of restaurant use at first floor level replaced with residential use results in external upgrades and uniform residential use class facing Seven Dials Courtyard Extract ducts and associative plant replaced throughout improving safety, acoustics, maintenance access and external appearances;

New resident and commercial cycle and refuse store proposed at Lower Ground level to improve present quota.

## 5.0 BREEAM ASSESSMENT

The results of the BREEAM Pre-Assessment demonstrate that it is anticipated a BREEAM rating of 'Very Good' will be achieved for the proposed development

The subsequent attachment highlights the BREEAM credits that have been awarded for the refurbished development and provides the corresponding BREEAM percentage scores.

The design stage assessment and consequent interim BREEAM Certification represents the performance of the building at the design stage of the assessment, typically prior to the beginning of operations on site. Certification at this stage does not, therefore, represent the buildings final 'as built' BREEAM performance.

The post construction stage assessment and subsequent BREEAM Certification represents the final 'as built' performance and BREEAM rating. A final post construction stage assessment is completed and certified after practical completion of the building works.


## 6.0 CONCLUSIONS

The Developer and Principle Contractor will be committed to achieving the required score with the above recommendations incorporated into the specification. Occupiers of the development will enjoy reduced operating and life cycle costs due to the enhancement over and above current Building Regulations and built in features designed to reduce environmental impact and greenhouse gases.

Overall the carbon footprint of the scheme will be minimised along with its Ecological impact. All stakeholders involved stand to benefit as a result of the assessment and recommendations.

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Prepared



Date 04<sup>th</sup> October 2019

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Checked



Date 04<sup>th</sup> October 2019

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## **BREEAM Non-domestic Refurbishment and Fit-out**

Pre-assessment Estimator



Ref	Description	Compliance Requirements	Assessment Criteria No.	Definite	Possible	Not Targeting	Max Credits Available	Pre-assessment 03.10.19	Action/Responsible person	Tracker
Management Man 1 - Project brief and Design	Stakeholder consultation- project team (1 credit)	Prior to completion of the Concept Design (RIBA Stage 2 or equivalent), the client, building occupier, the design team and principal contractor have met to identify and define their roles, responsibilities and contributions for each of the key phases- of project delivery and how the outcomes of the consultation process have influenced or changed the Initial Project brief	1 to 3	1			4	Documentation indicating when the collaboration began and the roles and responsibilities of the project team for the required phases. This could take the form of meeting minutes, programmes, responsibilities schedule, specification clauses or contracts	Project Team	
	Third party consultation (1 credit)	Prior to completion of the Concept Design stage, all relevant third party stakeholders have been consulted by the design team and this covers the minimum consultation content and how the outcomes of the consultation exercise have influenced or changed the Initial Project Brief and Concept Design. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), consultation feedback has been given to, and received by, all relevant parties.	4 to 6	1				Relevant Third party stakeholders- have been consulted by the design team and covers a minimum consultation content	Project Team	
	Sustainability Champion - Design stage (1 credit)	A Sustainability Champion (BREEAM AP) has been appointed to facilitate the setting and achievement of BREEAM performance target(s) for the project which are formally agreed between the client and design/project team no later than the Concept Design stage (RIBA Stage 2 or equivalent).	9 to 11	1				BREEAM AP has been appointed to facilitate the setting and achievement of BREEAM performance targets at Concept Stage	eb7	
	Sustainability Champion - monitoring progress (1 credit)	A Sustainability Champion is appointed to monitor progress against the agreed BREEAM performance target(s) throughout the design process and formally report progress to the client and design team.	12,13			1		Issue not targeted as Sustainability Champion has not been appointed to monitor progress		
Man 2 - Life cycle cost and service life planning	Elemental Life Cycle Costing (2 credits)	An elemental life cycle cost (LCC) analysis has been carried out, at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design option appraisals in line with 'Standardised method of life cycle costing for construction procurement'	2b			2	4	Issue not targeted - QS not appointed at Concept Stage		
	Component level LCC plan (1 credit)	A component level LCC plan has been developed by the end of Process Stage 4 (equivalent to Technical Design - RIBA Stage 4) in line with PD 156865:2008 envelope, services, finishes and external spaces	3,4			1		Issue not targeted - High cost item not feasible to the project		
	Capital cost reporting (1 credit)	Report the capital cost for the building in pounds per square metre (Ek/ m2.)	5	1				The developer will also publish data on project costing	Client	
Man 3 - Responsible Construction Practices Minimum Standards- one credit Considerate Construction		<b>Pre-requisite</b> -All Timber and timber based products to be legally sourced in line with FCS/PEFC including Site Timber	1	Y			6	<b>Mandatory</b> -Ensure all Timber and timber based products will be legally sourced in line with FCS/PEFC including Site Timber	Contractor	
	Environmental management - EMS System (1 credit)	The principal contractor operates an environmental management system (EMS) covering their main operations. The EMS must be either: a.third party certified, to ISO 14001/EMAS or equivalent standard; or b.have a structure that is in compliance with BS 8555:2003 and has reached phase four of the implementation stage The principal contractor implements best practice pollution prevention policies and procedures on-site in accordance with Pollution Prevention Guidelines, Working at construction and demolition-sites: PPG61.	2,3		1			Contractor to have ISO 14001 accreditation in place <b>Issue kept in reserve</b>	Contractor	
	Sustainability Champion(construction) (1 credit)	A Sustainability Champion is appointed to monitor the project to ensure ongoing compliance with the relevant sustainability performance/process criteria, and therefore BREEAM target(s), during the Construction, Handover and Close Out stages	4 to 6			1		<b>Issue not targeted- not considered cost effective for small scale scheme</b>		
	Considerate Construction (up to 2 credits)	Where the principal contractor has used a 'compliant' organisational, local or national considerate construction scheme and their performance against the scheme has been confirmed by independent assessment and verification.The BREEAM credits can be awarded as follows: a. One credit where the contractor achieves 'compliance' with the criteria of a compliant scheme. b. Two credits where the contractor significantly exceeds 'compliance'	7a,b	1		1		Join the Considerate Constructors Scheme and achieve a minimum score of 25 Minimum of 5 in each category	Contractor	

