Project: Evendons Lane, Wokingham

Title: BREEAM Pre-Assessment Report

Revision: **P01**

Project Details:

Project Address:	171 Evendons Lane, Wokingham, RG41 4EH
Project Type:	BREEAM New Construction 2018 Version 6.1
Report Prepared by:	Sarah Howe
Report Checked by:	John Ward
Report Approved by:	John Ward
Target BREEAM Rating:	Very Good (55% or more)

Issue History:

P01	22nd March 2025 - First Issue

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01. Introduction

Project Overview:

Betton Consulting were appointed to produce a Pre-Assessment Report for the proposed new care home development at Evendons Lane, Wokingham. The development is to be the demolition of existing commercial buildings, and the redevelopment to provide a 64-bed care home facility with associated works including access, parking and landscaping.

Project Type:

The project has been assessed as a 'Residential Institution (Long Term Stay) – Residential Care Home' building type. The Pre-Assessment has been carried out under the BREEAM 2018 New Construction version of BREEAM Version 6.1.

Project Targets:

It was communicated to us that a target of **Very Good** is to be achieved, and the Pre-Assessment has therefore been carried out on that basis. To achieve Very Good a score of **55%** or over is required, as well as adhering to the relevant minimum requirement credits.

Minimum Requirements:

In BREEAM, each target level has several Minimum Requirements that must be met in addition to the overall score to achieve the required rating. The Minimum Requirements applicable to an Excellent are outlined in *Section 2* of this report. In addition, *Section 4* gives further detail on these specific requirements.

Early Implementation Credits:

There are a number of credits in BREEAM that require early implementation in order to be awarded. The ones relevant to this project have been outlined in *Section 3* of this report. The actual requirement specifics are highlighted and detailed in *Section 4*.

Pre-Assessment Credit Report:

Section 4 of this Pre-Assessment Report outlines all credits which have been targeted for this assessment, giving a road map to achieve an Excellent rating. All necessary Minimum Requirement credits have been included. We would normally advise of a buffer of around 5% over the target score, and by achieving the credits outlined under Section 4, a score of 60.83 % can be achieved providing a reasonable margin for this stage.

Further Stages:

Please note that a Pre-Assessment only gives a high-level road map towards achieving the desired rating. A full Design Stage BREEAM Assessment should be undertaken as soon as possible to ensure the relevant credits are actioned at the appropriate time. More detail for each credit can be provided during the Design Stage Assessment, and specific evidence requests will be sent out to action. Following the Design Stage Assessment, a final Post Construction Assessment will need to be carried out at the As Built Stage, where evidence is required to prove the previously awarded credits have been implemented during the build.

Fuel Sources:

Heating will be provided via a heat pump and the hot water will be delivered using a gas HWS system.

02. Minimum Requirement Credits

Minimum Requirements to achieve a BREEAM Very Good (55% rating)

BREEAM Section	Relevant Credit	Requirements	Additional Notes
Man 04 – Commissioning and Handover	Commissioning - testing schedule and responsibilities Handover	1 - 5 11	
Ene 02 – Energy Monitoring	Sub-metering of end use categories		
Wat 01 – Water Consumption	Water Consumption	1 & 2	Minimum 1 no. credit.
Wat 02 – Water Monitoring	Water Monitoring	1	
Mat 03 – Responsible Sourcing of Construction Products	Responsible sourcing of construction products	1	

03. Early Implementation Credits

In this section, we have outlined all credits that require or would benefit from early action/implementation. Full details of these credit requirements will be issued as part of the Design Stage BREEAM Assessment, but for now, further information can be found under each credit heading in *Section 4* of this report.

MAN 02 – LIFE CYCLE COSTS AND SERVICE PLANNING

Credit 1 Elemental LCC credit requirements 1, 2 & 3

A competent cost consultant carried out an entire asset LCC Plan at RIBA Stage 2. Therefore, the appropriate consultant should be appointed in good time to ensure the relevant reports can be completed to help inform the design.

HEA 04 – THERMAL COMFORT

Credit 1 Thermal Modelling - Requirements 1, 2, 3 & 4

Thermal modelling, in line with CIBSE AM11, should be undertaken for the development using full dynamic thermal analysis software. Summer and winter operative temperature ranges in occupied spaces should be in accordance with the criteria set out in CIBSE Guide A: Environmental Design. This modelling should be completed prior to the end of Concept Design to ensure thermal comfort is effectively incorporated into the design.

Credit 2 Design for Future Thermal Comfort - Requirements 5 ,6, 7 & 8

The thermal modelling should include an allowance for a projected climate change environment. This should be ensured during the Concept Design stage to account for future thermal comfort needs.

HEA 06 – SECURITY OF SITE AND BUILDING

Credit 1 Security of Site and Building - Requirements 1, 2 & 3

A Security Needs Assessment should be carried out as early as possible, certainly before the end of RIBA Stage 2, so that it can help influence the overall scheme design. The recommendations made in the report would also need to be followed and incorporated. The Security Needs Specialist should be appropriately qualified with the relevant experience.

ENE 04 – LOW CARBON DESIGN

Credit 1 Passive Design: Passive Design Analysis - Requirements 1, 2, 3 & 4

The analysis and implementation of passive design measures, including conducting thermal modelling to achieve the first credit for HEA 04 by demonstrating appropriate thermal comfort levels in occupied spaces, should be completed during the Concept Design stage, with the project team identifying opportunities for passive design measures through the Passive Design Analysis.

Credit 2 Low and Zero Carbon Technologies - Requirements 9, 10, 11

A LZC Feasibility Study should be carried out to determine the most appropriate Low and Zero Carbon Technologies for the scheme. The report should be in line with BREEAM requirements, and the recommendations contained therein incorporated into the design. Betton will be undertaking this report in the early course to secure this credit.

TRA 01 and 02 – TRAVEL ASSESSMENT

Credit 1 Travel Assessment - Requirements 1 & 2

A Travel Consultant should be appointed to produce a Travel Assessment/Statement for the project. Please ensure points 2a-2g are included in the assessment as far as possible (these points are noted in *Section 4* of this report). The Travel Assessment would then be used to produce a full Travel Plan (ideally by the same Transport Consultant - which is Requirement 3).

MAT 03 – RESPONSIBLE SOURCING OF PRODUCTS

Credit 1 Enabling Sustainable Procurement - Requirement 2

A Sustainable Procurement Plan is to be completed at an early stage. The SPP can aid the relevant designers in material choice, which can also shape the overall design, so having it in place early and circulated to the full team is required.

MAT 06 – MATERIAL EFFICIENCY

Credit 1 Material Efficiency - Requirements 1, 2 & 3

Targets are to be set, and reports compiled on opportunities and methods to optimise the use of materials. This needs to begin at Preparation and Brief Stage and continue at every stage thereafter.

WST 05 – ADAPTATION TO CLIMATE CHANGE

Credit 1 Resilience of Structure, Fabric, Building Services and Renewables Installation - Requirements 1, 2 & 3

The climate change adaptation strategy appraisal should be conducted by the end of the Concept Design stage. The climate change adaptation strategy appraisal should be conducted by the end of the Concept Design stage, including a systematic risk assessment to identify the impact of expected extreme weather conditions on the building over its projected life cycle, covering building services, renewable systems, structural resilience, and fabric resilience.

WST 06 – DESIGNING FOR DISASSEMBLY AND ADAPTABILITY

Credit 1 Design for Disassembly and Functional Adaptability Recommendations - 1 & 2

There should be a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios (see Methodology) by the end of Concept Design.

Credit 2 Disassembly and Functional Adaptability Implementation – 3,4 & 5

Recommendations or solutions based on the study conducted in Requirement 1 should be completed during or prior to Concept Design. These recommendations should aim to enable and facilitate disassembly and functional adaptation.

LE 02-05 – SURVEY AND EVALUATION

Credit 1 Survey and Evaluation - Requirements 2, 3, 4, 5, 6 & 7

A Suitably Qualified Ecologist (SQE) should carry out a survey and evaluation of the site. The information should be circulated to the full Design Team. A full, BREEAM compliant Ecological Survey and evaluation must cover:

Survey

1. Determining the Zone of Influence for the site including neighboring land and habitats
2. Current flora, fauna (including permanent and transient species) and habitat characteristics (including but not limited to ecological features in or on built structures)
3. Current habitat extent, quality, connectivity and fragmentation
4. Recent and historic site conditions
5. Existing management and maintenance levels and arrangements
6. Existing ecological initiatives within the Zone of Influence
7. Identification of, and consultation with, relevant stakeholders impacted or affected by the site.
8. Local knowledge or sources of information.

Evaluation

1. Current value and condition of the site and the Zone of Influence in terms of:
    a. Features including habitats, species, food sources and connectivity
    b. Broader biodiversity and ecosystem services benefits or opportunities
2. Direct and indirect risks to current ecological value:
    a. Sensitive areas and features on or near the site
    b. Direct risks including those from human activity (e.g. construction work), habitat fragmentation, and potentially harmful species
    c. Indirect risks including water, noise and light pollution
3. Capacity and feasibility to enhance the ecological value
4. Habitat restoration and creation potential
5. Impact of the proposed design, construction works and operations on site in so far as these have been determined at this stage

We would strongly recommend appointing a SQE with experience in BREEAM projects. If required, we can send the appointed SQE further information on what the reports need to entail from a BREEAM perspective.

POL 03 – FLOOD AND SURFACE WATER MANAGEMENT

Credit 1 Flood Resilience - Requirements 1 & 2 (or 3 & 4 if the FRA determines the site to have a medium or high flood risk)

A flood risk assessment for the site should be carried out. If any areas are shown to be medium or high flood risk, this should be highlighted as soon as possible as remediation measures will need to be built into the design.

04. Pre-assessment Report and Credit Requirements

This section of the Report outlines the desired credits, as well as detailing the relevant requirements. While as much information as possible has been provided in this Pre-Assessment Report, the Design Stage BREEAM Assessment should be undertaken as soon as is feasible to ensure all required credits are actioned in a suitable timeframe.

Introduction

This report is intended as a summary of the BREEAM pre-assessment review for the following project:

Project Name	Evendons Lane, Wokingham
Version	BREEAM 2018 NC v6.1
Assessment stage	Pre-Assessment
Lead Consultant	Sarah Howe
Target Rating	Very Good (55%)

Site assumptions (Project Info details) that have been used to filter the credits in accordance with the scheme can be found in the Appendix at the end of this document.

Scoring scenarios

It should be noted that the pre-assessment scores have been based on the following scoring

scenarios; • Current - The number currently achieved.

- Scenario 1 - Current, plus credits which could be targeted but require early implementation. NOT TESTED AT THIS STAGE
- Scenario 2 - Scenario 1, plus credits which can be won but not so easily. NOT TESTED AT THIS STAGE

On this basis, the following scores are considered achievable under each scenario;

Scenario	Score	BREEAM Rating
Current	60.83%	Very Good
Scenario 1	0%	Unclassified
Scenario 2	0%	Unclassified

Minimum Standards

In addition, performance against the minimum standards (required for the specified target rating) under each scenario is summarised below;

Issue	Current	Scenario 1	Scenario 2
Man 03 - Responsible construction practices	✔	✘	✘
Man 04 - Commissioning and handover	✔	✘	✘
Man 04 - Commissioning and handover	✔	✘	✘
Man 05 - Aftercare	✔	✘	✘
Ene 01 - Reduction of energy use and carbon emissions	✔	✘	✘
Ene 02 - Energy monitoring	✔	✘	✘
Wat 01 - Water consumption	✔	✘	✘
Wat 02 - Water monitoring	✔	✘	✘
Mat 03 - Responsible sourcing of construction products	✔	✘	✘
Wst 01 - Construction waste management	✔	✘	✘
Wst 03 - Operational waste	✔	✘	✘

If the required minimum standards are not met, then the target rating will not be achieved regardless of overall score. The following is a list of all credits available for this project, along with the following:

Current	The number currently achieved.
Scenario 1	Current, plus credits which can be easily gained. NOT TESTED AT THIS STAGE
Scenario 2	Scenario 1, plus credits which can be won but not so easily. NOT TESTED AT THIS STAGE

Credit Log

Management						
Man 01 - Project brief and design						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Project delivery planning	1	0	0	0	Credit not sought.
2	Stakeholder consultation (interested parties)	1	0	0	0	Credit not sought.
3	BREEAM AP (concept design)	1	1	0	0	**BREEAM AP (Concept Design)** **Requirement 8** The project team, including the client, formally agree strategic performance targets (see Definitions) early in the design process, see Definitions, (with the support of the BREEAM AP where appointed). **Requirement 9** Involve a BREEAM AP in the project at an appropriate time and level to: **a.** Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM, from their appointment and throughout Concept Design. **b.** Monitor progress against the performance targets (see Definitions on the next page) agreed under criterion 8 throughout all stages after their appointment where decisions critically impact BREEAM performance. **c.** Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8. **d.** Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. **e.** Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.

4	BREEAM AP (developed design)	1	1	0	0	**BREEAM AP (Developed Design)** **Requirement 10** Criteria 8 and 9 are achieved. **Requirement 11** Involve the BREEAM AP in the project at an appropriate time and level to: **a.** Work with the project team, including the client, to consider the links between BREEAM issues and to assist them in maximising the project's overall performance against BREEAM throughout Developed Design. **b.** Monitor progress against the performance targets agreed under criterion 8 throughout all stages where decisions critically impact the specification and tendering process and the BREEAM performance. **c.** Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8. **d.** Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. **e.** Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.
Man 02 - Life cycle cost and service planning						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Elemental LCC	2	2	0	0	**Elemental LCC** credit requirements 1, 2 & 3 to be implemented. **Requirement 1** A competent person (see Definitions) carries out an outline, entire asset LCC plan at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865: 2008. **Requirement 2** The elemental LCC plan: 1. Provides an indication of future replacement costs over a period of analysis as required by the client (e.g. 20, 30, 50 or 60 years); 2. Includes service life, maintenance and operation cost estimates. The study period should ideally be agreed by the client, in line with the design life expectancy of the building. However, where the life expectancy of the building is not yet formally agreed (due to being at very early design stages), the default design life of 60 years should be used for modelling purposes (in line with the UK default). **Requirement 3** Demonstrate, using appropriate examples provided by the design team, how the elemental LCC plan has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.

2	Component level LCC options appraisal	1	1	0	0	**Component Level LCC Options Appraisal** credit requirements 4 & 5 to be implemented. **Requirement 4** A competent person develops a component level LCC options appraisal by the end of Process Stage 4 (equivalent to Technical Design – RIBA Stage 4) in line with PD 156865: 2008. The component level LCC includes (where present): 1. Envelope, e.g. cladding, windows, or roofing 2. Services, e.g. heat source cooling source, or controls 3. Finishes, e.g. walls, floors or ceilings 4. External spaces, e.g. alternative hard landscaping, boundary protection. The Component level LCC option appraisal should review all of the above component types (where present). However, you do not need to consider every single example cited under each component; only a selection of those most likely to draw valued comparisons. This is to ensure that a wide range of options are considered and help focus the analysis on components which would benefit the most from appraisal. **Requirement 5** Demonstrate, using appropriate examples provided by the design team, how the component level LCC options appraisal has been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.
3	Capital cost reporting	1	1	0	0	**Capital Cost Reporting** credit requirement 6 to be implemented. **Requirement 6** Report the capital cost for the building in pounds per square metre of gross internal floor area (£k/m²) as part of the submission to BRE. See also Methodology and Additional information.

Man 03 - Responsible construction practices						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req 1	Prerequisite - Legally harvested and traded timber		✔	✖	✖	**Prerequisite - Legally Harvested and Traded Timber** credit requirement 1 to be implemented. ***This is a minimum requirement for any level of BREEAM*** **Requirement 1** All timber and timber-based products used during the construction process of the project are 'legally harvested and traded timber'.
1	Environmental management	1	1	0	0	**Environmental Management** credit requirements 3 & 4 to be implemented. **Requirement 3** All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS covering their main operations. The EMS must: 1. Be third party certified, to ISO 14001: 2015, EMAS (EU Eco-Management and Audit Scheme) or equivalent standard; OR 2. In compliance with BS 8555: 2016 have: 1. Appropriate structure 2. Reached implementation stage phase four 'implementation and operation of the environmental management system' 3. Completed defined phase audits one to four. **Requirement 4** All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention policies and procedures on-site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines.
2	BREEAM AP (site)	1	1	0	0	**BREEAM AP (Site)** credit requirements 5 & 6 to be implemented. **Requirement 5 - Prerequisite for the BREEAM AP credit:** The client and the contractor formally agree performance targets. **Requirement 6** Involve a BREEAM AP in the project at an appropriate time and level to: 1. Work with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving and if possible going beyond the design intent, to maximise the project's performance against the agreed performance targets throughout the Construction, Handover and Close Out stages 2. Monitor construction progress against the performance targets agreed under criterion 5 throughout all stages where decisions critically impact BREEAM performance 3. Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion 5 4. Provide feedback to the constructors and the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team and the provision to the assessor.
3	Responsible construction management	2	2	0	0	**Responsible Construction Management** credit requirements 7, 8 & 9 to be implemented. **Requirement 7** Achieve items listed as required for one credit in Table 4.1 Responsible construction management items. **Requirement 8** Achieve Requirement 7.

						Requirement 9 Achieve six additional items in Table 4.1 Responsible construction management items. *Note - the full details from Table 4.1 will be issued as part of the full Design Stage BREEAM Assessment.*
4	Monitoring of construction site impacts	2	2	0	0	**Monitoring of Construction Site Impacts** credits (Utility Consumption & Transportation of Construction Materials and Waste) requirements 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 to be implemented. **Requirement 10** Assign responsibility to an individual for monitoring, recording and reporting energy use, water consumption and transportation data (where measured) resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme. To ensure the robust collection of information, this individual must have the appropriate authority and responsibility to request and access the data required. Where appointed, the BREEAM AP could perform this role. **Requirement 11 - First monitoring credit - Utility consumption, Energy consumption** Achieve criterion 10. **Requirement 12** Set targets for the site energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. **Requirement 13** Monitor and record data for the energy consumption described in criterion 12. **Requirement 14** Report the total carbon dioxide emissions (total $kgCO_2$/project value) from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking). **Requirement 15 - Water consumption** Achieve criterion 10. **Requirement 16** Set targets for the potable water consumption (m^3) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. **Requirement 17** Monitor and record data for the potable water consumption described in criterion 16. **Requirement 18** Use the collated data to report the total net water consumption (m^3), i.e. consumption minus any recycled water use from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking). **Requirement 19 - Second monitoring credit - transportation of construction materials and waste** Achieve criterion 10. **Requirement 20** Set targets for transportation movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum cover: 1. Transportation of materials from the point of supply to the building site, including any transport, intermediate storage and point of supply (see Definitions). Monitor as a minimum: 1. Materials used in major building elements (i.e. those defined in BREEAM issue Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)). 2. Ground works and landscaping materials. 2. Transportation of construction waste from the construction gate to waste disposal processing or recovery centre gate. This monitoring

						must cover the construction waste groups outlined in the project's resource management plan. **Requirement 21** Monitor and record data for the transportation movements as described in criterion 20. **Requirement 22** Using the collated data, report separately for materials and waste, the total transport-related carbon dioxide emissions ($kgCO_2eq$), plus total distance travelled (km) via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).
e1	Responsible construction management	1	0	0	0	Credit not sought.
Man 04 - Commissioning and handover						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite (Very Good to Outstanding)		✔	✖	✖	**Prerequisite** credit requirement 0 to be implemented. ***This is a Minimum Requirement for BREEAM Very Good*** **Requirement 0** Prior to handover, develop two building user guides (see Methodology) for the following users: 1. A non-technical user guide for distribution to the building occupiers 2. A technical user guide for the premises facilities managers. A draft copy is developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users.
1	Commissioning - testing schedule and responsibilities	1	1	0	0	**Commissioning - Testing Schedule and Responsibilities** credit requirements 1, 2, 3, 4 & 5 to be implemented. ***This is a Minimum Requirement for BREEAM Very Good*** **Requirement 1** Prepare a schedule of commissioning and testing. The schedule identifies and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric. **Requirement 2** The schedule identifies the appropriate standards for all commissioning activities to be conducted, where applicable, in accordance with: 1. Current Building Regulations 2. BSRIA guidelines 3. CIBSE guidelines 4. Other appropriate standards (see Methodology) Exclude from the assessment any process or manufacture-related equipment specified as part of the project. However, include such equipment in cases where they form an integral part of the building HVAC services, such as some heat recovery systems. **Requirement 3** Where a building management system (BMS) is specified: 1. Carry out commissioning of air and water systems when all control devices are installed, wired and functional 2. Include physical measurements of room temperatures, off-coil temperatures and other key parameters, as appropriate, in commissioning results 3. The BMS or controls installation should be running in auto with satisfactory internal conditions prior to handover 4. All BMS schematics and graphics (if BMS is present) are fully installed and functional to user interface prior to handover 5. Fully train the occupier or facilities team in the operation of the system. **Requirement 4** Appoint an appropriate project team member to monitor and programme pre-commissioning, commissioning and testing. Where necessary include re- commissioning activities on behalf of the client.

						Requirement 5 The principal contractor accounts for the commissioning and testing programme, responsibilities and criteria within their budget and the main programme of work. Allow the required time to complete all commissioning and testing activities prior to handover.
2	Commissioning - design and preparation	1	1	0	0	**Commissioning - Design and Preparation** credit requirements 6 & 7 to be implemented. **Requirement 6** Achieve criteria 1-5. **Requirement 7** During the design stage, the client or the principal contractor appoints an appropriate project team member (see criterion 4), provided they are not involved in the general installation works for the building services systems, with responsibility for: 1. Undertaking design reviews and giving advice on suitability for ease of commissioning 2. Providing commissioning management input to construction programming and during installation stages 3. Management of commissioning, performance testing and handover or post-handover stages. For buildings with complex building services and systems, this role needs to be carried out by a specialist commissioning manager.
3	Testing and inspecting building fabric	1	0	0	0	Credit not sought.
4	Handover	1	1	0	0	**Handover** credit requirements 11 & 12 to be implemented. ***This is a Minimum Requirement for BREEAM Very Good*** **Requirement 11** Prior to handover, develop two building user guides for the following users: 1. A non-technical user guide for distribution to the building occupiers 2. A technical user guide for the premises facilities managers. A draft copy is developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users. **Requirement 12** Prepare two training schedules timed appropriately around handover and proposed occupation plans for the following users: 1. A non-technical training schedule for the building occupiers A technical training schedule for the premises facilities managers.

Man 05 - Aftercare						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Aftercare support	1	1	0	0	**Aftercare Support** credit requirements 1 & 2 to be implemented. **Requirement 1** Provide aftercare support to the building occupiers through having in place operational infrastructure and resources. This includes as a minimum: • A meeting between the aftercare support team or individual and the building occupier or management team (prior to initial occupation, or as soon as possible thereafter) to: ◦ Introduce the aftercare support available, including the building user guide (where existing) and training schedule and their content. ◦ Present key information on the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible. • On-site facilities management training including: ◦ A walkabout of the building • AND • Introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. • Provide initial aftercare support for at least the first month of building occupation, e.g. weekly attendance on-site, to support building users and management (the level of frequency will depend on the complexity of the building and building operations). • Provide longer term aftercare support for occupiers for at least the first 12 months from occupation, e.g. a helpline, nominated individual or other appropriate system to support building users and management. **Requirement 2** Establish operational infrastructure and resources to coordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is substantially occupied. This facilitates analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and user behaviours accordingly.
2	Commissioning - implementation	1	1	0	0	**Commissioning - Implementation** credit requirement 3 to be implemented. **Requirement 3** Complete the following commissioning activities over a minimum 12-month period, once the building becomes substantially occupied: 1. Complex systems: The specialist commissioning manager will: 1. Identify changes made by the owner or operator that might have caused impaired or improved performance 2. Test all building services under full load conditions, i.e. heating equipment in mid-winter, cooling and ventilation equipment in mid-summer and under part load conditions (spring and autumn) 3. Where applicable, carry out testing during periods of extreme (high or low) occupancy 4. Interview building occupants (where they are affected by the complex services) to identify problems or concerns regarding the effectiveness of the systems 5. Produce monthly reports comparing sub-metered energy performance to the predicted one (see Ene 01 Reduction of energy use and carbon emissions) 6. Identify inefficiencies and areas in need of improvement 7. Re-commission systems (following any work needed to serve revised loads), and incorporate any revisions in operating procedures into the operations and maintenance (O&M) manuals. 2. Simple systems (naturally ventilated): The external consultant, aftercare team or facilities manager will: 1. Review thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation, either by measurement or occupant feedback 2. Identify deficiencies and areas in need of improvement 3. Re-commission systems and incorporate any relevant revisions in operating procedures into the O&M manuals.

3	Post occupancy evaluation (POE)	1	1	0	0	**Post Occupancy Evaluation (POE)** credit requirements 4, 5, 6 & 7 to be implemented. **Requirement 4** The client or building occupier commits to carrying out a POE exercise (see Definitions) one year after the building is substantially occupied. This gains comprehensive in-use performance feedback (see criterion 5.b.v) and identifies gaps between design intent and in-use performance. The aim is to highlight any improvements or interventions that need to be made and to inform operational processes. **Requirement 5** An independent party (see Definitions) carries out the POE covering: 1. A review of the design intent and construction process (review of design, procurement, construction and handover processes) 2. Feedback from a wide range of building users including facilities management on the design and environmental conditions of the building covering: 1. Internal environmental conditions (light, noise, temperature, air quality) 2. Control, operation and maintenance 3. Facilities and amenities 4. Access and layout 5. Energy and water consumption (see criterion 2 and Methodology) 6. Other relevant issues, where appropriate (see Definitions). **Requirement 6** The independent party provides a report with lessons learnt to the client and building occupiers. **Requirement 7** The client or building occupier commits funds to pay for the POE in advance. This requires an independent party to be appointed to carry out the POE as described in criterion 5. Evidence of the appointment of the independent party and schedule of responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance.
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		21	18	0	0	**Standard Management Credit Total**
		1	0	0	0	**Exemplary Management Credit Total**
		11%	9.43%	0	0	**% Management Total (Standard + Exemplary)**

Health & Wellbeing						
Hea 01 - Visual comfort						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Control of glare from sunlight	1	1	0	0	**Control of Glare from Sunlight** credit requirements 1, 2 & 3 to be implemented. – statement required from architect to show how glare has been addressed. **Requirement 1** Identify areas at risk of glare using a glare control assessment. The glare control assessment also justifies any areas deemed not at risk of glare. – Could be the architect or specialist. **Requirement 2** Where risk has been identified within a relevant building area (Definitions on page 85 of BREEAM 2018 Guidance), a glare control strategy is used to design out the potential for glare. **Requirement 3** The glare control strategy does not increase energy consumption used for lighting. This is achieved by: 1. Maximising daylight levels in all weather, cloudy or sunny AND 2. Ensuring the use or location of shading does not conflict with the operation of lighting control systems.
2	Daylighting (building type dependent)	2	0	0	0	Credit not sought.
3	View out	1	0	0	0	Credit not sought.
4	Internal and external lighting levels, zoning and control	1	1	0	0	**Internal and External Lighting Levels, Zoning and Control** credit requirements 7, 8, 9 & 11 to be implemented. **Requirement 7 - Internal lighting** Internal lighting in all relevant areas of the building is designed to provide illuminance (lux) levels and colouring rendering index in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. Internal lighting should be appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. **Requirement 8** For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 2.4, 2.13 to 2.15, 2.20, and 6.10 to 6.20. This gives recommendations highlighting: 1. Limits to the luminance of the luminaires to avoid screen reflections. (Manufacturers' data for the luminaires should be sought to confirm this.) 2. Any area where a surface is used to reflect light into a space, such as uplighting, the recommendations refer to the luminance of the lit ceiling rather than the luminaire; a design team calculation is usually required to demonstrate this. 3. Recommendations for direct lighting, ceiling illuminance, and average wall illuminance. **Requirement 9 - External lighting** All external lighting located within the construction zone is specified in accordance with BS 5489-1:2013 Code for the practice for the design of road lighting. Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of workplaces - Part 2: Outdoor work places. External lighting should provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night. **Requirement 10** Where no external light fittings are specified (either separate from or mounted on the external building façade or roof), the criteria relating to external lighting do not apply and the credit can be awarded on the basis of compliance with criteria 7–8.c above. If no internal lighting is

						specified, the credit cannot be awarded. **Requirement 11 - Zoning and occupant control** Internal lighting is zoned to allow for occupant control. Zoning is in accordance with the criteria below for relevant areas present within the building: 1. In office areas, zones of no more than four workplaces 2. Workstations adjacent to windows or atria and other building areas separately zoned and controlled 3. Seminar and lecture rooms: zoned for presentation and audience areas 4. Library spaces: separate zoning of stacks, reading and counter areas 5. Teaching space or demonstration area 6. Whiteboard or display screen 7. Auditoria: zoning of seating areas, circulation space and lectern area 8. Dining, restaurant, café areas: separate zoning of servery and seating or dining areas 9. Retail: separate zoning of display and counter areas 10. Bar areas: separate zoning of bar and seating areas 11. Wards or bedded areas: zoned lighting control for individual bed spaces and control for staff over groups of bed spaces Treatment areas, dayrooms, waiting areas: zoning of seating and activity areas and circulation space with controls accessible to staff.
e1	Daylighting (building type dependent)	1	0	0	0	Credit not sought.
e2	Internal and external lighting levels, zoning and control	1	0	0	0	Credit not sought.

Hea 02 - Indoor air quality						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-re q	Prerequisite - Indoor air quality (IAQ) plan		✔	✘	✘	**Prerequisite - Indoor Air Quality (IAQ) Plan** credit requirement 1 to be implemented. **Requirement 1** A site-specific indoor air quality plan has been produced and implemented in accordance with the guidance in Guidance Note GN06. The objective of the plan is to facilitate a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during occupation of the building. The indoor air quality plan must consider the following: 1. Removal of contaminant sources 2. Dilution and control of contaminant sources: 1. Where present, consideration is given to the air quality requirements of specialist areas such as laboratories 3. Procedures for pre-occupancy flush out 4. Third party testing and analysis 5. Maintaining good indoor air quality in-use.
1	Ventilation	1	0	0	0	Credit not sought
2	Emissions from building products	2	0	0	0	Credit not sought
3	Post-construction indoor air quality measurement	1	0	0	0	Credit not sought
e1	Minimising sources of air pollution - Emissions from building products	1	0	0	0	Credit not sought.

Hea 04 - Thermal comfort						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Thermal modelling	1	1	0	0	**Thermal Modelling** credit requirements 1, 2, 3 & 4 to be implemented. Betton will be completing this to secure this credit. **Requirement 1** Thermal modelling has been carried out using software in accordance with CIBSE AM11 Building Energy and Performance Modelling. **Requirement 2** The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating or cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance with CIBSE AM11). **Requirement 3** The modelling demonstrates that: 1. For air-conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement or level for the building type); or the thermal environment in occupied spaces meet the Category B requirements for PPD, PMV and local discomfort set out in Table A.1 of Annex A of ISO 7730:2005. 2. For naturally ventilated buildings: 1. Winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5. Or other appropriate industry standard (where this sets a higher or more appropriate requirement or level for the building type). 2. The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in either of the following standards as appropriate; CIBSE TM52: The limits of thermal comfort: avoiding overheating in European buildings or CIBSE TM59: Design methodology for the assessment of overheating risk in homes. **Requirement 4** For air-conditioned buildings, the PMV (predicted mean vote) and PPD (predicted percentage of dissatisfied) indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.
2	Design for future thermal comfort	1	0	0	0	Credit not sought.

3	Thermal zoning and controls	1	1	0	0	**Thermal Zoning and Controls** credit requirements 9, 10 & 11 to be implemented. Betton to action. **Requirement 9** Criteria 1-4 are achieved. **Requirement 10** The thermal modelling analysis (criteria1-4) has informed the temperature control strategy for the building and its users. **Requirement 11** The strategy for proposed heating or cooling systems demonstrates that it has addressed the following: 1. Zones within the building, and how the building services could efficiently and appropriately heat or cool these areas. For example consider the different requirements for the central core of a building compared with the external perimeter adjacent to the windows 2. The degree of occupant control required for these zones. This is based on discussions with the end user (or alternatively building type or use specific design guidance, case studies, feedback) and considers: 1. User knowledge of building services 2. Occupancy type, patterns and room functions (and therefore appropriate level of control required) 3. How the user is likely to operate or interact with the systems, e.g. are they likely to open windows, access thermostatic radiator valves (TRV) on radiators, change air-conditioning settings etc. 4. The user expectations (this may differ in the summer and winter) and degree of individual control (i.e. obtaining the balance between occupant preferences, for example some occupants like fresh air and others dislike draughts) 3. How the proposed systems will interact with each other (where there is more than one system) and how this may affect the thermal comfort of the building occupants 4. The need or otherwise for an accessible building user actuated manual override for any automatic systems.
Hea 05 - Acoustic performance						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Acoustic performance	4	0	0	0	Credit not sought.

Hea 06 - Security						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Security of site and building	1	1	0	0	**Security of Site and Building** credit requirements 1, 2 & 3 to be implemented. *** Early implementation required *** The SNA should be completed before the end of RIBA Stage 2. **Requirement 1** A Suitably Qualified Security Specialist (SQSS) conducts an evidence based Security needs Assessment (SNA) during or prior to Concept Design. The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development. **Requirement 2** The SQSS develops a set of security controls and recommendations for incorporation in to the proposals. Those controls shall directly relate to the threats and assets identified in the preceding SNA. **Requirement 3** The recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviation from those recommendations shall be justified and agreed with the SQSS.
e1	Security of site and building	1	0	0	0	Credit not sought.

Hea 07 - Safe and healthy surroundings						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Safe access	1	1	0	0	**Safe Access** credit requirements 1, 2, 3, 4, 5 & 6 to be implemented (where applicable). **Requirement 1** Where external site areas form part of the assessed development the following apply: Dedicated and safe cycle paths are provided from the site entrance to any cycle storage and connect to offsite cycle paths where applicable. **Requirement 2** Dedicated and safe footpaths are provided on and around the site providing suitable links for the following: 1. The site entrance to the building entrance 2. Car parks (where present) to the building entrance 3. The building to outdoor space, and 4. Connecting to off-site paths where applicable. **Requirement 3** Pedestrian drop off areas are designed off of, or adjoining to, the access road and should provide direct access to other footpaths. **Requirement 4** Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply: Delivery areas are not accessed through general parking areas and do not cross or share the following: 1. Pedestrian and cyclist paths 2. Outside amenity areas accessible to building users and public. **Requirement 5** There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvering area and staff and visitor car parking. **Requirement 6** Parking and turning areas are designed for simple manoeuvering according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting.
2	Outside space	1	1	0	0	**Outside Space** **Requirement 7** There is an outside space proving building users with an external amenity area.
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		19	7	0	0	**Standard Health & Wellbeing Credit Total**
		4	0	0	0	**Exemplary Health & Wellbeing Credit Total**
		14%	5.16%	0	0	**% Health & Wellbeing Total (Standard + Exemplary)**

Energy						
Ene 01 - Reduction of energy use and carbon emissions						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Energy performance	9	4	0	0	**Energy Performance** credit requirement 1 to be implemented. *** 4 no. credits are targeted. **Requirement 1** Calculate an Energy Performance Ratio for New Constructions (EPR NC). Compare the EPR NC achieved with the benchmarks in Table 6.1 and award the corresponding number of BREEAM credits. *Note - the full details from Table 6.1 will be issued as part of the full Design Stage BREEAM Assessment.*
2	Prediction of operational energy consumption	4	0	0	0	Credit not sought.
e1	Beyond zero net regulated carbon	3	0	0	0	Credits not sought.
e2	Post-occupancy stage - Exemplary level criteria	2	0	0	0	Credits not sought.

Ene 02 - Energy monitoring						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Sub-metering of end use categories	1	1	0	0	**Sub-metering of End Use Categories** credit requirements 1, 2 & 3 to be implemented. ***This is a Minimum Requirement for BREEAM Very Good*** **Requirement 1** Install energy metering systems so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories. **Requirement 2** Meter the energy consumption in buildings according to the total useful floor area: 1. If the area is greater than 1,000m², by end-use category with an appropriate energy monitoring and management system 2. If the area is less than 1,000m², use either: 1. an energy monitoring and management system or 2. separate accessible energy sub-meters with pulsed or other open protocol communication outputs, for future connection to an energy monitoring and management system (see Definitions). **Requirement 3** Building users can identify the energy consuming end uses, for example through labelling or data outputs.
Ene 03 - External Lighting						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	External lighting	1	1	0	0	**External Lighting** credit requirement 2 to be implemented. **Requirement 2** External light fittings within the construction zone with: 1. Average initial luminous efficacy of no less than 70 luminaire lumens per circuit Watt 2. Automatic control to prevent operation during daylight hours Presence detection in areas of intermittent pedestrian traffic.
Ene 04 - Low carbon design						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Passive design	2	1	0	0	**Thermal Comfort and Passive Design Credit Requirements (Hea 04 - One Credit) to be implemented.** *Betton to action* ***Early implementation required*** The analysis and implementation of passive design measures must be completed during the Concept Design stage. **Requirement 1** Achieve the first credit for Hea 04 by conducting thermal modelling to demonstrate that the building design delivers appropriate thermal comfort levels in occupied spaces. **Requirement 2** The project team must analyse the proposed building design and development during the Concept Design stage to identify opportunities for implementing passive design measures (refer to Passive Design Analysis). **Requirement 3** Implement passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads, and energy consumption in accordance with the findings of the passive design analysis. **Requirement 4** Quantify the reduction in total energy demand and carbon dioxide (CO2-eq) emissions resulting from the implemented passive design measures

2	Low and zero carbon technologies	1	1	0	0	**Low and Zero Carbon Technologies** credit requirements 9, 10, 11 & 12 to be implemented. Betton to action *** Early implementation required *** The LZC Feasibility Study needs to be complete before the end of RIBA Stage 2. **Requirement 9** An energy specialist completes a feasibility study by the end of the Concept Design. **Requirement 10** Establish the most appropriate recognised local (on site or near site) low or zero carbon (LZC) energy sources for the building or development (see Scope of LZC systems and how they are assessed), based on the feasibility study. **Requirement 11** Specify local LZC technologies for the building or development in line with the feasibility study recommendations. **Requirement 12** Quantify the reduced regulated carbon dioxide (CO_2) emissions resulting from the feasibility study.
Ene 06 - Energy efficient transportation systems						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Energy consumption	1	1	0	0	**Energy Consumption** credit requirement 1 to be implemented. Lift specialist to evidence **Requirement 1** For specified lifts, escalators or moving walks (transportation types): 1. Analyse the transportation demand and usage patterns for the building to determine the optimum number and size of lifts, escalators or moving walks 2. Calculate the energy consumption in accordance with BS EN ISO 25745 Part 2([131]) or Part 3([132]) for one of the following: 1. At least two options for each transportation type (e.g. for lifts, hydraulic, traction or machine roomless (MRL)) OR 2. At least two options considering different system arrangements and control strategies. 3. Consider the use of regenerative drives, subject to the requirements in Regenerative drives on the next page Specify the transportation system with the lowest energy consumption.
2	Energy efficient features	1	1	0	0	**Energy Efficient Features** credit requirements 2, 3 & 4 to be implemented. Lift specialist to evidence **Requirement 2** Achieve criteria 1. **Requirement 3** Specify the following three energy efficient features for each lift: 1. A standby condition for off-peak periods 2. The lift car lighting and display lighting provides an average luminous efficacy across all fittings in the car of > 70 luminaire lumens per circuit Watt 3. Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor. **Requirement 4** Specify regenerative drives where their use is demonstrated to save energy.

Ene 08 - Energy efficient equipment						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Energy efficient equipment	2	2	0	0	2no credits targeted **Requirement 1** Identify the building's unregulated energy consuming loads. Estimate their contribution to the total annual unregulated energy consumption of the building, assuming a typical or standard specification. **Requirement 2** Identify the systems or processes that use a significant proportion of the total annual unregulated energy consumption of the building. **Requirement 3** Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building.
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		22	12	0	0	**Standard Energy Credit Total**
		5	0	0	0	**Exemplary Energy Credit Total**
		16%	8.73%	0	0	**% Energy Total (Standard + Exemplary)**

Transport						
Tra 01 - Transport assessment and travel plan						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Travel plan	2	2	0	0	**Travel Plan** credit requirements 1, 2, 3, 4 & 5 to be implemented. *** Early implementation required *** The Transport Assessment/Statement needs to be complete before the end of RIBA Stage 2. **Requirement 1** No later than Concept Design stage, undertake a site-specific transport assessment (or develop a travel statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form. **Requirement 2** The site-specific travel assessment (or statement) shall cover as a minimum: 1. If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities. 2. Predicted travel patterns and transport impact of future building or site users. 3. Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. 4. Reporting of the number and type of existing accessible amenities, see Table 7.1, within 500m of the site. 5. Disabled access accounting for varying levels and types of disability, including visual impairment. 6. Calculation of the existing public transport Accessibility Index (AI), see Methodology on the facing page. 7. Current facilities for cyclists. **Requirement 3** Following a transport assessment (in accordance with the requirements set out in requirement 2), develop a site-specific travel plan that provides a long-term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation. **Requirement 4** If the occupier is known, involve them in the development of the travel plan. **Requirement 5** Demonstrate that the travel plan will be implemented and supported by the building's management in operation. *Note - the full details from Table 7.1 will be issued as part of the full Design Stage BREEAM Assessment.*

Tra 02 - Sustainable transport measures						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Pre-requisite		✔	✖	✖	**Pre-Requisite** credit requirement 1 to be implemented. **Requirement 1** Achieve requirements 3-5 in the Tra 01 Transport assessment and travel plan credit.
1	Transport options implementation	10	5	0	0	**Transport Options Implementation** credit requirements 2 & 3 to be implemented. **Requirement 2** Identify the sustainable transport measures, see Table 7.4. **Requirement 3** Award credits according to the Accessible Index (AI) of the project, and the total number of points achieved for the options implemented, see Table 7.3. Under the Current scenario, the following 6no. Sustainable Transport Measures have been targeted: • Provide a public transport information system in a publicly accessible area, to allow building users access to up-to-date information on the available public transport and transport infrastructure. This may include signposting to public transport, cycling, walking infrastructure or local amenities. • Provide electric recharging stations of a minimum of 3kW for at least 10% of the total car parking capacity for the development. • Set up a car sharing group or facility to facilitate and encourage building users to car share. Raise awareness of the sharing scheme with marketing and communication materials. Provide priority spaces for car sharers for at least 5% of the total car parking capacity for the development. Locate priority parking spaces near the development entrance used by the sharing scheme participants. • Install compliant cycle storage spaces to meet the minimum levels set out in Table 7.5 (information from Table 7.5 will be issued as part of any full Design Stage BREEAM Assessment). • Provide at least two compliant cyclists' facilities for the building users, (including pupils where appropriate to the building type) for the scope of each compliant facility: ◦ - Showers ◦ - Changing facilities ◦ - Lockers ◦ - Drying spaces. • Ensure a minimum of one new accessible amenity, in accordance with Table 7.6 (appropriate food outlet - which would be met with the cafe). This is worth 2 credits. *Note - the full details from Tables 7.3, 7.4 & 7.6 will be issued as part of the full Design Stage BREEAM Assessment.*
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		12	7	0	0	**Standard Transport Credit Total**
		0	0	0	0	**Exemplary Transport Credit Total**
		10%	5.83%	0	0	**% Transport Total (Standard + Exemplary)**

Water						
Wat 01 - Water consumption						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Water consumption	5	2	0	0	**Water Consumption** credit requirements 1 & 2 to be implemented. *** 2 no. credits targeted *** *** A minimum of 1 no. credit must be achieved for a BREEAM Very Good ***
e1	Water consumption	1	0	0	0	Credit not sought.
Wat 02 - Water monitoring						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite (Good to Outstanding)		✔	✖	✖	**Prerequisite (Good to Outstanding)** credit requirement 0 to be implemented. *** Requirement 0 is a minimum requirement for BREEAM Very Good *** **Requirement 0** Specify a water meter on the mains water supply to each building. This includes instances where water is supplied via a borehole or other private source.
1	Water monitoring	1	1	0	0	**Water Monitoring** credit requirements 1, 2, & 3 to be implemented. Credits requirements 4 & 5 to be implemented if applicable. **Requirement 1** Specify a water meter on the mains water supply to each building. This includes instances where water is supplied via a borehole or other private source. **Requirement 2** For water-consuming plant or building areas consuming 10% or more of the building's total water demand: 1. Fit easily accessible sub-meters, OR 2. Install water monitoring equipment integral to the plant or area. **Requirement 3** For each meter (main and sub): 1. Install a pulsed or other open protocol communication output, AND 2. Connect it to an appropriate utility monitoring and management system, e.g. a building management system (BMS), for the monitoring of water consumption. If there is no BMS system in operation at Post-Construction stage, award credits provided that the system used enables connection when the BMS becomes operational. The following credit requirements are building type dependent, and to be included if applicable: **Requirement 4** In buildings with swimming pools, or large water tanks and aquariums, fit separate sub-meters on the water supply of the above and any associated changing facilities (toilets, showers etc.) irrespective of their water consumption levels. **Requirement 5** In buildings containing laboratories, fit a separate water meter on the water supply to any process or cooling loop for 'plumbed-in' laboratory process equipment, irrespective of their water consumption levels.

Wat 03 - Water leak detection						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Leak detection system	1	1	0	0	**Leak Detection System** credit requirements 1 & 2 to be implemented. **Requirement 1** Install a leak detection system capable of detecting a major water leak: 1. On the utilities water supply within the buildings, to detect any major leaks within the buildings AND 2. Between the buildings and the utilities water supply, to detect any major leaks between the utilities supply and the buildings under assessment. **Requirement 2** The leak detection system is: 1. A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks 2. Activated when the flow of water passing through the water meter or data logger is at a flow rate above a pre-set maximum for a pre-set period. This usually involves installing a system which detects higher than normal flow rates at meters or sub-meters. It does not necessarily require a system that directly detects water leakage along part or the whole length of the water supply system 3. Able to identify different flow and therefore leakage rates, e.g. continuous, high or low level, over set time periods. Although high- and low-level leakage rates are not specified, the leak detection equipment installed must have the flexibility to distinguish between different flow rates to enable it to be programmed to suit the building type and owner's or occupier's usage patterns 4. Programmable to suit the owner's or occupier's water consumption criteria 5. Where applicable, designed to avoid false alarms caused by normal operation of large water consuming plant such as chillers. Where there is physically no space for a leak detection system between the utilities water meter and the building, alternative solutions can be used, provided that a major leak can still be detected.
2	Flow control devices	1	1	0	0	**Flow Control Devices** credit requirement 3 to be implemented. **Requirement 3** Install flow control devices that regulate the supply of water to each WC area or facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework.
Wat 04 - Water efficient equipment						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Water efficient equipment	1	1	0	0	**Water Efficient Equipment** credit requirements 1 & 2 to be implemented. **Requirement 1** Identify all water demands from uses other than those listed under Wat 01 Table 8.1 that could be realistically mitigated or reduced. Where there is no water demand from uses other than domestic scale, sanitary use components in the building, this issue is not applicable. Information contained with Table 8.1 will be issued as part of any full Design Stage BREEAM Assessment. **Requirement 2** Identify systems or processes to reduce the relevant water demand (criterion 1), and establish, through either good practice design or specification, a demonstrable reduction in the total water demand of the building.
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		9	6	0	0	**Standard Water Credit Total**
		1	0	0	0	**Exemplary Water Credit Total**
		7%	4.67%	0	0	**% Water Total (Standard + Exemplary)**

Materials						
Mat 01 - Environmental impacts from construction products - Building life cycle assessment (LCA)						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Superstructure	6	0	0	0	Credit not sought.
2	Substructure and hard landscaping options appraisal during Concept Design (all building types)	1	0	0	0	Credit not sought.
e1	Core building services options appraisal during Concept Design (all building types)	1	0	0	0	Credit not sought.
e2	LCA and LCC alignment (all building types)	1	0	0	0	Credit not sought.
e3	Third party verification (all building types) - Exemplary level criteria	1	0	0	0	Credit not sought.
Mat 02 - Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Specification of products with a recognised environmental product declaration (EPD)	1	0	0	0	Credit not sought.

Mat 03 - Responsible sourcing of construction products						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite		✔	✘	✘	**Prerequisite** credit requirement 1 to be incorporated. *** This requirement is a minimum requirement for any level of BREEAM *** **Requirement 1** All timber and timber-based products used on the project are legally harvested and traded timber as per the UK government's Timber Procurement Policy.
1	Enabling sustainable procurement	1	1	0	0	**Enabling Sustainable Procurement** credit requirement 2 to be implemented. *** Early implementation required *** The Sustainable Procurement Plan must be in place before the start of RIBA Stage 2. **Requirement 2** A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must: 1. Be in place before Concept Design. 2. Include sustainability aims, objectives and strategic targets to guide procurement activities. Note: targets do not need to be achieved for the credit to be awarded but justification must be provided for targets that are not achieved. 3. Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. 4. Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan. In addition, if the plan is applied to several sites or adopted at an organisational level it must: 5. Identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues following the process set out in BS ISO20400:201
2	Measuring responsible sourcing	3	2	0	0	**Measuring Responsible Sourcing** credit requirement 3 to be implemented. *** 2 no. credits are targeted *** **Requirement 3** Use the Mat 03 calculator tool and methodology to determine the number of credits achieved for the construction products specified or procured. Credits are awarded in proportion to the scope of the assessment and the number of points achieved, as set out in Table 9.10. Responsible Sourcing credit requirement (information from Table 9.10 will be issued as part of a full Design Stage BREEAM Assessment). *Note - the full details from Table 9.10 will be issued as part of the full Design Stage BREEAM Assessment.*
e1	Measuring responsible sourcing	1	0	0	0	Credit not sought.

Mat 05 - Designing for durability and resilience						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Protecting vulnerable parts of the building from damage/material degradation	1	1	0	0	**Protecting Vulnerable Parts of the Building from Damage/Material Degradation** credit requirements 1, 2, 3 & 4 to be incorporated. **Requirement 1 - Protecting vulnerable parts of the building from damage** Protection measures are incorporated into the building's design and construction to reduce damage to the building's fabric or materials in case of accidental or malicious damage occurring. These measures must provide protection against: 1. Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.). 2. Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. 3. External building fabric damage by a vehicle. Protection where parking or manoeuvering areas are within 1 metre of the building façade and where delivery areas or routes are within 2 metres of the façade, i.e. specifying bollards or protection rails. 4. Potential malicious damage to building materials and finishes, in public and common areas where appropriate. **Requirement 2 - Protecting exposed parts of the building from material degradation** Key exposed building elements have been designed and specified to limit long and short-term degradation due to environmental factors. This can be demonstrated through one of the following: 1. The element or product achieving an appropriate quality or durability standard or design guide. See Table 9.14. If none are available, use BS 7543:2015 as the default appropriate standard OR 2. A detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors. **Requirement 3** Include convenient access to the roof and façade for cost effective cleaning, replacement and repair in the building's design. PLEASE BE AWARE THAT THINGS LIKE CHERRY PICKERS WOULD NOT ADHERE TO THE REQUIREMENT. ROOF ACCESS SHOULD BE FROM THE ROOF HATCH, STAIRCORE, OR IF SINGLE STOREY, PERMANENET LADDER FIXING POINTS WITH MANSAFE SYSTEM. **Requirement 4** Design the roof and façade to prevent water damage, ingress and detrimental ponding. As per Table 9.14 for an example list of relevant industry durability and quality standards. *Note - the full details from Table 9.14 will be issued as part of the full Design Stage BREEAM Assessment.*

Mat 06 - Material efficiency						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Material efficiency	1	1	0	0	**Material Efficiency** credit requirements 1, 2 & 3 to be implemented. *** Early implementation required *** Requirement 1 to be in place at the Preparation and Brief and Concept Design stages. **Requirement 1** At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials. These must be done for each of the following stages. See Table 9.15. 1. Preparation and Brief 2. Concept Design 3. Developed Design 4. Technical Design 5. Construction **Requirement 2** Develop and record the implementation of material efficiency, see Table 9.15, during 1. Developed Design 2. Technical Design 3. Construction **Requirement 3** Report the targets and actual material efficiencies achieved. *Note - the full details from Table 9.15 will be issued as part of the full Design Stage BREEAM Assessment.*
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		14	5	0	0	**Standard Materials Credit Total**
		4	0	0	0	**Exemplary Materials Credit Total**
		15%	5.36	0	0	**% Materials Total (Standard + Exemplary)**

Waste						
Wst 01 - Construction waste management						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
2	Construction resource efficiency	3	3	0	0	**Construction Resource Efficiency** credit requirements 4 & 5 to be implemented. *** 3 no. credits targeted, where the amount of waste generated per 100m² (gross internal floor area) generated during construction is equal to or less than 7.5 m3 or 6.5 tonnes *** **Requirement 4** Prepare a compliant Resource Management Plan (RMP) covering: 1. Non-hazardous waste materials (from on-site construction and dedicated off-site manufacture or fabrication), including demolition and excavation waste 2. Accurate data records on waste arisings and waste management routes. **Requirement 5** Meet or improve upon the benchmarks in Table 10.1 for non-hazardous construction waste, excluding demolition and excavation waste. *Note - the full details from Table 10.1 will be issued as part of the full Design Stage BREEAM Assessment.* Also note that if any demolition is to be carried out, then Requirements 1, 2 & 3 will be required (for a Pre-Demolition Audit). **Requirement 1** Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications. The audit must cover the content of Pre-demolition audit scope and: a Be carried out at Concept Design stage by a competent person (see Definitions on page 262) prior to strip-out or demolition works b Guide the design, consider materials for reuse and set targets for waste management c Engage all contractors in the process of maximising high-grade reuse and recycling opportunities **Requirement 2** Refer to the audit in the resource management plan (RMP). **Requirement 3** Compare actual waste arisings and waste management routes used with those forecast and investigate significant deviations from planned targets.
3	Diversion of resources from landfill	1	1	0	0	**Diversion of Resources from Landfill** credit requirements 6 & 7 to be implemented. **Requirement 6** Meet, where applicable, the diversion from landfill benchmarks in Table 10.2 for non-hazardous construction waste and demolition and excavation waste generated. **Requirement 7** Sort waste materials into separate key waste groups as per Table 10.35, either on-site or through a licensed contractor for recovery. Information contained within Table 10.2 & 10.35 will be issued during a full Design Stage BREEAM Assessment. *Note - the full details from Tables 10.2 & 10.35 will be issued as part of the full Design Stage BREEAM Assessment.*
e1	Construction resource efficiency/Diversion of resources from landfill	1	0	0	0	Credit not sought.

Wst 02 - Use of recycled and sustainably sourced aggregates						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite		✓	✗	✗	**Requirement 1** If demolition occurs on site, conduct a pre-demolition audit of all existing buildings, structures, or hard surfaces to be demolished. **Requirement 2** Ensure the audit complies with Wst 01 Criterion 1 and Criterion 2 to encourage the reuse of site-won material on site.
1	Project Sustainable Aggregate points	1	1	0	0	**Aggregate Management Requirements** **Requirement 3** Identify all aggregate uses and types on the project in accordance with Table 10.5 and Table 10.6. **Requirement 4** Determine the quantity in tonnes for each identified use and aggregate type. **Requirement 5** Identify the region in which the aggregate source is located. **Requirement 6** Identify the distance in kilometres travelled by all aggregates based on transport type. **Requirement 7** Enter all aggregate data into the BREEAM Wst 02 calculator to calculate the Project Sustainable Aggregate points. **Requirement 8** The corresponding number of BREEAM credits will be awarded based on the results, as outlined in Table 10.4.
e1	Project Sustainable Aggregate points	1	0	0	0	Credit not sought.

Wst 03 - Operational waste						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Operational waste	1	1	0	0	**Operational Waste** credit requirement 1 - 9 to be implemented where applicable. **Requirement 1** Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space is: 1. Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams 2. Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors 3. Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily or weekly operational activities and occupancy rates. **Requirement 2** For consistent and large amounts of operational waste generated, provide: 1. Static waste compactors or balers; situated in a service area or dedicated waste management space 2. Vessels for composting suitable organic waste OR adequate spaces for storing segregated food waste and compostable organic material for collection and delivery to an alternative composting facility 3. A water outlet provided adjacent to or within the facility for cleaning and hygiene purposes where organic waste is to be stored or composted on site. **Requirement 3 - Additionally for healthcare buildings only** The specified or installed operational waste facilities are compliant with the relevant NHS guidelines for that part of the UK. **Requirement 4 - Additionally for multi-residential buildings with self-contained dwellings or bedsits only** Provide three internal storage containers for each dwelling or bedsit with: 1. A minimum total capacity of 30 litres 2. No individual container smaller than 7 litres 3. All containers in a dedicated non-obstructive position 4. Storage containers for recycling in addition to non-recyclable waste storage **Requirement 5** Provide home composting facilities and a home composting information leaflet within the kitchen area or communal space for each self-contain dwelling or bedsit. **Requirement 6 - Additionally for multi-residential buildings with individual bedrooms and communal facilities only** Meet requirements 4.a and 4.b for self-contained dwellings or bedsits for every six bedrooms. **Requirement 7** Locate recyclable storage in a dedicated, unobstructive position in communal kitchens or other appropriate communal space. **Requirement 8** Provide home composting facilities and a home composting information leaflet within the kitchen area or communal space. **Requirement 9** Provide a minimum of 10 litres of internal storage for compostable waste.

Wst 05 - Adaptation to climate change						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Resilience of structure, fabric, building services and renewables installation	1	1	0	0	***Early implementation required*** The climate change adaptation strategy appraisal must be conducted by the end of the Concept Design stage. **Requirement 1** Conduct a climate change adaptation strategy appraisal using: a. A systematic risk assessment to identify the impact of expected extreme weather conditions on the building over its projected life cycle. The assessment must cover the installation of building services, renewable systems, structural resilience, and fabric resilience, including the following steps: i. Hazard identification ii. Hazard assessment iii. Risk estimation iv. Risk evaluation v. Risk management **Requirement 2** Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, to mitigate the identified impacts. **Requirement 3** Provide an update during Technical Design that demonstrates how the proposed recommendations or solutions from Concept Design have been implemented. Where implementation was not practical or cost-effective, omissions must be justified in writing by the assessor.
e1	Responding to climate change	1	0	0	0	Credit not sought.
Wst 06 - Design for disassembly and adaptability						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Design for disassembly and functional adaptability - recommendations	1	1	0	0	***Early implementation required*** The study, recommendations, and implementation updates must be completed by the end of Concept and Technical stage . **Requirement 1** Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios (see Methodology) by the end of Concept Design. **Requirement 2** Develop recommendations or solutions based on the study conducted in Requirement 1. These recommendations should aim to enable and facilitate disassembly and functional adaptation and must be completed during or prior to Concept Design.

2	Disassembly and functional adaptability - implementation	1	1	0	0	**Requirement 3** Achieve criteria 1 and 2 **Requirement 4** Provide an update during Technical Design on: a. How the recommendations or solutions proposed during Concept Design have been implemented where practical and cost-effective, with omissions justified in writing to the assessor. b. Any changes made to the recommendations and solutions during the development of Technical Design. **Requirement 5** Produce a Building Adaptability and Disassembly Guide to communicate the characteristics that allow functional adaptability and disassembly to prospective tenants.
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		10	9	0	0	**Standard Waste Credit Total**
		3	0	0	0	**Exemplary Waste Credit Total**
		6%	6%	0	0	**% Waste Total (Standard + Exemplary)**

Land Use & Ecology						
LE 01 - Site selection						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Previously occupied land	1	0	0	0	Credit achievable where development is on land that has previously been developed and take up at least 75% of the existing building location
2	Contaminated land	1	0	0	0	Credit not sought.
LE 02 - Ecological risks and opportunities						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite - Statutory obligations		✔	✖	✖	**Prerequisite - Statutory Obligations** credit requirement 1 to be implemented. **Requirement 1** The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
1	Survey and evaluation/Determining ecological outcomes	2	2	0	0	**Survey and Evaluation/Determining Ecological Outcomes** credit requirements 3, 4, 5, 6 & 7 to be implemented. *** 2 no credits targeted *** *** Early implementation required *** To be actioned during Preparation and Brief stage. **Requirement 3 - Comprehensive route (Route 2)** A Suitably Qualified Ecologist (SQE) carries out a survey and evaluation for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically Preparation and brief stage). **Requirement 4** The SQE's survey and evaluation determines the site's ecological baseline, including: 1. Current and potential ecological value and condition of the site and related areas within the Zone of Influence. 2. Direct and indirect risks to current ecological value from the project. 3. Capacity and feasibility for enhancement of the site's ecological value and, where relevant, areas within the Zone of Influence. **Requirement 5** Recommendations and data collected from the survey and evaluation are shared with appropriate project team members to influence decisions made for activities during site preparation, design and construction works, which can support ecological features. **Requirement 6 - Foundation and Comprehensive routes (Routes 1 and 2)** Survey and evaluation criteria relevant to the chosen route (criterion 2 if following the Foundation route or Criteria 3-5 above for the Comprehensive route). **Requirement 7** The project team liaise and collaborate with representative stakeholders early enough to influence key planning decisions (typically Concept Design stage), to: 1. Identify the optimal ecological outcomes for the site. Identify, appraise and select measures to meet the optimal ecological outcomes for the site (criterion a), in line with the mitigation hierarchy of action, according to the route being used.
e1	Wider site sustainability - Exemplary level criteria	1	0	0	0	Credit not sought.

LE 03 - Managing impacts on ecology						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite - Ecological risks and opportunities		✔	✘	✘	**Prerequisite - Ecological Risks and Opportunities** credit requirement 1 to be implemented. **Requirement 1** LE 02's 'Survey and evaluation and Determining ecological outcomes' criteria have been achieved using the Comprehensive route (Route 2).
1	Planning and measures on-site	1	1	0	0	**Planning and Measures On-Site** credit requirements 2, 3 & 4 to be implemented. **Requirement 2** Further planning to avoid and manage negative ecological impacts on-site is carried out early enough to influence the concept design and design brief as well as site preparation planning (typically Concept Design stage). **Requirement 3** On-site measures for managing negative ecological impacts during site preparation and construction are implemented in-practice (e.g. mitigation measures to protect existing ecological features). **Requirement 4** Criteria 2-3 are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 Ecological risks and opportunities.
2	Managing negative impacts	2	2	0	0	**Managing Negative Impacts** credit requirements 7 & 8 to be implemented. **Requirement 7 - Comprehensive route (Route 2) (up to two credits)** Criteria 2-4 have been achieved. **Requirement 8** Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy, in line with the SQE's recommendations and, either: 1. No overall loss of ecological value has occurred (two credits). OR where criterion a is not possible: The loss of ecological value has been minimised (Minimising Loss) (one credit)

LE 04 - Ecological change and enhancement						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite - Managing negative impacts on ecology		✔	✘	✘	**Prerequisite - Managing Negative Impacts on Ecology** credit requirements 1 & 2 to be implemented. **Requirement 1** Criterion 8 (for Comprehensive route) in LE 03 has been achieved. **Requirement 2** The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.
1	Change and enhancement of ecology / Ecological enhancement	1	1	0	0	**Change and Enhancement of Ecology / Ecological Enhancement** credit requirements 4 & 5 to be implemented. **Requirement 4 - Comprehensive route (Route 2) only** Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). Measures are implemented in the following order: 1. On site, and where this is not feasible, 2. Off site within the Zone of Influence. **Requirement 5** Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.
2	Change and enhancement of ecology	3	3	0	0	**Change and Enhancement of Ecology** credit requirement 6 to be implemented. **Requirement 6 - Comprehensive route (Route 2) only** Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats. Information from GN36 to be issued as part of any full Design Stage BREEAM Assessment.
e1	Change and enhancement of ecology - Exemplary level criteria	1	0	0	0	Credit not sought.

