



RIDGE

ONE MEDLOCK STREET

BREEAM
PREASSESSMENT REPORT
PLANNING

October 2022

ONE MEDLOCK STREET, MANCHESTER BREEAM PREASSESSMENT REPORT

October 2022

Prepared for

Premier Inn Hotels and
Dominvs Group

Prepared by

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1. INTRODUCTION

Ridge and Partners LLP has been appointed to undertake a BREEAM pre-assessment for the demolition of the existing hotel building and structures and the development of the site for office uses (Use Class E), flexible office/community use (Use Class E/F1/F2) and purpose-built student accommodation (Sui Generis) comprising two separate buildings, along with associated ancillary internal and external amenity space, hard and soft landscaping and associated highway works.

The development is targeting a BREEAM rating of Very Good, in line with the Local Authority requirements, and will be assessed under the BREEAM Version 6 New Construction scheme (Offices for the office development, Multi-residential for the PBSA,).

The purpose of this report is to identify the risks, opportunities and implications associated with targeting a Very Good rating and to provide the design team with information relating to the key actions that are to be carried out to ensure successful certification from the BRE.

The team should take cognisance of the information and guidance provided within this report and associated documentation, to assist them in ensuring that the design accounts for the full BREEAM requirements.

2. PROJECT DESCRIPTION

The project consists of the redevelopment of the existing Premier Inn hotel site on Medlock Street in Manchester City Centre. The proposed site is approximately 0.94ha and sits at the junction of Medlock Street and the Mancunian Way (A57M).

The proposal comprises the demolition of the existing building and erection of 2no new buildings:

- Block A: A 13-storey commercial office development (c.36,500 sqm GIA).
- Block B: A 37-storey purpose-built student accommodation comprising 1014 bedrooms (c.30,830 sqm GIA and 293sqm of flexible community space)

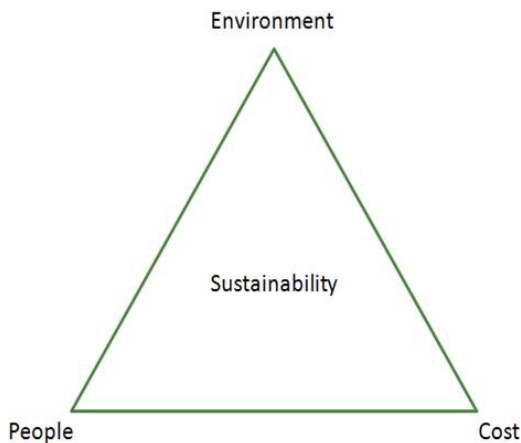
The development includes a high-quality landscaping scheme and public realm pocket park, along with service space at ground level, amenity space, car parking, cycle parking, and works to the junction of Medlock Street and River Street.

3. PROJECT PROGRAMME

The project is currently in RIBA Stage 2, the planning application (which this report accompanies) is submitted in October 2022

4. BACKGROUND TO SUSTAINABLE DESIGN & BREEAM

Sustainability is defined as the ability to meet the needs of today, without compromising the ability of future generations to provide for the needs of tomorrow. It can be described as the equilibrium between environmental and financial considerations, and the needs of the community. A truly sustainable development will achieve a balance between fitness-for-purpose, value-for-money and environmental impact and will achieve this via integration as part of a larger, sustainable community.



BREEAM (Building Research Establishment's Environmental Assessment Method) is a voluntary scheme that can be used to assess the environmental life cycle of new non-domestic buildings at the design and construction stages.

BREEAM assessments can be either undertaken in two stages: Firstly, the design stage, which leads to an Interim BREEAM certified rating; Secondly, the post construction stage, which leads to a final BREEAM certified rating or as a single Post Construction Assessment which leads to a final BREEAM certified rating.

Buildings are assessed using a system of credits. The credits are grouped within the following categories: Within each of the BREEAM categories outlined above, there are a number of credit requirements that reflect the options available to designers and managers of buildings.

An environmental weighting is applied to the scores achieved under each category, as shown in the table above, in order to calculate the final BREEAM score. The weighting factors have been derived from consensus-based research with various groups such as government, material suppliers and lobbyists. This research was carried out by BRE to establish the relative importance of each environmental issue. The weighting factors vary depending on whether the project is fully fitted, shell & core or shell only, and on the answers to a number of set up questions.

BREEAM Section	% Weighting PBSA (Fully Fitted)	% Weighting Office (Shell & Core)
Management	11.0%	11.0%
Health and Wellbeing	14.0%	8.0%
Energy	16.0%	14.0%
Transport	10.0%	11.5%
Water	7.0%	7.0%
Materials	15.0%	17.5%
Waste	6.0%	7.0%
Land Use & Ecology	13.0%	15.0%
Pollution	8.0%	9.0%

The assessment process results in a report covering the issues assessed together with a formal certification giving a rating on a scale of PASS (at least 30%), GOOD (at least 45%), VERY GOOD (at least 55%), EXCELLENT (at least 70%) and OUTSTANDING (at least 85%). A score of less than 30% is UNCLASSIFIED.

5. BREEAM STRATEGY & TARGETS

In line with the Local Authority requirements, the project will target a minimum of a **BREEAM 'Very Good'** rating. The following report identifies a route-map towards achieving these targets, including early actions which need to be prioritised. This has been developed in consultation with the project team through workshops held on 31st August 2022

The full pre-assessment tracker document for each building / assessment can be found in Appendix A & B. These documents provide information on the requirements of the individual credits which make up the assessment and identifies whether the requirements can be met / committed to within the parameters of the current design or whether further commissions, funds or design changes would be required to meet their requirements.

In addition, a qualitative evaluation of risk associated with meeting the requirements of each credit has been made. Categorised as low, medium or high, these risks are based on technical or financial challenges or design team's experience in discharging the requirements of each credit.

For the office development (Block A), the current targeted BREEAM score is **62.9%** (buffer of 7.9%).

For the PBSA (Block B), the current targeted 'Very Good' BREEAM score is **62.5%** (incl buffer of 7.5%).

In all assessments we recommend a score buffer of between 5 and 7% to allow for unexpected changes or compliance issues as the project progresses.

Within the pre-assessment there may be issues which are outside of the current scope of works/specification. Attention must be paid to ALL credits listed within this report, to ensure the necessary measures required to achieve the associated credits are feasible, and if so, incorporated within specifications.

It is sometimes the case that achievement of a particular BREEAM credit comes with a disproportionately increased cost, without offering equivalent advantages in functionality or sustainability. We would recommend that any such issues are identified early and that these issues are only incorporated within the design once a cost-benefit analysis has been carried out.

It is important to build a robust strategy for the BREEAM certification process into the project programme to ensure that the client's requirements can be achieved. It is recommended that a 'managed' post construction assessment is undertaken. A single report will be submitted to the BRE following completion of the building, rather than a separate interim (design stage) and final (post construction) submission. This option provides a more streamlined approach to assessment. It has the benefit of continual assessment throughout the design and construction phases and allows changes to be picked up as they occur.

For the certification to be a smooth process for all concerned, a BREEAM progress report will be developed and regularly updated through the project, along with the production of an Information Required Schedule (IRS). These documents will track the progress of the assessment throughout the evolving design and construction process and will break down all the information required to support the assessment, by discipline, giving timeframes for when this information should be provided to the assessor.

It is by this approach that we ensure a constant flow of information and avoid credit time deadlines being missed and the BREEAM rating jeopardised.

6. TIME DEPENDENT ACTIONS

There are various key actions that include time specific requirements to allow the relevant credit to be achieved. The time dependent actions associated with the targeted credits are listed in Table 1.

Table 1. Time Dependent Actions

Credit		Time requirements	Comment / Action
RIBA Stage 1			
Mat 03 Req 2	Enabling Sustainable Procurement	A Sustainable procurement plan is produced by the client and used by the design team to guide specification towards sustainable construction products from RIBA Stage 1 onwards	Dominvs – document provided

Credit		Time requirements	Comment / Action
RIBA Stage 2			
Man 01 Req 1-3	Project Delivery Planning	Prior to the end of RIBA Stage 2 all the project delivery stakeholders will meet, identify, and define roles, responsibilities & contributions during each key phase.	Cumming / Design Team – information provided
Man 01 Req 9	BREEAM AP (Concept Design)	A BREEAM Accredited Professional (AP) is Appointed as BREEAM AP During RIBA Stage 1/ 2	Ridge (Sust) – AP involved
Man 02 Req 1-3	Elemental Life Cycle Cost	Prior to the end of RIBA Stage 2, a competent person carries out an elemental life cycle costing analysis together with elemental options appraisals in accordance with PD 156865:2008 which shows future replacement costs over 20, 30, 50 or 60 years and include service life, maintenance, and operation cost estimates. The LCC must be used to influence design and specification.	Cumming / Ridge (Sust) / Design Team – study being carried out
Hea 06 Req 1-3	Security of Site and Building	Prior to the end of RIBA Stage 2, a Security Needs Assessment (SNA) must be undertaken by a suitably qualified security specialist and any recommendations are implemented.	JMA – SNA provided for planning
Ene 04 Req 1 - 4	Passive Design Analysis	A Passive Design Analysis (PDA) is undertaken during Concept Design stage (RIBA Stage 2) & implementation of passive design solutions that reduce demands for energy consuming building services	Ridge (M&E) / M&E Sub – Energy Strategy report developed

Credit		Time requirements	Comment / Action
Ene 04 Req 9-12	Low Zero Carbon Feasibility Study	Prior to the end of RIBA Stage 2, an energy specialist must produce a BREEAM compliant Low Zero Carbon feasibility study. (A LZC technology must be implemented in line with the findings of the study which reduces CO ² emissions)	Ridge (M&E) / M&E Sub - Energy Strategy report developed
Tra 01 / Tra 02 Prerequisite	Transport Assessment & Travel Plan	Requires that during Concept Design Stage (RIBA Stage 2) that a BREEAM compliant Transport Assessment and draft travel plan will be produced.	Vectos – Documents provided
Mat 01 Req 3-5	Life Cycle Assessment - Superstructure	An IMPACT equivalent Life Cycle Assessment (LCA) is carried out at RIBA Stage 2 considering LCA options for 4 substantially different superstructure elements.	Project Team / Ridge (Sust) – LCA carried out, data submitted to BRE
Mat 01 Req 6-7	Life Cycle Assessment - Substructure & Hard Landscaping	An IMPACT equivalent Life Cycle Assessment (LCA) will be carried out at RIBA Stage 2 and consider LCA options for 6 substantially different substructure or hard landscaping elements (at least 2 sub / 2 HL)	Project Team / Ridge (Sust) - LCA carried out, data submitted to BRE
Wst 05	Adaption to Climate Change	Requires production of a Climate Change Adaptation Strategy Appraisal using a risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. And to develop recommendations to mitigate the identified impact before the end of RIBA Stage 2.	Ramboll (with JMA / Ridge M&E input) – report developed by Ramboll
Wst 06 Req 1-2, Req 3-5	Design for disassembly and adaptability - Recommendations	Requires production of a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design (RIBA Stage 2) and to develop recommendations or solutions based on the study that aim to enable and facilitate disassembly and functional adaptation.	JMA (with Ramboll / Ridge M&E input) - report developed by JMA
LE 02 Req 4-6	Ecological Survey & Evaluation	A Suitably Qualified Ecologist (SQE) must carry out a survey and evaluation for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions.	Ecologist – report carried out by Greengage
LE 02 Req 7-10	Determining Ecological Outcome	Requires that pre-planning, the project team liaise and collaborate with representative stakeholders to identify and consider ecological outcome for the site & project, and optimal ecological outcomes for the site are selected after liaising with representative stakeholders and the project team.	Project Team / Ecologist – Ecology Workshop carried out at Stage 2

Credit		Time requirements	Comment / Action
LE03 Req 2-4	Managing negative impacts on ecology - Planning, Liaison, Implementation & Data	RIBA Stage 2- define & allocate the roles and responsibilities to support successful delivery of project outcomes and consider site preparation and construction works to optimise benefits and outputs.	Project Team / Ecologist - Ecology Workshop carried out at Stage 2
RIBA Stage 3-4			
Man 01 Req 11-12	BREEAM AP (Developed Design)	An Appointed BREEAM AP works with the Project team to consider links between BREEAM Issues and assist in maximising the project's overall performance against BREEAM Throughout Developed Design / RIBA Stage 3	Dominvs / Ridge (Sust)
Man 02 Req 4-5	Component Level LCC Plan	Prior to the end of RIBA Stage 4, a competent person carries out a LCC, which is used to influence design and specification.	Cumming / Ridge (Sust) / Design Team
Man 03 Req 6	BREEAM AP (Site)	For RIBA Stages 4-6, the BREEAM AP works with the project team to consider links between BREEAM Issues and assist them in achieving the project's performance targets throughout Construction, Handover, and Close Out stages.	Ridge (Sust) / MC
Ene 01 Req 3-5	Energy Modelling and Reporting	Undertake TM54 compliant modelling to predict energy consumption and determine factors that can impact consumption. The initial stage of modelling should be carried out at the design stages, with a repeat of the modelling at post construction stage using more accurate inputs. In addition to complying with the TM54 requirements, it needs to be demonstrated that the modelling has led to a substantial improvement in operational energy performance (i.e., the early modelling identified possible improvements in operational function that have been implemented).	M&E
Mat 01 Req 3-5	Life Cycle Assessment - Superstructure	Requires Life Cycle Assessment of further superstructure options which is third party verified during RIBA Stage 4.	Project Team / Ridge (Sust)
Wst 05	Adaption to Climate Change	Requires that 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	Ecologist / JMA / Ridge (M&E)

Credit		Time requirements	Comment / Action
Wst 06	Design for disassembly and adaptability - Implementation	Requires that an update, during Technical Design (Stage 4), on how the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective and that omissions have been justified.	Ecologist / JMA / Ridge (M&E)

7. KEY ISSUES TO ACHIEVE A 'VERY GOOD' CERTIFICATION

A target score of **62.9% / 62.5%** has been identified within the pre-assessment, which would achieve a 'Very Good' rating, also providing a reasonable margin of safety. This route-map can be found in Appendix A & B (one for each assessment) and provides detail on those issues targeted, assumptions made and opportunities to enhance the BREEAM score further where additional 'possible' credits are targeted.

The tables within the following pages provide a brief summary of the issues required to achieve the rating. These should be read in conjunction with Appendix A and the current BRE Manual which provides more detail on the requirements. Please note not all items are listed below.

7.1.1. Client / Project Manager Issues

Table 2 – Client / Project Manager Issues

Credit		Requirements
Man 01 Req 1-3	Project Delivery Planning PBSA Only	Prior to the end of RIBA Stage 2 ensure all the project delivery stakeholders (client/developer, contractor, design team) meet, identify and define roles, responsibilities & contributions during each key phase. The project team demonstrates how the stakeholder contributions and consultation process influences the following: Initial Project Brief; Communications Strategy; Project Execution Plan; Concept Design.
Man 01 Req 8	Pre-requisite BREEAM AP	It is assumed that the project team and client formally agree (contract or letters of appointment) strategic performance targets, including the BREEAM rating, early in the design process.
Man 01 Req 9	BREEAM AP (Concept Design)	A BREEAM Accredited Professional (AP) is Appointed as BREEAM AP During RIBA Stage ½
Man 01 Req 11-12	BREEAM AP (Developed Design)	An Appointed BREEAM AP works with the team to consider links between BREEAM Issues and help maximise the project's overall performance against BREEAM through RIBA Stage 3
Man 02 Req 1-3	Elemental Life Cycle Cost	Prior to the end of RIBA Stage 2, a LCC Analysis is carried out
Man 02 Req 4-5	Component Level LCC Plan	Requires appointment of LCA consultant to carry out Stage 4 LCC
Man 02 Req 6	Capital Cost Reporting	Report the capital cost for the building in £k/m ² to the Assessor for reporting to the BRE
Wat 01	Water Consumption	The expected water usage of each block will need to be reduced beyond the baseline to ensure a 12.5% saving is achieved. This will involve reducing the flush volume of toilets and urinals, the flow rate of taps, showers, and any other water consuming facilities (i.e., laundry, dishwashers). See Appendix A & B for an example specification of use
Mat 03 Req 2	Enabling Sustainable Procurement	A sustainable procurement plan was used by the design team to guide specification towards sustainable construction products before Concept Design (RIBA Stage 1)

7.1.2. Architectural Issues

Table 3 – Architectural Issues

Credit		Requirements
Hea 06 Req 1-3	Security of Site and Building	A Suitable Qualified Security Specialist conducts a Security Needs Assessment during concept design (RIBA Stage 2). The recommendations from this report are incorporated into the proposals and as-built development.
Hea 07 Req 1-6	Safe Access Office Only	- Cycle storage is accessed directly from the public footpath off site - Footpaths provide direct access from the building footpath, with no car parking included on site - Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths where provided (if relevant). - Delivery access does not cross pedestrian / cycle routes, amenity areas or pass-through parking areas (if relevant). - Where there are delivery areas there is a waiting area adequate turning and parking space for the appropriate delivery vehicles (where relevant). - There is a dedicated waste storage area away from the delivery manoeuvring area or car parking (if required).
Hea 07 Req 7	Outdoor Space	Ensure appropriate outdoor spaces are provided for use by building users, including street furniture, non-smoking restriction and in areas away from car parking and roads. Terraces on both schemes are expected to discharge this
Tra 02 Req 2	Sustainable Transport Measures	Implement any relevant design measures listed in the Travel Plan, including appropriate cycle storage, core and new amenities (i.e., terraces, gym for PBSA). Scheme also benefits from high frequency of public transport nearby (9no out of 10 for office, 10no out of 10 for PBSA)
Mat 05	Designing for Durability and Resilience	Building is designed to incorporate suitable durability protection measures to prevent damage to vulnerable areas internally and externally. The building is designed to limit long and short-term degradation due to environmental factors (requires a Material Degradation Study report)
Wst 04	Speculative Office Finishes Office Only	For tenanted areas, where the future occupant is not known and carpets or other floor or ceiling finishes are installed, these must be limited to a show area only (either a floor plate or an individual office but < 25% of net lettable floor area). - Only install floor and ceiling finishes selected by the known occupant of a development. Alternatively, - where only ceiling finishes and no carpets are installed, the building owner confirms that the first tenants will not be permitted to make substantial alterations to the ceiling finishes.

Credit		Requirements
Wst 05	Adaption to Climate Change	Produce a study into the effects, risks and mitigation strategies for accommodating Climate Change to the building fabric during Concept Design, RIBA Stage 2 & updated at RIBA Stage 4
Wst 06	Functional Adaptability & Design for disassembly	Produce a compliant 'Design for Disassembly and Functional Adaptation Study' during Concept Design (RIBA Stage 2) that is updated and implemented at RIBA Stage 4
LE 01 Req 1	Previously developed land	Provide existing and proposed site plans which show the level of overlap between the existing and proposed buildings, confirming whether at least 75% of the new development is on land previously developed. (i.e., occupied by buildings or hard landscaping)

7.1.3. Ecologist and Landscape Architect Issues

Table 4– Ecologist’s and Landscape Architect’s Issues

Credit		Requirements
Wat 04	Water Efficient Equipment	External landscaping and planting will rely solely on precipitation, during all seasons of the year with drought tolerant species specified.
LE 02, 03, 04 & 05	Pre-requisite	Requires confirmation of compliance against all relevant UK and EU or international legislation relating to the ecology of the site.
LE 02 Req 4-6	Ecological Survey & Evaluation	Requires that pre-planning, a suitably qualified ecologist produces a survey and evaluation report to determine the ecological baseline of the site and that data is collated and shared with project team to inform the site preparation, design or construction works. – current survey needs to be checked against BREEAM considerations required
LE 02- LE 05	Land use and Ecology	Requires attendance at coordination environmental workshops to discuss ecological issues associated with the design, construction, maintenance and ongoing use of the landscape and to agree ecological outcomes and roles and responsibilities and consultations. and completion of GN40 with supporting evidence
LE 03 Req 8	Managing negative impacts of the project	Requires input into demonstrating that there has been no overall loss of ecological value as a result of development, and preparation and construction works have been managed according to the hierarchy (see LE 02), in line with the SQE's recommendations and the loss of ecological value has been minimised. Qualitative statement from Ecologist needed on the change as a result of re-development
LE 04 Req 4-5	Ecological Enhancement	Requires that in addition collaboration with representative stakeholders, where potentially valuable, data is provided to the local environmental records centres nearest to, or relevant for, the site.
LE 04 Req 6	Enhancement of ecology	Requires calculations to show change in biodiversity between >95% using either Defra 3.1 methodology or BREEAM Ecology Calculator.
LE 05 Req 3-4	Management and Maintenance	Requires input into identifying measures to manage/maintain ecology throughout project and input into end user info on Ecology & Biodiversity covering local ecological features, value & biodiversity on or near site.
LE 05 Req 5-6	Landscape and ecology management plan	Requires production of a Landscape & Ecology Management Plan, to BS42020:2013 Section 11.1 covering at least 5 years after completion.

7.1.4. Environmental Champion Issues (expected to be PM)

Table 6 – Environmental Champion’s Issues

Credit		Requirements
LE 02 Req 7-10	Determining Ecological Outcome	Requires co-ordination and recording that prior to planning, the project team liaise & collaborate with representative stakeholders to identify and consider ecological outcomes for the sites using Route 2 methodology & the hierarchy of ecological actions. Preplanning co-ordination & outcomes determined demonstrated from Stage 2/3 plus completion of GN40 with supporting evidence for earlier stages.
LE 03 Req 2-4 LE 04 Req 5	Planning, Liaison, implementation and data collation	Requires Co-ordination and recording that: 1. Roles & responsibilities are clearly defined, allocated & implemented to support the agreed ecological outcomes at RIBA Stage 2. 2. Site preparation and construction works are planned for and are implemented at an early project stage to optimise benefits and outputs. The team continues to liaise and collaborate with relevant stakeholders & are implementing the selected solutions & measures during design, procurement, site preparation & construction works to enhance the ecological value from Stage 2/3 plus completion of GN40 with supporting evidence for earlier stages.
LE05 Req 3-4	Management and maintenance throughout the project	Requires Co-ordination and recording that the project & construction teams: 1. Monitor and review implementation and the effectiveness of the ecological solutions. 2. Develop and review management and maintenance solutions, actions or measures. 3. Include a section on Ecology and Biodiversity to inform of local ecological features, value & biodiversity on or near the site in the building owner information supplied.

7.1.5. Acoustician Issues

Table 7. Acoustician Issues

Credit		Requirements
Hea 05 Req 2	Indoor Ambient Noise Level PBSA Only	For the PBSA , the indoor ambient noise levels will be within the suggested range stated in section 7 of BS8233:2014 will be achieved and verified by site testing.
Hea 05 Req 3	Room Acoustics PBSA Only	Within residential and common spaces of the building, the spaces will achieve the requirements relating to sound absorption described in the relevant building regulations or building standards national guidance and will be verified by site testing.
Pol 05	Reduction of Noise Pollution PBSA Only	A noise impact assessment in compliance with BS 4142:2014 will be carried out by a suitably qualified acoustician. The noise breakout from plant is confirmed to be 5dB lower at the nearest noise sensitive receptor than the recorded background noise levels throughout the day and night

7.1.6. M&E Consultant and M&E Subcontractor Issues

Table 8 – Building Services Consultant and Subcontractor's Issues

Credit		Requirements
Man 04 Req 1 - 5	Commissioning - Testing Schedule and Responsibilities	Ensure commissioning is undertaken in accordance with all relevant CIBSE / BSRIA Codes and Guides, including the BMS
Man 04 Req 6 - 7	Commissioning - Design and Preparation	Ensure an appropriate team member (or specialist commissioning manager for complex systems) is appointed to design reviews, provide commissioning management input and manage commissioning performance testing and handover / post-handover stages.
Hea 01 Req 8-14	Internal and External Lighting Levels, Zoning & Control	For Internal lighting in the PBSA : - Designed in accordance with the appropriate maintained Illuminance levels (in LUX) recommended by SLL Code for Lighting 2012. - Areas with computer screens complies with CIBSE Lighting Guide 7 sections 2.4, 2.13 - 2.15, 2.20 and 6.10 - 6.20. - Areas are zoned and controlled appropriate for their use and location i.e., office areas require separately zoned / controlled areas for each 40m ² (see credit criteria). For External lighting in PBSA and office : - Areas within the construction zone comply with BS5489-1:2013 & BS12464-2:2014 Part 2.
Hea 02 Req 1	Pre-requisite – Indoor Air Quality Plan PBSA Only	An indoor air quality plan will need to be produced and implemented in accordance with the BREEAM requirements. This is expected to be facilitated by the Ridge M&E team, and completed by the eventual M&E Sub
Hea 04 Req 1 - 4	Thermal Modelling	Requires that full dynamic thermal modelling will be carried out in accordance with CIBSE AM11, demonstrating that the building design and services strategy can deliver thermal comfort levels in accordance with the criteria set out in CIBSE Guide A Table 1.5.
Hea 04 Req 5 - 8	Design for Future Thermal Comfort	Requires dynamic thermal modelling to be undertaken demonstrates compliance for the above criteria when run for a projected climate change environment.
Hea 04 Req 9-11	Thermal Zoning and Controls PBSA Only	Requires that a temperature control strategy is developed, informed by the thermal model, providing compliant levels of zoning and control.
Ene 01 Req 1	Energy Performance	For the Office , ensure an Energy Performance Ratio of 0.2 or greater will be achieved, to gain 2no credits. For the PBSA , ensure an Energy Performance Ratio of 0.1 or greater will be achieved, to gain 1no credit.

Credit		Requirements
Ene 02 Req 1-4	Submetering of Major energy consuming systems	Ensuring an appropriate metering and sub-metering strategy is included with the building, covering at least 90% of each fuel type and all substantial energy uses and relevant departments / tenancy areas (where relevant). Meters must be connected to a BMS or other energy management system.
Ene 02 Req 5	Sub-metering of High Energy Load and Tenancy Areas Office only	An accessible energy monitoring and management system or separate accessible energy sub-meters with pulsed outputs is required, covering a significant majority of the energy supply to relevant function areas or departments or tenancies within the building.
Ene 03	External lighting	Ensure that the average initial luminous efficacy of the external light fittings within the construction zone (including any existing fittings) is not less than 70 luminaire lumens per circuit Watt. All external lights have daylight sensors and PIRs in areas of intermittent pedestrian traffic.
Ene 04 Req 1-4	Passive Design Analysis	A RIBA Stage 2 PDA is undertaken looking for opportunities to implement passive design solutions reducing energy demands. Solutions are implemented & reduce emissions & energy demand
Ene 04 Req 9-12	Low Zero Carbon Feasibility Study	Prior to the end of RIBA Stage 2, an energy specialist must produce a BREEAM compliant Low Zero Carbon feasibility study. A LZC technology must be implemented in line with the findings of the study which reduces CO ₂ emissions.
Wat 01	Water Consumption	The expected water usage of each block will need to be reduced beyond the baseline to ensure a 12.5% saving is achieved. This will involve reducing the flush volume of toilets and urinals, the flow rate of taps, showers, and any other water consuming facilities (i.e., laundry, dishwashers). See Appendix A & B for an example specification of use
Wat 02 Req 1-6	Water sub meters	The main supply to the building is fitted with a pulsed water meter and additional sub meters to each tenancy area and any other areas that have significant water usage (e.g. water tanks, laundry, café).
Wat 03 Req 1-2	Leak Detection System	A BREEAM compliant leak detection system will be specified or installed on the buildings water supply.
Wat 03 Req 3	Flow Control Devices	Requires flow control devices that regulate the water supply to staff / communal / public WC area or sanitary facilities to be installed in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework. Note: bedroom ensembles are excluded from the requirements for the PBSA , but staff areas are not.
Wst 04	Speculative Office Finishes Office Only	For tenanted areas, where the future occupant is not known and carpets or other floor or ceiling finishes are installed, these must be limited to a show area only (either a floor plate or an individual office but < 25% of net lettable floor area).

Credit		Requirements
		- Only install floor and ceiling finishes selected by the known occupant of a development. Alternatively, - where only ceiling finishes and no carpets are installed, the building owner confirms that the first tenants will not be permitted to make substantial alterations to the ceiling finishes.
Wst 05	Adaption to Climate Change	Requires input into a study into the effects, risk and mitigation strategies for accommodating Climate Change to the building fabric during Concept Design (RIBA Stage 2) and reviewed at RIBA Stage 4.
Wst 06	Functional Adaptability	Requires input into a 'Design for Disassembly and Functional Adaptation Study' during Concept Design and reviewed at RIBA Stage 4.
LE 02- LE 05	Land use and Ecology	May require attendance at coordination environmental workshops/discussions to discuss ecological issues associated with the design, construction, maintenance, and ongoing use of the landscape.
Pol 02	Local Air Quality	Ensure that all space heat and hot water systems are based on electrical systems which avoids the need for on-site fuel combustion and their related emissions.
Pol 04	Reduction of Night-Time Light Pollution	Requires that all Illuminated advertisements comply with ILP PLG05 and all external lighting with Table 2 ILP:2011 Additionally, lighting can be automatically switched off between 23:00 and 07:00, excluding for safety and security lighting which complies with the lower lighting levels in Table 2 ILP:2011 Illuminated advertisements must be designed in compliance with ILP PLG05
Pol 05	Reduction of Noise Pollution PBSA Only	A noise impact assessment in compliance with BS 4142:2014 will be carried out by a suitably qualified acoustician. The scheme will ensure that the noise breakout from plant will be 5dB lower than the background noise level, throughout day and night

7.1.7. Transport Consultant Issues

Table 9. Transport Consultant Issues

Credit		Requirements
Tra 01	Transport Assessment and Travel Plan	Undertake a Transport Assessment and produce a draft Travel Plan before the end of Concept Design to inform the evolving design and optimise the opportunity to incorporate sustainable transport initiatives and issue a final travel plan during the design stages.
Tra 02 Req 2	Sustainable Transport measures	Implement any relevant design measures listed in the Travel Plan, including appropriate cycle storage, core and new amenities (i.e., terraces, gym for PBSA). Scheme also benefits from high frequency of public transport nearby (10no out of 10 for PBSA, 9no out of 10 for office)

7.1.8. Main Contractor's Issues

Table 10 – Main Contractor's Issues

Credit		Requirements
Man 02 Req 1-3	Capital Cost Reporting	Report the capital cost for the building in £k/m2 to the Assessor for reporting to the BRE via the BREEAM Spreadsheet
Man 03 Req 1-18	Responsible Construction Practices	Requires that any party, who at any stage, manages the construction site: - Uses Legally harvested and traded timber'. - Operates a third-party certified EMS (e.g., ISO 14001) - Implements best practice pollution prevention policies. - Uses a BREEAM AP. - Achieves 35 in CCS with no section below 11 - Monitors and reports construction site energy and water consumption
Man 04 Req 1-5	Commissioning - Testing Schedule and Responsibilities	Appoint an appropriate team member to monitor and programme pre-commissioning, commissioning and testing. A schedule of commissioning is prepared, identifying appropriate timescales and standards e.g. CIBSE, BSRIA. Where a BMS is installed, carry out commissioning and training as per the BREEAM criteria (req 3). The contractor accounts for commissioning, testing, responsibilities and standards within budget and programme of works.
Man 04 Req 11-12	Handover	Ensure that prior to handover, two building user guides are developed a non-technical guide for building occupiers and a technical guide for FM and two training schedules are prepared, one as a non-technical training schedule for the building occupiers, and a technical version for FM team.
Man 05 Req 1-2	Aftercare Support PBSA Only	Provide an appropriate level of aftercare support to the client / building user for the first 12-months of occupation of the building.

Credit		Requirements
Ene 06 Req 1-2	Energy Efficient Lifts	Instruct Lift manufacturer to provide BREEAM compliant vertical transport analysis and energy comparison report and install low energy lift specification including use of regen units
Mat 03 Pre req	Responsible Sourcing	Requires that all timber used within the project will be legally harvested and traded timber.
Wst 01 Req 3-4	Construction Resource Efficiency	Requires Resource Management Plan to be used, and that non-hazardous construction waste is less than 13.3 m ³ or 11.1 tonnes per 100m ² GIFA.
Wst 01 Req 6 - 7	Diversion of resources from landfill	Requires that 70% (by volume) of non-hazardous waste generated by the project is diverted from landfill and that 80% (by volume) of non-hazardous demolition waste generated by the project is diverted from landfill.
LE 02-05	Land use and Ecology	Requires that the contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site and attendance at coordination environmental workshops / discussions to discuss ecological issues associated with the design, construction, maintenance and ongoing use of the landscape and implementation of all recommended ecological solutions and monitoring of construction impacts.

8. SUMMARY AND RECOMMENDATIONS

Following discussions and commitments made by the design team during the pre-assessment meetings, a route-map towards achieving a '**Very Good**' rating.

The results have been summarised in the sections above to highlight the credits where there is a time constraint, by discipline. A more detailed breakdown is provided in Appendix A (For Block A, Offices) and Appendix B (For Block B, PBSA).

It is recommended that each discipline review the suggested targets and ensure that the necessary elements are incorporated into the design documentation and advise to Dominvs and Cumming the cost and complexity issues associated.

Please note that for any particular rating there are mandatory credits that need to be achieved within the targeted percentage score. These are also highlighted in Appendix A and Appendix B

APPENDIX A- DETAILED ASSESSMENT REPORT: BLOCK A, OFFICES

BREEAM Pre Assessment report (RIBA Stage 2)

RIDGE

One Medlock St Office (Shell & Core)

BREEAM Version 6

PASS	30
GOOD	45
VERY GOOD	55
EXCELLENT	70
OUTSTANDING	85

Report Prepared By: Michaela Parkinson

Report Checked By: James Lomas Holt

Date: 12.10.22

Results Summary			
Sector	Total Available	Weighting (Shell & Core)	Very Good Target
Management	18	11.0%	8.55%
Health & Wellbeing	11	8.0%	4.36%
Energy	21	14.0%	6.00%
Transport	12	11.5%	10.54%
Water	9	7.0%	3.88%
Materials	14	17.5%	8.75%
Waste	11	7.0%	3.81%
Land Use & Ecology	13	15.0%	11.53%
Pollution	12	9.0%	4.50%
Total Predicted Score			61.92%
Innovation	10	10.0%	1.00%
Total Score			62.92%
BREEAM Rating			VERY GOOD

Shading Denotes Mandatory Credit for Very Good

This document is to be read in conjunction with the current BREEAM Manual available online, which gives full details of credit requirements

Key to Responsibilities	
Role	Company
Client	Dominvs
Project Manager / QS	Walker Sime
Architect	Jon Matthews Architects
M&E Consultant	Ridge M&E
Structural & Civil Eng	Ramboll
Landscape Architect	Planit
Acoustician	TBC
Ecologist	Greengage
Transport Consultant	Vectos
BREEAM Assessor BREEAM AP	Ridge and Partners
Main Contractor	TBC
M&E Sub Contractor	TBC

BREEAM Version 6 New Construction, Offices, Shell & Core

Belvedere House, 5th Floor, 12 Booth Street
Manchester. M2 4AW

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Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
MANAGEMENT						
Man01	Project Brief and Design					
Req 1-3	Project Delivery Planning	1	0.61	This credit is not targeted, but would require that prior to the end of RIBA Stage 2 all the project delivery stakeholders (client/developer, contractor, design team) meet, identify and define roles, responsibilities & contributions during each key phase. The project team demonstrates how the stakeholder contributions and consultation process influences the following: - Initial Project Brief, Project Execution Plan, Communications Strategy, Concept Design Please note all documents above need to be present even if they are combined into a single document.	0	
Req 4-7	Stakeholder Consultation (Interested Parties)	1	0.61	It is assumed that the following will not be undertaken: prior to the end of RIBA Stage 2 it's required that consultation took place with all relevant parties. It must be demonstrated that the consultation has influenced the Project Brief and Concept Design. The relevant consultees and consultation content need to align with the detailed BRE requirements. Prior to the end of RIBA Stage 4, all interest parties give and receive feedback.	0	
Req 8	Pre-Requisite - BREEAM AP	X	0.61	It is assumed that the project team and client formally agree (contract or letters of appointment) strategic performance targets, including the BREEAM rating, early in the design process.	X	Medium Walker Sime / Dominvs
Req 9	BREEAM AP (Concept Design)	1	0.61	It is assumed that a BREEAM Accredited Professional (AP) is appointed as BREEAM AP during RIBA Stage 1 / 2 and: - Works with the project team, including the Cleint, to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM throughout Concept Design (RIBA Stage 2) - Monitor progress against the performance targets throughout all stages - Identify risks and opportunities related to the achievement of the targets agreed - Provide feedback to the project team as appropriate - Monitor / coordinate generation of appropriate evidence by the project team.	1	Low Dominvs / Ridge
Req 11-12	BREEAM AP (Developed Design)	1	0.61	It is assumed that Criteria 8 & 9 is achieved and there is an appointed BREEAM AP who: - Works 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 throughout Developed Design (RIBA Stage 3) - Monitor progress against the performance targets throughout all stages - Identify risks and opportunities related to the achievement of the targets agreed - Provide feedback to the project team as appropriate - Monitor and coordinate the generation of appropriate evidence by the project team.	1	Low Dominvs / Ridge
Man02	Life Cycle Cost and Service Life Planning					
Req 1-3	Elemental Life Cycle Cost	2	0.61	It is assumed that, prior to the end of RIBA Stage 2, a competent person carries out an elemental life cycle costing analysis together with elemental options appraisals in accordance with PD 156865:2008. The LCC should show future replacement costs over 20, 30, 50 or 60 years and include service life, maintenance and operation cost estimates and be used to influence design and specification. Modelling work being carried out by Ridge, with input from the team on costs	2	Medium QS / Walker Sime / Ridge
Req 4-5	Component Level LCC Plan	1	0.61	It is assumed that, prior to the end of RIBA Stage 4 a competent person carries out a component level LCC plan in line with PD 156865:2008. Where present, the LCC plan should include: Envelope; Services; Finishes & External Spaces. The component level LCC must be used to influence design and specification. Included in Ridge Sustainability scope. As with above, will require cost and quantity information from the team to progress	1	Medium QS / Project Team / Ridge
Req 6	Capital Cost Reporting	1	0.61	Report the capital cost for the building in £k/m2 to the Assessor for reporting to the BRE via the BREEAM Spreadsheet	1	Low QS / MC

Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Man03	Responsible Construction Practices		Minimum standard: Req 7 for Excellent, Req 8-9 for Outstanding			
Req 1	Pre-requisite: Timber		It is assumed that all timber and timber based products used on the project are 'Legally harvested and traded timber'. If the demo works are undertaken by a separate party, the above needs to be demonstrated for their works too		Low	MC
Req 2-4	Environmental Management	1	0.61 It is understood that all demolition / site preparation works will be undertaken by the main contractor . It is assumed that the main contractor will: - Operate an EMS e.g. ISO14001 - Implement best practice pollution prevention policies and procedures. If the demo works are undertaken by a separate party, they will also need to comply with the above	1	Medium	MC
Req 5	Pre-requisite for BREEAM AP		The client and contractor formally agree BREEAM Rating required - Very Good minimum		Low	MC
Req 6	BREEAM AP (Site)	1	0.61 It is assumed that Ridge will be appointed as BREEAM AP for RIBA Stage 4-6 : - Works with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving the project's performance targets throughout the Construction, Handover and Close Out stages. - Monitors construction progress against the performance targets agreed - Identifies risks and opportunities related to the procurement and construction process - Provides feedback to the contractor and the project team - Monitors and coordinates the generation of appropriate evidence by the project team	1	Medium	Ridge (Sust) / MC
Req 7	Responsible Construction Management (Credit 1)	1	0.61 It is assumed that the project will achieve at least a score of 27 overall on CCS, with no section scoring under 9 points. If the demo works are undertaken by a separate party, they will also need to comply with the above (i.e. sign up to CCS). Best done by the Principle Contractor	1	Low	MC
Req 8-9	Responsible Construction Management (Credit 2)	1	0.61 It is assumed that the project will achieve at least a score of 35 overall on CCS, with no section scoring under 11 points. The innovation credit is also targeted, requiring a score of 39 overall with no section under 13 . If the demo works are undertaken by a separate party, they will also need to comply with the above (i.e. sign up to CCS). Best done by the Principle Contractor	1	Medium	MC
Req 10	Monitoring of Construction- Site Impacts- Pre-requisite		0.61 It is assumed that responsibility has been assigned to an individual(s) for monitoring, recording and reporting energy use, water consumption and transport data throughout the build programme. This will need undertaking for both demolition and construction phases		Low	MC
Req 11 - 18	Monitoring of Construction- Site Impacts (Energy and Water)	1	0.61 It is assumed that the appointed individual sets targets for, and monitors site energy consumption in kWh and also reports kgCO ₂ , and kgCO ₂ /project value. Targets are set for water consumption (m ³) usage on site, and this is monitored throughout the programme. This will need undertaking for both demolition and construction phases	1	Low	MC
Req 19-22	Monitoring of Construction- Site Impacts (Transport)	1	0.61 This credit is not targeted, but would require that the appointed individual will set targets for, and monitor data on transport of construction materials and waste. KgCO ₂ eq, km should be reported separately for materials and waste. This will need undertaking for both demolition and construction phases	0		
Man04	Commissioning and Handover		Minimum Standard: Req 1-5 & 11 for Very Good & Above			
Req 1-5	Commissioning - Testing Schedule and Responsibilities	1	0.61 Appoint an appropriate team member to monitor and programme pre-commissioning, commissioning and testing. A schedule of commissioning is prepared, identifying appropriate timescales and standards e.g. CIBSE, BSRIA. Where a BMS is installed, carry out commissioning and training as per the BREEAM criteria (req 3). The contractor accounts for commissioning, testing, responsibilities and standards within budget and programme of works.	1	Low	Ridge (M&E) / M&E Sub / MC

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Req 6-7	Commissioning - Design and Preparation	1	0.61	The above credit is achieved and an appropriate team member, not involved in installation works, is appointed during the design to undertake design reviews, provide commissioning management input and manage commissioning performance testing and handover / post-handover stages. For a building with complex systems, a specialist commissioning manager must be appointed.	1	Low	M&E Sub
Req 8-10	Testing and Inspecting Building Fabric	1	0.61	This credit is not targeted, but would require that criteria 1-5 is achieved and it is assumed that an air tightness survey, and thermographic survey are undertaken to QA integrity of the building fabric, continuity of insulation, avoidance of thermal bridging and air leakage paths. Any defects found are rectified.	0		
Req 11-12	Handover	1	0.61	Prior to handover, two building user guides are developed - a non technical guide for building occupiers and a technical guide for FM. A draft copy is developed and discussed with users first, where building occupiers are known. Two training schedules are prepared, one as a non-technical training schedule for the building occupiers, and a technical version for FM team.	1	Medium	MC
HEALTH & WELLBEING							
Hea01	Visual Comfort						
Req 4	Daylighting	2	0.73	It's assumed that a glare control assessment is not carried out to identify areas at risk from glare and justify areas not at risk. It's also assumed the following criteria is not signed off - - Glare control is provided to appropriate areas, this should not result in increased energy consumption e.g. vertical blinds used so that direct glare can be removed by sunlight is let in. Note blinds need to have openness factor of <1% and light transmittance of <0.1(10%) Note, where compliant shading is provided to all relevant areas, a glare control assessment is not required.	0		
Req 5-7	View Out	1	0.73	The following is unlikely to be achieved : This credit requires that an adequate view out is provided for 95% of each relevant area (any area containing workstations / where close work will be undertaken), e.g. bedroom desks, kitchen clusters, amenity space) To achieve this credit, 95% of relevant areas must be within 8m to a window with rooms having >20% of the external wall made up of windows. If over 8m from a window, the window area should comply with table 1.0 BS 8206.	0	Possible	JMA
Req 8-14	External Lighting Levels	1	0.73	For External lighting: - Areas within the construction zone comply with BS5489-1:2013 & BS12464-2:2014 Part 2. Note: This covers existing external lights within the construction zone both freestanding and building mounted as well as new lighting.	1	Low	M&E Sub
Hea02	Indoor Air Quality						
Req 1	Pre-Requisite - Indoor Air Quality Plan			If credits below are not being sought : an indoor air quality plan will need to be produced and implemented in accordance with the manual. These requirements include: 1.a Removal of contaminant sources 1.b Dilution and control of contaminant sources, including: 1.b.i Air quality requirements of specialist areas such as laboratories, where present 1.c Procedures for pre-occupancy flush out and purge ventilation 1.d Third party testing and analysis 1.e Maintaining good indoor air quality in-use 1.f Any relevant local authority plans or policies (for example, Air Quality Management Areas or Local Air Quality Action Plans)			

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Req 2	Ventilation	1	0.73	It is assumed that the building will not be comply with the following: 1. Providing fresh air into the building in accordance with the criteria of the relevant standard for ventilation. 2. Designing ventilation pathways to minimise ingress / build-up of air pollutants 3. HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 16798:2017. 4. Occupied spaces have carbon dioxide (CO₂) or air quality sensors specified in accordance with Building Regulations ADF2 and: 4.a. In mechanically ventilated spaces, sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space. 4.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, e.g. automatic opening windows or roof vents. 4.c. The total number of sensors, and the net internal area of relevant areas covered by the sensors, is reported via the BREEAM Scoring and Reporting Tool. 5. The ventilation strategy provides adequate ventilation rates throughout the year, including sufficient airflow rates in summer to prevent overheating and maintain required thermal comfort conditions, in accordance with: 5.a. CIBSE AM10 (for naturally ventilated buildings) 5.b. CIBSE AM13 (for mixed-mode buildings)	0		
Hea04		Thermal Comfort					
Req 1-4	Thermal Modelling	1	0.73	It is assumed that full dynamic thermal modelling will be carried out in accordance with CIBSE AM11. The study will demonstrate that the building design and services strategy can deliver thermal comfort levels in accordance with the criteria set out in CIBSE Guide A Table 1.5. In addition for naturally ventilated buildings overheating meets the recommendations of TM52 or TM59. For air conditioned buildings the PMV (predicted mean vote) and PPD (percentage people dissatisfied) is reported.	1	Medium	Ridge (M&E)
Req 5-8	Design for Future Thermal Comfort	1	0.73	It is assumed that the dynamic thermal modelling will demonstrate compliance for the above criteria when run for a projected climate change environment (see Relevant definitions in the BREEAM Manual), however this credit will be investigated by the M&E Consultant. Note that if the thermal comfort criteria are not met, the credit may still be achieved where a report is produced demonstrating how the building has been or can be easily adapted in future using passive design solutions in order to meet the requirements above. For air conditioned buildings/areas, the PMV and PPD indices based on the above modelling must be reported via the BREEAM assessment scoring and reporting tool.	1	Medium	Ridge (M&E)
Hea05		Acoustic Performance					
	Indoor Ambient Noise level	1	0.73	This credit is not targeted, but would require that a design stage acoustic report will demonstrate that with a generic office fit out the indoor ambient noise levels will be within the suggested range stated in section 7 of BS8233:2014.	0		
Hea06		Security					
Req 1-3	Security of Site and Building	1	0.73	It is assumed that: - 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 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. - The controls and recommendations are incorporated into the proposals and implemented into the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS. A Security Needs Assessment has been carried out for planning purposes	1	Medium	JMA

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Hea07	Safe and Healthy Surroundings						
Req 1-6	Safe Access	1	0.73	It is assumed that the following are all present: - Cycle storage is accessed directly from the public footpath off site - Footpaths provide direct access from the site entrance, with no car parking included on site - Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths where provided (if relevant). - Delivery access does not cross pedestrian / cycle routes, amenity areas or pass through parking areas (if relevant). - Where there are delivery areas there is a waiting area adequate turning and parking space for the appropriate delivery vehicles (where relevant). - There is a dedicated waste storage area away from the delivery manoeuvring area or car parking (if required).	1	Low	JMA
Req 7	Outside Space	1	0.73	It is assumed that there will be an appropriately sized outside space providing building users with an external amenity area. The outside space must be an outdoor landscaped area open to the sky with appropriate seating areas. It must also be accessible to all building users and away from areas which may cause noise pollution e.g. building services, car parks, busy roads and delivery areas and be non-smoking. 2no roof terraces should discharge the requirement for this, assuming they are non smoking and sufficiently distant from plant / external sources of noise	1	Low	JMA
ENERGY							
Ene01	Reduction of Energy Use and Carbon Emissions			Minimum standard - 4no credits for Excellent or above			
Req 1	Energy Performance	9	0.67	An EPR of 0.2 is achieved, which corresponds to 2no credits. Initial BRUKL indicates 2no credits are being achieved by the model that passes Part L 2021	2	Medium	Ridge (M&E)
Req 3-5	Energy Modelling and Reporting	4	0.67	The following is not targeted for a Very Good level, but would require - 2. Ensure the passive design credit is achieved (see Ene 04 below). 3. Estimate occupancy, energy use for unregulated energy and management practices. 4. Undertake detailed energy modelling to predict building energy consumption. 5. Undertake sensitivity analysis to determine factors that impact energy consumption. 6. Based on the sensitivity analysis, and in discussion with the project team, the client and the prospective occupier devise scenarios to explore how high impact factors might influence the building energy consumption. 7. Undertake scenario modelling and use these findings to inform improvements to design of the building and to operational, maintenance, and handover strategies. 8. Determine an energy target for the building based on the results of the scenario modelling. 9. At the post-construction stage, the scenario modelling should be repeated to reflect the post construction building specification and, if necessary, adjust the energy target.	0	Possible	
Ene02	Energy Monitoring			Minimum Standard: Req 1-4 (first credit) for Very Good and above			
Req 1-4	Sub-metering of Major Energy Consuming Systems	1	0.67	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. - The energy consuming systems in buildings with a total useful floor area greater than 1,000m2 are metered using an appropriate energy monitoring and management system. - The systems in smaller buildings are metered either with an energy monitoring/ management system or with separate accessible energy sub-meters with pulsed or other open protocol communication outputs, to enable future connection to an energy monitoring and management system. - The end energy consuming uses are identifiable to the building users, for example through labelling or data outputs.	1	Medium	Ridge (M&E) / M&E Sub

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Req 5	Sub-metering of High Energy Load and Tenancy Areas	1	0.67	It is assumed that, an accessible energy monitoring and management system or separate accessible energy sub-meters with pulsed outputs is required, covering a significant majority of the energy supply to relevant function areas or departments or tenancies within the building. This credit will require individual meters on each of the key energy uses (heating, cooling, lighting, power, ventilation, DHW etc.) to be provided on each floor / tenancy area	1	Medium	Ridge (M&E) / M&E Sub
Ene03 External lighting							
	External lighting	1	0.67	It is assumed that: - The average initial luminous efficacy of the external light fittings within the construction zone is not less than 70 luminaire lumens per circuit Watt. - All external lights have daylight sensors & PIRs in areas of intermittent pedestrian traffic.	1	Medium	Ridge (M&E) / M&E Sub
Ene04 Low Carbon Design							
Req 1-4	Passive Design Analysis	1	0.67	It is assumed that the first credit of Hea 04 Thermal Comfort has been achieved, and the following has been achieved: - The project team carries out a Passive Design Analysis (PDA) during Concept Design stage (RIBA Stage 2) which identifies opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services. - The building uses passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the PDA. There is a >5% quantified total reduction in energy demand and CO2 emissions as a result of implementing passive design strategies. Ridge M&E have developed the Energy Strategy report to address the above Stage 2 actions	1	Low	Ridge (M&E) / M&E Sub
Req 5-8	Free Cooling	1	0.67	It is assumed that free cooling strategies will not be used exclusively.	0		
Req 9-12	Low Zero Carbon Feasibility Study	1	0.67	It is assumed that the following will be achieved: - A feasibility study has been carried out by the completion of the Concept Design stage (RIBA Stage 2) by an energy specialist to establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy source(s) for the building/development. - Local LZC technology have been specified in line with the recommendations of the feasibility study and there is a reduction in regulated CO2 emissions from this. Ridge M&E have developed the Energy Strategy report to address the above Stage 2 actions	1	Low	Ridge (M&E) / M&E Sub
Ene06 Energy Efficient Transportation Systems							
Req 1	Energy Consumption	1	0.67	It is assumed that: - An analysis of the transportation demand and usage patterns for the building has been carried out to determine the optimum number and size of transport systems. - The energy consumption has been calculated in accordance with BS EN ISO 25745 Part 2. - The analysis includes one of the following: At least two types of system; An arrangement of systems (e.g. for lifts, hydraulic, traction, machine room-less); or A system strategy which is 'fit for purpose'. - The use of regenerative drives should be considered, where it produces an energy saving greater than the additional standby energy used to support it - The transportation system with the lowest energy consumption is specified.	1	Medium	Lift Manufacturer / MC
Req 3-4	Energy Efficient Features (Lifts)	1	0.67	It is assumed for each lift, the following three energy efficient features are specified: a. The lifts operate in a standby condition during off-peak periods. For example the power side of the lift controller and other operating equipment such as lift car lighting, user displays and ventilation fans switch off when the lift has been idle for a prescribed length of time. b. The lift car lighting & display lighting provides an average lamp efficacy, (across all fittings in the car) of > 70 lamp lumens/circuit Watt. c. The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.	1	Medium	Lift Manufacturer / MC

Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
TRANSPORT						
Tra01	Transport Assessment and Travel Plan					
	Travel Plan	2	0.96	2	Medium	Vectors
During Concept Design Stage (RIBA Stage 2) a draft travel plan needs to be created based on a site specific travel assessment. Note that all the points under criterion 2 need to be covered as minimum, including Accessibility Index and Local Amenities - see BREEAM NC Manual for more details. The travel plan includes proposals to increase or improve sustainable modes of transport and movement of people and goods during the building operation and use. The travel plan is implemented post construction and supported by the building's management in operation. Transport Assessment and Travel Plan provided by Vectors						
Tra02	Sustainable Transport Measures					
Req 1	Pre-requisite				Medium	Vectors
Produce a Tra 01 compliant travel plan during design stage . This is a prerequisite to the following credits being awarded.						
Req 2	Sustainable Transport Measures	10	0.96	9	Medium	Vectors/ JMA
It is assumed that 5no points will be achieved by implementing Sustainable Transport Measures as per Table 7.4 within the BREEAM Manual. With AI of >40 (AI =57.09 - Nov 21) will achieve 9no credits. The points are awarded for each of the items below: - Accessibility Index of I > 8 (57.09 achieved) (1 point) - provision of compliant covered cycle storage (1 space per 10 staff) (1 point) - location of core amenities (Sainsbury's First St food shop incl cash machine, post box on Medlock St) (1 point) - ensure a minimum of 1no new accessible amenities (roof terraces as outside space) (2 points) Post code M15 5FJ, GMAL Score 57.09, Nov 21						
WATER						
Wat01	Water Consumption	Minimum Standard: One credit for Good and above, Two credits for Outstanding				
	Water Consumption	5	0.78	1	Medium	Walker Sime / Ridge (M&E) / M&E Sub
It is assumed that a 12.5% improvement in water consumption over the notional baseline will be achieved. This would broadly equate to - - WC's - 6l flush or better - WHB taps - 5l/min or better - Showers - 14l/min or better - Kitchenette taps - 5l/min - Domestic sized dishwashers (if present) - 13l/cycle - Commercial sized washing machines - 10l/kg An alternative, equivalent route could be used to achieve the 2no credits						
Wat02	Water Monitoring	Minimum Standard: Criterion 1 for Good and above				
Req 1	Water Sub Meters				Low	Ridge (M&E) / M&E Sub
The main supply to the building will be fitted with a pulsed water meter.						
Req 2-6	Water Sub Meters	1	0.78	1	Low	Ridge (M&E) / M&E Sub
The main supply to the building will be fitted with a pulsed water meter. Additionally: - Sub-meters will be provided for any water consuming plant or building areas consuming 10% or more of the building's total water consumption . - Each water meter will have a pulsed output for connection to a BMS. - The sub meters are connected to any existing or proposed BMS - Sub meters are fitted to large water tanks separate to associated changing areas and sanitary areas irrespective of their water consumption levels.						
Wat03	Water Leak Detection and Prevention					
Req 1-2	Leak Detection System	1	0.78	1	Medium	Ridge (M&E) / M&E Sub
It is assumed that a BREEAM compliant leak detection system will be specified or installed on the buildings water supply.						

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Req 3	Flow Control Devices	1	0.78	It is assumed that flow control devices that regulate the water supply to the communal toilet areas or sanitary facility according to demand will be installed, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework. Not required on student ensuite facilities. The devices should be installed on the cold water supply to taps and WCs but must not allow the CWS to automatically switch off in showers while hot water is still running.	1	Medium	Ridge (M&E) / M&E Sub
Wat04 Water Efficient Equipment							
	Water Efficient Equipment	1	0.78	It is assumed that the design team has identified all unregulated water demands that could be realistically mitigated or reduced. System(s) or processes have been identified to reduce the unregulated water demand a meaningful reduction in the total water demand of the building can be demonstrated. Some examples would be: 1. Reclaimed/recovered water from a rainwater collection or waste water recovery system with appropriate storage, i.e. grey water collection from e.g. vehicle wash, training water in fire stations, sanitary facilities, irrigation etc. 2. External landscaping and planting that relies solely on precipitation, during all seasons of the year.	1	Low	Plantit
MATERIALS							
Mat01	Environmental impacts from construction products -Building life cycle assessment (LCA)						
Req 3-5	Superstructure	6	1.25	It is assumed that an IMPACT equivalent Life Cycle Assessment will be carried at RIBA Stage 2 and will consider LCA options for 4 substantially different superstructure elements followed by a Stage 4 more detailed LCA review on a further 3 options based on the Stage 2 choice. The Mat 01 calculator will need to be submitted to BRE at Stage 2 & 4. LCA Stage 2 modelling and optioneering carried out with input from team, and data submitted to the BRE prior to planning	4	Low	Project Team / Ridge (Sust)
Req 6-7	Substructure and Hard Landscaping Options Appraisal	1	1.25	It is assumed that an IMPACT Life Cycle Assessment will be carried out at RIBA Stage 2 and will consider LCA options for 6 substantially different substructure or hard landscaping elements (at least 2 being sub structure and 2 being hard landscaping). The Mat 01 calculator will need to be submitted to BRE at Stage 2. LCA Stage 2 modelling and optioneering carried out with input from team, and data submitted to the BRE prior to planning	1	Low	Project Team / Ridge (Sust)
Mat02	Environmental impacts from construction products - Environmental Product Declarations (EPD)						
	Specification of products with a recognised EPD	1	1.25	It is assumed that there will NOT be sufficient construction products specified with an Environmental Product Declaration (EPD) to achieve a total EPD points score of at least 20. See BREEAM manual for further details.	0		
Mat03	Responsible Sourcing	Minimum standard: Req 1 for all BREEAM assessments					
Req 1	Pre Requisite			All timber used within the project will be legally harvested and traded timber.		Low	MC
Req 2	Enabling Sustainable Procurement	1	1.25	It is assumed that a sustainable procurement plan was used by the design team to guide specification towards sustainable construction products before Concept Design (i.e. during RIBA Stage 1). SPP in place on client side	1	Low	Walker Sime
Req 3	Measuring Responsible Sourcing	3	1.25	This credit is not targeted, but would require that materials will be sourced suppliers with appropriate responsible sourcing certification (e.g. BES6001 / ISO14001 / FSC / CSA / MTCC / PEFC / SFI etc.).	0		

Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Mat05	Designing for Durability and Resilience					
Protecting vulnerable parts of the building from damage	1	1.25	It is assumed that the building will be designed to incorporate suitable durability / protection measures / designed features / solutions to prevent damage to vulnerable parts of the internal & external building & landscaping, including: - Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughfares (corridors, lifts, stairs, doors etc.). - Protection against any internal vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. - Protection against, or prevention from, any potential vehicular collision where vehicular parking and manoeuvring - Protection from malicious damage to building materials and finishes, in public and common areas where appropriate.	1	Medium	JMA
Protecting exposed parts of the building from material degradation			It is assumed that: a) key exposed building elements will be designed and specified to limit long and short term degradation due to environmental factors. This can be demonstrated through either: the element or product achieving an appropriate quality or durability standard or design guide, see Table 9.14 in BREEAM NC Manual for more details. OR by carrying out a detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors. b) the building includes convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's design. c) the roof and façade will be designed to prevent water damage, ingress and detrimental ponding		Medium	JMA
Mat06	Material Efficiency					
Material Efficiency	1	1.25	As no action was undertaken at Stage 1 , the full requirements at all RIBA stages have not been met in order for this credit to be targeted.	0		
WASTE						
Wst01	Construction Site Waste Management			Minimum standard: One Credit for Outstanding		
Req 1-2	Pre-demolition audit	1	0.64	It is assumed that this credit cannot be targeted as it is expected that a compliant audit will not be conducted at a suitably early stage (During Stage 2). BREEAM compliant pre demolition audit for the entire site would achieve the credits for both PBSA and offices	0	Possible Walker Sime / Demolition Expert
Req 3-4	Construction Resource Efficiency	3	0.64	It is assumed that: - 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 RMP also covers accurate data records on waste arisings and waste management routes. - One Credit: less than 13.3m ² or 11. tonnes of non-hazardous waste generated per 100m ² GIFA.	1	High MC
Req 5-6	Diversion of resources from Landfill	1	0.64	It is assumed that the following percentages of non-hazardous construction (on-site and off-site manufacture / fabrication in a dedicated facility), demolition waste generated by the project have been diverted from landfill: - Non Demolition - 70% by Volume or 80% by tonnage - Demolition - 80% by Volume or 90% by tonnage	1	Low MC
Wst02	Use of Recycled and Sustainably Sourced Aggregates					
Req 1	Pre-requisite			If demolition occurs on site, a pre-demolition audit was conducted		
Req 2-6	Project Sustainable Aggregate Points	1	0.64	This credit is not deemed achievable due to the high rates of recycled aggregate / secondary aggregates needed	0	