	<b>Monitoring of construction-site impacts (2 credits)</b>	Requires monitoring, recording and reporting energy use (kWh or litres, water consumption(m3 where measured) resulting from all on-site construction processes (and dedicated off-site monitoring) throughout the build programme and transport movements and impacts from delivery of majority of construction materials to site and construction waste from site.	8 to 17	2				Undertake the monitoring and reporting on the use of energy and water on site, as well as transport of materials and waste	Contractor
<b>Man 4 - Commissioning and Handover</b> <small>Minimum Standards- Criterion 9 Building User Guide</small>	<b>Commissioning testing schedule and Responsibilities (1 credit)</b>	A schedule of commissioning and testing that identifies and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and testing and inspecting building fabric in accordance with, current Building Regulations, BSRIA1 and CIBSE2 guidelines and/or other appropriate standards The principal contractor appoints an appropriate team member to monitor and programme pre-commissioning and accounts for the commissioning and testing programme, responsibilities and criteria within their budget and main programme of work	1 to 4	1				The developer is to schedule commissioning including optimal timescales and appropriate testing and commissioning of all building services systems in line with best practice Including, inspecting, testing, identifying and rectifying defects via an appropriate method	Contractor
	<b>Commissioning building services (1 credit)</b>	The commissioning and testing schedule and responsibilities credit is achieved. a. For complex building services and systems, a specialist commissioning manager is appointed during the design stage (by either client or contractor) with responsibility for: i. Undertaking design reviews and giving advice on suitability for ease of commissioning ii. Providing commissioning management input to construction programming and during installation stages iii. Management of commissioning, performance testing and handover/post handover stages.	5,6b	1			3		Contractor/Specialist Commissioning Manager
	<b>Handover (1 credit)</b>	A Building User Guide (BUG) is developed prior to handover for distribution to the building's staff (or where relevant residents) The non-technical facilities management team/building manager Other building users, e.g. visitors/community users	10,11	1					The contractor will also provide a non-technical Building User Guide and user/operator training timed appropriately around handover and proposed occupation.
<b>Man 5 - Aftercare</b> <small>Minimum Standards- One credit Seasonal Commissioning</small>	<b>Aftercare support (1 credit)</b>	There is (or will be) operational infrastructure and resources in place to provide aftercare support to the building occupier/management prior to initial occupation The dedicated aftercare team/building occupier can confirm to co-ordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is occupied.	1, 2	1				The developer will put in place the necessary infrastructure and resources to provide aftercare support to the building occupier(s).	Contractor
	<b>Seasonal commissioning (1 credit)</b>	Seasonal commissioning activities will be completed over a minimum 12-month period, once the building becomes substantially occupied. For complex systems, a specialist commissioning manager must be employed to carry out - Testing of all building services under full load conditions - Where applicable, testing should also be carried out during periods of extreme (high or low) occupancy. - Interviews with building occupants to identify problems or concerns regarding the effectiveness of the systems. - Re-commissioning of systems and incorporating any revisions in operating procedures into the operations and maintenance (O&M) manuals.	3a	1				Seasonal Commissioning activities will be completed over a min 12 month period	Contractor
	<b>Post occupancy evaluation (1 credit)</b>	The client or building occupier makes a commitment to carry out a post-occupancy evaluation (POE) exercise one year after initial building occupation. The POE is carried out by an independent party A review of the design intent and construction process i. Internal environmental conditions (light, noise, temperature, air quality) ii. Control, operation and maintenance iii. Facilities and amenities iv. Access and layout v. Other relevant issues vi. Sustainability performance The client or building occupier makes a commitment to carry out the appropriate dissemination of information on the building's post-occupancy performance	4,5	1				The developer, in cooperation with the building occupier will commit to carrying out a post occupancy evaluation (POE) exercise one year after initial building occupation	Client/Quantum
<b>SECTION CREDIT SCORE</b>				<b>13.740</b>			<b>21</b>		

