



14 Blackburn Road (PBSA)

BREEAM 2018 Pre-Assessment Report

Job No: 0627
Report Version: 3
Client: Hamstead Asset Management Limited
Development Partner: Fifth State
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BREEAM®

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1. Introduction

This pre-assessment has been prepared specifically for the PBSA located at 14 Blackburn Road, NW6 1RZ. The proposed development comprises demolition and redevelopment of the Site for a mixed-use development comprising purpose built student accommodation (Sui Generis), affordable housing (Use Class C3), lower ground and ground floor flexible commercial/business space comprising of showrooms, retail and ancillary offices (Use Class E/Sui Generis) and a café/PBSA amenity space (Use Class E/Sui Generis) and associated works including service yard, cycle parking, hard and soft landscaping, amenity spaces and plant.” (‘the proposed development’).

The proposed development comprises of two distinct buildings that are linked at ground level. The C3 building will be 4-7 storeys including a taller ground floor and the PBSA building will be 10 storeys including a ground floor and amenity mezzanine level. There is a double height space spanning these lower two floors in the café at the base of the PBSA.

The proposed development would deliver:

- x192 purpose-built student accommodation rooms (Sui Generis),
- x35 affordable homes (C3) and,
- x1,619sqm of lower ground and ground floor commercial floorspace

The site falls within a wider consented masterplan (The O2 Centre- 2022/0528/P) to provide a mixed-use development which extends to the Finchley Road tube station to the East. 14 Blackburn Road is within Outline Phase 2 of the O2 masterplan, referred to as plot S8.

Carparking will not be provided within the site as the site is located in a highly accessible location. Long and short cycle storage will be provided for the all aspects of the development (C3, PBSA & commercial) inline with London Plan requirements.

This pre assessment has been developed by JAW Sustainability and through the collaboration with CGP MEP, Fifth State and HTA Architects to ensure that the targeted credits are achievable. BREEAM credits that have been selected as 'Not Targeted' have been discussed during a workshop and therefore, the design team have agreed that these credits are not feasible to target.

2. BREEAM 2018 New Construction

BREEAM 2018 is an environmental assessment method used to evaluate new build non-domestic buildings.

The performance of the building is assessed using a framework of environmental benchmarks. The standards against which the building is evaluated encapsulate the following categories:

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

3. BREEAM Scoring

There are a wide range of credits to be achieved within the categories listed above. There are a number of minimum mandatory standards that must be met and tradable credits that can be achieved in order to meet the target score.

Once an appropriate credit strategy has been targets, environmental weightings are applied, that vary between each category to demonstrate their environmental impact.

The current rating benchmarks for the BREEAM 2018 scheme are detailed in the table below:

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

Table 2.1 - BREEAM 2018 rating benchmarks

5. Score Summary

Building Type	Multi-residential
Project Type	Fully Fitted

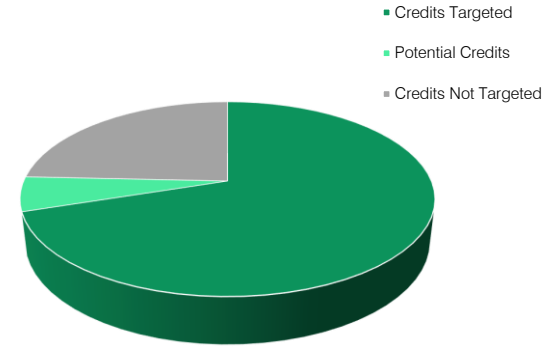
Target BREEAM Score (%)	74.17
Target BREEAM Rating	Excellent

Minimum Standards for target rating met?	YES
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Potential BREEAM Score (%)	77.93
Potential BREEAM Rating	Excellent

BREEAM Category	Credits Available	Targeted Credits	Potential Credits	% of Credits Achieved	Environmental Weighting	Section Score
Management	21	17	3	81.0%	11.0%	8.90
Health & Wellbeing	19	14	1	73.7%	14.0%	10.32
Energy	22	17	2	77.3%	16.0%	12.36
Transport	12	6	0	50.0%	10.0%	5.00
Water	7	4	0	57.1%	7.0%	4.00
Materials	14	11	0	78.6%	15.0%	11.79
Waste	10	8	0	80.0%	6.0%	4.80
Land Use & Ecology	13	11	0	84.6%	13.0%	11.00
Pollution	12	9	0	75.0%	8.0%	6.00
Innovation	10	0	1	0.0%	10.0%	0.00

Score Breakdown



This report demonstrates that the development has met all of the minimum standards and can achieve a Excellent rating on the BREEAM 2018 scheme.

