

BREEAM Pre-Assessment & Feasibility Review

New Construction V6.1

Kingswell Buildings Ltd

The Kings School
Lakesmere House
Allington Lane
Fair Oak
Eastleigh
SO50 7DB



Version	Revision	Date	Author	Reviewer	Project Manager
1	A	30.08.2023	Adam Tucker	Malcolm Maclean	Adam Tucker
	B	01.09.2023	Adam Tucker	Malcolm Maclean	Adam Tucker
	C	05.09.2023	Adam Tucker	Malcolm Maclean	Adam Tucker

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Executive Summary

SRE exists to ensure that the built environment enhances life without costing the earth. This BREEAM¹ Pre-Assessment & Feasibility Review has been written by SRE on behalf of Kingswell Buildings (the Client) to address Policy DM2 of the Eastleigh Borough Council Local Plan. The report demonstrates the feasibility of achieving a BREEAM score for The King's School, Eastleigh (the Proposed Development) under different design scenarios and provides conclusion on the most appropriate route to proceed. This pre-assessment has been based on details supplied by the client and wider design team to-date, in addition to further desk-based study, best practise and historical data. SRE has been a licensed BREEAM organisation for over 10 years and has extensive knowledge of the methodology, which is used to produce an accurate assessment score.

Project Name	The King's School, Eastleigh
Lead Assessor	Adam Tucker
BREEAM Version	UK New Construction V6.1, Fully Fitted
Assessment Type	Education (Pre-school)

BREEAM Scenario	Min Standards met	Score	BREEAM Rating
Current Stage	Yes	56.14%	Very Good
Restart Design	Yes	82.46%	Excellent



■ Current Stage BREEAM Proposal

Figure 1 – Potential BREEAM Score (Current Stage)

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1.0 Assessment Overview

1.1 Development Overview

The Kings School in Fair Oak (Here on referred to as the 'Proposed Development') consists of the construction of an 819m² GIFA two-storey fully fitted education building including teaching classrooms, staff office and library space, to provide a more suitable permanent solution to the existing temporary pre-school structures, which has reached the end of its usable life. The development includes a large external area of soft and hard landscaping to facilitate pupil playing courts and fields. With the support of an Ecologist, all areas of soft landscaping will be protected through the construction process and enhancements will be sought where possible, to deliver a maximum Biodiversity Net Gain (BNG).

The undertaken BREEAM New Construction V6.1 Pre-Assessment has shown that the Proposed Development is capable of achieving a 'Very Good' rating, in its current stage of design ('Current Stage'). This is based on the current design proposals made by Kingswell Buildings and key assumptions on prior design documentation produced and professional appointments that have been involved or can be made within appropriate compliant time frames.

The BREEAM Pre-Assessment has been undertaken as a 'Fully Fitted' assessment to reflect the scope of the works to be undertaken by the Client. The credits contained within the assessment are therefore those relevant to the scope of a 'Fully Fitted' assessment type.

This pre-assessment highlights those credits which are possible to be achieved at the current stage of design ('Current Stage') and the credits possible should a new design process start ('Restart Design'). Eastleigh Borough Council request a BREEAM score of at least 70% to ensure an 'Excellent' rating is awarded for all non-domestic developments, for buildings of >500m² GIFA. Due to the small (<1000m²) GIFA of the Proposed Development, budget is limited, and the project has struggled to proceed beyond design, resulting in stagnancy.

Kingswell Buildings have acquired this development from a previous & initial halted design process. As a BREEAM assessor was appointed at this later stage of design, there are numerous missed opportunities to maximise the BREEAM score via acquisition of early-stage credits.

1.2 Design Feasibility and BREEAM Appraisal

Based upon professional judgement and considering all current factors relating to design and the existing buildings, there are three potential scenarios the Proposed Development' can proceed with:

Option 1 – Sustainable Design & Construction Initiatives (No BREEAM)

Option 2 – Proceed with Environmental Certification - BREEAM 'Very Good'/Pasivhaus

Option 3 – Proceed with Environmental Certification – BREEAM 'Excellent'/Pasivhaus

Option 1 involves maximising sustainability initiatives in the Proposed Developments current stage of design. Working closely with the appointed Vesper Conservation & Ecology Ltd to maximise Biodiversity Net Gain, working with Southern Assessors to maximise a CO2e reduction and limit Building Emissions Rate (BER) via active and passive design of building fabric, core & local services and on-site renewables, working with Baker & Associates to develop an optimum drainage strategy and SuDS solution for the prevention of flooding and run-off infiltration, working with suppliers to source low flow sanitaryware components to reduce potable water consumption, installing facilities to promote low/zero carbon transport solutions, and through the procurement of local and responsibly sourced materials, and a modular style of construction, reducing the Proposed Developments embodied carbon footprint and material wastage.

Options 2 and 3 involve the appointment of additional professionals such as: an Acoustician, Daylight Modeller, Air Quality Consultant, Thermal Modeller, Security Consultant, Transport Consultant and LCA modeller.

1.3 BREEAM Score

The achievable target score, considered by SRE and the design team to be realistic and deliverable on-site, for the 'Current Stage' scenario is 56.14%, which would deliver a 'Very Good' rating. However, this does not provide a suitable 'buffer' above the 55% minimum threshold and would be at great risk of not acquiring this rating should credits be lost through construction. As a BREEAM assessor, we do not proceed with Design Stage assessment without a >5% buffer above a minimum rating threshold.

The target score for the 'Restart Design' scenario is 82.46%, which would deliver an 'Excellent' rating with a sufficient buffer above the 70% minimum threshold. The available score for this scenario is much greater due to the availability of early-stage credits, however, this would significantly extend the timeline until project completion and dramatically increase cost to appoint suitable specialists to complete their assessments on the Proposed Development.

BREEAM standards can be challenging to achieve, and the pre-assessment report should be carefully reviewed by the design and construction teams to ensure all targeted credits are delivered as the project is progressed. Sections 2.0 and 3.0 list the specific credits proposed as part of both BREEAM scenarios, 'Current Stage' and 'Restart Design'.

1.4 Conclusions

Considering all three scenarios, it is by professional judgement, determined the most appropriate scenario is Option 1. Justification for these conclusions explained below.

Firstly, the temporary structure has reached the end of its usable life in alignment with RICS Whole Life Carbon Assessment for the Built Environment, 2nd edition, 2023'. With safety being a primary concern, deterioration of material is a risk and there is an urgent need to replace the existing structures with an alternative. This does not favour Option 3, as proceeding with a new design and BREEAM assessment will extend project timeline dramatically.

Secondly, project budget is limited by school finance and the small 2-storey 819m² GIFA. The building footprint alone is <500m², which would not be required to achieve BREEAM 'Excellent'. This does not favour Option 2, as the appointment of professionals to comply with BREEAM criteria would significantly inflate project cost and most likely move the project beyond budget of the school.

Thirdly, this development is purely for the benefit of attending pupils and staff to provide an optimum and appealing learning environment.

Lastly and perhaps most significantly, with current appointed consultants and desired sustainability initiatives (See section 1.2 for further detail), the project team *are* delivering a vastly improved and much needed 'Environmentally Sustainable Development', to paraphrase Policy DM2.

Despite a formal BREEAM assessment route being unfavourable, it is not to be said criteria from the technical guide will not be implemented. An example of this would be the provision of Sustainable Transport Measures (which would address Credit Tra 02). There are current proposals to provide cyclist parking, EV charging and improved pedestrian/cycle access routes.

Kingswell Buildings are intending to meet all other relevant Eastleigh Borough Council Local Plan requirements.



Figure 2 – Visual 3D rendering of the proposed pre-school development

1.5 Unachievable Credits

The following are credits which have been identified as those that are *unachievable* in the 'Current Stage' scenario. Details of credit requirements can be seen in section 3.0. An explanation has been given for each:

BREEAM Credit		Potential credits	% score	Explanation
Man 01	Project Planning	1	0.52%	<i>SRE 31.08.2023: This credit was excluded because BREEAM compliant Project Planning documentation was not produced during Feasibility Stages or Concept Design (RIBA Stages 1-2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
	Stakeholder Consultation	1	0.52%	<i>SRE 31.08.2023: This credit was excluded because a BREEAM compliant consultation process was not carried during Concept Design (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
	BREEAM AP (RIBA Stages 1-3)	2	1.04%	<i>SRE 31.08.2023: These credits are unavailable due to the appropriate consultant not being appointed during Concept Design (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Man 02	Elemental LCC	2	1.04%	<i>SRE 31.08.2023: These credits are unavailable due to the appropriate consultant not being appointed during Concept Design (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance via the involvement of a Quantity Surveyor.</i>
	Component level LCC	1	0.52%	<i>SRE 31.08.2023: This credit was excluded due to the minimal benefit considering a modular construction is already considered and a Quantity Surveyor is already considering Building Services options. However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings</i>

				<i>endeavour to achieve maximal criterion compliance via the involvement of a Quantity Surveyor.</i>
Man 03	Environmental Management	1	0.52%	<i>SRE 31.08.2023: This credit was excluded because Kingswell Buildings are not an ISO 14001 certified company. However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
	BREEAM AP	1	0.52%	<i>SRE 31.08.2023: This credit was excluded because Kingswell Buildings do not have a qualified Site Sustainability Manager/AP in their team, nor will appoint due to budget limitations. However, BREEAM AP guidance has been provided during the later Design Stages.</i>
	Responsible Construction Management	2	1.04%	<i>SRE 31.08.2023: These credits were excluded because the site has not been enrolled on Considerate Constructors scheme, due to budget limitations. However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Man 05	Post Occupancy Evaluation (POE)	1	0.52%	<i>SRE 31.08.2023: Formal POE appointment was excluded due to project budget limitations. However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Hea 06	Security	1	0.78%	<i>SRE 31.08.2023: SRE 31.08.2023: This credit is unavailable due to the appropriate consultant not being appointed during Concept Design (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Ene 04	Low Carbon Design	3	2.40%	<i>SRE 31.08.2023: These credits are unavailable due to the appropriate consultant not being appointed during Concept Design (RIBA Stage 2) to produce formal design input reports. However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>

Tra 01	Transport Assessment and Travel Plan	2	1.63%	<i>SRE 31.08.2023: Credit unachievable, no engagement of Transport Consultant during Concept Design Stage (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Tra 02	Sustainable transport measures	10	8.30%	<i>SRE 31.08.2023: Credit unachievable, failure to comply with pre-requisite engagement of Transport Consultant during Concept Design Stage (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Mat 01	Environmental Impact from construction products (LCA)	7	7.49%	<i>SRE 31.08.2023: These credits are unavailable due to the appropriate LCA consultant not being appointed during Concept Design (RIBA Stage 2) to produce materials options study. However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Mat 06	Material Efficiency	1	1.07%	<i>SRE 31.08.2023: This credit is unavailable due to the initial efficiencies report not being produced during Feasibility Stages (RIBA Stage 1). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Wst 01	Pre-demolition audit	1	0.60%	<i>SRE 31.08.2023: This credit is unavailable due to a Pre-demolition audit not being produced Concept Design (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
Wst 05	Adaption to climate change	1	0.60%	<i>SRE 31.08.2023: This credit is unavailable due to the adaptive climate report not being produced during Concept Design (RIBA Stage 2). However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>

Wst 06	Design for disassembly and adaptability	2	1.20%	<i>SRE 31.08.2023: This credit is unavailable due to the optional adaptability report not being produced during Concept Design (RIBA Stage 2). Second credit unavailable due to failure of achieving first credit. However, by utilising the BREEAM guidance for this credit in Section 3.0 'Detailed assessment', Kingswell Buildings endeavour to achieve maximal criterion compliance.</i>
LE 01	Contaminated Land	1	1.00%	<i>SRE 31.08.2023: This credit is unachievable because an insignificant amount of contamination was found on the site.</i>

Table 1 - Unachievable credits

2.0 Summary Score Sheet

		Available	Current Stage	Restart Design
Management				
Man 01	Project brief and design	4	0	4
Man 02	Life cycle cost and service planning	4	1	1
Man 03	Responsible construction practices	6	3	6
Man 03 - Exemplary (1)	Responsible construction practices	1	0	1
Man 04	Commissioning and handover	4	4	4
Man 05	Aftercare	3	2	3
Standard Management Credit Total:		21	10	18
Exemplary Management Credit Total:		1	0	1
% Management Total (Standard + Exemplary):		11.92	5.20	10.36
Health & Wellbeing				
Hea 01	Visual comfort	5	5	5
Hea 01 - Exemplary (1)	Visual comfort	1	0	0
Hea 01 - Exemplary (2)	Visual comfort	1	0	0
Hea 02	Indoor air quality	4	4	4
Hea 02 - Exemplary (1)	Indoor air quality	1	0	0

Hea 04	Thermal comfort	3	3	3
Hea 05	Acoustic performance	3	3	3
Hea 06	Security	1	0	0
Hea 06 - Exemplary (1)	Security	1	0	0
Hea 07	Safe and healthy surroundings	2	2	2
Standard Health & Wellbeing Credit Total:		18	17	17
Exemplary Health & Wellbeing Credit Total:		4	0	0
% Health & Wellbeing Total (Standard + Exemplary):		18.04	13.26	13.26
Energy				
Ene 01	Reduction of energy use and carbon emissions	13	5	5
Ene 01 - Exemplary (1)	Reduction of energy use and carbon emissions	2	0	0
Ene 01 - Exemplary (2)	Reduction of energy use and carbon emissions	3	0	0
Ene 01 - Exemplary (3)	Reduction of energy use and carbon emissions	2	0	0
Ene 02	Energy monitoring	1	1	1
Ene 03	External Lighting	1	1	1
Ene 04	Low carbon design	3	0	3
Ene 06	Energy efficient transportation systems	2	2	2
Standard Energy Credit Total:		20	9	12