Hea 01 - Visual Comfort	Glare control (1 credit)	The potential for disabling glare has been designed out of all relevant building areas using a glare control strategy, either through building form and layout and/or building design measures The glare control system is designed to maximise daylight levels under all conditions while avoiding disabling glare in the workplace or other sensitive areas. The use or location of shading does not conflict with the operation of lighting control systems.	1,2			0	6	Not Applicable	Architect	
	Daylighting (up to 2 credits - building type dependent)	Where evidence provided demonstrates that the relevant building areas meet good practice daylighting criteria: - 2% daylight factor for either 40%, 60% or 80% of compliant areas (typically those areas occupied continuously for 30 minutes or more) - A uniformity ratio of at least 0.3 or a minimum point daylight factor of at least 0.3 times the relevant average daylight factor value 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 0.7 times the relevant average daylight factor value OR - A view of sky from desk height (0.7m) is achieved AND - The room depth criterion $d/w + d/HW < 2/(1-RB)$ is satisfied.	Retail building type			2		80% of all occupied spaces to have a daylight factor of 2% and comply with other requirements additionally <b>Deep layouts indicating issue not achievable</b>	Architect	
	View out (upto 2 credits )	Two credits where 95% of the floor area in relevant building areas is within 7m of a wall which has a window or permanent opening One credit where 80% of the floor area in relevant building areas is within 7m of a wall which has a window or permanent opening The window/opening must be $\geq 20\%$ of the surrounding wall area. Where the room depth is greater than 7m, compliance is only possible where the percentage of window/opening is the same as, or greater than, the values in table 1.0 of BS 82061	4,5			2		atleast 80% of the relevant building areas to have view-out subject to final scheme drawings <b>Deep layouts indicating issue not achievable</b>	Architect	
	Internal and external lighting, zoning & control (1 credit)	<b>Internal Lighting</b> -All fluorescent and compact fluorescent lamps are fitted with high frequency ballasts. Internal lighting in all relevant areas of the building is designed to provide illumination levels in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. <b>External Lighting</b> -external lighting provided is specified in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas3 and BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places. <b>Zoning &amp; Occupant Control</b> Internal lighting is zoned to allow for occupant control - In office areas, zones of no more than four workplaces b. - Workstations adjacent to windows/atria and other building areas separately zoned and controlled - Dining, restaurant, café areas: separate zoning of servery and seating/dining areas	7 to 12	1				All Fluorescent lamps must be high frequency ballast Internal and external lighting designs will be CIBSE compliant, with appropriate zoning to allow full occupant control	Specification	
Hea 02 - Indoor Air Quality	Indoor air quality Plan (1 credit)	An indoor air quality plan has been produced considering the following: a. Removal of contaminant sources b. Dilution and control of contaminant sources c. Procedures for pre-occupancy flush out d. Third party testing and analysis e. Maintaining indoor air quality in-us	1	1			3	An Indoor Air Quality Plan is to be commissioned by the developers	Contractor	
	Ventilation (1 credit)	Design ventilation pathways to minimise the build-up of air pollutants in the building, as follows: a. In air conditioned and mixed mode buildings/spaces: i. The building's air intakes and exhausts are over 10m apart and intakes are over 20m from sources of external pollution. OR ii. The location of the building's air intakes and exhausts, in relation to each other and external sources of pollution, is designed in accordance with BS EN 13779:20071 b. In naturally ventilated buildings/spaces: openable windows/ventilators are over 10m from sources of external pollution Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 13779:2007 Annex Areas of the building subject to large and unpredictable or variable occupancy patterns have carbon dioxide (CO2) or air quality sensors specified In mechanically ventilated buildings/spaces: sensor(s) are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space	2 to 5			1		Ventilation strategy designed in line with the criteria requirements <b>Issue kept in reserve</b>	M&E Specification	
	(VOC) emission levels-products (1 credit)	All decorative paints and varnishes specified meet the criteria in Table - 18 At least five of the seven remaining product categories listed in Table - 18 meet the testing requirements and emission levels criteria for volatile organic compound (VOC) emissions (listed in the table	6,7			0		Not Applicable		

	(VOC) emission levels-post construction (1 credit)	The formaldehyde concentration level is measured post construction (but pre-occupancy) and is found to be less than or equal to 100µg/averaged over 30 minutes (WHO guidelines for indoor air quality: Selected pollutants, 20102). The total volatile organic compound (TVOC) concentration level is measured post construction (but pre-occupancy) and found to be less than 300µg/over 8 hours, in line with the building regulation requirements.	8 to 12			0		Not Applicable		
	Adaptability - potential for natural ventilation (1 credit)	i. Room depths are designed in accordance with CIBSE AM10 (section 2.4) to ensure effectiveness of any natural ventilation system. The openable window area in each occupied space is equivalent to 5% of the gross internal floor area of that room/floor plate. OR ii. The design demonstrates that the natural ventilation strategy provides adequate cross flow of air to maintain the required thermal comfort conditions and ventilation rates. This is demonstrated using ventilation design tool types recommended by CIBSE AM107	13, 14			1		Full thermal dynamic modelling has been undertaken in accordance with CIBSE AM10 standards	Contractor	
Hea 03 - Safe containment in Laboratories	Containment Laboratory containment devices and containment areas (1 credit)	Not Applicable				0	0	Not Applicable		
	Buildings with containment level 2 and 3 laboratory facilities (1 credit)					0				
Hea 04 - Thermal Comfort	Thermal Modelling (1 credit)	Thermal modelling has been carried out using software in accordance with CIBSE AM111 Building Energy and Environmental Modelling For air conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design2, Table 1.5; or other appropriate industry standard For air conditioned buildings, the PMV and PPD indices based on the above modelling are reported.	1 to 4	1			3	Full thermal dynamic modelling to be undertaken in accordance with CIBSE AM11 standards	M+E/Energy consultant	
	Adaptability for a projected climate change scenario (1 credit)	Thermal Modelling credit is achieved The thermal modelling demonstrates that the relevant requirements set out in criteria above are achieved for a projected climate change environment For air conditioned buildings, the PMV and PPD indices based on the above modelling are reported.			1	systems designed in line with CIBSE AM11 including allowance for climate change Requires use of dynamic thermal modelling (TAS or IES)				
	Thermal zoning and controls (1 credit)	Thermal Modelling credit is achieved The thermal modelling analysis has informed the temperature control strategy for the building and its users. The strategy for the proposed heating and cooling should tackle the following issues: - Zones within the building and how the building services could efficiently and appropriately heat or cool these areas; - The amount of occupant control required for these zones - How the proposed systems will interact with each other (where there is more than one system) and how this may affect the building occupants thermal comfort; and - The need or otherwise for an accessible building user actuated manual override for any automatic systems	10 to 12	1		Appropriate levels of thermal zoning are also to be included in the HVAC design solution		M&E Consultant		
Hea 05 - Acoustic Performance	Sound insulation and internal ambient noise levels (2 credits)	Where the building meets the acoustic performance standards and testing requirements Where a suitably qualified acoustician is appointed to define a bespoke set of performance requirements for all function areas in the building using the three acoustic principles defined a. Sound insulation b. Indoor ambient noise level c. Reverberation times., setting out the performance requirements for each and the testing regime required	Retail Building Type			2	2	A suitably qualified acoustician is to be appointed to define a bespoke set of performance requirements for all function areas in the building - <b>not considered cost effective for small scheme</b>	Suitably Qualified Acoustician	
	Reverberation times (1 credit)	Rooms/areas used for speech or performance, including public speaking				1				
Hea 06 - Safety & Security	Security of site and building (1 credit)	A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent) and proposes a set of recommendations or solutions that would be require to be implemented	11 to 13	1		1	The developers are also actively seeking the Secured by Design award for the project	Security Consultant		