6. Pre-Assessment Credit Strategy Summary Report

Management									
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility	BREEAM Evidence Required	Minimum Standard for Rating	Points Available	Status	Points Targeted	
Man 01 Project Brief and Design									
Project delivery stakeholders meet to set out compliant roles and responsibilities established in accordance with details in Appendix A1	The design team have met from Stage 2 to identify and define their roles, responsibilities and contributions for each of the key phases of project delivery. The organised nature of this project means that this credit should be readily achievable.	2	Fifth State / HTA	Project Brief / Responsibility Summary	-	0.52	Targeted	0.52	
Third party consultation activities undertaken in line with requirements in Appendix A1	Fifth State to collate design team meeting minutes. the party i.e. the individual(s) rather than the organisation undertaking the consultation is independent of the design process.	2	Fifth State / HTA	Design Team Meeting minutes	-	0.52	Targeted	0.52	
The project team, including the client, formally agree strategic performance targets	The project team have formally agreed to achieve the target BREEAM rating.			BREEAM Excellent is targeted		Prerequisite	Targeted	Prerequisite	
BREEAM AP appointed and a target rating contractually agreed. To achieve the credit at the Design Stage Assessment the agreed performance targets must be demonstrably achieved by the project design and demonstrated via the BREEAM Assessor's Design Stage report.	A BREEAM AP has been involved with the project from Stage 2.	2	Consultant	BREEAM AP Reports	-	0.52	Targeted	0.52	
BREEAM AP involved and reports on progress. The BREEAM AP will monitor against agreed targets throughout the design process and formally report the progress. The previous credit must be achieved to receive this credit.	The BREEAM AP should continue their involvement throughout the next stages	2-4	Consultant	BREEAM AP Reports	-	0.52	Targeted	0.52	
Man 02 Life Cycle Cost and Service Life Planning									
An elemental LCC analysis is commissioned in line with requirements in Appendix A2	Evidence: A Stage 2 & Stage 4 LCC may be desirable to further inform technical design and achieve a further credits.	2	Client / QS	Stage 2 LCC	-	1.05	Potential	0.00	
A component level LCC plan has been developed in line with requirements in Appendix A2	It was discussed during the pre assessment workshop that Knight Frank may be undertaking an LCC. Fifth State to confirm.	4	Client / QS	Stage 4 LCC	-	0.52	Potential	0.00	
The capital cost of the building will be reported in £/m ² via the BREEAM Assessment Scoring and Reporting tool	The capital cost will be confirmed at design and post construction stages.	-	Contractor	Capital Cost Letter at DS & PC	-	0.52	Targeted	0.52	
Man 03 Responsible Construction Practices									
All timber and timber-based products used during the construction process of the project are legally harvested and traded timber (FSC compliant or equivalent)	All site timber (including formwork, hoarding, shuttering etc.) will be from FSC sources, with CoC Evidence: Copy of CoC certificates and completed timber record if available. Ensure that the contractor keeps all delivery notes.	-	Contractor	Provide all Timber Delivery Notes and CoC certificates (FSC / PEFC)	-	Prerequisite	Targeted	Prerequisite	
All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) must operate an environmental management system (EMS) covering their main operations and implement best practice pollution prevention policies (air & water pollution).	The main contractor is expected to operate an EMS (ISO 14001 or equivalent) and implement best practice pollution prevention policies and procedures on-site in accordance with Pollution Prevention Guidelines, Working at construction and demolition-sites: PPG6.	-	Contractor	EMS ISO 14001 Cert PPG6	-	0.52	Targeted	0.52	
The client and the contractor formally agree BREEAM performance targets	This will be undertaken.					Prerequisite	Targeted	Prerequisite	
BREEAM AP monitors and reports progress through construction.	Can be targeted if a sustainability champion should be appointed by the contractor at stages 5-6.	5-6	Contractor	BREEAM AP Reports Stages 5-6	-	0.52	Targeted	0.52	
Responsible construction management checklist followed, with all minimum requirements met and 6 additional items. CCS Score 27 - 34 (score of 9 in each section).	The responsible construction management checklist will be followed on site to achieve 2 credits. Evidence: Register with Considerate Construction Scheme.	-	Contractor	CCS Checklist	Very Good	0.52	Targeted	0.52	
CCS Score 35 - 38 (score of 11 in each section)		-		CCS Checklist	Excellent	0.52	Targeted	0.52	

Site energy and water consumption recorded / monitored. See Appendix A3 for details of the requirements.	All site energy, water and transport of materials and waste will be monitored during the construction process and reported monthly. Evidence: Individual responsible for monitoring and recording the utility data. - Water and energy targets set for the project - Collated at construction phase; total of site water (m3) and energy usage (kWh)	-	Contractor	Provide Site Energy / Water Figures	-	0.52	Targeted	0.52
Transport of construction materials and waste metered / monitored. See Appendix A3 for details of the requirements.	Evidence: - Record transport of materials to site: total distance (km), CO ₂ (kgCO ₂ e ₂) and CO ₂ /project value (kgCO ₂ e ₂ /£) - For waste from site: report total distance (km) CO ₂ (kgCO ₂ e ₂) and CO ₂ /project value (kgCO ₂ e ₂ /£).	-	Contractor	Transport of Waste and Material Figures	-	0.52	Targeted	0.52
Man 04 Commissioning and Handover								
A schedule of commissioning and testing is required. Commissioning and testing of building services to CIBSE, BSRIA regs, monitored on behalf of the client by an appropriate person. Refer to Appendix A4 for detailed requirements	A schedule of commissioning and testing will be prepared. An appropriate project team member will be appointed to monitor and programme pre-commissioning, commissioning and, where necessary, re-commissioning. All commissioning will be carried out in accordance with the relevant guidelines.	-	CGP / Contractor	Provide commissioning certificates / programme / schedule	Very Good	0.52	Targeted	0.52
During the design stage, an appropriate project team member is appointed, provided they are not involved in the general installation works for the building services systems, with responsibility for: a. Undertaking design reviews and giving advice on suitability for ease of commissioning. b. Providing commissioning management input to construction programming and during installation stages. c. Management of commissioning, performance testing and handover or post-handover stages.	An appropriate project team member will be appointed to carry out the commissioning requirements. A specialist commissioning manager will be appointed during the design stage to provide design advice regarding commissioning of complex systems.	-	Contractor	Provide commissioning certificates / programme / schedule	-	0.52	Targeted	0.52
For complex systems, a specialist commissioning agent must be appointed during the design stage. Refer to Appendix A4 for detailed requirements								
Complete post-construction testing and inspection to quality-assure the integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths (this is through airtightness testing and a thermographic survey), defects must be rectified. See Appendix A4 for details	Evidence: This is through airtightness testing and a thermographic survey.	-	Client / Contractor to appoint specialist	Airtightness Test and Thermographic Survey	-	0.52	Targeted	0.52
Two Building User Guides (BUGs) and training schedules are developed to provide: - Non-technical guidance for distribution to the building occupiers. - Technical guidance for premises facilities managers. Refer to Appendix A4 for detailed contents requirements	The contractor will produce compliant BUGs & training schedules.	-	Contractor	BUG & Training Schedule	Very Good	0.52	Targeted	0.52
Man 05 Aftercare								
Commitment to provide aftercare support to building occupants for at least the first 12 months from occupation, in accordance with requirements in Appendix A5	There will be a mechanism to collect the energy and water consumption data for at least 12 months after occupation, compare this with expectations and analyse any differences. There will also be a contract or commitment to provide aftercare support to all the building occupiers. See Appendix A5 for details.	-	Contractor / Client	Letter confirming that the relevant mechanism(s) and procedures are in place and there is a commitment to use them	-	0.52	Targeted	0.52
Seasonal commissioning of building services over a minimum 12-month period, once the building becomes substantially occupied. See Appendix A5	The contractor will be required to undertake seasonal commissioning responsibilities will be completed over a minimum 12 month period.	-	M&E / Contractor	Seasonal commissioning records / reports AND/OR Letter of appointment and commissioning responsibilities schedule	Very Good	0.52	Targeted	0.52
Post occupancy evaluation (POE) is undertaken by a third party. The client or building occupier commits funds to pay for the POE in advance. Refer to Appendix A5 for detailed requirements	Post Occupancy Evaluation may be undertaken.	-	Client		-	0.52	Not Targeted	0.00

