

**BREEAM New Construction 2018
Pre-assessment Report
Avery Healthcare
Land at Ascot Road
Gravesend
DA12 5AW**

Date: 24/03/2021
Project No. 503396
Revision:01

	Structural Engineering
	Civil Engineering
	CDM Consultants
	Sustainability and BREEAM
	Traffic and Transport
	Flood Risk Assessments
	Highway Engineering
	Event Engineering

Issue and Amendment Record:

Revision	Comment/Amendment	Prepared	Reviewed	Approved	Date
01	Planning	KAS	PB	PB	24/03/21

Executive Summary

Scott White and Hookins has been commissioned by Avery Healthcare Group to carry out a BREEAM assessment on the proposed new care home.

The building will need to be assessed against the BREEAM New Construction 2018 criteria. These criteria are determined by the BRE for a specific building using relevant information on building use, room functions and areas and building layout. The latest version of the criteria was issued by the BRE on 31st July 2019. These are presented in the BREEAM New Construction 2018 Scheme Document SD 5078 Version 3.0. This report details the pre-assessment performance of the development as measured against these criteria.

Following a pre-assessment estimate, the development has achieved a BREEAM score of 56.70%. This translates into a pre-assessment BREEAM rating of **'Very Good'**.

This pre-assessment estimate is based on design information available at the time of the assessment and our experience of BREEAM compliance for similar buildings.

The pre-assessment has concluded that an **'Excellent'** rating cannot be achieved in the Wat01 BREEAM New Construction 2018 scheme. The current specification only achieves a 12.5% improvement over baseline. To achieve an **'Excellent'** rating there is a requirement to achieve a 50% improvement over baseline. This would require all appliances to be installed with flow restrictors and 50% of the potable water demand from components be offset with greywater and rainwater recycling.

Having investigated the flow rates that would be required to achieve an **'Excellent'** rating it was concluded that the restricted flow rates would have a severe impact on the performance of the showers and taps within the care home and would not align with the high level of health and wellbeing of the residents.

To achieve 50% of the potable water demand from components being offset with greywater and rainwater recycling would require grey water feeding internal appliances. This would be resisted by the care home development due to the risk of contamination within the home. Installation of a rainwater harvesting tank, to feed all external bib taps, for general landscaping and maintenance duties only would be considered. This however would not achieve the 50% requirement under Wat01 in terms of BREEAM.

Subsequent design development and construction will affect the credits that can be taken or which have to be withheld. As a result the final credit score may differ from the score determined at this pre-assessment. However, continuous monitoring during the design development and construction stage will ensure that a rating of **Very Good** can be achieved on completion of the building.

Introduction

Scott White and Hookins was instructed by Avery Healthcare Group to carry out a BREEAM assessment on the proposed new care home. This appointment was at the beginning of a phase equivalent to RIBA Stage 2.

BREEAM New Construction 2018 seeks to minimise the adverse effects of new buildings on the environment at global and local scales, whilst promoting healthy indoor conditions for the occupants.

If required by the relevant Local Planning Authority, the environmental performance of a new building is assessed at the design and post construction stages, where it is compared against specific criteria by independent assessors. An overall rating of the building's performance is given using the terms Pass, Good, Very Good, Excellent, or Outstanding. This is determined from the total number of BREEAM criteria met and their respective environmental weighting (Table 1 below). There are also a number of mandatory (or 'minimum') credits applicable to each rating band, these are outlined later in this report.

Table 1: Ratings

<30%	Unclassified
≥30%	Pass
≥45%	Good
≥55%	Very Good
≥70%	Excellent
≥85%	Outstanding

BREEAM is a voluntary scheme and projects are assessed using a system of credits.

In this respect each BREEAM rating broadly represents performance equivalent to:

1. Outstanding: Less than the top 1% of UK new non-domestic buildings (innovator)
2. Excellent: Top 10% of UK new non-domestic buildings (best practice)
3. Very Good: Top 25% of UK new non-domestic buildings (advanced good practice)
4. Good: Top 50% of UK new non-domestic buildings (intermediate good practice)
5. Pass: Top 75% of UK new non-domestic buildings (standard good practice)

The credits themselves are grouped within the following categories:

- Management
- Health and Well Being
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use and Ecology
- Pollution
- Innovation

BREEAM Scoring

The BREEAM categories outlined above, consist of a number of issues, each of which seek to mitigate the impact of the project and the environment. The BREEAM scoring for each issue is set against performance targets and assessment criteria that must be met for the target, and associated credits, to be achieved. The credits gained within each category are collated and an environmental weighting applied to each category score prior to these being combined into a final BREEAM score. These weighting factors have been derived from research carried out by BRE to establish the relative importance of each environmental issue.

The environmental weightings for each of the environmental sections included in the BREEAM New Construction 2018 scheme are as follows:

Table 2: BREEAM 2018 Environmental Weightings

BREEAM Category	Environmental Weighting %
Management	11 %
Health & Wellbeing	14 %
Energy	16 %
Transport	10 %
Water	7 %
Materials	15 %
Waste	6 %
Land Use and Ecology	13 %
Pollution	8 %
TOTAL	100 %
Innovation (additional)	10 %

BREEAM 2018 Minimum Standard Credits

To achieve a BREEAM rating, the minimum percentage score (as outlined in Table 1) must be achieved, and the minimum standards applicable to the rating level must also be achieved (Table 3).

Table 3: Minimum BREEAM Standards

BREEAM Issue	BREEAM Rating / Minimum number of credits				
	Pass	Good	Very good	Excellent	Outstanding
Man 03 – Responsible construction practices	-	-	-	1	2
Man 04 – Commissioning and Handover	-	-	One credit (commissioning-test schedule and responsibilities)	One credit (commissioning-test schedule and responsibilities)	One credit (commissioning-test schedule and responsibilities)
Man 04 – Commissioning and Handover	-	-	Criterion 11 (Building User Guide)	Criterion 11 (Building User Guide)	Criterion 11 (Building User Guide)
Man05 - Aftercare	-	-	-	One credit (commissioning-implementation)	One credit (commissioning-implementation)
Ene 01 – Reduction of CO ₂ emissions	-	-	-	Four credits (Energy performance)	Six credits (Energy performance) and Four credits (Energy modelling and reporting)
Ene 02 – Energy monitoring	-	-	One credit (First sub-metering credit)	One credit (First sub-metering credit)	One credit (First sub-metering credit)
Wat 01 – Water consumption	-	1	1	1	2
Wat 02 – Water monitoring	-	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Mat 03 – Responsible sourcing	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Wst 01 – Construction waste management	-	-	-	-	1
Wst 03 – Operational waste	-	-	-	1	1

BREEAM Credits for innovation

The final category in the BREEAM scheme gives further recognition to a project that innovates in the field of sustainable performance – above and beyond that rewarded elsewhere in the standard BREEAM issues.

A maximum of 10 innovation credits can be awarded for any assessment, with each contributing an additional 1% to the final BREEAM score.

There are two ways that a building can achieve an innovation credits. These are as follows:

1. Meeting Exemplary Performance Criteria

A number of the BREEAM issues also include exemplary performance criteria with the fixed details of the target / benchmark and evidence required to indicate compliance. These issues are given in Table 4 below. For each of the issues listed below, an additional credit can be gained by meeting the associated criteria.

Table 4: BREEAM issues with exemplary level requirements

Man 01 Project brief and design (Simple buildings only)
Man 03 Responsible construction practices
Hea 01 Visual comfort
Hea 02 Indoor air quality
Hea 06 Security
Ene 01 Reduction of energy use and carbon emissions
Wat 01 Water consumption
Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)
Mat 03 Responsible sourcing of construction products
Wst 01 Construction waste management
Wst 02 Use of recycled and sustainably sourced aggregates
Wst 05 Adaptation to climate change
LE 02 Identifying and understanding the risks and opportunities for the project
LE 04 Change and enhancement of ecological value
Pol 03 Flood and surface water management (Simple buildings only).

2. Innovation Performance Application

The second route to innovation credits relates to the identification of a particular building feature, system or process being recognised as “innovative”. An application to BRE is made by the BREEAM Assessor outlining the details of the proposed feature and if this successfully meets their criteria an innovation credit can be awarded.

Approach and Stages of BREEAM Assessment

The BREEAM Assessment process can be split into the following key stages:

Pre-assessment

A pre assessment review is compiled at the early stages of the designing process, often around the time of planning consultation. As outlined in the executive summary, a pre assessment estimate is based on design information available at the time, along with site visits and the assessor's experience of BREEAM compliance for similar buildings. It provides a guide to the probable BREEAM rating that would be achieved in a formal BREEAM Assessment and is a useful tool for assessing the schemes apparent BREEAM rating. This report is based on a pre-assessment following a series of design team meetings and design development.