		SECTION CREDIT SCORE		5.850		15				
Energy	<b>Ene 01 - Reduction of CO2 Emissions</b> <b>Minimum Standards-6 credits</b>	<b>Energy Performance</b> <b>(upto 15 credits)</b>	Where evidence provided demonstrates an improvement in the energy efficiency of the building's fabric and services and therefore achieves lower building operational related CO2 emissions. Calculate an Energy Performance Ratio for New Constructions (EPR NC). Compare the EPR NC achieved with the benchmarks and award the corresponding number of BREEAM credits	1	5	2	7	Elemental level Energy Model to be used to analyse Energy Performance <b>Assume 6 credits achieved at pre-assessment stage</b>	Energy Consultant	
	<b>Ene 02 - energy Monitoring</b> <b>Minimum Standards-First Sub-metering credit</b>	<b>Sub-metering of major energy consuming systems</b> <b>(1 credit)</b>	The following major energy consuming systems (where present) are monitored using either a Building Energy Management System (BEMS) or separate accessible energy sub meters with a pulsed output to enable future connection to a BEMS hat enable at least 90% of the estimated annual energy consumption of each fuel to various end-use categories: - Space Heating; - Domestic Hot Water; - Humidification; - Cooling; - Fans (major); - Lighting; - Small Power (lighting and small power can be on the same sub-meter where supplies are taken at each floor/department); and - Other major energy-consuming items where appropriate The end energy consuming use is identifiable to the building user through labelling or data outputs.	1,4	1		2	<b>Mandatory</b> - energy sub-meters for ventilation, lighting and small power monitoring to be installed	M&E Consultant	
		<b>Sub-metering of high energy load and tenancy areas</b> <b>(1 credit)</b>	Where evidence provided demonstrates that an accessible BEMS or accessible sub-meters will be provided covering the energy supply to all tenanted, or in the case of single occupancy buildings, relevant function-areas or departments within the building/unit.	5	1			Sub-metering for individual units		
	<b>Ene 03 - External lighting</b>	<b>External Lighting</b> <b>(1 credit)</b>	The average initial luminous efficacy of the external light fittings within the construction zone is not less than 60 luminaire lumens per circuit Watt. All external light fittings are automatically controlled for prevention of operation during daylight hours and presence detection in areas of intermittent pedestrian traffic	2,3	1		1	External lighting to be low energy, meet minimum colour rendering and controlled by time switch or daylight control	M&E Consultant	
	<b>Ene 04 - Low Carbon Design</b>	<b>Passive design analysis</b> <b>(1 credit)</b>	The first credit within issue Hea 04 Thermal comfort has been achieved The building uses passive design measures to reduce the total heating, cooling, mechanical ventilation and lighting loads and energy consumption in line with the findings of the passive design analysis and the analysis demonstrates a meaningful reduction in the total energy demand	1 to 3	1		1	It is assumed that all credits under Hea 04 will be achieved Design Thereafter, the design team have considered appropriate passive design strategies that will be incorporated into the final design	Energy Consultant	
		<b>Free Cooling</b> <b>(1 credit)</b>	The passive design analysis credit is achieved The building uses ANY of the free cooling strategies listed to reduce the cooling demand 1. Night time cooling (which could include the use of a high exposed thermal mass) 2. Ground coupled air cooling 3. Displacement ventilation (not linked to any active cooling system) 4. Ground water cooling 5. Surface water cooling 6. Evaporative cooling, direct or indirect 7. Desiccant dehumidification and evaporative cooling, using waste heat 8. Absorption cooling, using waste heat 9. The building does not require any significant form of active cooling or mechanical ventilation (i.e. naturally ventilated).	4 to 6		1	1	<b>Issue not targeted as design does not allow free cooling strategies</b>		
		<b>Low or zero carbon technologies</b> <b>(1 credit)</b>	A local LZC technology/technologies has/have been specified for the building/development in line with the recommendations of this feasibility study carried by the energy specialist by the completion of the Concept Design stage (RIBA Stage 2 or equivalent)and this method of supply results in a meaningful reduction in regulated carbon dioxide (CO2) emissions (see compliance			0	0	<b>Not Applicable</b>		
	<b>Ene 05 - Energy Efficient Cold Storage</b>	<b>Refrigeration Energy Consumption</b> <b>(1 credit)</b>	<b>Not Applicable</b>			0	0	<b>Not Applicable</b>		
<b>Indirect Greenhouse gas emissions</b> <b>(1 credit)</b>					0					