Health & Wellbeing									
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility	BREEAM Evidence Required	Minimum Standard for Rating	Points Available	Status	Points Targeted	
Hea 01 Visual Comfort									
Identify areas at risk of glare using a glare control assessment. The glare control assessment also justifies any areas deemed not at risk of glare. Without increasing energy consumption, glare is designed out through building form and layout or building design measures.	Blinds are to be installed on PBSA units.	-	HTA	As designed / built drawings evidencing installed blinds Blind specifications	-	0.74	Targeted	0.74	
Daylighting Should be met following either option A. or B. A. 2% daylight factor AND either (a) OR ((b) and (c)) (a) Uniformity ratio of 0.3 or point daylight factor of 0.3 times the relevant average daylight factor Uniformity ratio of 0.7 or point daylight factor of 0.7 times the relevant average daylight factor where the spaces with glazed roofs, atria (b) At least 80% of the room has a view of sky from desk or table top height (0.85m in multi-residential buildings, 0.7m in other buildings). (c) The room depth criterion d/w + d/HW < 2/(1-RB) is satisfied B. Minimum 80% of the relevant building areas meet 300 lux Average daylight illuminance and 90 lux Minimum daylight illuminance for 2000 hours per year or more	It is expected that at least one credit will be achievable. It is expected that at least one credit will be achievable. Additional calculations would be needed to achieve the second credit.	-	Client appointed specialist.		-	0.74	Targeted	0.74	
View Out 95% of the floor area in 95% of spaces for each relevant building area is within 8 m of an external wall. The external wall has a window or permanent opening that provides an adequate view out.. The window or opening must be ≥ 20% of the surrounding wall area See Appendix B1.	Architect has confirmed floor area and window area % following pre assessment workshop on (03/12)	-	Fifth State / HTA		-	0.74	Not Targeted		
External lighting specified to SLL and CIBSE standards and adequately zoned and controlled. Refer to Appendix B1 for detailed requirements	All lighting will be designed to meet CIBSE standards and will be appropriately zoned, with use controls.	-	CGP MEP	Internal / External Lighting Schedule / Specifications As designed / built drawings showing internal lighting layout, zoning and controls	-	0.74	Targeted	0.74	
Hea 02 Indoor Air Quality									
A site-specific indoor air quality plan has been produced and implemented no later than the end of Concept Design Refer to Appendix B2 for detailed requirements	An indoor air quality plan will be developed.	2	Tetrattech	Indoor Air Quality Plan	-	Pre-Requisite	Targeted		
The building is designed to minimise the indoor concentration and recirculation of pollutants: - Positioning the building's air intakes and exhausts at least 10 m of horizontal distance apart. Positioning intakes at least 10 m horizontal distance from sources of external pollution (including the location of air exhausts from other buildings). - CO ₂ sensors are provided for high/variable occupancy areas - For naturally ventilated or mixed mode buildings, the design demonstrates that the ventilation strategy provides adequate cross flow of air to maintain the required thermal comfort conditions and ventilation rates in accordance with CIBSE AM10	An indoor air quality assessment will be completed. This will be dependent on where the air intakes are for the mechanical ventilation. Evidence: Mechanical drawings showing the air intake locations for the mechanical ventilation.	-	HTA / CGP MEP	Mechanical Drawings showing air intake and exhaust locations	-	0.74	Targeted	0.74	
Three out of the five product types meet the emission limits, testing requirements and any additional requirements listed in Appendix B2	All paints and varnishes will meet the VOC emission level targets. All of the remaining assessed product types will also meet the requirements.	-	HTA / Contractor	Low VOC finishes specified	-	0.74	Targeted	0.74	
All of the five product types meet the emission limits, testing requirements and any additional requirements listed in Appendix B2	This has been marked as potential as it is deemed difficult to achieve.	-	HTA / Contractor		-	0.74	Potential	0.00	
Formaldehyde and VOC levels measured post construction and indoor air quality assessed. See Appendix B2 for full details	Formaldehyde testing will be required at PC as the scheme is a fully fitted PBSA.	-	Contractor	Formaldehyde testing post construction	-	0.74	Targeted	0.74	

Hea 04 Thermal Comfort									
Thermal modelling is carried out using software in accordance with CIBSE AM11 and confirms: - For air conditioned buildings - comfort levels meet CIBSE Guide A - For naturally ventilated buildings - comfort levels meet CIBSE Guide A and CIBSE TM52 or CIBSE TM59 See Appendix B3 for full details	Thermal modelling will be carried out and it is expected that the design will demonstrate summer comfort levels within CIBSE Guide A can be met.	-	CGP	Thermal Comfort Report	-	0.74	Targeted	0.74	
Thermal modelling demonstrates the relevant requirements set out in the above credit for a projected climate change environment. See Appendix B3 for full details	Thermal modelling will include an analysis of internal temperatures in a projected climate change environment.	-	CGP	M&E Thermal Zoning & Control Drawings	-	0.74	Targeted	0.74	
Appropriate thermal zoning strategy, providing user control within the zone. Less complex systems require separate occupant control for perimeter zone (7m from perimeter) and central zone. See Appendix B3 for full details	The thermal modelling analysis will aim to inform the temperature control strategy for the building and it's users. Adequate user control will be provided for each thermal zone and areas appropriately zoned.	-	M&E	Thermal Comfort Report & M&E Thermal Zoning & Control Drawings	-	0.74	Targeted	0.74	
Hea 05 Acoustic Performance									
Achieve indoor ambient noise levels that comply with the design ranges given in Section 7 of BS 8233:2014 A programme of acoustic measurements is carried out by a compliant test body.	Acoustic testing should be carried out by a suitably qualified individual at post construction.	-	Acoustician	Acoustic Report & Confirmation of targeted acoustic levels being achieved	-	0.74	Targeted	0.74	
Hea 06 Security									
A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA). They produce a set of recommendations and solutions to ensure the design of the development is planned, designed and specified to address the issues identified in the preceding SNA.	A Security Needs Assessment should be undertaken - this has been targeted under the assumption a SNA will be completed for the wider site, of which incorporate the assessed BREEAM area. Security Strategy workshop held on the 11/12/24 by Toren Consulting	2	Client appointed specialist & Architect	Security Needs Assessment	-	0.74	Targeted	0.74	
Hea 07 Safe and Healthy Surroundings									
Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to offsite cycle paths where applicable. Dedicated and safe footpaths are provided on and around the site providing suitable links between site areas (e.g. car park to building entrance) Pedestrian drop-off areas provide direct access to footpaths Delivery areas are not accessed through general parking areas and there are dedicated parking/waiting/turning areas for delivery vehicles There is an outside space providing building users with an external amenity area.	Drawings confirm this credit is achievable.	-	HTA	As built drawings of evidence listed in credit summary	-	0.74	Targeted	0.74	
	Outside space is provided by the eastern boundary of the site.	-	HTA	As built drawings of external amenity area	-	0.74	Targeted	0.74	
Energy									
Credit Summary		BREEAM Assessor Comments		Action at RIBA Stage	DT Responsibility	Minimum Standard for Rating	Points Available	Status	Points Targeted
Ene 01 Reduction of Energy Use and Carbon Emissions									
Energy Performance Ratio for New Constructions (EPRNC) (Based the EPRNC achieved): 0.100	A BRUKL will be produced.						0.73	Targeted	0.73
0.200							0.73	Targeted	0.73
0.300							0.73	Targeted	0.73
0.400							0.73	Targeted	0.73
0.500							0.73	Targeted	0.73
0.600							0.73	Targeted	0.73
0.700							0.73	Targeted	0.73
0.800							0.73	Not Targeted	0.00
0.900 AND zero net regulated CO ₂ emissions							0.73	Not Targeted	0.00
Prior to completion of the Concept Design, a preliminary design workshop focusing on operational energy performance is held by relevant members of the design team.	A preliminary design workshop will be held focusing on operational energy performance.	2	CGP MEP / Consultant	An Operational Energy workshop will be held	-	Prerequisite	Targeted	Prerequisite	
Additional energy modelling is undertaken during the design and post-construction stage to generate predicted operational energy consumption figures Predicted energy consumption targets by end use, design assumptions and input data are reported A risk assessment will be carried out to highlight any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process.	The required modelling will be undertaken at the correct time.	-	CGP MEP / Consultant	Additional Energy Modelling	-	2.91	Targeted	2.91	

