

BREEAM NC 2018 (Simple Buildings)
Proposed Commercial Development,
Oval Plot, Rockingham-- Pre-Assessment Report v2

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Disclaimer

Peak Sustainability Ltd are suitably qualified and licensed by BRE Global Ltd to undertake BREEAM assessments.

The assessment methodology documents for the current schemes are available, free of charge, at www.breeam.org.

This project had not been formally registered with the BRE by the date this report was issued and, until formally registered, is subject to any changes/updates to the BREEAM scheme. It is recommended that the project is registered at the earliest opportunity. Please contact your assessor at the earliest opportunity to register the scheme.

The report is based on information provided by the design team and therefore it is the responsibility of the design to ensure that the information provided is correct and accurate.

The Assessor and the Assessor organisation take no responsibility for the achievement of BREEAM scores ratings.

All formal BREEAM Assessment reports (Design Stage and Interim) are subject to independent QA review by BRE Global Ltd

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Alterations

The BRE hold the right to update or alter the scheme at any time. Peak Sustainability will implement these changes to any assessment being undertaken.

Summary

Peak Sustainability Ltd has been commissioned to carry out a BREEAM (Building Research Establishment Environmental Assessment Method) New Construction 2018 (Simple Buildings) Assessment.

BREEAM seeks to minimise the adverse effects of buildings on the environment at global and local scales, whilst promoting healthy indoor conditions for the occupants. The environmental implications of a building are assessed at the design and post construction stage and compared with good practice by independent assessors.

The development is required to achieve a **'Very Good'** BREEAM Rating. This report outlines the approach for formal assessment under the BREEAM New Construction 2018 Scheme.

Proposed Score & Rating

Based on the information available, the commitments made by the project team and experience of similar schemes a set of 'targeted credits' and 'extra credit' options has been compiled which, if completed (i.e. 'targeted credits' + a sufficient number of 'extra credits'), will enable the required rating to be achieved. The following tables confirm compliance with the mandatory requirements for the required rating, the number of credits pursued in each section and the total 'Targeted' BREEAM score.

Minimum BREEAM Standards					
Rating Level:	Pass	Good	Very Good	Excellent	Outstanding
Minimum Standards Achieved:	YES	YES	YES	NO	NO

Building Performance by Section					
	Environmental Weighting	Credits Available	Credits Targeted	Percentage Targeted	Weighted Score
Management	7.5%	12	10	83.33%	6.25%
Health & Wellbeing	16.5%	16	8	50.00%	8.25%
Energy	11.5%	15	8	53.33%	6.13%
Transport	11.5%	12	6	50.00%	5.75%
Water	7.5%	8	5	62.50%	4.69%
Materials	17.5%	14	4	28.57%	5.00%
Waste	7.00%	9	8	88.89%	6.22%
Land Use & Ecology	15.0%	13	7	53.85%	8.08%
Pollution	6.0%	8	5	62.50%	3.75%
Innovation	10.0%	10	1	10.00%	1.00%
Total BREEAM Score					55.12%

Full details of the credit criteria, design stage and post construction stage requirements are detailed in the 'Assessment Criteria and Evidence Requirements' section of this report.

BREEAM 2018 New Construction - Introduction

What is BREEAM?

Building Research Establishment Environmental Assessment Method.

BREEAM is the world's foremost environmental assessment method and rating system for buildings, with 200,000 buildings with certified BREEAM assessment ratings and over a million registered for assessment since it was first launched in 1990.

BREEAM sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognised measures of a building's environmental performance.

A BREEAM assessment uses recognised measures of performance, which are set against established benchmarks, to evaluate a building's specification, design, construction and use. The measures used represent a broad range of categories and criteria from energy to ecology. They include aspects related to energy and water use, the internal environment (health and well-being), pollution, transport, materials, waste, ecology and management processes.

Aims of BREEAM:

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

Objectives of BREEAM:

- To provide market recognition of buildings with a low environmental impact.
- To ensure best environmental practice is incorporated in building planning, design, construction and operation.
- To define a robust, cost-effective performance standard surpassing that required by regulations.
- To challenge the market to provide innovative, cost effective solutions that minimise the environmental impact of buildings.
- To raise the awareness amongst owners, occupants, designers and operators of the benefits of buildings with a reduced life cycle impact on the environment.
- To allow organisations to demonstrate progress towards corporate environmental objectives.

BREEAM 2018 New Construction - Scheme Overview

BREEAM New Construction is a performance based assessment method and certification scheme for new buildings. The primary aim of BREEAM New Construction is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost effective manner.

This is achieved through integration and use of the scheme by clients and their project teams at key stages in the design and procurement process. This enables the client, through the BREEAM Assessor, to measure, evaluate and independently verify the performance of their building against best practice principles.

A developments performance is quantified by a number of individual measures and associated criteria stretching across a range of environmental issues which are ultimately expressed as a single certified BREEAM rating.

Scoring & Ratings:

BREEAM Ratings:

A BREEAM Rating is predominately calculated based on the overall percentage score achieved by the development. However, to ensure that certain key environmental criteria are included with the design, BREEAM also requires that a number of set 'mandatory' credits are achieved for each rating level.

As long as the appropriate mandatory criteria are achieved, developments are awarded a rating based on the following percentage scores:

BREEAM Rating	% score
OUTSTANDING	≥85
EXCELLENT	≥70
VERY GOOD	≥55
GOOD	≥45
PASS	≥30
UNCLASSIFIED	<30

The BREEAM Score:

BREEAM is split into 9 sections which cover all aspects which may affect the sustainability of the development. Each of these sections has been given a percentage weighting, based on their relative environmental impact, as determined by a panel of experts. The section headings and their relative percentage ratings for 'Simple Buildings' assessments are given below:

Environmental section	Weighting
Management	7.5%
Health & Wellbeing	16.5%
Energy	11.5%
Transport	11.5%
Water	7.5%
Materials	17.5%
Waste	7.0%
Land Use & Ecology	15.0%
Pollution	6.0%

Each of the above sections contains a number of credits (This will vary with each scheme). The overall percentage value of these credits varies for each section and is calculated based on the number of credits available divided by the section weighting (i.e. if there are 10 credits available in the Water Section and it is worth 7.5% of the overall score, each credit will be worth 0.75%).

The number of credits within a particular section will also vary from scheme to scheme depending on what type of development is being assessed and the features/services present.

The final BREEAM score is calculated based on the number of credits achieved in each section, multiplied by their relative percentage value and then added together.

Mandatory Credits:

To ensure that performance against fundamental environmental issues is not over-looked in pursuit of a particular rating, BREEAM sets minimum standards of performance in key areas.

Therefore to achieve a particular BREEAM rating, as well as achieving the minimum overall percentage score, a development must also achieve the minimum standards, applicable to that rating,

The BREEAM Assessment Process

A full BREEAM New Construction 2018 assessment is undertaken in up to five stages (depending on when the assessor is appointed), comprising registration, pre-assessment, initial guidance/design stage assessment, construction and post construction review /final certification.

Peak Sustainability's standard assessment procedure includes advice and support for the design team at every stage of the BREEAM process and comprises the following:

Registration:

It is essential to ensure that the scheme is appropriately registered with the BRE. This is done by completing and returning the registration checklist. Once registered, the scheme is then protected from future changes and updates to the scheme. It is recommended that the registration is completed as soon as possible after the start of the BREEAM process, but it can be deferred, if the client prefers.

Pre-Assessment:

This stage is undertaken by design teams wanting to establish a realistic baseline for a development from which they can explore the options available to enhance its performance. Pre-assessments are normally undertaken for funding, planning or viability purposes and are generally undertaken as early as possible in the design process, before the design and servicing options have been confirmed.

The process starts with the assessor meeting with the design team to talk through the BREEAM criteria and to develop a score based on commitments made in the meeting and using any other information available at that time. This meeting can take 2-3 hours. After the meeting the design team will be given a period of time to review the commitments made in the meeting and to respond to the assessor with any further comments or information. After this point, and with the rating agreed, the assessor will complete and issue the pre-assessment report.

The Pre-assessment report is designed to show how, based on the information and commitments provided, the development is capable of achieving a certain score/rating and to provide information with regards to the next steps of the BREEAM assessment process.

A pre-assessment can be provided as a 'Stand-alone' report or as the first stage in the full BREEAM process.

Initial Guidance / Design & Procurement Assessment:

The Design and Procurement (D&P) assessment is the first official stage in the BREEAM assessment process and is undertaken for the majority of BREEAM projects. A D&P assessment should be started as early as possible in the design stage in order to ensure that the development picks up as many credits as possible in the most pragmatic and cost effective way.

The first stage in the D&P assessment process is for the assessor to meet with the design team in order to establish an 'agreed' list of credits to be pursued which will enable the required rating to be achieved. This meeting can take between 2 and 3 hours.

After the design team meeting, the assessor will prepare a guidance report which will detail the performance requirements for each credit. In addition the assessor will provide an information required schedule (IRS) which will confirm the documentation required for each credit.

The design team will then have an agreed period in which to supply the relevant information to the assessor. Throughout this time, the assessor will continually update and re-issue the IRS to reflect the information received. The assessor will also be available during this time to provide support and assistance to the design team.

Once all the information has been received/the agreed target has been achieved, the assessor will submit the D&P report to the BRE for quality assurance and issue of the D&P (Interim) certificate.

It is recommended that the design stage assessment is completed prior to the start of site works.

Construction:

Whilst there is no formal BREEAM construction stage, Peak Sustainability continues to offer support to the design team to ensure that, if not yet complete, the appropriate information is provided for the design stage assessment and also to provide ongoing advice with regards to the preparation and recording of evidence for the post construction review.

Post Construction Review:

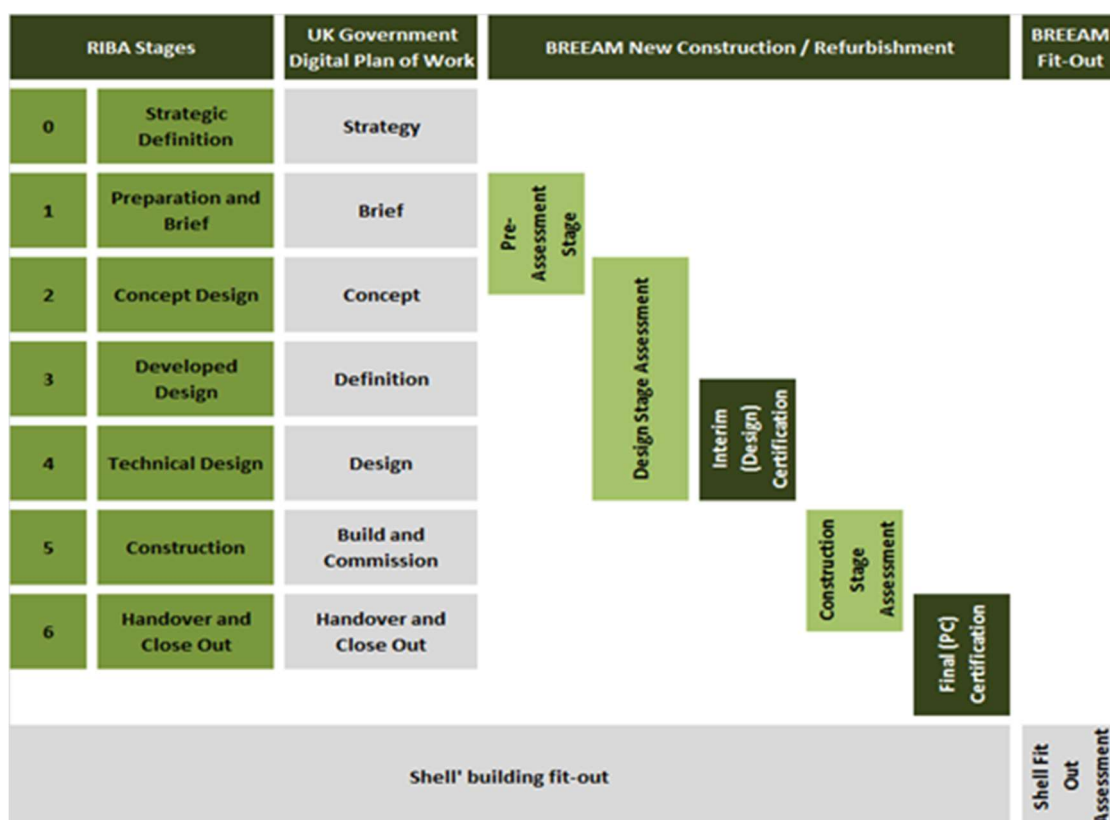
The post construction review (PCR) is undertaken upon practical completion of the development. The main purpose of the post construction review is to ensure that the 'as built' development meets the standards committed to during the design and procurement stage.

The post construction review starts with a site visit by the assessor. This visit can take 2-3 hours as the assessor collects photographic evidence of the various systems, materials and features of the development. It is recommended that the site visit takes place as soon after PC as possible in order to prevent credits being lost as a result of changes made by future occupants.

After the site visit, the assessor will prepare a post construction information required schedule (IRS) which will confirm the 'as built' documentation required for each credit. The design team will then have a period of up to 16 weeks in which to supply the relevant 'as built' information to the assessor. Throughout this time, the assessor will continually update and re-issue the IRS to reflect the information received. The assessor will also be available during this time to provide support and assistance to the design team.