Ene 06 - Energy Efficient Transportation Systems	Energy consumption (1 credit)	Where lifts, escalators and/or moving walks (transportation types) are specified: An analysis of the transportation demand and usage patterns for the building has been carried out to determine the optimum number and size of lifts, escalators and/or moving walks. The energy consumption has been calculated in accordance with BS EN ISO 25745 Energy performance of lifts, escalators and moving walks.	1			0	0	Not Applicable	
	Energy efficient feature - (2 credits)	For each lift, the following three energy efficient features are specified: a.The lifts operate in a standby condition during off-peak periods. b.The lift car lighting and display lighting provides an average lamp efficacy, (across all fittings in the car) of > 55 lamp lumens/circuit Watt. c.The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor. 4.Where the use of regenerative drives is demonstrated to save energy, they are specified.	2 to 4			0	0	Not Applicable	
Ene 07 - Energy Efficient Laboratory Systems	Pre-requisite	Not Applicable				0	0	Not Applicable	
	Design Specification (1 credit)					0			
Ene 08 - Energy Efficient Equipment	Energy Efficient Equipment (2 credits)	Identify the building's unregulated energy consuming loads and systems/ or processes and estimate their contribution to the total annual unregulated energy consumption of the building Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building.				0	0	Not Applicable	
Ene 09 - Drying Space	Drying Space (1 credit)	Not Applicable				0	0	Not Applicable	
SECTION CREDIT SCORE				7.910			12		
Transport	Tra 01 - Sustainable Transport Accessibility	The public transport Accessibility Index (AI) for the assessed building is calculated and BREEAM credits awarded in accordance with the table of building types, AI benchmarks (refer Table 29 of the manual) The Accessibility Index is determined by entering the following information in to the BREEAM Tra 01 calculator: a.The distance (m) from the main building entrance to each compliant public transport node b. The public transport type(s) serving the compliant node e.g. bus or rail c.The average number of services stopping per hour at each compliant node during the operating hours of the building for a typical day	Retail Building Type	5			5	project achieving an AI of 74.33	eb7
	Tra 02 - Proximity to Amenities	Where the building is located within close proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants The building is located within 500m of at least 2 of the following local amenities: - Food outlet / grocery shop - Post Box - Cash Machine - GP surgery/medical centre - Pharmacy	1 Type 1 - Office Building Type	1			1	Project location offers all the required local amenities	eb7
	Tra 03 - Cyclist Facilities	Cycle Storage (1 credit)	Where evidence provided demonstrates that the number of compliant cycle storage spaces provided are in accordance with the following: -for small retail unit 10 number of cycle spaces	Retail Building Type	1			2	compliant no. of cycle spaces to be provided drawing indicating area dedicated for cycle storage
Cyclist facilities (1 credit)		Where evidence provided demonstrates that the number of compliant cycle storage spaces provided are in accordance with the following: - cyclist facilities for all staff only				1	Issue not targeted as design does not incorporate the required facilities due to space limitations		

	Tra 04 - Maximum Car Parking Capacity	Car Parking Capacity (upto 2 credits)	The building's car parking capacity is compared to the maximum car parking capacity benchmarks (refer Table - 33 of the manual) The benchmarks vary according to the building's public transport Accessibility Index (AI determined in accordance with BREEAM issue Tra 01 Public transport accessibility)	Retail Building Type			0	0	Not applicable	
	Tra 05 - Travel Plan	Travel Plan (1 credit)	A site specific travel assessment/statement has been undertaken to ensure the travel plan is structured to meet the needs of the particular site and covers the following (as a minimum): a. Where relevant, existing travel patterns and opinions of existing building or site users towards cycling and walking so that constraints and opportunities can be identified. b. Travel patterns and transport impact of future building users. c. Current local environment for walkers and cyclists (accounting for visitors who may be accompanied by young children) d. Disabled access (accounting for varying levels of disability and visual impairment) e. Public transport links serving the site f. Current facilities for cyclists.	1 to 4	1			1	The design team are to develop and publish a travel plan specific to the assessed building and its users	
	<b>SECTION CREDIT SCORE</b>					9.160			9	
Water	Wat 01 - Water Consumption  Minimum Standards- 1 credit (where applicable)	Water Consumption (upto 5 credits)	The water consumption (L/person/day) for the assessed building is compared against a baseline performance The efficiency of the following 'domestic scale' water-consuming components must be included in the assessment (where specified): a.WCs b.Urinals c.Taps (wash hand basins and where specified kitchen taps and waste disposal unit) d.Showers e.Baths f.Dishwashers (domestic and commercial sized) g.Washing machines (domestic and commercial or industrial sized).	1 to 3			0	0	Not applicable	
	Wat 02 - Water Monitoring  Minimum Standards- criterion 1 only	Water Monitoring (1 credit)	The specification of a water meter on the mains water supply to each building; Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are either fitted with easily accessible sub-meters or have water monitoring equipment integral to the plant or area Each meter (main and sub) has a pulsed or other open protocol communication output to enable connection to an appropriate utility monitoring and management system	1 to 5			0	0	Not applicable	
	Wat 03 - Water Leak Detection & Prevention	Leak Detection Systems (1 credit)	A leak detection system which is capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter is installed.	1			0	0	Not applicable	
		Flow Control devices (1 credit)	Flow control devices that regulate the supply of water to each WC area/facility according to demand are installed	2			1	1	Issue not targeted as design does not incorporate WC facilities within the development	
	Wat 04 - Water Efficient Equipment	Water Efficient Equipment (1 credit)	The design team has identified all unregulated water demands that could be realistically mitigated or reduced. System(s) or processes have been identified to reduce the unregulated water demand, and demonstrate, through either good practice design or specification, a meaningful reduction in the total water demand of the building.	1,2			0	0	Not applicable	
<b>SECTION CREDIT SCORE</b>					0.000			1		
Materials	Mat 01 - Environmental impact of materials	Project Life Cycle Assessment (upto 6 credits)	The project uses a life cycle assessment (LCA) tool or undertakes a building information model life cycle assessment (BIM LCA) to measure the life cycle environmental impact of the refurbishment or fit-out works.		2		4	6	Elemental assessment of environmental performance information to be undertaken. Robust environmental performance information has been collected for newly specified materials or where materials are retained in situ	Principal Contractor/Tender/ Specification