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Wst03	Operational Waste Minimum standard: One Credit for Excellent & Outstanding						
Req 1	Dedicated space for recyclables	1	0.64	This credit is not targeted, but would require that a dedicated recycling area, adequately sized to serve the development and accessible to building occupiers and waste contractors will be provided. This space will be sized to meet the Client's requirements (as a guide 2m² per 1000m² net floor area).	0		
Req 2	Compactor / Baler / Composting			This credit is not targeted, but would require that a static compactor / baler infrastructure may be required (or justification it wouldn't be needed for a scheme of this type and size)			
Wst04	Speculative office finishes						
	Speculative office finishes	1	0.64	It is assumed that: - for tenanted areas, where the future occupant is not known and carpets or other floor or ceiling finishes are installed, these must be limited to a show area only (either a floor plate or an individual office but < 25% of net lettable floor area). - Only install floor and ceiling finishes selected by the known occupant of a development. Alternatively, - where only ceiling finishes and no carpets are installed, the building owner confirms that the first tenants will not be permitted to make substantial alterations to the ceiling finishes.	1	Low	JMA/ S&C / Ridge (M&E)
Wst05	Adaptation to Climate Change						
	Resilience of structure, fabric, building services and renewables installation	1	0.64	Conduct a Climate Change Adaptation Strategy Appraisal using: 1. A systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects and includes: - 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 RIBA Stage 2 , that aim to mitigate the identified impact. 3. Provide an update during RIBA Stage 4 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. Ramboll have developed this report	1	Low	JMA/ S&C / Ridge (M&E)
Wst06	Design for Disassembly and Adaptability						
Req 1-2	Design for disassembly and adaptability - Recommendations	1	0.64	It is assumed that: 1. A study was conducted to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of RIBA Stage 2 . See full credit guidance within BREEAM NC manual for the minimum considerations within the report. 2. Recommendations or solutions were developed based on the study during or prior to RIBA Stage 2 that aim to enable and facilitate disassembly and functional adaptation. JMA have developed this report.	1	Medium	JMA/ S&C / Ridge (M&E)
Req 3-5	Design for disassembly and adaptability - Implementation	1	0.64	It is assumed that: 1. The above credit is achieved. 2. An update is provided during RIBA Stage 3/4 on: - How the recommendations or solutions proposed by Concept Design (RIBA Stage 2) have been implemented where practical and cost effective. Omissions have been justified in writing to the assessor. - Changes to the recommendations and solutions during the development of the Technical Design. 3. A building adaptability and disassembly guide will be produced to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.	1		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
LAND USE & ECOLOGY							
LE01	Site Selection						
Req 1	Previously Developed land	1	1.15	It is assumed that at least 75% of the development's footprint (including building, hard landscaping, and temporary works) is on previously developed land.	1	Low	JMA
Req 2-3	Contaminated land	1	1.15	It is unlikely that the site can be classed as contaminated or requiring remediation to enable development.	0		
LE02	Identifying and understanding the risks and opportunities for the project						
Req 1-2	Pre-requisite			It is assumed that there will be remodelling of some external areas as part of this contract and that assessment route 2 is appropriate It is assumed that the client or contractor will confirm compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.		Low	Ecologist / MC
Req 4-6	Ecological Survey & Evaluation	1	1.15	It is assumed that a Suitably Qualified Ecologist has been appointed at a project stage that ensures early involvement in site configuration & can influence planning decisions AND prior to planning application (ideally RIBA Stage 1/2), 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: - Current and potential ecological value and condition of the site, and related areas within the zone of influence. - Direct and indirect risks to current ecological value - Capacity and feasibility for enhancement of the ecological value of the site Data are collated and shared with project team to inform the site preparation, design or construction works. Greengage have produced a Preliminary Ecological Appraisal (PEA)	1	Low	Ecologist
Req 7-10	Determining Ecological Outcome	1	1.15	It is assumed that prior to planning application , 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, taking into account the Route 2 hierarchy of actions listed in the table in the BREEAM Manual. Cumming identified as Environmental Champion, and Stage 2 Environmental Workshop carried out on 11.10.22	1	Medium	Project Team / Ecologist
LE03	Managing negative impacts on ecology						
Req 1	Pre-requisite			It is assumed that LE02 is achieved. It is assumed that the client or contractor will confirm that compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.		Medium	Project Team / Ecologist
Req 2-4	Planning, Liaison, Implementation & Data	1	1.15	It is assumed that the pre-requisite has been met and it is assumed that 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 (via Environmental Workshop meetings). Site preparation and construction works should have been planned for and are implemented at an early project stage to optimise benefits and outputs. The project team has been 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. Cumming identified as Environmental Champion, and Stage 2 Environmental Workshop carried out on 11.10.22	1	Medium	Project Team / Ecologist
Req 8 (Route 2)	Managing negative impacts of the project	2	1.15	Based on correspondence with the ecologist, it's understood that 2no credits are achievable here, based on implementation of the mitigation hierarchy, with confirmation that there has been no overall loss in ecological value based on development.	2	Medium	Ecologist

Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
LE04 Change and Enhancement of Ecological Value						
Req 1-2	Pre-requisite		It is assumed that LE03 Req 8 can be demonstrated & the client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. Note this must be demonstrated to allow award for Req 6.		Medium	Ecologist
Req 5 (Route 2)	Liaison, implementation and data collation	1	1.15 It is assumed the project team have been liaising and collaborating with representative internal & external 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: - On site, and where this is not feasible, - Off site within the zone of influence. Where data is collected and potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.	1	Medium	Project Team / Ecologist
Req 6 (Route 2)	Enhancement of ecology	3	1.15 It is assumed that a calculation of the change in ecological value occurring as a result of the project based on the process set out in GN36 using the BREEAM LE04 calculator or DEFRA 2.0 methodology will demonstrate change in biodiversity between 75% and 94% . - to achieve 2no credits the change in biodiversity needs to be between 95% and 104% and the resultant habits need to be >2.5% of the GIFA of the building and includes a new linear habitat (e.g. hedge)	1	Possible additional	Ecologist
LE05 Long Term Ecology Management and Maintenance						
Req 1-2	Pre-requisite		It is assumed that: -The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site. - Negative impacts from site preparation and construction works have been managed according to the BREEAM hierarchy and that the SQE confirms no loss of ecological value has occurred. -At least one credit under LE04 req 6 is achieved		Medium	Ecologist
Req 3-4	Management and maintenance throughout the project	1	1.15 It is assumed that the ecological outcomes defined in LE 02,03 & 04 will be monitored and the effectiveness of the mitigation and enhancement measures will be reviewed to ensure they are implemented. Management throughout the project should include the following: - Monitoring and reporting of outcomes and successes from the project. - Arrangements for ongoing management of landscape and habitat connected to the project (on and, where relevant, off site). - Maintaining ecological value of the site & relationship/connection to its zone of influence - Maintaining site in line with the any sustainability activities, e.g. ecosystems benefits (LE 02). A section on Ecology and Biodiversity will be included as part of the building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site. This should include detailed management and maintenance plans as required by landscape and asset managers as well as relevant parts of the handover information for occupiers written in a format that encourages understanding and supportive behaviours.	1	Medium	Project Team / Ecologist

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Req5-6	Landscape and ecology management plan	1	1.15	It is assumed that a landscape and ecology management plan, or similar, will be developed in accordance with BS 42020:2013 section 11.1 covering at least the first five years after project completion & includes: - Actions and responsibilities, prior to handover, to give to relevant individuals - The ecological value and condition of the site at handover and how this is expected to develop and change over time - Identification of opportunities for ongoing alignment with activities external to the development project & which supports the aims of BREEAM's Strategic Ecology Framework - Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts - Clearly defined and allocated roles and responsibilities. The landscape and management plan or similar is updated as appropriate to support maintenance of the ecological value of the site.	1	Medium	PAA/ Plant
POLLUTION							
Pol01		Impact of Refrigerants					
Req 2	Buildings With Refrigerants Prerequisite			It is assumed that: All systems with electric compressors comply with the requirements of BS EN 378:2016 (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice.			
Req 3-5	Impact of Refrigerant	2	0.75	It is currently assumed that the refrigerants specified will not achieve Direct Effect Life Cycle CO ₂ equivalent emissions of ≤1000kg CO ₂ e/kW cooling capacity.(note: both credits can be achieved if systems with refrigerants having GWP<10 can be specified)	0	Possible	M&E/ M&E Sub
Req 6-7	Leak Detection System	1	0.75	It is assumed that the refrigerant systems will not have either hermetically sealed construction or BREEAM compliant refrigerant leak detection	0		
Pol02		Local Air Quality					
	Local Air Quality	2	0.75	It is assumed that either all hot water and heating is supplied by non-combustion systems e.g. powered by electricity OR that the emissions do not exceed the levels in table 12.4 of the BREEAM Manual (e.g. 24 mg/kWh for gas boilers)	2	Low	M&E / M&E Sub
Pol03		Flood and Surface Water Management					
Req 1	Pre-requisite			An Appropriate Consultant is appointed to carry out, demonstrate and/or confirm the development's compliance with all the criteria.		Low	
Req 2	Low Flood Risk	2	0.75	It is assumed that a site specific Flood Risk Assessment will be produced which confirms that the building is situated in a low flood risk area for all of the following: - Fluvial - Surface Water - Sewers - Tidal - Groundwater - Reservoirs, canals or other artificial sources. Flood risk assessment identified the scheme as being located in a low flood risk area	2	Low	Drainage Consultant
Req 5	Pre-requisite			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.		Low	

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Req 6-8	Surface Water Run-Off - Rate	1	0.75	It is assumed that: - Drainage measures are specified to ensure that the peak rate of run-off from the site to the watercourses (natural or municipal) shows, where brownfield, a 30% improvement for developed site compared with the pre-developed site. This should comply at the 1-year and 100-year return period events. - Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. - Calculations include an allowance for climate change; this should be made in accordance with current best practice planning guidance.	1	Medium	Drainage Consultant
Req 9-15	Surface Water Run-Off - Volume	1	0.00	It is assumed that the following cannot be achieved: - Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); - Drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for 100-year 6-hour event, including climate change. - Where the above volume requirement is not achievable, 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. - Drainage design measures are specified to ensure the post development peak rate is reduced to the limiting discharge. This is defined as the highest flow rate from the following options: a. The pre-development 1-year peak flow rate; b. The mean annual flow rate Qbar; c. 2L/s/ha. - Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. - For either option above, calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.	0		
Req 17-24	Minimising water course pollution	1	0.75	It is assumed that the drainage engineer will not be able to confirm that there will be zero discharge from the site for up to 5mm of rainfall.	0		
Pol04	Reduction of Night Time Light Pollution						
	Reduction of Night Time Light Pollution	1	0.75	It is assumed that all of the external lighting within the construction zone complies with the following: - Complies with Table 2 of the ILP Guidance notes for the reduction of obtrusive light, 2011 - All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. - Any safety or security lighting which is used between 23:00 & 07:00, complies with the lower levels of lighting recommended in Table 2 of the ILP's Guidance notes. - Illuminated advertisements must be designed in compliance with ILP PLG05.	1	Medium	Ridge (M&E) / M&E Sub
Pol05	Reduction of Noise Pollution						
	Reduction of Noise Pollution	1	0.75	This credit is not targeted, but would require that: - A noise impact assessment in compliance with BS 4142:2014 will be carried out by a suitably qualified acoustician and the following noise levels measured/determined: i. Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed development or at a location where background conditions can be argued to be similar. ii. The rating noise level resulting from the new noise source. - The noise level from the proposed site/building, as measured in the locality of the nearest or most exposed noise-sensitive development must be at least 5dB lower than the background noise throughout the day and night. - Where the noise source(s) from the proposed site/building is greater than above, measures have been installed to attenuate the noise at its source to a level where it will comply with the above.	0		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
INNOVATION CREDITS							
Man 03 Req 23	Responsible Construction Management	1	1.00	This credit is not targeted, but would require that: It is assumed that the project will achieve at least a score of 39 overall on CCS, with no section scoring under 13 points. If the demo works are undertaken by a separate party, they will also need to comply with the above (i.e. sign up to CCS). Best done by the Principle Contractor	0	Possible	MC
Hea 01 Req 15	Daylighting	1	1.00	The relevant building areas are unlikely to meet the exemplary daylighting criteria as per Table 5.8 or Table 5.9 within the BREEAM Manual.	0		
Hea 01 Req 16	Internal and External Lighting Zones & Controls	1	1.00	It is assumed that lighting in each zone cannot be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations. This credit is to be reviewed as the design develops. If sought, dimming and control gear should avoid flicker and noise.	0		
Hea 02 Req 11	Minimising sources of air pollution	1	1.00	Less than three of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.12. 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.	0		
Hea 06 Req 4	Security of Site and Building	1	1.00	A compliant risk based security assessment scheme has NOT been used. The performance against the scheme has been confirmed by independent assessment and verification. Note that SABRE is currently the only BRE recognised scheme.	0		
Ene 01 Req 6-7	Beyond Zero Net Regulated Carbon	2	1.00	Building is unlikely to achieve EPR of at least 0.9 and zero net regulated carbon emissions & energy generation from on-site and near-site LZC sources offsets carbon emissions from regulated energy use plus unregulated energy use is unlikely to exceed 10% or achieve 50%%	0		
Ene 01 Req 9	Carbon Negative Req 9	1	1.00	<100% carbon emissions from unregulated (and regulated) energy use are offset by energy generated from off-site and near-site LZC sources.	0		
Ene 01 Req 10-12	Post Occupancy Stage	2	1.00	Funds are NOT currently committed to pay for the post occupancy stage BREEAM Certification. An assessor is not appointed to report on the actual energy consumption compared with targets set. Energy model is not submitted to the BRE & retained by the building owner. This credit requires maximum available credits in Ene 02 and operational energy 4 credits to be achieved.	0		
Wat 01 Req 7-8	Water Consumption	1	1.00	It is assumed that the building will not achieve a reduction in water consumption by 65% over the notional baseline.	0		
Mat01 Req 8-9	LCA -Core Building Services Options	1	1.00	It is assumed that LCA options appraisal is NOT completed for 3 significantly different core building services options using a recognised LCA tool during Concept Design & tool is submitted to BRE	0		
Mat01 Req 11-14	LCA & LCC Alignment	1	1.00	It is assumed that the following will be achieved: - LCA credits for superstructure @ Concept & Technical Design stages achieved. - Elemental LCC plan and Component Level LCC options appraisal credits (Man 02 Life cycle cost and service life planning on page 45) achieved. - Integrate the aligned LCA and LCC options appraisal activity within the wider design decision-making process - Record results in an Options Appraisal Summary Report.	1	Low	Project Team / Ridge (Sust)
Mat01 Req 15-18	LCA - Third party verification	1	1.00	This credit is not targeted, but would require that: - LCA credits for superstructure @ Concept & Technical Design Stages - LCA credits for Substructure & landscaping options have been achieved. - 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 all relevant BREEAM criteria.	0		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good	Risk	Responsibility
Mat 03 Req 3	Measuring Responsible Sourcing	1	1.00	It is assumed that using the manufacturers with appropriate responsible sourcing certification for Superstructure, internal finishes, substructure, hard landscaping and core building services <50% of available points will be achieved	0		
Wst 01 Req 3-4	Construction Waste Management	1	1.00	As per criteria for Wst 01 Construction Resource Efficiency and Diversion of Resources from Landfill, the following benchmarks are achieved: - Construction waste will NOT be less than 1.6m ³ / 1.9 tonnes per 100m ² GIFA. - Diversion from landfill targets may not be met for Non Demolition & Demolition (85% by Volume or 90% by tonnage) & Excavation (95% by Volume or 90% by tonnage) - Additionally all key waste groups in Table 10.3 for diversion from landfill are covered in the RMP. Waste data obtained from licensed external waste contractors is reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from a PAS 402:2013 compliant company.	0		
Wst 02 Req 7	Project Sustainable Aggregate Points	1	1.00	Achieve less than 6 points using the Wst 02 calculator, based on: - Identifying all aggregate uses and types on the project - The quantity in tonnes for each identified use and aggregate type. - The region in which the aggregate source is located. - The distance in kilometres travelled by all aggregates by transport type.	0		
Wst 05 Req 4-5	Responding to Climate Change	1	1.00	Not ALL of the following credits are achieved: - Hea 04 - Criterion 6 - Ene 01 - 6 credits - Ene 04 - Passive Design Analysis credit - Wat 01 - 3 credits - Mat 05 - Criteria 2-4 - Wst 05 - Req 1-3 (full credit) - Pol 03 - 1 credit for flood resilience plus 2 credits for surface water run-off	0		
LE 02 Req 11-13	Determine the Ecological Outcomes for the Site	2	1.00	When determining the optimal ecological outcome for the site, sustainability-related activities and the potential for ecosystem service related benefits for the wider site will NOT necessarily be considered. And not all of the following credits will be achieved: Hea 07 - Safe Access ; Hea 07 - Outdoor Space; Pol 03 - Surface water run-off & minimising water course pollution; Pol 05 - Reduction of Noise Pollution	0		
LE 04 Req 7	Change and enhancement of Ecology	1	1.00	The scheme will not achieve significant net gain i.e. >110%	0		
Unlisted, BRE Approved Innovations		10	1.00	No unlisted innovation credits will be sought	0		

APPENDIX B- DETAILED ASSESSMENT REPORT: BLOCK B, PBSA

BREEAM Pre Assessment report (RIBA Stage 2)

RIDGE

One Medlock St PBSA

BREEAM Version 6

PASS	30
GOOD	45
VERY GOOD	55
EXCELLENT	70
OUTSTANDING	85

Report Prepared By: Michaela Parkinson

Checked by: James Lomas Holt

Date: 12.10.22

Results Summary			
Sector	Total Available	Weighting	Very Good Target
Management	21	11.0%	8.38%
Health & Wellbeing	19	14.0%	5.89%
Energy	22	16.0%	5.09%
Transport	12	10.0%	10.00%
Water	9	7.0%	3.88%
Materials	14	15.0%	9.64%
Waste	10	6.0%	3.00%
Land Use & Ecology	13	13.0%	10.00%
Pollution	12	8.0%	4.66%
Total Predicted Score			60.54%
Innovation	10	10.0%	2.00%
Total Score			62.54%
BREEAM Rating			VERY GOOD

Key to Responsibilities		
Role	Company	Ref
Client	Dominvs	Dominvs
Project Manager / QS	Cumming	Cumming
Architect	Jon Matthews Architects	JMA
M&E Consultant	Ridge M&E	Ridge (M&E)
Structural & Civil Eng	Ramboll	Ramboll
Landscape Architect	Planit	Planit
Acoustician	TBC	Acoustician
Ecologist	Greengage	Ecologist
Transport Consultant	Vectos	Vectos
BREEAM Assessor BREEAM AP	Ridge and Partners	Ridge (Sust)
Main Contractor	TBC	MC
M&E Sub Contractor	TBC	M&E sub

Shading Denotes Mandatory Credit for Very Good

This document is to be read in conjunction with the current BREEAM Manual available online, which gives full details of credit requirements

BREEAM Version 6 New Construction, Multi-Residential, Student Accommodation

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Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility	
MANAGEMENT							
Man01	Project Brief and Design						
Req 1-3	Project Delivery Planning	1	0.52	It is assumed that prior to the end of RIBA Stage 2 all the project delivery stakeholders (client/developer, contractor, design team) meet, identify and define roles, responsibilities & contributions during each key phase. The project team demonstrates how the stakeholder contributions and consultation process influences the following: - Initial Project Brief - Project Execution Plan - Communications Strategy - Concept Design Please note all documents above need to be present even if they are combined into a single document. Information provided by Cumming	1	Low	Cumming / Design Team
Req 4-7	Stakeholder Consultation (Interested Parties)	1	0.52	The following credit is not targeted - prior to the end of RIBA Stage 2 it's required that consultation took place with all relevant parties. It must be demonstrated that the consultation has influenced the Project Brief and Concept Design. The relevant consultees and consultation content need to align with the detailed BRE requirements. Prior to the end of RIBA Stage 4, all interest parties give and receive feedback. This credit covers a wide range of criteria which may not be included for already.	0		
Req 8	Pre-Requisite - BREEAM AP	X	0.52	It is assumed that the project team and client formally agree (contract or letters of appointment) strategic performance targets, including the BREEAM rating, early in the design process.	X	Low	Cumming / Dominvs
Req 9	BREEAM AP (Concept Design)	1	0.52	It is assumed that a BREEAM Accredited Professional (AP) is appointed as BREEAM AP during RIBA Stage 1 / 2 and: - Works 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 throughout Concept Design (RIBA Stage 2) - Monitor progress against the performance targets throughout all stages - Identify risks and opportunities related to the achievement of the targets agreed - Provide feedback to the project team as appropriate - Monitor / coordinate generation of appropriate evidence by the project team.	1	Low	Dominvs / Ridge (Sust)
Req 11-12	BREEAM AP (Developed Design)	1	0.52	It is assumed that Criteria 8 & 9 is achieved and in addition there is an appointed BREEAM AP who: - Works 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 throughout Developed Design (RIBA Stage 3) - Monitor progress against the performance targets throughout all stages - Identify risks and opportunities related to the achievement of the targets agreed - Provide feedback to the project team as appropriate - Monitor and coordinate the generation of appropriate evidence by the project team.	1	Low	Dominvs / Ridge (Sust)
Man02	Life Cycle Cost and Service Life Planning						
Req 1-3	Elemental Life Cycle Cost	2	0.52	It is assumed that, prior to the end of RIBA Stage 2 , a competent person carries out an elemental life cycle costing analysis together with elemental options appraisals in accordance with PD 156865:2008. The LCC should show future replacement costs over 20, 30, 50 or 60 years and include service life, maintenance and operation cost estimates and be used to influence design and specification. Modelling work being carried out by Ridge, with input from Cumming on costs	2	Medium	Cumming / Ridge (Sust) / Design Team
Req 4-5	Component Level LCC Plan	1	0.52	It is assumed that, prior to the end of RIBA Stage 4 a competent person carries out a component level LCC plan in line with PD 156865:2008. Where present, the LCC plan should include: Envelope; Services; Finishes & External Spaces. The component level LCC must be used to influence design and specification. Included in Ridge Sustainability scope. As with above, will require cost and quantity information from the team to progress	1	Medium	Cumming / Ridge (Sust) / Design Team
Req 6	Capital Cost Reporting	1	0.52	Report the capital cost for the building in £k/m2 to the Assessor for reporting to the BRE via the BREEAM Spreadsheet	1	Low	Cumming / MC

Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Man03	Responsible Construction Practices		Minimum standard: Req 7 for Excellent, Req 8-9 for Outstanding			
Req 1	Pre-requisite: Timber		It is assumed that all timber and timber based products used on the project are 'Legally harvested and traded timber'. If the demo works are undertaken by a separate party, the above needs to be demonstrated for their works too		Low	MC
Req 2-4	Environmental Management	1	0.52 It is understood that all demolition / site preparation works will be undertaken by the main contractor . It is assumed that the main contractor will: - Operate an EMS e.g. ISO14001 - Implement best practice pollution prevention policies and procedures. If the demo works are undertaken by a separate party, they will also need to comply with the above	1	Medium	MC
Req 5	Pre-requisite for BREEAM AP		The client and contractor formally agree the BREEAM rating required.		Low	MC
Req 6	BREEAM AP (Site)	1	0.52 It is assumed that Ridge will be appointed as BREEAM AP for RIBA Stage 4-6 : - Works with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving the project's performance targets throughout the Construction, Handover and Close Out stages. - Monitors construction progress against the performance targets agreed - Identifies risks and opportunities related to procurement and construction - Provides feedback to the contractor and the project team - Monitors and coordinates the generation of appropriate evidence by the project team	1	Medium	Ridge (Sust) / MC
Req 7	Responsible Construction Management (Credit 1)	1	0.52 It is assumed that the project will achieve at least a score of 27 overall on CCS, with no section scoring under 9 points. If the demo works are undertaken by a separate party, they will also need to comply with the above (i.e. sign up to CCS). Best done by the Principle Contractor	1	Low	MC
Req 8-9	Responsible Construction Management (Credit 2)	1	0.52 It is assumed that the project will achieve at least a score of 35 overall on CCS, with no section scoring under 11 points. The innovation credit is also targeted, requiring a score of 39 overall with no section under 13 . If the demo works are undertaken by a separate party, they will also need to comply with the above (i.e. sign up to CCS). Best done by the Principle Contractor	1	Medium	MC
Req 10	Monitoring of Construction- Site Impacts- Pre-requisite		It is assumed that responsibility has been assigned to an individual(s) for monitoring, recording and reporting energy use, water consumption and transport data throughout the build programme. This will need undertaking for both demolition and construction phases		Low	MC
Req 11 - 18	Monitoring of Construction- Site Impacts (Energy and Water)	1	0.52 It is assumed that the appointed individual sets targets for, and monitors site energy consumption in kWh and also reports kgCO2, and kgCO2/project value. Targets are set for potable water consumption (m3) usage on site, and this is monitored throughout the programme. This will need undertaking for both demolition and construction phases	1	Low	MC
Req 19-22	Monitoring of Construction- Site Impacts (Transport)	1	0.52 This credit is not targeted, but would require that the appointed individual will set targets for, and monitor data on transport of construction materials and waste. KgCO2eq, km should be reported separately for materials and waste. This will need undertaking for both demolition and construction phases	0		
Man04	Commissioning and Handover		Minimum Standard: Req 1-5 & 11 for Very Good & Above			
Req 1-5	Commissioning - Testing Schedule and Responsibilities	1	0.52 Appoint an appropriate team member to monitor and programme pre-commissioning, commissioning and testing. A schedule of commissioning is prepared, identifying appropriate timescales and standards e.g. CIBSE, BSRIA. Where a BMS is installed, carry out commissioning and training as per the BREEAM criteria (req 3). The contractor accounts for commissioning, testing, responsibilities and standards within budget and programme of works.	1	Low	M&E Sub / MC
Req 6-7	Commissioning - Design and Preparation	1	0.52 The above credit is achieved and an appropriate team member, not involved in installation works, is appointed during the design to undertake design reviews, provide commissioning management input and manage commissioning performance testing and handover / post-handover stages. For a building with complex systems, a specialist commissioning manager must be appointed.	1	Low	M&E Sub

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Req 8-10	Testing and Inspecting Building Fabric	1	0.52	This credit is not targeted, but would require that criteria 1-5 is achieved and it is assumed that an air tightness survey, and thermographic survey are undertaken to QA integrity of the building fabric, continuity of insulation, avoidance of thermal bridging and air leakage paths. Any defects found are rectified.	0		
Req 11-12	Handover	1	0.52	Prior to handover, two building user guides are developed - a non technical guide for building occupiers and a technical guide for FM. A draft copy is developed and discussed with users first, where building occupiers are known. Two training schedules are prepared, one as a non-technical training schedule for the building occupiers, and a technical version for FM team.	1	Low	MC
Man05	Aftercare	Minimum standard: Req 3 for Excellent or Outstanding					
Req 1-2	Aftercare Support	1	0.52	Aftercare is provided to building occupiers as follows: - Meeting is held to cover BUG / training schedules, and to show key design info - On site FM training - Weekly attendance on site for the first 4 weeks - Longer term aftercare for 12 months e.g. helpline There will be collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is occupied and systems adjusted accordingly.	1	Low	MC
Req 3	Commissioning - Implementation	1	0.52	The following credit is not targeted, but would require that commissioning activities will continue over a 12-month period covering: - Identification of changes made by the owner or operator that might have caused impaired or improved performance. - Testing of all building services under full load conditions - Testing during periods of extreme (high or low) occupancy. - Interviewing of building occupants (where they are affected by the complex services) to identify problems or concerns regarding the effectiveness of the systems. - Production of monthly reports comparing sub-metered energy performance to the predicted one - Identification of inefficiencies and areas in need of improvement. - Re-commissioning of systems (following any work needed to serve revised loads), and incorporation of any revisions in operating procedures into the operations and maintenance (O&M) manuals.	0		
Req 4-7	Post Occupancy Evaluation	1	0.52	This credit is not targeted, but would require that a Post Occupancy Evaluation will be undertaken by an independent third party one year after building occupation, to gain building performance feedback and to disseminate this information via a case study in order to share good practice and lessons learned. The client commits funds to pay for the POE in advance, evidence of appointment needed to award the credit.	0		
HEALTH & WELLBEING							
Hea01	Visual Comfort						
Req 1-3	Control of Glare from Sunlight	1	0.74	This credit is not targeted, but would require that - - A glare control assessment is carried out to identify areas at risk from glare and justify areas not at risk. - Glare control is provided to appropriate areas, this should not result in increased energy consumption e.g. vertical blinds used so that direct glare can be removed by sunlight is let in. Note blinds need to have openness factor of <1% and fabric light transmittance of <0.1(10%) Note, where compliant shading is provided to all relevant areas, a glare control assessment is not required.	0		
Req 4	Daylighting	2	0.74	The following is unlikely to be achieved due to the presence of deep plan amenity / kitchen spaces: - For 2 credits: Average daylight factor in the occupied areas of least 2% in 80% of floor area, with uniformity criteria as table 5.2 in the BREEAM Manual OR median daylight factor of 2% AND minimum daylight factor of 0.6% in 80% of floor area. Could be possible, some cluster kitchens have insufficient coverage of windows which are likely to fail but testing would be needed to confirm	0		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Req 5-7	View Out	1	0.74	This credit will not be targetted as it requires that an adequate view out is provided for 95% of each relevant area (any area containing workstations / where close work will be undertaken), e.g. bedroom desks, kitchen clusters, amenity space) To achieve this credit, 95% of relevant areas must be within 8m to a window with rooms having >20% of the external wall made up of windows. If over 8m from a window, the window area should comply with table 1.0 BS 8206.	0		
Req 8-14	Internal and External Lighting Levels, Zoning and Control	1	0.74	<u>For Internal lighting:</u> - Designed in accordance with the appropriate maintained illuminance levels (in LUX) recommended by SLL Code for Lighting 2012. - Areas with computer screens comply with CIBSE Lighting Guide 7 sections 2.4, 2.13 - 2.15, 2.20 and 6.10 - 6.20. - Areas are zoned and controlled appropriate for their use and location i.e. office areas require separately zoned / controlled areas for each 40m2 (see credit criteria). <u>For External lighting:</u> - Areas within the construction zone comply with BS5489-1:2013 & BS12464-2:2014 Part 2.	1	Low	Ridge (M&E) / M&E Sub
Hea02 Indoor Air Quality							
Req 1	Pre-Requisite - Indoor Air Quality Plan			If credits below are sought an indoor air quality plan will need to be produced and implemented in accordance with the manual. These requirements include: 1.a Removal of contaminant sources 1.b Dilution and control of contaminant sources, including: 1.b.i Air quality requirements of specialist areas such as laboratories, where present 1.c Procedures for pre-occupancy flush out and purge ventilation 1.d Third party testing and analysis 1.e Maintaining good indoor air quality in-use 1.f Any relevant local authority plans or policies (for example, Air Quality Management Areas or Local Air Quality Action Plans)		Medium	M&E Sub
Req 2	Ventilation	1	0.74	It is assumed that the building will not be designed to minimise the concentration and recirculation of pollutants by: 1. Providing fresh air into the building in accordance with the criteria of the relevant standard for ventilation. 2. Designing ventilation pathways to minimise ingress / build-up of air pollutants 3. HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 16798:2017. 4. Occupied spaces have carbon dioxide (CO ₂) or air quality sensors specified in accordance with Building Regulations ADF2 and: 4.a. In mechanically ventilated spaces, sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space. 4.b. In naturally ventilated buildings or spaces, sensors either have the ability to alert the building owner or manager when CO ₂ levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, e.g. automatic opening windows or roof vents. 4.c. The total number of sensors, and the net internal area of relevant areas covered by the sensors, is reported via the BREEAM Scoring and Reporting Tool. 5. The ventilation strategy provides adequate ventilation rates throughout the year, including sufficient airflow rates in summer to prevent overheating and maintain required thermal comfort conditions, in accordance with: 5.a. CIBSE AM10 (for naturally ventilated buildings) 5.b. CIBSE AM13 (for mixed-mode buildings)	0		
Req 3	Emissions from Construction Products (Credit 1)	1	0.74	It is assumed that three out of the five product types will not meet the emission limits, testing requirements and any additional requirements listed in Table 5.11. Where wood-based products are not one of 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.	0		
Req 4	Emissions from Construction Products (Credit 2)	1	0.74	It is assumed that all of the product types listed will not meet the emission limits, testing requirements and any additional requirements listed in Table 5.11.	0		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Req 5-10	Post Construction Indoor Air Quality Measurement	1	0.74	This credit is not targeted, but would require that - - The formaldehyde concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 100 µg/ m³ averaged over 30 minutes. -The total volatile organic compound (TVOC) concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 300 µg/ m³ over 8 hours. -Where levels are found to exceed these limits, the project team confirms the measures that have, or will be, undertaken in accordance with the IAQ plan, to reduce the TVOC and formaldehyde levels to within the above limits.	0		
Hea04 Thermal Comfort							
Req 1-4	Thermal Modelling	1	0.74	It is assumed that full dynamic thermal modelling will be carried out in accordance with CIBSE AM11. The study will demonstrate that the building design and services strategy can deliver thermal comfort levels in accordance with the criteria set out in CIBSE Guide A Table 1.5. In addition for naturally ventilated buildings overheating meets the recommendations of TM52 or TM59. For air conditioned buildings the PMV (predicted mean vote) and PPD (percentage people dissatisfied) is reported.	1	Medium	Ridge (M&E)
Req 5-8	Design for Future Thermal Comfort	1	0.74	It is assumed that the dynamic thermal modelling will demonstrate compliance for the above criteria when run for a projected climate change environment (see Relevant definitions in the BREEAM Manual), however this credit will be investigated by the M&E Consultant. Note that if the thermal comfort criteria are not met, the credit may still be achieved where a report is produced demonstrating how the building has been or can be easily adapted in future using passive design solutions in order to meet the requirements above. For air conditioned buildings/areas, the PMV and PPD indices based on the above modelling must be reported via the BREEAM assessment scoring and reporting tool.	1	Medium	Ridge (M&E)
Req 9-11	Thermal Zoning and Controls	1	0.74	The thermal modelling analysis has informed the temperature control strategy for the building and its users, addressing all of the issues below: 1. Zones within the building and how these could be efficiently heated and cooled. 2. The degree of occupant control required for these zones, based on discussions with the end user (or specific design guidance, case studies, feedback). This should consider: - User knowledge of building services - Occupancy type, patterns and room functions - How the user is likely to operate or interact with the system(s), - The user expectations and degree of individual control 3. If there are multiple systems, how they will interact with each other and how this will affect the thermal comfort of occupants. 4. The need for an accessible building user actuated manual override for any automatic systems	1	Medium	Ridge (M&E) / M&E Sub
Hea05 Acoustic Performance							
	Sound Insulation	2	0.74	<u>One credit</u> This credit is not targeted, but would require that airborne sound insulation values are at least 3 dB higher and impact sound insulation values are at least 3 dB lower than the performance standards in the relevant building regulations or standards.	0		
	Indoor Ambient Noise level	1	0.74	It is assumed that the indoor ambient noise levels will be within the suggested range stated in section 7 of BS8233:2014 will be achieved and verified by site testing.	1	Medium	Acoustician
	Room Acoustics	1	0.74	It is assumed that within residential and common spaces of the building, the spaces will achieve the requirements relating to sound absorption described in the relevant building regulations or building standards national guidance and will be verified by site testing.	1	Medium	Acoustician

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Hea06		Security					
Req 1-3	Security of Site and Building	1	0.74	It is assumed that: - 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 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. - The controls and recommendations are incorporated into the proposals and implemented into the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS. A Security Needs Assessment has been carried out for planning purposes	1	Medium	JMA
Hea07		Safe and Healthy Surroundings					
Req 1-6	Safe Access	1	0.74	This credit is not targeted, but would require that - - Cycle storage is accessed directly from the public footpath off site - Footpaths provide direct access from the building footpath, with no car parking included on site - Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths where provided (if relevant). - Delivery access does not cross pedestrian / cycle routes, amenity areas or pass through parking areas (if relevant). - Where there are delivery areas there is a waiting area adequate turning and parking space for the appropriate delivery vehicles (where relevant). - There is a dedicated waste storage area away from the delivery manoeuvring area or car parking (if required). This credit is difficult due to the access required to mezzanine for cyclists. The route to cycle storage must be accessible when handling a bicycle (e.g. cycle track on stairways, sufficiently large lifts)	0		
Req 7	Outside Space	1	0.74	It is assumed that there will be an appropriately sized outside space providing building users with an external amenity area. The outside space must be an outdoor landscaped area open to the sky with appropriate seating areas. It must also be accessible to all building users and away from areas which may cause noise pollution e.g. building services, car parks, busy roads and delivery areas and be non-smoking. 2no roof terraces should discharge the requirement for this, assuming they are non smoking and sufficiently distant from plant / external sources of noise	1	Low	JMA
ENERGY							
Ene01	Reduction of Energy Use and Carbon Emissions			Minimum standard - 4no credits for Excellent or above			
Req 1	Energy Performance	9	0.73	An EPR or 0.1 would need to be achieved based on the project BRUKL and modelling.	1	Medium	Ridge (M&E)
Req 3-5	Energy Modelling and Reporting	4	0.73	This credit is not targeted for a Very Good level, but would require that - 2. Ensure the passive design credit is achieved (see Ene 04 below). 3. Estimate occupancy, energy use for unregulated energy and management practices. 4. Undertake detailed energy modelling to predict building energy use. 5. Undertake sensitivity analysis to determine the factors that can significantly impact building energy consumption. 6. Based on the results of the sensitivity analysis, and in discussion with the project team, the client and the prospective occupier devise scenarios to explore how high impact factors might influence the building energy consumption. 7. Undertake scenario modelling and use these findings to inform improvements to design of the building and to operational, maintenance, and handover strategies. 8. Determine an energy target for building based on scenario modelling results . 9. At the post-construction stage, the scenario modelling should be repeated to reflect the post construction building specification and, if necessary, adjust the energy target.	0	Possible	

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Ene02	Energy Monitoring			Minimum Standard: Req 1-4 (first credit) for Very Good and above			
Req 1-4	Sub-metering of Major Energy Consuming Systems	1	0.73	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. - The energy consuming systems in buildings with a total useful floor area greater than 1,000m² are metered using an appropriate energy monitoring and management system. - The systems in smaller buildings are metered either with an energy monitoring/management system or with separate accessible energy sub-meters with pulsed or other open protocol communication outputs, to enable future connection to an energy monitoring and management system. - The end energy consuming uses are identifiable to the building users, for example through labelling or data outputs.	1	Medium	Ridge (M&E) / M&E Sub
Ene03	External lighting						
	External lighting	1	0.73	It is assumed that: - The average initial luminous efficacy of the external light fittings within the construction zone is not less than 70 luminaire lumens per circuit Watt. - All external lights have daylight sensors & PIRs in areas of intermittent pedestrian traffic.	1	Medium	Ridge (M&E) / M&E Sub
Ene04	Low Carbon Design						
Req 1-4	Passive Design Analysis	1	0.73	It is assumed that the first credit of Hea 04 Thermal Comfort has been achieved, and the following has been achieved: - The project team carries out a Passive Design Analysis (PDA) during Concept Design stage (RIBA Stage 2) which identifies opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services. - The building uses passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the PDA. There is a >5% quantified total reduction in energy demand and CO₂ emissions as a result of implementing passive design strategies. Ridge M&E have developed the Energy Strategy report to address the above Stage 2 actions	1	Low	Ridge (M&E) / M&E Sub
Req 5-8	Free Cooling	1	0.73	It is assumed that free cooling strategies will not be used exclusively	0		
Req 9-12	Low Zero Carbon Feasibility Study	1	0.73	It is assumed that the following will be achieved: - A feasibility study has been carried out by the completion of the Concept Design stage (RIBA Stage 2) by an energy specialist to establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy source(s) for the building/development. - Local LZC technology have been specified in line with the recommendations of the feasibility study and there is a reduction in regulated CO₂ emissions from this. Ridge M&E have developed the Energy Strategy report to address the above Stage 2 actions	1	Low	Ridge (M&E) / M&E Sub
Ene06	Energy Efficient Transportation Systems						
Req 1	Energy Consumption	1	0.73	It is assumed that: - An analysis of the transportation demand and usage patterns for the building has been carried out to determine the optimum number and size of transport systems. - The energy consumption has been calculated in accordance with BS EN ISO 25745 Part 2. - The analysis includes one of the following: At least two types of system; An arrangement of systems (e.g. for lifts, hydraulic, traction, machine room-less); or A system strategy which is 'fit for purpose'. - The use of regenerative drives should be considered, where it produces an energy saving greater than the additional standby energy used to support it - The transportation system with the lowest energy consumption is specified.	1	Medium	Lift Manufacturer / MC
Req 3-4	Energy Efficient Features (Lifts)	1	0.73	It is assumed for each lift, the following three energy efficient features are specified: - The lifts operate in a standby condition during off-peak periods. For example the power side of the lift controller and other operating equipment such as lift car lighting, user displays and ventilation fans switch off when the lift has been idle for a prescribed length of time. - The lift car lighting & display lighting provides an average lamp efficacy, (across all fittings in the car) of > 70 lamp lumens/circuit Watt. - The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.	1	Medium	Lift Manufacturer / MC

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Ene08	Energy Efficient Equipment						
	Energy Efficient Equipment	2	0.73	Credit not targeted, based on feedback in the meeting (31.08.22) regarding the difficulty of demonstrating compliance with the EU labelling systems. To achieve the credits it would be required that, of the BRE defined typical significant contributors to unregulated energy the only relevant for this scheme are '<i>laundry facilities with commercial-sized appliances</i>' and '<i>domestic-scale appliances</i>'. It is assumed that due to the size, the laundry facilities are not deemed a significant contributor. It is assumed that the domestic scale white goods meet the following EU Energy Efficiency Labels - - Fridges, fridge-freezers - E rating - Washing machines - B rating - Dishwashers - D rating - Washer-dryers - D rating	0		
TRANSPORT							
Tra01	Transport Assessment and Travel Plan						
	Travel Plan	2	0.83	During Concept Design Stage (RIBA Stage 2) a draft travel plan needs to be created based on a site specific travel assessment. Note that all the points under criterion 2 need to be covered as minimum, including Accessibility Index and Local Amenities - see BREEAM NC Manual for more details. The travel plan includes proposals to increase or improve sustainable modes of transport and movement of people and goods during the building operation and use. The travel plan is implemented post construction and supported by the building's management in operations. Transport Assessment and Travel Plan provided by Vectos	2	Medium	Vectos
Tra02	Sustainable Transport Measures						
Req 1	Pre-requisite			Produce a Tra 01 compliant travel plan during design stage . This is a prerequisite to the following credits being awarded.		Medium	Vectos
Req 2	Sustainable Transport Measures	10	0.83	It is assumed that 5no points will be achieved by implementing Sustainable Transport Measures as per Table 7.4 within the BREEAM Manual. With AI of >40 (AI =57.09 - Nov 21) will achieve 10no credits. The points are awarded for each of the items below: - Accessibility Index of I > 8 (57.09 achieved) (1 point) - provision of compliant covered cycle storage (1 space per 20 staff plus 1 per 4 residents - need to check this is met) (1 point) - location of core amenities (Sainsbury's First St food shop incl cash machine, post box on Medlock St) (1 point) - ensure a minimum of 2no new accessible amenities (roof terraces as outside space, gym / yoga room as new recreation facility for fitness) (3 points) Post code M15 5FJ, GMAL Score 57.09, Nov 21	10	Low	Vectos / JMA
WATER							
Wat01	Water Consumption Minimum Standard: One credit for Good and above, Two credits for Outstanding						
	Water Consumption	5	0.78	It is assumed that a 12.5% improvement in water consumption over the notional baseline will be achieved. This would broadly equate to - - WC's - 6l flush or better - WHB taps - 5l/min or better - Showers - 14l/min or better - Kitchenette taps - 5l/min - Domestic sized dishwashers (if present) - 13l/cycle - Commercial sized washing machines - 10l/kg An alternative, equivalent route could be used to achieve the 1no credit	1	Medium	Dominvs / Ridge (M&E) / M&E Sub
Wat02	Water Monitoring Minimum Standard: Criterion 1 for Good and above						
Req 1	Water Sub Meters			The main supply to the building will be fitted with a pulsed water meter.		Low	Ridge (M&E) / M&E Sub
Req 2-6	Water Sub Meters	1	0.78	The main supply to the building will be fitted with a pulsed water meter. Additionally: - Sub-meters will be provided for any water consuming plant or building areas consuming 10% or more of the building's total water consumption . - Each water meter will have a pulsed output for connection to a BMS. - The sub meters are connected to any existing or proposed BMS - Sub meters are fitted to large water tanks separate to associated changing areas and sanitary areas irrespective of their water consumption levels.	1	Low	Ridge (M&E) / M&E Sub

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Wat03		Water Leak Detection and Prevention					
Req 1-2	Leak Detection System	1	0.78	It is assumed that a BREEAM compliant leak detection system will be specified or installed on the buildings water supply.	1	Low	Ridge (M&E) / M&E Sub
Req 3	Flow Control Devices	1	0.78	It is assumed that flow control devices that regulate the water supply to the communal toilet areas or sanitary facility according to demand will be installed, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework. Not required on student ensuite facilities. The devices should be installed on the cold water supply to taps and WCs but must not allow the CWS to automatically switch off in showers while hot water is still running.	1	Medium	Ridge (M&E) / M&E Sub
Wat04		Water Efficient Equipment					
	Water Efficient Equipment	1	0.78	It is assumed that the design team has identified all unregulated water demands that could be realistically mitigated or reduced. System(s) or processes have been identified to reduce the unregulated water demand a meaningful reduction in the total water demand of the building can be demonstrated. Some examples would be: 1. Reclaimed/recovered water from a rainwater collection or waste water recovery system, with appropriate storage, i.e. grey water collection from building functions or processes that use potable water, e.g. vehicle wash, training water in fire stations, sanitary facilities, irrigation etc. 2. External landscaping and planting that relies solely on precipitation, during all seasons of the year.	1	Low	Plantit
MATERIALS							
Mat01		Environmental impacts from construction products -Building life cycle assessment (LCA)					
Req 3-5	Superstructure	6	1.07	It is assumed that: - An IMPACT equivalent Life Cycle Assessment (LCA) is carried out at RIBA Stage 2 , considering LCA options for 4 substantially different superstructure elements. - This is followed by a RIBA Stage 4 more detailed LCA review on a further 3 options based on the Stage 2 choice. - The Mat 01 calculator will need to be submitted to BRE at Stage 2 & 4 . - The options appraisal and modelling needs to be integrated into the design process LCA Stage 2 modelling and optioneering carried out with input from team, and data submitted to the BRE prior to planning	6	Medium	Project Team / Ridge (Sust)
Req 6-7	Substructure and Hard Landscaping Options Appraisal	1	1.07	It is assumed that: - An IMPACT compliant / equivalent Life Cycle Assessment (LCA) will be carried out at RIBA Stage 2 and will consider LCA options for 6 substantially different substructure or hard landscaping elements (at least 2 being sub structure and 2 being hard landscaping). - The Mat 01 calculator will need to be submitted to BRE at Stage 2 . LCA Stage 2 modelling and optioneering carried out with input from team, and data submitted to the BRE prior to planning	1	Medium	Project Team / Ridge (Sust)
Mat02		Environmental impacts from construction products - Environmental Product Declarations (EPD)					
	Specification of products with EPDs	1	1.07	It is assumed that there will not be sufficient construction products specified with an Environmental Product Declaration (EPD) to achieve a total EPD points score of at least 20. See BREEAM manual for further details.	0		
Mat03		Responsible Sourcing Minimum standard: Req 1 for all BREEAM assessments					
Req 1	Pre Requisite			All timber used within the project will be legally harvested and traded timber.		Low	MC
Req 2	Enabling Sustainable Procurement	1	1.07	It is assumed that a sustainable procurement plan was used by the design team to guide specification towards sustainable construction products before Concept Design (i.e. during RIBA Stage 1) . SPP in place on client side	1	Medium	Dominvs
Req 3	Measuring Responsible Sourcing	3	1.07	This credit is not targeted, but would require that materials will be sourced suppliers with appropriate responsible sourcing certification (e.g. BES6001 / ISO14001 / FSC / CSA / MTCC / PEFC / SFI etc.).	0		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Mat05	Designing for Durability and Resilience						
	Protecting vulnerable parts of the building from damage	1	1.07	It is assumed that the building will be designed to incorporate suitable durability / protection measures / designed features / solutions to prevent damage to vulnerable parts of the internal & external building & landscaping, including: - Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughfares (corridors, lifts, stairs, doors etc.). - Protection against any internal vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. - Protection against, or prevention from, any potential vehicular collision where vehicular parking and manoeuvring - Protection from malicious damage to building materials and finishes, in public and common areas where appropriate.	1	Medium	JMA
	Protecting exposed parts of the building from material degradation			It is assumed that: a) key exposed building elements will be designed and specified to limit long and short term degradation due to environmental factors. This can be demonstrated through either: the element or product achieving an appropriate quality or durability standard or design guide, see Table 9.14 in BREEAM NC Manual for more details. OR by carrying out a detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors. b) the building includes convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's design. c) the roof and façade will be designed to prevent water damage, ingress and detrimental ponding.		Medium	JMA
Mat06	Material Efficiency						
	Material Efficiency	1	1.07	As no action was undertaken at Stage 1, the full requirements at all RIBA stages have not been met in order for this credit to be targeted.	0		
WASTE							
Wst01	Construction Site Waste Management Minimum standard: One Credit for Outstanding						
Req 1-2	Pre-demolition audit	1	0.60	It is assumed that this credit cannot be targeted as it is expected that a compliant audit will not be conducted at a suitably early stage (During Stage 2)	0	Possible	
Req 3-4	Construction Resource Efficiency	3	0.60	It is assumed that: - 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 RMP also covers accurate data records on waste arisings and waste management routes. - One Credit: less than 13.3m² or 11. tonnes of non-hazardous waste generated per 100m² GIFA.	1	High	MC
Req 5-6	Diversion of resources from Landfill	1	0.60	It is assumed that the following percentages of non-hazardous construction (on-site and off-site manufacture / fabrication in a dedicated facility), demolition waste generated by the project have been diverted from landfill: - Non Demolition - 70% by Volume or 80% by tonnage - Demolition - 80% by Volume or 90% by tonnage	1	Low	MC
Wst02	Use of Recycled and Sustainably Sourced Aggregates						
Req 1	Pre-requisite			This credit is not deemed achievable due to the high rates of recycled aggregate / secondary aggregates needed			
Req 2-6	Project Sustainable Aggregate Points	1	0.60		0		
Wst03	Operational Waste Minimum standard: One Credit for Excellent & Outstanding						
Req 1	Dedicated space for recyclables	1	0.60	This credit is not targeted, but would require that a dedicated recycling area, adequately sized to serve the development and accessible to building occupiers and waste contractors will be provided. This space will be sized to meet the client's requirements (as a guide 2m² per 1000m² net floor area). Additionally, for student accommodation buildings, internal recycle waste facilities are also required in each communal and studio kitchen (30ltrs for mixed recycling plus 10ltrs for compostable food waste) in addition to general waste bins, these must not be free standing on the floor but in a dedicated location (i.e. in a dedicated cupboard).	0		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Req 2	Compactor / Baler / Composting			This credit is not targeted, but would require that a static compactor / baler infrastructure will not be required but a waste disposal contract for compostable organic waste will be required for this development.			
Wst05 Adaptation to Climate Change							
	Resilience of structure, fabric, building services and renewables installation	1	0.60	Conduct a Climate Change Adaptation Strategy Appraisal using: 1. A systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects and includes: - 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 RIBA Stage 2 , that aim to mitigate the identified impact. 3. Provide an update during RIBA Stage 4 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. Ramboll have developed this report	1	Medium	JMA / Ridge (M&E)
Wst06 Design for Disassembly and Adaptability							
Req 1-2	Design for disassembly and adaptability - Recommendations	1	0.60	It is assumed that: 1. A study was conducted to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of RIBA Stage 2 . See full credit guidance within BREEAM NC manual for the minimum considerations within the report. 2. Recommendations or solutions were developed based on the study during or prior to RIBA Stage 2 that aim to enable and facilitate disassembly and functional adaptation. JMA have developed this report	1	Medium	JMA / Ridge (M&E)
Req 3-5	Design for disassembly and adaptability - Implementation	1	0.60	It is assumed that: 1. The above credit is achieved. 2. An update is provided during RIBA Stage 3/4 on: - How the recommendations or solutions proposed by Concept Design (RIBA Stage 2) have been implemented where practical and cost effective. Omissions have been justified in writing to the assessor. - Changes to the recommendations / solutions during the development of Stage 4. 3. A building adaptability and disassembly guide will be produced to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants. JMA to coordinate, based on discussions in meeting on 31.08.22	1		
LAND USE & ECOLOGY							
LE01 Site Selection							
Req 1	Previously Developed land	1	1.00	It is assumed that at least 75% of the development's footprint (including building, hard landscaping, and temporary works) is on previously developed land.	1	Low	JMA
Req 2-3	Contaminated land	1	1.00	It is unlikely that the site can be classed as contaminated or requiring remediation to enable development.	0		
LE02 Identifying and understanding the risks and opportunities for the project							
Req 1-2	Pre-requisite			It is assumed that the client or contractor will confirm compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.		Low	Ecologist / MC

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Req 4-6	Ecological Survey & Evaluation	1	1.00	It is assumed that a Suitably Qualified Ecologist has been appointed at a project stage that ensures early involvement in site configuration & can influence planning decisions AND prior to planning application (ideally RIBA Stage 1/2), 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: - Current and potential ecological value and condition of the site, and related areas within the zone of influence. - Direct and indirect risks to current ecological value - Capacity and feasibility for enhancement of the ecological value of the site Data are collated and shared with project team to inform the site preparation, design or construction works. Greengage have produced a Preliminary Ecological Appraisal (PEA)	1	Medium	Ecologist
Req 7-10	Determining Ecological Outcome	1	1.00	It is assumed that prior to planning application, 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, taking into account the Route 2 hierarchy of actions listed in the table in the BREEAM Manual. Cumming identified as Environmental Champion, and Stage 2 Environmental Workshop carried out on 11.10.22	1	Medium	Project Team / Ecologist
LE03 Managing negative impacts on ecology							
Req 1	Pre-requisite			It is assumed that LE02 is achieved. It is assumed that the client or contractor will confirm that compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.		Medium	Project Team / Ecologist
Req 2-4	Planning, Liaison, Implementation & Data	1	1.00	It is assumed that the pre-requisite has been met and it is assumed that 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 (via Environmental Workshop meetings). Site preparation and construction works should have been planned for and are implemented at an early project stage to optimise benefits and outputs. The project team has been 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. Cumming identified as Environmental Champion, and Stage 2 Environmental Workshop carried out on 11.10.22	1	Medium	Project Team / Ecologist
Req 8 (Route 2)	Managing negative impacts of the project	2	1.00	Based on correspondence with the ecologist, it's understood that 2no credits are achievable here, based on implementation of the mitigation hierarchy, with confirmation that there has been no overall loss in ecological value based on development.	2	Medium	Ecologist
LE04 Change and Enhancement of Ecological Value							
Req 1-2	Pre-requisite			It is assumed that LE03 Req 8 can be demonstrated & the client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. Note this must be demonstrated to allow award for Req 6.		Medium	Ecologist
Req 5 (Route 2)	Liaison, implementation and data collation	1	1.00	It is assumed the project team have been liaising and collaborating with representative internal & external 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: - On site, and where this is not feasible, - Off site within the zone of influence. Where data is collected and potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.	1	Medium	Project Team / Ecologist
Req 6 (Route 2)	Enhancement of ecology	3	1.00	It is assumed that a calculation of the change in ecological value occurring as a result of the project based on the process set out in GN36 using the BREEAM LE04 calculator or DEFRA 2.0 methodology will demonstrate change in biodiversity between 75% and 94% as a minimum.	1	Medium	Ecologist

Assessment Issue	Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
LE05 Long Term Ecology Management and Maintenance						
Req 1-2	Pre-requisite		It is assumed that: -The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site. - Negative impacts from site preparation and construction works have been managed according to the BREEAM hierarchy and that the SQE confirms no loss of ecological value has occurred. -At least one credit under LE04 req 6 is achieved		Medium	Ecologist
Req 3-4	Management and maintenance throughout the project	1	1.00	1	Medium	Project Team / Ecologist
Req5-6	Landscape and ecology management plan	1	1.00	1	Medium	Project Team / Ecologist
POLLUTION						
Pol01 Impact of Refrigerants						
Req 2	Buildings With Refrigerants Prerequisite		It is assumed that: All systems with electric compressors comply with the requirements of BS EN 378:2016 (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice.			
Req 3-5	Impact of Refrigerant	2	0.67	0		
Req 6-7	Leak Detection System	1	0.67	0		
Pol02 Local Air Quality						
	Local Air Quality	2	0.67	2	Low	Ridge (M&E)

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Poi03 Flood and Surface Water Management							
Req 1	Pre-requisite	X	X	An Appropriate Consultant is appointed to carry out, demonstrate and/or confirm the development's compliance with all the criteria.	X	Low	Drainage Consultant
Req 2	Low Flood Risk	2	0.67	It is assumed that a site specific Flood Risk Assessment will be produced which confirms that the building is situated in a low flood risk area for all of the following: - Fluvial - Tidal - Surface Water - Groundwater - Sewers - Reservoirs, canals or other artificial sources. Flood risk assessment identified the scheme as being located in a low flood risk area	2	Medium	
Req 5	Pre-requisite	X	X	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.	X	Low	Drainage Consultant
Req 6-8	Surface Water Run-Off - Rate	1	0.67	It is assumed that: - Drainage measures are specified to ensure that the peak rate of run-off from the site to the watercourses (natural or municipal) shows, where brownfield, a 30% improvement for developed site compared with the pre-developed site. This should comply at the 1-year and 100-year return period events. - Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. - Calculations include an allowance for climate change; this should be made in accordance with current best practice planning guidance.	1	Medium	
Req 9-16	Surface Water Run-Off - Volume	1	0.67	It is assumed that the following cannot be achieved: - Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); - Drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for 100-year 6-hour event, including climate change. - Where the above volume requirement is not achievable, 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. - Drainage design measures are specified to ensure the post development peak rate is reduced to the limiting discharge. This is defined as the highest flow rate from the following options: a. The pre-development 1-year peak flow rate; b. The mean annual flow rate Qbar; c. 2L/s/ha. - Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. - For either option above, calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.	0		
Req 17-24	Minimising water course pollution	1	0.67	It is assumed that the drainage engineer will not be able to confirm that there will be zero discharge from the site for up to 5mm of rainfall unless infiltration is possible.	0		
Poi04 Reduction of Night Time Light Pollution							
	Reduction of Night Time Light Pollution	1	0.67	It is assumed that all of the external lighting within the construction zone complies with the following: - Complies with Table 2 of the ILP Guidance notes for the reduction of obtrusive light, 2011 - All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. - Any safety or security lighting which is used between 23:00 & 07:00, complies with the lower levels of lighting recommended in Table 2 of the ILP's Guidance notes. - Illuminated advertisements must be designed in compliance with ILP PLG05.	1	Medium	Ridge (M&E) / M&E Sub

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Pol05	Reduction of Noise Pollution						
	Reduction of Noise Pollution	1	0.67	It is assumed that: - A noise impact assessment in compliance with BS 4142:2014 will be carried out by a suitably qualified acoustician and the following noise levels measured/determined: i. Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed development or at a location where background conditions can be argued to be similar. ii. The rating noise level resulting from the new noise source. - The noise level from the proposed site/building, as measured in the locality of the nearest or most exposed noise-sensitive development must be at least 5dB lower than the background noise throughout the day and night. - Where the noise source(s) from the proposed site/building is greater than above, measures have been installed to attenuate the noise at its source to a level where it will comply with the above.	1	Low	Acoustician / Ridge M&E
INNOVATION CREDITS							
Man 03 Req 23	Responsible Construction Management	1	1.00	It is assumed that the project will achieve at least a score of 39 overall on CCS, with no section scoring under 13 points. If the demo works are undertaken by a separate party, they will also need to comply with the above (i.e. sign up to CCS). Best done by the Principle Contractor	0		
Hea 01 Req 15	Daylighting	1	1.00	The relevant building areas are unlikely to meet the exemplary daylighting criteria as per Table 5.8 or Table 5.9 within the BREEAM Manual.	0		
Hea 01 Req 16	Internal and External Lighting Zones & Controls	1	1.00	It is assumed that lighting in each zone cannot be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations. This credit is to be reviewed as the design develops. If sought, dimming and control gear should avoid flicker and noise.	0		
Hea 02 Req 11	Minimising sources of air pollution	1	1.00	Less than Three of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.12. 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.	0		
Hea 06 Req 4	Security of Site and Building	1	1.00	A compliant risk based security assessment scheme has NOT been used. The performance against the scheme has been confirmed by independent assessment and verification. Note that SABRE is currently the only BRE recognised scheme.	0		
Ene 01 Req 6-7	Beyond Zero Net Regulated Carbon	2	1.00	Building is unlikely to achieve EPR of at least 0.9 and zero net regulated carbon emissions & energy generation from on-site and near-site LZC sources offsets carbon emissions from regulated energy use plus unregulated energy use is unlikely to exceed 10% or achieve 50%	0		
Ene 01 Req 9	Carbon Negative Req 9	1	1.00	<100% carbon emissions from unregulated (and regulated) energy use are offset by energy generated from off-site and near-site LZC sources.	0		
Ene 01 Req 10-12	Post Occupancy Stage	2	1.00	Funds are NOT currently committed to pay for the post occupancy stage BREEAM Certification. An assessor is not appointed to report on the actual energy consumption compared with targets set. Energy model is not submitted to the BRE & retained by the building owner. This credit requires maximum available credits in Ene 02 and operational energy 4 credits to be achieved.	0		
Wat 01 Req 7-8	Water Consumption	1	1.00	It is assumed that the building will not achieve a reduction in water consumption by 65% over the notional baseline.	0		
Mat01 Req 8-9	LCA -Core Building Services Options	1	1.00	It is assumed that LCA options appraisal is NOT completed for 3 significantly different core building services options using a recognised LCA tool during Concept Design & tool is submitted to BRE	0		

Assessment Issue		Credits Available	Weighted worth of 1 credit	Credit Information	Very Good Target	Risk	Responsibility
Mat01 Req 11-14	LCA & LCC Alignment	1	1.00	It is assumed that the following will be achieved: - LCA credits for superstructure @ Concept & Technical Design stages achieved. - Elemental LCC plan and Component Level LCC options appraisal credits (Man 02 Life cycle cost and service life planning on page 45) achieved. - Integrate the aligned LCA and LCC options appraisal activity within the wider design decision-making process - Record results in an Options Appraisal Summary Report.	1	Medium	Project Team / Ridge (Sust)
Mat01 Req 15-18	LCA - Third party verification	1	1.00	It is assumed that: - LCA credits for superstructure @ Concept & Technical Design Stages - LCA credits for Substructure & landscaping options have been achieved. - 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 all relevant BREEAM criteria.	1	Medium	Project Team / Ridge (Sust)
Mat 03 Req 3	Measuring Responsible Sourcing	1	1.00	It is assumed that using the manufacturers with appropriate responsible sourcing certification for Superstructure, internal finishes, substructure, hard landscaping and core building services <50% of available points will be achieved	0		
Wst 01 Req 3-4	Construction Waste Management	1	1.00	As per criteria for Wst 01 Construction Resource Efficiency and Diversion of Resources from Landfill, the following benchmarks are achieved: -Non hazardous construction waste will NOT be less than 1.6m ³ or 1.9 tonnes per 100m ² GIFA. -Diversion from landfill targets may not be met for Non-Demo & Demo (85% by Volume or 90% by tonnage) & Excavation(95% by Volume or 90% by tonnage) -Additionally all key waste groups in Table 10.3 for diversion from landfill are covered in the RMP. Waste data obtained from licensed external waste contractors is reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from a PAS 402:2013 compliant company.	0		
Wst 02 Req 7	Project Sustainable Aggregate Points	1	1.00	Achieve less than 6 points using the Wst 02 calculator, based on: - Identifying all aggregate uses and types on the project - The quantity in tonnes for each identified use and aggregate type. - The region in which the aggregate source is located. - The distance in kilometres travelled by all aggregates by transport type.	0		
Wst 05 Req 4-5	Responding to Climate Change	1	1.00	Not ALL of the following credits are achieved: - Hea 04 - Criterion 6 - Ene 01 - 6 credits - Ene 04 - Passive Design Analysis credit - Wat 01 - 3 credits - Mat 05 - Criteria 2-4 - Wst 05 - Req 1-3 (full credit) - Pol 03 - 1 credit for flood resilience plus 2 credits for surface water run-off	0		
LE 02 Req 11-13	Determine the Ecological Outcomes for the Site	2	1.00	When determining the optimal ecological outcome for the site, sustainability-related activities and the potential for ecosystem service related benefits for the wider site will NOT necessarily be considered. And not all of the following credits will be achieved: Hea 07 - Safe Access ; Hea 07 - Outdoor Space; Pol 03 - Surface water run-off & minimising water course pollution; Pol 05 - Reduction of Noise Pollution	0		
LE 04 Req 13	Enhancing Ecology	1	1.00	It is assumed a biodiversity change of at least 110% is not achieved	0		
Unlisted, BRE Approved Innovations		10	1.00	No unlisted innovation credits will be sought	0		

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