Once all the information has been received/the agreed target has been achieved, the assessor will submit the PCR assessment report to the BRE for quality assurance and issue of the PCR (Final) certificate.

Assessment Process and Certification Timeline



Score Summary

Section:	Credit Ref:	Credit Title:	Credits Available:	Likely Credits:	Extra Credits:
Management 0.63%	Man 01	Project Brief & Design	2	1	
	Man 02	Life Cycle Cost & Service Life Planning	1	1	
	Man 03	Responsible Construction Practices	4	3	
	Man 04	Commissioning & Handover	2	2	
	Man 05	Aftercare	3	3	
Section Credit Total:			12	10	0
Weighted Section Total:			7.5%	6.3%	0.0%
Health & Wellbeing 1.03%	Hea 01	Visual Comfort	4	1	
	Hea 02	Indoor Air Quality	3	0	
	Hea 04	Thermal Comfort	3	3	
	Hea 05	Acoustic Performance	3	3	
	Hea 06	Security	1	0	
	Hea 06	Safe and healthy buildings	2	1	
Section Credit Total:			16	8	0
Weighted Section Total:			16.5%	8.3%	0.0%
Energy 0.77%	Ene 01	Reduction of energy use and carbon emissions	9	4	
	Ene 02	Energy Monitoring	2	2	
	Ene 03	External Lighting	1	1	
	Ene 04	Low & Zero Carbon Technologies	3	1	
Section Credit Total:			15	8	0
Weighted Section Total:			11.5%	6.1%	0.0%
Transport 0.96%	Tra 01	Travel Plan	2	2	
	Tra 02	Sustainable Transport Measures	10	4	3
Section Credit Total:			12	6	3
Weighted Section Total:			11.5%	5.8%	2.9%
Water 0.94%	Wat 02	Water Monitoring	5	2	
	Wat 03	Water Leak Detection & Prevention	1	1	
	Wat 04	Water Efficient Equipment	2	2	
Section Credit Total:			8	5	0
Weighted Section Total:			7.5%	4.7%	0.0%
Materials 1.25%	Mat 01	Environmental impacts from construction products - Building life cycle assessment (LCA)	7	0	
	Mat 02	Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	1	
	Mat 03	Responsible Sourcing of Materials	4	2	1
	Mat 05	Designing for Durability & Resilience	1	1	
	Mat 06	Materials Efficiency	1	0	
Section Credit Total:			14	4	1
Weighted Section Total:			17.5%	5.0%	1.3%
Waste 0.78%	Wst 01	Construction Waste Management	4	4	
	Wst 02	Recycled Aggregates	1	1	
	Wst 03	Operational Waste	1	1	
	Wst 05	Adaption to Climate Change	1	0	
	Wst 06	Design for disassembly and adaptability	2	2	
Section Credit Total:			9	8	0
Weighted Section Total:			7.0%	6.2%	0.0%
Land Use & Ecology 1.15%	LE 01	Site Selection	2	0	
	LE 02	Identifying and understanding the risks and opportunities	2	2	
	LE 03	Managing negative impacts ion ecology	3	2	
	LE 04	Change and enhancement of ecological value	4	1	
	LE 05	Long term ecology management and maintenance	2	2	
Section Credit Total:			13	7	0
Weighted Section Total:			15.0%	8.1%	0.0%
0.75%	Pol 02	Local Air Quality	2	0	2
	Pol 03	Surface Water Run-Off	5	4	
	Pol 04	Reduction of Night Time Light Pollution	1	1	
Section Credit Total:			8	5	2
Weighted Section Total:			6.0%	3.8%	1.5%
Exemplary	EX	Exemplary Credits (Max 10)	10	1	2
Section Credit Total:			Max. 10	1	2
Weighted Section Total:			10.0%	1.0%	2.0%
			Percentage:	Likely Credits:	Extra Credits:
Combined Total Score (All Sections):			110.0%	55.12%	7.63%

Assessment Criteria and Evidence Requirements

Credit Details:	Justification:	Credits Pursued:
Management		
Man 01-01: Project Delivery Planning		
<u>One</u> credit where the following points are achieved: 1. Prior to completion of the Concept Design (RIBA Stage 2 or equivalent), the project delivery stakeholders have met to identify and define their roles, responsibilities and contributions for each of the key phases of project delivery. 2. In defining the roles and responsibilities for each key phase of the project, the following must be considered: a. End user requirements b. Aims of the design and design strategy c. Particular installation and construction requirements/limitations d. Occupiers budget and technical expertise in maintaining any proposed systems e. Maintainability and adaptability of the proposals f. Operational energy g. Requirements for the production of project and end user documentation h. Requirements for commissioning, training and aftercare support. 3. The project team demonstrate how the project delivery stakeholder contributions and the outcomes of the consultation process have influenced or changed the Initial Project Brief, including if appropriate, the Project Execution Plan, Communication Strategy, and the Concept Design. Further Details can be found on the Man 01-01 Information Sheet	It was confirmed in a meeting on 17/06/21 that the requirements for defining project roles and responsibilities can be achieved as the client, project management team are all involved early in the design process and the main contractor has been pre-selected by the client. It was agreed that a document would be developed which confirms the roles, responsibilities and contributions expected from each member of the project team. This document needs to be based on RIBA Stage 2 information. The assessor has provided a template and information sheet to help with this project. 1 out of a possible 1 credit has been pursued.	1 of 1

Man 01-02: Stakeholder Consultation (Interested Parties)		
<u>One</u> credit where the following points are achieved: 1. Prior to completion of the Concept Design stage, the design team consult with all interested parties on matters that cover the minimum consultation content required by BREEAM (detailed on the Man 01-02 information sheet). 2. The project must demonstrate how the stakeholder contributions and outcomes of the consultation exercise have influenced or changed the Initial Project Brief and Concept Design. 3. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), all interested parties give and receive consultation feedback. Further Details can be found on the Man 01-02 Information Sheet	It was confirmed in a meeting on 17/06/21 that due to the nature and scale of this project, this credit has not been pursued. 0 out of a possible 1 credit has been pursued.	0 of 1
Man 02-03: Life Cycle Cost and Service Life Planning – Capital Cost Reporting		
<u>One</u> credit where the following point is achieved: 1. Report the capital cost for the building in pounds per square metre (£k/m²), via the BREEAM Assessment Scoring and Reporting tool. The capital cost for the building relates to the initial construction of the building and includes the following: a. Construction, including preparatory works, materials, equipment and labour b. Site management c. Construction financing d. Insurance and taxes during construction e. Inspection and testing Costs relating to land procurement, clearance, design, statutory approvals and post-occupancy aftercare should not be included.	It was confirmed in a meeting on 17/06/21 that project team will commit to calculating and reporting the capital cost of the development in the BREEAM compliant format using the BREEAM scoring and reporting tool. The assessor has provided a letter template to the project team in order to help them sign off this issue. 1 out of a possible 1 credit has been pursued.	1 of 1

Man 03-Pre-Requisite: Responsible Construction Practices – Legally Harvested and Traded Timber		
<u>The Pre-Requisite</u> requires the following point to be achieved: 1. All timber and timber based products used on the project is 'Legally harvested and traded timber'. BREEAM's defines legally sourced timber/wood-derived products as those that originate from a forest where the following criteria are met: a. The forest owner/manager holds legal use rights to the forest. b. There is compliance by both the forest management organisation and any contractors with local and national legal criteria including those relevant to: - Forest management - Environment - Labour and welfare - Health and safety - Other parties' tenure and use rights - All relevant royalties and taxes are paid. c. There is full compliance with the criteria of CITES.	It was confirmed in a meeting on 17/06/21 that the project team will commit to ensuring that all project timber is from legally harvested and sustainable sources. The developer and main contractor will have sustainable timber policies that confirm their commitment to this issue. The pre-requisite has been pursued.	Pre-Requisite
Man 03-01: Responsible Construction Practices – Environmental Management		
<u>One credit</u> where the following points are achieved: 1. All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS covering their main operations. The EMS must: 2. Be third party certified, to ISO 14001: 2015, EMAS (EU Eco-Management and Audit Scheme) or equivalent standard; OR 3. In compliance with BS 8555: 2016 and have: a. Appropriate structure b. Reached implementation stage phase four 'implementation and operation of the environmental management system. c. Completed defined phase audits one to four. 4. All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention policies and procedures on site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines.	It was confirmed in a meeting on 17/06/21 that the main contractor does not operate a third party certified EMS (i.e. ISO 14001). 0 out of a possible 1 credit has been pursued.	0 of 1

Man 03-03: Responsible Construction Practices – Responsible construction management		
<u>Up to Two credits</u> where the following points are achieved: <u>One credit:</u> One credit is awarded where the lead contractor: • Manages the construction site entrance to minimise the impacts (e.g. safety, disruption) arising from vehicles approaching and leaving the development footprint • Minimises the risks of air, land and water pollution. • Practices ensure the development footprint is safe, clean and organised at all times. This includes, but is not limited to, facilities, materials and waste storage. • Ensures clear and safe access in and around the buildings at the point of handover • Provides processes and equipment required to respond to medical emergencies. • Establishes management practices and facilities encouraging equality, fair treatment and respect of all site operatives. • Ensures ongoing training is provided, and up to date, for personnel and visitors. • Ensures that site operatives are trained for the tasks they are undertaking. • Ensures that all visitor, workforce and community accidents, incidents and near misses are recorded and action is taken to reduce the likelihood of them reoccurring. <u>Two credits:</u> Two credit are awarded where, in addition to the above, the lead contractor achieves at least 6 of the following points: • Ensures the development footprint is accessible for delivery vehicles fitted with safety features (e.g. side under run protection) to remove or limit the need for on-street loading or unloading. Where on-street loading is unavoidable, this should be appropriately managed. • Identifies access routes to the development footprint, including for heavy vehicles to minimise traffic disruption and safety risks to others. • Identifies and implements initiatives to promote and maintain the health and wellbeing of all site operatives within the development footprint. This can be via site facilities, site management arrangements, staff policies etc.	It was confirmed in a meeting on 17/06/21 that the project team will ensure that the responsible construction management practices required for 2 credits will be undertaken and that the relevant project documentation required to satisfy the requirements for 2 credits (as detailed on the BREEAM GN33 checklist) will be pursued. The assessor has provided copies of the GN33 checklist and document templates etc. 2 out of a possible 2 credits have been pursued.	2 of 2

• Provides secure, clean and organised facilities (e.g. changing and storage facilities) for site operatives within the development footprint. • Minimises risks of the site becoming a focus for antisocial behaviour in the local community. • Ensures that aspects of the construction process that might impact the community are communicated regularly, ensuring that nuisance and intrusion are minimised • Ensures that the fleet operators, undertakes driver training and awareness to promote safety within the development footprint and off site. • Ensures that the fleet operators, captures and investigates any road accidents, incidents and near misses and reports them back to the principal contractor. The principal contractor analyses these items. • Ensures that processes are in place to facilitate collecting and recording feedback from the community and to address any concerns related to the development footprint.		
Man 03-04: Responsible Construction Practices – Monitoring of Construction Site Impacts		
<u>One credit where the following points are achieved:</u> 1. Responsibility has been assigned to an individual(s) for monitoring, recording and reporting energy use, water consumption and transport data (where measured) resulting from all on-site construction processes (and dedicated off-site monitoring) throughout the build programme. To ensure the robust collection of information, this individual(s) must have the appropriate authority and responsibility to request and access the data required. <u>Utility Consumption</u> a. <u>Energy consumption:</u> - Set targets for the site energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. - Monitor and record data for the energy consumption - Report the total carbon dioxide emissions (total kgCO₂/project value) from the construction process via BREEAM Projects. b. <u>Water consumption:</u> - Set targets for the potable water consumption (m³) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. - Monitor and record data for the potable water consumption. - Use the collated data to report the total net water consumption (m³).	It was confirmed in a meeting on 17/06/21 that the project team will ensure that the requirements for monitoring of construction site impacts (utilities) will be implemented on site. The assessor has provided copies of the GN33 checklist and document templates etc. 1 out of a possible 1 credit has been pursued.	1 of 1

Man 04-01: Commissioning and Handover - Testing Schedule and Responsibilities		
<u>One</u> credit where the following points are achieved: 1. A schedule of commissioning and testing that identifies and includes a suitable timescale for commissioning and re-commissioning of all building services and control systems and testing and inspecting building fabric. 2. The schedule will identify the appropriate standards that all commissioning activities will be conducted in accordance with, such as current Building Regulations, BSRIA and CIBSE guidelines and/or other appropriate standards, where applicable (i.e. for building fabric, commercial refrigeration, fume cupboards microbiological safety cabinets etc.). 3. Where a building management system (BMS) is specified, the following commissioning procedures must be carried out: a. Commissioning of air and water systems is carried out when all control devices are installed, wired and functional b. In addition to air and water flow results, commissioning results include physical measurements of room temperatures, off-coil temperatures and other key parameters as appropriate c. The BMS/controls installation should be running in auto with satisfactory internal conditions prior to handover d. All BMS schematics and graphics (if BMS is present) are fully installed and functional to user interface before handover. e. The occupier or facilities team is fully trained in the operation of the system. 4. An appropriate project team member(s) is appointed to monitor and programme pre-commissioning, commissioning, testing and, where necessary, re-commissioning activities on behalf of the client. 5. The principal contractor accounts for the commissioning and testing programme, responsibilities and criteria within their budget and main programme of works, allowing for the required time to complete all commissioning and testing activities prior to handover.	It was confirmed in a meeting on 17/06/21 that the requirements relating to the testing and commissioning of the building fabric and services will pursued and that an appropriate project team member will be appointed to oversee the entire commissioning process. The contractor will be required to allow for commissioning and testing within their project programme and budget. 1 out of a possible 1 credit has been pursued.	1 of 1