Design Stage

The design stage assessment represents the performance of the building at the design stage of the assessment, typically prior to the beginning of operations on site. If a formal design stage assessment is to be completed, then the subsequent interim report is submitted to BRE for certification. With the site work incomplete, this certification does not, therefore, represent the building's final 'as built' BREEAM performance, for which a post construction review is required.

In order to complete a formal design stage assessment, the design must be advanced to the point where the relevant information is available to enable the BREEAM assessor to demonstrate the building's performance against the reporting and evidential requirements of the technical guidance. The formal design stage assessment should therefore be carried out at the detailed design stages. Dependant on the program and procurement route to the scheme, there is often an overlap of the designing and construction stages. This can often lead to the final stages of the design stage review being completed once construction has commenced on site.

Post Construction Stage

The post construction assessment and subsequent final BREEAM certification represents the final 'as built' performance and BREEAM rating. A post construction assessment is carried out after practical completion of the building works. A post construction review serves to confirm the interim BREEAM rating achieved at the design stage in accordance with the reporting and evidential criteria of the technical guidance.

Post-occupancy Stage

The Post occupancy stage is an optional third stage of assessment under the UK New Construction scheme. This stage confirms the process of monitoring, reviewing and reporting on the performance of the building once occupied. It is carried out a minimum of 12 months after occupation and would normally be before a period of two years has lapsed from the date of 'full' occupation (defined as occupation of approximately 80% of the occupiable space in the building). This will focus on best practice project commissioning and handover and post-occupation support

and aims to help the Design Team, Facilities Manager and building owner understand the actual performance of the building and optimise this in line with design expectations. The assessment will review post occupancy monitoring processes and identify where there are deficiencies to rectify or opportunities to take. The post occupancy stage is only applicable to fully fitted and shell and core assessments, it is not available for shell only assessments.

The post occupancy stage will also entail a review of commitments made at the post-construction stage within the UK New Construction scheme.

Gravesham Borough Council

Information Utilised

This pre-assessment, carried out at the equivalent of RIBA Stage 2, is based on the following information:

Design Information
BREEAM Workshop on the 1st March 2021

A Pre-assessment Estimator has been used to calculate the likely BREEAM scoring for the development. Likely credit scores for each BREEAM issue, based on the above, have been entered into this.

Assumptions

The Energy Regulated calculation (via SBEM) results to a BREEAM score of 3
Water saving measures such as low water use appliances (where appropriate) and sanitary supply shut-off will be installed.
The contractor will minimise site impacts including waste generated on site.
The Contractor appointed will hold a third party certified ISO14001 EMS
The Contractor will appoint a BREEAM Advisory Professional to monitor construction progress against BREEAM criteria
An Elemental life cycles will be commissioned.
A Thermographic survey will be undertaken to assure the integrity of the building fabric
A Building User Guide will be provided.
Post Occupancy Evaluations will be carried out 12 months after occupation
An Ecologist will be appointed and recommendations will be implemented.
Sub meters will be installed to allow sub-metering of energy consumption.
Maximised transport credits with installation of cycle storage, electric recharging stations and car sharing facilities.

The above information was used to prepare the Pre-assessment Estimator in Appendix 1.

Conclusion

Following a pre-assessment estimate, the development has achieved a BREEAM score of 56.7% This translates into a pre-assessment BREEAM rating of **Very Good**.

The pre-assessment has concluded that an '**Excellent**' rating cannot be achieved in the Wat01 criteria within the BREEAM New Construction 2018 scheme. The current specification only achieves a 12.5% improvement over baseline. To achieve an '**Excellent**' rating there is a requirement to achieve a 50% improvement over baseline. This would require all appliances to be installed with flow restrictors and 50% of the potable water demand from components be offset with greywater and rainwater recycling.

Having investigated the flow rates that would be required to achieve an '**Excellent**' rating it was concluded that the restricted flow rates would have a severe impact on the performance of the showers and taps within the care home and would not align with the high level of health and wellbeing of the residents.

Although classified as a commercial development all care homes operate similar to residential properties and as such the criteria for new homes set out at 105l/person/day is far more reflective of the residential nature of this care home and its water use. The design team would be happy to provide a water statement demonstrating compliance with this level without compromising the operation of the home and its residents.

To achieve 50% of the potable water demand from components being offset with greywater and rainwater recycling would require grey water feeding internal appliances. This would be resisted by the care home development due to the risk of contamination within the home. The design team would be happy to install a rainwater harvesting tank, to feed all external bib taps, for general landscaping and maintenance duties only. This however would not achieve the 50% requirement under Wat01 in terms of BREEAM.

To improve the overall water consumption from the current specification the following could be implemented:

1. Water statement demonstrating that water use of 105 litres per person per day can be achieved.
2. rainwater harvesting tank, to feed all external bib taps, for general landscaping and maintenance duties only.
3. Installing additional flow limiters to components at a level that will not impact the performance of the showers and taps to a level that reduces the overall health and wellbeing for the residents.

Appendix 1 is the summary of performance showing the targeted credits at this stage.

Appendix 1

Pre-assessment Summary of Performance

See on next page

Gravesham Borough Council

Project: Avery Healthcare, Gravesend
 Scheme: BREEAM UK New construction 2018
 Target level: Very Good
 Stage: Pre-Assessment
 Date: 01/03/2021
 Revision: 2.1 Following Feedback from the Team

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

Anticipated that credit will be targeted, awaiting team feedback

Potential credit

Credit not currently targeted

Current Targeted' Rating Total: 56.70%
 Equating to BREEAM: Very Good (Provided all "minimum standard" issues are met)
 Total if all 'Additional Potential' Credits are also achieved: 60.70%
 Equating to BREEAM: Very Good (Provided all "minimum standard" issues are met)

BREEAM 2018 Assumptions							
Project scope: Fully fitted							
Building type (main description): Residential institution (Long term stay)							
Sub-group: Residential care home							
Assessment stage: Design (interim)							
Building floor area (GIA): 3,258m2							
Building floor area (NIFA): TBC							
Is the building designed to be untreated?: No							
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							
Are there 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?: No							
BREEAM NC 2018 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	Credit that should be considered early. 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.	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	Potential Credit that should be considered early. 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	Pre-requisite needs to be met for Man 01c and Man 01d to be achieved.
Man 01c BREEAM AP (Concept Design)	One credit - BREEAM AP (Concept Design) 9. Involve a BREEAM AP in the project at an appropriate time and level to: 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. 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. 9.c Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8. 9.d Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. 9.e Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.	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. 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	0	0	BREEAM AP	Credit that should be considered early. Potential credit to be targeted. Fee Quote to be provided

