

Project: **Wyke Lodge - Education Fully Fitted**
 Scheme: **BREEAM UK New construction Version 6**
 Target level: **Excellent**
 Stage: **Design Stage**
 Date: **Nov 23**
 Revision: **2.0**

Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

Pre-assessment RAG Rating

- Credit currently targeted
- Potential credit
- Credit not currently targeted

Current Targeted' Rating Total: 81.20%
Equating to BREEAM: Excellent (Provided all "minimum standard" issues are met)
Total if all 'Additional Potential' Credits are also achieved: 92.50%
Equating to BREEAM: Outstanding (Provided all "minimum standard" issues are met)
Current Evidence Received Total 17.53% (Subject to BRE's QA)

BREEAM Version 6 Assumptions

Project scope	Fully Fitted
Building type (main description)	Education
Sub-group	Further Education (College)
Assessment stage	Pre Assessment
Building floor area (GIA)	TBC
Building floor area (NIFA)	TBC
Is the building designed to be untreated?	TBC
Building services - heating system type	TBC
Building services - cooling system type	TBC
Are commercial or industrial-sized refrigeration and storage systems specified?	No
Are building user lifts present?	Yes
Are building user escalators or moving walks present?	No
Are laboratories present?	No
Are there fume cupboard(s) and/or other containment devices present?	No
Does the building have external areas within the boundary of the assessment development?	Yes
Are there statutory requirements, or other issues outside of the control of the project, that impact the ability to provide outdoor space?	No
Are there any systems specified that contribute to the unregulated energy load?	Yes
Are the post-occupancy stage credits targeted in Eni 01 issue?	TBC

BREEAM NC Version 6 Criteria	Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Man 01 Project Brief and Design						
Man 01a Project delivery planning One credit - Project delivery planning 1. Prior to completion of the Concept Design, the project delivery stakeholders (see Definitions on page 37) meet to identify and define for each phase of project delivery: 1.a Roles 1.b Responsibilities 1.c Contributions. 2. Consider each one of the following items when defining roles, responsibilities and contributions for each key phase of the project: 2.a End user requirements 2.b Aims of the design and design strategy 2.c Particular installation and construction requirements of limitations 2.d Occupiers' budgets and technical expertise in maintaining any proposed systems 2.e Maintainability and adaptability of the proposals 2.f Operational energy (see Assessment scope on page 120) 2.g Requirements for the production of project and end user documentation 2.h Requirements for commissioning, training and aftercare support. Where the building occupants are not known, the list of considerations above still applies. The appropriate project delivery stakeholder considers each item, based on likely scenarios of building occupancy. 3. The project team demonstrates how the project delivery stakeholders' contributions and the consultation process outcomes influence the following: 3.a Initial Project Brief 3.b Project Execution Plan (see Definitions on page 37) 3.c Communication Strategy (see Definitions on page 37) 3.d Concept Design	Meeting minutes. Summary document of roles and responsibilities.	1	1	0	Design Team	RM to provide R+R matrix. One credit targeted.
Man 01b Stakeholder consultation (interested parties) One credit - Stakeholder consultation (interested parties) 4. Prior to completion of the Concept Design, the design team consult with all interested parties (see Definitions on page 37) on matters that cover the minimum consultation content (see Methodology). 5. Demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design. 6. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), all interested parties (see Definitions on page 37) give and receive consultation feedback. Note: Additionally for Education, Healthcare, Law courts and Major transportation hub building types only: 7. An independent party (see Definitions on page 37) carries 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.	A list of interested parties consulted. A consultation plan setting out the process and the scope of the consultation. Agenda/minutes from the consultation meetings. Documentation demonstrating consultation feedback and subsequent actions. Additional information on page 40.	1	1	0	Design Team	One credit targeted.
Man 01c Prerequisite Prerequisite for BREEAM Advisory Professional (Concept and Developed Design) 8. The project team, including the client, formally agree strategic performance targets (see Definitions on page 37) early in the design process, see Definitions on page 37, (with the support of the BREEAM AP where appointed).	Appointment letter.	-	MET	-	BREEAM AP	Required for Man01c or d credits to be achieved. "Met" in targeted column indicates pre-requisite achieved SWH to provide AP fee.

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Man 01c BREEAM AP (Concept Design)	<p>One credit - BREEAM AP (Concept Design)</p> <p>9. Involve a BREEAM AP in the project at an appropriate time and level to:</p> <p>9.a Work with the project team, including the client, to consider the links between BREEAM issues and assist them in maximising the project's overall performance against BREEAM, from their appointment and throughout Concept Design.</p> <p>9.b Monitor progress against the performance targets (see Definitions on page 37) agreed under criterion 8 above throughout all stages after their appointment where decisions critically impact BREEAM performance.</p> <p>9.c Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8.</p> <p>9.d Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets.</p> <p>9.e Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.</p>	Relevant section/clauses of the building specification or contract. Project programme, indicating the dates by which the key work stages (Preparation and Design) are to be completed.	1	1	0	BREEAM AP	SWH appointed. One credit targeted.
Man 01d BREEAM AP (Developed Design)	<p>One credit - BREEAM AP (Developed Design)</p> <p>10. Criteria 8 and 9 has been achieved.</p> <p>11. Involve the BREEAM AP in the project at an appropriate time and level to:</p> <p>11.a Work with the project team, including the client, to consider the links between BREEAM issues and to assist them in maximising the project's overall performance against BREEAM throughout Developed Design.</p> <p>11.b Monitor progress against the performance targets agreed under criterion 8 on the previous page throughout all stages where decisions critically impact the specification and tendering process and the BREEAM performance.</p> <p>11.c Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8.</p> <p>11.d Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets.</p> <p>11.e Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.</p>	Meeting notes/minutes, recorded correspondence or schedules that can demonstrate BREEAM issues are a regular agenda item and AP attendance. The AP progress report (for each work stage).	1	1	0	BREEAM AP	SWH appointed. One credit targeted.
Man 02 Life cycle cost and service life planning - Credits for each one of the three parts are awarded independently from one another							
Man 02a Elemental life cycle cost	<p>Two credits - Elemental life cycle cost</p> <p>1. A competent person (see Definitions on page 43) carries out an outline, entire asset LCC plan at process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865:2008(6).</p> <p>2. The elemental LCC plan:</p> <p>2.a Provides an indication of future replacement costs over a period of analysis as required by the client (e.g.20,30,50 or 60 years);</p> <p>2.b Includes service life, maintenance and operation cost estimates. The study period should ideally be agreed by the client, in line with the design life expectancy of the building. However, where the life expectancy of the building is not yet formally agreed (due to very early design stages), the default design life of 60 years should be used for modelling purposes (in line with the UK default).</p> <p>3. Demonstrate, using appropriate examples provided by the design team, how the elemental LCC plan has been used to influence building and systems design and specification for minimise life cycle costs and maximise critical value.</p> <p>Law court buildings - responsibility for complying rests with any or all of the project team and is likely to vary depending on the procurement route used. The project team includes the Ministry of Justice.</p>	Relevant sections of the feasibility stage life cycle cost analysis report / documentation. Relevant sections of the feasibility stage appraisal documentation. Elemental LCC plan.	2	0	2	Cost Consultant	RM to provide additional details to RB. Two potential credits.
Man 02b Component level LCC options appraisal	<p>One credit - Component level LCC options appraisal</p> <p>4. A competent person develops a component level LCC options appraisal by the end of Process Stage 4 (equivalent to Technical Design - RIBA Stage 4) in line with PD 456865:2008. The component level LCC includes (where present):</p> <p>4.a Envelope, e.g. cladding, windows, or roofing</p> <p>4.b Services, e.g. heat source, cooling source or controls</p> <p>4.c Finishes, e.g. walls, floors or ceilings</p> <p>4.d External spaces, e.g. alternative hard landscaping, boundary protection.</p> <p>The Component level LCC option appraisal should review all of the above component types (where present). However, you do not need to consider every single example cited under each component; only a selection of those most likely to draw valued comparisons. This is to ensure that a wide range of options are considered and help focus the analysis on components which would benefit the most from appraisal.</p> <p>5. Demonstrate, using appropriate examples provided by the design team, how the component level LCC options have been used to influence building and systems design and specification to minimise life cycle costs and maximise critical value.</p>	Relevant sections of the component level life cycle cost analysis report / documentation. Evidence of how this has influenced building and systems specification/design. Component level LCC options appraisal plan.	1	0	1	Cost Consultant	RM to provide additional details to RB. One potential credit.
Man 02a Capital cost reporting	<p>One credit - Capital cost reporting</p> <p>6. Report the capital cost for the building in pounds per square meter of gross internal floor area (£k/m²) as part of the submission to BRE. See also Methodology and Additional information on page 44.</p>	Provide capital cost report.	1	1	0	Cost Consultant	One credit targeted.
Man 03 Responsible construction practices - Minimum standards one credit RCM for Excellent, two credits RCM for Outstanding							
Man 03a Prerequisite	<p>Prerequisite - Legally harvested and traded timber</p> <p>1. All timber and timber-based products used during the construction process of the project are 'legally harvested and traded timber' (see Definitions page 50). For other materials there are no prerequisite requirements at this stage.</p>	Relevant section/clauses of the building specification or contract OR A signed and dated letter of commitment to meet the relevant criteria OR Timber Policy	-	MET	-	Principal Contractor	Required for Man03 credits to be achieved. "Met" in targeted column indicates pre-requisite achieved
Man 03b Environmental management	<p>One credit - Environmental management</p> <p>3. All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS covering their main operations. The EMS must:</p> <p>3.a Be third party certified, to ISO 14001:2015(10), EMAS (EU Eco-Management and Audit Scheme) or equivalent standard; OR</p> <p>3.b In compliance with BS 8555:2016(11) have:</p> <p>3.b.i Appropriate structure</p> <p>3.b.ii Reached implementation stage phase four 'implementation and operation of the environmental management system'</p> <p>3.b.iii Completed the defined phase audits one to four.</p> <p>4. All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention policies and procedures on site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines(12).</p>	Relevant section/clauses of the building specification or contract OR A signed and dated letter of commitment to meet the relevant criteria OR 3rd party certified EMS certificate	1	1	0	Principal Contractor	Contractor to have ISO 14001 (add to tender spec). One credit targeted.
Man 03c Prerequisite	<p>Prerequisite - BREEAM AP</p> <p>5. The client and the contractor formally agree performance targets.</p>	Letter confirming targets have been agreed.	-	MET	-	BREEAM AP	Required for Man03d credit to be achieved. "Met" in targeted column indicates pre-requisite achieved

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Man 03d BREEAM AP (site)	<p>One credit - BREEAM AP (site)</p> <p>6. Involve a BREEAM AP in the project at an appropriate time and level to:</p> <p>6.a Work with the project team, including the client, to consider the links between BREEAM issues and assist them in achieving, and if possible, going beyond the design intent, to maximise the project's performance against the agreed performance targets throughout the Construction, Handover and Close Out stages.</p> <p>6.b Monitor construction progress against the performance targets agreed under criterion 5 above throughout all stages where decisions critically impact BREEAM performance.</p> <p>6.c Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion 5.</p> <p>6.d Provide feedback to the constructors and the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets.</p> <p>6.e Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team and the provision to the assessor.</p>	<p>The AP appointment letter.</p> <p>Relevant section/clauses of the building specification or contract</p> <p>Project programme indicating the dates by which the key work stages (Preparation and Design) are to be completed.</p> <p>Meeting notes/minutes, recorded correspondence or schedules that can demonstrate BREEAM issues are a regular agenda item and AP attendance.</p> <p>The AP progress report (for each work stage).</p> <p>Additional information on page 52.</p>	1	1	0	Principal Contractor / BREEAM AP	<p>SWH to provide fee.</p> <p>One credit targeted.</p>
Man 03e Responsible construction site management	<p>Up to two credits - Responsible construction management</p> <p>7. One credit: Achieve items listed as required for one credit in table 4.1.</p> <p>8. Two credits: Achieve criterion 7.</p> <p>9. Achieve 6 additional items in table 4.1.</p>	<p>Use BREEAM recognised responsible construction management scheme to support in this process e.g. Considerate Construction Scheme and Fleet Operator Recognition Scheme.</p>	2	2	0	Principal Contractor	<p>Contractor to have site signed up with CCS.</p> <p>Two credits targeted.</p>
Man 03f Monitoring of construction site impacts	<p>Up to two credits - Monitoring of construction site impacts</p> <p>10. Assign responsibility to an individual for monitoring, recording and reporting energy usage, 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.</p>	<p>Relevant section/clauses of the building specification or contract</p> <p>OR</p> <p>A formal letter of commitment from the client/developer</p>	-	MET	-	Principal Contractor / BREEAM AP	<p>Required for Man03g and h credits to be achieved.</p> <p>"Met" in targeted column indicates pre-requisite achieved</p>
Man 03g Utility consumption	<p>First monitoring credit - Utility consumption</p> <p>Energy consumption</p> <p>11. Achieve criterion 10.</p> <p>12. Set targets for the site energy consumption to kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation.</p> <p>13. Monitor and record data for the energy consumption described in criterion 12.</p> <p>14. Report the total carbon dioxide emissions (total kgCO2/project value) from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).</p> <p>Water consumption</p> <p>15. Achieve criterion 10.</p> <p>16. Set targets for the potable water consumption (m³) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation.</p> <p>17. Monitor and record data for the potable water consumption described in criterion 16.</p> <p>18. Use the collated data to report the total net water consumption (m³), i.e. consumption minus any recycled water use from the construction process via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).</p>	<p>Relevant section/clauses of the building specification or contract</p> <p>OR</p> <p>A formal letter of commitment from the client/developer</p>	1	1	0	Principal contractor	<p>PC's tender spec.</p> <p>One credit targeted.</p>
Man 03h Transportation of construction materials and waste	<p>Second monitoring credit - transportation of construction materials and waste</p> <p>19. Achieve criterion 10.</p> <p>20. Set targets for transportation movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum cover:</p> <p>20.a Transportation of materials from the point of supply to the building site, including any transport, intermediate storage and point of supply (see Definitions on page 50). Monitor as a minimum:</p> <p>20.a.i Materials used in major building elements (i.e. those defined in BREEAM issue Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA_ on page 208).</p> <p>20.a.ii Ground works and landscaping materials.</p> <p>20.b Transportation of construction waste from the construction gate to the waste disposal processing or recovery centre gate. This monitoring must cover the construction waste groups outlined in the projects resource management plan.</p> <p>21. Monitor and record data from the transportation movements as described in criterion 20.</p> <p>22. Using the collated data, report separately for materials and waste, the total transport-related carbon dioxide emissions (kgCO2-eq), plus total distance travelled (km) via BREEAM Projects (for the purposes of potential future BREEAM performance benchmarking).</p>	<p>Relevant section/clauses of the building specification or contract</p> <p>OR</p> <p>A formal letter of commitment from the client/developer</p>	1	1	0	Principal Contractor	<p>PC's tender spec.</p> <p>One credit targeted.</p>
<p>Man 04 Commissioning and handover - Minimum standards one credit commissioning schedule & responsibilities for Very Good, Excellent & Outstanding Criterion 11 BUG for Very Good, Excellent & Outstanding</p>							
Man 04a Commissioning - testing schedule and responsibilities	<p>One credit - Commissioning - testing schedule and responsibilities</p> <p>1. Prepare a schedule of commissioning and testing. The schedule identifies and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and for testing and inspecting building fabric.</p> <p>2. The schedule identifies the appropriate standards for all commissioning activities to be conducted, where applicable, in accordance with:</p> <p>2.a Current Building Regulations</p> <p>2.b BSRIA guidelines (16)</p> <p>2.c CIBSE guidelines (17)</p> <p>2.d Other appropriate standards (see Methodology).</p> <p>Exclude from the assessment any process of manufacture-related equipment specified as part of the project. However, include such equipment in cases where they form an integral part of the building HVAC services, such as heat recovery systems.</p> <p>3. Where a BMS is specified:</p> <p>3.a Carry out commissioning of air and water systems when all control devices are installed, wired and functional.</p> <p>3.b Include physical measurements of room temperatures, off-coil temperatures and other key parameters, as appropriate, in commissioning results.</p> <p>3.c The BMS or controls installation should be running in auto with satisfactory internal conditions prior to handover.</p> <p>3.d All BMS schematics and graphics (if BMS is present) are fully installed and functional to user interface prior to handover.</p> <p>3.e Fully train the occupier or facilities team in the operation of the system.</p> <p>4. Appoint an appropriate project team member to monitor and programme pre-commissioning, commissioning and testing. Where necessary include re-commissioning activities on behalf of the client.</p> <p>5. The principal contractor accounts for the commissioning and testing programme, responsibilities and criteria within their budget and main programme of works. Allow the required time to complete all commissioning and testing activities prior to handover.</p>	<p>Appointment letter or commissioning responsibilities schedules</p> <p>Relevant section/clauses of the building specification or contract</p> <p>Principal Contractors programme Commissioning schedule</p>	1	1	0	M&E	<p>PC's tender spec.</p> <p>One credit targeted.</p>
Man 04b Commissioning - design and preparation	<p>One credit - Commissioning - design and preparation</p> <p>6. Achieve criteria 1 to 5.</p> <p>7. During the design stage, the client or the principal contractor appoints an appropriate project team member (see criterion 4), provided they are not involved in the general installation works for the building services systems, with responsibility for:</p> <p>7.a Undertaking design reviews and giving advice on suitability for ease of commissioning.</p> <p>7.b Providing commissioning management input to construction programming and during installation stages.</p> <p>7.c Management of commissioning, performance testing and handover or post-handover stages. For buildings with complex building services and systems, this role needs to be carried out by a specialist commissioning manager (see Definitions on page 58).</p>	<p>Appointment letter or commissioning responsibilities schedules</p> <p>Relevant section/clauses of the building specification or contract</p> <p>Principal Contractors programme Commissioning schedule</p>	1	1	0	M&E	<p>PC's tender spec.</p> <p>One credit targeted.</p>