Waste	Mat 02 - Hard Landscaping & Boundary Protection	Hard Landscaping & Boundary protection (1 credit)	Not Applicable				0	0	Not Applicable			
	Mat 03 - Responsible Sourcing of Materials Minimum Standards-criterion 1 only	Prerequisite	All timber and timber based products used on the project is ' Legally harvested and traded timber	1	Y			Y	Mandatory -Ensure all Timber and timber based products will to be legally sourced in line with FCS/PEFC including Site Timber	Principal Contractor/Tender/ Specification		
		Sustainable procurement plan (1 credit)	The principal contractor sources materials for the project in accordance with a documented sustainable procurement plan	2	1			1	The design team will produce a sustainable procurement plan in line with BREEAM guidance -			
		Responsible sourcing of materials (RSM) (3 credits)	The available RSM credits can be awarded where the applicable building materials (refer to )are responsibly sourced in accordance with the BREEAM methodology,	3,4	2		1	3	The design team will actively source materials from suppliers capable of confirming a chain of custody via BES6001 or other such accreditation			
	Mat 04 - Insulation	Embodied Impact (1 credit)	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. The Insulation Index for the building fabric and services insulation is the same as or greater than 2.5	1,2				0	0	Not Applicable		
	Mat 05 - Designing for durability & resilience	Protecting vulnerable parts of the building from damage	The building incorporates suitable durability and protection measures or designed features/solutions to prevent damage to vulnerable parts of the internal and external building and landscaping elements which includes a. Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughfares (corridors, lifts, stairs, doors etc.). b. Protection against any internal vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. c. Protection against, or prevention from, any potential vehicular collision where vehicular parking and manoeuvring occurs within 1m of the external building façade for all car parking areas and within 2m for all delivery areas.	1,2	1				1	The design team will provide drawings to show areas of vulnerability and durability & protection measures - high pedestrian use, trolleys & wheelchairs, protection for building against vehicle movements etc, and also incorporate design features to protect the building from material degradation due to environmental factors	Architect	
		Protecting exposed parts of the building from material degradation (1 credit)	The relevant building elements incorporate appropriate design and specification measures to limit material degradation due to environmental factors (refer Table -50 of the manual)									
Mat 06 - Material Efficiency	Material Efficiency (1 credit)	Opportunities have been identified, and appropriate measures investigated and implemented, to optimise the use of materials in building design, procurement, construction, maintenance and end of life . The above is carried out by the design/construction team in consultation with the relevant parties at each of the following RIBA stages: a. Preparation and Brief b. Concept Design c. Developed Design d. Technical Design e. Construction.	1,2			1		1	Design team to confirm if appropriate consideration has been undertaken <b>Issue kept in reserve</b>	Architect		
SECTION CREDIT SCORE									9.910		12	
Waste	Wst 01 - Construction Waste Management	Pre-refurbishment Audit (1 credit)	The client shall ensure that a pre-refurbishment audit of all existing buildings, structures or hard surfaces within the scope of the refurbishment or fit-out zone is completed.	1	1					A pre-demolition audit of the existing structure will be required, identifying recyclable waste streams	Contractor	
		Reuse and direct recycling of materials (2 credits)	Where waste material types detailed in Table - 64 (BREEAM Manual) are either directly re-used on-site or off-site or are sent back to the manufacturer for closed loop recycling	2 to 4	1		1		7	Project team to list down waste materials including temporary support structures, timber formwork, pallets, packaging entering the waste stream, etc.	Contractor	

	<b>Resource efficiency</b> (3 credits)	Where a Resource Management Plan (RMP) has been developed covering the non-hazardous waste related to on-site construction and dedicated off-site manufacture or fabrication (including demolition and excavation waste) generated by the building's design and construction	5,6	2		1		< 1.2t construction waste per 100sqm of floor area generated. Minimum 85 % by volume of waste to be diverted from landfill USE of Licenced Contractor and Transfer station to provide records	Contractor	
	<b>Diversion of resources from landfill</b> (1 credit)	The following percentages of non-hazardous construction (on-site and off-site manufacture/fabrication in a dedicated facility), demolition and excavation waste (where applicable) generated by the project have been diverted from landfill:	7	1					Contractor	
<b>Wst 02 - Recycled Aggregates</b>	<b>Recycled Aggregates</b> (1 credit)	Where evidence provided demonstrates the significant use (>25% by weight or volume) of recycled or secondary aggregates in 'high-grade' building aggregate uses. To contribute to the total amount, the percentage of high-grade aggregate specified per application (where present) that is recycled and/or secondary aggregate, must meet the following minimum levels (by weight or volume) (refer Table-54 of the manual)	1 to 3			0	0	<b>Not Applicable</b>		
<b>Wst 03 - Operational Waste</b> <b>Minimum Standards-1 credit</b>	<b>Operational Waste</b> (1 credit)	There is dedicated space(s) to cater for the segregation and storage of operational recyclable waste volumes generated by the assessed building/unit, its occupant(s) and activities. The dedicated space(s) must be: - Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams - Accessible to building occupants / facilities operators for the deposit of materials and collections by waste management contractors - Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily/weekly operational activities and occupancy rates.  Space requirements: For each 1,000m2 of NIA, 2m2 of storage space for recyclables should be provided. If there is also catering in the building, this area should be doubled. If tenants are sharing waste storage space, there is a cap on size: maximum 10m2 (20m2 with catering waste) for buildings of 5,000 m2 or larger.	1 to 3	1			1	The waste strategy for the building is to be agreed with the Local council External waste/recycling storage to be available and clearly labelled - at least 2sqm per 1000sqm of net internal area to be marked on plans	Specification	
<b>Wst 04 - Speculative Floor and Ceiling Finishes</b>	<b>Speculative Floor and Ceiling finishes</b> (1 credit)	Office building types only 1. For tenanted areas (where the future occupant is not known), prior to full fit-out works, interior finishes (including carpets, other floor finishes, ceiling finishes and any other interior finishes) have been installed in a show area only. 2. In a building being refurbished or fitted out for a specific occupant, that occupant has selected (or agreed to) the specified interior finishes.				0	0	<b>Not Applicable</b>		
<b>Wst 05 - Adaptation to Climate Change</b>	<b>Adaptation to climate change – structural and fabric resilience</b> (1 credit)	Conduct a climate change adaptation strategy appraisal for structural and fabric resilience by the end of Concept Design (RIBA Stage 2 or equivalent), in accordance with the following approach: a. Carry out a systematic (structural and fabric resilience specific) risk assessment to identify and evaluate the impact on the building over its projected life cycle from expected extreme weather conditions arising from climate change and, where feasible, mitigate against these impacts. The assessment should cover the following stages: i. Hazard identification ii. Hazard assessment iii. Risk estimation iv. Risk evaluation v. Risk management.				1	1	<b>Issue not targeted</b>		
<b>Wst 06 - Functional Adaptability</b>	<b>Functional Adaptability</b> (1 credit)	A building-specific functional adaptation strategy study has been undertaken by the client and design team by Concept Design (RIBA Stage 2 or equivalent), which includes recommendations for measures to be incorporated to facilitate future adaptation. Functional adaptation measures have been adopted in the design by Technical Design stage (RIBA Stage 4 or equivalent) in accordance with the functional adaptation strategy recommendations, where practical and cost effective. Omissions have been justified in writing to the assessor	1,2	1			1	A building-specific functional adaptation strategy study has been undertaken by building over its lifespan the client and design team to consider potential future adaptation/uses for the building  Architect to provide a statement on alternative uses for the building	Architect	
<b>SECTION CREDIT SCORE</b>				<b>6.440</b>			<b>10</b>			
	<b>Previously Occupied Land</b> (1 credit)	At least 75% of the proposed development's footprint is on an area of land which has previously been occupied by industrial, commercial or domestic buildings or fixed surface infrastructure.				0				

Land Use & Ecology	LE 01 - Site Selection	Contaminated Land (1 credit)	A contaminated land specialist's site investigation, risk assessment and appraisal has deemed land within the site to be affected by contamination. The site investigation, risk assessment and appraisal have identified: a. The degree of contamination b. The contaminant sources/types c. The options for remediating sources of contamination which present an unacceptable risk. The client or principal contractor confirms that remediation of the site will be carried out accordingly				0		Not Applicable	
	LE 02 - Ecological Value of Site & Protection of Ecological Value Features	Ecological Value of Site (1 credit)	Land within the construction zone is defined as 'land of low ecological value' using either: a. The BREEAM checklist for defining land of low ecological value OR b. A Suitably Qualified Ecologist (SQE) who has identified the land as being of 'low ecological value' within an ecological assessment report, based on a site survey.	1			0		Not Applicable	
		Protection of Ecological Features (1 credit)	All existing features of ecological value within and surrounding the construction zone and site boundary area are adequately protected from damage during clearance, site preparation and construction activities in line with BS42020: 2013 In all cases, the principal contractor is required to construct ecological protection recommended by the SQE, prior to any preliminary site construction or preparation works	2, 3			0		Not Applicable	
	LE 03 - Minimising impact on existing site ecology	Change in ecological value (1 credit)	Not Applicable				0	0	Not Applicable	
	LE 04 - Enhancing Site Ecology	Ecologist's report and recommendations (1 credit)	The SQE has provided an Ecology Report based on a site visit/survey with appropriate recommendations for the enhancement of the site's ecology at Concept Design stage (RIBA Stage 2 or equivalent) and the early advice have been, or will be, implemented in the final design and build	1 to 3			0		Not Applicable	
		Increase in ecological value (1 credit)	The first credit is met The recommendations of the Ecology Report for the enhancement of site ecology have been implemented in the final design and build, and the SQE confirms that this will result in an increase in ecological value of the site, with an increase of six plant species or greater	3 to 6			0			
	LE 05 - Long Term Impact on Biodiversity	Impact on Biodiversity (1 credit)	Where a Suitably Qualified Ecologist (SQE) is appointed prior to commencement of activities on-site and they confirm that all relevant UK and EU legislation relating to the protection and enhancement of ecology has been complied with during the design and construction process. Where a landscape and habitat management plan, appropriate to the site, is produced covering at least the first five years after project completion in accordance with BS 42020:2013 Where additional measures to improve the assessed site's long term biodiversity are adopted				0	0	Not Applicable	
SECTION CREDIT SCORE							0			
Pollution	Pre-requisite	All systems (with electric compressors) must comply with the requirements of BS EN 378:2008 (parts 2 and 3) and where refrigeration systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice	2					Not Applicable		
	Pol 01 - Impact of Refrigerants (1 to 2 credits)	Where the systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELCO2e) of ≤ 100 kgCO2e/kW cooling/ heating capacity. OR Where air-conditioning or refrigeration systems are installed the refrigerants used have a Global Warming Potential (GWP) ≤ 10.	3,4			0				

	<b>Leak detection (1 credit)</b>	Where systems using refrigerants have a permanent automated refrigerant leak detection system installed; OR where an in-built automated diagnostic procedure for detecting leakage is installed. The system must be capable of automatically isolating and containing the remaining refrigerant(s) charge in response to a leak detection incident	6,7			0				
<b>Pol 02 - Nox Emissions</b>	<b>Nox Emissions (upto 3 credits)</b>	Where the plant installed to meet the building's delivered heating and hot water demand has, under normal operating conditions, a Nox emission level (measured on a dry basis at 0% excessO2) as follows:  NOx Emission levels for heating and hot water (mg/kWh) Credits ≤ 100 mg/kWh - 1 credit ≤ 70 mg/kWh - 2 credits ≤ 40 mg/kWh - 3 credits	1, 2			0	0		<b>Not Applicable</b>	
<b>Pol 03 - Surface Water Run-off</b>	<b>Flood risk (1 to 2 credits)</b>	Where a site-specific flood risk assessment (FRA) confirms the development is situated in a flood zone that is defined as having a low annual probability of flooding (in accordance with current best practice national planning guidance). The FRA must take all current and future sources of flooding into consideration Or 1 Credit: Where evidence provided demonstrates that the assessed development is located in a zone defined as having a medium or high annual probability of flooding.	1,2	2				Site specific FRA required to demonstrate site in Flood Zone 1	Appropriate Consultant/Hydrologist	
	<b>Surface water run-off (2 credits)</b>	Pre-requisite An Appropriate Consultant is appointed to carry out, demonstrate and/or confirm the development's compliance with the following criteria: 1 Credit: Where drainage measures are specified to ensure that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site at 1-year and 100-year return period events. Calculations include an allowance for climate change 1 Credit: Where flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance)		2			4	Assumed run-off no greater than pre-development, but will require hydrologists report to confirm	Appropriate Consultant/Hydrologist	
	<b>Minimising water course pollution (1 credit)</b>	The Appropriate Consultant confirms that there is no discharge from the developed site for rainfall up to 5mm. In areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques. All water pollution prevention systems have been designed and detailed in accordance with the recommendations of Pollution Prevention Guideline 31 and where applicable the SuDS manual2				1		Issue not targeted as confined site means water cannot be treated before entering the mains drainage		
<b>Pol 04 - Reduction of Night Time Light Pollution</b>	<b>Reduction in Night Time Light Pollution (1 credit)</b>	1 Credit: Where external lighting pollution has been eliminated through effective design that removes the need for external lighting without adversely affecting the safety and security of the site and its users. <b>OR</b> alternatively, where the building does have external lighting, one credit can be awarded as follows: -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, 2011 - All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. - If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes. - Illuminated advertisements, where specified, must be designed in compliance with ILE Technical Report 5 – The Brightness of Illuminated Advertisements		1			1	External lighting to be designed to ILE guidance to avoid night time pollution Automated switch off required between 2300 - 0700 hrs. Safety or Security lighting if installed to comply with the appropriate standard	M+E specification	

Pol 05 - Reduction of Noise Pollution	Reduction in Noise Pollution (1 credit)	<p>1 Credit: Where there are, or will be, no noise-sensitive areas or buildings within 800m radius of the assessed development. <b>OR</b> Alternatively, where the building does have noise-sensitive areas or buildings within 800m radius of the development, one credit can be awarded as follows: - Where a noise impact assessment in compliance with BS 74451 has been carried out and the following noise levels measured/determined: i.Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed development or at a location where background conditions can be argued to be similar. ii.The rating noise level resulting from the new noise source - The noise impact assessment must be carried out by a suitably qualified acoustic consultant holding a recognised acoustic qualification - 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 to 23:00) and +3dB at night (23:00 to 07:00) compared to the background noise level</p>				0	0	Not Applicable

SECTION CREDIT SCORE

6.600






6

Innovation	Man 03 - Responsible Construction Practices			0	0	1	1		
	Man 05 - Aftercare			0	0	1	1		
	Hea 01-Visual Comfort			0	0	1	1		
	Hea 02 - Indoor Air Quality			0	0	1	1		
	Ene 01 - Reduction of Energy Use			0	0	1	1		
	Wat 01 - Water Consumption			0	0	1	1		
	Mat 01 - Environmental Impact of Materials			0	0	1	1		
	Mat 03 - Responsible Sourcing of materials			0	0	1	1		
	Wst 01 - Project waste management			0	0	1	1		
	Wst 02 - Recycled Aggregates			0	0	1	1		
	Wst 05 - Adaptation to climate change			0	0	1	1		
	Pol 03 - Flood Risk Management			0	0	1	1		
	SECTION CREDIT SCORE (MAX 10)			0.000	0.000	12.000	10		

Summary

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

Definite	Possible	Not Available	Max Credits Available
13.74	0.00	0.00	22.00
5.85	0.00	0.00	15.00
7.91	0.00	0.00	12.00
9.16	0.00	0.00	9.00
0.00	0.00	0.00	1.00
9.91	0.00	0.00	12.00
6.44	0.00	0.00	10.00
0.00	0.00	0.00	0.00
6.60	0.00	0.00	6.00
0.00	0.00	12.00	10.00
<b>59.61</b>	<b>0.00</b>	<b>12.00</b>	<b>97</b>

 Credit information required  
 Partial credit information received  
 Credit not targeted  
 Credit completed  
 Potential additional credits