LE 05 - Long term ecological management and maintenance						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
Pre-req	Prerequisite - Statutory obligations, planning and site implementation		✔	✘	✘	**Prerequisite - Statutory Obligations, Planning and Site Implementation** credit requirements 1 & 2 to be implemented. **Requirement 1** The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. **Requirement 2** Comprehensive route (Route 2) - Criterion 8 in LE 03 has been achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' has been awarded.
1	Management and maintenance throughout the project / Landscape and ecology management plan	2	2	0	0	**Management and Maintenance Throughout the Project / Landscape and Ecology Management Plan** credit requirements 3, 4, 5 & 6 to be implemented. *** 2 no. credits targeted *** **Requirement 3** Measures have been implemented to manage and maintain ecology throughout the project. These measures are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02 (see Methodology). To ensure the optimal ecological outcomes agreed in LE 02 are met in-practice, these measures must monitor and review the effectiveness of the mitigation and enhancement measures in place for LE 03 & LE 04 to ensure they are implemented. **Requirement 4** A section on Ecology and Biodiversity has been included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site (see Methodology). 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. **Requirement 5** A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS 42020:2013 Section 11.1 covering at least the first five years after project completion as a minimum and including: 1. Actions and responsibilities of relevant individuals prior to handover 2. The ecological value and condition of the site at handover and how this is expected to develop and change over time 3. Identification of opportunities for ongoing alignment with activities beyond the development project, which support the aims of BREEAM's Strategic Ecology Framework 4. Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts 5. Clearly defined and allocated roles and responsibilities for delivering the plan **Requirement 6** The landscape and management plan or similar will be updated to support maintenance of the ecological value of the site (see sections relating to Maintenance and Monitoring in CIEEM, CIRIA, IEMA, for helpful guidance).
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		12	11	0	0	**Standard Land Use & Ecology Credit Total**
		2	0	0	0	**Exemplary Land Use & Ecology Credit Total**
		13%	11%	0	0	**% Land Use & Ecology Total (Standard + Exemplary)**

Pollution						
Pol 01 - Impact of refrigerants						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Impact of refrigerants	3	1	0	0	**Impact of Refrigerants** credit requirements credit requirements 2, 3, 4, 5, 6 & 7 to be implemented. *** 1 no. credits are targeted. This can be achieved using requirements 2, 3 or 4 **Requirement 2 - Prerequisite** All systems with electric compressors comply with the requirements of BS EN 378:2008 (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice. **Requirement 3 - Impact of refrigerant 1 credit** The direct effect life cycle CO_2 equivalent emissions (DELC) of ≤ 1000 $kgCO_{2e}$/kW. For systems which provide cooling and heating, the worst performing output based on the lower of kW cooling output and kW heating output is used to complete the calculation. To calculate the DELC refer to the relevant definitions in the Methodology below and Additional information sections. OR **Requirement 4** 4 Refrigerants used have a Global Warming Potential (GWP) ≤ 10. OR **Requirement 5 - One credit** Systems using refrigerants have DELC of ≤ 1000 $kgCO_{2e}$/kW cooling and heating capacity. If only 1 no. credit is scored via the above, the following requirements are to be implemented. **Requirement 6 - One credit - Leak detection** All systems are hermetically sealed or only use environmentally benign refrigerants. See Leak detection and Hermetically sealed systems OR **Requirement 7** Where the systems are not hermetically sealed. 1. Systems have: 1. A permanent automated refrigerant leak detection system, that is robust and tested and capable of continuously monitoring for leaks. OR 2 .An inbuilt automated diagnostic procedure for detecting leakage is enabled. In the event of a leak, the system must be capable of automatically responding and managing the remaining refrigerant charge to limit loss of refrigerant (see Automatic isolation and containment of refrigerant on).

Pol 02 - Local air quality						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Local air quality	2	0	0	0	**Credits not sought.**

Pol 03 - Flood and surface water management						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Flood resilience	2	2	0	0	**Flood Resilience** credit requirements 1 & 2 to be implemented. *** Early implementation beneficial *** A BREEAM compliant FRA should be carried out as early as possible to determine the level of flood risk associated with the site. **Requirement 1 - Prerequisite** An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria. **Requirement 2 - Two credits - Low flood risk** A site-specific flood risk assessment (FRA) confirms the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA takes all current and future sources of flooding into consideration If a compliant FRA determines the site to be in a medium or high flood risk area, credit requirements 3 & 4 are to be implemented, though please note that will result in the loss of 1 no. credit under Pol 03. **Requirement 3 - One credit - Medium or high flood risk** A site-specific FRA confirms the development is in a flood zone that is defined as having a medium or high annual probability of flooding and is not in a functional floodplain. The FRA must take all current and future sources of flooding into consideration (see Sources of flooding). For smaller sites refer to Level of detail required in the FRA for smaller sites, which overrides requirement 2. **Requirement 4** To increase the resilience and resistance of the development to flooding, one of the following must be achieved: 1. The ground level of the building and access to both the building and the site, are designed (or zoned) so they are at least 600mm above the design flood level of the site's flood zone (see 600mm threshold). The final design of the building and the wider site reflects the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS8533:2017.

2	Surface water run-off	2	2	0	0	**Surface Water Run-Off** credit requirements 5 - 16 (where applicable) to be implemented. **Requirement 5 - Prerequisite for surface water run-off credits** Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site. **Requirement 6 - One credit - Surface Water Run-Off - Rate** For brownfield sites, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) shows a 30% improvement for the developed site compared with the predeveloped site. This should comply at the 1-year and 100-year return period events. **Requirement 7** For Greenfield sites, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events. **Requirement 8** Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place. **Requirement 9** Calculations include an allowance for climate change. This should be made in accordance with current best practice planning guidance. **Requirement 10 - One credit - Surface Water Run-Off - Volume** Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND EITHER **Requirement 11** 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 the 100-year 6-hour event, including an allowance for climate change (see requirement 15). **Requirement 12** Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other SuDS techniques. OR (only where requirements 11 and 12 cannot be achieved): **Requirement 13** 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. **Requirement 14** Drainage design measures are specified so that the post-development peak rate of run off is reduced to the limiting discharge. The limiting discharge is defined as the highest flow rate from the following options: 1. The pre-development one-year peak flow rate 2. The mean annual flow rate (Qbar) 3. 2L/s/ha. **Requirement 15** For the one-year peak flow rate, the one-year return period event criterion applies. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place.

						Requirement 16 For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.
3	Minimising watercourse pollution	1	0	0	0	Credit not sought.
Pol 04 - Reduction of night time light pollution						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Reduction of night time light pollution	1	1	0	0	**Reduction of Night Time Light Pollution** credit requirements 2, 3, 4 & 5 to be implemented (requirements 4 & 5 implemented only if applicable). **Requirement 2** The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the Institute of Lighting Professionals (ILP) Guidance notes for the reduction of obtrusive light, 2011. **Requirement 3** All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. **Requirement 4** If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes. **Requirement 5** Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.

Pol 05 - Reduction of noise pollution						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
1	Reduction of noise pollution	1	1	0	0	**Reduction of Noise Pollution** credit requirements 1 OR 2, 3, 4 & 5 to be implemented (whichever is applicable). **Requirement 1** There are no noise-sensitive areas within the assessed building or within 800m radius of the assessed site. OR **Requirement 2** Where there are noise-sensitive areas within the assessed building or noise-sensitive areas within 800m radius of the assessed site, a noise impact assessment compliant with BS4142:2014 is commissioned. Noise levels must be measured or determined for: 1. Existing background noise levels 1. at the nearest or most exposed noise-sensitive development to the proposed assessed site 2. including existing plant on a building, where the assessed development is an extension to the building 2. Rating noise level from the assessed building. **Requirement 3** The noise impact assessment must be carried out by a suitably qualified acoustic consultant. **Requirement 4** The noise level from the assessed building, as measured in the locality of the nearest or most exposed noise sensitive development, is a difference to the background noise of at least -5dB throughout the day and night. **Requirement 5** If the noise sources from the assessed building is greater than the levels described in criterion 4, measures have been installed to attenuate the noise at its source to a level where it will comply with the requirement.
Section Summary		**Available**	**Current**	**Scenario 1**	**Scenario 2**	
		12	7	0	0	**Standard Pollution Credit Total**
		0	0	0	0	**Exemplary Pollution Credit Total**
		8%	4.67%	0	0	**% Pollution Total (Standard + Exemplary)**

Innovation						
AI - Approved Innovation						
	Credit	**Available**	**Current**	**Scenario 1**	**Scenario 2**	**Comments**
e1	Approved innovations	1	0	0	0	Credit not sought.
		0	0	0	0	**Standard Innovation Credit Total**
		1	0	0	0	**Exemplary Innovation Credit Total**
		1	0	0	0	**% Innovation Total (Standard + Exemplary)**

Appendix - Site assumptions (Project Info details)

Assessment Information	Selection
Building type (main description)	Residential institution (long term stay)
Building Type sub-group	Residential institution (long term stay) - Residential care home
Assessment stage	Design (Interim)
Technical manual issue number	Issue 3.0
Project scope	Fully Fitted
Building Net internal floor area m^2	TBC
Building Gross internal floor area m^2	TBC
Is the building designed to be untreated?	No
Building services - heating system type	Other type of heating system
Building services - cooling system type	Other type of cooling
Are commercial or industrial-sized refrigeration and storage systems specified?	No
Are building user lifts present?	Yes
Are building user transportation systems (escalators or moving walkways) present?	No
Are laboratories present?	No
Fume cupboard(s) and/or other containment devices	No
Are there any water demands present other than those assessed in Wat 01?	Yes
Does the building have external areas within the boundary of the assessed development?	Yes
Are there statutory requirements, or other issues outside of the control of the project, that impact the ability to provide outdoor space?	No
Are the Post-occupancy stage credits targeted in Ene 01 issue?	No
Is demolition occurring under the developer's ownership for the purpose of enabling the assessed development?	No
Are WC facilities only provided within the residential areas of a long-term residential accommodation?	N/A

Are there any systems specified that contribute to the unregulated energy load?	Yes
Is this a speculative development?	No