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Man 04c Testing and inspecting building fabric	<p>One credit - Testing and inspection building fabric</p> <p>8. Achieve criteria 1 to 5.</p> <p>9. Complete post-construction testing and inspection to quality-assure the integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths (this is through air tightness testing and thermographic survey). A suitably qualified professional (see Definitions on page 58) undertakes the survey and testing in accordance with the appropriate standard.</p> <p>10. Rectify any defects identified during post-construction testing and inspection prior to building handover and close out. Any remedial work must meet the required performance characteristics for the building or element as defined at design stage (see Methodology).</p>	Appointment letter or commissioning responsibilities schedules Relevant section/clauses of the building specification or contract Principal Contractors programme Commissioning schedule	1	0	1	Principal Contractor	One potential credit.
Man 04d Rating Min Standard	<p>Rating Related Min Standard- Very Good Rating and Above</p> <p>BUG criteria as outlined in 11 below is fully met.</p>	Building User Guide	-	MET	-		Required for Good rating or above to be achieved. "Met" in targeted/ potential column indicates achieved
Man 04d Handover	<p>One credit - Handover</p> <p>11. Prior to handover, develop two building user guides (see Methodology) for the following users: 11.a A non-technical user guide for distribution to the building occupiers. 11.b A technical user guide for the premises facilities managers. A draft copy is developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users. 12. Prepare two training schedules timed appropriately around handover and proposed occupation plans for the following users: 12.a A non-technical training schedule for the building occupants. 12.b A technical training schedule for the premises facilities managers.</p>	Building User Guide Training schedule	1	1	0	Principal Contractor / Project Team	One credit targeted.
Man 05 Aftercare - Minimum standards for one credit for commissioning implementation for Excellent and Outstanding							
Man 05a Aftercare support	<p>One credit - Aftercare support</p> <p>1. Provide aftercare support to the building occupiers through having operational infrastructure and resources in place. This includes as a minimum: 1.a 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: 1.a.i Introduce the aftercare support available, including the content of the building user guide (where it exists) and training schedule. 1.a.ii Present key information on the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible. 1.b On-site facilities management training including: 1.b.i A walkabout of the building. AND 1.b.ii Introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. 1.c 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). 1.d 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. 2. Establish operational infrastructure and resources to coordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is substantially occupied. This facilitates analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and user behaviours accordingly.</p>	Evidence of a commitment/contract to provide compliant aftercare support and training.	1	1	0	Principal Contractor	One credit targeted.
Man 05b Commissioning - implementation	<p>One credit - Commissioning - implementation</p> <p>3. Complete the following commissioning activities over a minimum 12-month period, once the building becomes substantially occupied: 3.a Complex systems: The specialist commissioning manager will: 3.a.i Identify changes made by the owner or operator that might have caused, impaired or improved performance. 3.a.ii Test all building services under full load conditions, i.e. heating equipment in mid-winter, cooling and ventilation equipment in mid-summer and under part load conditions (spring and autumn). 3.a.iii Where applicable, carry out testing during periods of extreme (high or low) occupancy. 3.a.iv Interview building occupants (where they are affected by the complex services) to identify problems or concerns regarding effectiveness of the systems. 3.a.v Produce monthly reports comparing sub-metered energy performance to the predicted one (see Ene 01 Reduction of energy use and carbon emissions on page 120). 3.a.vi Identify inefficiencies and areas in need of improvement. 3.a.vii 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. 3.b Simple systems (naturally ventilated): The external consultant, aftercare team or facilities manager will: 3.b.i Review thermal comfort, ventilation and lighting, at three, six and nine month intervals after initial occupation, either by measurement or occupant feedback. 3.b.ii Identify deficiencies and areas in need of improvement. 3.b.iii Re-commission systems and incorporate any relevant revisions in operating procedures into the O&M manuals.</p>	Confirmation that commissioning has been carried out as per DS commitment.	1	1	0	M&E / Principal Contractor	One credit targeted.
Man 05c Post-Occupancy Evaluation	<p>One credit - Post-occupancy evaluation (POE)</p> <p>4. The client or building occupier commits to carry out a POE exercise (see Definitions on page 63) one year after the building is substantially occupied. This gains comprehensive in-use performance feedback (see criterion 5.b.v) and identifies gaps between design intent and in-use performance. The aim is to highlight any improvements or interventions that need to be made and to inform operational processes. 5. An independent party (see Definitions on the facing page) carries out the POE covering: 5.a A review of the design intent and construction process (review of design, procurement, construction and handover processes). 5.b Feedback from a wide range of building users including facilities management on the design and environmental conditions of the building covering: 5.b.i Internal environmental conditions (light, noise, temperature, air quality) 5.b.ii Control, operation and maintenance 5.b.iii Facilities and amenities 5.b.iv Access and layout 5.b.v Energy and water consumption (see criterion 2 and Methodology) 5.b.vi Other relevant issues, where appropriate (see Definitions on the facing page) 6 The independent party provides a report with lessons learned to the client and building occupiers. 7 The client or building occupier commits funds to pay for the POE in advance. This requires an independent party to be appointed to carry out the POE as described in criterion 5. Evidence of the appointment of the independent party and schedule of responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance.</p>	Signed and dated commitment by the client/developer or future building occupier. Where the criteria require the commissioning activities to be completed over a minimum 12-month period following (substantial) building occupation, it is accepted that completed records may not be available at the time of final certification. In such cases, evidence of the appointment of a commissioning manager and schedule of commissioning responsibilities which fulfils the BREEAM criteria are acceptable to demonstrate compliance.	1	1	0	Client	One credit targeted.
			21	17	4	0	
		11%	11.00	8.90	2.09	0.00	

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Hea 01 Visual Comfort							
Hea 01a Control of glare from sunlight	<p>One credit - Control of glare from sunlight</p> <p>1. Identify areas at risk of glare using a glare control assessment. The glare control assessment also justifies any areas deemed not at risk of glare.</p> <p>2. A glare control strategy designs out potential glare in all relevant building areas where risk has been identified. This should be achieved through building form and layout or building design measures.</p> <p>3. The glare control strategy does not increase energy consumption used for lighting. This is achieved by:</p> <p>3.a Maximising daylight levels in all weather, cloudy or sunny</p> <p>AND</p> <p>3.b Ensuring the use or location of shading does not conflict with the operation of lighting control systems.</p>	Design drawings Relevant section/clauses of the building specification or contract	1	1	0	Architect	One credit targeted.
Hea 01b Daylighting (building type dependent)	<p>Up to two credits - Daylighting (building type dependent)</p> <p>4 Daylighting criteria have been met using either of the following options:</p> <p>4.a The relevant building areas meet good practice daylight factors and other criteria as outlined in Table 5.1 and Table 5.2</p> <p>OR</p> <p>4.b The relevant building areas meet good practice average and minimum point daylight illuminance criteria as outlined in Table 5.3 on the next page.</p>	Daylighting calculations.	2	2	0	Architect / Ridge	Two credits targeted.
Hea 01c View Out	<p>One credit - View out</p> <p>5. 95% of the floor area in 95% of spaces for each relevant building area provides an adequate view out (see Adequate View Out definition on page 84*).</p> <p>6. In addition, the building type criteria for Prisons, multi-residential and healthcare are outlined in Table 5.6.</p> <p>*Where relevant building areas are within 8m of an external wall which as a window or permanent opening, and the window/opening is $\geq 20\%$ of the surrounding wall area. Where the room depth is greater than 8m, the percentage of window or opening must instead be the same as, or greater than, than values in Table 1.0 BS8206:Part 2. The view out must be a view of a landscape or buildings (rather than just sky) at seated level (1.2-1.3m) with the relevant building areas and should ideally be through an external window. A view into an internal courtyard or atrium will comply provided the distance from the opening to the back wall of the courtyard/atrium is at least 10m. The view cannot be an internal view across the room, as this is likely to become obstructed by partitions, filing cabinets etc. An internal view cannot offer the additional benefits of an external view.</p> <p>Prison buildings: The criteria for zoning of lighting control are excluded for assessments of prison buildings.</p>	Design drawings Relevant section/clauses of the building specification or contract Window schedule	1	1	0	Architect	One credit targeted.
Hea 01d Internal and external lighting levels, zoning and control	<p>One credit - Internal and external lighting levels, zoning and control</p> <p>Internal lighting</p> <p>8. Internal lighting in all relevant areas of the building is designed to provide illuminance (lux) levels and colouring rendering index in accordance with the SLL Code for Lighting 2012(33) and any other relevant industry standard. Internal lighting should be appropriate to the tasks undertaken, accounting for building user concentration and comfort levels.</p> <p>9. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 (34)sections 2.4, 2.13 to 2.15, 2.20, and 6.10 to 6.20. This gives recommendations highlighting:</p> <p>9.a Limits to the luminance of the luminaires to avoid screen reflections. (Manufacturers' data for the luminaires should be sought to confirm this.)</p> <p>9.b Any area where a surface is used to reflect light in to a space, such as up lighting, the recommendations refer to the luminance of the lit ceiling rather than the luminaire; a design team calculation is usually required to demonstrate this.</p> <p>9.c Recommendations for direct lighting, ceiling illuminance, and average wall illuminance.</p> <p>External lighting</p> <p>10. All external lighting located within the construction zone is specified in accordance with BS5489-1:2013 Code for the practice for the design of road lighting. Lighting of roads and public amenity areas(35) and BS EN 12464-2:2014(36) Light and lighting - Lighting of workplaces- Part 2:Outdoor workplaces. External lighting should provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night.</p> <p>11. Where no external light fittings are specified (either separate from or mounted on the external building façade or roof), the criteria relating to external lighting do not apply and the credit can be awarded on the basis of compliance with criteria 8–9.c above.</p> <p>Zoning and occupant control</p> <p>12. Internal lighting is zoned to allow for occupant control. Zoning is in accordance with the criteria below for relevant areas present within the building:</p> <p>12.a In office areas, zones of no more than four workplaces</p> <p>12.b Workstations adjacent to windows or atria and other building areas separately zoned and controlled</p> <p>12.c Seminar and lecture rooms: zoned for presentation and audience areas</p> <p>12.d Library spaces: separate zoning of stacks, reading and counter areas</p> <p>12.e Teaching space or demonstration area</p> <p>12.f Whiteboard or display screen</p> <p>12.g Auditoria: zoning of seating areas, circulation space and lectern area</p> <p>12.h Dining, restaurant, café areas: separate zoning of servery and seating or dining areas</p> <p>12.i Retail: separate zoning of display and counter areas</p> <p>12.j Bar areas: separate zoning of bar and seating areas</p> <p>12.k Wards or bedded areas: zoned lighting control for individual bed spaces and control for staff over groups of bed spaces</p> <p>12.l Treatment areas, dayrooms, waiting areas: zoning of seating and activity areas and circulation space with controls accessible to staff.</p> <p>13. Areas used for teaching, seminar or lecture purposes have lighting controls provided in accordance with CIBSE Lighting Guide 5 (37)</p> <p>14. In addition, the building type criteria in Table 5.7 on the next page (where relevant).</p> <p>74 SD5078</p>	Design drawings and/or room data sheets/schedules Relevant section/clauses of the building specification or contract OR A letter of formal confirmation of compliance from the relevant design team member. Further information on page 40 'Additional Information'	1	1	0	M&E / Architect	External Layout provided including lx plots. BS 5489 noted in section 2.1 of Ridge Ext Lighting Statement. Assumed BS 12464 not relevant - not an outdoor workplace. One credit targeted.