BREEAM NC 2018 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Man 01d BREEAM AP (Developed Design)	One credit - BREEAM AP (Developed Design) 10. Criteria 8 and 9 has been achieved. 11. Involve the BREEAM AP in the project at an appropriate time and level to: 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. 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. 11.c Proactively identify risks and opportunities related to the achievement of the targets agreed under criterion 8. 11.d Provide feedback to the project team as appropriate, to support them in taking corrective actions and achieving their agreed performance targets. 11.e Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team.	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. 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	0	0	BREEAM AP	Potential credit to be targeted (requires Man01c and Man01d to be targeted). Fee Quote to be provided
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	Two credits - Elemental life cycle cost 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). 2. The elemental LCC plan: 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); 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). 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.	Relevant sections of the feasibility stage life cycle cost analysis report / documentation. Relevant sections of the feasibility stage appraisal documentation. Elemental LCC plan.	2	2	0	Harness and Holden Lee	Credits that should be considered early. Two Credits targeted.
Man 02b Component level LCC options appraisal	One credit - Component level LCC options appraisal 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): 4.a Envelope, e.g. classing, windows, or roofing 4.b Services, e.g. heat source, cooling source or controls 4.c Finishes, e.g. walls, floors or ceilings 4.d External spaces, e.g. alternative hard landscaping, boundary protection. The Component level LCC option appraisal should review all of the above component types (where present). However, you do not need to consider every single example cited under each component; only a selection of those most likely to draw valued comparisons. This is to ensure that a wide range of options are considered and help focus the analysis on components which would benefit the most from appraisal. 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.	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	0	Main Contractor	Potential Credit currently targeted. Competency requirements to be confirmed
Man 02a Capital cost reporting	One credit - Capital cost reporting 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.	Provide capital cost report.	1	1	0	QS	One credit targeted.
Man 03 Responsible construction practices - Minimum standards one credit RCM for Excellent, two credits RCM for Outstanding							
Man 03a Prerequisite	Prerequisite - Legally harvested and traded timber 1. All timber and timber-based products used during he 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.	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	Pre-requisite will be met.
Man 03b Environmental management	One credit - Environmental management 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: 3.a Be third party certified, to ISO 14001:2015(10), EMAS (EU Eco-Management and Audit Scheme) or equivalent standard; OR 3.b In compliance with BS 8555:2016(11) have: 3.b.i Appropriate structure 3.b.ii Reached implementation stage phase four 'implementation and operation of the environmental management system' 3.b.ii Completed the defined phase audits one to four. 4. All parties who at any point manage the construction site (e.g. the principal contractor, the demolition contractor) implement best practice pollution prevention policies and procedures on site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines(12).	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	Credit currently targeted.
Man 03c Prerequisite	Prerequisite - BREEAM AP 5. The client and the contractor formally agree performance targets.	Letter confirming targets have been agreed.	-	MET	-	BREEAM AP	Pre-requisite will need to be met for the following credits to be awarded.
Man 03d BREEAM AP (site)	One credit - BREEAM AP (site) 6. Involve a BREEAM AP in the project at an appropriate time and level to: 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. 6.b Monitor construction progress against the performance targets agreed under criterion 5 above throughout all stages where decisions critically impact BREEAM performance. 6.c Proactively identify risks and opportunities related to the procurement and construction process and the achievement of the targets agreed under criterion 5. 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. 6.e Monitor and, where relevant, coordinate the generation of appropriate evidence by the project team and the provision to the assessor.	The AP appointment letter. 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. 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). Additional information on page 52.	1	1	0	Principal Contractor / BREEAM AP	Potential Credit currently targeted. Fee Quote to be provided
Man 03e Responsible construction management	Up to two credits - Responsible construction management 7. One credit: Achieve items listed as required for one credit in table 4.1. 8. Two credits: Achieve criterion 7. 9. Achieve 6 additional items in table 4.1.	Use BREEAM recognised responsible construction management scheme to support in this process e.g. Considerate Construction Scheme and Fleet Operator Recognition Scheme.	2	2	0	Principal Contractor	One credit must be achieved for Excellent. Site to be CCS registered. Two credits targeted.

BREEAM NC 2018 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Man 03f Monitoring of construction site impacts	Up to two credits - Monitoring of construction site impacts 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.	Relevant section/clauses of the building specification or contract OR A formal letter of commitment from the client/developer	-	MET	-	Principal Contractor / BREEAM AP	
Man 03g Utility consumption	First monitoring credit - Utility consumption Energy consumption 11. Achieve criterion 10. 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. 13. Monitor and record data for the energy consumption described in criterion 12. 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). Water consumption 15. Achieve criterion 10. 16. Set targets for the potable water consumption (m³) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. 17. Monitor and record data for the potable water consumption described in criterion 16. 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).	Relevant section/clauses of the building specification or contract OR A formal letter of commitment from the client/developer	1	1	0	Principal contractor	One credit targeted.
Man 03h Transportation of construction materials and waste	Second monitoring credit - transportation of construction materials and waste 19. Achieve criterion 10. 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: 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: 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). 20.a.ii Ground works and landscaping materials. 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. 21. Monitor and record data from the transportation movements as described in criterion 20. 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).	Relevant section/clauses of the building specification or contract OR A formal letter of commitment from the client/developer	1	1	0	Principal Contractor	One credit targeted.
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							
Man 04a Commissioning - testing schedule and responsibilities	One credit - Commissioning - testing schedule and responsibilities 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. 2. The schedule identifies the appropriate standards for all commissioning activities to be conducted, where applicable, in accordance with: 2.a Current Building Regulations 2.b BSRIA guidelines (16) 2.c CIBSE guidelines (17) 2.d Other appropriate standards (see Methodology). 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. 3. Where a BMS is specified: 3.a Carry out commissioning of air and water systems when all control devices are installed, wired and functional. 3.b Include physical measurements of room temperatures, off-coil temperatures and other key parameters, as appropriate, in commissioning results. 3.c The BMS or controls installation should be running in auto with satisfactory internal conditions prior to handover. 3.d All BMS schematics and graphics (if BMS is present) are fully installed and functional to user interface prior to handover. 3.e Fully train the occupier or facilities team in the operation of the system. 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. 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.	Appointment letter or commissioning responsibilities schedules Relevant section/clauses of the building specification or contract Principal Contractors programme Commissioning schedule	1	1	0	M&E	One credit must be achieved for Very Good One credit targeted.
Man 04b Commissioning - design and preparation	One credit - Commissioning - design and preparation 6. Achieve criteria 1 to 5. 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: 7.a Undertaking design reviews and giving advise on suitability for ease of commissioning. 7.b Providing commissioning management input to construction programming and during installation stages. 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).	Appointment letter or commissioning responsibilities schedules Relevant section/clauses of the building specification or contract Principal Contractors programme Commissioning schedule	1	1	0	M&E	One credit targeted.
Man 04c Testing and inspecting building fabric	One credit - Testing and inspection building fabric 8.Achieve criteria 1 to 5. 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. 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).	Appointment letter or commissioning responsibilities schedules Relevant section/clauses of the building specification or contract Principal Contractors programme Commissioning schedule	1	1	0	Principal Contractor	One credit targeted.
Man 04d Rating Min Standard	Rating Related Min Standard- Very Good Rating and Above BUG criteria as outlined in 11 below is fully met.	Building User Guide	-	MET	-	Principal Contractor	Pre-requisite will need to be met for the following credits to be awarded.
Man 04d Handover	One credit - Handover 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.	Building User Guide Training schedule	1	1	0	Principal Contractor	Criterion 11 must be met for Very Good. One credit targeted.

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Man 05 Aftercare - Minimum standards for one credit for commissioning implementation for Excellent and Outstanding									
Man 05a Aftercare support	One credit - Aftercare support 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 is 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.			Evidence of a commitment/contract to provide compliant aftercare support and training.	1	1	0	Principal Contractor	One credit targeted.
Man 05b Commissioning - Implementation	One credit - Commissioning - implementation 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.			Confirmation that commissioning has been carried out as per DS commitment.	1	1	0	Main Contractor	One credit targeted.
Man 05c Post-Occupancy Evaluation	One credit - Post-occupancy evaluation (POE) 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 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.			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. Fee quote to be provided
					21	18	0	0	
				11%	11.00	9.42	0.00	0.00	
Hea 01 Visual Comfort									
Hea 01a Control of glare from sunlight	One credit - Control of glare from sunlight 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. 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. 3. The glare control strategy does not increase energy consumption used for lighting. This is achieved by: 3.a Maximising daylight levels in all weather, cloudy or sunny AND 3.b Ensuring the use or location of shading does not conflict with the operation of lighting control systems.			Design drawings Relevant section/clauses of the building specification or contract	1	1	0	Main Contractor	One credit targeted.
Hea 01b Daylighting (building type dependent)	Up to two credits - Daylighting (building type dependent) 4 Daylighting criteria have been met using either of the following options: 4.a The relevant building areas meet good practice daylight factors and other criteria as outlined in Table 5.1 and Table 5.2 OR 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.			Daylighting calculations.	2	0	0	Architect	Credits not sought due to room depths.
Hea 01c View Out	One credit - View out 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*). 6. In addition, the building type criteria for Prisons, multi-residential and healthcare are outlined in Table 5.6. *Where relevant building areas are within 8m of an external wall which as a window or permanent opening, and the window/opening is ≥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. Multi-residential buildings Self-contained flats - living rooms Sheltered housing - communal lounges, individual bedrooms and bedsits All positions within relevant areas are to be within 5m of a wall which has a window or permanent opening providing an adequate view out. The window or opening must be ≥ 20% of the surrounding wall area.			Design drawings Relevant section/clauses of the building specification or contract Window schedule	1	1	0	Architect	Note, multi-residential developments all of the space within relevant areas are to be within 5m of a wall which has a window or permanent opening providing an adequate view out. One credit targeted.

BREEAM NC 2018 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Hea 01d Internal and external lighting levels, zoning and control	One credit - Internal and external lighting levels, zoning and control Internal lighting 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. 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: 9.a Limits to the luminance of the luminaires to avoid screen reflections. (Manufacturers' data for the luminaires should be sought to confirm this.) 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. 9.c Recommendations for direct lighting, ceiling illuminance, and average wall illuminance. External lighting 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. 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. Zoning and occupant control 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: 12.a In office areas, zones of no more than four workplaces 12.b Workstations adjacent to windows or atria and other building areas separately zoned and controlled 12.c Seminar and lecture rooms: zoned for presentation and audience areas 12.d Library spaces: separate zoning of stacks, reading and counter areas 12.e Teaching space or demonstration area 12.f Whiteboard or display screen 12.g Auditoria: zoning of seating areas, circulation space and lectern area 12.h Dining, restaurant, café areas: separate zoning of servery and seating or dining areas 12.i Retail: separate zoning of display and counter areas 12.j Bar areas: separate zoning of bar and seating areas 12.k Wards or bedded areas: zoned lighting control for individual bed spaces and control for staff over groups of bed spaces 12.l Treatment areas, dayrooms, waiting areas: zoning of seating and activity areas and circulation space with controls accessible to staff. 13. Areas used for teaching, seminar or lecture purposes have lighting controls provided in accordance with CIBSE Lighting Guide 5 (37) 14. In addition, the building type criteria in Table 5.7 on the next page (where relevant). 74 SD5078	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	One credit targeted.
Hea 02 Indoor Air Quality							
Hea 02a Prerequisite	Prerequisite - Indoor Air Quality (IAQ) Plan 1. A site-specific indoor air quality plan has been produced and implemented in accordance with the Guidance Note GN06. The objective of the plan is to facilitate a process that leads to design, specification and installation decisions and actions, which minimise indoor air pollution during occupation of the building. The indoor air quality plan must consider the following: 1.a Removal of contaminant sources 1.b Dilution and control of contaminant sources: 1.b.i Where present, consideration is given to the air quality requirements of specialist areas such as laboratories 1.c Procedures for pre-occupancy flush out 1.d Third party testing and analysis 1.e Maintaining good indoor air quality in-use.	Indoor air quality plan	-	MET	-	M&E	Pre-requisite will need to be met for the following credits to be awarded. Pre-requisite Targeted
Hea 02b Ventilation	One credit - Ventilation 2. The building has been designed to minimise the indoor concentration and recirculation of pollutants in the building as follows: 2.a Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation 2.b Ventilation pathways are designed to minimise the ingress and build-up of air pollutants inside the building (see Methodology on page 87) 2.c Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN13779:2007 AnnexA3(46) . The specified filters should achieve a minimum Indoor Air Quality of IDA2 2.d Areas of the building subject to large and unpredictable or variable occupancy patterns have carbon dioxide (CO₂) or air quality sensors specified and: 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 2.d.ii In naturally ventilated buildings or spaces: sensors either have the ability to alert the building owner or manager when CO₂ levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, i.e. automatic opening windows or roof vents 2.e For naturally ventilated or mixed mode buildings, the design demonstrates that the ventilation strategy provides adequate crossflow of air to maintain the required thermal comfort conditions and ventilation rates in accordance with CIBSEAM10(47)	Relevant section/clauses of the building specification or contract Design drawings	1	0	1	Main Contractor/ M&E	Credit not sought. M&E to provide feedback on potential of achieving this credit
Hea 02c Emissions from construction products	Up to two credits - Emissions from construction products One credit 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. Two Credits 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.	Relevant section/clauses of the building specification or contract confirming products to be used meet the requirements.	2	1	0	Architect	One credit targeted Hea02a needs to be met to be awarded
Hea 02d Post-construction indoor air quality measurement	One credit - Post-construction indoor air quality measurement 5. The formaldehyde concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 100 µg/ m³averaged over 30 minutes(World Health Organization guidelines for indoor air quality: Selected pollutants, 2010(58)). 63 The formaldehyde sampling and analysis is performed in accordance with ISO16000-2 (59) and ISO16000-3 (60) 7. The total volatile organic compound (TVOC) concentration in indoor air is measured post construction (but pre-occupancy) and does not exceed 500 µg/ m³over 8 hours. 8. The TVOC sampling and analysis is performed in accordance with ISO16000-5 (61) and ISO16000-6 (62) or ISO 16017-1(63) 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. 10. The measured concentration levels of formaldehyde (µg/ m³) and TVOC (µg/ m³) are reported, via the BREEAM Scoring and Reporting Tool.	Commitment to carry out necessary testing post construction.	1	0	0	Main Contractor	Credit not sought.

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Hea 04 Thermal comfort									
Hea 04a - Thermal modelling	One credit - Thermal modelling 1. Thermal modelling has been carried out using software in accordance with CIBSEAM11(78) Building Energy and Performance Modelling. 2. The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating or cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance withCIBSEAM11). 3. The modelling demonstrates that: 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) 3.b For naturally ventilated buildings: 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) 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) 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.			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	0	0	Main Contractor	Credit not sought
Hea 04b - Design for future thermal comfort	One credit - Design for future thermal comfort 5. Criteria 1 to 4 are achieved. 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). 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 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.				1	0	0	M&E	Credit not sought
Hea 04c Thermal zoning and controls	One credit - Thermal zoning and controls 9 Criteria 1 above to 4 above are achieved. 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. 11 The strategy for proposed heating or cooling systems demonstrates that it has addressed the following: 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. 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: 11.b.i User knowledge of building services 11.b.ii Occupancy type, patterns and room functions(and therefore appropriate level of control required) 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. 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) 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 11.d The need or otherwise for an accessible building user actuated manual override for any automatic systems			Thermal comfort strategy highlighting the points that have been considered and decisions taken accordingly Relevant section/clauses of the building specification or contract Design drawings	1	0	0	Main Contractor	Credit not sought
Hea 05 Acoustic performance									
Hea 05a Acoustic performance	Up to four credits - Acoustic performance for Residential institutions (short term and long term stay) 3 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: 3.a Sound insulation 3.b Indoor ambient noise level 3.c Room acoustics. First & second credit - Sound insulation One Credit - Airborne sound insulation values are at least 3 dB higher and impact sound insulation values are at least 3 dB lower than the performance standards in the relevant building regulations or standards. Two Credits - Airborne sound insulation values are at least 5 dB higher and impact sound insulation values are at least 5 dB lower than the performance standards in the relevant building regulations or standards. Third credit - internal indoor ambient noise levels Achieve indoor ambient noise levels that comply with the design ranges given in Section 7 of BS 8233:2014 Fourth credit - Room acoustics Achieve the requirements relating to sound absorption and within the common spaces of the building described in the relevant building regulations or building standards national guidance.			Professional report / study and calculations from the acoustician. Letter of appointment or other confirmation demonstrating when the acoustician was appointed. Relevant section/clauses of the building specification or contract and/or formal letter from the project team regarding commitments	4	0	0	Acoustic Consultant	Four potential credits available dependant on appointment of acoustician and acoustians advise Second credit for sound insulation not sought due to the need for the care home staff to be able to hear if residents are in distress and against general ethos.of the care home. Credits not sought
Hea 06 Security									
Hea 06 Security of site and building	One credit - Security of site and building 1. A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent). The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development . 2. The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA. 3. The controls and recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviations from those controls and recommendations shall be justified and agreed with the SQSS.			Design drawings (including a scaled site plan), AND/OR relevant sections of the specification highlighting all necessary compliant features and dimensions. Security Needs Assessment.	1	1	0	Security Specialist / Architect	Credit that should be considered early. One credit targeted.
Hea 07 Safe and healthy surroundings									
Hea 07a Safe access	One credit - Safe access Where external site areas form part of the assessed development the following apply: 1. Dedicated and safe cycle paths are provided from the site entrance to any cycle storage, and connect to offsite cycle paths where applicable. 2. Dedicated and safe footpaths are provided on and around the site providing suitable links for the following: 2.a The site entrance to the building entrance, 2.b Car parks (where present)to the building entrance 2.c The building to outdoor space 2.d Connecting to off-site paths where applicable. 3 Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths. Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply: 4. Delivery areas are not accessed through general parking areas and do not cross or share the following: 4.a pedestrian and cyclist paths 4.b outside amenity areas accessible to building users and general public. 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. 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			Correspondence from or a copy of the report/feedback from the ALO/CPDA/Security Consultant confirming: • Scope of their advice/involvement • The stage of design in which their advice was sought • Summary of their recommendations Design drawings AND/OR relevant sections of the specification or contract	1	0	0	Architect	One potential credit. Safe Access routes to be investigated. May be feasible on this site
Hea 07 Outside space	One credit - Outside space 7. There is an outside space providing building users with an external amenity area.			Design drawings	1	1	0	Landscape Architect	One credit targeted.
					19	6	1	0	
				14%	14.00	4.42	0.73	0.00	

BREEAM NC 2018 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments																														
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	Up to nine credits - Energy performance 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. <table><caption>Table 6.1 Ene 01 EPR_{NC} benchmark scale</caption><thead><tr><th>BREEAM credits</th><th>EPR_{NC}</th><th>Minimum standards Rating</th><th>Minimum requirements</th></tr></thead><tbody><tr><td>1</td><td>0.1</td><td rowspan="3"></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></tr><tr><td>3</td><td>0.3</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 rowspan="4">Outstanding</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></tr><tr><td>7</td><td>0.7</td></tr><tr><td>8</td><td>0.8</td></tr><tr><td>9</td><td>0.9 AND zero net regulated CO₂ emissions*.</td><td></td><td></td></tr></tbody></table> Exemplary level credits are available.	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	Outstanding	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	7	0.7	8	0.8	9	0.9 AND zero net regulated CO ₂ emissions*.			A copy of the Building Regulations Output Document from the approved software, as follows: 1. England Wales (Part L): Approved Documents checks (BRUKL Output Document) 2. Scotland (Section 6): Specification checks 3. N. Ireland (Part F): Approved Documents checks (BRUKL Output Document) 4. Where relevant for multi-residential buildings, a copy of the calculations based on design stage SAP outputs. The output documents must be based on the “As designed” stage of analysis. 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).	9	3	0	M&E	Four credits must be achieved for Ene01 for 'Excellent' Rating. Three credits targeted based on similar Care Home at Edenbridge.
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).																																		
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4	0.4	Excellent	Requires 4 credits to be achieved (equivalent to an EPR _{NC} of at least 0.4).																																		
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7	0.7																																				
8	0.8																																				
9	0.9 AND zero net regulated CO ₂ emissions*.																																				
Ene 01b Energy modelling and reporting	Four credits – Energy modelling and reporting 2. Involve relevant members of the design team in an energy workshop, focusing on operational energy performance. 3. Undertake additional energy modelling during the design and post-construction stage to generate predicted operational energy consumption figures(see Prediction of operational energy consumption on page 124). 4. Report predicted energy consumption targets by end use, design assumptions and input data (with justifications). 5. Carry out a risk assessment to highlight any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process.	Predicted energy consumption values, design assumptions, input data and risk assessments reported as detailed in the Energy Prediction and Post-occupancy guidance available from the BREEAM website. Confirmation of suitably qualified energy modeller's qualifications. Where changes to design assumptions and input data have occurred at post construction stage, the energy modelling should be re-run to take into account those changes.	4	4	0	Main Contractor	Four credits targeted.																														
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	One credit - Sub-metering of end-use categories 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). 2. Meter the energy consumption in buildings according to the total useful floor area: 2.a If the area is greater than 1,000 m², by end-use category with an appropriate energy monitoring and management system. 2.b If the area is less than 1,000 m², use either: 2.b.i an energy monitoring and management system or 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). 3. Building users can identify the energy consuming end uses, for example through labelling or data outputs.	Relevant section/clauses of the building specification or contract. Design drawings	1	1	0	M&E	One credit must be achieved for Very Good. One credit targeted.																														
Ene 03 External lighting																																					
Ene 03a External lighting	One credit - External lighting 1. No external lighting (which includes lighting on the building, at entrances and signs). OR 2. External light fittings within the construction zone with: 2.a Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt 2.b Automatic control to prevent operation during daylight hours 2.c Presence detection in areas of intermittent pedestrian traffic	Relevant section/clauses of the building specification or contract - Evidence received Design drawings	1	1	0	M&E	One credit targeted.																														
Ene 04 Low carbon design																																					
Ene 04a Passive design analysis	One credit - Passive design analysis 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. 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). 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. 4. Quantify the reduced total energy demand and carbon dioxide (CO₂-eq) emissions resulting from the passive design measures.	Copy of Passive Design Analysis Results from a dynamic simulation model demonstrating the reduced energy demand and CO ₂ emissions from the specified passive design measures.	1	0	0	Harness	Credit that should be considered early. Credit not targeted. Requires Hea04a Thermal modelling to be achieved																														
Ene 04b Free cooling	One credit - Free cooling 5. Achieve the passive design analysis credit. 6. Include a free cooling analysis (see Free cooling analysis on page 153) in the passive design analysis carried out under criterion 2. 7. Identify opportunities for the implementation of free cooling solutions. 8. The building is naturally ventilated or uses any combination of the free cooling strategies listed in Free cooling analysis.	Results from a dynamic simulation model and other used methods demonstrating that the free cooling strategy can meet the building's cooling demand.	1	0	0	M&E	Credit not sought Requires Ene04ato be achieved																														
Ene 04c Low and zero carbon technologies	One credit - Low zero carbon feasibility study 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. 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. 11. Specify local LZC technologies for the building or development in line with the feasibility study recommendations. 12. Quantify the reduced regulated carbon dioxide (CO₂-eq) emissions resulting from the feasibility study	Results from a dynamic simulation model demonstrating reductions in CO ₂ emissions from the specified low zero carbon technology.	1	1	0	M&E	One credit targeted.																														

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments		
Ene 06 Energy efficient transportation systems											
Ene 06a Energy consumption	One credit - Energy consumption 1. For specified lifts, escalators or moving walks (transportation types): 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 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: 1.b.i At least two systems for each transportation type OR 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). 1.c Consider the use of regenerative drives, subject to the requirements in Regenerative drives below 1.d Specify the transportation system with the lowest energy consumption.			For 1 to 2: Professional report / study of transportation analysis AND/OR Calculations	1	1	0	Lift Consultant	One credit targeted.		
Ene 06b Energy efficient features	Up to two credits - Energy efficient features 2. Achieve criterion 1 on the previous page. One credit - Lifts 3. Specify the following three energy efficient features for each lift: 3.a A standby condition for off-peak periods 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 3.c Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor. 4. Specify regenerative drives where their use is demonstrated to save energy.			For 3 to 4: Relevant section/clauses of the building specification or contract - Evidence received AND EITHER Manufacturers products details OR Formal letter of commitment from the system(s) manufacturer/sup	1	1	0	Lift Consultant	One potential credit targeted.		
Ene 08 Energy efficient equipment											
Ene 08a Energy efficient equipment	Two credits - Energy efficient equipment 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. 2. Identify the systems or processes that use a significant proportion of the total annual unregulated energy consumption of the building. 3. Demonstrate a meaningful reduction in the total annual unregulated energy consumption of the building. Table 6.5 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. Anticipated that the building will have domestic-scale appliances and kitchen/catering facilities. Note: 1.0 Where there are no systems specified that contribute to the unregulated energy load, the issue is not applicable. 2.1 Multi-residential: Domestic-scale appliances (individual and communal facilities) below item 5b is only applicable to multi-residential assessments.			Manufacturers product details Documentation confirming compliance with the relevant scheme or standard outlined in the criteria e.g. details of compliance with the ECA scheme Design drawings and/or calculations.	2	0	0	Client	Credits not sought as LAundry area cannot be achieved Catering Kitchen (2/3 of CIBSE TM50 energy efficient measures) Laundry (Uses either Greywater in part of washing process or Eligible for Enhanced Capital Allowance Scheme for water or specified with heat recovery from waste water). White Goods - Energy Efficient A+ Fridge/freezer / A+++ Washing MACHine, A+ Dishwasher		
					22	12	0	0			
				16%	16.00	8.72	0.00	0.00			
Tra 01 Transport assessment and travel plan											
Tra 01a Travel plan	Two credits – Transport assessment Travel plan 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. 2. The site-specific travel assessment or statement covers as a minimum: 2.a Existing travel patterns and opinions of existing building or site users towards cycling and walking, identifying constraints and opportunities, if relevant 2.b Travel patterns and transport impact of future building users 2.c Current local environment for walkers and cyclists(accounting for visitors who may be accompanied by young children) 2.d Reporting of the number and type of existing accessible amenities, see Table 7.1 below, within 500m of the site 2.e Disabled access(accounting for varying levels of disability and visual impairment) 2.f Calculation of the existing public transport Accessibility Index (AI),see Methodology on the next page 2.g Current facilities for cyclists 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. 4. If the occupier is known, involve them in the development of the travel plan. 5. Demonstrate that the travel plan will be implemented post construction and be supported by the building's management in operation.			A copy of the Travel Plan. A copy of the site-specific transport survey/assessment. Design drawings demonstrating examples of design measures implemented in support the travel plan's findings. OR 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. A letter of confirmation from either the building's occupier, or in the case of a speculative development, the developer.	2	2	0	Client	Credit needs to be considered early Credit needs to be achieved for any credits in Tra 02 to be achieved. Two credits targeted.		
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	Pre-requisite will need to be met for the following credits to be 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 Accessible 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	Client /Architect	It is anticipated that the AI will be less than 25. Maximum ten credits targeted.		
	AI< 25	1	2	3	4	5	6	7	8	9	10
	Credits	1	2	3	4	5	6	7	8	9	10

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Assessment option	Public transport measures								
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	0	0		
2a	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	0		
2b	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	0		
2c	4. Provide a dedicated service, such as a bus route or service (See Methodology on page 178).				3	1	0		BRE confirmed that these points can only be achieved where a dedicated bus is provided for staff, not residents.
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	1	0	M&E	One point targeted.
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	0	Main Contractor	One point targeted.
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	0		One point targeted.
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	0		
7	13. Install compliant cycle storage spaces to meet the minimum levels set out in Table 7.5 on page 176.				1	1	0	Main Contractor	One point targeted.
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	0		One point targeted.
9	Existing amenities: 16. At least three existing accessible amenities are present.				1	1	0		One point targeted. Best One convenience store, Singlewell Post Office, Central Avenue open space
10a	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	0	0		
10b	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	3	0		Cinema, library
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	0		
					12	12	0	0	
				10%	10	10	0	0	
Wat 01 Water consumption - Minimum standards one credit for Good, Very Good, Excellent & two credits for Outstanding									
Wat 01 Water consumption	Up to five credits - Water consumption 1. Use the BREEAM Wat 01 calculator to assess the efficiency of the domestic water-consuming components. 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). 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. 4. If a greywater or rainwater system is specified and installed: 4.a Greywater systems in compliance with BS8525-1:2010 Greywater systems- Part 1 Code of Practice (153) 4.b Rainwater systems in compliance with BS8515:2009+A1:2013 Rainwater harvesting systems- Code of practice(154) Achieve Assessment scope - Criterion 6 on page 199, if you intend to pursue a post occupancy stage certification. Additionally for Healthcare building types only: 5 If applicable, the flushing control for each WC or urinal must be suitable for operation by patients with frail or infirm hands or activated by electronic sensors. Additionally for Prison building types only: 6 Sanitary components specified within a prison cell have a volume controller specified on the individual fittings or water supply to each cell (see Definitions on page 195).			A completed copy of the BREEAM Wat 01 calculator Documentary evidence supporting the data used to complete the calculator tool. Relevant section/clauses of the building specification/ design drawings confirming technical details of 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.	5	1	0	M&E	One credit targeted. General Specs to be provided to allow calculation to be confirmed Unable to achieve 4 credits to meet Excellent planning requirement

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Wat 02 Water monitoring - Minimum standards criterion one only for all ratings except Pass									
Wat 02a Rating Min Standard	Rating Related Min Standard- Good Rating and Above 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.			Relevant section/clauses of the building specification or contract Design drawings	-	MET	-	M&E	Pre-requisite will need to be met for the following credits to be achieved.
Wat 02a Water monitoring	One credit - Water monitoring 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. 2 For water-consuming plant or building areas consuming 10% or more of the building's total water demand: 2.a Fit easily accessible sub-meters OR 2.b Install water monitoring equipment integral to the plant or area. 3 For each meter (main and sub): 3.a Install a pulsed or other open protocol communication output AND 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. 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. 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. Additionally for those pursuing a post occupancy stage certification: 6 The water monitoring strategy used enables the identification of all water consumption for sanitary uses as assessed under Wat 01 (litres/person/day), if a post occupancy stage certification is sought.			Relevant section/clauses of the building specification or contract Design drawings	1	1	0	M&E	One credit targeted.
Wat 03 Leak detection									
Wat 03a Leak detection	One credit - Leak detection system 1. Install a leak detection system capable of detecting a major water leak: 1.a On the utilities water supply within the buildings, to detect any major leaks within the buildings AND 1.b Between the buildings and the utilities water supply, to detect any major leaks between the utilities supply and the buildings under assessment. 2. The leak detection system is: 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 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 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. 2.d Programmable to suit the owner's or occupier's water consumption criteria 2.e Where applicable, designed to avoid false alarms caused by normal operation of large water consuming plant such as chillers. Where there is physically no space for a leak detection system between the utilities water meter and the building, alternative solutions can be used, provided that a major leak can still be detected. Short and long term residential accommodation: 2.1 Short and long term residential accommodation Flow control devices in WC areas or facilities are not required for facilities in residential areas of long-term residential accommodation. This is due to the fact that those occupants have a sense of ownership and would identify and report a potential leak. This applies to all of the following: ensuite facilities in individual bedrooms, a single bathroom shared between several individual bedrooms(e.g. in halls of residence), or one single bathroom in an independent dwelling (e.g. within a care home). The requirement for flow control devices still applies for the rest of the facilities within long-term residential accommodation. Where WC facilities are only provided within the residential areas of a long-term residential accommodation project (e.g. there is no staff WC), the credit is filtered out of the assessment. However, for short term accommodation, the credit still applies to buildings that have guest bedrooms with ensuite facilities, e.g. hotel rooms, and communal WC areas or facilities, e.g. communal WC facilities in hotels and hostels.			Relevant section/clauses of the building specification or contract Design drawings Manufacturers product details	1	1	0	M&E	One credit targeted.
Wat 03b Flow control devices	One credit - Flow control devices 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. Where WC facilities are only provided within the residential areas of a long-term residential accommodation project (e.g. there is no staff WC), the credit can be filtered out of the assessment			Relevant section/clauses of the building specification or contract - Design drawings Manufacturers product details	1	1	0	M&E	One credit targeted.
Wat 04 Water efficient equipment									
Wat 04a Water efficient equipment	One credit - Water efficient equipment 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. 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. Note: 1.1 Where there are no water demands beyond those of Wat 01, the issue will be filtered out.			Documentation detailing the planting and irrigation strategy Relevant section/clauses of the building specification or contract AND/OR design drawings (where necessary) Manufacturers product details	1	1	0	M&E	If there is no other water-consuming plant, this credit can be filtered out. One credit targeted.
					9	5	0	0	
				7%	7	3.88	0	0	

BREEAM NC 2018 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	Up to six credits – Superstructure Options appraisal during Concept Design 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. 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.	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	6	0	0	LCA Specialist/ Architect	Credit that should be considered early Could an LCA be feasible?. Not sought
Mat 01b Substructure and hard landscaping options appraisal during Concept Design	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.	The LCA options appraisal summary document includes substructure and hard landscaping according to the criteria.	1	0	0	LCA Specialist/ Landscape Architect	Credit that should be considered early Could an LCA be feasible? Can only be targeted if Mat01a LCA carried out Not sought
Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)							
Mat 02a Specification of products with a recognised EPD	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.	Copies of Environmental Product Declarations A link/reference to the EPD's Product Category Rules Mat 01/02 Results Submission Tool	1	0	0	Architect	This credit is difficult to confirm at an early stage and will be reviewed later on when specific products are known. Potential credit - Architect to provide preferred manufacturers/materials
Mat 03 Responsible sourcing of construction products - Minimum standards for criterion 1 only for all ratings							
Mat 03a Pre requisite	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.	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	-		Pre-requisite will need to be met for the following credits to be achieved.
Mat 03b Enabling sustainable procurement	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. 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)	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.	1	1	0	Principal Contractor	Credit to be considered early One credit targeted.
Mat 03c Measuring responsible sourcing	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.		3	1	0	Principal Contractor	One credit targeted. Architect to provide preferred manufacturers/ materials

BREEAM NC 2018 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	One credit Protecting vulnerable parts of the building from damage 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: 1.a Negative impacts of high user numbers in relevant areas of the building (e.g. corridors, lifts, stairs, doors etc.). 1.b Damage from any vehicle or trolley movements within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. 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. 1.d Potential malicious damage to building materials and finishes, in public and common areas where appropriate. Protecting exposed parts of the building from material degradation 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: 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 2.b A detailed assessment of the element's resilience when exposed to the applicable material degradation and environmental factors. 3. Include convenient access to the roof and façade for cost-effective cleaning, replacement and repair in the building's design. 4. Design the roof and façade to prevent water damage, ingress and detrimental ponding. See Table 9.14 on the next page for an example list of relevant industry durability and quality standards.				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	One credit - Material efficiency 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: 1.a Preparation and Brief 1.b Concept Design 1.c Developed Design 1.d Technical Design 1.e Construction 2. Develop and record the implementation of material efficiency, see Table 9.15 below, during: 2.a Developed Design 2.b Technical Design 2.c Construction 3. Report the targets and actual material efficiencies achieved.				A copy of the report.		1	1	0	Main Contractor	Credit to be considered early	One credit targeted.																												
						14	4	0	0																															
					15%	15	4.28	0	0																															
Wst 01 Construction waste management - Minimum standards one credit for Outstanding																																								
Wst 01a Pre-demolition audit	One credit - Pre-demolition audit 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: 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 1.b Guide the design, consider materials for reuse and set targets for waste management 1.c Engage all contractors in the process of maximising high grade reuse and recycling opportunities 1.d Compare actual waste arisings and waste management routes used with those forecast and investigate significant deviations from planned targets. 2. Make reference to the audit in the resource management plan (RMP) (see Definitions on page 245). Note: 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.						1	1	0	Demolition / Principal Contractor	Credit to be considered early	One credit targeted																												
Wst 01b Construction resource efficiency	Up to three credits - Construction resource efficiency 3. Prepare a compliant Resource Management Plan (RMP) covering: 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. 3.b Accurate data records on waste arisings and waste management routes. 4. Meet or improve upon the benchmarks in Table 10.1 for non-hazardous construction waste, excluding demolition and excavation waste. <table><tr><th colspan="3">Table 10.1 Construction waste resource efficiency benchmarks</th></tr><tr><th>BREEAM credits</th><th colspan="2">Amount of waste generated per 100 m² (gross internal floor area)</th></tr><tr><td></td><th>m³ (actual, not bulk volume)</th><th>tonnes</th></tr><tr><td>One credit</td><td>≤ 13.3</td><td>≤ 11.1</td></tr><tr><td>Two credits</td><td>≤ 7.5</td><td>≤ 6.5</td></tr><tr><td>Three credits</td><td>≤ 3.4</td><td>≤ 3.2</td></tr><tr><td>Exemplary level</td><td>≤ 1.6</td><td>≤ 1.9</td></tr></table>				Table 10.1 Construction waste resource efficiency benchmarks			BREEAM credits	Amount of waste generated per 100 m² (gross internal floor area)			m³ (actual, not bulk volume)	tonnes	One credit	≤ 13.3	≤ 11.1	Two credits	≤ 7.5	≤ 6.5	Three credits	≤ 3.4	≤ 3.2	Exemplary level	≤ 1.6	≤ 1.9	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	0	Principal Contractor	It is anticipated that two credits will be targeted.	Two credits targeted.							
Table 10.1 Construction waste resource efficiency benchmarks																																								
BREEAM credits	Amount of waste generated per 100 m² (gross internal floor area)																																							
	m³ (actual, not bulk volume)	tonnes																																						
One credit	≤ 13.3	≤ 11.1																																						
Two credits	≤ 7.5	≤ 6.5																																						
Three credits	≤ 3.4	≤ 3.2																																						
Exemplary level	≤ 1.6	≤ 1.9																																						
Wst 01c Diversion of resources from landfill	One credit - Diversion of resources from landfill 5. Meet, where applicable, the diversion from landfill benchmarks in Table 10.2 for non-hazardous construction waste and demolition and excavation waste generated. 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. <table><tr><th colspan="4">Table 10.2 Diversion from landfill benchmarks</th></tr><tr><th>BREEAM credits</th><th>Type of waste</th><th>Volume</th><th>Tonnage</th></tr><tr><td rowspan="3">One credit</td><td>Non-demolition</td><td>70%</td><td>80%</td></tr><tr><td>Demolition</td><td>80%</td><td>90%</td></tr><tr><td>Excavation</td><td>N/A</td><td>N/A</td></tr><tr><td rowspan="3">Exemplary level</td><td>Non-demolition</td><td>85%</td><td>90%</td></tr><tr><td>Demolition</td><td>85%</td><td>95%</td></tr><tr><td>Excavation</td><td>95%</td><td>95%</td></tr></table>				Table 10.2 Diversion from landfill benchmarks				BREEAM credits	Type of waste	Volume	Tonnage	One credit	Non-demolition	70%	80%	Demolition	80%	90%	Excavation	N/A	N/A	Exemplary level	Non-demolition	85%	90%	Demolition	85%	95%	Excavation	95%	95%			1	1	0	Principal Contractor	It is anticipated that one credit will be targeted.	One credit targeted.
Table 10.2 Diversion from landfill benchmarks																																								
BREEAM credits	Type of waste	Volume	Tonnage																																					
One credit	Non-demolition	70%	80%																																					
	Demolition	80%	90%																																					
	Excavation	N/A	N/A																																					
Exemplary level	Non-demolition	85%	90%																																					
	Demolition	85%	95%																																					
	Excavation	95%	95%																																					
Wst 02 Use of recycled and sustainably sourced aggregates																																								
Prerequisite	Prerequisite - Pre-demolition audit 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.						-	MET	-	Design Team	N/A																													

BREEAM NC 2018 Criteria				Potential	Design stage	Evidence	Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments						
Wst 02a Project sustainable aggregate points	One credit - Project Sustainable Aggregate Points 2. Identify all aggregate uses and types on the project Table 10.5 and Table 10.6 on the next page 3. Determine the quantity in tonnes for each identified use and aggregate type. 4. Identify the region in which the aggregate source is located. 5. Calculate the distance in kilometres travelled by all aggregates by transport type. 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 <table><tr><td colspan="2">Table 10.4 Credits available relating to the Project Sustainable Aggregate points</td></tr><tr><td>Project Sustainable Aggregate Credits</td><td>Project Sustainable Aggregate points</td></tr><tr><td>1</td><td>3.5–6</td></tr><tr><td>1 exemplary performance credit</td><td>>6</td></tr></table>			Table 10.4 Credits available relating to the Project Sustainable Aggregate points		Project Sustainable Aggregate Credits	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	0	0	Design Team	Credit not sought
Table 10.4 Credits available relating to the Project Sustainable Aggregate points																		
Project Sustainable Aggregate Credits	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	One credit - Operational waste 1. Provide a dedicated space for the segregation and storage of operational recyclable waste generated. The space is: 1.a Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams 1.b Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors 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. 2. For consistent and large amounts of operational waste generated, provide: 2.a Static waste compactors or balers; situated in a service area or dedicated waste management space 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 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. 4 Provide three internal storage containers for each dwelling or bedsit with: 4.a A minimum total capacity of 30 litres 4.b No individual container smaller than 7 litres 4.c All containers in a dedicated non-obstructive position 4.d Storage containers for recycling in addition to non-recyclable waste storage. 5 Provide home composting facilities and a home composting information leaflet within the kitchen area or communal space for each self-contained dwelling or bedsit. Note: Additionally for multi-residential buildings with individual bedrooms and communal facilities only: 6 Meet criteria 4.a and 4.b for self-contained dwellings or bedsits for every six bedrooms. 7 Locate recyclable storage in a dedicated, unobstructive position in communal kitchens or other appropriate communal space. 8 Provide home composting facilities and a home composting information leaflet within the kitchen area or communal space. 9 Provide a minimum of 10 litres of internal storage for compostable waste.				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	It is anticipated that one credit will be targeted. One credit targeted.								
Wst 05 Adaptation to climate change																		
Wst 05a Resilience of structure, fabric, building services and renewables installation	One credit - Resilience of structure, fabric, building services and renewables installation 1. Conduct a climate change adaptation strategy appraisal using: 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): 1.a.i Hazard identification 1.a.ii Hazard assessment 1.a.iii Risk estimation 1.a.iv Risk evaluation 1.a.v Risk management. 2. Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact. 3. Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing by the assessor.				Relevant section/clauses of the building specification or contract. Design drawings. Report/study.	1	0	1	Architect	Credit that should be considered early One potential credit targeted. Example to be provided								
Wst 06 Design for disassembly and adaptability																		
Wst 06a Design for disassembly and adaptability - recommendations	One credit - Design for disassembly and functional adaptability - recommendations 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. 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.				Disassembly and functional adaptability study, implementation plan report, building adaptability and disassembly guide.	1	0	0	Architect / Structural Engineer	Credit that should be considered early Credit not sought.								
Wst 06b Disassembly and functional adaptability - implementation	One credit - Disassembly and functional adaptability – implementation 3. Achieve criteria 1 and 2 4. Provide an update, during Technical Design, on: 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. 4.b Changes to the recommendations and solutions during the development of the Technical Design. 5. Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.				Disassembly and functional adaptability study, implementation plan report, building adaptability and disassembly guide.	1	0	0	Architect / Structural Engineer	Credit not sought.								
						10	5	1	0									
				6%		6	3	0.6	0									
Le 01 Site selection																		
Le 01a Previously occupied land	One credit - Previously occupied land 1 At least 75% of the proposed development's footprint is on an area of land which has previously been occupied (see Definitions).				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	One credit targeted.								
Le 01b Contaminated land	One credit - Contaminated land 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: 2.a The degree of contamination 2.b The contaminant sources or types 2.c The options for remediating sources of contamination which present an unacceptable risk. 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).				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	One potential credit targeted.								

BREEAM NC 2018 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments												
Le 02 Identifying and understanding the risks and opportunities for the project - number of credits available depend on route																			
Le 02a Prerequisite	Prerequisite - Assessment route selection 1. An assessment route (see Definitions on page 300) for the project has been determined using BREEAM Guidance Note GN34 BREEAM Ecological Risk Evaluation Checklist. 2. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	Completed Guidance Note 34: BREEAM Ecology Risk Evaluation Checklist.	-	MET	-	Ecologist / Design Team	Pre-requisite needs to be met. This section is based on the assumption that Route 2 will be taken.												
Le 02b Survey and evaluation	One or up to two credits depending on route -Survey and evaluation Route 2 4. A Suitably Qualified Ecologist (SQE) is appointed at a project stage that ensures early involvement in site configuration and, where necessary, can influence strategic planning decisions. 5. Prior to the completion of the preparation and brief project stage, an appropriate level of survey and evaluation (see Assessment route 2: For sites where complex ecological systems are likely to be present) has been carried out to determine the ecological baseline of the site, taking account of the zone of influence to establish: 5.a Current and potential ecological value and condition of the site, and related areas within the zone of influence. 5.b Direct and indirect risks to current ecological value 5.c Capacity and feasibility for enhancement of the ecological value of the site and, where relevant, areas within the zone of influence. 6. Data are collated and shared with project team to inform the site preparation, design or construction works. Determining the ecological outcomes for the site (Routes 1 and 2) 7. Survey and evaluation criteria (criterion 3 or 4-6 above) have been achieved. 8. During Concept Design, the project team liaise and collaborate with representative stakeholders to identify and consider ecological outcome for the sites. 9. The ecological outcome for the site is determined by identifying, appraising and selecting specific solutions and measures. The solutions and measures must be identified sufficiently early in the project to influence key project planning decisions and must be done in accordance with the following hierarchy of action, which is dependant on the route being used: <table><thead><tr><th>Route 1</th><th>Route 2</th></tr></thead><tbody><tr><td>1. Avoidance</td><td>1. Avoidance</td></tr><tr><td>2. Protection</td><td>2. Protection</td></tr><tr><td></td><td>3. Reduction or limitation of negative impacts</td></tr><tr><td></td><td>4. On site compensation and</td></tr><tr><td></td><td>5. Enhancement, considering the capacity and feasibility within the site, or where viable, off-site.</td></tr></tbody></table> 10. The optimal ecological outcome for the site is selected after liaising with representative stakeholders and the project team.	Route 1	Route 2	1. Avoidance	1. Avoidance	2. Protection	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 / Design Team	Two credits targeted.
Route 1	Route 2																		
1. Avoidance	1. Avoidance																		
2. Protection	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	Prerequisite – Ecological risks and opportunities 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)		-	MET	-	Ecologist / Design Team	Pre-requisite needs to be met. Route 2.												
Le 03b Planning liaison, implementation and data	One credit – Planning and measures on-site Routes 1 and 2 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). 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). 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).		1	1	0	Ecologist / Design Team	One credit targeted.												
Le03c Managing negative impacts of the project	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. 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)		2	1	1	Ecologist / Design Team	One credit targeted with one additional potential One credit targeted.												
Le 04 Change and enhancement of ecological value - number of credits available depends on route																			
Le 04a Prerequisite	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.		-	MET	-	Ecologist / Design Team	Pre-requisite needs to be met. Route 2.												

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments									
Le 04b Liaison, implementation and data collation. Change and enhancement of ecology	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. OR 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.			Ecologist's report Design drawings including proposed and existing (pre-development) site plan/survey Written confirmation from the client/design team confirming how the ecologist's recommendations will be implemented.	1	1	0	Ecologist / Design Team	One credit targeted.									
	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.			Ecologist's report Design drawings including proposed and existing (pre-development) site plan/survey Written confirmation from the client/design team confirming how the ecologist's recommendations will be implemented.	3	1	1	Ecologist / Design Team	One potential credit targeted Two credits targeted.									
Le 05 Long term ecology management and maintenance - number of credits available depends on route																		
Le 05a Prerequisite	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. Table 11.4 Credits awarded by ecological assessment route <table><tr><th></th><th>Foundation route (Route 1)</th><th>Comprehensive route (Route 2)</th></tr><tr><td>Management and maintenance throughout the project</td><td>1 credit</td><td>1 credit</td></tr><tr><td>Landscape and ecology management plan</td><td></td><td>1 credit</td></tr></table>				Foundation route (Route 1)	Comprehensive route (Route 2)	Management and maintenance throughout the project	1 credit	1 credit	Landscape and ecology management plan		1 credit		-	MET	-	Ecologist / Design Team	Pre-requisites need to be met. Route 2.
	Foundation route (Route 1)	Comprehensive route (Route 2)																
Management and maintenance throughout the project	1 credit	1 credit																
Landscape and ecology management plan		1 credit																
Le 05b Ecology management and maintenance	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. One credit - Landscape and ecology management plan (or similar) development - Route 2 only 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).			Ecologist's report Design drawings including proposed and existing (pre-development) site plan/survey Written confirmation from the client/design team confirming how the ecologist's recommendations will be implemented.	2	2	0	Ecologist / Design Team	Two credits targeted.									
					13	9	2	0										
				13%	13	9	2	0										
Pol 01 Impacts of refrigerants																		
Pol 01a No refrigerant use	Three credits - No refrigerant use 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: Prerequisite 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) Two credits - Impact of refrigerant 3. The direct effect life cycle CO ₂ equivalent emissions(DELC) of ≤ 100 CO ₂ -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 DELC, refer to the relevant definitions in Methodology below and Additional information on page 303. OR 4. All refrigerants used have a global warming potential (GWP) ≤ 10. OR One credit - Impact of refrigerant 5. Systems using refrigerants have a DELC of ≤ 1000 kgCO ₂ -eq/kW cooling and heating capacity. One credit - Leak detection 6. All systems are hermetically sealed or only use environmentally benign refrigerants(see Leak detection and Hermetically sealed systems on page 301). OR 7.Where the systems are not hermetically sealed: 7.a Systems have: 7.a.i A permanent automated refrigerant leak detection system, that is robust and tested, and capable of continuously monitoring for leaks. OR 7.a.ii An inbuilt automated diagnostic procedure for detecting leakage is enabled. 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).			Completed copy of Pol 01 calculator tool. Documentary evidence supporting the data used to complete the calculator tool. A copy of the specification clause or letter from the M&E engineer / system manufacturer confirming relevant refrigeration type and system information.	3	1	1	M&E	One credit targeted.									

BREEAM NC 2018 Criteria		Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Pol 02 Local air quality							
Pol 02a Local air quality	Up to two credits - Local air quality 1. All heating and hot water is supplied by non-combustion systems. For example, only powered by electricity. OR alternatively; 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).		2	0	0	M&E	One credit targeted with one potential credit targeted dependant on spec No credits can be targeted as current boiler spec has a Nox of over 27
Pol 03 Flood and surface water management							
Pol 03a Prerequisite	Prerequisite 1. An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.		-	MET	-	Civil Engineer	Pre-requisite will need to be met for the following credits to be achieved.
Pol 03b Flood resilience	Up to two credits - Flood resilience Two credits - Low flood risk 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). One credit - Medium or high flood risk 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. 4. To increase the resilience and resistance of the development to flooding, one of the following must be achieved: 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). 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)		2	2	0	Civil Engineer	Low risk flood area. Two credits targeted.
Pol 03c Prerequisite	Prerequisite for surface water run-off credits 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.		-	MET	-	Civil Engineer	Pre-requisite will need to be met for the following credits to be achieved.
Pol 03d Surface water run off - rate	One credit - Surface Water Run-Off - Rate 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. 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. 8. Relevant maintenance agreements for ownership, long term operation and maintenance of all specified SuDS are in place. 9. Calculations include an allowance for climate change. This should be made in accordance with current best practice planning guidance (definitions on page 338).	Calculation results for the pre-and post-development peak rate of run-off.	1	1	0	Civil Engineer	Civil Engineer to review and feedback. One potential credit.
Pol 03e Surface water run off - volume	One credit - Surface Water Run-Off - