

B Sussed

Project: Hex Box

BREEAM 2018 Pre-Assessment Report

BREEAM®



Report Version: 2
Client: Reading Borough Council
Prepared by: Lucy Walsh
Date: 11 December 2023

Client:	Reading Borough Council
Project Manager / Cost Consultant	Equals Consulting
Architect	Haworth Tompkins
MEP Engineers	Skelly & Couch
Structural & Civils Engineer	Momentum
Contractor:	Contractor
Sustainability:	B Sussed
Acoustic Consultant:	Charcoal Blue
Ecology:	Ecologist
Transport Consultant:	Caneparo

1. Introduction

The proposed development comprises a new build facility to provide arts, community and performance space, linked with the existing Hexagon Theatre.

In order to meet the planning requirements of Reading Borough Council related to sustainability and funding requirements, there is a commitment by the Design Team to achieve a BREEAM rating of Excellent.

This Pre Assessment Report demonstrates that the development has the potential to achieve the required rating with a target score points of 75.51%. The threshold for Excellent is 70%. The credit strategy has been agreed with the design team following a BREEAM workshop with the BREEAM Assessor and represents the most appropriate way of meeting the target rating. There are credits currently marked as potential within the report, and these should be reviewed by the design team for inclusion to achieve the required target score.

The results presented are indicative only of the potential performance achievable for the assessed building. The results do not represent a formal certified BREEAM assessment or rating and must not be communicated as such.

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

4. Score Summary

Building Type	Assembly & leisure
Project Type	Fully Fitted

The potential BREEAM score agreed with the design team is as follows:

BREEAM	Credits	Targeted	Potential	% of Credits	Environmental	Section
Management	21	18	3	85.7%	11.0%	9.43
Health & Wellbeing	17	13	4	76.5%	14.0%	10.71
Energy	23	14	5	60.9%	16.0%	9.74
Transport	12	7	0	58.3%	10.0%	5.83
Water	9	5	1	55.6%	7.0%	3.89
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	8	3	66.7%	8.0%	5.33
Innovation	10	3	5	30.0%	10.0%	3.00
Target BREEAM Score			75.51			
Target BREEAM Rating			Excellent			
Potential BREEAM Score			83.77			
Potential BREEAM Rating			Excellent			
Minimum Standards for target rating met?					YES	

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

5. Pre-Assessment Credit Strategy Summary Report

The following table details the BREEAM credit strategy targeted for the development. Comments are provided against each credit to demonstrate why they have been deemed feasible or unfeasible.

Management							
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility	Minimum Standard for Rating	Points Available	Status	Points Targeted
Man 01 Project Brief and Design							
Project delivery stakeholders meet to set out compliant roles, responsibilities and contributions established in accordance with details in Appendix A1 for each key stage of project delivery	The design team have undertaken consultation processes from Stage 2 to identify and define their roles, responsibilities and contributions for each of the key phases of project delivery. Meeting minutes have been issued and the Man 01 consultation reference guide adhered to - additional meetings addressing the guide as an agenda to be arranged.	2	Design Team	-	0.52	Targeted	0.52
Stakeholder consultation activities undertaken in line with requirements in Appendix A1. Consultation activities should include all relevant project delivery and community stakeholders (building users / management staff / community / users of shared facilities / partnerships). Demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design. Prior to completion of RIBA Stage 4 all interested parties give and receive consultation feedback.	Third party consultation has been carried out with identified third party stakeholders and will follow the BREEAM requirements. Man 01 consultation reference guide to be adhered to - additional consultation addressing the guide as an agenda to be arranged	2	Design Team	-	0.52	Targeted	0.52
Early in the design process, the project team, including the client, formally agree strategic performance targets (PT) with the support of the BREEAM AP where appointed	Written agreement of strategic performance targets will be met.	-	Design Team / B Sussed		Prerequisite	Targeted	0
BREEAM AP appointed in the conceptual design stage at an appropriate time to allow for: •Project team and client consultation on interlinking BREEAM issues and maximising projects performance against BREEAM •Monitor progress against formally agreed performance targets through all development stages, identify risks and opportunities relating to target achievement and relay appropriate information to the design team to support timely corrective action and PT achievement •Inform and monitor the generation of appropriate evidence by project team	BREEAM AP has been appointed at RIBA Stage 2.	2	B Sussed	-	0.52	Targeted	0.52
BREEAM AP appointed in the Developed Design Stage at an appropriate time to allow for: As with previous credit	The BREEAM AP has been carrying out their role during Stages 2-4	2-4	B Sussed	-	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	Compliant LCC analysis has been carried out alongside the LCA for Mat 01.	2	LCC Consultant	-	1.05	Targeted	1.05
A component level LCC plan has been developed in line with requirements in Appendix A2		4	LCC Consultant	-	0.52	Targeted	0.52
The capital cost of the building will be reported in £k/m ² via the BREEAM Assessment Scoring and Reporting tool	The capital cost will be confirmed in the BREEAM tool.	-	Contractor	-	0.52	Targeted	0.52
Man 03 Responsible Construction Practices							
All timber and timber based products used on the project are FSC compliant	All temporary site timber (formwork, hoarding, shuttering etc.) will be FSC/PEFC certified.	-	Contractor	-	Prerequisite	Targeted	0
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. The EMS must be third party certified to ISO140001. All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) must commit to implementing best practice pollution prevention policies and procedures on site, in accordance with Pollution Prevention Guidelines, Working at construction and demolition-sites: PPG6.	The contractor must 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	-	0.52	Targeted	0.52
The client and the contractor formally agree performance targets	Communication regarding performance targets and maximising performance will be formally recorded and made available.	-			Prerequisite	Targeted	0
BREEAM AP monitors and reports progress through construction, details of aspects to be reported on found in Appendix A3	A sustainability champion will be appointed by the contractor.	5-6	Contractor	-	0.52	Targeted	0.52

Meet the 9 responsible construction management checklist items required to allow 1 credit	The Responsible Construction Management checklist will be followed on site to achieve 2 credits and the Innovation section credit.	-	Contractor	Very Good	0.52	Targeted	0.52
Meet criteria for an additional 6 responsible construction management checklist items to allow 2 credits.		-		Excellent	0.52	Targeted	0.52
Robust data on site energy and water consumption recorded / monitored by individual with appropriate access to relevant data. BREEAM AP may carry out this task where appointed See Appendix A3 for details of the requirements.	All site energy and water will be monitored during the construction process and reported monthly.	-	Contractor	-	0.52	Targeted	0.52
Robust data on the Transport of construction materials and monitored and recorded by individual with appropriate access to relevant data. BREEAM AP may carry out this task where appointed See Appendix A3 for details of the requirements.	TBC if transport of materials and waste will be monitored.				0.52	Potential	0.00
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.	-	S&C / Contractor	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. c. Management of commissioning, performance testing and handover or post-handover For complex systems, a specialist commissioning agent must be appointed during the design stage. Refer to Appendix A4 for detailed requirements	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.	-	S&C / Contractor	-	0.52	Targeted	0.52
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	TBC if thermographic imaging will be undertaken - to be costed and reviewed later if required.	-	Specialist	-	0.52	Potential	0.00
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	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.	-	Contractor / RBC / Equals	-	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.	-	S&C / Contractor	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	TBC - Post Occupancy Evaluation will be undertaken 1 year after occupancy. HTA do carry out POE as part of projects usually.	-	HTA / RBC / Equals	-	0.52	Potential	0.00

Health & Wellbeing							
Credit Summary	BREEAM Assessor Comments	Action at RIBA Stage	DT Responsibility	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.	A glare control assessment will be carried out. Blinds will be installed where required to limit glare.	-	HTA / S&C	-	0.82	Targeted	0.82
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 0.3 times the relevant average daylight factor where the spaces with glazed roofs, atria (b) View of the sky from desk height AND room depth criterion satisfied (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 of Average daylight illuminance and 90 lux of Minimum daylight illuminance for 2000 hours per year or more	Daylight calcs will be carried out. TBC if spaces meet requirements.	-	HTA / S&C	-	0.82	Potential	0.00
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 $\geq 20\%$ of the surrounding wall area See Appendix B1.	The layout or the scheme will be assessed once further developed to demonstrate that this credit can be achieved	-	HTA	-	0.82	Potential	0.00
Internal / 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. Needs to be rationalised - to be assessed at Stage 3	-	S&C	-	0.82	Targeted	0.82
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 air quality plan has been developed and issued for the project.	2	Tetra Tec	-	Pre-Requisite	Targeted	0
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	It is assumed that this credit cannot be achieved due to the location of intakes and exhausts - to be reviewed later in design to confirm.	-	HTA / S&C	-	0.82	Potential	0.00
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	-	0.82	Targeted	0.82
All of the five product types meet the emission limits, testing requirements and any additional requirements listed in Appendix B2		-	HTA / Contractor	-	0.82	Targeted	0.82
Formaldehyde and VOC levels measured post construction and indoor air quality assessed. See Appendix B2 for full details	This will not be undertaken as it is a high cost item - potential to add on at end if needed.	-	Contractor	-	0.82	Potential	0.00

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.	-	S&C	-	0.82	Targeted	0.82
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.	-	S&C	-	0.82	Targeted	0.82
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.	-	S&C	-	0.82	Targeted	0.82
Hea 05 Acoustic Performance							
The building meets the acoustic standards and testing measures appropriate for its building type. Throughout all building types (other than residential institutions) one credit is awarded for compliance with one of the acoustic principles listed below: For Indoor ambient noise levels OR A suitably qualified acoustician is appointed define a bespoke set of performance requirements for all function areas in the building, using the acoustic principles highlighted above	An indoor ambient noise level appropriate to the building use type will be achieved. An acoustician has been appointed and has provided acoustic design input so that this credit can be achieved.	-	Charcoal Blue	-	0.82	Targeted	0.82
For Sound Insulation	An acoustician has been appointed and has provided acoustic design input so that this credit can be achieved. Their recommendations will be adhered to.	-	Charcoal Blue	-	0.82	Targeted	0.82
For Room acoustics	An acoustician has been appointed and has provided acoustic design input so that this credit can be achieved. Their recommendations will be adhered to.	-	Charcoal Blue	-	0.82	Targeted	0.82
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.	The design team has consulted with a SQSS and an SNA has been carried out during Stage 2. All recommendations made will be implemented.	2	Cabsec	-	0.82	Targeted	0.82
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	Dedicated access paths will be provided from the public right of way.	-	HTA	-	0.82	Targeted	0.82
There is an outside space providing building users with an external amenity area.	There is outside space associated with the building.	-	HTA	-	0.82	Targeted	0.82

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	Based on the BRUKL outputs provided by the M&E consultant, it is anticipated that at least 4 credits will be achieved due to energy improvements.	-	S&C		0.70	Targeted	0.70
0.200					0.70	Targeted	0.70
0.300					0.70	Targeted	0.70
0.400				Excellent	0.70	Targeted	0.70
0.500					0.70	Potential	0.00
0.600				Outstanding	0.70	Not Targeted	0.00
0.700					0.70	Not Targeted	0.00
0.800					0.70	Not Targeted	0.00
0.900 AND zero net regulated CO ₂ emissions					0.70	Not Targeted	0.00
A preliminary design workshop focusing on operational energy performance is held by relevant members of the design team *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.	TM54 will be carried out Risk assessment would be additional - will require significant input from RBC. TBC if full compliance will be met - S&C to issue details to RBC to confirm.	-	S&C / RBC	-	2.78	Potential	0.00
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	-	S&C	Very Good	0.70	Targeted	0.70
Monitor a significant majority of the energy supply Sub-meter per floor plate in large single occupancy or single-tenancy buildings with one homogeneous function	Separate tenanted areas or building function areas/floor plates will be separately metered.	-	S&C	-	0.70	Targeted	0.70
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 greater than 70 lumens per circuit Watt. All lighting will be on daylight & presence detection.	-	S&C	-	0.70	Targeted	0.70

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.	Thermal modelling has been undertaken, passive design features incorporated and the reduction in total energy demand and carbon dioxide emissions quantified.	2	S&C	-	0.70	Targeted	0.70
BREEAM issue Hea 04 Thermal Comfort has to have been achieved. See Appendix C3.	This report will be updated to reflect any design changes prior to start of Stage 3.						
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	Night time cooling will be provided	-	S&C	-	0.70	Targeted	0.70
Feasibility study is carried out and implemented, covering points listed in Appendix C3.	Thermal modelling has been undertaken and includes LZC technologies.	2	S&C	-	0.70	Targeted	0.70
The reduction in reduced regulated CO ₂ shown by the feasibility study is quantified and the requirements of Appendix C3 can be achieved.	This report will be updated to reflect any design changes prior to start of Stage 3.						
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.	-	S&C / Lift Specialist	-	0.70	Targeted	0.70
	The lift manufacturer will be asked to undertake energy calculations and specify the features that make the most savings.						
	Transport demand survey should be undertaken by lift specialist / manufacturer as soon as possible to inform design						
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 specified must meet the required energy efficiency features		S&C / Lift Specialist		0.70	Targeted	0.70
Ene 08 Energy Efficient Equipment							
Unregulated energy consuming loads have been identified and their contribution to the total annual unregulated energy consumption is estimated	The client will ensure that all equipment meets the requirements.	-	RBC / Equals / Contractor	-	1.39	Targeted	1.39
The most significant systems and processes must be identified and a meaningful reduction in total annual unregulated energy consumption must be demonstrated.							
Example systems compliant calculation method and criteria for 'meaningful reduction are found in Appendix C5.							

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 concept design stages (RIBA stages 1 and 2), a travel plan is developed based on a site-specific travel assessment or statement. See Appendix D1 for full requirements.	A compliant Transport assessment and Travel plan has been produced.	1 and 2	Caneparo	-	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	Tra 01 is achieved	1 and 2	Caneparo	-	Prerequisite	Targeted	0
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).	A				0.83	Targeted	4.17
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	The existing AI is in the travel plan	-				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;	TBC in the travel plan but assumed that this measure will not be adopted	-				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.	TBC in the travel plan but assumed that this measure will not be adopted	-				Not Targeted	
Provide a dedicated service, such as a bus route or service.	TBC in the travel plan but assumed that this measure will not be adopted	-				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.	A public transport information system will be provided in a publicly accessible area	-				Targeted	
Provide electric recharging stations of a minimum of 3kW for at least 10% of the total car parking capacity for the development.	Car parking provided next to theatre - but also shared space is used. This is being investigated.	-				Potential	
1 Set up a car sharing group or facility to facilitate and encourage building users to car share. 2 Raise awareness of the sharing scheme with marketing and communication materials. 3 Provide priority spaces for car sharers for at least 5% of the total car parking capacity for the development. 4 Locate priority parking spaces nearest the development entrance used by the sharing scheme participants.	Car parking priority = not building users, will be mainly for accessible use.	-				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.	TBC in the travel plan but assumed that this measure will not be adopted	1				Not Targeted	
Install compliant cycle storage spaces to meet the minimum levels set out in Appendix D2a.	Compliant cycle storage spaces will be installed	-				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.	Will these be provided in HexBox or shared with Hexagon? Existing facilities = back stage at Hexagon - shared. Check occupancy and facility numbers New Changing Places facility is also being provided	-				Potential	
Existing amenities: At least three existing accessible amenities are present, see Appendix D2b, where relevant for a Building Group.	Three existing accessible amenities are present	-				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.	A minimum of one new accessible amenities will be provided	-				Targeted	
	This measure will not be achieved	-				Not 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 measure will not be achieved	-				Not 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 40% improvement: WC - 3.75 litre effective flush volume Urinal - 1.5 litre/bowl/hour WHB taps - 5 l/min Showers - 6 l/min Baths - 140 litres to overflow Kitchen taps - 7.3 l/min Kitchenette taps - 6 l/min Commercial sized dishwashers - 5 l/rack Commercial sized washing machines - 7.5 l/kg Domestic sized dishwashers - 12 l/cycle Domestic sized washing machines - 40 l/use	-	HTA / Contractor	Good	0.78	Not Targeted	0.00
Improvement over notional baseline of 25%				Outstanding	0.78	Not Targeted	0.00
Improvement over notional baseline of 40%					0.78	Targeted	0.78
Improvement over notional baseline of 50%					0.78	Not Targeted	0.00
Improvement over notional baseline of 55%					0.78	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	A pulsed water meter will be specified for the building and sub-meters for plant or area that consumes more than 10% of the building's water demand. Check laundry - may need sub-metering.	-	S&C	Good	0.78	Targeted	0.78
Wat 03 Water Leak Detection							
A leak detection system capable of detecting major leaks on the mains water supply within the building and between the building and the utilities water meter is provided.. 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 within building and between building and perimeter will not be provided.	-	S&C	-	0.78	Not Targeted	0.00
Flow control devices are fitted in WC areas or sanitary facilities to ensure water is supplied only when needed (and therefore prevent minor water leaks). See Appendix E1 for details of compliant systems	Flow control devices (e.g. linked to a PIR) will be provided in the WC areas of the new building. Will be enclosed facilities with sinks inside cubicle - would need separate control - strategy to be discussed.	-	S&C	-	0.78	Targeted	0.78
Wat 04 Water Efficient Equipment							
All unregulated water demands have been identified and can be realistically reduced or mitigated through systems or processes in line with requirements in Appendix E2	No irrigation systems will be installed. External taps to be provided for manual watering. To be reviewed. - Rainwater collection for irrigation use?	-	HTA / JCLA	-	0.78	Potential	0.00

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.	An LCA has been carried out to assess the embodied carbon and environmental impact of a number of different superstructure options.	2 and 4	Verte HTA / Momentum to provide information	-	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 superstructure structure design options using an appropriate LCA Tool in line with requirements in Appendix F1.	The design team have provided feedback on which options will be incorporated to reduce the embodied carbon related to the building.				1.07	Targeted	1.07
					1.07	Targeted	1.07
					1.07	Targeted	1.07
					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				Not Targeted	0.00	
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	Not Targeted	0.00			
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	-	HTA / Contractor	-	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 'legally harvested and traded'	The design team will develop a sustainable procurement plan during Stage 2 and ensure that materials for major building elements are responsibly sourced to achieve at least 2 credits. All timber used on site will be legally sourced and FSC/ PEFC certified.	-	HTA / Contractor	Pass	Prerequisite	Targeted	0
A sustainable procurement plan will be developed during concept design stage (RIBA stage 2). All materials for the project are sourced in compliance the sustainable procurement plan See Appendix F3 for plan requirements		2		-	1.07	Targeted	1.07
Construction materials are responsibly sourced in line with requirements in Appendix F3. Points calculated using Mat 03 Tool: % of available points achieved - Superstructure - 10%		-			1.07	Not Targeted	0.00
% of available points achieved - as above and internal finishes, substructure and hard landscaping - 20%					2.14	Targeted	2.14
% of available points achieved - as above and internal finishes, substructure and hard landscaping - 30%					3.21	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. Newly specified materials will be specified to limit material degradation due to environmental factors.	-	HTA / Momentum	-	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.	Opportunities to optimise the use of materials in building design, procurement, construction, maintenance and the end of life in order to maximise the material efficiency of the project, will be investigated and implemented at every stage.	1-5	HTA / Momentum	-	1.07	Targeted	1.07

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 has been carried out to maximise the recovery of material from the demolition and discussed with the design team.	2	Encore Environmental	-	0.60	Targeted	0.60
A Resource Management Plan (RMP) is developed according to the criteria in Appendix G1 AND The amount of waste generated per 100m2 = 13.3m3 / 11.1 tonnes	A compliant RMP will be developed and the main contractor will be expected to ensure construction waste does not exceed 7.5m3 / 6.5 tonnes per 100m2 floor space.	-	Contractor	Outstanding - one credit	0.60	Targeted	0.60
A Resource Management Plan (RMP) is developed according to the criteria in Appendix G1 AND The amount of waste generated per 100m2 = 7.5m3 / 6.5 tonnes			Contractor		0.60	Targeted	0.60
A Resource Management Plan (RMP) is developed according to the criteria in Appendix G1 AND Amount of waste generated per 100m2 = 3.4m3 / 3.2 tonnes			Contractor		0.60	Not Targeted	0.00
Waste diverted from landfill: Volume (%) / Tonnage (%): Non-demolition 70% / 80% or Demolition 80% / 90%	At least 70% volume or 80% tonnage of non-demolition waste and 80% volume or 90% tonnage of demolition by weight will be diverted from landfill following the waste hierarchy.	-	Contractor	-	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. In accordance with the Pre demolition audit criteria listed in Appendix G1	A pre demolition audit will be produced for any existing buildings, structures or hard surfaces	-	Design Team		Prerequisite	Not Targeted	0
3.5 - 6 Sustainable Aggregate Points achieved using the BREEAM Wst 02 calculator. See Appendix G2 for full details.	To be investigated further at detailed design - whether recycled / secondary aggregates can be specified within high-grade uses.	-	Momentum	-	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.	The dedicated storage facilities for the buildings recyclable waste will meet the requirements based on the size and use type of said building.	-	HTA	Excellent	0.60	Targeted	0.60
Less than 5000m2 total: Sized either to meet known waste or 2m2 (4m2 if catering provided) for every 1000m2 of floor area	Shared with Hexagon. Kitchen will be moved to main building. Size requirements to be checked.						
More than 5000m2 total: Sized either to meet known waste or 10m2 (20m2 if catering provided) for every 1000m2 of floor area	Compost facility needs a tap - this needs to be provided additional to what is there already.						
See Appendix G3 for specific building type requirements for this credit.							
Wst 05 Adaptation to Climate Change							
A Climate Change Adaptation Strategy Appraisal (structural and fabric resilience specific) has been conducted by the end of Concept Design (RIBA Stage 2), 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 .	An assessment has been carried out to assess and mitigate the effects of climate change on the building.	2 & 4	HTA / Momentum	-	0.60	Targeted	0.60
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							
Wst 06 Design for Disassembly and Adaptability							
During or prior to the concept design stage (RIBA stage 2) 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 and disassembly strategy has been developed. This will include recommendations for measures to be incorporated to facilitate future adaptation.	2	HTA / Momentum	-	0.60	Targeted	0.60
Previous Credit must be achieved: Updates have been provided during the Technical Design covering how recommendations made during the concept design stage (RIBA stage 2) have been implemented.	The functional adaptation and disassembly report will be updated at technical design (RIBA stage 4) to include the means by which earlier recommendations have been implemented this will include any changes made to the recommendations and solutions up to this point.	4	HTA / Momentum	-	0.60	Targeted	0.60
provide an update during technical design of the changes to recommendations and solutions during the development of the technical design stage (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 details of solutions implemented to facilitate functional adaptability and disassembly will be consolidated into a building adaptability and disassembly guide. which will be delivered to prospective tenants.						

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	-	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.	-		-	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.	The ecologist has carried out a site visit and provided recommendations to comply with UK and EU legislation and achieve a neutral or positive increase in the ecological value of the site.	1	TMA Consultants	-	Prerequisite	Targeted	0
Suitably Qualified Ecologist (SQE) carries out a survey and evaluation (see Methodology) for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically Preparation and brief stage) Optimal ecological outcomes are identified for the site. Route 1 has been adopted (Refer to Appendix H1 for details).	The checklist will be used to determine the ecological value of site. An ecologist will carry out an assessment of the site and provide recommendations on the optimal ecological outcomes for the site in collaboration with the design team and representative stakeholders.	1	TMA Consultants	-	1.00	Not Targeted	0.00
OR Route 2 has been adopted (Refer to Appendix H1 for details)	The ecologist has carried out a site visit and provided recommendations to comply with UK and EU legislation and achieve a neutral or positive increase in the ecological value of the site.	1	TMA Consultants	-	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 ecologist has carried out a site visit and provided recommendations to comply with UK and EU legislation and achieve a neutral or positive increase in the ecological value of the site.	-	TMA Consultants	-	Prerequisite	Targeted	0
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	Workshops and design team meetings will address the requirements. The ecologist has carried out a site visit and provided recommendations on whether Route 2 compliance can be achieved.	1	TMA Consultants/ Design team		1.00	Targeted	1.00
Route 2 Assessment Method: Negative impacts from site preparation and construction works have been managed according to the hierarchy in line with the SQE's recommendations and no net loss of ecological value has occurred. (Refer to Appendix H2 for full details)	Negative impacts will be mitigated during site preparation and construction works. The ecologist has carried out a site visit and provided recommendations on whether Route 2 compliance can be achieved.	-	TMA Consultants / Design team		2.00	Targeted	2.00

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 ecologist has carried out a site visit and provided recommendations to comply with UK and EU legislation and achieve a neutral or positive increase in the ecological value of the site.	-	TMA Consultants	-	Prerequisite	Targeted	0	
Route 1: The project team, collaborating with representative stakeholders, have implemented locally relevant solutions and measures which enhance the site, based on recommendations from recognised 'local' ecological expertise. Refer to Appendix H3 for full details.	Collaboration will be undertaken to identify enhancement solutions on site.	-	TMA Consultants / Design team		1.00	Not Targeted	0.00	
OR Route 2: Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02. 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.	The ecologist has carried out a site visit and provided recommendation to determine whether Route 1 or Route 2 is most appropriate and achievable for the site. Relevant enhancements will be implemented on site.	-	TMA Consultants / Design team		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: EITHER 1. Minimising loss of ecological value (one credit - percentage score of 75-94)	The ecologist has carried out a site visit and provided recommendation to determine whether Route 1 or Route 2 is most appropriate and achievable for the site. Relevant enhancements will be implemented on site.	-			1.00	Not Targeted	0.00	
OR 2. No net loss of ecological value (two credits - percentage score of 95-104)		-			2.00	Targeted	2.00	
OR 3. Net gain of ecological value (three credits - percentage score of 105-109)		-			3.00	Not Targeted	0.00	
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 ecologist has carried out a site visit and provided recommendations to comply with UK and EU legislation and achieve a neutral or positive increase in the ecological value of the site..	-	TMA Consultants / Design team	-	Prerequisite	Targeted	0	
Route 1 and 2: The project team have collaborated with stakeholders on solutions and measures implemented to monitor, review and develop management solutions. Monitor and report on ecological outcomes from the design and construction stages and overall project, and maintain ecological value of the site in line with its zone of influence and any sustainability linked activities. Include a section about Ecology and Biodiversity as part of the tenant or building owner information. (Refer to Appendix H4 for methodology)	The ecologist has advised on how to meet all mandatory ecological requirements and on suitable additional criteria for the design team to implement. The design team will then aim to follow 4 of the additional criteria.	-	TMA Consultants / Contractor	-	1.00	Targeted	1.00	
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 as required	-	TMA Consultant / JCLA	-	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 building services strategy uses refrigerants and it is to be confirmed whether these have a DELC CO ₂ e of less than 1000 kgCO ₂ e/kW. Further details of the type of systems and refrigerants in use are required. A leak detection system for the refrigerants will be provided.	-	S&C	-	Prerequisite	Targeted	0
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					1.33	Not Targeted	0.00
Systems using refrigerants have DELC CO ₂ e of ≤1000 kgCO ₂ e/kW cooling and heating capacity					0.67	Targeted	0.67
All systems are hermetically sealed or only use environmentally benign refrigerants. Refer to Appendix J1 for full details					0.67	Targeted	0.67
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 and therefore will not impact local air quality.	-			0.67	Targeted	0.67
	Proposed system = ASHP.	-			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.	-	Momentum	-	Prerequisite	Targeted	0
A site specific Flood Risk Assessment (FRA) confirms there is a LOW annual probability of flooding	Site is in a low flood risk area - TBC if an FRA will be provided	-	Momentum	-	1.33	Potential	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.	A bespoke SUDs solution will be developed.	-	Momentum	-	Prerequisite	Targeted	0
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. Green roof will provide majority of attenuation.	-	Momentum	-	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.	-	Momentum	-	0.67	Targeted	0.67
There is no discharge from the developed site for rainfall up to 5 mm Measures are implemented to prevent water course pollution in line with requirements in Appendix J3 A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.	Green roof covers most of site so will provide adequate attenuation and pollution prevention.	-	Momentum	-	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. Check podium lighting that may need to be extended.	-	S&C	-	0.67	Potential	0.00

Pol 05 Reduction of Noise Pollution							
There are no noise-sensitive areas within the assessed building or within 800m radius of the assessed site OR 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.	A background noise assessment has been carried out and an acoustician has been appointed to provide design advice on meeting compliant noise levels.	-	Charcoal Blue	-	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.	See Man 03 main section. The additional requirements will be met	-	Contractor	-	1.00	Targeted	1.00
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
Hea 06 Security							
A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification (SABRE)	Independent assessment and verification confirming performance against the scheme - tbc		SQSS		1.00	Potential	0.00
Ene 01 Reduction of Energy Use and Carbon Emissions							
The building achieves an $EPR_{NC} \geq 0.9$ and zero net regulated CO ₂ -eq emissions (up to two credits)	This credit is not being targeted.	-		-	1.00	Not Targeted	0.00
					1.00	Not Targeted	0.00
The building is deemed carbon negative where >100% of carbon emissions from unregulated (and regulated) energy use are offset by energy generated from on-site and near-site LZC sources (up to three credits)	This credit is not being targeted.	-		-	1.00	Not Targeted	0.00
					1.00	Not Targeted	0.00
Achieve maximum available credits in Ene 02 Energy monitoring. Post occupancy stage energy modelling is carried out to report on the actual energy consumption compared with predicted energy consumption targets by end use, design assumptions and input data.	This credit has been marked as potential depending on if both Ene 02 credits are achievable. Post occupancy modelling would be required.	-			1.00	Potential	0.00
		-			1.00	Potential	0.00
Wat 01 Water Consumption							
65% improvement over notional baseline	This credit is not being targeted.	-		-	0.00	Not Applicable	0.00
Mat 01 Environmental impacts from Construction Products - Building Life Cycle Assessment (LCA)							
During Concept Design identify opportunities for reducing environmental impacts of core services.	LCA includes Core services	-		-	1.00	Targeted	1.00
Achieve Elemental LCC plan and Component Level LCC options appraisal credits (Man 02 Life cycle cost and service life planning) AND Include design options appraised during Concept Design (Man 02 Life cycle cost and service life planning) AND Include the design options appraised during Technical Design (Man 02 Life cycle cost and service life planning) AND Integrate the aligned LCA and LCC options appraisal activity within the wider design decision-making process	LCA and LCC is being carried out by the same company - approach will be integrated.				1.00	Targeted	1.00
A suitably qualified third party carries out the building LCA work, or produces a report verifying it, with each LCA option itemised in the report and details of the suitably qualified third party and a declaration of their independence		-			1.00	Potential	0.00
Mat 03 Responsible Sourcing of Construction Products							
Achieved Mat 03 credits AND Responsible sourcing % of available points achieved $\geq 50\%$	This credit is not being targeted.	-		-	1.00	Not Targeted	0.00
Wst 01 Construction Waste Management							
Amount of waste generated per 100m ² - 1.6m ³ / 1.9 tonnes AND Waste diverted from landfill: Volume (%) / Tonnage (%): Non-demolition 85% / 90% or Demolition 85% / 95% or Excavation 95% / 95%	This credit is not being targeted.	-		-	1.00	Not Targeted	0.00
Achieve the construction resource efficiency credits Allocate waste generated to specific projects Meet or better BREEAM exemplary level benchmark for diversion from landfill of non-hazardous construction and demolition waste		-			1.00	Not Targeted	0.00

Wst 02 Use of Recycled and Sustainably Sourced Aggregates							
The Project Sustainable Aggregate Points score will be 6 or above	This credit is not being targeted.	-		-	1.00	Not Targeted	0.00
Wst 05 Adaptation to Climate Change							
All of the following credits are achieved: Hea 04 Thermal comfort - Modelling the projected climate change environment Ene 01 Reduction of energy use and carbon emissions -A minimum of six credits Ene 04 Low carbon design - The passive design analysis credit Wat 01 Water consumption - A minimum of three credits Wst 05 Adaptation to Climate Change - 1 credit Mat 05 Designing for durability and resilience - Key exposed building elements have been designed and specified to limit long and short term degradation due to environmental factors. Pol 03 Flood and surface water management - Flood resilience: a minimum of one credit. Surface water runoff: two credits See Appendix K5 for requirements.	TBC if all relevant credits can be achieved.	-		-	1.00	Potential	0.00
LE 02 Identifying and understanding the risks and opportunities for the project							
During Concept Design, wider site sustainability-related activities and the potential for ecosystem service related benefits are considered. Achieve the following credits: - Hea 07 Safe and healthy surroundings - Pol 03 Flood and surface water management: - 'Surface water run-off' credit - 'Minimising watercourse pollution' credit - Pol 05 Reduction of noise pollution	Proof the optimal ecological outcome for the site has been selected	-			1.00	Potential	0.00
	Proof wider sustainability-related activities have been considered	-					
	Achieve the other relevant ecology-related credits required	-					
LE 04 Change and Enhancement of Ecological Value							
Achieve significant net gain of ecological value (≥110%), calculated in accordance with process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.	This is not achievable for this site.	-			1.00	Not Targeted	0.00

6. Conclusion

The BREEAM Pre-Assessment Report demonstrates that the development can achieve a Excellent rating with a score of 75.51%. This includes a comfort margin over the 70% Excellent score threshold. 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.