Exemplary Energy Credit Total:		7	0	0
% Energy Total (Standard + Exemplary):		23	7.20	9.60
Transport				
Tra 01	Transport assessment and travel plan	2	0	2
Tra 02	Sustainable transport measures	10	0	5
Standard Transport Credit Total:		12	0	7
Exemplary Transport Credit Total:		0	0	0
% Transport Total (Standard + Exemplary):		9.96	0	5.81
Water				
Wat 01	Water consumption	5	4	5
Wat 01 - Exemplary (1)	Water consumption	1	0	1
Wat 02	Water monitoring	1	1	1
Wat 03	Water leak detection	2	2	2
Standard Water Credit Total:		8	7	8
Exemplary Water Credit Total:		1	0	1
% Water Total (Standard + Exemplary):		8.04	6.16	8.04
Materials				
Mat 01	Environmental impacts from construction products - Building life cycle assessment (LCA)	7	0	4

Mat 01 - Exemplary (1)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	0	1
Mat 01 - Exemplary (2)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	0	0
Mat 01 - Exemplary (3)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	0	0
Mat 02	Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	1	1
Mat 03	Responsible sourcing of construction products	4	2	3
Mat 03 - Exemplary (1)	Responsible sourcing of construction products	1	0	0
Mat 05	Designing for durability and resilience	1	1	1
Mat 06	Material efficiency	1	0	0
Standard Materials Credit Total:		14	4	9
Exemplary Materials Credit Total:		4	0	1
% Materials Total (Standard + Exemplary):		18.98	4.28	10.63
Waste				
Wst 01	Construction waste management	5	3	4
Wst 01 - Exemplary (1)	Construction waste management	1	0	0
Wst 02	Use of recycled and sustainably sourced aggregates	1	0	1
Wst 02 - Exemplary (1)	Use of recycled and sustainably sourced aggregates	1	0	0
Wst 03	Operational waste	1	1	1
Wst 05	Adaptation to climate change	1	0	1

Wst 05 - Exemplary (1)	Adaptation to climate change	1	0	0
Wst 06	Design for disassembly and adaptability	2	0	2
Standard Waste Credit Total:		10	4	9
Exemplary Waste Credit Total:		3	0	0
% Waste Total (Standard + Exemplary):		9	2.40	5.40
Land Use & Ecology				
LE 01	Site selection	2	1	1
LE 02	Ecological risks and opportunities	2	2	2
LE 02 - Exemplary (1)	Ecological risks and opportunities	1	0	0
LE 03	Managing impacts on ecology	3	3	3
LE 04	Ecological change and enhancement	4	3	4
LE 04 - Exemplary (1)	Ecological change and enhancement	1	0	0
LE 05	Long term ecological management and maintenance	2	2	2
Standard Land Use & Ecology Credit Total:		13	11	12
Exemplary Land Use & Ecology Credit Total:		2	0	0
% Land Use & Ecology Total (Standard + Exemplary):		15	11	12
Pollution				
Pol 01	Impact of refrigerants	3	1	2

Pol 02	Local air quality	2	2	2
Pol 03	Flood and surface water management	5	5	5
Pol 04	Reduction of night time light pollution	1	1	1
Pol 05	Reduction of noise pollution	1	1	1
Standard Pollution Credit Total:		12	10	11
Exemplary Pollution Credit Total:		0	0	0
% Pollution Total (Standard + Exemplary):		8.04	6.70	7.37
Innovation				
AI	Approved Innovation	1	0	0
AI - Innovation Credit Total:		0	0	0
% Innovation Total (Standard + Exemplary):		1	0	0
OVERALL TOTALS			72	106
% OVERALL SCORE TOTALS			56.13	82.46

3.0 Detailed Assessment

Management					
Man 01 - Project brief and design					
	Credit	Available	Current Stage	Restart Design	Comments
1	Project delivery planning	1	0	1	Project Delivery Planning Completed BEFORE end of RIBA Stage 2 (1 credit) Targeted - No (Potential) Notes from stakeholders meeting which identify and define each key phase of the project delivery (including, roles, responsibilities and contributions). The following should be considered when defining the above: • End-user requirements • Aims of the design and design strategy • Installation and construction requirements or limitations, budget and technical expertise • Maintainability and adaptability of the proposal • Operational energy • Requirements for the production of project and end-user documentation, and for commissioning, training and aftercare support. The project team should also demonstrate how stakeholders' contributions have influenced Initial Project Brief, Project Execution Plan, Communication Strategy and Concept Design. Actions: • <i>Upon the design restart scenario, Project Manager to comment if above documents have been produced and full evidence could be provided.</i>
2	Stakeholder consultation (interested parties)	1	0	1	Stakeholder Consultation (interested parties) (1 credit) Targeted - No (Potential) Complete by end of RIBA Stage 2 Prior to completion of the Concept Design, the design team should consult with all interested parties on matters that cover the minimum consultation content. They should demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project

					Brief and Concept Design. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), all interested parties should give and receive consultation feedback. Additionally, for <u>Education</u> developments: An independent party must carry out the consultation exercise. The Design Quality Indicator (DQI) and the Achieving Excellence Design Evaluation Toolkit (AEDET) could be used as methods to assess the design quality of buildings. Independent Party: A third party or a person or body internal to a party involved (parties involved are typically a supplier (1st party) or purchaser (2nd party)), who shall not be involved in the issue in question, and shall not have conflicts of interests resulting from their position. To comply with the criterion relating to the use of an independent party, the client or design team needs to demonstrate either: 1. They have used a party independent of the design process to conduct the necessary consultation exercise; OR 2. If the consultation is to be carried out by an organisation involved with the design of the building, e.g. the project architect, then they must present the assessor with evidence that robustly demonstrates the independence of the consultation process. BREEAM has not attempted to define what form this evidence must take; the onus is on the design team or relevant individual to clearly demonstrate to the BREEAM Assessor a credible level of independence. Actions: • <i>Upon the design restart scenario, Project Manager to comment if above documents have been produced and full evidence could be provided.</i>
3	BREEAM AP (concept design)	1	0	1	BREEAM AP (Concept Design) (1 credit) Targeted - No (Potential) The project team, including the client, should formally agree strategic performance targets early in the design process (before the end of the Concept Design stage). For the credit to be achieved, a BREEAM AP must be involved in the project at an appropriate time and level to: • Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the overall performance of the project against BREEAM, from their appointment and throughout Concept Design.

					- Monitor progress against the performance targets agreed between the client and project team throughout all stages after their appointment where decisions critically impact BREEAM performance. - Proactively identify risks and opportunities related to the achievement of the targets agreed under the criterion between the client and project team. - Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. - Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team. Actions: - Upon the design restart scenario, appointment of BREEAM AP through to end of RIBA Stage 3
4	BREEAM AP (developed design)	1	0	1	BREEAM AP (Developed Design) (1 credit) Targeted - No (Potential) For this credit to be achieved, the BREEAM AP (Concept Design) credit must be achieved. In addition, the BREEAM AP must be involved in the project at an appropriate time and level to: - Work with the project team, including the client, to consider the links between BREEAM issues and to assist them in maximising the overall performance of the project against BREEAM throughout Developed Design. - Monitor progress against the performance targets agreed between the client and project team throughout all stages where decisions critically impact the specification and tendering process and the BREEAM performance. - Proactively identify risks and opportunities related to the achievement of the targets agreed between the client and project team. - Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. - Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team. Actions: - Upon the design restart scenario, appointment of BREEAM AP through to end of RIBA Stage 3
Man 02 - Life cycle cost and service planning					
	Credit	Available	Current Stage	Restart Design	Comments

1	Elemental LCC	2	0	0	Elemental LCC Completed by end of RIBA Stage 2 (2 credits) Targeted - No A competent person is to be appointed to carry out an outline, entire asset LCC plan before the end of Concept Design (RIBA Stage 2) together with any design options appraisals in line with Standardised method of life cycle costing for construction procurement PD 15686 5:2008. The competent person must be an individual who has acquired substantial expertise or a recognised qualification for undertaking life cycle costing studies and is not professionally connected to a single manufacturer. The ELCC plan is to provide an indication of future replacement costs over a period of analysis as required by the client (e.g. 20, 30, 50 or 60 years). This will include service life, maintenance and operation cost estimates. The period of analysis 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). The design team will provide examples to demonstrate 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. Actions:
2	Component level LCC options appraisal	1	0	0	Component level LCC options appraisal Completed by the end of RIBA Stage 4 (1 credit) Targeted - No A competent person (see definition provided within ELCC above) is to develop a component level LCC options appraisal by the end of Technical Design (RIBA Stage 4). The component level LCC, in line with PD156865: 2008, should include (where present): • Envelope, e.g. cladding, windows, or roofing • Services, e.g. heat source, cooling source, or controls • Finishes, e.g. walls, floors or ceilings • 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, it is not necessary 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. The design team will provide examples to demonstrate 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. Actions:
3	Capital cost reporting	1	1	1	Capital cost reporting (1 credit) Targeted - Yes The capital cost of the project will be formally stated in the BREEAM assessment, measured in £k/m². Written confirmation is to be provided during the Design Stage. The capital cost for the building should include the expenses related to the initial construction of the building: • Construction, including preparatory works, materials, equipment and labour • Site management • Construction financing • Insurance and taxes during construction • Inspection and testing Exclude costs relating to land procurement, clearance, design, statutory approvals and post occupancy aftercare. Actions: • QS/Cost manager to confirm that written confirmation of the final capital cost of the project in £k/m² will be provided.
Man 03 - Responsible construction practices					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req 1	Prerequisite - Legally harvested and traded timber		✓	✓	Prerequisite - All timber and timber-based products used on the project to be 'Legally harvested and traded timber'. The requirements outlined by the UK Government Timber Procurement Policy (TPP) need to be

					followed, in that they must be covered by third-party independent forest certification schemes Category A (e.g. FSC or PEFC). Actions: • <i>Main Contractor to confirm all Timber products used on site will be 'Legally harvested and traded timber', chosen based on the above certification.</i>
1	Environmental management	1	0	1	Environmental Management (1 credit) Targeted - No (Potential) The principal contractor and demolition contractor must have a certified Environmental Management System (ISO 14001/EMAS). The EMAS must be third party certified or, in compliance with BS 8555, have appropriate structure, have reached implementation stage phase four implementation and operation of the environmental management system and have completed defined phase audits one to four. In addition, they are required to implement best practice pollution prevention policies and procedures on site in accordance with PPG6. Actions: • <i>Client to ensure that the Main Contractor and Demolition Contractors appointed have ISO 14001/EMAS certification.</i>
2	BREEAM AP (site)	1	0	1	BREEAM AP (site) (1 credit) Targeted - No (Potential) Client and contractor to formally agree performance targets. A BREEAM AP should be involved in the project at an appropriate time and level to: • Work with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving and if possible going beyond the design intent, to maximise the projects performance against the agreed performance targets throughout the Construction, Handover and Close Out stages. • Monitor construction progress against the performance targets agreed under criterion 5 above throughout all stages where decisions critically impact BREEAM performance. • Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion 5 above. • 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. Actions: <i>Project team to confirm whether a BREEAM AP will be appointed to monitor and assist progress on the project throughout the Construction, Handover and Close Out stages (Site Sustainability Manager/AP qualified site attendee).</i>
3	Responsible construction management	2	1	2	Responsible construction management Targeted - Yes (1 credit; 2 potential) Team members are to be assigned responsibility for reporting and monitoring the items listed within Table 4.1 of the BREEAM NC V6 manual. These span the following categories: - Risk evaluation and implementation, including: - Vehicle movement - Pollution management - Tidiness - Health and wellbeing - Security processes - Training, awareness and feedback - Monitoring and reporting Credits are achieved as follows: - One credit: As a minimum, achieve 9 of the items listed in table 4.1 of the manual, namely: a, d, f, g, h, j, n, o & r. - Two credits: Achieve six additional credits from table 4.1 as well as the criterion above required for one credit. As per Guidance Note 33, the Considerate Constructors Scheme (CCS), or equivalent, can be used in support of the delivery of the above measures. The proportion of measures covered by CCS is dependent on the CCS score achieved by the development: - A score of 27 covers RCM items c, d, e, l & m. - A score of 39 with a score of at least 13 in each of the 3 CCS categories achieves all RCM items other than g, p & q.

					Actions: Project Team to ensure the appointed Main Contractor commits to achieving the above. If CCS is used, this needs to be registered to support these credits.
4	Monitoring of construction site impacts	2	2	2	Monitoring of construction site impacts (2 credits) Targeted - Yes (2 credits) Responsibility is to be assigned 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. First monitoring credit utility consumption (energy and water) The assigned individual is to: - Set targets for the site energy consumption in kWh as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. - Set targets for the potable water consumption (m³) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. - Monitor and record data as described above. Second monitoring credit transportation of materials and waste The assigned individual is to: - 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 this will cover transport from the point of supply to the building site, including any transport, intermediate storage and point of supply. Materials used in major building elements will be monitored as a minimum. Transport from the construction gate to the waste disposal processing should also be monitored, covering construction waste groups outlined in the project's resource management plan. - Monitor and record data as described above. Actions:

					Project Team to ensure the appointed Main Contractor commits to monitoring energy and water (one credit) and transport of materials on site and transport of waste (one credit).
e1	Responsible construction management	1	0	1	Responsible construction management Targeted - No (Potential) The Main Contractor must achieve all items listed in Table 4.1. If the Considerate Constructors Scheme (CCS) is used, this will require the achievement of a minimum of 13 points per section and 39 overall; and RCM items g, p & q from table 4.1. Actions: Project Team to ensure the appointed Main Contractor commits to achieving the above. If CCS is to be used, confirmation of registration is required.
Man 04 - Commissioning and handover					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Prerequisite (Very Good to Outstanding)		✓	✓	Prerequisite - Mandatory to achieve a Very Good to Outstanding level Targeted - Yes - The commissioning test schedule and responsibilities credit must be achieved. - A Building User Guide (BUG) is to be provided as a minimum requirement to achieve a 'Very Good' rating.
1	Commissioning - testing schedule and responsibilities	1	1	1	Commissioning - testing schedule and responsibilities (1 credit) Mandatory - This credit is required for 'Very Good' rating to be achieved Targeted - Yes A schedule of commissioning and testing must be produced which identifies and includes a suitable time scale for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric. The schedule should identify the appropriate standards for all commissioning activities to be conducted, where applicable, in accordance with Current Building Regulations, BSRIA guidelines, CIBSE guidelines, and other appropriate standards.

					Any processes or manufacture-related equipment specified as part of the project should be excluded from the assessment. However, include such equipment in cases where they form an integral part of the building HVAC services, such as some heat recovery systems. An appropriate project team member should be appointed to monitor and programme pre-commissioning, commissioning and testing. Where necessary include re-commissioning activities on behalf of the client. The principal contractor accounts for the commissioning and testing programme, responsibilities and criteria within their budget and the main programme of works. Allow the required time to complete all commissioning and testing activities prior to handover. Actions: • <i>Project Team to ensure the appointed Main Contractor will account for a commissioning and testing schedule within the project's budget and ensure that these are provided at the post-construction stage.</i>
2	Commissioning - design and preparation	1	1	1	Commissioning - design and preparation (one credit) Targeted - Yes For this credit to be achieved, the criteria within Commissioning - testing schedule and responsibilities above must be met. During the design stage, the client or the principal contractor must appoint an appropriate project team member, provided they are not involved in the general installation works for the building services systems, with responsibility for: • Undertaking design reviews and giving advice on suitability for ease of commissioning. • Providing commissioning management input to construction programming and during installation stages. • Management of commissioning, performance testing and handover or post-handover stages. For buildings with <u>complex building services and systems</u>, this role needs to be carried out by a <u>specialist commissioning manager</u>. Specialist commissioning managers

					• A specialist contractor rather than a general sub- contractor, able to independently verify the work carried out by the project team members installing the systems. • Can be appointed by the client or the contractor to perform the tasks described above for buildings with complex building services and systems and defined in their contract. • Must be a professional who has experience/qualifications that enable them to undertake the responsibilities described above. As an example, membership to the Commissioning Specialists Association (CSA) is a relevant qualification. Actions: • <i>Project team to ensure Specialist provides advice during design, where applicable and/or the appointed Main Contractor commits to the above.</i>
3	Testing and inspecting building fabric	1	1	1	Testing and inspecting building fabric (one credit) Targeted - Yes For this credit to be achieved, the criteria within Commissioning - testing schedule and responsibilities above must be met. In addition: • Post-construction testing and inspection must be completed to quality-assure the integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths (this is through airtightness testing and a thermographic survey). A suitably qualified professional (see definition below) must undertake the survey and testing in accordance with the appropriate standard. • Any defects identified during post-construction testing and inspection must be rectified prior to building handover and close out. Any remedial work must meet the required performance characteristics for the building or element as defined at the design stage. Suitably Qualified Professional: • <u>Airtightness testing</u>: Membership of Air Tightness Testing and Measurement Association (ATTMA) or Independent Air Tightness Testing Scheme (IATS) attained at organisational level. • <u>Thermographic survey</u>: Professionals holding a valid Category 2 or RQF (Regulated Qualifications Framework) Level 4. Alternatively, the survey can be undertaken by a Category 1 thermographer and then the images interpreted by a Category 2 or Level 4 thermographer. Actions:

					Project Team to ensure the appointed Main Contractor confirms the above and ensures that airtightness testing and a thermographic survey are included in the project's budget.
4	Handover	1	1	1	Handover (1 Credit) Mandatory - This credit is required for 'Very Good' rating Targeted - Yes <u>Building User Guides (BUGs):</u> Prior to handover, two building user guides (BUGs) must be developed for the following users: - A non-technical user guide for distribution to the building occupiers. - A technical user guide for the premises facilities managers. The BUGs should provide building-specific or site-specific guidance, and include information on the following: - Overview of the building and its environmental strategy, e.g. energy, water or waste efficiency policy or strategy, and how users should engage with and deliver the policy or strategy. - Provision of, and access to, shared facilities. - Safety and emergency information or instructions. - Building-related operational procedures specific to building type or operation, e.g. laboratories. - Building-related incident reporting and feedback arrangements. - Provision of and access to transportation facilities, e.g. public transport, cyclist facilities, pedestrian routes etc. - Provision of and access to local amenities. - Links, references and relevant contact details. Additionally, for the non-technical building user guide for building occupiers: - Building services overview and access to building occupant controls, e.g. where to find them, what they control, how to operate effectively and efficiently etc. - Pre-arrival information for visitors, e.g. access and security procedures or provisions. Additionally, for the technical building user guide for facilities managers:

					• Building services overview and access to facilities management controls, e.g. where to find them, what they control, how to operate effectively and efficiently etc. • Refit, refurbishment and maintenance arrangements or considerations • Building related training information or links. A draft copy should be developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users. <u>Training Schedules:</u> Additionally, two training schedules should be prepared, timed appropriately around handover and proposed occupation plans for the following users: 1. A non-technical training schedule for the building occupiers. 2. A technical training schedule for the premises facilities managers. The training schedules should include the following as a minimum: • The buildings design intent. Additionally, for the building occupiers training schedule: • Introduction to the non-technical building user guide for building occupiers and other relevant building documentation. Additionally, for the facilities managers training schedule: • The available aftercare provision and aftercare team main contacts, including any scheduled commissioning and post occupancy evaluation. • Introduction to, and demonstration of, installed systems and key features, particularly building management systems, controls and their interfaces. • Introduction to the technical building user guide for facilities managers and other relevant building documentation, e.g. design data, technical guides, maintenance strategy, operations and maintenance (O&M) manual, commissioning records, logbook etc. • Maintenance requirements, including any maintenance contracts and regimes in place. The guides and training schedules should include, as far as possible, all relevant sections regarding the services and fabric installed. On completion of works the building owner, agent or
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					user hands it over to the fit-out contractor, who can then complete the relevant sections based on the fit-out strategy. Actions: Two BUGs and training schedules will be required from the Main Contractor at the Post-construction stage, before handover takes place.
Man 05 - Aftercare					
	Credit	Available	Current Stage	Restart Design	Comments
1	Aftercare support	1	1	1	Aftercare Support (1 credit) Targeted - Yes 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 content of the building user guide and training schedule) and present key information about features of 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. 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. Actions:

					Project Team to ensure the appointed Main Contractor commits to the above.	
2	Commissioning implementation	-	1	1	1	Commissioning Implementation (1 credit) Targeted - Yes Complete the following commissioning activities over a minimum 12-month period once the building becomes substantially occupied: <u>Complex systems: The specialist commissioning manager needs to:</u> - Identify changes made by the owner or operator that might have caused impaired or improved performance. - Test all building services under full load conditions. - Where applicable, carry out testing during periods of extreme high or low occupancy. - Interview building occupants to identify problems or concerns regarding the effectiveness of the systems. - Produce monthly reports comparing sub-metered energy performance to the predicted one. - Identify inefficiencies and areas in need of improvement. - Re-commission systems (following any work needed to serve revised loads) and incorporate any revisions in operating procedures into the operations and maintenance (O&M) manuals. <u>Simple systems (naturally ventilated): The external consultant, aftercare team or facilities manager needs to:</u> - Review thermal comfort, ventilation, and lighting, at three-, six- and nine-month intervals after initial occupation, either by measurement or occupant feedback. - Identify deficiencies and areas in need of improvement. - Re-commission systems and incorporate any relevant revisions in operating procedures into the O&M manuals. Actions: - Project Team to ensure the appointed Main Contractor commits to the above and accounts for post-occupancy commissioning activities within the projects budget.

3	Post occupancy evaluation (POE)	1	0	1	Post-occupancy evaluation (POE) (1 credit) Targeted - No (Potential) - The client or building occupier must commit to carry out a POE exercise one year after the building is substantially occupied. This gains comprehensive in-use performance feedback and identifies gaps between design intent and in-use performance. The aim is to highlight any improvements or interventions that need to be made and to inform operational processes. - An independent party must perform the POE. The POE should cover a review of the design intent and construction process (review of design, procurement, construction and handover processes). It should also include feedback from a wide range of building users including facilities management on the design and environmental conditions of the building covering internal environmental conditions (light, noise, temperature, air quality), control, operation and maintenance, facilities and amenities, access and layout, energy and water consumption and other relevant issues, where appropriate. - The independent party should provide a report with lessons learned to the client and building occupiers. - The client or building occupier must commit funds to pay for the POE in advance. This requires an independent party to be appointed to carry out the POE as described above. Evidence of the appointment of the independent party and schedule of responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance. Actions: <i>Client to confirm whether the above will be implemented and account for the appointment of an independent party to perform the POE within the project budget.</i>
		21	10	18	Standard Management Credit Total
		1	0	1	Exemplary Management Credit Total
		11.92	5.20	10.36	% Management Total (Standard + Exemplary)
Health & Wellbeing					
Hea 01 - Visual comfort					

	Credit	Available	Current Stage	Restart Design	Comments
1	Control of glare from sunlight	1	1	1	Glare Control (1 credit) Targeted - Yes Areas at risk of glare must be identified using a glare control assessment. The glare control assessment should also justify any areas deemed not at risk of glare. Where risk has been identified within a relevant building area (areas where lighting and resultant glare could be problematic for users, e.g. those areas that have been designed to contain or use workstations, projector screens etc. and sports halls), a glare control strategy must be used to design out the potential for glare. Control of glare from the sun is required in spaces with computer workstations such as offices, laboratories, control rooms and reception desks. It is also required in spaces where people have to spend time in fixed locations such as hospital wards. The glare control strategy must not increase energy consumption used for lighting. This should be achieved by maximising daylight levels in all weather, cloudy or sunny AND ensuring the use or location of shading does not conflict with the operation of lighting control systems. Compliant shading measures for meeting glare control criteria can include: • building-integrated measures (e.g. overhangs or fins) • occupant-controlled devices such as opaque Venetian or close weave fabric blinds, (where the openness factor of blinds is 1% or less, and where the fabric light transmittance value is < 0.1 (10%)) • external shading or brise soleil or a combination of the above. KBCN1088: • Where a relevant area as defined in the manual does not include any windows, the glare control criteria can be considered as met for this area. • Note that the view out and daylight criteria would not be achieved in rooms with no windows: 'Where there are no windows in a room there would be no potential for disabling glare, so the aim of the credit would be achieved.' Actions:

					Project Team to confirm that the Architect will perform a glare control assessment, and that suitable glare control measures will be implemented in areas at risk of glare.
2	Daylighting (building type dependent)	2	2	2	Daylighting (2 credits) Targeted - Yes The daylighting criteria are met through either - Option A: All relevant building areas (higher education occupied spaces) must achieve the minimum daylight requirements of 2% daylight factor over <u>60% of floor area for 1 credit (Targeted)</u> / <u>80% of floor area for 2 credits (Potential)</u> AND EITHER: - A uniformity ratio of at least 0.3 or a minimum point daylight factor of at least 0.3 times the average daylight factor value. OR - At least 80% of the room has a view of the sky from a desk or tabletop height (0.7m) and - The room depth criterion $d/w + d/HW < 2/(1-RB)$ is satisfied, where: - d = room depth - w = room width - HW = window head height from floor level - RB = average reflectance of surfaces in the rear half of the room. Option B: The relevant building areas meet the good practice average and minimum point daylight illuminance criteria below: <u>60% (1 credit - Targeted)</u> / <u>80% (2 credits - Potential)</u> of higher education occupied spaces achieve an average daylight illuminance (averaged over the entire space) of at least 300 lux for 2000 hours per year or more and minimum daylight illuminance at the worst lit point of at least 90 lux for 2000 hours per year or more. Alternatively, if the Education and Skills Funding Agency (ESFA) framework is adopted and adhered to, where <u>at least 80% of all relevant room types meet the criteria, the credits can be</u>

					<u>awarded.</u> Relevant building areas: Those areas that are occupied continuously for 30 minutes or more. For education buildings, relevant areas include: • Sports hall exercise spaces • Laboratory areas unless the type of research that will be carried out requires strictly controlled environmental conditions, such as the exclusion of natural light at all times. • Kitchen and catering areas • General communal areas • Small offices • Meeting rooms • Any area that may involve close-up work. However, this excludes the following (where present): • Media, arts production, SEN sensory spaces, x-ray rooms and other areas requiring strictly controlled acoustic or lighting conditions Actions: • <i>Project team to confirm whether these credits should be targeted. If this credit is to be targeted, daylight modelling is required, ideally before planning (SRE can provide this service for an additional fee, if required).</i>
3	View out	1	1	1	View Out (1 credit) Targeted - Yes 95% of the floor area in 95% of spaces for each relevant building area (those spaces occupied continuously for 30 minutes or more) achieves adequate view out. Adequate view out: Building areas within 8m of an external wall which has a window/opening of 20% of the surrounding wall area and at a seated eye level. This view out should be of a landscape or buildings (rather than just the sky). Relevant building areas: Areas where there are or will be workstations or benches or desks for building users, and where close work will be undertaken, or visual aids will be used. Actions:

					• Architect to confirm whether the above criteria are achievable for the Proposed Development. • View out calculations and marked up drawings required.
4	Internal and external lighting levels, zoning and control	1	1	1	Internal/External lighting and zoning controls (1 credit) Targeted - Yes <u>Internal lighting</u> All internal lighting to be designed to provide illuminance levels in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. For areas where computer screens are regularly used, the lighting design must comply 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: • Limits to the luminance of the luminaires to avoid screen reflections. (Manufacturers data for the luminaires should be sought to confirm this.) • 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. • Recommendations for direct lighting, ceiling illuminance, and average wall illuminance. <u>External lighting</u> External lighting to be provided in accordance with BS 5489-1:2013 and BS EN 12464-2:2014. <u>Zoning and occupant control</u> Internal lighting is to be zoned to allow for occupant control. Zoning must be in accordance with the criteria below for relevant areas present within the building: • In office areas, zones of no more than four workplaces • Workstations adjacent to windows or atria and other building areas separately zoned and controlled • Seminar and lecture rooms: zoned for presentation and audience areas • Library spaces: separate zoning of stacks, reading and counter areas • Teaching space or demonstration area • Whiteboard or display screen • Auditoria: zoning of seating areas, circulation space and lectern area • Dining, restaurant, cafe areas: separate zoning of servery and seating or dining areas

					Areas used for teaching, seminar or lecture purposes have lighting controls provided in accordance with CIBSE Lighting Guide 5. For Education developments, manual lighting controls must be easily accessible for the teacher while teaching and on entering or leaving the teaching space. Manual lighting controls need only be provided for staff, not the children. Actions: M&E Consultant to confirm the internal and external lighting and zoning will be specified in line with the above.
e1	Daylighting (building type dependent)	1	0	0	Credit not sought.
e2	Internal and external lighting levels, zoning and control	1	0	0	Credit not sought.
Hea 02 - Indoor air quality					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Prerequisite - Indoor air quality (IAQ) plan		✓	✓	Prerequisite - An IAQP is to be provided by the Design Team Targeted - Yes A site-specific IAQP should be produced and implemented in accordance with Guidance Note 6 (GN06). The purpose of the plan is to minimise internal air pollution during the building's occupation and must cover the following: - Removal of contaminant sources - Dilution and control of contaminant sources - Procedures for pre-occupancy flush out and purge ventilation - Third party testing and analysis - Maintaining good indoor air quality in-use - Any relevant local authority plans or policies Actions:

					Project team to confirm whether an IAQP covering the above criteria is to be provided (SRE can provide this service if required).
1	Ventilation	1	1	1	Ventilation (1 credit) Targeted - Yes In a naturally ventilated building, openable windows/ventilators are to be located >10m from sources of external pollution. In an air-conditioned building, air intakes are to be >10m from sources of external pollution and >10m from the building's exhaust and where present, HVAC systems must incorporate filtration systems in accordance with BS EN 13779:2007 Annex A3. If the Proposed Development is a naturally ventilated or mixed-mode building, cross ventilation should be provided to allow thermal comfort compliance in line with CIBSE AM10. Areas of large or variable occupancy are to be fitted with air quality sensors that are linked to the appropriate controls. Actions: Project team/MEP to confirm the ventilation system specified for the Proposed Development and that the above criteria will be met. <i>SRE (30.08.2023): Project is utilising cross ventilation via window placement and above window louvres. Naturally ventilated space.</i>
2	Emissions from construction products	2	2	2	Emissions from construction products Targeted - Yes (2 credits) For 1 credit, <u>three of the following categories</u> must achieve the standards set out in the BREEAM NC V6 Technical Manual (Table 5.11) in addition to <u>all wood-based products being classified as formaldehyde E1</u>: - Interior paints and coatings - Wood-based products - Flooring materials - Ceiling, wall, acoustic and thermal insulation materials - Interior adhesives.

					For all 2 credits, <u>all of the product types</u> listed in BREEAM table 5.11 (interior paints and coatings; wood-based products; flooring materials; ceiling, wall and acoustic and thermal insulation materials, and interior adhesives and sealants) must meet the emission limits, testing requirements and additional requirements listed in the table. Actions: • <i>Architect to confirm that the relevant products specified will meet the standards outline above/set out within the Table 5.11 of the BREEAM NC V6.1 Technical Manual.</i>
3	Post-construction indoor air quality measurement	1	1	1	Post-construction indoor air quality measurement (1 credit) Targeted Yes • The formaldehyde concentration in indoor air must be measured post-construction (but pre-occupancy) and should not exceed 100g/m averaged over 30 minutes (World Health Organization guidelines for indoor air quality: Selected pollutants, 2010). • The formaldehyde sampling and analysis must be performed in accordance with ISO 16000-2 and ISO 16000-3. <u>Total volatile organic compound (TVOC) concentration:</u> • The total volatile organic compound (TVOC) concentration in indoor air should be measured post-construction (but pre-occupancy) and not exceed 300g/m over 8 hours. • The TVOC sampling and analysis must be performed in accordance with ISO 16000-5 and ISO 16000-6 or ISO 16017-1. Where levels are found to exceed these limits, the project team must confirm the measures that have, or will be, undertaken in accordance with the IAQ plan, to reduce the TVOC and formaldehyde levels to within the above limits. Actions: • <i>Project team to confirm that post-construction (but pre-occupancy) testing of indoor formaldehyde and TVOC levels will be undertaken in accordance with the relevant standards above.</i>

e1	Minimising sources of air pollution - Emissions from construction products	1	0	0	<i>Credit not sought.</i>
Hea 04 - Thermal comfort					
	Credit	Available	Current Stage	Restart Design	Comments
1	Thermal modelling	1	1	1	Thermal modelling (1 credit) Targeted - Yes Thermal modelling must be undertaken using software in accordance with CIBSE AM11 Building Energy and Performance Modelling. The simulation must provide full dynamic thermal analysis, whilst also meeting the criteria set out in CIBSE Guide A Environmental design if the building is to be mechanically/naturally ventilated in addition to CIBSE TM52 & TM59 if naturally ventilated (note: this is also linked to Ene04). Modelling must demonstrate that: - For <u>air-conditioned</u> buildings, summer and winter operative temperature ranges are in accordance with CIBSE Guide A Environmental Design for both current and projected climate change scenarios. - For <u>naturally ventilated</u> buildings, winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design. The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in either CIBSE TM52 or CIBSE TM59. Thermal modelling assumptions must be reasonable and represent typical use patterns and loads given the parameters and function of the building. Thermal modelling may need to be completed on the basis of a typical notional layout. Actions: <i>Thermal modelling is to be completed before the end of RIBA Stage 3/planning to confirm the Hea 04 credits. SRE can provide this service, if required. Project team to confirm.</i>

2	Design for future thermal comfort	1	1	1	Design for future comfort (1 credit) Targeted - Yes The above modelling criteria must be achieved, including for a projected climate change environment. Where this is not possible, it should be demonstrated how the building has been adapted or designed to be easily adapted in future using passive design solutions to achieve compliance. Actions: Thermal modelling is to be completed before the end of RIBA Stage 3/planning to confirm the Hea 04 credits. SRE can provide this service, if required. Project team to confirm.
3	Thermal zoning and controls	1	1	1	Thermal zoning and controls (1 credit) Targeted - Yes The above thermal modelling is to inform the temperature zoning and control strategy for the building and its users. The control strategy is to be based on appropriate zoning and occupant control based on discussion with the end-user and system interaction. The strategy for proposed heating or cooling systems is to demonstrate that it has addressed the following: - Zones within the building and how the building services could efficiently and appropriately heat and cool these areas. - The degree of occupant control, based on discussions with the end-user. - How the proposed systems interact with each other. - The need for an accessible building user-actuated manual override for any automatic systems. Actions: - Project team (M&E consultant) to confirm thermal control strategy will comply with the thermal comfort report produced for the Proposed Development.
Hea 05 - Acoustic performance					
	Credit	Available	Current Stage	Restart Design	Comments

1	Acoustic performance	3	3	3	Acoustic performance for education buildings (3 credits) Targeted - Yes (3 credits) Up to three credits can be achieved where the building meets the appropriate acoustic performance standards and testing requirements relevant to the building type (Education) for sound insulation, indoor ambient noise levels and room acoustics defined below: Sound insulation - Achieve the performance standards set out in Section 1 of Building Bulletin 93: Acoustic design of schools: performance standards, February 2015 (BB93) relating to airborne sound insulation between spaces and impact sound insulation of floors. Indoor ambient noise levels - Achieve the indoor ambient noise level standards set out within Section 1 of BB93 for all room types. Room acoustics (Control of reverberation, sound absorption and speech transmission index (STI)): - Teaching and study spaces achieve the requirements relating to reverberation time for teaching and study spaces set out within Section 1 of BB93. - Open plan teaching spaces achieve the performance requirements relating to reverberation time and STI set out within Section 1 of BB93. - Corridor and stairwells, for those that give direct access to teaching and study spaces, achieve the performance requirements relating to sound absorption. Actions: - Project team to confirm whether a Suitably Qualified Acoustician (SQA) will be appointed to perform testing and produce an acoustic report covering the above sound insulation, indoor ambient noise levels and room acoustics requirements.
Hea 06 - Security					
	Credit	Available	Current Stage	Restart Design	Comments
1	Security of site and building	1	0	0	Security: Input by RIBA Stage 2 (1 credit) Targeted No A Suitably Qualified Security Specialist (SQSS/ALO) must conduct an evidence-based Security Needs Assessment (SNA) prior to RIBA Stage 2, which is to include:

					• A visual audit of the site and surroundings, identifying environmental cues and features pertinent to the security of the proposed development. • Formal consultation with relevant stakeholders, including the local ALO, CPDA and CTSA (as applicable), in order to obtain a summary of crime and disorder issues in the immediate vicinity of the proposed development. • Identification of risks specific to the proposed, likely or potential use of the buildings. • Identification of risks specific to the proposed, likely or potential user groups of the buildings. • Identification any detrimental effects the development may have on the existing community. The SQSS is to develop a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA. The controls and recommendations should be incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations must be justified and agreed with the SQSS. The scope of the recommended security controls may consider the following: • Design and layout (e.g. crime prevention through environmental design). • Physical security (e.g. tested and certified security products). • Technological security (e.g. Tested and certified alarms, automatic access control systems, CCTV). It may be necessary to also consider building and security systems ability to resist cyber-related attack. This will be dependent on the types of systems to be incorporated into the project. Actions:
e1	Security of site and building	1	0	0	<i>Credit not sought.</i>
Hea 07 - Safe and healthy surroundings					

	Credit	Available	Current Stage	Restart Design	Comments
1	Safe access	1	1	1	Safe and healthy surroundings (1 credit) Targeted - Yes 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 off-site cycle paths where applicable. • Dedicated and safe footpaths are provided on and around the site providing suitable links for the following: ○ The site entrance to the building entrance ○ Car parks (where present) to the building entrance ○ The building to outdoor space ○ Connecting to off-site paths where applicable. ○ Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths. Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply: • Delivery areas are not accessed through general parking areas and do not cross or share the following: ○ pedestrian and cyclist paths ○ outside amenity areas accessible to building users and general public. • There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking. • Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting. <u>Dedicated and safe cycle lanes</u> Marked-out and clearly signed routes to accommodate building users arriving on and travelling through the assessed site on a bicycle. They must also have the following features: 1. Adequate external lighting in accordance with BS 5489-1:20131 Lighting of roads and public amenity areas.

					2. Appropriately sized, designed and constructed. The following publications offer guidance on how to demonstrate this: 1. Local transport Note 2/08 Cycle infrastructure design, Department of Transport, 2008. 2. Sustrans design guidance (www.sustrans.org.uk), specifically the Sustrans design manual handbook for cycle-friendly design. <u>Dedicated and safe footpaths</u> Marked-out and clearly signed routes to accommodate building users arriving on and travelling through the assessed site on foot. They must also have the following features: 1. Dedicated pedestrian crossing points are provided where needed to allow pedestrians to cross vehicle access routes 2. Appropriate traffic calming measures are in place to slow traffic at any crossing points 3. Developments with high numbers of visitors provide signposting to other local amenities and public transport nodes off site (where existing) 4. Adequate external lighting in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas. Actions: • Architect to confirm that access routes within the site will comply with the above.
2	Outside space	1	1	1	Outside Space (1 credit) Targeted - Yes An outside space is built, providing building users with an external amenity area. Actions: • Architect to confirm the site will provide the above facilities.

	18	17	17	Standard Health & Wellbeing Credit Total	
	4	0	0	Exemplary Health & Wellbeing Credit Total	
	18.04	13.26	13.26	% Health & Wellbeing Total (Standard + Exemplary)	
Energy					
Ene 01 - Reduction of energy use and carbon emissions					
	Credit	Available	Current Stage	Restart Design	Comments
1	Energy performance	9	5	5	Prerequisite - at least four credits required for Excellent - an EPR_{NC} of at least 0.4 must therefore be achieved. Energy Performance modelling (9 credits) Targeted - Yes (5 credits) Energy modelling must be undertaken to calculate an Energy Performance Ratio for New Construction (EPR_{NC}). The EPR_{NC} achieved is compared with the benchmarks in Table 6.1 of the BREEAM NC V6 manual and awarded the corresponding number of BREEAM credits. Actions: • <i>Energy modelling is to be undertaken and an SBEM or BRUKL provided to confirm credits.</i> • <i>SRE can perform the Dynamic Energy Modelling (SBEM) and provide the BRUKL to confirm credits for a fee, if required.</i>
2	Prediction of operational energy consumption	4	0	0	Prediction of operational energy consumption (4 credits) Targeted - No The occupancy and energy use for unregulated energy loads and management practices are to be estimated. Detailed energy modelling is to be undertaken to predict the building energy consumption, as well as sensitivity analysis to determine the factors that can significantly impact building energy consumption. This will involve scenario modelling to inform improvements to the design of the building and to the operational, maintenance and handover strategies. An energy target is to be

					set for the building based on the results of this modelling. At the post-construction stage, this scenario modelling will be repeated to reflect the post-construction building specification and, if necessary, adjust the target. A workshop is to be held with the project team, client and prospective occupier during Concept Design to discuss the results of the modelling and analysis and the proposed building design and development, to devise scenarios to explore how high-impact factors might influence the building energy consumption and to identify opportunities for the implementation of passive design measures. Actions:
e1	Beyond zero net regulated carbon - - Exemplary level criteria	2	0	0	<i>Credit not sought.</i>
e2	Carbon negative - Exemplary level criteria	3	0	0	<i>Credit not sought.</i>
e3	Post-occupancy evaluation of operational energy consumption - Exemplary level criteria	2	0	0	<i>Credit not sought.</i>
Ene 02 - Energy monitoring					
	Credit	Available	Current Stage	Restart Design	Comments
1	Sub-metering of end use categories	1	1	1	Prerequisite - Sub-metering of types is installed (1 credit) Mandatory - This credit is required for a 'Very Good' rating to be achieved Targeted - Yes Energy metering systems must be installed so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories. The energy consumption in buildings must be metered according to the total useful floor area. If the area is <u>greater than 1,000m²</u>, by end-use category with an appropriate energy monitoring and management system. Additionally, as per the Building Regulations requirements, buildings with a total floor area <u>greater than 1,000m²</u> are also required to have automatic meter reading and data collection

					facilities. Building users must be able to identify the energy consuming end uses, for example through labelling or data outputs. Detailed guidance on how to develop an appropriate metering strategy for the energy criteria of a new building is available in CIBSE TM39 Building energy metering. Major energy-consuming systems include (where present): • Space Heating • Domestic Hot Water • Humidification • Cooling • Fans (major) • Lighting • Small Power (lighting and small power can be on the same sub-meter where supplies are taken on each floor) • Other major energy-consuming items (e.g. lifts). Energy consumption should be metered by end-use category with an appropriate energy monitoring and management system and end-uses made identifiable with labelling. Actions: • <i>MEP to confirm that energy metering systems will be specified and installed in line with the above requirements.</i>
Ene 03 - External Lighting					
	Credit	Available	Current Stage	Restart Design	Comments
1	External lighting	1	1	1	External Lighting (1 credit) Targeted - Yes To achieve 1 credit, the Proposed Development must meet either of the following: There is no external lighting on site (including lighting on the building, at entrances and signs). OR

					External light fittings within the construction zone have: • An average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt. • Automatic control to prevent operation during daylight hours. • Presence detection in areas of intermittent pedestrian traffic. Actions: • <i>MEP to confirm that external lighting will be specified in line with the above requirements.</i>
Ene 04 - Low carbon design					
	Credit	Available	Current Stage	Restart Design	Comments
1	Passive design	2	0	2	Passive Design (2 credits) Targeted - No (Potential) Complete by end of RIBA stage 2 Passive Design Analysis (1 credit) <u>The first credit within Hea 04 must be achieved.</u> The project team must undertake an analysis of the proposed building design and development during Concept Design to identify opportunities for the implementation of passive design measures. These will reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings. Reductions in total energy demand and CO₂e emissions resulting from the passive design measures must also be quantified. Free Cooling (1 credit) Targeted - No The Passive Design credit must be achieved. A free cooling analysis must be undertaken, identifying opportunities for the implementation of free cooling solutions. The building must ultimately be naturally ventilated or use any combination of the free cooling solutions listed in the BREEAM technical guidance. Actions:

2	Low and zero carbon technologies	1	0	1	LZC Feasibility Study (1 credit) Targeted - No (Potential) Complete by the end of RIBA Stage 2 An energy specialist must complete a feasibility study by the end of Concept Design. The most appropriate recognised local (on-site or near-site) low and zero carbon (LZC) energy sources and local LZC technologies for the building or development must be established and specified based on the feasibility study and its recommendations. The reduced regulated carbon dioxide (CO₂e) emissions resulting from the feasibility study must be quantified. Actions: Project team to confirm if LZC Feasibility Study was produced by an Energy Specialist before the end of Concept Design.
Ene 06 - Energy efficient transportation systems					
	Credit	Available	Current Stage	Restart Design	Comments
1	Energy consumption	1	1	1	Energy consumption (1 credit) Targeted - Yes The anticipated transportation demand and usage patterns for the building must be analysed to determine the optimum number and size of lifts. The transport analysis can be in the form of a written statement justifying the lift selection for the following conditions: - where a single lift is provided in a low rise building for the purpose of providing disabled access only - or where a goods lift is selected based on the size of the goods it is intended to carry. The energy consumption must be calculated in accordance with BS EN ISO 25745 Part 2 or 3 for one of the following: - At least two options for each lift, OR

					- At least two options considering different system arrangements and control strategies. The use of regenerative drives is to be considered. A regenerative drive should only be considered where it produces an energy saving greater than the additional standby energy used to support the drives. Regenerative drives will typically be appropriate for lifts with high travel and high intensity use. Applicability of this issue: The criteria relating to lifts do not apply to lifting platforms, wheelchair platform stairlifts or other similar facilities to aid persons with impaired mobility. However, any lifting device with a rated speed greater than 0.15m/s must be assessed, inclusive of goods, vehicle and passenger lifts. Actions: - Project team to confirm whether lifts are to be installed within the Proposed Development. - Lift consultant to be appointed and provide lift report to confirm that the above criteria are met. - If lifts are not to be installed, this credit is not applicable and will be removed from the assessment.
2	Energy efficient features	1	1	1	Energy efficient features (1 credit) Targeted - Yes <u>Lifts</u> The following three energy efficient features must be specified for each lift: - A standby condition for off-peak periods. - The lift car lighting and display lighting must provide an average luminous efficacy across all fittings in the car of > 70 luminaire lumens per circuit Watt. - Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor. Regenerative drives should be specified where their use is demonstrated to save energy. <u>Escalators and moving walkways</u> Where both lifts and escalators or moving walks are present, then two credits are available - this has not been assumed for the Proposed Development (Project Team to confirm). Actions:

					- Project team to confirm whether lifts are to be installed within the Proposed Development, as well as any escalators or moving walkways. - Lift consultant to be appointed and provide lift report to confirm that the above criteria are met. - If lifts are not to be installed, this credit is not applicable and will be removed from the assessment.
		20	9	12	Standard Energy Credit Total
		7	0	0	Exemplary Energy Credit Total
		23	7.20	9.60	% Energy Total (Standard + Exemplary)
Transport					
Tra 01 - Transport assessment and travel plan					
	Credit	Available	Current Stage	Restart Design	Comments
1	Travel plan	2	0	2	Pre-requisite - Travel plan must be undertaken to achieve any credits within this section (2 credits) By the end of RIBA stage 2 Targeted - No (Potential) At no later than <u>Concept Design stage</u>, a <u>site-specific transport assessment</u> (or a travel statement) and <u>draft travel plan</u> must be undertaken and produced, which can demonstrably be used to influence the site layout and built form. The <u>Transport Assessment/Statement must assess the following as a minimum</u>: - If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities. - Predicted travel patterns and transport impact of future building or site users. - Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. - Reporting of the number and type of existing accessible amenities within 500m of the site.

					• Disabled access accounting for varying levels and types of disability, including visual impairment. • Calculation of the existing public transport Accessibility Index (AI) • Current facilities for cyclists. Following a transport assessment, a site-specific travel plan must be developed that provides a long-term management strategy which encourages more sustainable travel. The travel plan must include measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation. As a minimum, the following measures should be considered when developing the travel plan: • Negotiation with local bus, train or tram companies an increase in the local service provision for the development • Provision of a public transport information system in a publicly accessible area • Provision of electric recharging stations • Provision of parking priority spaces for car sharers • Consultation with the local authority on the state of the local cycling network and on improvements • Provision of dedicated and convenient cycle storage • Provision of cyclists' facilities • Lighting, landscaping and shelter to create pleasant pedestrian and public transport waiting areas • Restrictions or charging for car parking • Pedestrian and cyclist friendly (for all types of user regardless of the level of mobility or visual impairment) with the provision of cycle lanes, safe crossing points, direct routes, appropriate tactile surfaces, good lighting and signposting to other amenities, public transport nodes and adjoining off-site pedestrian and cycle routes • Provision of suitable taxi drop-off or waiting areas If the occupier is known, they should be involved in the development of the travel plan. It must be demonstrated that the travel plan will be implemented and supported by the building's management in operation. Actions: • <i>Project Manager to appoint a Transport Consultant to undertake a Transport Assessment and produce a Travel Plan for the site, following liaison on design options.</i>
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Tra 02 - Sustainable transport measures					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Pre-requisite		✗	✓	Pre-requisite: To achieve any of the Tra 02 credits, a Travel Plan must be developed in accordance with the Tra 01 criteria.
1	Transport options implementation	10	0	5	Transport options implementation (10 credits) Targeted - No (Potential) Credits are awarded based upon the site's Accessibility Index (AI) and the implementation of any of the following: - Existing A>8. - Demonstrate an increase over the existing AI (calculated in <i>Hea01</i>) through either negotiating with transit companies for an increase in frequency OR provision of a diverted bus route/enhanced bus stop OR provide a dedicated bus service. - 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 for 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 and locate priority parking spaces nearest the development entrance used by the sharing scheme participants. - During preparation of the brief, the design team consults with the local authority (LA) on the state of the local cycling network and public accessible pedestrian routes, to focus on whichever the LA deems most relevant to the project, and how to improve it and agree and implement one proposition chosen with the local authority. The proposition supported by the development is additional to existing local plans and has a significant impact on the local cycling network or on pedestrian routes open to the public. - Install compliant cycle storage spaces to meet the minimum levels set out in the BREEAM NC 2018 technical manual (Table 7.5). - Provide at least two compliant cyclists' facilities for the building users for the scope of each compliant facility: - Showers - Changing facilities - Lockers - Drying spaces.

					9. At least three existing accessible amenities are present (i.e. Food outlet, ATM, post service, open green space, over the counter pharmacy) 10. Ensure a minimum of one new accessible amenity is provided OR ensure more than one new accessible amenity is provided. Actions: Providing Transport Assessment and Travel Plan are produced (including information on AI and nearby amenities); Architect to provide evidence of compliant cyclist storage, cyclist facilities, EV parking capabilities, new amenities and any improvements to public transport/local cycling network.
		12	0	7	Standard Transport Credit Total
		0	0	0	Exemplary Transport Credit Total
		9.96	0	5.81	% Transport Total (Standard + Exemplary)
Water					
Wat 01 - Water consumption					
	Credit	Available	Current Stage	Restart Design	Comments
1	Water consumption	5	4	5	Water consumption (5 credits) This credit is required for 'Very Good' rating to be achieved Targeted - Yes - 4 credits (5+ Potential) This issue assesses the efficiency of the domestic water-consuming components specified for the development. The alternative Wat 01 method will be used, which assesses components on an elemental basis. Based upon the performance level of each component type and the component weighting, the Wat 01 calculator will determine an overall level of performance and awards the relevant number of BREEAM credits. Components to be included in the assessment as a minimum are: - WCs - Wash-hand basin taps - Showers

					- Urinals - Kitchen taps: kitchenette Level 4 performance (>50% improvement) has been targeted (4 credits). A typical specification should be as follows (as per Table 8.3 of the BREEAM NC V6.1 manual): - WC - 3.5 litres effective flush volume; - Urinal - 0.75 litres/bowl/hour (2 or more urinals) or 1 litre/bowl/hour (1 urinal only) - Showers - 5 litres/min - Wash hand basin taps 4 litres per min - Kitchenette Taps - 5 litres per min - Kitchen taps: restaurant (pre-rinse nozzles only) - 6.30 litres per min - Waste disposal unit - 0 litres per min <u>Commercial</u> sized dishwashers - 4 litres per rack <u>Commercial or industrial</u> sized washing machines - 5 litres per kg <u>Domestic</u> sized dishwashers - 11 litres per cycle <u>Domestic</u> sized washing machines - 35 litres per use Actions: <i>Project team (MEP) to confirm whether the water-consuming elements will be specified in line with the above requirements.</i>
e1	Water consumption	1	0	1	Water consumption (1 Exemplary credit) Targeted - No (Potential) As above for Wat 01; The water consumption (litres/person/day) for the assessed building achieves >65% improvement.
Wat 02 - Water monitoring					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Prerequisite (Good to Outstanding)		✓	✓	Prerequisite (Good to Outstanding) Minimum requirement for 'Very Good' rating

					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	1	Targeted - Yes Mandatory - A water meter is fitted to the mains supply on each building. For water-consuming plant or building areas consuming 10% or more of the buildings total water demand it is required that easily accessible sub-metres are fitted or water monitoring equipment is installed. For each meter (main and sub), a pulsed or other open protocol communication output needs to be installed and connected 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, credits will be awarded provided that the system used enables connection when the BMS becomes operational. Actions: • MEP to confirm that water meters will be specified in line with the above requirements.
Wat 03 - Water leak detection					
	Credit	Available	Current Stage	Restart Design	Comments
1	Leak detection system	1	1	1	Leak detection system (1 credit) Targeted - Yes A BREEAM Compliant leak detection system is to be installed on the mains water supply to each building to detect major leaks on the water supply within the buildings and between the buildings and water supply. The system must be: • A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks; • 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 of time. 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; • 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; • Programmable to suit the owner's or occupier's water consumption criteria; and • Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as chillers. Actions: • <i>MEP to confirm that a leak detection system will be installed in line with the above requirements.</i>
2	Flow control devices	1	1	1	Flow control devices (1 credit) Targeted - Yes Flow control devices must be installed that regulate the water supply to each WC area or sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework. Actions: • <i>MEP to confirm whether flow control devices will be specified for each WC area, in line with the above.</i>
		8	7	8	Standard Water Credit Total
		1	0	1	Exemplary Water Credit Total
		8.04	6.16	8.04	% Water Total (Standard + Exemplary)
Materials					
Mat 01 - Environmental impacts from construction products - Building life cycle assessment (LCA)					
	Credit	Available	Current Stage	Restart Design	Comments

1	Superstructure	6	0	3	Superstructure Life Cycle Assessment (LCA) (Up to 6 credits) Targeted - No (Potential) Complete by RIBA Stage 2 and again at Stage 4 Carry out an LCA of 2-4 significantly different superstructure options, of which the options selected must not hinder the functional requirements previously specified by the client. <u>This must be undertaken within an IMPACT Compliant LCA tool.</u> The following must also be recorded in an 'Option Appraisal Summary Document': • Differences between the design options; • Reasons for selecting the chosen options; and • Reasons for not selecting the discarded options. Reasons must be given for selecting the chosen design option, with <u>the results submitted to BRE prior to the end of the RIBA Stage 2 AND prior to planning submission.</u> This MUST be achieved in order to gain any credits within Mat01. During RIBA Stage 4, carry out an LCA of 2-3 significantly different superstructure options, based on that selected during Stage 2. Results must explore the same issues as those presented at RIBA Stage 2 with the 'Option Appraisal Summary Document' updated and <u>submitted to BRE prior to the end of Stage 4.</u> Actions: • <i>Upon the design restart scenario, an LCA modeller would need to be appointed to complete the materials lifecycle analysis.</i>
2	Substructure and hard landscaping options appraisal during Concept Design (all building types)	1	0	1	Substructure and hard landscaping Life Cycle Assessment (LCA) (1 credit) Complete by RIBA Stage 2; Targeted - No (Potential) Carry out an LCA of 6 significantly different substructure and hard landscaping options (minimum 2 substructure & 2 hard landscaping). Results must explore the same issues as those presented for the Superstructure, with the 'Option Appraisal Summary Document' updated and submitted to BRE at the end of RIBA Stage 2. Actions: • <i>Upon the design restart scenario, an LCA modeller would need to be appointed to complete the materials lifecycle analysis.</i>

e1	Core building services options appraisal during Concept Design (all building types)	1	0	1	Core building services options appraisal (1 exemplary credit) Complete by RIBA Stage 2; Targeted - No (Potential) Undertake LCA options appraisal of at least 3 significantly different core building services using an IMPACT Compliant LCA tool and submit to BRE prior to the end of Stage 2. Actions: Upon the design restart scenario, an LCA modeller would need to be appointed to complete the materials lifecycle analysis.
e2	LCA and LCC alignment (all building types)	1	0	0	Credit not sought.
e3	Third party verification (all building types) - Exemplary level criteria	1	0	0	Credit not sought.
Mat 02 - Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)					
	Credit	Available	Current Stage	Restart Design	Comments
1	Specification of products with a recognised environmental product declaration (EPD)	1	1	1	Environmental impacts from construction products (1 credit) Targeted - Yes To achieve the credit available, the materials listed in <i>Mat01</i> are assessed depending upon their EPDs (Environmental Product Declarations). Based upon the type of EPD, a score is given with a single credit awarded if 20 points are scored. Actions: Project team to confirm achievability of the above.
Mat 03 - Responsible sourcing of construction products					
	Credit	Available	Current Stage	Restart Design	Comments

Pre-req	Prerequisite		✓	✓	Mandatory - This is a minimum requirement for any BREEAM rating 100% of timber and timber-based products used on the project are 'Legal' and 'Sustainable' as per the UK Government's Timber Procurement Policy (TPP). Actions: Project Team to ensure that the appointed Main Contractor commits to sourcing all Timber products on site in accordance with the BREEAM definition of 'Legally harvested and traded timber'.
1	Enabling sustainable procurement	1	0	1	Sustainable Procurement Plan (1 credit) Targeted - No (Potential) To be completed by the end of RIBA Stage 2 A Sustainable Procurement Plan (SPP) must be used by the design team to guide specification towards sustainable construction products. The plan must: - Be in place before Concept Design. - Include sustainability aims, objectives and strategic targets to guide procurement activities. 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. - Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan. Actions: - Client to confirm whether a Sustainable Procurement Plan has been produced and provided before the end of RIBA Stage 2.
2	Measuring responsible sourcing	3	2	2	Measuring Responsible sourcing (3 credits) Targeted - Yes (2 credits) Credits for this issue are awarded based on the proportion of responsible sourcing of materials (RSM) points achieved: <u>1 credit:</u> A target score of 10% of the available RSM points is achieved for the superstructure.

					<u>2 credits:</u> The above is achieved for the superstructure, AND 20% of available RSM points are achieved for internal finishes and substructure and hard landscaping. <u>3 credits:</u> The above is achieved for the superstructure, AND 30% of available RSM points are achieved for internal finishes and substructure and hard landscaping. Calculation of the above requires completion of the Mat 03 Calculator tool by the BREEAM assessor, based on materials information (including materials schedule, drawings and responsible sourcing certificates) provided by the Project Team (specifically the Main Contractor or Architect). Actions: Project Team to ensure the appointed Main Contractor commits to sourcing all superstructure, internal finishes, substructure and hard landscaping materials to be used on site from suppliers with responsible sourcing certificates, where possible.
e1	Measuring responsible sourcing	1	0	0	Measuring responsible sourcing - exemplary criteria (1 exemplary credit) Targeted - No The criteria for 3 RSM credits are achieved, as well as: Core building services achieve 50% of available RSM points. Actions:
Mat 05 - Designing for durability and resilience					
	Credit	Available	Current Stage	Restart Design	Comments
1	Protecting vulnerable parts of the building from damage/material degradation	1	1	1	Designing for durability and resilience (1 credit) Targeted - Yes <u>Protecting vulnerable parts of the building from damage</u> Protection measures are to be 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:

					• Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.). • Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. • External building fabric damage by a vehicle. Protection where parking or manoeuvring areas are within 1 metre of the building facade and where delivery areas or routes are within 2 metres of the facade, i.e. specifying bollards or protection rails. • Potential malicious damage to building materials and finishes, in public and common areas where appropriate. Examples of suitable durability measures include: • Bollards, barriers or raised kerbs to delivery and vehicle drop-off areas. • Robust external wall construction, up to 2m high. • Corridor walls specified to Severe Duty (SD) as per BS 5234-2. • Protection rails to walls of corridors. • Kick plates or impact protection (e.g. trolleys) on doors. • Hard-wearing and easily washable floor finishes in heavily used circulation areas (i.e., main entrance, corridors, public areas, etc.) • Door stoppers to prevent door handles damaging walls. • Designing out the risk without the need for additional materials specification to protect vulnerable areas. <u>Protecting exposed parts of the building from material degradation</u> • Key exposed building elements that may be subject to environmental degradation to be identified, with either a detailed assessment of the element's resilience or an appropriate durability standard (in line with BS 7543:2015) being installed. • Convenient roof access should also be included within the plans in addition to a fabric design that prevents water damage, ingress and detrimental ponding. • Table 9.14 within the BREEAM New Construction V6 manual contains a list of relevant industry durability and quality standards that can be used to achieve compliance. This list addresses standards to be followed for the following building elements: ○ Timber ○ Curtain walling ○ Brickwork, blockwork ○ Roof elements ○ Metal cladding
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					○ Glazing ○ Masonry Actions: • Architect to confirm that protection measures and durability or quality standards to be specified and followed for vulnerable and exposed parts of the building, in line with the above criteria.
Mat 06 - Material efficiency					
	Credit	Available	Current Stage	Restart Design	Comments
1	Material efficiency	1	0	0	Material efficiency: Input from RIBA Stage 1 (1 credit) Targeted - No At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials through the compilation of a Material Efficiency report. This should be carried out at each of the RIBA Stages, 1 (Preparation & Brief), 2 (Concept Design), 3 (Developed Design), 4 (Technical Design) & 5 (Construction). Additionally, at RIBA Stages 3 (Developed Design), 4 (Technical Design) and 5 (Construction), the implementation of measures for maximising material efficiency should be developed and implemented, and noted within the Material Efficiency report. The targets and actual material efficiencies achieved should be reported. Table 9.15 within the BREEAM New Construction V6 manual contains the material efficiency strategy that should be followed to produce the Material Efficiency report. Actions:
		14	4	9	Standard Materials Credit Total
		4	0	1	Exemplary Materials Credit Total
		18.98	4.28	10.63	% Materials Total (Standard + Exemplary)
Waste					

Wst 01 - Construction waste management					
	Credit	Available	Current Stage	Restart Design	Comments
1	Pre-demolition audit	1	0	1	Pre-demolition audit (1 credit) Targeted - No (Potential) A pre-demolition/strip-out audit of any existing buildings, structures or hard surfaces should also be completed by RIBA Stage 2 in order to identify opportunities to reuse and recycle existing materials. This should be made reference to within the RMP. One credit has been assumed. Actions: • Main Contractor to provide a pre-demolition audit prior to the end of RIBA stage 2 / before any demolition or clearing occurs on site.
2	Construction resource efficiency	3	2	2	Construction resource efficiency Targeted - Yes (2 targeted) A compliant Resource Management Plan (RMP)/ Site Waste Management Plan (SWMP) must be produced for the project, covering: • Non-hazardous waste materials (from on-site construction and dedicated off-site manufacture or fabrication, including demolition and excavation waste. • Accurate data records on waste arisings and waste management routes. A nominated person should be identified to take responsibility for the plan and collection of data, confirming that the following benchmarks have been met for non-hazardous construction waste, excluding demolition and excavation waste: • One credit awarded where the amount of waste generated per 100m² is < or equal to 13.3 (m³) or 11.1 (tonnes) • Two credits awarded where the amount of waste generated per 100m² is < or equal to 7.5 (m³) or 6.5 (tonnes) • Three credits awarded where the amount of waste generated per 100m² is < or equal to 3.4 (m³) or 3.2 (tonnes) • Exemplary level awarded where the amount of waste generated per 100m² is < or equal to 1.6 (m³) or 1.9 (tonnes)

					Potential tool for compiling an RMP and monitoring waste: SMART Waste is a web-based membership tool allowing users to measure and monitor construction site impacts. The tool can be used for: • Preparing, implementing and reviewing RMPs • Online measuring and reporting on ○ Waste (aligned to defined waste groups) ○ Site energy, fuel and water use ○ CO production from energy usage ○ Procurement of certified or sustainable timber ○ transportation impacts from materials deliveries, waste removal and staff travel to and from the site ○ Pre-demolition versus post-demolition waste data • Industry waste benchmarks. Actions: • <i>Project Team to ensure the appointed Main Contractor is aware of their responsibility to appoint an individual responsible for monitoring and recording demolition and excavation waste, and for the production of an RMP in line with the requirements above.</i>
3	Diversion of resources from landfill	1	1	1	Diversion of resources from landfill (1 credit) Targeted - Yes • Where applicable, the following diversion from landfill benchmarks should be met for non-hazardous construction waste and demolition and excavation waste generated. • Waste materials should be separated into key waste groups either on-site or through a licensed contractor for recovery. <i>Criteria for 1 credit:</i> Type of Waste Volume Non-demolition: 70% (80% tonnage) Demolition: 80% (90% tonnage) Excavation: N/A Actions:

					Project Team to ensure that the appointed Main Contractor commits to monitoring and meeting the benchmarks for non-hazardous construction waste and demolition and excavation waste noted above.
e1	Construction resource efficiency/Diversion of resources from landfill	1	0	0	Construction resource efficiency & Diversion of resources from landfill (1 exemplary credit) Targeted - No To achieve an exemplary performance credit: Non-hazardous construction waste generated, excluding demolition and excavation waste, must be less than or equal to the exemplary level resource efficiency benchmarks: - Exemplary level awarded where the amount of waste generated per 100m² is < or equal to 1.6 (m3) or 1.9 (tonnes). - The percentage of non-hazardous construction, demolition and excavation waste (if relevant) diverted from landfill meets or exceeds the exemplary level percentage benchmarks: Type of Waste Volume Non-demolition: 85% (90% tonnage) Demolition: 85% (90% tonnage) Excavation: 95% (95% tonnage) All key waste groups in Table 10.3 of the BREEAM NC V6 manual for diversion from landfill must be covered in the RMP. Waste data obtained from licensed external waste contractors must be reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from a PAS 402:2013 compliant company. Actions: - Credit not sought, at present, due to high benchmarks. The appointed Main Contractor must commit to achieving the above criteria for this credit to be achieved.
Wst 02 - Use of recycled and sustainably sourced aggregates					
	Credit	Available	Current Stage	Restart Design	Comments

Pre-req	Prerequisite		✗	✓	Pre-requisite: Potential The reuse of site-won material on site should be encouraged and a pre-demolition audit should be carried out in accordance with Wst 01.
1	Project Sustainable Aggregate points	1	0	1	Project Sustainable Aggregate Points (1 credit) Targeted - No (Potential) All aggregate uses, types of quantities and sources should be identified. The distance (km) travelled by all aggregates by transport type should be calculated and all this information should be entered into the Wst 02 calculator. 3.5-6 points will equate to one credit. More than 6 points will achieve an exemplary credit. It has been assumed that this credit will not be achieved due to the limited amount of existing hard standing on site that could potentially be recycled into recycled aggregate and the cost implications of sourcing it from external sources. Action: Project team to confirm achievability of the above.
e1	Project Sustainable Aggregate points	1	0	0	<i>Credit not sought.</i>
Wst 03 - Operational waste					
	Credit	Available	Current Stage	Restart Design	Comments
1	Operational waste	1	1	1	Operational Waste (1 credit) Targeted - Yes Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space should be: - Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams - Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors

					- 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. The following guide should be followed to determine the minimum storage space provision for recyclable waste: - At least 2m² per 1000m² of net floor area for buildings < 5000m² - The net floor area should be rounded up to the nearest 1000m². Therefore, operational waste storage space provided for 800m² should therefore equate to 2m². <u>This should be in addition to the 2m² space provided for general waste.</u> For consistent and large amounts of operational waste generated, the following should be provided: - Static waste compactors or balers; situated in a service area or dedicated waste management space - 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 - 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. Actions: <i>Architect to confirm appropriate waste storage area for the building will be provided, in line with the above requirements.</i>
Wst 05 - Adaptation to climate change					
	Credit	Available	Current Stage	Restart Design	Comments
1	Resilience of structure, fabric, building services and renewables installation	1	0	1	Resilience of Structure (1 credit) Targeted - No (Potential) Input required from RIBA stage 2

					• A <u>climate change adaptation strategy appraisal</u> must be conducted using a systematic risk assessment to identify the impact of <u>expected extreme weather conditions</u> arising from climate change on the building over its projected life cycle. • The adaptation plan should consider the impacts of climate change and extreme weather events and describe how the design mitigates against them. • The assessment must cover the installation of building services and renewable systems, as well as structural and fabric resilience aspects and include hazard identification, hazard assessment, risk estimation, risk evaluation, risk management. • The risk presented by these hazards to the building and the likely impact of the hazards should be identified, taking into account the following aspects as a minimum: ○ Structural stability ○ Structural robustness ○ Weather proofing and detailing ○ Material durability ○ Health and safety of building occupants and others ○ Impacts on building contents and business continuity. • <u>Recommendations or solutions</u> must be developed based on the climate change adaptation strategy appraisal, before or during <u>Concept Design</u>, that aim to mitigate the identified impact. • An <u>update must be provided during Technical Design</u> demonstrating how the recommendations or solutions proposed at Concept Design have been <u>implemented</u> where practical and cost-effective. Omissions must be justified in writing by the assessor. Actions: • <i>Upon the design restart scenario, Architect to compile short summary report pre-RIBA stage 2 (SRE can provide templates to support with this)</i>
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e1	Responding to climate change	1	0	0	Responding to climate change (1 exemplary credit) Targeted - No If this exemplary credit is sought, you must achieve the following, in addition to Wst 05: • Hea 04 Thermal comfort - Criterion 6 • Ene 01 Reduction of energy use and carbon emissions - a minimum of 6 credits • Ene 04 Low carbon design - The Passive Design Analysis credit • Wat 01 Water consumption - A minimum of 3 credits • Mat 05 Designing for durability and resilience - Criteria 2-4 • Pol 03 Flood and surface water management - 1 credit for Flood Resilience, 2 credits for Surface Water Run-off Actions:
Wst 06 - Design for disassembly and adaptability					
	Credit	Available	Current Stage	Restart Design	Comments
1	Design for disassembly and functional adaptability -recommendations	1	0	1	Design for disassembly and functional adaptability (recommendations) (1 credit) Targeted - No (Potential) Input required before the end of RIBA stage 2 • The Design Team must undertake a study to explore the ease of disassembly and the functional adaption potential of different design scenarios by the end of <u>Concept Design</u>. • The study must consider the following as a minimum: ○ Feasibility: The likelihood to contain multiple or alternative building uses, area functions and different tenancies over the expected life cycle, e.g. related to the structural design of the building. ○ Accessibility: Design aspects that facilitate the replacement of all major plant within the life of the building, e.g. panels in floors and walls that can be removed without affecting the structure, providing lifting beams and hoists. Accessibility also involves access to local services, such as local power, data infrastructure etc. ○ Versatility: The degree of adaptability of the internal environment to accommodate changes in working practices. ○ Adaptability: The potential of the building ventilation strategy to adapt to future building occupant needs and climatic scenarios.

					○ Convertibility: The degree of adaptability of the internal physical space and external shell to accommodate changes of in-use. ○ Expandability: The potential for the building to be extended, horizontally or vertically. ○ 'Refurbishment potential': The potential for major refurbishment, including replacing the facade. • Recommendations or solutions must be developed based on the study, during or prior to <u>Concept Design</u>, that aim to enable and facilitate disassembly and functional adaptation. Actions: • Upon the design restart scenario, Architect to compile short summary report pre-RIBA stage 2 (SRE can provide templates to support with this)
2	Disassembly and functional adaptability & implementation	1	0	1	Design for disassembly and functional adaptability (implementation) (1 credit) Targeted - No (Potential) Input required from RIBA stage 2. Credits need to be provided by the end of RIBA stage 4. The first Wst 06 credit must be achieved. The Design Team must also (during <u>Technical Design</u>) provide an update on: • How the recommendations or solutions proposed by Concept Design have been implemented where practical and cost-effective. Omissions have been justified in writing to the assessor. • Changes to the recommendations and solutions during the development of Technical Design. • A building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants should also be produced. Functional adaptation implementation: The implementation must be specific to the building and scope of the project, but information should be made available to the assessor covering: • Options for multiple building uses and area functions based on design details, e.g. modularity. • Routes and methods for major plant replacement, e.g. networks and connections have flexibility and capacity for expansion. • Accessibility for local plant and service distribution routes, e.g. detailed information on building conduits and connections infrastructure.

					- The potential for the building to be extended, horizontally or vertically. Ease of disassembly: See the credit above for the contents that should be included within the Functional Adaptability study. Actions: - Upon the design restart scenario, Architect to compile short summary report pre-RIBA stage 2 (SRE can provide templates to support with this)
		10	4	9	Standard Waste Credit Total
		3	0	0	Exemplary Waste Credit Total
		9	2.40	5.40	% Waste Total (Standard + Exemplary)
Land Use & Ecology					
LE 01 - Site selection					
	Credit	Available	Current Stage	Restart Design	Comments
1	Previously occupied land	1	1	1	Previously Occupied Land (1 credit) Targeted - Yes In order to achieve the credit, 75% of the Proposed Development's footprint must be on previously occupied land/hard standing. Actions: - As existing buildings are to be demolished and the proposed development to be built on an existing footprint, it is assumed that this credit can be achieved. - Architect to provide an annotated drawing showing the % of the developments footprint that is on previously occupied land.

2	Contaminated land	1	0	0	Contaminated Land (1 credit) Targeted - No A contaminated land professional must undertake a site investigation, risk assessment and appraisal, which deems that land within the development footprint to be affected by contamination. This report must identify: • The degree of contamination • The contaminant sources or types • The options for remediating sources of contamination which present an unacceptable risk. The client or principal contractor must confirm that a remediation strategy will be implemented, in line with the report. Actions: • <i>Project team to confirm whether the site is significantly contaminated, i.e., whether any remediation will be taking place on site. A remediation strategy will need to be provided if the site is significantly contaminated. This credit has not been assumed, at present.</i>
LE 02 - Ecological risks and opportunities					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Prerequisite - Statutory obligations		✓	✓	Prerequisite - 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	2	Survey and evaluation (1 credit) Targeted - Yes (Comprehensive route) Typically complete during RIBA Stage 1 A Suitably Qualified Ecologist (SQE) must perform a survey and evaluation for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically RIBA Stage 1). The SQE's survey and evaluation must determine the site's ecological baseline including: • Current and potential ecological value and condition of the site and related areas within the Zone of Influence • Direct and indirect risks to current ecological value from the project

					- Capacity and feasibility for enhancement of the site's ecological value and, where relevant, areas within the Zone of Influence. The survey and evaluation approach used should be appropriate to the scope and scale of the project. The SQE should use robust professional judgement following established best practice including professional body guidelines (e.g. CIEEM) to consider any aspects listed below that they deem to be relevant: <u>Survey:</u> - Determining the Zone of Influence for the site including neighbouring land and habitats - Current flora, fauna (including permanent and transient species) and habitat characteristics (including but not limited to ecological features in or on built structures) - Current habitat extent, quality, connectivity and fragmentation - Recent and historic site conditions - Existing management and maintenance levels and arrangements - Existing ecological initiatives within the Zone of Influence - Identification of, and consultation with, relevant stakeholders impacted or affected by the site. - Local knowledge or sources of information. <u>Evaluation:</u> - Current value and condition of the site and the Zone of Influence in terms of: - Features including habitats, species, food sources and connectivity - Broader biodiversity and ecosystem services benefits or opportunities - Direct and indirect risks to current ecological value: - Sensitive areas and features on or near the site - Direct risks including those from human activity (e.g. construction work), habitat fragmentation, and potentially harmful species - Indirect risks including water, noise and light pollution - Capacity and feasibility to enhance the ecological value - Habitat restoration and creation potential - Impact of the proposed design, construction works and operations on site in so far as these have been determined at this stage. <u>Sharing of recommendations:</u> Recommendations and data collected from the survey and evaluation should be shared with the appropriate project team members to influence decisions made for activities during site preparation, design and construction works. At an early stage, it is easier to meaningfully influence design and site activities, whilst
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					minimising or avoiding impacts on cost. For example, this could include recommendations from the ecologist relating to aspects such as: • Site layout that the design team should consider. • Features that landscape architects can incorporate in their design or timing considerations for activities on-site to avoid disruption and maximise opportunities. Determining the Ecological Outcomes (1 credit) Targeted - Yes (Comprehensive route) Typically complete during RIBA Stage 2 The survey and evaluation criteria above must be met. The project team must liaise and collaborate with representative stakeholders early enough to influence key planning decisions to: • Identify the optimal ecological outcomes for the site. • Identify, appraise, and select measures to meet the optimal ecological outcomes for the site, in line with the mitigation hierarchy of action: 1. Avoidance 2. Protection 3. Reduction or limitation of negative impacts 4. On site compensation 5. Enhancement, considering the capacity and feasibility within the site, or where viable, off-site. To meet this criterion, the project team need to liaise with each other to agree what the optimal ecological outcomes are and how they will be achieved. The project team need to consider the following aspects where they are appropriate for the nature and scale of the project, in line with the SQEs recommendations: • Ecological value and benefit offered (before, during and after project completion) • Biodiversity and ecosystem services benefits offered (before, during and after project completion) • Local microclimatic conditions • Habitat extent, quality, connectivity and fragmentation • Opportunities to enhance the value of existing habitats and biodiversity, or to restore or create new, more valuable ones • Opportunities to align and integrate with existing ecological features and initiatives in the Zone of Influence
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					- The viability of meeting the mitigation hierarchy and capacity and feasibility for enhancement. Project team members include, but are not limited to: - The client, owner, occupier - Design, construction, facilities team - Specialist consultants. For example, drainage engineer, acoustic consultant or landscape architect, as appropriate for the site. The project team should also consult with other stakeholders to determine appropriate options for the site in question. This may include: - Local government and other statutory relevant organisations - Local community groups or organisations or charities such as the Wildlife Trusts - Local, regional and or national fauna focused groups such as Buglife, RSPB, Bat Conservation Trust etc. The nature of this consultation will vary depending on the projects type and scale and the sensitivity of the site. The SQE can advise on what is appropriate and what justifications are needed as part of evidence. Actions: <i>Project team to appoint an Ecologist by end of RIBA Stage 2.</i> <i>Project team to confirm early-stage discussions will take place between the project team and with representative stakeholders to discuss ways to identify and meet the optimal ecological outcomes for the site.</i> <i>Ecologist to provide initial ecology report and confirm the targeted credits.</i> <i>SRE (31.08.2023): Ecologist Appointed and completed survey - awaiting final version. Further Ecology involvement to discussed as necessary.</i>
e1	Wider site sustainability - Exemplary level criteria	1	0	0	Exemplary level criteria - Wider site sustainability Targeted - No Wider sustainability-related activities and potential ecosystem service benefits are considered as part of determining the optimal ecological outcomes for the site including the areas outlined in the Methodology. Achieve the credits of the assessment issues outlined below:

					1. Hea 07 Safe and healthy surroundings - Both credits 2. Pol 03 Flood and surface water management - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution' 3. Pol 05 Reduction of noise pollution Actions:
LE 03 - Managing impacts on ecology					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Prerequisite & Ecological risks and opportunities		✓	✓	Prerequisite - LE 02 is achieved
1	Planning and measures on-site	1	1	1	Planning and measures on-site (1 credit) Targeted - Yes (Comprehensive route) Complete by RIBA Stage 3 Further planning to avoid and manage negative ecological impacts on-site must be carried out early enough to influence the Concept Design and design brief as well as site preparation planning (typically Concept Design stage). This should build on the measures agreed for delivering optimal ecological outcomes in LE 02 Ecological risks and opportunities, and is likely to include plans for the following: 1. Determine responsibilities, relationships and management required for implementing measures, including clear ownership of each task 2. Allocate roles and responsibilities and identify when these apply 3. Allocate resources to deliver these measures (including financial, time, technical and skills) 4. Implement procedures for monitoring progress against these plans and collect feedback for continual improvement 5. Align with related activities and processes 6. Implement effective handover and collaboration where responsibility is transferred and shared, including transition to long term management and maintenance arrangements. On-site measures for managing negative ecological impacts during site preparation and construction must be implemented in-practice (e.g. mitigation measures to protect existing ecological features). Fulfilment of the above criteria must be 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. Actions: • Ecologist to provide initial ecology report and confirm the targeted credits. • Project team to confirm early-stage discussions will take place between the project team and with representative stakeholders to discuss measures for managing negative ecological impacts on-site.
2	Managing impacts	negative	2	2	Managing negative impacts of the project (2 credits) Targeted - Yes (Comprehensive route) (2 credits) For Route 2, LE 03 credit 1 must be achieved. Negative impacts from site preparation and construction works must be managed according to the mitigation hierarchy, in line with the SQE's recommendations and, either: • No overall loss of ecological value occurs (two credits). OR, where this is not possible: • The loss of ecological value is minimised (one credit). The following hierarchy must be followed when managing negative impacts of the site preparation and construction works: 1. Avoidance of negative impacts of habitats and features of ecological value on the site. 2. If it is not possible to avoid negative impacts; protect habitats and features of ecological value from damage in accordance with best practice guidelines during development works. 3. If it is not possible to achieve 1 or 2 above, fully reduce, limit or control negative impacts as far as possible. 4. Where it is not possible for avoidance, protection, limitation or control of the negative impacts on features of ecological value on site; compensation has taken place to ensure the existing ecological value is maintained during and after the project. The criteria are only met if an SQE confirms the mitigation hierarchy has been followed. Actions:

					Ecologist to provide initial ecology report and confirm the targeted credits (GN40 ideally completed).
LE 04 - Ecological change and enhancement					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Prerequisite - Managing negative impacts on ecology		✓	✓	Prerequisite - LE 03 must be achieved whereby the roles and responsibilities have been clearly defined and site preparation and construction works have been planned for and implemented at an early stage to optimise benefits and outputs. The client or contractor must confirm 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	1	Ecological enhancement (1 credit) Targeted - Yes (Comprehensive route) Measures must be implemented to enhance ecological value, based on input from both the project team and the SQE in collaboration with stakeholders and data collected in LE 02. Measures should be implemented in the following order: - On site, or where it is not feasible - Off site within the zone of influence The ecologist's report must clearly identify the enhancement measures that have been implemented, and justify how they meaningfully enhance the site's ecological value. <u>Collaboration</u> can include, for example, considering guidance from the landscape architect regarding long term maintenance requirements as part of decisions made for habitat creation and enhancement. Data collated should be analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site. Guidance Note 40: Ecology Assessment Reporting Template can be referred to and used to collate information and evidence for the assessment. Actions:

					Ecologist to provide initial ecology report and confirm the targeted credits (GN40 completed ideally)
2	Change and enhancement of ecology	3	2	3	Enhancement of Ecology (3 credits) Targeted - Yes (Comprehensive route) (2 credits; 3 potential) Up to three credits can be 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. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats. How credits are awarded for change in ecological value, as per Guidance Note KBCN1376: Guidance Note 36 outlines a rewards scale (table 9) for the credits awarded in LE04, Ecological Change and Enhancement. Table 9 breaks down the credits into 4 sections, where 100% is the existing site biodiversity ecological value: 1. Minimising loss (75-94%) 2. No net loss (95-104%) 3. Net Gain (105-109%) 4. Significant net gain (110%+) Sections 1-3 correspond to the 3 credits awarded when a project follows the comprehensive route. Exemplary level credits are given if section 4 is achieved. There are two approaches that can be used for this calculation methodology, depending on the scale and size of the project and distinctiveness of the habitats on the site: 1. Full methodology - This must be used where the pre-development habitats are above the set size threshold of 0.05 hectares in total or include habitats that are of high distinctiveness. 2. Simplified methodology - This can be used where the pre-development habitats are below the set size threshold and no habitats present that are of high distinctiveness. Actions: - Ecologist to provide initial ecology report and confirm the targeted credits. - Ecologist to complete the GN36 checklist or provide calculation of BNG (Defra Metric tool) to confirm the anticipated change in ecological value of the project.

e1	Change and enhancement of ecology - Exemplary level criteria	1	0	0	1 exemplary credit (Potential) - Significant Net Gain (110%+ improvement).
LE 05 - Long term ecological management and maintenance					
	Credit	Available	Current Stage	Restart Design	Comments
Pre-req	Prerequisite - Statutory obligations, planning and site implementation		✓	✓	Prerequisite: The client or contractor must confirm that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. For Route 2 (targeted), the Managing Negative Impacts criteria in LE 03 must be achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' must be awarded.
1	Management and maintenance throughout the project / Landscape and ecology management plan	2	2	2	Management and maintenance throughout the project (1 credit) Targeted - Yes (Comprehensive route) - Measures must be implemented to manage and maintain ecology throughout the project. - These measures should be 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. - 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. - A section on Ecology and Biodiversity should be 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. 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. <u>Examples of management and maintenance throughout the project:</u> - Monitoring and reporting of outcomes and successes from the project - Arrangements for the ongoing management of landscape and habitat connected to the project (on and, where relevant, off site)

					• Maintaining the ecological value of the site and its relationship or connection to its Zone of Influence • Maintaining the site in line with any sustainability linked activities, e.g. wider sustainability benefits (LE 02 Ecological risks and opportunities). <u>Handover information contents:</u> The handover information should include the following content, as appropriate: 1. Details of the ecological value within the property boundary (e.g. public and private gardens, green roofs), common areas (e.g. communal garden), and the surrounding area (e.g. public recreational space). 2. The benefits of the ecological value to the occupants and the broader community. 3. Guidance on how the occupants can make the most of the local ecology and contribute to its management, (e.g. planting ecologically appropriate species in their property), as well as things that should be avoided doing (e.g. disrupting wildlife corridors, planting invasive species or allowing them to colonise and spread) 4. Relevant actions that can be taken to enhance value within the property to help ensure its ongoing management and maintenance. 5. Contact details for those responsible for the management and maintenance of the local ecology and sources of local information on biodiversity and ecological management including management companies and local wildlife trusts. Landscape and ecology management plan (or similar) development (1 credit) Targeted - Yes (Comprehensive route) A Landscape and Ecology Management Plan (LEMP), or equivalent, must be 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: • Actions and responsibilities of relevant individuals prior to handover • The ecological value and condition of the site at handover and how this is expected to develop and change over time • Identification of opportunities for ongoing alignment with activities beyond the development project, which support the aims of BREEAM's Strategic Ecology Framework • Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts • Clearly defined and allocated roles and responsibilities for delivering the plan The landscape and management plan or similar must 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).
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					Actions: Ecologist to provide initial ecology report and draft LEMP and confirm the targeted credits.
		13	11	12	Standard Land Use & Ecology Credit Total
		2	0	0	Exemplary Land Use & Ecology Credit Total
		15	11	12	% Land Use & Ecology Total (Standard + Exemplary)
Pollution					
Pol 01 - Impact of refrigerants					
	Credit	Available	Current Stage	Restart Design	Comments
1	Impact of refrigerants	3	1	2	Impact of refrigerants (3 credits) Targeted - Yes (1 credit; 2 potential) Prerequisite: All systems with electric compressors should comply with the requirements of BS EN 378:2016. Refrigeration systems containing ammonia should comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice. Impact of refrigerant (2 credits) Targeted - Yes (1 credit) - For three credits: There is no refrigerant use within the installed plant or systems. - For two credits: The direct effect life cycle CO2 equivalent emissions (DELCO) of - For one credit: Systems using refrigerants have a DELCO of The above are calculated through completion of the Pol 01 calculator, using the information (AC datasheets, refrigerant datasheets, etc.) provided by the Project Team relating to the refrigerant systems specified.

					Leak detection (1 credit) Targeted - Yes - All systems are hermetically sealed or only use environmentally benign refrigerants. OR - 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 the loss of refrigerant. Actions: - MEP to confirm whether refrigerants and refrigerant leak detection will be used on site. If no refrigerants are to be specified, these 3 credits can be awarded by default.
Pol 02 - Local air quality					
	Credit	Available	Current Stage	Restart Design	Comments
1	Local air quality	2	2	2	Local Air Quality (2 credits) Targeted - Yes - All heating and hot water is supplied by non-combustion systems. For example, only powered by electricity. OR, alternatively; - Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Tables 12.4 & 12.5 of the BREEAM NC V6 manual. Credits are awarded based on the appliance type and unit, fuel and the pollution location of the assessed site. Actions: - Design Team/M&E to confirm the heating strategy and whether the emissions will or will not exceed the levels set out in the BREEAM criteria.

					If an all-electric scheme is opted for, these 2 credits will be automatically awarded. SRE (31.08.2023): Building services confirmed as being fully electric.
Pol 03 - Flood and surface water management					
	Credit	Available	Current Stage	Restart Design	Comments
1	Flood resilience	2	2	2	Flood resilience (2 credits) Targeted - Yes Low Flood Risk (2 credits) A desk study undertaken by SRE (Preliminary Drainage and Flood Risk analysis based on the Environmental Agency mapping) suggests that the development is in Flood Zone 1, and therefore has a very low risk of flooding. A detailed, site-specific flood risk assessment (FRA) is required to confirm the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA must take all current and future sources of flooding into consideration. Actions: Project Team to confirm that a flood risk assessment will be undertaken which confirms that the site has a low flood risk before planning. This is to be sent to SRE for review. SRE (31.08.2023): Baker & Associates appointed Drainage Consultants, who should be producing FRA.
2	Surface water run-off	2	2	2	Surface water run-off (2 credits) Targeted - Yes (2 credit) Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site. <u>Surface Water Run-Off - Rate (1 credit)</u> 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 pre-developed site. This should comply at the 1-year and 100-year return period events. For ALL sites: • Relevant maintenance agreements for the ownership, long-term operation and maintenance of all specified Sustainable Drainage Systems (SuDS) are in place. • Calculations include an allowance for climate change. This should be made in accordance with current best practice planning guidance. <u>Surface Water Run-Off - Volume (1 credit)</u> Flooding of the property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND EITHER 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. Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other SuDS techniques. OR Justification from the appropriate consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options. Drainage design measures are specified 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: a: The pre-development one-year peak flow rate b: The mean annual flow rate (Qbar) c: 2L/s/ha. 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. For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance
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					Actions: • Drainage consultant to be appointed to confirm the above. • Drainage Engineer to supply FRA and Drainage Strategy Report & calculations (compliant with the BREEAM criteria) clearly confirming the BREEAM credits that can be awarded. Completed GN 38 checklist can also be provided to confirm credits. • Drawings to be provided confirming the drainage design / SuDS solution. SRE (31.08.2023): Baker & Associates appointed Drainage Consultants, produced strategy report and confirm there will be a SuDS solution.
3	Minimising watercourse pollution	1	1	1	Minimising watercourse pollution (1 Credit) Targeted -Yes There is no discharge from the developed site for rainfall up to 5mm (confirmed by the appropriate consultant). In areas with a low-risk source of watercourse pollution, an appropriate level of pollution prevention treatment is to be provided, using appropriate SuDS techniques. Areas with a high risk of contamination or spillage of substances, such as petrol and oil, must have separators (or an equivalent system) installed in surface water drainage systems. Chemical or liquid gas storage areas must have a means of containment fitted to the site drainage system (i.e. shut-off valves). This is to prevent the escape of chemicals to natural watercourses in the event of a spillage or bunding failure. All water pollution prevention systems are to be designed and installed in accordance with the recommendations of documents such as the SuDS manual and other relevant industry best practice. They must be bespoke solutions taking account of the specific site requirements and natural or man-made environment of and surrounding the site. • A comprehensive and up-to-date drainage plan of the site is to be made available for the building or site occupiers. • Relevant maintenance agreements for the ownership, long-term operation and maintenance of all specified SuDS must be in place. • All external storage and delivery areas are to be designed and detailed in accordance with the current best practice planning guidance. Actions:

					• Drainage consultant to be appointed to confirm the above. • Drainage Engineer to supply FRA and Drainage Strategy Report & calculations (compliant with the BREEAM criteria) clearly confirming the BREEAM credits that can be awarded. Completed GN 38 checklist can also be provided to confirm credits. • Drawings to be provided confirming the drainage design / SUDs solution. SRE (31.08.2023): Baker & Associates appointed Drainage Consultants, produced strategy report and confirm there will be a SuDS solution
Pol 04 - Reduction of night time light pollution					
	Credit	Available	Current Stage	Restart Design	Comments
1	Reduction of night time light pollution	1	1	1	Reduction of night-time light pollution (1 credit) Targeted - Yes EITHER: External lighting pollution is eliminated through effective design that removes the need for external lighting. This must not adversely affect the safety and security of the site and its users. OR: • The external lighting strategy is designed in compliance with Table 2 (and its accompanying notes) of the Institution of Lighting Professionals (ILP) Guidance notes for the reduction of obtrusive light, 2011. • All external lighting (except for safety and security lighting) must be able to be automatically switched off between 23:00 and 07:00. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system must comply with the lower levels of • lighting recommended during these hours in Table 2 of the ILP guidance notes. • Illuminated advertisements must be designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements. Actions: • Project Team/ MEP to confirm that external lighting will be specified in line with the above requirements.

Pol 05 - Reduction of noise pollution					
	Credit	Available	Current Stage	Restart Design	Comments
1	Reduction of noise pollution	1	1	1	Reduction of noise pollution (1 credit) Targeted - Yes EITHER: There are no noise-sensitive areas within the assessed building or within 800 m radius of the assessed site. OR: Where there are noise-sensitive areas within the assessed building or noise-sensitive areas within 800 m radius of the assessed site, a noise impact assessment compliant with BS 4142:2014 must be carried out by a suitably qualified acoustic consultant. Noise levels must be measured or determined for: - Existing background noise levels: - at the nearest or most exposed noise-sensitive development to the proposed assessed site - including existing plant on a building, where the assessed development is an extension to the building - Noise rating level from the assessed building. The noise level from the assessed building, as measured in the locality of the nearest or most exposed noise-sensitive development, must be at least 5dB lower than the background noise throughout the day and night. If the noise sources from the assessed building are greater than the levels described in above, measures must be installed to attenuate the noise at its source to a level where it will comply with the criterion. <u>Noise-sensitive areas</u> Landscapes or buildings where the occupiers are likely to be sensitive to noise created by the new plant installed in the assessed building, including: - Residential areas - Hospitals, health centres, care homes, doctors' surgeries etc. - Schools, colleges and other teaching establishments - Libraries - Places of worship

					6. Wildlife areas, historic landscapes, parks and gardens 7. Located in an Area of Outstanding Natural Beauty or near a Site of Special Scientific Interest 8. Any other development that can be considered noise sensitive. Not all of these locations will necessarily be sensitive at all times. The assessments should be carried out at times which are relevant to the location use. Actions: Acoustician to be appointed to perform an external acoustic survey before any enabling works, demolition or construction begins on site. SRE (30.08.2023): Confirmed that there are residencies within 800m radius to the site (noise sensitive area).
		12	10	11	Standard Pollution Credit Total
		0	0	0	Exemplary Pollution Credit Total
		8.04	6.70	7.37	% Pollution Total (Standard + Exemplary)
Innovation					
AI - Approved Innovation					
	Credit	Available	Current Stage	Restart Design	Comments
e1	Approved innovations	1	0	0	
		0	0	0	Standard Innovation Credit Total
		1	0	0	Exemplary Innovation Credit Total
		1	0	0	% Innovation Total (Standard + Exemplary)



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