Ene 02 Energy Monitoring									
Install energy metering systems so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories Meter the energy consumption in buildings according to the total useful floor area Through labelling or data outputs, building users can identify energy consuming end uses See Appendix C1 for further details	All major energy consuming items will be metered (with a pulsed output and/or connected to a BMS): - Space Heating - Domestic Hot Water Heating - Humidification - Cooling - Ventilation i.e. fans (major) - Pumps - Lighting - Small Power (lighting and small power can be on the same sub-meter where supplies taken at each floor/department) - Renewable or Low Carbon Systems (separately) - Controls - Other major energy-consuming items where appropriate	-	CGP MEP	As designed / built Schematics showing location of Energy Meter and BMS & Datasheet	Very Good	0.73	Targeted	0.73	
Ene 03 External Lighting									
Specification of energy-efficient light fittings for external areas (in line with Appendix C2), controlled through a time switch, or daylight sensor, to prevent operation during daylight hours, with average initial luminous efficacy of not less than 70 l/W, and with presence detection in areas of intermittent pedestrian traffic	The luminous efficacy of the external light fittings will be: Average luminous efficacy of not less than 70l/W All lighting will be on a timeclock during daylight hours PIR - presence detection	-	CGP MEP	External Lighting Specifications (Timeclock & PIR) As designed and As built drawings showing location	-	0.73	Targeted	0.73	
Ene 04 Low Carbon Design									
Analysis of the proposed building design/development before RIBA Stage 2 was undertaken and identified opportunities for passive design solutions have been implemented and reduced total energy demand has been quantified. BREEAM issue Hea 04 Thermal Comfort has to have been achieved. See Appendix C3.	Implement passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings.	2	CGP MEP	Achieve Hea 04-Thermal Comfort	-	0.73	Targeted	0.73	
The building utilises a free cooling strategy and the first credit within the BREEAM issue 'Ene 04 Low Carbon Design' (passive design analysis) has been achieved		-	M&E		-	0.73	Not Targeted	0.00	
Feasibility study is carried out and implemented, covering points listed in Appendix C3. The reduction in reduced regulated CO ₂ shown by the feasibility study is quantified and the requirements of Appendix C3 can be achieved.		2	M&E	LZC Report	-	0.73	Targeted	0.73	
Ene 06 Energy Efficient Transportation Systems									
Where lifts are being installed; an analysis of the transportation demand and usage patterns for the building has been carried out and energy consumption calculated in accordance with BS EN ISO 25745 Part 2	An analysis of the transportation demand and usage patterns for the building will be carried out in order to appropriately specify lifts. The lift manufacturer will be asked to undertake energy calculations and specify the features that make the most savings.	-	CGP MEP/ Lift Specialist	Energy Efficient Study & comparison between 2 lift specifications	-	0.73	Targeted	0.73	
Specify energy efficient features (specified in Appendix C4) for each lift and specify regenerative drives where their use is demonstrated to save energy (one credit) AND specify some method of motor synchronisation to passenger variables for escalators/moving walkways (second credit)	The lift and/or escalators specified must meet the required energy efficiency features		CGP MEP / Lift Specialist	Lifts will have energy efficient features installed.		0.73	Targeted	0.73	
					0.73	Not Targeted	0.00		
Ene 08 Energy Efficient Equipment									
Unregulated energy consumption is monitored and a meaningful reduction is made in the building. See Appendix C6 for requirements.	The client will ensure that all equipment meets the requirements. Any white goods, available to purchase from the developer, must achieve the following ratings (or better) under the EU Energy Efficiency Labelling Scheme: 1. Fridges, fridge-freezers: A+ rating 2. Washing machines: A++ rating 3. Dishwashers: A+ rating 4. Washer-dryers: A rating 5. Tumble dryers: A Rating	-	Client / Contractor	Energy specs of all installed energy consuming equipment. All must be adhere to EU Energy Efficiency Scheme	-	1.45	Potential	0.00	