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Hea 02 Indoor Air Quality							
Hea 02a Prerequisite	<p>Prerequisite - Indoor Air Quality (IAQ) Plan</p> <p>1. A site-specific indoor air quality plan has been produced and implemented in accordance with Guidance Note 6 (GN06). The objective of the plan is to facilitate a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during occupation of the building. The indoor air quality plan must consider the following:</p> <p>1.a Removal of contaminant sources</p> <p>1.b Dilution and control of contaminant sources, including:</p> <p>1.b.i Air quality requirements of specialist areas such as laboratories, where present</p> <p>1.c Procedures for pre-occupancy flush out and purge ventilation</p> <p>1.d Third party testing and analysis</p> <p>1.e Maintaining good indoor air quality in-use</p> <p>1.f Any relevant local authority plans or policies (for example, Air Quality Management Areas or Local Air Quality Action Plans)</p>	Indoor air quality plan	-	MET	-	M&E	Required for Hea02 credits to be achieved. "Met" in targeted column indicates pre-requisite achieved
Hea 02b Ventilation	<p>One credit - Ventilation</p> <p>2 The building has been designed to minimise the indoor concentration and recirculation of pollutants in the building as follows:</p> <p>2.a Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation</p> <p>2.b Ventilation pathways are designed to minimise the ingress and build-up of air pollutants inside the building (see Methodology on page 96)</p> <p>2.c Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 16798-3:2017(45). The specified filters should achieve supply air classification of at least SUP 2.</p> <p>2.d Occupied spaces have carbon dioxide (CO₂) or air quality sensors specified in accordance with Building Regulations ADF2(46) and:</p> <p>2.d.i In mechanically ventilated buildings or spaces, sensors are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space.</p> <p>2.d.ii In naturally ventilated buildings or spaces, sensors either have the ability to alert the owner or manager when CO₂ levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, e.g. automatic opening windows or roof vents.</p> <p>2.d.iii The total number of sensors, and the net internal area of relevant areas covered by the sensors, is reported via the BREEAM Scoring and Reporting Tool.</p> <p>2.e The ventilation strategy provides adequate ventilation rates throughout the year, including sufficient airflow rates in summer to prevent overheating and maintain required thermal comfort conditions, in accordance with:</p> <p>2.e.i CIBSE AM10(47) (for naturally ventilated buildings)</p> <p>2.e.ii CIBSE AM13(48) (for mixed-mode buildings)</p>	Relevant section/clauses of the building specification or contract Design drawings	1	1	0	M&E	To be ensured that vent layout is BREEAM compliant (intakes/exhausts proximity often prevent this being achieved). One credit targeted.
Hea 02c Emissions from construction products	<p>Up to two credits - Emissions from construction products</p> <p>One credit</p> <p>3. Three out of the five product types meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 on the facing page. Where wood-based products are not one of three selected product types, all wood-based products used for internal fixtures and fittings must be tested and classified as formaldehyde E1 class as a minimum.</p> <p>Two Credits</p> <p>4. All of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 on the facing page.</p>	Relevant section/clauses of the building specification or contract confirming products to be used meet the requirements.	2	1	1	Architect	One credit targeted. One further potential credit.
Hea 02d Post-construction indoor air quality measurement	<p>One credit - Post-construction indoor air quality measurement</p> <p>5. The formaldehyde concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 100µg/m³ averaged over 30 minutes (World Health Organization guidelines for indoor air quality: Selected pollutants, 2010(59)).</p> <p>6. The formaldehyde sampling and analysis is performed in accordance with ISO 16000-2(60) and ISO 16000-3(61).</p> <p>7. The total volatile organic compound (TVOC) concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 300µg/m³ over 8 hours.</p> <p>8. The TVOC sampling and analysis is performed in accordance with ISO 16000-5(62) and ISO 16000-6(63) or ISO 16017-1(64).</p> <p>9. Where levels are found to exceed these limits, the project team confirms the measures that have, or will be, undertaken in accordance with the IAQ plan, to reduce the TVOC and formaldehyde levels to within the above limits.</p> <p>10. The measured concentration levels of formaldehyde (µg/m³) and TVOC (µg/m³) are reported, via the BREEAM Scoring and Reporting Tool.</p>	Commitment to carry out necessary testing post construction.	1	0	0	Project team	Credit not targeted.
Hea 04 Thermal comfort							
Hea 04a - Thermal modelling	<p>One credit - Thermal modelling</p> <p>1. Thermal modelling has been carried out using software in accordance with CIBSEAM11(78) Building Energy and Performance Modelling.</p> <p>2. The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating or cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance with CIBSEAM11).</p> <p>3. The modelling demonstrates that:</p> <p>3.a For air-conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design(79), Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement or level for the building type)</p> <p>3.b For naturally ventilated buildings:</p> <p>3.b.i Winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5. Or other appropriate industry standard (where this sets a higher or more appropriate requirement or level for the building type)</p> <p>3.b.ii The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in either of the following standards as appropriate; CIBSE TM52: The limits of thermal comfort: avoiding overheating in European buildings(80) or CIBSE TM59: Design methodology for the assessment of overheating risk in homes(81)</p> <p>4. For air-conditioned buildings, the PMV(predicted mean vote) and PPD (predicted percentage of dissatisfied) indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.</p>	Relevant section/clauses of the building specification or contract or correspondence (e.g. letter, email or meeting minutes) from the design team Thermal modelling results TOR data from the design team	1	1	0	M&E	One credit targeted.
Hea 04b - Design for future thermal comfort	<p>One credit - Design for future thermal comfort</p> <p>5. Criteria 1 to 4 are achieved.</p> <p>6. The thermal modelling demonstrates that the relevant requirements set out in criterion 3 above are achieved for a projected climate change environment (see Definitions on the next page).</p> <p>7. Where criterion 6 above is not met, the project team demonstrates how the building has been adapted, or designed to be easily adapted in future using passive design solutions in order to subsequently meet the requirements under criterion 6 above</p> <p>8. For air-conditioned buildings, the PMV and PPD indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.</p>		1	0	1	M&E	One potential credit.

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments																																					
Hea 04c Thermal zoning and controls	<p>One credit - Thermal zoning and controls</p> <p>9 Criteria 1 above to 4 above are achieved.</p> <p>10 The thermal modelling analysis (criteria 1 on the previous page to 4 on the previous page) has informed the temperature control strategy for the building and its users.</p> <p>11 The strategy for proposed heating or cooling systems demonstrates that it has addressed the following:</p> <p>11.a Zones within the building, and how the building services could efficiently and appropriately heat or cool these areas. For example consider the different requirements for the central core of a building compared with the external perimeter adjacent to the windows.</p> <p>11.b The degree of occupant control required for these zones. This is based on discussions with the end user (or alternatively building type or use specific design guidance, case studies, feedback) and considers:</p> <p>11.b.i User knowledge of building services</p> <p>11.b.ii Occupancy type, patterns and room functions (and therefore appropriate level of control required)</p> <p>11.b.iii How the user is likely to operate or interact with the systems, e.g. are they likely to open windows, access thermostatic radiator valves (TRV) on radiators, change air-conditioning settings etc.</p> <p>11.b.iv The user expectations (this may differ in the summer and winter) and degree of individual control (i.e. obtaining the balance between occupant preferences, for example some occupants like fresh air and others dislike draughts)</p> <p>11.c How the proposed systems will interact with each other (where there is more than one system) and how this may affect the thermal comfort of the building occupants</p> <p>11.d The need or otherwise for an accessible building user actuated manual override for any automatic systems</p>	<p>Thermal comfort strategy highlighting the points that have been considered and decisions taken accordingly</p> <p>Relevant section/clauses of the building specification or contract</p> <p>Design drawings</p>	1	1	0	M&E	One credit targeted.																																					
Hea 05 Acoustic performance																																												
Hea 05a Acoustic performance	<p>Up to three credits - Acoustic performance</p> <p>For all building types, except Residential institutions (short term and long term stay), which have four credits available below.</p> <p>1 The building meets the appropriate acoustic performance standards and testing requirements defined in the relevant table below. These tables define criteria for the acoustic principles of:</p> <p>1.a Sound insulation</p> <p>1.b Indoor ambient noise level</p> <p>1.c Room acoustics.</p> <p>OR</p> <p>2 A suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements for all function areas in the building. The bespoke performance requirements use the three acoustic principles defined in criterion Hea 05 Acoustic performance - Criterion 1 above, setting out the performance requirements for each and the testing regime required.</p>	<p>Professional report / study and calculations from the acoustician.</p> <p>Letter of appointment or other confirmation demonstrating when the acoustician was appointed.</p> <p>Relevant section/clauses of the building specification or contract and/or formal letter from the project team regarding commitments</p>	3	3	0	Acoustic consultant / Architect / Contractor	<p>Music building so this credit is particularly critical.</p> <p>Acoustician appointed. To liaise with RM regarding bespoke reqs.</p> <p>Three credits targeted.</p>																																					
Hea 06 Security																																												
Hea 06a Security of site and building	<p>One credit - Security of site and building</p> <p>1. A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent). The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development.</p> <p>2. The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA.</p> <p>3. The controls and recommendations shall be incorporated into proposals and implemented in the as-built develop.</p> <p>Prison buildings: Refer to manual point 2.0 for further information.</p>	<p>Design drawings (including a scaled site plan), AND/OR relevant sections of the specification highlighting all necessary compliant features and dimensions.</p> <p>Security Needs Assessment.</p>	1	1	0	Security Specialist / Architect	<p>Cri 1 - SQSS is Simon Bottom. Page 2 of SNA notes he is police licensed SBD / SQSS - 25 yrs experience.</p> <p>Cri 2 - Recommendations are noted on pages 3-7.</p> <p>Cri 3 - Implementation of recommendations to be confirmed.</p> <p>One credit targeted.</p>																																					
Hea 07 Safe and healthy surroundings																																												
Hea 07a Safe access	<p>One credit - Safe access</p> <p>Where external site areas form part of the assessed development the following apply:</p> <p>1. Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to offsite cycle paths where applicable.</p> <p>2. Dedicated and safe footpaths are provided on and around the site providing suitable links for the following:</p> <p>2.a The site entrance to the building entrance,</p> <p>2.b Car parks (where present) to the building entrance</p> <p>2.c The building to outdoor space</p> <p>2.d Connecting to off-site paths where applicable.</p> <p>3 Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths.</p> <p>Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply:</p> <p>4. Delivery areas are not accessed through general parking areas and do not cross or share the following:</p> <p>4.a pedestrian and cyclist paths</p> <p>4.b outside amenity areas accessible to building users and general public.</p> <p>5. There is a dedicated parking or waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking.</p> <p>6. 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</p>	<p>Correspondence from or a copy of the report/feedback from the ALO/CPDA/Security Consultant confirming:</p> <ul style="list-style-type: none"> • Scope of their advice/involvement • The stage of design in which their advice was sought • Summary of their recommendations <p>Design drawings AND/OR relevant sections of the specification or contract</p>	1	0	1	Architect	<p>Markup provided.</p> <p>1 - TBC whether there is a cycle lane from vehicle/cycle access.</p> <p>2a - path from site entrance to building entrance marked.</p> <p>2b - path from nearby carparking to building marked.</p> <p>2c - outdoor space surrounds building.</p> <p>2d - as per 2a.</p> <p>3 - No official drop-off area, but one way bus drop-off area can be used and has adjoining footpath.</p> <p>4 - Deliveries use a different entrance and therefore have no crossover with entrances shown.</p> <p>5/6 - TBC whether delivery vehicles approach new build - do they have a waiting area?</p> <p>One potential credit.</p>																																					
Hea 07 Outside space	<p>One credit - Outside space</p> <p>7. There is an outside space providing building users with an external amenity area.</p>	<p>Design drawings</p>	1	1	0	Architect	<p>Landscape plan shows outdoor seating area. Letter to be completed to confirm no disturbance from nearby carparking.</p> <p>One credit targeted.</p>																																					
			18	14	3	0																																						
			14.00	10.88	2.33	0.00																																						
Ene 01 Reduction of energy use and carbon emissions - Minimum standards for four credits for Energy Performance for Excellent and six credits for Energy Performance & four credits for Energy Modelling and Reporting for Outstanding																																												
Ene 01a Energy performance	<p>Up to nine credits - Energy performance</p> <p>1. Calculate an Energy Performance Ratio for New Construction (EPR NC). Compare the EPR NC achieved with the benchmarks in Table 6.1 and award the corresponding number of BREEAM credits.</p> <p>Table 6.1 Ene 01 EPR_{NC} benchmark scale</p> <table border="1"> <thead> <tr> <th rowspan="2">BREEAM credits</th> <th rowspan="2">EPR_{NC}</th> <th colspan="2">Minimum standards</th> </tr> <tr> <th>Rating</th> <th>Minimum requirements</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.1</td> <td></td> <td rowspan="3">Requires a performance improvement progressively better than the relevant national building regulations compliant standard (see Energy performance on the facing page)</td> </tr> <tr> <td>2</td> <td>0.2</td> <td></td> </tr> <tr> <td>3</td> <td>0.3</td> <td></td> </tr> <tr> <td>4</td> <td>0.4</td> <td>Excellent</td> <td>Requires 4 credits to be achieved (equivalent to an EPR_{NC} of at least 0.4).</td> </tr> <tr> <td>5</td> <td>0.5</td> <td></td> <td rowspan="4">Requires 6 credits to be achieved (equivalent to an EPR_{NC} of at least 0.6) and 4 credits for Energy modelling and reporting.</td> </tr> <tr> <td>6</td> <td>0.6</td> <td>Outstanding</td> </tr> <tr> <td>7</td> <td>0.7</td> <td></td> </tr> <tr> <td>8</td> <td>0.8</td> <td></td> </tr> <tr> <td>9</td> <td>0.9 AND zero net regulated CO₂ emissions*</td> <td></td> <td></td> </tr> </tbody> </table>	BREEAM credits	EPR _{NC}	Minimum standards		Rating	Minimum requirements	1	0.1		Requires a performance improvement progressively better than the relevant national building regulations compliant standard (see Energy performance on the facing page)	2	0.2		3	0.3		4	0.4	Excellent	Requires 4 credits to be achieved (equivalent to an EPR _{NC} of at least 0.4).	5	0.5		Requires 6 credits to be achieved (equivalent to an EPR _{NC} of at least 0.6) and 4 credits for Energy modelling and reporting.	6	0.6	Outstanding	7	0.7		8	0.8		9	0.9 AND zero net regulated CO ₂ emissions*			<p>A copy of the Building Regulations Output Document from the approved software, as follows:</p> <p>1. England Wales (Part L): Approved Documents checks (BRUKL Output Document)</p> <p>2. Scotland (Section 6): Specification checks</p> <p>3. N. Ireland (Part F): Approved Documents checks (BRUKL Output Document)</p> <p>4. Where relevant for multi-residential buildings, a copy of the calculations based on design stage SAP outputs.</p> <p>The output documents must be based on the "As designed" stage of analysis.</p> <p>output documents from the approved software reflecting performance at the as-built stage of analysis. This must account for any changes to the specification during construction and the measured air leakage rate, ductwork leakage and fan performances (as required by building regulations).</p>	9	6	0	M&E	<p>Four credits is a minimum standard for 'Excellent'. Note - in Version 6, this is more onerous than BREEAM 2018. Four credits originally targeted.</p> <p>AB (Ridge) has provided BRUKL. Inp. File uploaded to projects - showing 6 credits to be awarded.</p> <p>Details of energy assessor required.</p> <p>Six credits awarded.</p>
BREEAM credits	EPR _{NC}			Minimum standards																																								
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BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Ene 01b Prediction of operational energy consumption	<p>Four credits - Prediction of operational energy consumption</p> <p>2. Achieve criterion 2 in Ene 04 Low carbon design.</p> <p>3. Estimate the occupancy, energy use for unregulated energy loads and management practices.</p> <p>4. Undertake detailed energy modelling to predict the building energy consumption.</p> <p>5. Undertake sensitivity analysis to determine the factors that can significantly impact building energy consumption.</p> <p>6. Based on the results of the sensitivity analysis, and in discussion with the project team, the client and the prospective occupier devise scenarios to explore how high impact factors might influence the building energy consumption.</p> <p>7. Undertake scenario modelling and use these findings to inform improvements to design of the building and to operational, maintenance, and handover strategies.</p> <p>8. Determine an energy target for the building based on the results of the scenario modelling.</p> <p>9. At the post-construction stage, the scenario modelling should be repeated to reflect the post construction building specification and, if necessary, adjust the energy target.</p>	<p>Passive design analysis report.</p> <p>An energy modelling report which details:</p> <ul style="list-style-type: none"> - The modelling software and weather files used. - How the predicted occupancy, unregulated energy loads, and management practices have been determined. - The factors considered for the sensitivity analysis. - The scenarios that have been modelled. - The results of the sensitivity analysis and scenario modelling. - The energy performance target set for the building. - Recommendations for improvements to the design of the building and to operational, maintenance, and handover strategies. <p>Confirmation of the suitably qualified energy modeller's qualifications and experience.</p>	4	0	4	M&E	<p>NS to obtain quote.</p> <p>Four potential credits.</p>
Ene 02 Energy monitoring - Minimum standards one credit (first sub-metering credit) for Very Good, Excellent & Outstanding							
Ene 02a Sub metering of end-use categories	<p>One credit - Sub-metering of end-use categories</p> <p>1. Install energy metering systems so that at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories(see Methodology below).</p> <p>2. Meter the energy consumption in buildings according to the total useful floor area:</p> <p>2.a If the area is greater than 1,000 m², by end-use category with an appropriate energy monitoring and management system.</p> <p>2.b If the area is less than 1,000 m², use either:</p> <p>2.b.i an energy monitoring and management system or</p> <p>2.b.ii separate accessible energy sub-meters with pulsed or other open protocol communication outputs, for future connection to an energy monitoring and management system (see Definitions on page 135).</p> <p>3. Building users can identify the energy consuming end uses, for example through labelling or data outputs.</p>	<p>Relevant section/clauses of the building specification or contract.</p> <p>Design drawings</p>	1	1	0	M&E	One credit targeted.
Ene 02b Sub metering of high energy load and tenancy areas	<p>One credit - Sub-metering of high energy load and tenancy areas</p> <p>4. Monitor a significant majority of the energy supply with:</p> <p>4.a An accessible energy monitoring and management system for:</p> <p>4.a.i tenanted areas or</p> <p>4.a.ii relevant function areas or departments in single occupancy buildings.</p> <p>OR</p> <p>4.b Separate accessible energy sub-meters with pulsed or other open protocol communication outputs for future connection to an energy monitoring and management system for:</p> <p>4.b.i tenanted areas or</p> <p>4.b.ii relevant function areas or departments in single occupancy buildings.</p> <p>5. Sub-meter per floor plate in large single occupancy or single-tenancy buildings with one homogeneous function, for example hotel bedrooms, offices.</p> <p>Note:</p> <p>2.0 The first credit is applicable to all building types. The second credit is not applicable to preschools, primary schools, law courts and multi-residential buildings, unless the post-occupancy stage Ene 01 credits are targeted.</p>	<p>Relevant section/clauses of the building specification or contract.</p> <p>Design drawings</p>	1	1	0	M&E	<p>Per floor plate approach to be taken - building has one function.</p> <p>One credit targeted.</p>
Ene 03 External lighting							
Ene 03a External lighting	<p>One credit - External lighting</p> <p>1. No external lighting (which includes lighting on the building, at entrances and signs).</p> <p>OR</p> <p>2. External light fittings within the construction zone with:</p> <p>2.a Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt</p> <p>2.b Automatic control to prevent operation during daylight hours</p> <p>2.c Presence detection in areas of intermittent pedestrian traffic</p> <p>Prisons and other secured buildings: The criteria apply only to general external lighting, e.g. way-finding, car parking, decorative, signage, landscape, storage areas etc. Lighting specified for specific security purposes within secured buildings, such as prisons, can be excluded from the assessment of this issue.</p>	<p>Relevant section/clauses of the building specification or contract - Evidence received</p> <p>Design drawings</p>	1	1	0	M&E	<p>Cri 2a - External Services Lighting Layout shows schedule - all products exceed 70 luminaire lumens per circuit watt. Datasheets required.</p> <p>Cri 2b - Refs B-G all noted as having photocell operation.</p> <p>Cri 2c - Refs A and H noted as having sensors.</p> <p>Justification required for J.</p> <p>Section 2.3 of Ridge Ext Lighting Statement notes controls.</p> <p>One credit targeted.</p>
Ene 04 Low carbon design							
Ene 04a Passive design analysis	<p>One credit - Passive design analysis</p> <p>1. Achieve the first credit Hea 04 Thermal comfort: One credit - Thermal modelling on page 102 to demonstrate that the building design delivers appropriate thermal comfort levels in occupied spaces.</p> <p>2. The project team analyses the proposed building design and development during Concept Design to identify opportunities for the implementation of passive design measures (see Passive design analysis on page 152).</p> <p>3. Implement passive design measures to reduce the total heating, cooling, mechanical ventilation, lighting loads and energy consumption in line with the passive design analysis findings.</p> <p>4. Quantify the reduced total energy demand and carbon dioxide (CO₂-eq) emissions resulting from the passive design measures.</p>	<p>Copy of Passive Design Analysis</p> <p>Results from a dynamic simulation model demonstrating the reduced energy demand and CO₂ emissions from the specified passive design measures.</p>	1	0	1	Project Team	<p>Limited options for passive design. Report would need to be produced early.</p> <p>Sustainability statement to be reviewed.</p> <p>One potential credit.</p>
Ene 04b Free cooling	<p>One credit - Free cooling</p> <p>5. Achieve the passive design analysis credit.</p> <p>6. Include a free cooling analysis (see Free cooling analysis on page 153) in the passive design analysis carried out under criterion 2.</p> <p>7. Identify opportunities for the implementation of free cooling solutions.</p> <p>8. The building is naturally ventilated or uses any combination of the free cooling strategies listed in Free cooling analysis.</p> <p>Note:</p> <p>2.0 Schools: ICT classrooms - With respect to the free cooling credit, it is possible for ICT classrooms to be designed to avoid the use of active cooling. Hence, they are not exempt from the requirements of this issue. If active cooling is used to treat these spaces, it would not be possible to achieve the free cooling credit within this BREEAM issue.</p>	<p>Results from a dynamic simulation model and other used methods demonstrating that the free cooling strategy can meet the building's cooling demand.</p>	1	0	0	M&E	Credit not targeted.
Ene 04c Low and zero carbon technologies	<p>One credit - Low zero carbon feasibility study</p> <p>9. An energy specialist (see Definitions on page 156) completes a feasibility study (see Low and zero carbon feasibility study on page 153) by the end of Concept Design.</p> <p>10. Establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy sources for the building or development (see Scope of LZC systems and how they are assessed on page 154), based on the feasibility study.</p> <p>11. Specify local LZC technologies for the building or development in line with the feasibility study recommendations.</p> <p>12. Quantify the reduced regulated carbon dioxide (CO₂-eq) emissions resulting from the feasibility study</p>	<p>Results from a dynamic simulation model demonstrating reductions in CO₂ emissions from the specified low zero carbon technology.</p>	1	1	0	M&E	<p>Ridge have completed study.</p> <p>1 - Energy generated noted in figure 5.6 (initially 36,960 kWh).</p> <p>2 - Figure 5.3 notes 42% CO₂ reduction vs standard building.</p> <p>3 - Figure 5.6 shows -10 year payback time.</p> <p>4 - Planning mentioned throughout, particularly with respect to noise.</p> <p>5/6/10 - Section 5.3.5 - Smart Export Guarantee noted - rewarding export. Feed-in-tariff mentioned - no longer available.</p> <p>7/8 - Section 5.1 - 5.3 looks at various LZC techs.</p> <p>9 - Sections 5.3.6 / 5.3.7 cover CHP and community heating.</p> <p>One credit awarded.</p>

BREEAM NC Version 6 Criteria				Potential	Design stage	Evidence	Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments	
Ene 06 Energy efficient transportation systems													
Ene 06a	Energy consumption	<p>One credit - Energy consumption</p> <p>1. For specified lifts, escalators or moving walks (transportation types):</p> <p>1.a Analyse the transportation demand and usage patterns for the building to determine the optimum number and size of lifts, escalators or moving walks</p> <p>1.b Calculate the energy consumption in accordance with BS EN ISO 2574 Part 2 (131) or Part 3 (132) for one of the following:</p> <p>1.b.i At least two systems for each transportation type OR</p> <p>1.b.ii At least two arrangements of systems with 'fit for purpose' system strategies. For example for lift systems, different options could be hydraulic, traction or machine room-less lift (MRL).</p> <p>1.c Consider the use of regenerative drives, subject to the requirements in Regenerative drives below</p> <p>1.d Specify the transportation system with the lowest energy consumption.</p>	<p>For 1 to 2:</p> <p>Professional report / study of transportation analysis AND/OR Calculations</p>	1	1	0	Architect	To be added to spec. Traffic analysis to be carried out.	One credit targeted.				
Ene 06b	Energy efficient features	<p>Up to two credits - Energy efficient features</p> <p>2. Achieve criterion 1 on the previous page.</p> <p>One credit - Lifts</p> <p>3. Specify the following three energy efficient features for each lift:</p> <p>3.a A standby condition for off-peak periods</p> <p>3.b The lift car lighting and display lighting provides an average luminous efficacy across all fittings in the car of >70 luminaire lumens per circuit Watt</p> <p>3.c Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.</p> <p>4. Specify regenerative drives where their use is demonstrated to save energy.</p> <p>One credit - Escalators or moving walks</p> <p>5. Specify at least one of the following for each escalator or moving walk:</p> <p>5.a A load-sensing device that synchronises motor output to passenger demand through a variable speed drive OR</p> <p>5.b A passenger-sensing device for automated operation (auto walk),so the escalator operates in auto start mode when there is no passenger demand.</p>	<p>For 3 to 4:</p> <p>Relevant section/clauses of the building specification or contract - Evidence received AND EITHER</p> <p>Manufacturers products details OR</p> <p>Formal letter of commitment from the system(s) manufacturer/sup</p>	1	1	0	Architect	To be added to spec.	One credit targeted.				
Ene 08 Energy efficient equipment													
Ene 08a	Energy efficient equipment	<p>Two credits - Energy efficient equipment</p> <p>1. Identify the building's unregulated energy consuming loads. Estimate their contribution to the total annual unregulated energy consumption of the building, assuming a typical or standard specification.</p> <p>2. Identify the systems or processes that use a significant proportion of the total annual unregulated energy consumption of the building.</p> <p>3. Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building. Table 6.5 below lists some examples of significant contributors to unregulated energy consumption, and the associated criteria. If additional significant contributors, not listed in the table, will be specified, the design team should justify how meaningful reduction will be achieved for these contributors</p> <p>Note:</p> <p>1.0 Where there are no systems specified that contribute to the unregulated energy load, the issue is not applicable.</p> <p>2.1 Multi-residential: Domestic-scale appliances (individual and communal facilities) below item 5b is only applicable to multi-residential assessments.</p>	<p>Manufacturers product details</p> <p>Documentation confirming compliance with the relevant scheme or standard outlined in the criteria e.g. details of compliance with the ECA scheme</p> <p>Design drawings and/or calculations.</p>	2	2	0	Architect / Client	Likely to only include domestic scale white goods.	Two credits targeted.				
				23	14	5	7						
				16%	16.00	9.73	3.47	4.86					
Tra 01 Transport assessment and travel plan													
Tra 01a	Travel plan	<p>Two credits – Transport assessment and Travel plan</p> <p>1. No later than Concept Design stage, undertake a site-specific transport assessment (or statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form; see Methodology.</p> <p>2. The site-specific travel assessment or statement covers as a minimum:</p> <p>2.a If relevant, travel patterns and attitudes of existing building or site users towards cycling and walking and public transport, to identify relevant constraints and opportunities.</p> <p>2.b Predicted travel patterns and transport impact of future building or site users.</p> <p>2.c Current local environment for pedestrians and cyclists, accounting fo any age-related requirements of occupants and visitors.</p> <p>2.d Reporting of the number and type of existing accessible amenities, see Table 7.1, within 500m of the site</p> <p>2.e Disabled access accounting for varying levels of disability, including visual impairment.</p> <p>2.f Calculation of the existing public transport Accessibility Index (AI),see Methodology.</p> <p>2.g Current facilities for cyclists.</p> <p>3. Following a transport assessment (in accordance with the requirements set out in criteria 2a-2g) develop a site-specific travel plan, that provides a long term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation; see Methodology.</p> <p>4. If the occupier is known, involve them in the development of the travel plan.</p> <p>5. Demonstrate that the travel plan will be implemented post construction and be supported by the building's management in operation.</p>	<p>A copy of the Travel Plan.</p> <p>A copy of the site-specific transport survey/assessment.</p> <p>Design drawings demonstrating examples of design measures implemented in support the travel plan's findings.</p> <p>OR</p> <p>Where a detailed site plan is not available, a formal letter from the client confirming that measures will be implemented into the final design in support the travel plan's findings.</p> <p>A letter of confirmation from either the building's occupier, or in the case of a speculative development, the developer.</p>	2	2	0	Client / SWH	<p>Cri 1 - Transport statement passed on to team in xxx 2023, covering:</p> <p>2a - Existing trip generation (section 4.1).</p> <p>2b - Section 4.2.5 notes no increase in student/staff numbers - no highways impact noted in 6.4.</p> <p>2c - Section 2.1 notes walking and cycling conditions. 2.4.3 notes all site users >16 years old.</p> <p>2d - Section 2.5 notes amenities nearby.</p> <p>2e - 2.1.1 notes dropped kerbs for wheelchair users, but tactile paving is not everywhere.</p> <p>2f - AI calculated in App B - 10.30.</p> <p>2g - Cycle facilities noted in 2.1 and cycle store shown in App D drawing.</p> <p>3 - TP developed. Section 5 of this covers BREEAM measures.</p> <p>4 - PSC naturally involved in production of TS/TP - survey carried out.</p> <p>5 - TS/TP instructed by PSC.</p> <p>Two credits awarded.</p>					

BREEAM NC Version 6 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments																									
Tra 02 Sustainable transport measures - Only assess against criteria that applies to the AI of the project. Ensure the issue total sums the 'available credits' for the correct AI																																		
Tra 02 Prerequisite	Prerequisite 1. Achieve criteria 3-5 in the Tra 01 Transport assessment and travel plan issue.				-	MET	-	Client / Architect	Required for Tra02 credits to be achieved. "Met" in targeted column indicates pre-requisite achieved																									
Tra 02a Transport options implementation <25	Ten credits – Transport options implementation AI<25 2. Identify the sustainable transport measures, in Table 7.4 page 174. 3. Award credits according to the existing Accessibility Index (AI) of the project, and the total number of points achieved for the options implemented, see Table 7.3.			Identify sustainable transport measures. Scale map highlighting the location of the building and all public transport nodes in proximity of the building. Timetables for each service at each public transport node considered. The calculated Accessibility Index for the building. A formal letter from the future building occupier confirming provision of and details for the dedicated bus service(s).	10	10	0	Architect	AI is currently anticipated to be <25. This could change following further reviews and therefore the credits targeted could also change.																									
	<table border="1"> <thead> <tr> <th>AI < 25</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> </tr> </thead> <tbody> <tr> <td>Credits</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> </tr> </tbody> </table>			AI < 25	1	2	3	4	5	6	7	8	9	10	Credits	1	2	3	4	5	6	7	8	9	10									
AI < 25	1	2	3	4	5	6	7	8	9	10																								
Credits	1	2	3	4	5	6	7	8	9	10																								
	Total points			11																														
Assessment option	Public transport measures			Points Available	Points Targeted																													
1	1. The existing AI calculated in Tra 01 achieves the following: ≥ 4 for prison or MOD sites, rural location sensitive buildings, and other building group 3 ≥ 8 for all other building types			1	1	Previous PSC project shows the AI to be 10.3 - confirmed in App B of TS.																												
	2. Demonstrate an increase over the existing Accessibility Index through negotiation with local bus, train or tram companies to increase the frequency of the local service provision for the development; OR			2	0																													
2	3. Demonstrate an increase over the existing Accessibility Index. This could be through provision of a diverted bus route, a new or enhanced bus stop, or other similar solutions OR			3	0																													
	4. Provide a dedicated service, such as a bus route or service (See Methodology on page 178).			3	3	Dedicated bus service to college exists.																												
3	5. 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.			1	0																													
Assessment options	Private transport measures			Points Available	Points Targeted																													
4	6. Provide electric recharging stations of a minimum of 3kw for at least 10% of the total car parking capacity for the development.			1	1	Previous PSC project targeted this point. Addition of 3 doubles (22kw) is likely (JB email, 19/10). To be shown on drawing.																												
5	7. Set up a car sharing group or facility to facilitate and encourage building users to car share. 8. Raise awareness of the sharing scheme with marketing and communication materials. 9. Provide priority spaces for car sharers for at least 5% of the total car parking capacity for the development. 10. Locate priority parking spaces nearest the development entrance used by the sharing scheme participants			1	1	Previous PSC project targeted this point. To be shown on drawing.																												
Assessment options	Active travel measures			Points Available	Points Targeted																													
6	11. 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. 12. 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.			2	0																													
7	13. Install compliant cycle storage spaces to meet the minimum levels set out in Table 7.5 on page 176.			1	1	If site wide approach is used, previous project confirmed cycle storage is ample.																												
8	14. Option 7 has been achieved. 15. Provide at least two compliant cyclists' facilities or the building users, (including pupils where appropriate to the building type) – see Definitions for the scope of each compliant facility: – Showers – Changing facilities – Lockers – Drying spaces.			1	1	Currently targeted. Location of facilities in relation to new building will need to be reviewed. Number of showers to be confirmed.																												
9	Existing amenities: 16. At least three existing accessible amenities are present, see Table 7.6 on page 177, where relevant for a Building Group			1	1	Section 2.5.1 of TS notes food/cash (Tesco Express), open space/sports facility (PSC) and nursery. Previous PSC project also noted post facility within 500m walking distance. RM to evidence further using Google Maps.																												
10	17. Ensure a minimum of one new accessible amenity, in accordance with Table 7.6 on page 177, for the relevant Building Group, is provided. OR			2	2	Outdoor amenity area to be used.																												
	18. Ensure more than one new accessible amenity, in accordance with Table 7.6 on page 177 for the relevant Building Group, is provided.			3	0																													
11	19. Implement one site-specific improvement measure, not covered by the options already listed in this issue, in line with the recommendations of the travel plan. Submit these for review by BRE.			1-3	0																													
	Total points				11																													
						12	12	0	2																									
				10%		10	10	0	1.66																									

BREEAM NC Version 6 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Wat 01 Water consumption - Minimum standards one credit for Good, Very Good, Excellent & two credits for Outstanding							
Wat 01 Water consumption	<p>Up to five credits - Water consumption</p> <p>1. Use the BREEAM Wat 01 calculator to assess the efficiency of the domestic water-consuming components.</p> <p>2. Use the standard Wat 01 method (see Methodology on the facing page) to compare the water consumption (litres/person/day) for the assessed building against a baseline performance. Award BREEAM credits based upon Table 8.1 below. Where it is not possible to use the standard method, complete the assessment using the alternative Wat 01 method (see Methodology).</p> <p>3. If a greywater or rainwater system (see Definitions on page 195) is specified, use its yield in L/person/day to offset potable water demand from components.</p> <p>4. If a greywater or rainwater system is specified and installed:</p> <p>4.a Greywater systems in compliance with BS8525-1:2010 Greywater systems- Part 1 Code of Practice (153)</p> <p>4.b Rainwater systems in compliance with BS8515:2009+A1:2013 Rainwater harvesting systems- Code of practice(154)</p> <p>Additionally, for those carrying out a post occupancy evaluation achieve Criterion 6 of Wat 02a:</p> <p>6 The water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01 (litres/person/day).</p>	<p>A completed copy of the BREEAM Wat 01 calculator</p> <p>Documentary evidence supporting the data used to complete the calculator tool.</p> <p>Relevant section/clauses of the building specification/ design drawings confirming technical details of</p> <p>1. Sanitary components 2.Rainwater and greywater collection system OR where detailed documentary evidence is not available at this stage; Completed BREEAM Wat 01 calculator A letter of instruction to a contractor/supplier or a formal letter from the developer giving a specific undertaking, providing sufficient information to allow the water calculations to be completed.</p>	5	3	0	Architect	Three credits targeted.
Wat 02 Water monitoring - Minimum standards criterion one only for all ratings except Pass							
Wat 02a Rating Min Standard	<p>Rating Related Min Standard- Good Rating and Above</p> <p>1 Specify a water meter on the mains water supply to each building. This includes instances where water is supplied via a borehole or other private source.</p>	<p>Relevant section/clauses of the building specification or contract Design drawings</p>	-	MET		M&E	<p>Required for Good rating or above to be achieved.</p> <p>"Met" in targeted column indicates achieved</p>
Wat 02a Water monitoring	<p>One credit - Water monitoring</p> <p>1 As above, 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.</p> <p>2 For water-consuming plant or building areas consuming 10% or more of the building's total water demand:</p> <p>2.a Fit easily accessible sub-meters OR</p> <p>2.b Install water monitoring equipment integral to the plant or area.</p> <p>3 For each meter (main and sub):</p> <p>3.a Install a pulsed or other open protocol communication output AND</p> <p>3.b Connect it to an appropriate utility monitoring and management system, e.g. a building management system (BMS), for the monitoring of water consumption. If there is no BMS system in operation at Post Construction stage, award credits provided that the system used enables connection when the BMS becomes operational.</p> <p>4 In buildings with swimming pools, or large water tanks and aquariums, fit separate sub-meters on the water supply of the above and any associated changing facilities (toilets, showers etc.) irrespective of their water consumption levels.</p> <p>5 In buildings containing laboratories, fit a separate water meter on the water supply to any process or cooling loop for 'plumbed-in' laboratory process equipment, irrespective of their water consumption levels.</p> <p>Additionally for those pursuing a post occupancy stage certification:</p> <p>6 The water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01 (litres/person/day).</p>	<p>Relevant section/clauses of the building specification or contract Design drawings</p>	1	1	0	M&E	One credit targeted.
Wat 03 Leak detection							
Wat 03a Leak detection	<p>One credit - Leak detection system</p> <p>1. Install a leak detection system capable of detecting a major water leak:</p> <p>1.a On the utilities water supply within the buildings, to detect any major leaks within the buildings AND</p> <p>1.b Between the buildings and the utilities water supply, to detect any major leaks between the utilities supply and the buildings under assessment.</p> <p>2. The leak detection system is:</p> <p>2.a A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks</p> <p>2.b Activated when the flow of water passing through the water meter or data logger is at a flowrate above a pre-set maximum for a pre-set period of time. This usually involves installing a system which detects higher than normal flowrates 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</p> <p>2.c 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 flowrates to enable it to be programmed to suit the building type and owner's or occupier's usage patterns.</p> <p>2.d Programmable to suit the owner's or occupier's water consumption criteria</p> <p>2.e Where applicable, designed to avoid false alarms caused by normal operation of large water consuming plant such as chillers.</p> <p>Where there is physically no space for a leak detection system between the utilities water meter and the building, alternative solutions can be used, provided that a major leak can still be detected.</p> <p>Short and long term residential accommodation: See manual page 217 point 2.1 and 2.2 for further information.</p>	<p>Relevant section/clauses of the building specification or contract Design drawings Manufacturers product details</p>	1	1	0	M&E	One credit targeted.
Wat 03b Flow control devices	<p>One credit - Flow control devices</p> <p>3. Install flow control devices 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.</p>	<p>Relevant section/clauses of the building specification or contract - Design drawings Manufacturers product details</p>	1	1	0	M&E	One credit targeted.
Wat 04 Water efficient equipment							
Wat 04a Water efficient equipment	<p>One credit - Water efficient equipment</p> <p>1. Identify all water demands from uses other than those listed under Table 8.4 on page 206 that could be realistically mitigated or reduced. Where there is no water demand from uses other than domestic-scale, sanitary use components in the building, this issue is not applicable.</p> <p>2. Identify systems or processes to reduce the relevant water demand (criterion 1 above), and establish, through either good practice design or specification, a demonstrable reduction in the total water demand of the building.</p> <p>Note:</p> <p>1.1 Where there are no water demands beyond those of Wat 01, the issue will be filtered out.</p>	<p>Documentation detailing the planting and irrigation strategy</p> <p>Relevant section/clauses of the building specification or contract AND/OR design drawings (where necessary) Manufacturers product details</p>	0	0	0	Architect	Filtered out from assessment.
			8	6	0	0	
		7%	7	5.25	0	0	

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)							
Mat 01a Superstructure	<p>Up to six credits – Superstructure Comparison with the BREEAM benchmark during Concept Design (offices, industrial and retail buildings only) Superstructure (offices, industrial and retail buildings(except for Simple Buildings and where Notes 1.1 and 1.2 above apply))</p> <p>1. During the Concept Design, demonstrate the environmental performance of the building as follows: 1.a Carry out a building LCA on of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT Compliant LCA tool according to the methodology (see Methodology on page 211). 1.b Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, and before planning permission is applied for (that includes external material or product specifications).Comparison with the BREEAM benchmark during Technical Design (offices, industrial and retail buildings only)</p> <p>2. During Technical Design, demonstrate the environmental performance of the building as follows: 2.a As criterion 1.a 2.b Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design. Where a project has not achieved criterion 1, criterion 2 may still be achieved. Option appraisal during Concept Design (all building types) 3 For offices, industrial and retail building types, achieve criterion 1 (except where Notes 1.0, 1.1 and 1.2 above apply). 4. During Concept Design, identify opportunities for reducing environmental impacts as follows: 4.a Carry out building LCA options appraisal of 2 to 4 significantly different superstructure design options (applicable to the Concept Design stage, see Methodology on page 211). 4.b Use a building LCA tool that is recognised by BREEAM (as suitable for assessing superstructure during Concept Design) according to the methodology (see Methodology on page 211). 4.c For each design option, fulfil the same functional requirements specified by the client and all statutory requirements(to ensure functional equivalency). 4.d Integrate the LCA options appraisal activity within the wider design decision-making process. Record this in an options appraisal summary document. 4.e Record the following in the Mat 01/02 Results Submission Tool: The differences between the design options; the design option selected by the client to be progressed beyond Concept Design; the reasons for selecting it and the reasons for not selecting the other design options. 4.f Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, and before planning permission is applied for (that includes external material or product specifications). If the building LCA tool recognised by BREEAM and used for criteria 3 to 5 (and 6 to 9, if pursued) is not an IMPACT Compliant LCA tool and criteria 1 to 2 are applicable, then the BREEAM Simplified Building LCA tool (or an IMPACT Compliant LCA tool)shall be used for criteria 1 to 2. Options appraisal during Technical Design (all building types) 5 During Technical Design identify opportunities for reducing environmental impacts as follows: 5.a Carry out building LCA options appraisal of 2 to 3 significantly different superstructure design options (based on the selected Concept Design option and as applicable to the Technical Design stage, see Methodology). 5.b Use a building LCA tool that is recognised by BREEAM (as suitable for assessing superstructure during Technical Design) according to the methodology (see Methodology on the next page). 5.c As criteria 4.c to 4.e above. Where an options appraisal summary document was produced during Concept Design, update it to include the Technical Design options. 5.d Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design. Where a project has not achieved criteria 3 and 4, criterion 5 may still be achieved.</p> <p>Note: 1.1 Mixed use buildings: Where a single building use type accounts for ≥ 50% of the net internal floor area, all criteria relevant to the building type and function apply. Where <50%, all criteria relevant to the building type and function apply except criteria 1 to 2 below 1.2 Part new build, part refurbishment: All criteria relevant to the building type and function apply except criteria 1 to 2 below.</p>	<p>Copy of LCA. 1-2 - Mat01/02 submission results 3-4 - The options appraisal summary document - Evidence that the LCA options appraisal summary document has been received by the design team and client (meeting minutes, letter of acknowledgement) - Evidence of how the LCA design options have informed the design decision-making process(e.g. meeting minutes, documented design development showing how the LCA options have affected the design). 5 As criteria 3 to 4 6-7 - The LCA options appraisal summary document includes substructure and hard landscaping according to the criteria 8-9 - The LCA options appraisal summary document includes core building services according to the criteria 10-14 - The 'elemental LCC plan' and 'Component level LCC option appraisal'; in issue Man 02 life cycle cost and service life planning on page 41'. 15-18 The third party's report: - Verifying that building LCAs accurately represent the designs under consideration - Itemising the findings of their verification checks - Evidence that the requirements of a suitably qualified third party are fulfilled</p>	6	4	2	Architect	<p>Appetite to compare embodied carbon of different structures. Process must be undertaken BEFORE planning.</p> <p>ADW have provided submission pack - has been uploaded to projects (25th Oct 23) prior to planning submission.</p> <p>Exemp. credit also achieved for core service comparison.</p> <p>Two further credits could be achieved at Technical Design.</p> <p>Four credits credits awarded. Two further potential credits.</p>
Mat 01b Substructure and hard landscaping options appraisal during Concept Design	<p>One credit – Substructure and hard landscaping options appraisal during Concept Design (all building types) 6. Criteria 3 and 4 are achieved. 7. During Concept Design identify opportunities for reducing environmental impacts as follows: 7.a Carry out building LCA options appraisal of a combined total of at least six significantly different substructure or hard landscaping design options(at least two shall be substructure and at least two shall be hard landscaping). 7.b Using a building LCA tool that is recognised by BREEAM (as suitable for assessing substructure and hard landscaping during Concept Design) according to the methodology (see Methodology on page 211). 7.c As criteria 4.c to 4.f.</p>	<p>The LCA options appraisal summary document includes substructure and hard landscaping according to the criteria.</p>	1	1	0	Landscape Architect	<p>ADW have provided submission pack.</p> <p>One credit awarded.</p>
Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)							
Mat 02a Specification of products with a recognised EPD	<p>One credit - Specification of products with a recognised environmental product declaration (EPD) 1. Specify construction products with EPD that achieve a total EPD points score of at least 20, according to the Methodology on page 221. 2. Enter the details of each EPD into the Mat 01/02 Results Submission Tool, including the material category classification. The Mat 01/02 Results Submission Tool will verify the EPD points score and credit award.</p>	<p>Copies of Environmental Product Declarations A link/reference to the EPD's Product Category Rules Mat 01/02 Results Submission Tool</p>	1	1	0	Principal Contractor	<p>One credit targeted.</p>
Mat 03 Responsible sourcing of construction products - Minimum standards for criterion 1 only for all ratings							
Mat 03a Pre requisite	<p>Prerequisite - Legally harvested and traded timber 1. All timber and timber-based products used on the project are legally harvested and traded timber as per the UK Government's Timber Procurement Policy (TPP) (see Definitions on page 228). Compliance with criterion 1 is a minimum requirement for achieving any BREEAM rating. There are no prerequisite requirements for other materials.</p>	<p>Relevant section/clauses of the building specification or contract OR A signed and dated letter of commitment to meet the relevant criteria OR Timber Policy</p>	-	MET	-		<p>Required for any Mat03 credits to be achieved.</p> <p>"Met" in targeted column indicates pre-requisite achieved</p>
Mat 03b Enabling sustainable procurement	<p>One credit - Enabling sustainable procurement 2. A sustainable procurement plan must be used by the design team to guide specification towards sustainable construction products. The plan must: 2.a Be in place before Concept Design. 2.b 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. 2.c Include a requirement for assessing the potential to procure construction products locally. There must be a policy to procure construction products locally where possible. 2.d Include details of procedures in place to check and verify the effective implementation of the sustainable procurement plan.</p> <p>In addition, if the plan is applied to several sites or adopted at an organisational level it must: 2.e Identify the risks and opportunities of procurement against a broad range of social, environmental and economic issues following the process set out in BS ISO20400:2017(166)</p>	<p>Evidence of level of responsible sourcing achieved for each construction product. For example, certificates. Completed copy of the Mat 03 Calculator tool. Evidence to show how the Mat 03 calculator tool has been completed.</p>	1	1	0	Principal Contractor	<p>SWH can provide a template if contractor does not have this in place.</p> <p>One credit targeted.</p>
Mat 03c Measuring responsible sourcing	<p>Up to 3 credits - Measuring responsible sourcing 3. Use the Mat 03 calculator tool and methodology to determine the number of credits achieved for the construction products specified or procured. Credits are awarded in proportion to the scope of the assessment and the number of points achieved, asset out in Table 9.10.</p>		3	2	0	Principal Contractor	<p>Two credits targeted.</p>

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Mat 05 Designing for durability and resilience							
Mat 05a Protecting vulnerable parts of the building from damage	<p>One credit Protecting vulnerable parts of the building from damage</p> <p>1. Protection measures are incorporated into the building's design and construction to reduce damage to the building's fabric or materials in case of accidental or malicious damage occurring. These measures must provide protection against:</p> <p>1.a Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.).</p> <p>1.b Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas.</p> <p>1.c External building fabric damage by a vehicle. Protection where parking or manoeuvring areas are within 1 metre of the building façade and where delivery areas or routes are within 2 metres of the façade, i.e. specifying bollards or protection rails.</p> <p>1.d Potential malicious damage to building materials and finishes, in public and common areas where appropriate.</p> <p>Protecting exposed parts of the building from material degradation</p> <p>2. Key exposed building elements have been designed and specified to limit long and short term degradation due to environmental factors. This can be demonstrated through one of the following:</p> <p>2.a The element or product achieving an appropriate quality or durability standard or design guide, see Table 9.14 on the next page. If none are available, use BS7543:2015(168) as the default appropriate standard OR</p> <p>2.b A detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors.</p> <p>3. Include convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's design.</p> <p>4. Design the roof and façade to prevent water damage, ingress and detrimental ponding.</p> <p>See Table 9.14 on the next page for an example list of relevant industry durability and quality standards.</p>	Design drawings illustrating vulnerable areas/parts of the building. Design drawings and/or relevant section/clauses of the building specification or contract confirming the durability measures specified.	1	1	0	Architect	One credit targeted.
Mat 06 Material efficiency							
Mat 06a Material efficiency	<p>One credit - Material efficiency</p> <p>1. At the Preparation and Brief and Concept Design stages, set targets and report on opportunities and methods to optimise the use of materials. These must be done for each of the following stages. See Table 9.15 on page 237:</p> <p>1.a Preparation and Brief</p> <p>1.b Concept Design</p> <p>1.c Developed Design</p> <p>1.d Technical Design</p> <p>1.e Construction</p> <p>2. Develop and record the implementation of material efficiency, see Table 9.15 below, during:</p> <p>2.a Developed Design</p> <p>2.b Technical Design</p> <p>2.c Construction</p> <p>3. Report the targets and actual material efficiencies achieved.</p>	A copy of the report.	1	1	0	Project Team	One credit targeted.
			14	11	2	5	
			15%	15	11.78	2.14	5.35
Wst 01 Construction waste management - Minimum standards one credit for Outstanding							
Wst 01a Pre-demolition audit	<p>One credit - Pre-demolition audit</p> <p>1. Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications. The audit must cover the content of Pre-demolition audit scope on page 244 and:</p> <p>1.a Be carried out at Concept Design stage (RIBA Stage 2) by a competent person (see Definitions on page 245) prior to strip-out or demolition works</p> <p>1.b Guide the design, consider materials for reuse and set targets for waste management</p> <p>1.c Engage all contractors in the process of maximising high grade reuse and recycling opportunities</p> <p>1.d Compare actual waste arisings and waste management routes used with those forecast and investigate significant deviations from planned targets.</p> <p>2. Make reference to the audit in the resource management plan (RMP) (see Definitions on page 245).</p> <p>Note:</p> <p>1.0 Where, under the developer's ownership, no demolition will be undertaken to enable the assessed development, the pre-demolition audit credit is not applicable and therefore filtered out of the assessment.</p>		1	1	0	Demolition / Principal Contractor	Demo contractor to also have ISO 14001 for the credit within Man 03. Demo contractor to be made aware of BREEAM reqs. One credit targeted.
Wst 01b Construction resource efficiency	<p>Up to three credits - Construction resource efficiency</p> <p>3. Prepare a compliant Resource Management Plan (RMP) covering:</p> <p>3.a Non-hazardous waste materials (from on-site construction and dedicated off-site manufacture or fabrication, see Definitions on page 245), including demolition and excavation waste.</p> <p>3.b Accurate data records on waste arisings and waste management routes.</p> <p>4. Meet or improve upon the benchmarks in Table 10.1 for non-hazardous construction waste, excluding demolition and excavation waste.</p>	A copy of the Resource Management Plan and, where relevant, the pre-demolition audit Relevant section/clauses of the building specification or contract AND/OR A letter from the client or their representative	3	2	1	Principal Contractor	Two credits targeted. One further potential credit.
Wst 01c Diversion of resources from landfill	<p>One credit - Diversion of resources from landfill</p> <p>5. Meet, where applicable, the diversion from landfill benchmarks in Table 10.2 for non-hazardous construction waste and demolition and excavation waste generated.</p> <p>6. Sort waste materials into separate key waste groups as per Table 10.3 on page 247, either on-site or through a licensed contractor for recovery.</p>		1	1	0	Principal Contractor	One credit targeted.

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments						
Wst 02 Use of recycled and sustainably sourced aggregates													
Prerequisite	<p>Prerequisite - Pre-demolition audit</p> <p>1. If demolition occurs on site, to encourage the reuse of site-won material on site, complete a pre-demolition audit of any existing buildings, structures or hard surfaces in accordance with Assessment Scope - Criterion 1.</p>		-	MET	-	Project Team	Required for Wst02 credits to be achieved. "Met" in targeted column indicates pre-requisite achieved						
Wst 02a Project sustainable aggregate points	<p>One credit - Project Sustainable Aggregate Points</p> <p>2. Identify all aggregate uses and types on the project Table 10.5 and Table 10.6 on the next page</p> <p>3. Determine the quantity in tonnes for each identified use and aggregate type.</p> <p>4. Identify the region in which the aggregate source is located.</p> <p>5. Calculate the distance in kilometres travelled by all aggregates by transport type.</p> <p>6. Enter the information into the BREEAM Wst 02 calculator to calculate the Project Sustainable Aggregate points. The corresponding number of BREEAM credits will be awarded as shown in Table 10.4</p> <table border="1"> <caption>Table 10.4 Credits available relating to the Project Sustainable Aggregate points</caption> <thead> <tr> <th>Project Sustainable Aggregate Points</th> <th>Project Sustainable Aggregate Points</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>3.5-6</td> </tr> <tr> <td>1 exemplary performance credit</td> <td>>6</td> </tr> </tbody> </table>	Project Sustainable Aggregate Points	Project Sustainable Aggregate Points	1	3.5-6	1 exemplary performance credit	>6	Completed copy of Wst 02 calculator Documentary evidence supporting the data used to complete the Calculator tool. Documentation confirming the source of recycled/secondary aggregates and that the required amount can be provided	1	1	0	Principal Contractor	One credit targeted.
Project Sustainable Aggregate Points	Project Sustainable Aggregate Points												
1	3.5-6												
1 exemplary performance credit	>6												
Wst 03 Operational waste - Minimum of one credit for Excellent & Outstanding													
Wst 03a Operational waste	<p>One credit - Operational waste</p> <p>1. Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space is:</p> <p>1.a Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams</p> <p>1.b Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors</p> <p>1.c Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily or weekly operational activities and occupancy rates.</p> <p>2. For consistent and large amounts of operational waste generated, provide:</p> <p>2.a Static waste compactors or balers; situated in a service area or dedicated waste management space</p> <p>2.b 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</p> <p>2.c 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.</p>	Design drawings and/or relevant section/clauses of the building specification or contract confirming provision and scope of dedicated facilities. Project team meeting minutes / letter confirming likely building waste streams and indicative volumes.	1	1	0	Architect / Client	Shared waste facility within reasonable proximity - to be justified at a later stage. One credit targeted.						
Wst 05 Adaptation to climate change													
Wst 05a Resilience of structure, fabric, building services and renewables installation	<p>One credit - Resilience of structure, fabric, building services and renewables installation</p> <p>1. Conduct a climate change adaptation strategy appraisal using:</p> <p>1.a A systematic risk assessment to identify the impact of expected extreme weather conditions arising from climate change on the building over its projected life cycle. The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects and includes (see Methodology below):</p> <p>1.a.i Hazard identification</p> <p>1.a.ii Hazard assessment</p> <p>1.a.iii Risk estimation</p> <p>1.a.iv Risk evaluation</p> <p>1.a.v Risk management.</p> <p>2. Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact.</p> <p>3. Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing by the assessor.</p>	Relevant section/clauses of the building specification or contract. Design drawings. Report/study.	1	1	0	Architect	One credit targeted.						
Wst 06 Design for disassembly and adaptability													
Wst 06a Design for disassembly and adaptability - recommendations	<p>One credit - Design for disassembly and functional adaptability - recommendations</p> <p>1. Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios (see Methodology on page 269) by the end of Concept Design.</p> <p>2. Develop recommendations or solutions (see Methodology on page 269) based on the study (criterion 1 above), during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation.</p>	Disassembly and functional adaptability study, implementation plan report, building adaptability and disassembly guide.	1	1	0	Architect	One credit targeted.						
Wst 06b Disassembly and functional adaptability - implementation	<p>One credit - Disassembly and functional adaptability - implementation</p> <p>3. Achieve criteria 1 and 2</p> <p>4. Provide an update, during Technical Design, on:</p> <p>4.a How the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing to the assessor.</p> <p>4.b Changes to the recommendations and solutions during the development of the Technical Design.</p> <p>5. Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.</p>	Disassembly and functional adaptability study, implementation plan report, building adaptability and disassembly guide.	1	1	0	Architect	One credit targeted.						
			10	9	1	0							
		6%	6	5.4	0.6	0							

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments												
Le 01 Site selection																			
Le 01a Previously occupied land	<p>One credit - Previously occupied land</p> <p>1 At least 75% of the proposed development's footprint is on an area of land which has previously been occupied (see Definitions).</p> <p>Note:</p> <p>2.0 Education (schools only) - Playing fields - Development of a playing field within the development footprint can be counted as development on previously occupied land only if an equivalent area of playing field is reinstated within one year of the completed construction works, and where such reinstatement will not encroach on land of high ecological value.</p> <p>Prison - additional notes in the manual.</p>	Design drawings (including existing site plan), report or site photographs confirming: Type and duration of previous land use. Area (m2) of previous land use. Proposed site plan showing: Location and footprint (m2) of proposed development and temporary works.	1	1	0	Architect	NS to review. One credit targeted.												
Le 01b Contaminated land	<p>One credit - Contaminated land</p> <p>2. A contaminated land professional's site investigation, risk assessment and appraisal has deemed land within the site to be affected by contamination. The site investigation, risk assessment and appraisal have identified:</p> <p>2.a The degree of contamination</p> <p>2.b The contaminant sources or types</p> <p>2.c The options for remediating sources of contamination which present an unacceptable risk.</p> <p>3. The client or principal contractor confirms that remediation of the site will be carried out in accordance with the remediation strategy and its implementation plan as recommended by the contaminated land professional (see Definitions).</p>	A copy of the remediation strategy and implementation plan. Evidence to demonstrate the recommendations set out in the remediation strategy plan have been implemented.	1	0	0	Contaminated Land Professional	GI report imminent. Credit not targeted at this stage.												
Le 02 Identifying and understanding the risks and opportunities for the project - number of credits available depend on route																			
Le 02a Prerequisite	<p>Prerequisite - Assessment route selection</p> <p>1. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.</p> <p>Table 11.1 Credits awarded for each assessment route</p> <table border="1"> <thead> <tr> <th></th> <th>Foundation route (Route 1)</th> <th>Comprehensive route (Route 2)</th> </tr> </thead> <tbody> <tr> <td>Survey and evaluation</td> <td>1 credit</td> <td>1 credit</td> </tr> <tr> <td>Determining ecological outcomes</td> <td>1 credit</td> <td>1 credit</td> </tr> <tr> <td>Exemplary criteria</td> <td>1 credit</td> <td>1 credit</td> </tr> </tbody> </table>		Foundation route (Route 1)	Comprehensive route (Route 2)	Survey and evaluation	1 credit	1 credit	Determining ecological outcomes	1 credit	1 credit	Exemplary criteria	1 credit	1 credit	Completed Guidance Note 34: BREEAM Ecology Risk Evaluation Checklist.	-	MET	-	Ecologist / Project Team	Pre-requisite required for Le02 credits to be achieved. Route 1 (Foundation) has no Ecologist Route 2 (Comprehensive) with Ecologist Relevant legislation noted in appendix 1 of PEA. Principal contractor to confirm compliance will be monitored.
	Foundation route (Route 1)	Comprehensive route (Route 2)																	
Survey and evaluation	1 credit	1 credit																	
Determining ecological outcomes	1 credit	1 credit																	
Exemplary criteria	1 credit	1 credit																	
Le 02b Survey and evaluation	<p>One or up to two credits depending on route -Survey and evaluation</p> <p>Foundation route (Route 1)</p> <p>2. The site is evaluated using the BREEAM Ecological Risk Evaluation Checklist (Guidance Note 34) confirming that the Foundation route can be used (see Methodology and Definitions).</p> <p>OR</p> <p>Comprehensive route (Route 2)</p> <p>3. A Suitably Qualified Ecologist (SQE) carried out a survey and evaluation (see Methodology) for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically Preparation and brief stage) (see Definitions).</p> <p>4. The SQE's survey and evaluation determines the site's ecological baseline (see Definitions), including:</p> <p>a. Current and potential ecological value and condition of the site, and related areas within the zone of influence.</p> <p>b. Direct and indirect risks to current ecological value from the project</p> <p>c. Capacity and feasibility for enhancement of the site's ecological value of the site and, where relevant, areas within the zone of influence.</p> <p>5. Recommendations and data collected from the survey and evaluation are shared with appropriate project team members to influence decisions made for activities during site preparation, design and construction works, which can support ecological features (see Methodology and Definitions).</p> <p>Determining ecological outcomes</p> <p>Foundation and Comprehensive routes (Routes 1 and 2)</p> <p>6. Survey and evaluation criteria relevant to the chosen route (criterion 2 if following the Foundation route or Criteria 3-5 above for the Comprehensive route).</p> <p>7. The project team liaise and collaborate with representative stakeholders (see Methodology) early enough to influence key planning decisions (typically Concept Design stage) to:</p> <p>7.a Identify the optimal ecological outcomes for the site.</p> <p>7.b Identify, appraise and select measures to meet the optimal ecological outcomes for the site (criterion 7.a), in line with the mitigation hierarchy of action, according to the route being used (see Definitions):</p> <table border="1"> <thead> <tr> <th>Foundation route</th> <th>Comprehensive route</th> </tr> </thead> <tbody> <tr> <td>1. Avoidance 2. Protection</td> <td>1. Avoidance 2. Protection 3. Reduction or limitation of negative impacts 4. On site compensation and 5. Enhancement, considering the capacity and feasibility within the site, or where viable, off-site.</td> </tr> </tbody> </table>	Foundation route	Comprehensive route	1. Avoidance 2. Protection	1. Avoidance 2. Protection 3. Reduction or limitation of negative impacts 4. On site compensation and 5. Enhancement, considering the capacity and feasibility within the site, or where viable, off-site.	A copy of the Ecological Survey and Evaluation document. Note: A phase 1 habitat assessment or other equivalent type of assessment can act as acceptable evidence as long as it can be shown that they cover the content of the assessment criteria,	2	2	0	Ecologist / Project Team	Cri 3 - Page 3 of PEA notes survey carried out by Penelope Rees BSc (ACIEEM), Angel Fernandez BSc (ACIEEM), Patrick Bracelli MSc. PR completed GN40 - ten years experience and zoology degree noted. Cri 4a - Section 4 (Survey Results) notes site habitats and their conditions. Section 5 (Preliminary Evaluation) notes ecological features identified from study/survey, noting nearby sites within 201. Potential change to this baseline is noted in section 6 (Prelim. Impact Assessment). Cri 4b - risks are noted in impact tables within section 6. Table 6.1 - 'Summary of Potential Impacts on Nature Conservation Sites', Table 6.2 - 'Summary of Potential Impact on Habitats', Table 6.3 - 'Summary of Potential Impacts on Protected/Notable Species'. Cri 4c - Sections 6.1, 6.2 and 6.4 note enhancement opportunities via landscaping and creation of biodiversity outside site boundary. Section 7 (Recommendations) is not specific regarding enhancement, though indicates principles which will be followed (R3 Scheme Design) and that enhancement measures will feature in the LEMP (R5). Cri 5 - Early survey (Aug 23) and early PEA (shared w team Sept 23) give best opportunity to influence design/construction decisions. Cri 7 - GN40 notes discussions. Meeting minutes note agreed outcome is to improve the biodiversity/eco value of the site. Measures noted under Soft Landscaping/ Enhancements heading. GN40 notes locations of measures in line with hierarchy. Two credits awarded.								
Foundation route	Comprehensive route																		
1. Avoidance 2. Protection	1. Avoidance 2. Protection 3. Reduction or limitation of negative impacts 4. On site compensation and 5. Enhancement, considering the capacity and feasibility within the site, or where viable, off-site.																		
Le 03 Managing negative impacts on ecology - number of credits available depend on route																			
Le 03a Prerequisite	<p>Prerequisite – Ecological risks and opportunities</p> <p>1. LE02's 'Survey and evaluation and Determining ecological outcomes' criteria have been achieved using the Foundation route (Route 1) or the Comprehensive route (Route 2)</p> <p>Table 11.2 Credits awarded according to assessment route</p> <table border="1"> <thead> <tr> <th></th> <th>Foundation route (Route 1)</th> <th>Comprehensive route (Route 2)</th> </tr> </thead> <tbody> <tr> <td>Planning and measures on-site</td> <td>1 credit</td> <td>1 credit</td> </tr> <tr> <td>Managing negative impacts</td> <td>1 credit</td> <td>1 or 2 credits</td> </tr> </tbody> </table>		Foundation route (Route 1)	Comprehensive route (Route 2)	Planning and measures on-site	1 credit	1 credit	Managing negative impacts	1 credit	1 or 2 credits		-	MET	-	Ecologist / Project Team	Required for Le03 credits to be achieved.			
	Foundation route (Route 1)	Comprehensive route (Route 2)																	
Planning and measures on-site	1 credit	1 credit																	
Managing negative impacts	1 credit	1 or 2 credits																	
Le 03b Planning liaison, implementation and data	<p>One credit – Planning and measures on-site</p> <p>Routes 1 and 2</p> <p>2. Further planning to avoid and manage negative ecological impacts on-site is carried out (see Methodology) early enough to influence the concept design and design brief as well as site preparation planning (typically Concept Design stage).</p> <p>3. On-site measures for managing negative ecological impacts during site preparation and construction are implemented in practice (e.g. mitigation measures to protect existing ecological features) (see Methodology).</p> <p>4. Criteria 2-3 are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in Le02 Ecological risks and opportunities (see Methodology).</p>		1	1	0	Ecologist / Project Team	See Section 7 of PEA, R4 - CEEMP to be produced. One credit targeted.												

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments									
Le03c Managing negative impacts of the project	<p>Up to two credits – Managing negative impacts of the project Foundation route (Route 1) (one credit) 5. Criteria 2 and 3 are achieved. 6. Negative impacts from site preparation and construction works have been managed according to the hierarchy (see Methodology) and no overall loss of ecological value has occurred.</p> <p>Comprehensive route (Route 2) (up to two credits) 7. Criteria 2-4 have been achieved. 8. Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy, in line with the SQE's recommendations (see Methodology) and, either: a. No overall loss of (see Definitions) ecological value has occurred (2 credits) OR where criterion 8a is not possible: b. The loss of ecological value has been minimised (Minimising Loss) (1 credit)</p>		2	2	0	Ecologist / Project Team	<p>Section 6.2 of PEA indicates no no ecological loss is expected (confirmed in GN40).</p> <p>Awaiting protection measures and commitment to implement these.</p> <p>Two credits targeted.</p>									
Le 04 Change and enhancement of ecological value - number of credits available depends on route																
Le 04a Prerequisite	<p>Prerequisite - Managing negative impacts on ecology 1. Criterion 6 (for Foundation route) or 8 (for Comprehensive route) in Le03 has been achieved. 2. The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.</p>		-	MET	-	Ecologist / Project Team	<p>Required for Le04 credits to be achieved.</p>									
<p>Table 11.3 Credits awarded by ecological assessment route</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Foundation route (Route 1)</th> <th>Comprehensive route (Route 2)</th> </tr> </thead> <tbody> <tr> <td>Ecological enhancement</td> <td>N/A</td> <td>1 credit</td> </tr> <tr> <td>Change and enhancement of ecology</td> <td>1 credit</td> <td>up to 3 credits</td> </tr> </tbody> </table>			Foundation route (Route 1)	Comprehensive route (Route 2)	Ecological enhancement	N/A	1 credit	Change and enhancement of ecology	1 credit	up to 3 credits						
	Foundation route (Route 1)	Comprehensive route (Route 2)														
Ecological enhancement	N/A	1 credit														
Change and enhancement of ecology	1 credit	up to 3 credits														
Le 04b Liaison, implementation and data collation. Change and enhancement of ecology	<p>One credit - Change and enhancement of ecology Foundation route (Route 1) only 3. Locally relevant ecological measures have been implemented that enhance the site's ecological value. The measures adopted are based on (see Methodology). 3.a Recommendations from recognised 'local' ecological expertise and specialist input and guidance. 3.b Input from the project team in collaboration with representative stakeholders and data collated as part of 'Determining ecological outcomes' in Le02.</p> <p>OR</p> <p>One credit - Ecological enhancement Comprehensive route (Route 2) only 4. Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in Le02 (see Methodology). Measures are implemented in the following order: a. On site, and where this is not feasible, b. Off site within the zone of influence. 5. Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.</p>	<p>Ecologist's report</p> <p>Design drawings including proposed and existing (pre-development) site plan/survey</p> <p>Written confirmation from the client/design team confirming how the ecologist's recommendations will be implemented.</p>	1	1	0	Ecologist / Project Team	<p>To meet the pre-requisite for Le 05, one credit needs to be achieved for 'change and enhancement of ecology'.</p> <p>Recommendations in meeting minutes: -Off site enhancements -Green roof on bin store area -Log piles and hedgehog houses -Bat boxes prior to demo</p> <p>Recommendations from ecology meeting minutes to be formalised. PC to commit to implementing these.</p> <p>One credit targeted.</p>									
Le 04c Enhancement of ecology	<p>Up to three credits - Change and enhancement of ecology Comprehensive route (Route 2) only 6. Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology - Route 2. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats.</p>	<p>Ecologist's report</p> <p>Design drawings including proposed and existing (pre-development) site plan/survey</p> <p>Written confirmation from the client/design team confirming how the ecologist's recommendations will be implemented.</p>	3	2	0	Ecologist / Project Team	<p>To meet the pre-requisite for Le 05, one credit needs to be achieved for 'change and enhancement of ecology'. For route 2, at least one credit must be achieved.</p> <p>Middlemarch have completed the calculator tool, showing 96% ecological value post-dev - equating to 2 credits.</p> <p>Two credits targeted.</p>									
Le 05 Long term ecology management and maintenance - number of credits available depends on route																
Le 05a Prerequisite	<p>Prerequisite - Statutory obligations, planning and site implementation 1. The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site. 2. The following must be achieved, according to the route being assessed: a. Foundation route (Route 1) - criterion 6 in Le03 has been achieved . b. Comprehensive route (Route 2) - criterion 8 in Le03 has been achieved, and at least one credit under Le 04 for 'Change and Enhancement of Ecology' has been awarded.</p>		-	MET	-	Ecologist / Project Team	<p>Required for Le05 credits to be achieved.</p>									
<p>Table 11.4 Credits awarded by ecological assessment route</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Foundation route (Route 1)</th> <th>Comprehensive route (Route 2)</th> </tr> </thead> <tbody> <tr> <td>Management and maintenance throughout the project</td> <td>1 credit</td> <td>1 credit</td> </tr> <tr> <td>Landscape and ecology management plans</td> <td>1 credit</td> <td>1 credit</td> </tr> </tbody> </table>			Foundation route (Route 1)	Comprehensive route (Route 2)	Management and maintenance throughout the project	1 credit	1 credit	Landscape and ecology management plans	1 credit	1 credit						
	Foundation route (Route 1)	Comprehensive route (Route 2)														
Management and maintenance throughout the project	1 credit	1 credit														
Landscape and ecology management plans	1 credit	1 credit														
Le 05b Ecology management and maintenance	<p>One credit - Management and maintenance throughout the project - Foundation and Comprehensive routes (Route 1 and Route 2) 3. Measures have been implemented to manage and maintain ecology throughout the project. These measures are based on input from the project team in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in Le02 (see Methodology). To ensure the optimal ecological outcomes agreed in Le02 are met in practice, these measures must monitor and review the effectiveness of the mitigation and enhancement measures in place for Le03 and Le04 to ensure they are implemented. 4. A section on Ecology and Biodiversity has been included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site (see Methodology). This should include detailed management and maintenance plans as required by landscape and asset managers as well as relevant parts of the handover information for occupiers written in a format that encourages understanding and supportive behaviours.</p> <p>One credit - Landscape and ecology management plan (or similar) development - One credit for Route 2, to be included as part of Route 1 evidence, but no additional credit given 5. A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS42020:2013 Section 11.1 covering at least the first five years after project completion as a minimum and including: a. Actions and responsibilities of relevant individuals, prior to handover b. The ecological value and condition of the site at handover and how this is expected to develop and change over time c. Identification of opportunities for ongoing alignment with activities beyond the development project, which supports the aims of BREEAM's Strategic Ecology Framework d. Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts e. Clearly defined and allocated roles and responsibilities for delivering the plan 6. The landscape and management plan or similar will be updated to support maintenance of the ecological value of the site (see sections relating to Maintenance and Monitoring in CIEEM, CIRIA, IEMA, for helpful guidance).</p>	<p>Ecologist's report</p> <p>Design drawings including proposed and existing (pre-development) site plan/survey</p> <p>Written confirmation from the client/design team confirming how the ecologist's recommendations will be implemented.</p>	2	2	0	Ecologist / Project Team	<p>LEMP provided - awaiting confirmation that it is written in accordance with BS 42020.</p> <p>Two credits targeted.</p>									
			13	11	0	2										
		13%	13	11	0	2										

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Pol 01 Impacts of refrigerants							
Pol 01a No refrigerant use	<p>Three credits - No refrigerant use</p> <p>1. No refrigerant use within the installed plant or systems. OR alternatively, where the building does use refrigerants, the three credits can be awarded as follows:</p> <p>Prerequisite</p> <p>2. All systems with electric compressors comply with the requirements of BS EN378:2016(207) (parts 2 and 3). Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice(208)</p> <p>Two credits - Impact of refrigerant</p> <p>3. The direct effect life cycle CO₂ equivalent emissions(DELCO) of ≤ 100 CO₂-eq/kW. For systems which provide cooling and heating, the worst performing output based on the lower of kW cooling output and kW heating output is used to complete the calculation. To calculate the DELCO, refer to the relevant definitions in Methodology below and Additional information on page 303.</p> <p>OR</p> <p>4. All refrigerants used have a global warming potential (GWP) ≤ 10.</p> <p>OR</p> <p>One credit - Impact of refrigerant</p> <p>5. Systems using refrigerants have a DELCO of ≤ 1000 kgCO₂-eq/kW cooling and heating capacity.</p> <p>One credit - Leak detection</p> <p>6. All systems are hermetically sealed or only use environmentally benign refrigerants(see Leak detection and Hermetically sealed systems on page 301).</p> <p>OR</p> <p>7. Where the systems are not hermetically sealed:</p> <p>7.a Systems have:</p> <p>7.a.i A permanent automated refrigerant leak detection system, that is robust and tested, and capable of continuously monitoring for leaks.</p> <p>OR</p> <p>7.a.ii An inbuilt automated diagnostic procedure for detecting leakage is enabled.</p> <p>7.b In the event of a leak, the system must be capable of automatically responding and managing the remaining refrigerant charge to limit loss of refrigerant (see Automatic isolation and containment of refrigerant on page 303).</p>	<p>Completed copy of Pol 01 calculator tool. Documentary evidence supporting the data used to complete the calculator tool.</p> <p>A copy of the specification clause or letter from the M&E engineer / system manufacturer confirming relevant refrigeration type and system information.</p>	3	2	1	M&E	<p>-One credit for DELCO. One further potential credit.</p> <p>-One credit for leak detection.</p> <p>Two credits targeted. One potential credit.</p>
Pol 02 Local air quality							
Pol 02a Local air quality	<p>Up to two credits - Local air quality</p> <p>1. All heating and hot water is supplied by non-combustion systems. For example, only powered by electricity. OR alternatively;</p> <p>2. Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Table 12.4 and Table 12.5 on page 328. The measurements must be provided by manufacturers. Must determine whether the development is in a high or low pollution zone (methodology).</p>		2	2	0	M&E	Two credits targeted.
Pol 03 Flood and surface water management							
Pol 03a Prerequisite	<p>Prerequisite</p> <p>1. An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.</p>		-	MET		Civil Engineer	<p>Required for Any Pol03 credits to be achieved.</p> <p>SWH are appropriate consultant.</p>
Pol 03b Flood resilience	<p>Up to two credits - Flood resilience</p> <p>Two credits - Low flood risk</p> <p>2. A site-specific flood risk assessment (FRA) confirms the development is in a flood zone that is defined as having a low annual probability of flooding. The FRA takes all current and future sources of flooding into consideration (see Sources of flooding on page 312).</p> <p>One credit - Medium or high flood risk</p> <p>3. A site-specific FRA confirms the development is in a flood zone that is defined as having a medium or high annual probability of flooding and is not in a functional floodplain. The FRA must take all current and future sources of flooding into consideration (see Sources of flooding on page 312). For smaller sites refer to Level of detail required in the FRA for smaller sites on page 312, which overrides criterion 2 above.</p> <p>4. To increase the resilience and resistance of the development to flooding, one of the following must be achieved:</p> <p>4.a The ground level of the building and access to both the building and the site, are designed (or zoned) so they are at least 600 mm above the design flood level of the site's flood zone (see 600 mm threshold on page 312).</p> <p>4.b The final design of the building and the wider site reflects the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS 8533:2017 (214)</p>		2	2	0	Civil Engineer	<p>SWH FRA provided (as part of Drainage Strategy), confirms FZ1 (see summary section 5 and appendix E).</p> <p>Two credits awarded.</p>
Pol 03c Prerequisite	<p>Prerequisite for surface water run-off credits</p> <p>5. 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.</p>		-	MET		Civil Engineer	<p>Required for Pol03d or Pol03e credits to be achieved.</p> <p>Ed McDade confirms solutions are bespoke in GN38.</p>
Pol 03d Surface water run off - rate	<p>One credit - Surface Water Run-Off - Rate</p> <p>6. 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.</p> <p>7. For greenfield sites, drainage measures are specified so that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events.</p> <p>8. Relevant maintenance agreements for ownership, long term operation and maintenance of all specified SuDS are in place.</p> <p>9. Calculations include an allowance for climate change. This should be made in accordance with current best practice planning guidance (definitions on page 338).</p>	<p>Calculation results for the pre-and post-development peak rate of run-off.</p>	1	1	0	Civil Engineer	<p>Cri 6 - GN38 notes infiltration via soakaway and permeable paving - 100% reduction at both 1-year and 100-year events.</p> <p>Cri 8 - Appendix I of drainage strategy notes client is responsible for SuDS maintenance.</p> <p>Cri 9 - GN38 confirms calcs have an allowance for climate change.</p> <p>One credit awarded.</p>

BREEAM NC Version 6 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Pol 03e Surface water run off - volume	<p>One credit - Surface Water Run-Off - Volume</p> <p>10. Flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND EITHER</p> <p>11. Drainage design measures are specified so that the post-development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development. This must be for the 100-year 6-hour event, including an allowance for climate change (see criterion 14).</p> <p>12. Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other SuDS techniques. OR (only where criteria 11 and 12 cannot be achieved):</p> <p>13. Justification from the appropriate consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options.</p> <p>14. Drainage design measures are specified so that the post-development peak rate of run-off is reduced to the limiting discharge. The limiting discharge is defined as the highest flowrate from the following options:</p> <p>14.a The pre-development one-year peak flowrate</p> <p>14.b The mean annual flowrate (Qbar)</p> <p>14.c 2L/s/ha.</p> <p>For the one-year peak flowrate, the one-year return period event criterion applies.</p> <p>15. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place.</p> <p>16. For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance</p>	Information showing the proposed drainage solution, system failure flood flow routes, potential flood ponding levels and ground floor levels. Calculation results for the pre-and post-development volume of run-off. Calculation results of the limiting discharge.	1	1	0	Civil Engineer	<p>Cri 10 - Confirmed in GN38 that flooding will not occur in event of local drainage system failure.</p> <p>Cri 11 - GN38 confirms 109.2 cubic m pre-development and 50.9 cubic m post-development.</p> <p>Cri 12 - N/A</p> <p>Cri 15 - Appendix I of drainage strategy notes client is responsible for SuDS maintenance.</p> <p>Cri 16 - GN38 confirms calcs have an allowance for climate change.</p> <p>One credit awarded.</p>
Pol 03f Minimising watercourse pollution	<p>One credit - Minimising watercourse pollution</p> <p>17. There is no discharge from the developed site for rainfall up to 5 mm (confirmed by the appropriate consultant).</p> <p>18. Areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques.</p> <p>19. Areas with a high risk of contamination or spillage of substances, such as petrol and oil, have separators (or an equivalent system) are installed in surface water drainage systems.</p> <p>20. Chemical or liquid gas storage areas have a means of containment fitted to the site drainage system (i.e. Shutoff valves). This is to prevent the escape of chemicals to natural water courses in the event of a spillage or bunding failure.</p> <p>21. All water pollution prevention systems have been designed and installed in accordance with the recommendations of documents such as the SuDS manual(215) 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.</p> <p>22.A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers.</p> <p>23. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.</p>	The consultants report detailing the design specifications, calculations and drawings to support the 5mm rainfall discharge criteria. Design drawings and/or relevant section/clauses of the building specification or contract indicating	1	1	0	Civil Engineer	<p>EM to confirm whether this is being met. All related questions noted as N/A in GN38.</p> <p>One credit targeted.</p>
Pol 04 Reduction of night time light pollution							
Pol 04a Reduction of night time light pollution	<p>One credit - Reduction of night time light pollution</p> <p>1. External lighting pollution has been eliminated through effective design that removes the need for external lighting. This does not adversely affect the safety and security of the site and its users.</p> <p>OR</p> <p>alternatively, where the building does have external lighting, one credit can be awarded as follows:</p> <p>2. The external lighting strategy has been 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(221).</p> <p>3. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00.</p> <p>4. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes.</p> <p>5. Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.(221)</p>	Design drawings Relevant section/clauses of the building specification or contract or external lighting design data/calculations In the case of the external lighting design, the M&E engineer or lighting designer must provide indicative examples of where and how the strategy complies with the assessment criteria.	1	1	0	M&E	<p>Cri 2 - Section 2.2 of Ridge Ext Lighting Statement confirms design to ILP GN01.</p> <p>Cri 3 - timeclock control noted within section 2.3 of statement, specific times to be confirmed.</p> <p>Cri 4 - Security lighting included - ILP compliance TBC.</p> <p>Cri 5 - Assumed N/A.</p> <p>One credit targeted.</p>
Pol 05 Reduction of noise pollution							
Pol 05a Reduction of noise pollution	<p>One credit - Reduction of noise pollution</p> <p>1. There are no noise-sensitive areas within the assessed building or within 800 m radius of the assessed site.</p> <p>OR</p> <p>2. 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 BS4142:2014(222) is commissioned. Noise levels must be measured or determined for:</p> <p>2.a Existing background noise levels:</p> <p>2.a.i at the nearest or most exposed noise-sensitive development to the proposed assessed site.</p> <p>2.a.ii including existing plant on a building, where the assessed development is an extension to the building</p> <p>2.b Noise rating level from the assessed building.</p> <p>3. The noise impact assessment must be carried out by a suitably qualified acoustic consultant.</p> <p>4. 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.</p> <p>5. If the noise sources from the assessed building are greater than the levels described in criterion 4, measures have been installed to attenuate the noise at its source to a level where it will comply with the criterion</p>	For 1: Design drawings highlighting: 1. All existing and proposed noise-sensitive buildings local to, and within, the site boundary 2. Proposed sources of noise from the new development 3. Distance (m) from these buildings to the assessed development. For 2 to 3: The acoustician's report, acoustician's qualifications and professional status. OR Relevant section/clauses of the building specification or contract requiring a noise assessment by a suitably qualified acoustician in compliance with BS 4142:1997. OR A letter from the client or design team confirming that they will appoint an acoustician to carry out a noise assessment in compliance with BS 4142:1997 For 4: Acoustician's report with recommendations for noise attenuation measures. AND EITHER A marked-up design plan highlighting the specification of the acoustician's attenuation measures OR A formal letter from the client or design team confirming where relevant, that attenuation measures recommended by an appointed suitably qualified acoustician will be installed	1	1	0	Acoustic Consultant / Principal Contractor / M&E	<p>Music building - this may have more noise impact than the plant.</p> <p>One credit targeted.</p>
			12	11	1	4	
			8	7.33	0.66	2.66	

BREEAM NC Version 6 Criteria			Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Innovation - Exemplary Level Criteria								
Mat 01 Core building services options appraisal during Concept Design	8. Criteria 3 to 4 are achieved. 9. During Concept Design identify opportunities for reducing environmental impacts as follows: 9.a Carry out building LCA options appraisal of at least 3 significantly different core building services design options. 9.b Use a building LCA tool that is recognised by BREEAM (as suitable for assessing core building services during Concept Design) according to the methodology (see Methodology on the next page). 9.c As criteria 4.c to 4.f.		As Mat 01 evidence.	1	1	0	Architect	ADW have provided submission pack. One credit awarded.
Section Total			Note: Maximum available is 10 credits	10	1	0	1	
Weighted Section Total			10.0%	10.00	1.00	0.00	1.00	
			Overall Total	110.00	81.27	11.29	17.53	