Man 04-04: Commissioning and Handover - Handover		
<u>One</u> credit where the following points are achieved: 1. Prior to handover two building user guides are developed for the following users: • A non-technical user guide for distribution to the building occupiers. • A technical user guide for the premises facilities managers. A draft copy is developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users. 2. Two training schedules are prepared for the development timed appropriately around handover and proposed occupation plans for the following users: • A non-technical training schedule for the building occupiers. • A technical training schedule for the premises facilities managers. Further Details can be found on the Man 01-02 Information Sheet	It was confirmed in a meeting on 17/06/21 that this credit will be pursued. In order to complete this credit the project team will need to commit to producing BREEAM compliant building user guides and to provide building user training. The assessor has provided copies of BREEAM information sheets and templates to the project team. 1 out of a possible 1 credit has been pursued.	1 of 1
Man 05-01: Aftercare - Aftercare Support		
<u>One</u> credit where the following points are achieved: 1. There is (or will be) operational infrastructure and resources in place to provide aftercare support to the building occupier(s), which includes the following as a minimum: a. A meeting programmed to occur between the aftercare team/individual and the building occupier/management (prior to initial occupation, or as soon as possible thereafter) to: - Introduce the aftercare team or individual to the aftercare support available, including the Building User Guide (where existing) and training schedule/content. - Present key information about the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible. b. On-site facilities management training, to include a walkabout of the building and introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. c. Initial aftercare support provision for at least the first month of building occupation, e.g. on-site attendance on a weekly basis to	It was confirmed in a meeting on 17/06/21 that this credit will be pursued. This credit can be achieved where there is a commitment by the main contractor/project team to provide aftercare support to future building occupants in accordance with the BREEAM requirements The assessor has provided a letter template to the project team in order to help them sign off this issue. 1 out of a possible 1 credit has been pursued.	1 of 1

support building users and management (this could be more or less frequent depending on the complexity of the building and building operations). d. Longer term aftercare support provision for occupants for at least the first 12 months from occupation, e.g. a helpline, nominated individual or other appropriate system to support building users/management. 2. There is (or will be) operational infrastructure and resources in place to co-ordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is occupied. This is done to facilitate analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and/or user behaviours accordingly.		
Man 05-02: Aftercare – Implementation		
<u>One credit</u> where the following points are achieved: 1. The following commissioning activities will be completed over a minimum 12-month period, once the building becomes substantially occupied: a. <u>Complex systems - Specialist Commissioning Manager:</u> - Identify changes made by the owner or operator that might have caused impaired or improved performance. - Test all building services under full load conditions, i.e. heating equipment in mid-winter, cooling and ventilation equipment in mid-summer and under part load conditions (spring and autumn). - Where applicable, carry out testing during periods of extreme (high or low) occupancy. - Interview building occupants to identify problems or concerns regarding the effectiveness of the systems. - Produce monthly reports comparing sub-metered energy performance to the predicted one (- Identify inefficiencies and areas in need of improvement. - Re-commission systems and incorporate any revisions in operating procedures into the O&M manuals. b. Simple systems (naturally ventilated) - external consultant/aftercare team/facilities manager: - Review thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation, either by	It was confirmed in a meeting on 17/06/21 that this credit will be pursued and that an appropriate project team member and/or specialist commissioning agent (if required) will be appointed to oversee the entire post completion commissioning process. The assessor has provided a letter template to the project team that can be used to formally meet the specific credit requirements. 1 out of a possible 1 credit has been pursued.	1 of 1

measurement or occupant feedback. - Identify deficiencies and areas in need of improvement - Take all reasonable steps to re-commission systems following the review to take account of deficiencies identified and incorporate any relevant revisions in operating procedures into the O&M manuals.		
Man 05-03: Aftercare – Post Occupancy Evaluation		
<u>One credit where the following points are achieved:</u> 1. The client or building occupier commits to carry out a POE exercise one year after the building is substantially occupied. This gains comprehensive in-use performance feedback and identifies gaps between design intent and in-use performance. The aim is to highlight any improvements or interventions that need to be made and to inform operational processes.. The POE is carried out by an independent party and needs to cover: a. A review of the design intent and construction process (review of design, procurement, construction and handover processes). - Internal environmental conditions (light, noise, temperature, air quality) - Control, operation and maintenance - Facilities and amenities - Access and layout - Other relevant issues - Sustainability performance (energy/water consumption, performance of any sustainable features or technologies e.g. materials, renewable energy, rainwater harvesting etc.). 2. The independent party provides a report with lessons learned to the client and building occupiers. 3. The client or building occupier commits funds to pay for the POE in advance. This requires an independent party to be appointed to carry out the POE. Further information can be found on Information Sheet Man 05-03.	It was confirmed in a meeting on 17/06/21 that this credit will be pursued. The client will commit to undertaking a Post Occupancy Evaluation and reporting any lessons learned to the building occupants. The assessor has provided a copy of an information sheet and also a letter template that can be used to report the required information. 1 out of a possible 1 credit has been pursued.	1 of 1

Credit Details:	Justification:	Credits Pursued:
Health & Wellbeing		
Hea 01-01: Visual comfort – Glare Control		
<u>One</u> credit where the following points are achieved: 1. Areas at risk of glare are identified using a glare control assessment. The glare control assessment also justifies any areas deemed not at risk of glare. 2. A glare control strategy has been developed that designs out potential glare in all relevant building areas where risk has been identified. This should be achieved through building form/layout or design measures. 3. The glare control strategy should not increase energy consumption used for lighting. This is achieved by: a. Maximising daylight levels in all weather, cloudy or sunny AND b. Ensuring the use or location of shading does not conflict with the operation of lighting control systems.	It was confirmed in a meeting on 17/06/21 that the units are speculative and therefore it will not be possible to develop a compliant glare control strategy as the offices will not be fitted out with blinds. 0 out of a possible 1 credit has been pursued.	0 of 1
Hea 01-02: Visual Comfort - Daylighting		
<u>One</u> credit where the daylighting criteria have been met using either of the following options: 1. 80% of occupied spaces achieve an average daylight factor of 2% and meet the requirement (a) or requirements (b) and (c). a. A uniformity ratio of at least 0.3. OR, a minimum point daylight factor of at least 0.6. Spaces with glazed roofs, such as atria, must achieve a uniformity ratio of at least 0.7. Or, a minimum point daylight factor of at least 1.4. - OR b. At least 80% of the room has a view of sky from desk or table top height (0.70m). - AND c. The room depth criterion $d/w + d/HW < 2/(1-RB)$ is satisfied - OR 2. 80% of occupied spaces achieve the following requirements. • Average daylight illuminance of at least 300 lux for 2000 hours per year or more (entire space) • A minimum daylight illuminance of at least 90 lux for 2000 hours per year or more (at worst lit point)	It was confirmed in a meeting on 17/06/21 that there are no plans to undertake daylighting calculations as the daylighting requirements cannot be achieved in the production area. 0 out of a possible 1 credit has been pursued.	0 of 1

Hea 01-03: Visual Comfort – View Out		
<u>One</u> credit where the following points are achieved: 1. 95% of the floor area in relevant building areas is within 7m of a wall which has a window or permanent opening that provides an adequate view out. 2. The window/opening must be $\geq 20\%$ of the surrounding wall area (i.e. the area (in m²) of the internal wall on which the window/opening is located, including the area of the window/opening itself). Where the room depth is greater than 8m, compliance is only possible where the percentage of window/opening is the same as, or greater than, the values in table 1.0 of BS 8206: part 2. 3. In addition, the development must comply with any relevant building type specific criteria which are detailed on information sheet Hea 01-03. Further information can be found on Information Sheet Hea 01-02.	It was confirmed in a meeting on 17/06/21 that the view out requirements cannot be achieved in the production area. 0 out of a possible 1 credit has been pursued	0 of 1
Hea 01-04: Visual Comfort – Internal and External Lighting Levels, Zoning and Control		
<u>One</u> credit where the following points are achieved: 1. <u>Internal lighting</u>: a. Internal lighting in all relevant areas of the building is designed to provide illuminance (lux) levels and colouring rendering index in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. Internal lighting should be appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 3.3, 4.6, 4.7, 4.8 and 4.9. b. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 2.4, 2.13 to 2.15, 2.20, and 6.10 to 6.20. This gives recommendations highlighting: i. Limits to the luminance of the luminaires to avoid screen reflections. ii. Any area where a surface is used to reflect light in to a space, such as uplighting, the recommendations refer to the luminance of the lit	It was confirmed in a meeting on 17/06/21 that this credit will be pursued. The requirements relating to specific lighting standards and levels of illuminance will be achieved in all relevant areas. In addition, the zoning and control requirements will be implemented and the relevant information included on the lighting layout drawings. The assessor has provided a letter template to the project team in order to help them sign off this issue. 1 out of a possible 1 credit has been pursued.	1 of 1

ceiling rather than the luminaire; a design team calculation is usually required to demonstrate this. iii. Recommendations for direct lighting, ceiling illuminance, and average wall illuminance. 2. <u>External lighting:</u> a. All external lighting located within the construction zone is designed in accordance with BS 5489-1:2013 and BS EN 12464-2:2014-Part 2 External lighting should provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night. 3. <u>Zoning and occupant control:</u> a. Internal lighting is zoned to allow for occupant control in accordance with the criteria for each relevant area present within the building (see information sheet Hea 01-04) Further information can be found on Information Sheet Hea 01-04.		
Hea 02-Pre-Requisite: : Indoor air quality - Indoor Air Quality (IAQ) Plan		
<u>The Pre-Requisite</u> requires the following point to be achieved: 1. A site-specific indoor air quality plan has been produced and implemented. The plan must be produced no later than the end of Concept Design. The objective of the plan is to facilitate a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during occupation of the building. The indoor air quality plan must consider the following: - Removal of contaminant sources - Dilution and control of contaminant sources - Where present, consideration is given to the air quality requirements of specialist areas such as laboratories - Procedures for pre-occupancy flush out - Third party testing and analysis - Maintaining indoor air quality in-use	It was confirmed in a meeting on 17/06/21 that the pre-requisite requirements are not currently being considered as the project team are not currently planning to pursue any of the credits under this issue. The pre-requisite has not been pursued.	Pre-Requisite

Hea 02-01: Indoor air quality – Ventilation		
One credit where the building has been designed to minimise the concentration and recirculation of pollutants in the building as follows: 1. Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation. 2. Design ventilation pathways to minimise the build-up of air pollutants in the building, as follows: 3. Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 13779 Annex A3. The specified filters should achieve a minimum Indoor Air Quality of IDA2 4. Areas of the building subject to large and unpredictable or variable occupancy patterns have CO₂ or air quality sensors specified and: a. In mechanically ventilated buildings or spaces: sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space b. In naturally ventilated buildings or spaces: sensors either have the ability to alert the building owner or manager when CO₂ levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air.	It was confirmed in a meeting on 17/06/21 that the development cannot meet the ventilation requirements due to the proximity of service yards and car parks. 0 out of a possible 1 credit has been pursued	0 of 1
Hea 02-02: Indoor air quality – Emissions from construction products		
<u>Two</u> credit where the following points are achieved: <u>One Credit:</u> 1. Three out of the five product types meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 of the BREEAM guidance. Where wood-based products are not one of the selected products, all wood-based products used for internal fixtures & fittings must be tested/classified as formaldehyde E1 class as a minimum. <u>Two Credits:</u> 2. All of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 of the BREEAM guidance. Further information can be found on Information Sheet Hea 02-02.	It was confirmed in a meeting on 17/06/21 that the project team will endeavour to reduce emissions from products, but due to practical considerations around collecting and reporting the required data, these credits will not be targeted. 0 out of a possible 2 credits have been pursued.	0 of 2

Hea 04-01: Thermal comfort – Thermal modelling		
<u>One</u> credit where the following points are achieved: 1. Thermal modelling has been carried out using software in accordance with CIBSE AM11 Building Energy and Environmental Modelling. 2. The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating or cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance with CIBSE AM11). 3. The modelling demonstrates that: a. For air conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type). b. For naturally ventilated/free running buildings: - Winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type). - The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in CIBSE TM52: The limits of thermal comfort: avoiding overheating in European buildings or CIBSE TM59: Design methodology for the assessment of overheating risk in homes 4. For air conditioned buildings, the PMV (predicted mean vote) and PPD (predicted percentage of dissatisfied) indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.	It was confirmed in a meeting on 17/06/21 that thermal modelling was not going to be undertaken due to the fact that the scheme was not required to achieve a 'Very Good' rating. It was confirmed in an email on 08/10/21 that the 'Very Good' rating was required and that the extra credits that had been pursued on previous schemes should be included in order to increase the score to the required level. This credit is therefore now being pursued. As this is a 'simple buildings' assessment, there is no requirement for thermal modelling to be dynamic; However, to meet the credit requirements, the software used should be selected / applied in accordance with CIBSE AM11. 1 out of a possible 1 credit has been pursued.	1 of 1

Hea 04-02: Thermal comfort – Design for Future Thermal Comfort		
<u>One</u> credit where the following points are achieved: 1. The requirements of credit Hea 04-01 are achieved. 2. The thermal modelling demonstrates that the relevant requirements set out in criteria 3 of credit Hea 04-01 are achieved for a projected climate change environment, based on the following CIBSE Test Reference Year information. a. <u>Free Running Buildings</u>: - Time period: 2050s - Emissions scenario: Medium (A1B) b. <u>Mechanically Ventilated or Mixed Mode Buildings</u> - Time period: 2020s - Emissions scenario: Medium (A1B). 3. Where thermal comfort criteria are not met for the projected climate change environment, the project team demonstrates how the building has been adapted, or designed to be easily adapted in future using passive design solutions in order to subsequently meet the requirements under criterion 2. 4. For air conditioned buildings, the PMV and PPD indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.	It was confirmed in a meeting on 17/06/21 that thermal modelling was not going to be undertaken due to the fact that the scheme was not required to achieve a 'Very Good' rating. It was confirmed in an email on 08/10/21 that the 'Very Good' rating was required and that the extra credits that had been pursued on previous schemes should be included in order to increase the score to the required level. This credit is therefore now being pursued. To achieve this credit, the thermal model developed for Hea 04-01 (if pursued) would need to be re-run with the appropriate future weather data and meet the thermal comfort requirements detailed in the credit criteria. 1 out of a possible 1 credit has been pursued.	1 of 1
Hea 04-03: Thermal comfort – Thermal Zoning and Controls		
<u>One</u> credit where the following points are achieved: 1. The requirements of credit Hea 04-01 are achieved. 2. The thermal modelling analysis (see Hea 03-01) has informed the temperature control strategy for the building and its users. 3. The strategy for proposed heating/cooling system(s) demonstrates that it has addressed the following: a. Zones within the building and how the building services could efficiently and appropriately heat or cool these areas. (e.g. consider the different requirements for the central core and external perimeter) b. The degree of occupant control required for these zones, based on	To achieve this credit, the thermal modelling requirements of Hea 04-01 are required to have been achieved. It was confirmed in an email on 08/10/21 that the 'Very Good' rating was required and that therefore the additional credits (including Hea 04-01) would now be pursued. The zoning and control requirements will be achieved (TRV's to office radiators etc.) 1 out of a possible 1 credit has been pursued.	1 of 1

discussions with the end user (or alternatively building type or use specific design guidance, case studies, feedback) considers: - User knowledge of building services - Occupancy type, patterns and room functions (and therefore appropriate level of control required) - How the user is likely to operate or interact with the system(s), e.g. are they likely to open windows, access thermostatic radiator valves (TRV) on radiators, change air-conditioning settings etc., - The user expectations (this may differ in the summer and winter) and degree of individual control (i.e. obtaining the balance between occupant preferences, for example some occupants like fresh air and others dislike drafts). c. How the proposed systems will interact with each other (where there is more than one system) and how this may affect the thermal comfort of the building occupants. d. The need or otherwise for an accessible building user actuated manual override for any automatic systems.		
Hea 05: Acoustic Performance		
1. <u>Up to Three credits</u> are awarded where the building meets the appropriate acoustic performance standards and testing requirements, as detailed on Information Sheet Hea 05. These tables define criteria for the acoustic principles of: a. Sound insulation b. Indoor ambient noise level c. Room acoustics. OR A suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements for all function areas in the building. The bespoke performance requirements use the three acoustic principles defined in criterion Hea 05 Acoustic performance - Criterion 1 above, setting out the performance requirements for each and the testing regime required. Further information can be found on Information Sheet Hea 05.	It was confirmed in a meeting on 17/06/21 that, as it stands, there were no plans to appoint an acoustic consultant to undertake a BREEAM compliant acoustic assessment and pre-completion testing due to the fact that the scheme was not required to achieve a 'Very Good' rating. It was confirmed in an email on 08/10/21 that the 'Very Good' rating was required and that the extra credits that had been pursued on previous schemes should be included in order to increase the score to the required level. This credit is therefore now being pursued. 3 out of a possible 3 credits have been pursued.	3 of 3

Hea 06: Security		
<u>One</u> credit where the following points are achieved: 1. A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent). The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development . 2. The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA. 3. The controls and recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS.	It was confirmed in a meeting on 17/06/21 that the requirement to consult with a suitably qualified security consultant and have a security needs assessment developed for the site at Stage 2 had not been met. 0 out of a possible 1 credit has been pursued	0 of 1
Hea 07-01: Safe and Healthy Surroundings – Safe Access		
<u>One</u> credit where the following points are achieved: 1. Where external site areas form part of the assessed development the following apply: a. Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to offsite cycle paths where applicable. b. Dedicated and safe footpaths are provided on and around the site providing suitable links for the following: i. The site entrance to the building entrance, ii. Car parks (where present) to the building entrance iii. The building to outdoor space iv. Connecting to off-site paths where applicable. c. Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths. Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply: d. Delivery areas are not accessed through general parking areas and do not cross or share the following: i. pedestrian and cyclist paths ii. outside amenity areas accessible to building users and general public.	It was confirmed in the meeting on 17/06/21 that the site layout and proposed type of building does not meet the requirements of this credit issue. 0 out of a possible 1 credit has been pursued	0 of 1

e. There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking. f. Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting.		
Hea 07-02: Safe and Healthy Surroundings – Outside Space		
<u>One</u> credit where the following points are achieved: 1. There is an outside space providing building users with an external amenity area. a. The space is of an appropriate size to provide enough amenity for the predicted number of building users during coffee or lunch breaks to gather, socialise, relax and connect with the natural environment. b. The space is predominantly intended for building staff, but can be used by other building users where relevant and beneficial to the building users. The outside space must: • Be an outdoor landscaped area, for example a garden, balcony or terrace; the majority of the space should be open to the sky • Have appropriate seating areas and be non-smoking, • Be located to ensure it is accessible to all building users and avoids areas that will have disturbances from sources of noise (e.g. building services, car parks, busy roads, delivery areas etc.)	It was confirmed in the meeting on 17/06/21 that the credit for outside space could be achieved if an appropriate area was included in the landscaping area located to the southern end of the site. 1 out of a possible 1 credit has been pursued.	1 of 1

Credit Details:	Justification:	Credits Taken
Energy		
Ene 01-01: Reduction of Energy Use and Carbon Emissions – Energy Performance		
Up to nine credits are available based on the basis of the buildings performance under BREEAM Calculation for the Energy Performance Ratio for New Constructions (EPR_{NC}) which is compared against benchmarks in Table 6.1 of the BREEAM Requirements. The EPR_{NC} is calculated on the basis of the buildings EPC assessment and associated BRUKL output report. The EPR_{NC} is calculated based on the following values: - Building floor area (m²) - Notional Building Energy Demand (MJ/m²) - Actual Building Energy Demand (MJ/m²) - Notional Building Energy Consumption (kWh/m²) - Actual Building Energy Consumption (kWh/m²) - Target Emission Rate (kgCO₂/m²) - Building Emission Rate (kgCO₂/m²) All of the above information should be available on the BRUKL output document generated to demonstrate Part L Compliance.	It was confirmed in a meeting on 17/06/21 that BRUKL outputs are still to be completed for the scheme. It was assumed that, based on previous similar schemes that, with gas boilers and the requirement for 10% renewables, it should be possible to achieve at least 4 credits under this issue. . 4 out of a possible 9 credits have been pursued.	4 of 9
Ene 02-01: Energy monitoring - Sub-Metering of End-use Categories		
<u>One</u> credit where the following points are achieved: - Energy metering systems are installed that enable at least 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems. - Energy consumption is metered according to the total useful floor area: - If the area is greater than 1,000 m², by end-use category with an appropriate energy monitoring and management system. - If the area is less than 1,000 m², use either: - An energy monitoring and management system OR - Separate accessible energy sub-meters with pulsed or other open protocol communication outputs, for future connection to an energy monitoring and management system - Building users can identify the energy consuming end uses, for example through labelling or data outputs.	It was confirmed in a meeting on 17/06/21 that the units will be sub-metered on a floorplate basis in the office areas and in the operational area. It was also confirmed that sub-meters would be included on the supplies that require sub-metering in order to ensure that over 90% of end uses are directly sub-metered in accordance with CIBSE TM39. 1 out of a possible 1 credit has been pursued.	1 of 1

Ene 02-02: Energy monitoring - Sub-Metering of High Energy load and Tenancy Areas		
One credit where a significant majority of the energy supply is monitored with: 1. An accessible energy monitoring and management system for: a. Tenanted areas b. Relevant function areas/departments in single occupancy buildings. OR 2. Separate accessible energy sub-meters with pulsed or other open protocol communication outputs for future connection to an energy monitoring and management system for: a. Tenanted areas b. Relevant function areas/departments in single occupancy buildings. 3. Sub-meter per floor plate in large single occupancy or single-tenancy buildings with one homogeneous function, for example hotel bedrooms.	It was confirmed in a meeting on 17/06/21 that that the units will be sub-metered on a floorplate basis in the office areas and in the operational area. It was also confirmed that sub-meters would be included on the supplies that require sub-metering in order to ensure that over 90% of end uses are directly sub-metered in accordance with CIBSE TM39. 1 out of a possible 1 credit has been pursued.	1 of 1
Ene 03: External Lighting		
One credit where the following points are achieved: 1. No external lighting (which includes lighting on the building, at entrances and signs). OR 2. External light fittings within the construction zone with: a. Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt b. Automatic control to prevent operation during daylight hours c. Presence detection in areas of intermittent pedestrian traffic.	It was confirmed in a meeting on 17/06/21 that the requirements for external lighting (Ene 03) would be achieved by default as no external lighting is to be provided. 1 out of a possible 1 credit has been pursued.	1 of 1
Ene 04-01: Low Carbon Design – Passive Design – Passive Design Analysis		
One credit where the following points are achieved: 1. The requirements of credit Hea 04-01 are achieved (to demonstrate that the building design delivers appropriate thermal comfort levels in occupied spaces). 2. The project team carries out an analysis of the proposed building design/development to influence decisions made during Concept Design stage (RIBA Stage 2 or equivalent) and identify opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services. As a minimum, the passive design analysis should cover:	It was confirmed in a meeting on 17/06/21 that the current proposals do not allow for a PDA to be completed or require that the results are implemented. 0 out of a possible 1 credit has been pursued.	0 of 1

a. Site location b. Site weather c. Microclimate d. Building layout e. Building orientation f. Building form g. Building fabric h. Thermal mass or other fabric thermal storage i. Building occupancy type j. Daylighting strategy k. Ventilation strategy l. Adaptation to climate change. 3. Passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption are implemented in line with the passive design analysis findings. 4. The reduced total energy demand and carbon dioxide (CO₂) emissions resulting from the passive design measures are quantified.		
Ene 04-02: Low Carbon Design – Passive Design – Free Cooling		
<u>One</u> credit where the following points are achieved: 1. The requirements of credit Ene 04-01 are achieved. 2. The passive design analysis carried out under criterion 2 of Ene 04-01 includes an analysis of free cooling and identifies opportunities for the implementation of free cooling solutions. 3. Opportunities for the implementation of free cooling solutions are identified. 4. The building is naturally ventilated or uses ANY of the following free cooling strategies to reduce the cooling energy demand: a. Night time cooling b. Ground coupled air cooling c. Displacement ventilation (not linked to any active cooling system) d. Ground water cooling e. Surface water cooling f. Evaporative cooling, direct or indirect g. Desiccant dehumidification & evaporative cooling, using waste heat h. Absorption cooling, using waste heat i. The building does not require any significant form of active cooling or mechanical ventilation (i.e. naturally ventilated).	It was confirmed in a meeting on 17/06/21 that it is likely that the development will meet the free cooling requirements but, as the requirements for Passive Design Analysis (Ene 04-01) are not being pursued, this credit cannot be achieved. 0 out of a possible 1 credit has been pursued.	0 of 1

Ene 04-03: Low Carbon Design – Low and Zero Carbon Technologies - Low Zero Carbon Feasibility Study		
<u>One</u> credit where the following points are achieved: 1. An energy specialist completes a feasibility study by the end of Concept Design. 2. The most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy sources for the building or development are established based on the feasibility study. 3. Local LZC technologies are specified for the building or development in line with the feasibility study recommendations. 4. The reduced total energy demand and carbon dioxide (CO₂) emissions resulting from the feasibility study are quantified. Further information can be found on Information Sheet Ene 04-03.	It was confirmed in a meeting on 17/06/21 that an LZC feasibility will be completed for the scheme and that local LZC technologies will be specified on the scheme. 1 out of a possible 1 credit has been pursued.	1 of 1

Credit Details:	Justification:	Credits Taken
Transport		
Tra 01: Transport Assessment and Travel Plan		
<u>Two</u> credits where the following points are achieved: 1. During the feasibility and design stages, a travel plan is developed based on a site-specific travel assessment or statement. 2. The site-specific travel assessment or statement covers as a minimum: a. Existing travel patterns and opinions of existing building or site users towards cycling and walking, identifying constraints and opportunities, if relevant b. Travel patterns and transport impact of future building users c. Current local environment for walkers and cyclists (accounting for visitors who may be accompanied by young children) d. Reporting of the number and type of existing accessible amenities within 500m of the site in accordance with the Table 7.1 of the BREEAM requirements. e. Disabled access (accounting for varying levels of disability and visual impairment) f. Calculation of the existing public transport Accessibility Index (AI) g. Current facilities for cyclists 3. The travel plan includes proposals to increase or improve sustainable modes of transport and movement of people and goods during the building's operation and use, see Methodology on the next page. 4. If the occupier is known, they are involved in the development of the travel plan. 5. It is demonstrated that the travel plan will be implemented post construction and be supported by the building's management in operation.	It was confirmed in a meeting on 17/06/21 that a transport statement and travel plan will be developed for the scheme and the project team / client will implement the recommendations of the plan. 2 out of a possible 2 credits have been pursued.	2 of 2

Tra 02: Sustainable Transport Measures		
<u>Up to ten credits</u> where the following points are achieved: <u>Pre-requisite:</u> 1. The credits for Tra 01 Transport assessment and travel plan credits. <u>Up to Ten credits – Transport options implementation:</u> 2. Relevant sustainable transport measures are identified in Table 7.4 of the BREEAM requirements. 3. Credits are awarded according to the Accessible Index (AI) of the project, and the total number of points achieved for the options implemented. Further information can be found on Information Sheet Hea 05.	It was confirmed in the BREEAM meeting on 17/06/21 that 4 credits and potentially 2 extra credits can be pursued in this section. The following points from Table 7.4 were identified (1 point equals 1 credit): 1. The site has an AI of 5.71 = 0 points 2. The AI will not be increased = 0 points 3. A travel information system could be provided = 0 points 4. EV charging points could be provided for 10% of spaces = 1 point 5. A car sharing group could be set up = 1 point? 6. The LA could be consulted/measures agreed = 0 points 7. Cycle storage could be provided = 1 point 8. Cyclist facilities will be provided = 1 point 9. Existing amenities are less than 500m away = 1 point?* 10. The design includes 'Enhanced amenities' = 2 points?* 11. 11. No additional measures have been identified = 0 points <i>* <u>Existing Amenities:</u> Starbucks = food outlet, the Jet petrol station has an ATM and the Rockingham Centre = community facility. However, the ATM and community centre are 575m safe walking distance from unit 7! - These could be made compliant if a pedestrian entrance was included adjacent to the south end of the building linking the site to the footpath (i.e. reduce the distance to 420m).</i> <i>** <u>Enhanced Amenities:</u> The proposed outdoor space (Hea 07-02) would class as an outdoor open space (these points require point 9 to be achieved).</i> 4 out of a possible 10 credits have been pursued. <u>Additional Credits:</u> Up to 3 additional credits could be achieved where the additional points (highlighted in red) are achieved.	4 of 10 3 Extra Credits (If Pursued)

Credit Details:	Justification:	Credits Taken
Water		
Wat 01: Water Consumption		
<u>Up to Five Credits</u> are awarded on the basis of the specification of water efficient sanitary throughout the development. The efficiency of the following 'domestic scale' water consuming components are to be included in the calculation (where specified): - WCs: effective flush volume given in l/flush - Single flush urinals: litres / use - Cistern fed urinals: cistern capacity and flush frequency / hour - Taps: l/min, measured at a dynamic pressure of 3 bar for high pressure taps, or at a dynamic pressure of 0.1 bar for low pressure taps) - Showers: l/min, measured at the outlet using cold water ($T \leq 30^{\circ} \text{C}$), at a dynamic pressure of 3 bar for high pressure supply systems, or at a dynamic pressure of 0.1 bar for low pressure supply systems) - Baths: Litre capacity to overflow level - Dishwashers: litres/cycle for domestic applications and/or appliances or litres/rack for commercial applications and/or appliances. - Washing machine: litres/use for domestic applications and/or appliances or litres/kg for commercial applications and/or appliances - Waste disposal unit: flow rate in litres/minute. In addition to the above, the contribution from any water recycling specified to the development must be provided. The following information is required where a greywater and/or rainwater system is specified: Rainwater: in accordance with BS 8515:2009+A1:2013: Greywater: in accordance with BS 8525-1:2010 - Part 1: All the above information will be entered into the BREEAM Wat 1 Calculator which will give a water use figure in m³/person/year, based on expected occupancy levels.	It was confirmed in a meeting on 17/06/21 that without rain/grey water recycling, the development is unlikely to achieve more than 2 credits. It is important that a schedule of water consuming fittings is provided to the assessor ASAP so that this can be checked against the BREEAM requirements. 2 out of a possible 5 credits have been pursued.	2 of 5

Wat 02: Water Monitoring		
<u>One</u> credit where the following points are achieved: 1. The specification of a water meter on the mains water supply to each building; this includes instances where water is supplied via a borehole or other private source. 2. Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are either fitted with easily accessible sub-meters or have water monitoring equipment integral to the plant or area. 3. Each meter (main and sub) has a pulsed output or other open protocol communication output and is connected to an appropriate utility monitoring and management system (e.g. a BMS), for the monitoring of water consumption. If there is no BMS system in operation at Post- Construction stage, credits can be awarded provided that the system used enables connection when the BMS becomes operational 4. In buildings with swimming pools, or large water tanks and aquariums, separate sub-meters are fitted on the water supply of the above and any associated changing facilities (toilets, showers etc.) irrespective of their water consumption levels. 5. In buildings containing laboratories, a separate water meter is fitted on the water supply to any process or cooling loop for 'plumbed-in' laboratory process equipment, irrespective of their water consumption levels. Additionally for those pursuing a post occupancy stage certification: 6. The water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01 (litres/person/day), if a post occupancy stage certification is sought.	It was confirmed in the meeting on 17/06/21 that each unit will be fitted with its own open protocol water meter. Due to the small size of the office/amenity areas and limited water uses, there is no requirement for any additional sub-metering of water in these buildings. 1 out of a possible 1 credit has been pursued.	1 of 1
Wat 03-01: Water Leak Detection – Leak Detection System		
<u>One</u> credit where the following points are achieved: 1. A leak detection system which is capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter is installed. The leak detection system must be: a. A permanent automated water leak detection system that alerts the building occupants to the leak OR an in-built automated diagnostic procedure for detecting leaks is installed.	It was confirmed in a meeting on 17/06/21 that, the current proposals did not allow for leak detection systems (Wat 03-01), but that these could be included, if required. It was confirmed in an email on 08/10/21 that the 'Very Good' rating was required and that the extra credits that had been pursued on previous schemes should be included in order to increase the score to the required level. This credit is therefore	1 of 1

b. Activated when the flow of water passing through the water meter/data logger is at a flow rate above a pre-set maximum for a pre-set period of time. c. Able to identify different flow and therefore leakage rates, e.g. continuous, high and/or low level, over set time periods. d. Programmable to suit the owner/occupiers' water consumption criteria. e. Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as chillers. Where there is physically no space for a leak detection system between the utilities water meter and the building, alternative solutions can be used, provided that a major leak can still be detected.	now being pursued. 1 out of a possible 1 credits has been pursued.	
Wat 03-02: Water Leak Detection – Flow Control Devices		
<u>One</u> credit where the following points are achieved: 1. Flow control devices that regulate the water supply to each WC area or sanitary facility according to demand are installed, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework. These devices could include the following: a. A time controller i.e. an automatic time switch device to switch off the water supply after a predetermined interval b. A programmed time controller i.e. an automatic time switch device to switch water on and/or off at predetermined times. c. A volume controller i.e. an automatic control device to turn off the water supply once the maximum pre-set volume is reached. d. A presence detector and controller i.e. an automatic device detecting occupancy or movement in an area to switch water on and turn it off when the presence is removed. e. A central control unit i.e. a dedicated computer-based control unit for an overall managed water control system, utilising some or all of the types of control elements listed above.	It was confirmed in the meeting on 17/06/21 that flow control devices (PIRs connected to solenoid valves) would be installed on the water supplies to the sanitary areas within each unit. 1 out of a possible 1 credit has been pursued.	1 of 1

Credit Details:	Justification:	Credits Taken
Materials		
Mat 01-01 : - Building Life Cycle Assessment (LCA) - – Superstructure		
Up to 6 Credits can be achieved. Credits are awarded based on the design of the building fabric and the stage at which the design options are considered. <u>Superstructure</u> (offices, industrial and retail buildings) : - During the Concept Design, the environmental performance of the building is demonstrated as follows: - A building LCA on of the superstructure design is carried out using either the BREEAM Simplified Building LCA tool or an IMPACT Compliant LCA tool according to the methodology - The Mat 01/02 Results Submission Tool is submitted to BRE at the end of Concept Design, and before planning permission is applied for. <u>Comparison with the BREEAM benchmark during Technical Design:</u> - During Technical Design, demonstrate the environmental performance of the building as follows: - As criterion 1a - Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design. Where a project has not achieved criterion 1, criterion 2 may still be achieved. <u>Option appraisal during Concept Design (all building types)</u> - For offices, industrial and retail building types, achieve criterion 1 apply. - During Concept Design, identify opportunities for reducing environmental impacts as follows: - Carry out building LCA options appraisal of 2 to 4 significantly different superstructure design options (applicable to the Concept Design stage). - Use a building LCA tool that is recognised by BREEAM (as suitable for assessing superstructure during Concept Design) according to the methodology - For each design option, fulfil the same functional requirements specified by the client and all statutory requirements. - Integrate the LCA options appraisal activity within the wider design decision-making process. Record this in an options appraisal	It was confirmed in a meeting on 17/06/21 that these credits were not being pursued. To perform well under this issue, the relevant calculations / information etc would need to have been provided to the BRE in advance of the application for planning permission being submitted. In addition, it is unlikely that the scheme would perform well without the appointment of a specialist consultant. 0 out of a possible 6 credits have been pursued.	0 of 6

summary document. e. Record the following in the Mat 01/02 Results Submission Tool: The differences between the design options; the design option selected by the client to be progressed beyond Concept Design; the reasons for selecting it and the reasons for not selecting the other options. f. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, and before planning permission is applied for. <u>Options appraisal during Technical Design</u> (all building types): 5. During Technical Design identify opportunities for reducing environmental impacts as follows: a. Carry out building LCA options appraisal of 2 to 3 significantly different superstructure design options (based on the selected Concept Design option and as applicable to the Technical Design stage) b. Use a building LCA tool that is recognised by BREEAM (as suitable for assessing superstructure during Technical Design) according to the methodology c. As criteria 4.c to 4.e above. Where an options appraisal summary document was produced during Concept Design, update it to include the Technical Design options. d. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design. Where a project hasn't achieved criteria 3 or 4, criterion 5 may still be achieved.		
Mat 01-02 : - Building Life Cycle Assessment (LCA) - – Substructure and Hard Landscaping Options Appraisal		
<u>One</u> credit where the following points are achieved: 1. Criteria 3 and 4 of Mat 01-01 are achieved. 2. During Concept Design identify opportunities for reducing environmental impacts as follows: a. Carry out building LCA options appraisal of a combined total of at least six significantly different substructure or hard landscaping design options (at least two shall be substructure and at least two shall be hard landscaping). b. Using a building LCA tool that is recognised by BREEAM (as suitable for assessing substructure and hard landscaping during Concept Design) according to the methodology. c. As criteria 4.c to 4.f above	It was confirmed in a meeting on 17/06/21 that these credits were not being pursued. This credit is linked to Mat 01-01 and cannot be achieved without a specialist consultant being appointed to undertake an IMPACT compliant LCA. 0 out of a possible 6 credits have been pursued.	0 of 1

Mat 02: Specification of Products with a Recognised Environmental Product Declaration (EPD)		
<u>One</u> credit where the following points are achieved: 1. Construction products with EPD are specified that achieve a total EPD points score of at least 20, according to the Methodology detailed in the BREEAM criteria. 2. Details of each EPD are entered into the Mat 01/02 Results Submission Tool, including the material category classification. The Mat 01/02 Results Submission Tool will verify the EPD points score and credit award.	It was confirmed in a meeting on 17/06/21 that this credit would be pursued and that the contractor would implement the relevant measures. 1 out of a possible 1 credit has been pursued.	1 of 1
Mat 03-Pre-requisite: Responsible Sourcing of Construction Products – Pre-requisite		
<u>The Pre-Requisite</u> requires the following point to be achieved: 1. All timber and timber based products used on the project is 'Legally harvested and traded timber'. BREEAM's defines legally sourced timber/wood-derived products as those that originate from a forest where the following criteria are met: a. The forest owner/manager holds legal use rights to the forest. b. There is compliance by both the forest management organisation and any contractors with local and national legal criteria including those relevant to: - Forest management - Environment - Labour and welfare - Health and safety - Other parties' tenure and use rights - All relevant royalties and taxes are paid. c. There is full compliance with the criteria of CITES.	It was confirmed in the meeting on 17/06/21 that the pre-requisite will be achieved (see Man 03). The pre-requisite has been pursued	Pre-Requisite

Mat 03-01: Responsible Sourcing of Construction Products – Sustainable Procurement Plan		
<u>One</u> credit where the following points are achieved: - A sustainable procurement plan is used by the design team to guide specification towards sustainable construction products. The plan must: - Be in place before Concept Design. - Include sustainability aims, objectives and strategic targets to guide procurement activities. - Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. - Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan. - In addition, if the plan is applied to several sites or adopted at an organisational level it must: - Identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues following the process set out in BS ISO 20400:2017.	It was confirmed in the meeting on 17/06/21 that the requirements for enabling sustainable procurement would be achieved. 1 out of a possible 1 credit has been pursued.	1 of 1
Mat 03-02: Responsible Sourcing of Construction Products – Measuring Responsible Sourcing		
<u>Up to three Credits</u> are available in this section on the basis of specifying responsibly sourced materials for the main building elements. The elements assessed in this section are as follows: - Structural Frame - Ground Floor - Upper Floors - Roof - External Walls - Internal Walls - Foundation / Sub-structure - Fittings (i.e. staircases / windows / doors / floor finishes etc. - Hard landscaping The Mat 03 calculator tool is used to determine the number of credits achieved for the construction products specified or procured. Credits are awarded in proportion to the number of points achieved A full schedule of all the appropriate Environmental Management Systems that can be used to demonstrate responsible sourcing can be found in on Information Sheet Mat 03.	It was confirmed in the meeting on 17/06/21 that the requirements for measuring responsible sourcing could be achieved. It was confirmed that the contractor will be required to select and purchase at least 25% of materials from suppliers with verifiable responsible sourcing certification. It was also confirmed that it might be possible to achieve more than 1 credit for Mat 03-02. 1 out of a possible 3 credits has been pursued. <u>Additional Credit:</u> <i>Up to 1 additional credit could be achieved where a higher proportion of the materials are purchased from suppliers with verifiable responsible sourcing certification.</i>	1 of 3 1 Extra Credit (If Pursued)

Mat 05-01: Designing for Durability and Resilience		
<u>One credit</u> where the following points are achieved: <u>Protecting vulnerable parts of the building from damage</u> 1. Protection measures are incorporated into the building's design and construction to reduce damage to the building's fabric or materials in case of accidental or malicious damage occurring. These measures must provide protection against: a. Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.). b. Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. c. External building fabric damage by a vehicle. Protection where parking or manoeuvring areas are within 1 metre of the building façade and where delivery areas or routes are within 2 metres of the façade, i.e. specifying bollards or protection rails. d. Potential malicious damage to building materials and finishes, in public and common areas where appropriate. <u>Protecting exposed parts of the building from material degradation</u> 2. Key exposed building elements have been designed and specified to limit long and short term degradation due to environmental factors. This can be demonstrated through one of the following: a. The element or product achieving an appropriate quality or durability standard or design guide. OR b. A detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors. 3. Include convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's design. 4. Design the roof and façade to prevent water damage, ingress and detrimental ponding.	It was confirmed a meeting on 17/06/21 that the requirements for robustness and the requirements for materials degradation could be achieved. To meet the requirements, the project team will need to undertake a materials degradation study and implement the recommendations. In addition, the scheme will need to be reviewed and, where appropriate, robustness measures included to any high risk areas. 1 out of a possible 1 credit has been pursued.	1 of 1

Mat 06: Material Efficiency		
<u>One</u> credit where the following points are achieved: - At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials. These must be done for each of the following stages. - Preparation and Brief - Concept Design - Developed Design - Technical Design - Construction - Develop and record the implementation of material efficiency during: - Developed Design - Technical Design - Construction - Report the targets and actual material efficiencies achieved.	It was confirmed in the meeting on 17/06/21 that this credit is not currently being pursued. 0 out of a possible 1 credit has been pursued.	0 of 1

Credit Details:	Justification:	Credits Taken
Waste		
Wst 01-01: Construction Waste Management – Pre-demolition Audit		
<u>One credit</u> where the following points are achieved: 1. A pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition is completed. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications. The audit must cover the content of Pre-demolition audit scope on the facing page and: a. Be carried out at Concept Design stage (RIBA Stage 2) by a competent person prior to strip-out or demolition works b. Guide the design, consider materials for reuse and set targets for waste management c. Engage all contractors in the process of maximising high grade reuse and recycling opportunities d. Compare actual waste arisings with those forecast and investigate significant deviations from planned targets. 2. Make reference to the audit in the resource management plan (RMP)	This credit is not applicable to this assessment as the development is being constructed on a greenfield site which does not contain any pre-existing structures or buildings.	Credit Not Applicable
Wst 01-02: Construction Waste Management – Construction Resource Efficiency (Simple Buildings)		
<u>1 Credit</u> where the following points are achieved: 1. A Resource Management Plan* (RMP) has been developed covering the non-hazardous waste related to on-site construction and dedicated off-site manufacture or fabrication (including demolition and excavation waste) generated by the building's design and construction. The Resource Management Plan (RMP) should contain the following: a. Procedures and commitments for minimising non-hazardous waste in line with the benchmark b. Procedures for minimising hazardous waste c. Procedures for estimating, monitoring, measuring and reporting hazardous and non-hazardous site waste. d. Procedures for sorting, reusing/recycling construction waste into defined groups either on-site or using a licensed external contractor. e. Procedures for reviewing and updating the plan f. The name or job title of the individual responsible for implementing the above.	It was confirmed in the meeting on 17/06/21 that the main contractor will be required to develop and implement a BREEAM compliant Resource Management Plan. 1 out of a possible 1 credit has been pursued.	1 of 1

Wst 01-03: Construction Waste Management – RMP measurements and reporting (Simple Buildings)																											
<u>Two</u> credits where the following points are achieved: 1. A resource management plan (RMP) is developed in accordance with Wst 01-02. 2. The waste management procedures detailed in the RMP are implemented and measure and report: a. Construction waste generated by the project in m³ or tonnes per 100m² gross internal floor area, excluding demolition and excavation waste. b. The proportion of construction waste diverted from landfill, i.e. reused, recycled or recovered.		It was confirmed in the meeting on 17/06/21 that the main contractor will be required to develop and implement a BREEAM compliant Resource Management Plan and that volume/tonnage of construction, demolition and excavation waste is measured and reported. 2 out of a possible 2 credits have been pursued.	2 of 2																								
Wst 01-04: Construction Waste Management – RMP measurements and reporting (Simple Buildings)																											
<u>One</u> credit where the following points are achieved: 1. The following percentages of non-hazardous construction (on-site and off-site manufacture/fabrication in a dedicated facility), demolition and excavation waste (where applicable) generated by the project have been diverted from landfill: <table border="1"> <thead> <tr> <th>No. of Credits</th><th>Type of Waste</th><th>% Volume</th><th>% Tonnage</th></tr> </thead> <tbody> <tr> <td rowspan="3">1</td><td>Demolition</td><td>70%</td><td>80%</td></tr> <tr> <td>Non-Demolition</td><td>80%</td><td>90%</td></tr> <tr> <td>Excavation</td><td>N/A</td><td>N/A</td></tr> <tr> <td rowspan="3">Exemplary</td><td>Demolition</td><td>85%</td><td>90%</td></tr> <tr> <td>Non-Demolition</td><td>85%</td><td>95%</td></tr> <tr> <td>Excavation</td><td>95%</td><td>95%</td></tr> </tbody> </table> 2. In addition, it must be demonstrated that waste materials will be sorted into separate key waste groups (according to the waste streams generated by the scope of the works) either onsite or offsite through a licensed contractor for recovery.		No. of Credits	Type of Waste	% Volume	% Tonnage	1	Demolition	70%	80%	Non-Demolition	80%	90%	Excavation	N/A	N/A	Exemplary	Demolition	85%	90%	Non-Demolition	85%	95%	Excavation	95%	95%	It was confirmed in the meeting on 17/06/21 that the main contractor will be required to develop and implement a BREEAM compliant Resource Management Plan and to measure and report the proportion of waste being diverted from landfill (including details of how it has been reused, recycled or otherwise recovered). 1 out of a possible 1 credit has been pursued.	1 of 1
No. of Credits	Type of Waste	% Volume	% Tonnage																								
1	Demolition	70%	80%																								
	Non-Demolition	80%	90%																								
	Excavation	N/A	N/A																								
Exemplary	Demolition	85%	90%																								
	Non-Demolition	85%	95%																								
	Excavation	95%	95%																								

Wst 02: Use of Recycled and Sustainably Sourced Aggregates		
<u>One credit</u> where the following points are achieved: <u>Pre-requisite</u> 1. If demolition occurs on site, to encourage the reuse of site-won material on site, complete a pre-demolition audit of any existing buildings, structures or hard surfaces must be undertaken in accordance with Wst 01-01 <u>One credit - Project Sustainable Aggregate Points:</u> 1. All aggregate uses and types used on the project are identified 2. The quantity in tonnes for each identified use and aggregate type are determined. 3. The region in which the aggregate source is located is identified. 4. The distance in kilometres travelled by all aggregates by transport type is calculated. 5. The information is entered into the BREEAM Wst 02 calculator to calculate the Project Sustainable Aggregate points. 6. The corresponding number of BREEAM credits will be awarded		
	It was confirmed in the meeting on 17/06/21 that the requirements for using recycled and sustainably sourced aggregate could potentially be achieved. It was confirmed that this issue would be looked into. It was confirmed in an email on 08/10/21 that the 'Very Good' rating was required and that the extra credits that had been pursued on previous schemes should be included in order to increase the score to the required level. This credit is therefore now being pursued. 1 out of a possible 1 credit has been pursued.	1 of 1
Wst 03: Operational Waste		
<u>One credit</u> where the following points are achieved: 1. Dedicated space(s) is provided for the segregation and storage of operational recyclable waste volumes generated by the assessed building/unit, its occupant(s) and activities. This space must be: a. Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams b. Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors c. Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily/weekly operational activities and occupancy rates. As a minimum, the recyclable waste storage area should be at least 2m² per 1000m² of net floor area for buildings < 5000m² with an additional 2m per 1000m² of net floor area where catering is provided. 2. Where a consistent generation in volume of the appropriate operational waste streams is likely to exist, e.g. large amounts of packaging or compostable waste generated by the building's use and operation, additional facilities should be provided (see assessor for details).		
	It was confirmed a meeting on 17/06/21 that each unit has a waste storage area and that these would include an appropriately sized area for the storage of recyclable waste. 1 out of a possible 1 credit has been pursued.	1 of 1

Wst 05: Adaptation to Climate Change		
<u>One</u> credit where the following points are achieved: 1. Conduct a climate change adaptation strategy appraisal for structural and fabric resilience by the end of Concept Design (RIBA Stage 2 or equivalent), in accordance with the following approach: a. Carry out a systematic (structural and fabric resilience specific) risk assessment to identify and evaluate the impact on the building over its projected life cycle from expected extreme weather conditions arising from climate change and, where feasible, mitigate against these impacts. The assessment should cover the following stages: - Hazard identification - Hazard assessment - Risk estimation - Risk evaluation - Risk management 2. Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact. 3. Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing by the assessor.	It was confirmed in the meeting on 17/06/21 that the credit for adaption to climate change is unlikely to be achieved on this project. 0 out of a possible 1 credit has been pursued.	0 of 1
Wst 06-01: Design for Disassembly and Adaptability - Recommendations		
<u>One</u> credit where the following points are achieved: 1. A study is conducted to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design. 2. The recommendations or solutions based on the study are developed during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation.	It was confirmed in the meeting on 17/06/21 that disassembly and adaptability would be considered and the appropriate studies would be undertaken. The assessor can provide templates to help with this issue. 1 out of a possible 1 credit has been pursued.	1 of 1

Wst 06-02: Design for Disassembly and Adaptability - Implementation		
One credit where the following points are achieved: <u>Credit Wst 06-01 is achieved.</u> 1. An update is provided, during Technical Design, on: a. How the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing to the assessor. b. Changes to the recommendations and solutions during the development of the Technical Design. 2. A building adaptability and disassembly guide is produced to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.	It was confirmed in the meeting on 17/06/21 that disassembly and adaptability would be considered and the appropriate studies would be undertaken. The assessor can provide a template to help with the disassembly and the functional adaptability aspects of the credit. 1 out of a possible 1 credit has been pursued.	1 of 1

Credit Details:	Justification:	Credits Taken
Land Use & Ecology		
LE 01-01: Site Selection – Previously Occupied Land		
<u>One</u> credit where the following points are achieved: At least 75% of the proposed development's footprint is on an area of land which has previously been occupied by industrial, commercial or domestic buildings or fixed surface infrastructure.	It was confirmed in the meeting on 17/06/21 that the development is being constructed on a previously undeveloped site and is therefore unable to achieve this credit. 0 out of a possible 1 credit has been pursued.	0 of 1
LE 01-02: Site Selection – Contaminated Land		
<u>One</u> credit where the following points are achieved: - A contaminated land specialist's site investigation, risk assessment and appraisal has deemed land within the site to be affected by contamination. The site investigation, risk assessment and appraisal have identified: - The degree of contamination - The contaminant sources/types - The options for remediating sources of pollution which present an unacceptable risk to the site. - The client or principal contractor confirms that remediation of the site will be carried out in accordance with the remediation strategy and its implementation plan.	It was confirmed in the meeting on 17/06/21 that the development is being constructed on what is assumed to be an uncontaminated site and is therefore unlikely to achieve these credits. 0 out of a possible 1 credit has been pursued.	0 of 1
LE 02-01: Identifying and Understanding the Risks and Opportunities for the Project		
<u>Up to Two</u> credits where the following points are achieved: <u>Pre- requisite - Assessment Route Selection</u> - An assessment route for the project has been determined using BREEAM Guidance Note GN34 BREEAM Ecological Risk Evaluation Checklist. - The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. <u>Survey and Evaluation</u> <u>Route 1:</u> The BREEAM Ecological Risk Evaluation Checklist is completed (For sites with limited ecological opportunities and risks).	It was confirmed in a meeting on 17/06/21 that Weddles would be appointed to provide the relevant ecological support for the scheme. At this stage it has been estimated that 2 credits will be achieved in this section.. 2 out of a possible 2 credits have been pursued.	2 of 2

4. <u>Route 2</u>: An appropriate individual is appointed at a project stage that ensures early involvement in site configuration and, where necessary, can influence strategic planning decisions. Prior to the completion of the preparation and brief, an appropriate level of survey and evaluation has been carried out to determine the ecological baseline of the site, taking account of the zone of influence to establish: i. Current and potential ecological value and condition of the site, and related areas within the zone of influence. ii. Direct and indirect risks to current ecological value iii. Capacity and feasibility for enhancement of the ecological value of the site and, where relevant, areas within the zone of influence. Data are collated and shared with project team to inform the site preparation, design or construction works <u>Determining the ecological outcomes for the site (Routes 1 and 2)</u> 1. Survey and evaluation criteria (criteria 3–6 above) relevant to the chosen route have been achieved. 2. During Concept Design, the project team liaise and collaborate with representative stakeholders to identify and consider ecological outcome for the sites (appropriate to the scale and type of development) for the project. 3. When determining the ecological outcome for the site, this must involve the identification, appraisal and selection of specific solutions and measures sufficiently early to influence key project planning decisions. This must be done in accordance with the following hierarchy of action: a. avoidance b. protection c. reduction or limitation of negative impacts d. on site compensation and, e. enhancement, considering the capacity and feasibility within the site, or where viable, off-site. 4. Following this the optimal ecological outcome for the site is selected after liaising with representative stakeholders and the project team.		
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LE 03-01: Managing Negative Impacts on Ecology - Planning, Liaison, Implementation and Data		
<u>One credit</u> where the following points are achieved: <u>Pre-requisite – Identification/understanding the risks/opportunities for the site</u> 1. Credit LE 02 has been achieved. 2. The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the sites ecology. <u>Planning, liaison, implementation and data</u> 1. Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes at an early enough stage to influence the concept design or design brief. 2. Site preparation and construction works have been planned for and are implemented at an early project stage to optimise benefits and outputs. 3. The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented solutions, and measures have been selected, during site preparation and construction works.	It was confirmed in a meeting on 17/06/21 that Weddles would be appointed to provide the relevant ecological support for the scheme. At this stage it has been estimated that 1 credit will be achieved in this section. 1 out of a possible 1 credit has been pursued.	1 of 1
LE 03-02: Managing Negative Impacts on Ecology - Managing Negative Impacts of the Project		
<u>Up to Two credits</u> where the following points are achieved: <u>Pre-requisite – Identification/understanding the risks/opportunities for the site</u> 1. Credit LE 02 has been achieved. 2. The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the sites ecology. <u>Managing Negative Impacts of the Project:</u> 1. <u>Route 1 (one credit):</u> Negative impacts from site preparation and construction works have been managed according to the hierarchy and no net impact has resulted. 2. <u>Route 2 (up to two credits):</u> Negative impacts from site preparation and construction works have been managed according to the hierarchy and either: a. No overall loss of ecological value has occurred (2 credits) OR b. The loss of ecological value has been limited as far as possible (1 credit)	It was confirmed in a meeting on 17/06/21 that Weddles would be appointed to provide the relevant ecological support for the scheme. At this stage it has been estimated that 1 credits will be achieved in this section. 1 out of a possible 1 credit has been pursued.	1 of 2

LE 04-01: Change and Enhancement of Ecological Value – Enhancement of Ecology / Liaison, Implementation and Data Collation		
<u>One credit</u> where the following points are achieved: <u>Pre-requisite – Identifying and understanding the risks and opportunities for the project</u> 1. Credit LE 03 has been achieved Including the following, specific to the aims of this issue: a. Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes b. Site preparation and construction works have been planned for and implemented at a stage that is sufficiently early in the project to optimise benefits and outputs. 2. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. <u>One credit - Enhancement of ecology</u> 3. <u>Route 1:</u> The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented solutions and measures based on recommendations from recognised 'local' ecological expertise, specialist input and guidance to inform the adoption of locally relevant ecological solutions and measures which enhance the site. Data collated is provided to the local environmental records centres nearest to, or relevant for, the site. OR <u>One credit - Liaison, implementation and data collation</u> 4. <u>Route 2:</u> The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented the solutions and measures selected in a way that enhances ecological value in the following order: a. On site, and where this is not feasible, b. Off site within the zone of influence.	It was confirmed in a meeting on 17/06/21 that Weddles would be appointed to provide the relevant ecological support for the scheme. At this stage it has been estimated that 1 credit will be achieved in this section. 1 out of a possible 1 credit has been pursued.	1 of 1

LE 04-02: Change and Enhancement of Ecological Value – Enhancement of Ecology		
<u>Up to Three</u> credits where the following points are achieved: <u>Route 2:</u> 1. 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 either BREEAM GN 35 or BREEAM GN 36	It was confirmed in a meeting on 17/06/21 that Weddles would be appointed to provide the relevant ecological support for the scheme. At this stage it has been estimated that no credits will be achieved in this section. 0 out of a possible 2 credits has been pursued.	0 of 2
LE 05-01: Long Term Ecology Management and Maintenance - Planning, Liaison, Data, Monitoring and Review Management and Maintenance		
<u>One</u> credit where the following points are achieved: <u>Pre-requisite - Roles and responsibilities, implementation, statutory obligations:</u> 1. The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. 2. Where pursued, LE 04 has been achieved, including the following specific aims of this issue: a. Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes. b. Site preparation and construction works have been planned for and implemented at a stage that is sufficiently early in the project to optimise benefits and output <u>Planning, liaison, data, monitoring and review management and maintenance:</u> 1. The project team liaise and collaborate with representative stakeholders, taking into consideration data collated and shared, on solutions and measures implemented to: a. Monitor and review implementation and the effectiveness b. Develop and review management and maintenance solutions, actions or measures. 2. In support of the above and to help ensure their continued relevance over the period of the project the following should be considered: a. Monitoring and reporting of on the ecological outcomes for site implemented at the design and construction stage b. Monitoring and reporting of outcomes and successes from the project c. Arrangements for the ongoing management of landscape and habitat connected to the project (on and, where relevant, off site)	It was confirmed in a meeting on 17/06/21 that Weddles would be appointed to provide the relevant ecological support for the scheme. At this stage it has been estimated that 1 credit will be achieved in this section. 1 out of a possible 1 credit has been pursued.	1 of 1

d. Maintaining the ecological value of the site and its relationship or connection to its zone of influence e. Maintaining the site in line with the any sustainability linked activities, f. Remedial or other management actions are carried out which relate to those identified in LE 02, LE 03 and LE 04. 3. As part of the tenant or building owner information supplied, include a section on Ecology and Biodiversity to inform the owner or occupant of local ecological features, value and biodiversity on or near the site.		
LE 05-02: Long Term Ecology Management and Maintenance - Landscape and Ecology Management plan (or similar) Development		
<u>One credit</u> where the following points are achieved: <u>Pre-requisite - Roles and responsibilities, implementation, statutory obligations:</u> 1. The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. 2. Where pursued, LE 04 has been achieved, including the following specific aims of this issue: a. Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes. b. Site preparation and construction works have been planned for and implemented at a stage that is sufficiently early in the project to optimise benefits and output <u>Landscape and ecology management plan (or similar) development:</u> 3. Landscape and ecology management plan, or similar, is developed in accordance with BS 42020:2013 covering as a minimum the first five years after project completion and includes: a. Actions and responsibilities, prior to handover, to give to relevant individuals b. The ecological value & condition of the site over the development life. c. Identification of opportunities for ongoing alignment with activities external to the development project and which supports the aims of BREEAM's Strategic Ecology Framework d. Identification and guidance s to trigger appropriate remedial actions to address previously unforeseen impacts e. Clearly defined and allocated roles and responsibilities. 4. The landscape and management plan or similar is updated as appropriate to support maintenance of the ecological value of the site.	It was confirmed in a meeting on 17/06/21 that Weddles would be appointed to provide the relevant ecological support for the scheme. At this stage it has been estimated that 1 credit will be achieved in this section. 1 out of a possible 1 credit has been pursued.	1 of 1

Credit Details:	Justification:	Credits Taken
Pollution		
Pol 02 – Local Air Quality		
<u>Up to Two</u> credits can be awarded as follows: 1. All heating and hot water is supplied by non-combustion systems. For example, only powered by electricity. OR 2. Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Table 12.4 and Table 12.5 of the BREEAM guidance. The measurements must be provided by manufacturers, following the labelling requirements of the European directive 2009/125/EC. No credits can be awarded for Pol 02 if any of the combustion appliances are not covered in by the BREEAM requirements.	It was confirmed in a meeting on 17/06/21 that the buildings would have gas boilers to the office areas. Because of this, it is unlikely that the credit for air quality will be achieved. Since the meeting, it has been confirmed that a BREEAM rating of 'Very Good' might be required and, in that case, additional credits might be required. The assessor commented that, on a similar scheme the gas boilers were switched for electric panel heating and & instantaneous electric water heaters and that whilst this had a small impact on the BRUKL, this was more than offset by achieving these credits. 0 out of a possible 2 credits has been pursued. <u>Additional Credit:</u> Up to 2 additional credits could be achieved where the heating/hot water systems are changed to direct electric (<u>Note</u> this cannot be ASHP as this will affect how the scheme will be assessed).	0 of 2 2 Extra Credits (If Pursued)
Pol 03-01: Surface Water Run – Flood Risk		
<u>Up to Two</u> credits are available depending on where the development is situated in terms of flood zone and the annual probability of flooding. 1. This must be confirmed by a site specific Flood Risk Assessment (FRA), to demonstrate the risk of flooding (as defined by PPS25) from all relevant sources.	It was confirmed in the meeting on 17/06/21 that the site has a low risk of flooding, but that a flood risk assessment will be required. 2 out of a possible 2 credits have been pursued.	2 of 2
Pol 03-04: Surface Water Run Off – Minimising Water Course Pollution		
<u>One</u> credit where the following points are achieved: 1. An Appropriate Consultant confirms that there is no discharge from the developed site for rainfall up to 5mm. 2. Areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS	It was confirmed in the meeting on 17/06/21 that the requirements for minimising watercourse pollution were unlikely to be achievable due to not being able to meet the requirement to retain the first 5mm of rainfall on site	0 of 1

techniques. 3. Areas with a high risk of contamination or spillage of substances, such as petrol and oil, have separators (or an equivalent system) are installed in surface water drainage systems. 4. Chemical or liquid gas storage areas have a means of containment fitted to the site drainage system (i.e. shutoff valves). This is to prevent the escape of chemicals to natural watercourses in the event of a spillage or bunding failure. 5. All water pollution prevention systems have been designed and installed in accordance with the recommendations of documents such as the SuDS manual and other relevant industry best practice. They must be bespoke solutions taking account of the specific site requirements and natural or man-made environment of and surrounding the site. 6. A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers. 7. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place. 8. All external storage and delivery areas are designed and detailed in accordance with the current best practice planning guidance.	0 out of a possible 1 credit have been pursued.	
Pol 03-03: Surface Water Run Off (Simple buildings)		
<u>Up to Two</u> credits where the following points are achieved: The criteria below should be applied to award one or two credits. Alternatively, two credits and an Exemplary credit are awarded where the 'standard' credit criteria for surface water run-off are achieved. <u>Two Credits:</u> Two credit can be awarded where either of the following are achieved: 1. There is a decrease in the impermeable area by 50% or more, from the pre-existing impermeable hard surfaces. OR 2. All run-off from the roof, including new and existing parts of the building, has been managed on site using source control methods. This must be achieved for rainfall depths up to 5mm. OR	It was confirmed in the meeting on 17/06/21 that the simple buildings criteria may be hard to achieve and that it would make more sense to attempt the 'standard' criteria. The standard Criteria (Pol 03-04 and Pol 03-05) are detailed below The 'standard' criteria is being pursued instead of the 'simple buildings' criteria.	N/A

<u>One Credit:</u> one credit can be awarded where either of the following are achieved: 1. There is no increase in the impermeable surfaces as a result of the new construction. OR 2. If there is an increase in the impermeable surface as a result of the new construction then the following must be met: i. Hard standing areas: additional (or equivalent area of) hardstanding must be permeable or be provided with on-site SuDS to allow full infiltration of the additional volume. The permeable hardstanding must include all pavements and public rights of way, car parks, driveways and non-adoptable roads. Small garden paths which will drain onto a naturally permeable surface can be excluded. ii. Building: for an increase in building footprint, extending onto any previously permeable surfaces, the additional run-off caused by the area of the new construction must be managed on site using an appropriate SuDS technique for rainfall depths up to 5mm.		
Pol 03-04: Surface Water Run Off – Rate ('Standard' Building)		
<u>One credit</u> where the following points are achieved: <u>Pre-requisite:</u> 1. Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site. <u>One credit</u> where the following points are achieved: 2. Where drainage measures are specified to ensure that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events. 3. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. 4. Calculations include an allowance for climate change; this should be made in accordance with current best practice planning guidance (Planning Practice Guidance - Flood Risk and Coastal Changes).	It was confirmed in the meeting on 17/06/21 that an appropriate consultant will be appointed and that it should be possible to meet the BREEAM requirements. 1 out of a possible 1 credit has been pursued.	1 of 1

Pol 03-05: Surface Water Run Off – Volume ('Standard Building')		
<u>One credit</u> where the following points are achieved: <u>Pre-requisite:</u> 1. Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site. <u>One credit</u> where the following points are achieved: 2. Where flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance) AND EITHER: a. The post development run-off volume (lifetime), is no greater than it would have been prior to the assessed site's development. b. Any additional predicted volume of run-off for the 100 year 6 hour event must be prevented from leaving the site by using infiltration or other SuDS techniques OR (where point b cannot be achieved): c. Justification from the Appropriate Consultant indicating why the above criteria cannot be achieved i.e. where infiltration or other SuDS techniques are not technically viable options. d. The post development peak rate of run-off is reduced to a limiting discharge. The limiting discharge is defined as the following and the option with the highest flow rate must be achieved; - The pre development 1-year peak flow rate - The mean annual flow rate Q^{bar} - 2l/s/ha 3. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. 4. For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.	It was confirmed in the meeting on 17/06/21 that an appropriate consultant will be appointed and that it should be possible to meet the BREEAM requirements. 1 out of a possible 1 credit has been pursued.	1 of 1

Pol 04: Reduction of Night Time Light Pollution		
<u>One</u> credit where the following points are achieved: 1. External lighting pollution has been eliminated through effective design that removes the need for external lighting. This does not adversely affect the safety and security of the site and its users. OR alternatively, where the building does have external lighting, one credit can be awarded as follows: 2. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. 3. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes. 4. Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.	It was confirmed in a meeting on 17/06/21 that the requirements for external lighting would be achieved by default as no external lighting is to be provided. 1 out of a possible 1 credit has been pursued.	1 of 1

Credit Details:	Justification:	Credits Taken
Innovation		
Man 01- Exemplary: BREEAM AP		
Pre-Requisite: the following prerequisite is required if the credits are to be achieved in this section: - The project team, including the client, formally agree strategic performance targets early in the design process (with the support of the BREEAM AP where appointed). <u>1st Credit: BREEAM AP (Concept Design)</u> - The pre-requisite requirements are achieved. - The project team involve a BREEAM AP in the project at an appropriate time and level to: - Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM, from their appointment and throughout Concept Design. - Monitor progress against the agreed performance targets throughout all stages after their appointment where decisions critically impact BREEAM performance. - Proactively identify risks and opportunities related to the achievement of the agreed targets - Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team. <u>2nd Credit: BREEAM AP (Developed Design)</u> - The pre-requisite requirements are achieved. - The project team involve a BREEAM AP in the project at an appropriate time and level to: - Work with the project team, including the client, to consider the links between BREEAM issues and to assist them in maximising the project's overall performance against BREEAM throughout Developed Design. - Monitor progress against the agreed performance targets throughout	The project team have committed to achieving a performance target early in the design stage, but did not appoint a BREEAM AP and therefore these credits are not being pursued 0 out of a possible 2 credits have been pursued.	0 of 2

all stages where decisions critically impact the specification and tendering process and the BREEAM performance. c. Proactively identify risks and opportunities related to the achievement of the agreed targets. d. Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.		
Man 03-Exemplary: Responsible Construction Practices - Responsible construction management		
<u>One Additional Credit</u> may be awarded where all of the options listed for two credits under issue Man 03-03 are achieved.	The project team confirmed that the exemplary credit is not currently being considered. 0 out of a possible 1 credit has been pursued.	0 of 1
Man 03-Exemplary: Responsible Construction Practices - Monitoring of Construction Site Impacts		
<u>One Additional Credit</u> may be awarded where, in addition to achieving the credit for Man 03-04, the following points are achieved: <u>Transport of Construction Materials and Waste</u> a. Set targets for transportation movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum cover: b. Transportation of materials from the point of supply to the building site, including any transport, intermediate storage and point of supply i. Materials used in major building elements ii. Ground works and landscaping materials. c. Transportation of construction waste from the construction gate to waste disposal processing or recovery centre gate. This monitoring must cover the construction waste groups outlined in the project's resource management plan. d. Monitor and record data for the transportation movements as described in Man 03-03. e. Using the collated data, report separately for materials and waste, the total transport-related carbon dioxide emissions (kgCO₂-eq), plus total distance travelled (km) via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).	The project team confirmed that the exemplary credit is not currently being considered. 0 out of a possible 1 credit has been pursued.	0 of 1

Hea 01-Exemplary: Visual Comfort – Daylighting Exemplary Criteria		
<u>One Credit</u> where occupied building areas meet the exemplary daylighting criteria as detailed on Information Sheet Hea 01-02.	The project team confirmed that the exemplary credit is not currently being considered. 0 out of a possible 1 credit has been pursued.	0 of 1
Hea 02-Exemplary: Minimising sources of air pollution - Emissions from construction products		
<u>One Credit</u> where three of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.12 below. Where wood-based products are not one of the three selected product types, all wood-based products used for internal fixtures and fittings must be tested and classified as formaldehyde E1 class as a minimum	The project team confirmed that the exemplary credit is not currently being considered. 0 out of a possible 1 credit has been pursued.	0 of 1
Hea 06-Exemplary: Security – Security of site and building		
<u>One Credit</u> where, a compliant risk based security rating scheme (i.e. SABRE) has been used and the performance against the scheme has been confirmed by independent assessment and verification.	The project team confirmed that the exemplary credit is not currently being considered. 0 out of a possible 1 credit has been pursued.	0 of 1
Ene 01 Innovation: Reduction of Energy Use and Carbon Emissions - Energy Modelling and Reporting		
<u>Two credits</u> are available where the following points are achieved: 1. Additional energy modelling is undertaken during the design and post-construction stage to generate predicted operational energy consumption figures. 2. Predicted energy consumption targets by end use, design assumptions and input data (with justifications) are reported. 3. A risk assessment is carried out to highlight any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process.	The project team confirmed that, as it stands, there are no plans to complete the additional modelling required for these credits. 0 out of a possible 2 credits have been pursued.	0 of 2

Ene 01 Innovation: Reduction of CO2 Emissions - Beyond zero net regulated carbon / Carbon negative		
<u>Up to 5 Credits</u> are available as follows: Five Credits where the building achieve the following with regard to its modelled operational energy consumption. <u>Up to two credits</u> - Beyond zero net regulated carbon - The building achieves an $EPR_{NC} \geq 0.9$ and zero net regulated CO₂-eq emissions - Energy generation from on-site and near-site LZC sources is sufficient to offset carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use. - Award the exemplary credits based on the percentage of additional emissions from unregulated energy that are offset by LZC sources <u>Three credits</u> - Carbon negative 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	The project team confirmed that these credits cannot be achieved as there is no scope within the current proposals for the development to be 'beyond carbon zero' or carbon negative. 0 out of a possible 5 credits have been pursued.	0 of 5
Ene 04 Exemplary: Low and Zero Carbon Technology		
<u>One Additional Credit</u> may be awarded where it can be demonstrated that a renewable technology has been proposed for the development (based on the findings of the above LZC report) and that, based on formal calculations, there is a reduction in CO2 emissions of more than or equal to 30%.	The project team confirmed that the exemplary credit is not currently being considered. 0 out of a possible 1 credit has been pursued.	0 of 1
Wat 01 Exemplary: Water Consumption		
<u>One credit</u> where the BREEAM Wat 01 calculator confirms a 65% or more improvement over the notional baseline information. (See credit for input requirements)	The project team confirmed that the development is unlikely to achieve more than 2 of the 'regular' credits in this section and therefore the exemplary credits cannot be considered. 0 out of a possible 1 credit has been pursued.	0 of 1

Mat 01 Exemplary 3: Environmental impacts from construction products - Third party verification (all building types)		
Two credits where in addition to the requirements for undertaking an options appraisal on the building superstructure, the following requirements are achieved: 1. A suitably qualified third party either carries out the building LCA work or verifies the building LCA work (if by others), and produces a report describing how they have checked the building LCA work accurately represent the designs under consideration during Concept Design and Technical Design with reference to the requirements of the relevant BREEAM criteria. 2. For each LCA option, the report should itemise the checks made by the suitably qualified third party including, as a minimum, the quality requirements shown in Table 9.4 of the BREEAM guidance. 3. The report should also include details of the suitably qualified third party's relevant skills and experience and a declaration of their third party independence from the project client and design team.	The project team confirmed that the requirements for Mat 01 are not currently being pursued and therefore these credits cannot be pursued. 0 out of a possible 2 credits have been pursued.	0 of 2
Mat 03 Exemplary: Responsible Sourcing		
One credit where the BREEAM Mat 03 calculator confirms that the development has achieved at least 70% of the available responsible sourcing points have been achieved (See credit for input requirements).	The project team confirmed that not all of the requirements for the 'regular' Mat 03-02 are being pursued and therefore this credit cannot be pursued. 0 out of a possible 1 credit have been pursued.	0 of 1
Wst 01 Exemplary: Construction Waste Management		
One Credit can be achieved where, in addition to achieving all construction resource efficiency credits applicable to the assessment type (see Wst 01-02), the following criteria are achieved: 1. The source of the waste arisings of the non-hazardous construction waste measured or monitored by associating the waste with project work packages are recorded in accordance with the BREEAM methodology. 2. The development meets or improves on the following BREEAM exemplary level benchmark for the diversion from landfill of generated non-hazardous construction and demolition waste.	It was confirmed in a meeting on 17/06/21 The exemplary credits for diverting waste from landfill could be pursued, if required. 0 out of a possible 1 credit has been pursued. <u>Additional Credit:</u> Up to 1 additional credit could be achieved where the Wst 01-02 criteria are met and waste is measured and monitored on site..	0 of 1 1 Extra Credit (If Pursued)

<table border="1"> <thead> <tr> <th>Type of waste</th><th>Volume (m3)</th><th>Tonnage</th></tr> </thead> <tbody> <tr> <td>Non-demolition</td><td>85%</td><td>90%</td></tr> <tr> <td>Demolition</td><td>85%</td><td>95%</td></tr> <tr> <td>Excavation</td><td>95%</td><td>95%</td></tr> </tbody> </table>	Type of waste	Volume (m3)	Tonnage	Non-demolition	85%	90%	Demolition	85%	95%	Excavation	95%	95%		
Type of waste	Volume (m3)	Tonnage												
Non-demolition	85%	90%												
Demolition	85%	95%												
Excavation	95%	95%												
Wst 02 Exemplary: Recycled Aggregate														
One Credit can be achieved where the percentage of recycled aggregate achieve the exemplary requirements detailed in the credit requirements. (See credit for requirements).	It was confirmed in a meeting on 17/06/21 The exemplary credits for using sustainably sourced aggregates could be pursued, if required. 0 out of a possible 1 credit has been pursued. <u>Additional Credit:</u> Up to 1 additional credit could be achieved where the Wst 02 criteria are and the exemplary targets are achieved.	0 of 1 1 Extra Credit (If Pursued)												
Wst 05 Exemplary: Adaptation to climate change														
One Credit can be achieved where, in addition to achieving credit Wst 05, the following criteria/credits are achieved: • Hea 04 Thermal comfort. • Ene 01 Reduction of energy use and carbon emissions (min 6 credits) • Ene 04-01 Low carbon design - passive design analysis • Wat 01 Water consumption (min 3 credits) • Mat 05 Designing durability and resilience (materials degradation) • Pol 03-02/03 Flood and surface water management –Surface Water run-off (min 1 credit)	The project team confirmed that the requirements for the 'regular' Wst 05 credit are not being pursued and therefore this credit cannot be pursued. 0 out of a possible 1 credit have been pursued.	0 of 1												
LE 02 Exemplary: Identifying and understanding the risks and opportunities for the project														
One Credit can be achieved where, in addition to achieving credit LE02, the following criteria/credits are achieved: • Hea 06-01 Safe Access • Hea 06-03 Outdoor Space. • Pol 03-02/03/04 Flood and surface water management • Pol 05 Noise Pollution	The project team decided that it would not be sensible to assume that the exemplary credit can be achieved before receiving the relevant feedback from the ecologist. 0 out of a possible 1 credit have been pursued.	0 of 1												
LE 04 Exemplary: Change and enhancement of ecological value														
One Credit can be achieved where the change in ecological value occurring is calculated in accordance with the process set out in GN36 - BREEAM,	The project team confirmed that not all of the requirements for the	0 of 1												

CEEQUAL and HQM Ecology Calculation Methodology – Route 2 and a significant net gain of ecological value (percentage score of 110 or above) is achieved	‘regular’ LE 04 credit are being pursued and therefore this credit cannot be pursued. 0 out of a possible 1 credit have been pursued.	
Pol 03: Surface Water Run Off (Simple Buildings)		
<u>One</u> exemplary credit can be achieved where, the development assesses the surface water run off credits using the ‘standard’ credit criteria instead of the ‘simple buildings’ criteria and both credits (Pol 03-04 and Pol 03-05) are achieved.	It was confirmed in the meeting on 17/06/21 that an appropriate consultant will be appointed and that it should be possible to meet the BREEAM requirements for both Pol 03-04 and Pol 03-05. 1 out of a possible 1 credit has been pursued	1 of 1

Appendix 1 – BREEAM Calculator Tool