Transport								
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility		Minimum Standard for Rating	Points Available	Status	Points Targeted
Tra 01 Transport Assessment and Travel Plan								
During the feasibility and design stages, a travel plan is developed based on a site-specific travel assessment or statement. See Appendix D1 for full requirements.	The achievement of these credits will depend on the timing of transport statement or travel plan documentation.	1 and 2	Transport Consultant	Travel Plan	-	0.83	Targeted	0.83
						0.83	Targeted	0.83
Tra 02 Sustainable Transport Measures								
Achieve the Tra 01 Transport assessment and travel plan credits	A travel plan is being produced for this project	-			-	Prerequisite	Targeted	Prerequisite
Credits are awarded for Tra 02 according to the existing Accessible Index (AI) of the project, and the total number of points achieved for the options implemented, based on the table in Appendix D2. Please select in the next cell whether the existing building has < 25 points (Option A), ≥ 25 & < 40 (urban centre) points (Option B), or ≥ 40 points (Option C).	Option A					8.33	Targeted	3.33
The existing AI calculated in Tra 01 achieves the following: ≥ 4 for prison or MOD sites, rural location sensitive buildings, and other building group 3 ≥ 8 for all other building types	This credit will not be targeted as the AI is not high enough.						Not Targeted	
Demonstrate an increase over the existing Accessibility Index through negotiation with local bus, train or tram companies to increase the frequency of the local service provision for the development;	This credit will not be targeted .						Not Targeted	
OR	No evidence of increasing the AI through providing new busstops / transportation diversions.						Not Targeted	
Demonstrate an increase over the existing Accessibility Index. This could be through provision of a diverted bus route, a new or enhanced bus stop, or other similar solutions.	A dedicated bus route will not be provided.						Not Targeted	
OR							Not Targeted	
Provide a dedicated service, such as a bus route or service.							Not Targeted	
Provide a public transport information system in a publicly accessible area, to allow building users access to up-to-date information on the available public transport and transport infrastructure. This may include signposting to public transport, cycling, walking infrastructure or local amenities.	Marked as potential as we need confirmation a public information system will be installed						Potential	
Provide electric recharging stations of a minimum of 3kW for at least 10% of the total car parking capacity for the development.	There is no available EV Charging.						Not Targeted	
Set up a car sharing group or facility to facilitate and encourage building users to car share. AND Raise awareness of the sharing scheme with marketing and communication materials. AND Provide priority spaces for car sharers for at least 5% of the total car parking capacity for the development. AND Locate priority parking spaces nearest the development entrance used by the sharing scheme participants.	A car sharing scheme will not be facilitated.						Not Targeted	
During preparation of the brief, the design team consults with the local authority (LA) on the state of the local cycling network and public accessible pedestrian routes, to focus on whichever the LA deems most relevant to the project, and how to improve it. AND Agree and implement one proposition chosen with the local authority. The proposition supported by the development is additional to existing local plans and has a significant impact on the local cycling network or on pedestrian routes open to the public.	This has not been completed.						Not Targeted	
Install compliant cycle storage spaces to meet the minimum levels set out in Appendix D2a.	PBSA cycle storage space total 173 x long stay spaces e.g., shops, gym facilities etc.			As designed / built drawings Complaint cycle storage specifications			Targeted	

Provide at least two compliant cyclists' facilities for the building users, (including pupils where appropriate to the building type). See Appendix D2a for further information on compliance for the following: – Showers – Changing facilities – Lockers – Drying spaces.	Drawings suggest showers, changing facilities, locker and drying spaces are not to be installed.						Not Targeted		
Existing amenities: At least three existing accessible amenities are present, see Appendix D2b, where relevant for a Building Group.	Local amenities have been identified in the area				Local amenities have been identified in the area		Targeted		
Enhanced amenities: Ensure a minimum of one new accessible amenity, in accordance with Appendix D2b, for the relevant Building Group, is provided. OR Ensure more than one new accessible amenity, in accordance with Appendix D2b for the relevant Building Group, is provided.	Development of external amenity area will be provided on the eastern boundary of the site.				Development of external amenity area.		Targeted		
Implement one site-specific improvement measure, not covered by the options already listed in this issue, in line with the recommendations of the travel plan. Submit this for review by BRE.	This credit will not be targeted						Not Targeted		
							Not Targeted		
Water									
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility			Minimum Standard for Rating	Points Available	Status	Points Targeted
Wat 01 Water Consumption									
Improvement over notional baseline of 12.5% (based on BREEAM calculation taking into account flow rates/consumption of sanitary ware & appliances)	The following flow rates will be used as guidance to achieve more than a 25% improvement: WC - 4 litre effective flush volume Urinal - 3 litre/bowl/hour WHB taps - 6 l/min Showers - 8 l/min Baths - 160 litres to overflow Kitchen taps - 8.3 l/min Kitchenette taps - 7 l/min	-	HTA / CGP MEP	Sanitaryware Schedule & Completed Wat 01 Calculator	Good	1.00	Targeted	1.00	
Improvement over notional baseline of 25%					Outstanding	1.00	Targeted	1.00	
Improvement over notional baseline of 40%						1.00	Not Targeted	0.00	
Improvement over notional baseline of 50%						1.00	Not Targeted	0.00	
Improvement over notional baseline of 55%						1.00	Not Targeted	0.00	
Wat 02 Water Monitoring									
The specification of a water meter on the mains water supply to each building. AND Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are either fitted with sub meters or have water monitoring equipment integral to the plant or area AND Each meter (main and sub) has a pulsed output to enable connection to a Building Management System (BMS) and if there is an existing BMS any new build must be connected to the existing BMS	Sub-meters will be specified for the building and plant or area that consumes more than 10% of the building's water demand.	-	CGP	As designed / built drawings showing: Water Meter Location Connection to BMS Water Meter Specification Water Schematics	-	1.00	Targeted	1.00	
Wat 03 Water Leak Detection									
A leak detection system capable of detecting major leaks on the water supply has been installed. The system must cover all mains water supply between and within the building and the site boundary. See Appendix E1 for details of requirements	Leak detection will be specified.	-	CGP	Water Leak Detection	-	1.00	Targeted	1.00	

Materials									
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility		Minimum Standard for Rating	Points Available	Status	Points Targeted	
Mat 01 Environmental Impacts from Construction Products - Building Life Cycle Assessment (LCA)									
Offices, Industrial and Retail buildings must complete a comparison with BREEAM benchmark during Concept Design and Technical Design (RIBA Stage 2 and 4). Refer to Appendix F1.	It is expected that the project can achieve all of the available credits for the LCA. Heavily weighted / lots of credits available Evidence: LCA	2 and 4	JAW		-	1.07	Targeted	1.07	
						1.07	Targeted	1.07	
						1.07	Targeted	1.07	
						1.07	Targeted	1.07	
During concept design (RIBA Stage 2) identify opportunities for reducing environmental impacts by carrying out a LCA options appraisal of 2 to 4 significantly different substructure design options using an appropriate LCA Tool in line with requirements in Appendix F1.						1.07	Targeted	1.07	
During the Technical Design stage (RIBA Stage 4) carry out a LCA options appraisal of 2 to 3 significantly different superstructure design options using an appropriate LCA Tool in line with requirements in Appendix F1.						1.07	Targeted	1.07	
During Concept Design (RIBA Stage 2) carry out a LCA options appraisal of a combined total of at least six significantly different substructure or hard landscaping design options.						1.07	Targeted	1.07	
Mat 02 Mat 02 Environmental Impacts from Construction Products – Environmental Product Declaration (EPD)									
Construction products chosen with an EPD which will achieve a total EPD points score of at least 20 in compliance with requirements in Appendix F2.	Products will be specified with EPDs in order to achieve the credit requirements	-	HTA / CGP MEP	EPD Certificates where available	-	1.07	Targeted	1.07	
Enter the details of each EPD into the Mat 01/02 Results Submission Tool.									
Mat 03 Responsible Sourcing of Materials									
All timber and timber based products used are 'locally harvested and traded'	The design team will develop a sustainable procurement plan.	-	Contractor	Completed PC Mat 03 Calculator with Materials Delivery Notes (Including Timber)	Pass	Prerequisite	Targeted	Prerequisite	
All materials for the project are sourced in accordance with a documented sustainable procurement plan						1.07	Targeted	1.07	
Construction materials are responsibly sourced in line with requirements in Appendix F3.						1.07	Targeted	1.07	
Points calculated using Mat 03 Tool:									
% of available points achieved - Superstructure - 10%									
% of available points achieved - as above and internal finishes, substructure and hard landscaping - 20%	All timber used on site will be legally sourced.					1.07	Not Targeted	0.00	
% of available points achieved - as above and internal finishes, substructure and hard landscaping - 30%	It is extremely unlikely to achieve 30%.					1.07	Not Targeted	0.00	
Mat 05 Designing for Durability and Resilience									
The design incorporates suitable durability and protection measures into building design and construction to prevent damage to the building fabric or materials in case of accidental or malicious damage to provide protection against criteria detailed in Appendix F4. AND The relevant building elements incorporate design and specification measures to limit material degradation due to environmental factors. See Appendix F4 for methodology of assessment.	The building will incorporate suitable durability and robustness features.	-	HTA / Contractor	Completed Mat 05 template evidencing material durability meeting the design intent	-	1.07	Targeted	1.07	
Mat 06 Material Efficiency									
During RIBA Stages 1 and 2 targets have been set and opportunities and methods have been reported which optimise the use of materials for RIBA Stages 1-5 . AND The development of the implementation of material efficiency has been recorded for RIBA Stages 3-5 . Refer to Appendix F5 for methodology.	it is considered that this credit is time consuming and complex and therefore will not be targeted.	1-5	Architect / Contractor		-	1.07	Not Targeted	0.00	

Waste									
Credit Summary		BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility		Minimum Standard for Rating	Points Available	Status	Points Targeted
Wst 01 Construction Waste Management									
A pre-demolition audit (during RIBA Stage 2) has been completed for existing buildings/structures being considered for demolition to determine if refurbishment/reuse is feasible and to maximise material recovery in line with Appendix G1.		A pre-demolition audit will be carried out to maximise the recovery of material from the demolition.	2	Contractor	Pre-demo audit report	Outstanding	0.60	Targeted	0.60
A Resource Management Plan (RMP) is developed including accurate data records on waste arising and waste management routes Amount of waste generated per 100m ² = 13.3m ³ / 11.1 tonnes		A compliant RMP will be developed and the main contractor will be expected to ensure construction waste does not exceed 13.3m ³ / 11.1 tonnes per 100m ² floor space.			Site Waste Management Plan Copies of final waste report and Waste Transfer Notes		0.60	Targeted	0.60
Amount of waste generated per 100m ² = 7.5 m ³ / 6.5 tonnes		At least 80% of non-demolition waste and 90% of demolition by weight will be diverted from landfill following the waste hierarchy.	-				0.60	Targeted	0.60
Amount of waste generated per 100m ² = 3.4m ³ / 3.2 tonnes		Evidence: A copy of the SWMP summary datasheets or equivalent monitoring records/report. Waste notes required during construction phase.					0.60	Not Targeted	0.00
Waste diverted from landfill: Volume (%) / Tonnage (%): Non-demolition 70% / 80% or Demolition 80% / 90%			SWMP		0.60		Targeted	0.60	
Wst 02 Use of Recycled and Sustainably Sourced Aggregates									
If demolition occurs onsite, a pre-demolition audit is completed of any existing buildings, structures or hard surfaces.		This credit is extremely hard to achieve.					Prerequisite	Not Targeted	Prerequisite
3.5 - 6 Sustainable Aggregate Points achieved using the BREEAM Wst 02 calculator. See Appendix G2 for full details.		This credit is extremely hard to achieve.	-	Contractor / Structural Engineer		-	0.60	Not Targeted	0.00
Wst 03 Operational Waste									
Provision of labelled, dedicated storage facilities for a building's operational recyclable waste of capacity appropriate to the building type, size and number of units (if relevant) and predicted volumes of waste. Sized either to meet known waste or 2m ² (4m ² if catering provided) for every 1000m ² of floor area Where significant food waste is produced or in multi-residential buildings, composting facilities are provided and where significant packaging waste, a compactor/baler is provided		At least an 2m ² space will be provided for the storage of recyclable waste. Evidence: Please provide size details (m2) of the operation waste area.	-	HTA / Contractor	As designed / built drawings showing operation waste area Distance from building entrance to bin storage marked up (m) Waste bin appropriately labelled	Excellent	0.60	Targeted	0.60
Wst 05 Adaptation to Climate Change									
A Climate Change Adaptation Strategy Appraisal (structural and fabric resilience specific) has been conducted using a systematic risk assessment evaluating the impact on the building over its projected life cycle from expected extreme weather due to climate change and, where feasible, mitigating against these impacts. Review mitigation methods during RIBA Stage 4. Develop recommendations or solutions based on Climate Change Adaptation Strategy Appraisal, and provide updates during Technical Design demonstrating how recommendations made at Concept Design have been implemented. See Appendix G3 for details		Evidence: An assessment will be carried out to assess and mitigate the effects of climate change on the building.	2 & 4	HTA	Completed Adaptation to Climate Change Report	-	0.60	Targeted	0.60
Wst 06 Design for Disassembly and Adaptability									
A study has been undertaken, and recommendations developed during the concept design, to explore ease of disassembly and the functional adaption potential of different design scenarios.		A functional adaptation strategy will be developed. This will include recommendations for measures to be incorporated to facilitate future adaptation.	2	HTA	Completed compliant Functional Adaptation Strategy Report	-	0.60	Targeted	0.60
Updates have been provided during the Technical Design covering: - How recommendations (made during RIBA stage 2) have been implemented. - Changes to recommendations and solutions during the development of RIBA Stage 4. A building adaptability and disassembly guide has been developed to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.		The strategy will be updated for implementation at Stage 4.	3 & 4		Updated Wst 06 Report at Stage 4	-	0.60	Targeted	0.60

Land Use & Ecology									
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility		Minimum Standard for Rating	Points Available	Status	Points Targeted	
LE 01 Site Selection									
At least 75% of the proposed development's footprint is on an area of land which has previously been occupied	At least 75% of the proposed development's footprint is on land with was previously developed.	-	HTA	GA / Site Plan Drawings	-	1.00	Targeted	1.00	
The site is deemed to be significantly contaminated and will be remediated	The site is not contaminated therefore this credit is unavailable.	-	Architect / Client		-	1.00	Not Targeted	0.00	
LE 02 Identifying and Understanding the Risks and Opportunities for the Project									
An assessment route has been determined and the client or contractor has confirmed it is compliant with all relevant UK and EU international legislation relating to the ecology of the site.	Assessment route 2 has been determined.	-			-	Prerequisite	Targeted	Prerequisite	
Route 2 has been adopted (Refer to Appendix H1 for details)	The achievement of these credits will depend on timing of ecology reporting.	-	Ecologist	Ecologist must be appointed at early stages to undertake EIA and Ecology Assessment.	-	1.00	Targeted	1.00	
						1.00	Targeted	1.00	
LE 03 Managing Negative Impacts on Ecology									
LE 02 has been achieved. The client or contractor has confirmed that compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	The achievement of the credits will depend on timing of the ecology report			Ecologist must be appointed at early stages to undertake EIA and Ecology Assessment.	-	Prerequisite	Targeted	Prerequisite	
Planning, liaison, implementation and data: - Roles and responsibilities have been defined - Impact of site preparation and construction works on ecology are identified to optimise benefits and outputs - Project team collaborate with representative stakeholders to select measures to be implemented during site preparation and construction works		1				1.00	Targeted	1.00	
Route 2: Negative impacts from site preparation and construction works have been managed according to the hierarchy and EITHER: a. The loss of ecological value has been minimised (one credit) OR b. No overall loss of ecological value has occurred (two credits) (Refer to Appendix H2 for full details)	An ecologist will be appointed to provide recommendations for achieving this.		Ecologist	Ecology Report		1.00	Targeted	1.00	
				Ecology Report		1.00	Targeted	1.00	
LE 04 Change and Enhancement of Ecological Value									
LE 03 has been achieved. The client or contractor has confirmed that compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	The achievement of the credits will depend on timing of the ecology report	-				Prerequisite	Targeted	Prerequisite	
Route 2: The project team, collaborating with representative stakeholders, have implemented solutions and measures to enhance ecological value in the following order: - on site, and where this is not feasible, - off site within the zone of influence. Data collated is provided to the local environmental records centres nearest to the site.	An ecologist will be appointed to provide recommendations for achieving this.	-	Ecologist	Implement enhancements recommended by the ecologist	-	1.00	Targeted	1.00	
AND Route 2: Credits are awarded on a scale of 1 to 3, based on the calculation of the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN 36 - BREEAM, CEEQUAL, HQM Ecology Calculation Methodology – Route 2. Credits are awarded as follows: 1. Minimising loss of ecological value (one credit - percentage score of 75-94)		-		Net gain calculations from ecologist		1.00	Targeted	1.00	
2. No net loss of ecological value (two credits - percentage score of 95-104)		-		Net gain calculations from ecologist		1.00	Targeted	1.00	
3. Net gain of ecological value (three credits - percentage score of 105-109)		-		Net gain calculations from ecologist		1.00	Targeted	1.00	

LE 05 Long Term Ecology Management and Maintenance									
The client or contractor has confirmed that compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. LE 03 - Planning, liaison, implementation and data' credit has been achieved. (At least one credit has been awarded under LE 04 for Route 2).	The achievement of the credits will depend on timing of the ecology report	-		Confirmation compliance has been monitored relating to ecology of the site	-	Prerequisite	Targeted	Prerequisite	
Route 2: Landscape and ecology management plan, or similar, is developed in accordance with BS 42020:2013(206) covering as a minimum the first five years after project completion (See Appendix H4 for management plan requirements).	A landscape and ecology management plan will be developed	-	Ecologist / Contractor	Biodiversity management and maintenance plan for 5 years	-	1.00	Targeted		1.00
Pollution									
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility		Minimum Standard for Rating	Points Available	Status	Points Targeted	
Pol 01 Impact of Refrigerants									
All systems (with electric compressors) must comply with the requirements set out in BS EN 378:2016 (Parts 2 and 3)	The system will be specified so that the refrigerants have a DELC CO ₂ e of less than 1000 kgCO ₂ e/kW.	-	M&E	As designed / installed refrigerant specification	-	Prerequisite	Targeted	Prerequisite	
Systems using refrigerants have Direct Effect Life Cycle CO ₂ equivalent emissions (DELC CO ₂ e) of ≤100 kgCO ₂ e/kW cooling and heating capacity OR Refrigerants used have a Global Warming Potential (GWP) ≤10	It is unlikely that refrigerants will have a GWP of ≤10.			1.33		Not Targeted	0.00		
Systems using refrigerants have DELC CO ₂ e of ≤1000 kgCO ₂ e/kW cooling and heating capacity	This credit is achievable.			Completed Pol 01 Calculator		0.67	Targeted	0.67	
All systems are hermetically sealed or only use environmentally benign refrigerants. Refer to Appendix J1 for full details	Systems are unlikely to be hermetically sealed					0.67	Not Targeted	0.00	
Pol 02 Local Air Quality									
All heating and hot water is supplied by non-combustion systems. OR Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Appendix J2.	Space and hot water heating is via electrical systems					0.67	Targeted		0.67
						0.67	Targeted		0.67
Pol 03 Flood and Surface Water Management									
An appropriate SuDS consultant is appointed	A consultant will be appointed to advise on SuDs.	-	Infrastructure	Appointment of a SuDs consultant and FRA completed	-	Prerequisite	Targeted	Prerequisite	
A site specific Flood Risk Assessment (FRA) confirms there is a LOW annual probability of flooding	A flood risk assessment will be produced. Data from Flood Map Planning GOV identifies the Site is within flood zone 1	-	Infrastructure	Flood Risk Assessment / Report	-	1.33	Targeted		1.33
A site specific Flood Risk Assessment (FRA) confirms there is a MEDIUM or HIGH annual probability of flooding AND The development is appropriately flood resilient and resistant from all sources of flooding (detailed in Appendix J3)	An FRA must be carried out.Site is within flood zone 1	-	Infrastructure		-	0.67	Not Targeted		0.00
Surface water run-off design solutions must be bespoke, i.e. they take account of the specific site requirements and natural or man-made environment of and surrounding the site.	Site specific solutions will be developed as the design progresses.	-	Infrastructure		-	Prerequisite	Targeted	Prerequisite	
Drainage measures are specified to ensure peak run-off rates from the site show a 30% improvement over the pre-developed site (brownfield sites) or no increase in run-off rates over the pre-developed site (greenfield sites). This should comply at the 1 year and 100 year return period events. Calculations should include an allowance for climate change. See Appendix J3 for full details.	It is expected that the peak run-off rate for the site can be maintained to be less than for the pre-developed site. There is no change in impermeable area.	-	Infrastructure	Calculations within the report must state site improvements for surface run-off and include allowance for climate change.	-	0.67	Targeted		0.67
Flooding of property will not occur in the event of local drainage system failure AND For the 100 year 6 hour event, the post development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. Any additional predicted volume of run-off for this event must be prevented from leaving the site by using infiltration or other SuDs techniques. See Appendix J3 for full details.	It is expected that the peak run-off rate for the site can be maintained to be less than for the pre-developed site. There is no change in impermeable area.	-	Infrastructure	Calculations within the report must state site improvements for surface run-off and include allowance for climate change.	-	0.67	Targeted		0.67

Pol 04 Reduction of Night Time Light Pollution								
External lighting pollution has been eliminated through effective design removing the need for external lighting OR It is designed in accordance with ILP Guidance and provided with a time switch to allow lighting to be switched off between 23:00 and 07:00	All external lighting will be designed in compliance with ILP guidance and can be automatically switched off between 23:00 hr and 07:00 hr. Safety and security lighting will be designed to meet the lower lighting levels.	-	CGP MEP	External lighting specifications - Time clock PIR Drawings displaying external lighting locations	-	0.67	Targeted	0.67
Pol 05 Reduction of Noise Pollution								
Where the development does have noise-sensitive areas or buildings within 800m, a noise impact assessment in compliance with BS 4142:2014 has been carried out by an acoustician, and the following noise levels measured/determined: - Existing background noise levels - Noise rating level from the assessed building The noise level from the proposed site/building must be at least 5dB lower than the background noise throughout the day and night. Attenuation must be used if required.	An acoustician will be appointed to ensure compliance with this criteria.	-	Acoustician	Noise Impact Assessment Report	-	0.67	Targeted	0.67
Innovation								
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility		Minimum Standard?	Points Available	Status	Points Targeted
Man 03 Responsible Construction Practices								
Achieve all responsible construction management checklist items detailed in Appendix A3.	This will be targeted by the contractor.	-			-	1.00	Potential	0.00
Hea 01 Visual Comfort								
Daylighting criteria: Relevant building areas meet either; exemplary daylight factors, or, average and minimum point daylight illuminance criteria	This credit is not being targeted.	-			-	1.00	Not Targeted	0.00
Lighting levels and zoning: Lighting in each zone can be manually dimmed down to 20% of the maximum light output using dimmer switches	This credit is not being targeted.	-			-	1.00	Not Targeted	0.00
Hea 02 Indoor Air Quality								
Three out of the five product types meet exemplary emission limits, testing requirements and any additional requirements listed in Appendix B2	This credit is not being targeted.	-			-	1.00	Not Targeted	0.00
Hea 06 Security								
A compliant risk based security rating scheme has been used	Independent assessment and verification confirming performance against the scheme					1.00	Not Targeted	0.00

7. Conclusion

This pre assessment report demonstrates that the development has the potential to achieve an Excellent rating with a target score of 74.17%, which incorporates a buffer should credits be lost as the design progresses. The minimum mandatory standards can all be achieved.

The design team must adhere to the credit criteria through the design and post construction stages to ensure that the targeted credits are achieved. Contact should be maintained with the BREEAM Assessor throughout the project to ensure that the requirements are met. Should some credits become unachievable due to site changes or other unforeseen reasons, additional targets may be required. These are marked as potential within the report, and should be reviewed by the design team for inclusion if required.

Design Stage and Post Construction Stage assessments will be required. The BREEAM Assessor will be required to collate compliant evidence from the design team and submit their reports to the BRE for certification.



Appendices

Appendix A - Management

- A1: Man 01 - Project Brief and Design
- A2: Man 02 - Life Cycle Cost and Service Life Planning
- A3: Man 03 - Responsible Construction Practices
- A4: Man 04 - Commissioning and Handover
- A5: Man 05 - Aftercare

Appendix B - Health & Wellbeing

- B1: Hea 01 - Visual Comfort
- B2: Hea 02 - Indoor Air Quality
- B3: Hea 04 - Thermal Comfort
- B4: Hea 06 - Security
- B5: Hea 07 - Safe and Healthy Surroundings

Appendix C - Energy

- C1: Ene 02 - Energy Monitoring
- C2: Ene 03 - External Lighting
- C3: Ene 04 - Low Carbon Design
- C4: Ene 06 - Energy Efficient Transportation Systems
- C5: Ene 07 - Energy Efficient Laboratory Systems
- C6: Ene 08 - Energy Efficient Equipment

Appendix D - Transport

- D1: Tra 03 - Cyclist Facilities
- D2: Tra 05 - Travel Plan

Appendix E - Water

- E1: Wat 03 - Water Leak Detection and Prevention
- E2: Wat 04 - Water Efficient Equipment

Appendix F - Materials

- F1: Mat 03 - Responsible Sourcing of Materials
- F2: Mat 05 - Design for Durability and Resilience
- F3: Mat 06 - Material Efficiency

Appendix G - Waste

- G1: Wst 02 - Recycled Aggregates
- G2: Wst 05 - Adaptation to Climate Change
- G3: Wst 06 - Functional Adaptability

Appendix H - Land Use & Ecology

- H1: LE05 - Long Term Impact on Biodiversity

Appendix J - Pollution

- J1: Pol 01 - Impact of Refrigerants
- J2: Pol 03 - Surface Water Runoff
- J3: Pol 05 - Reduction of Noise Pollution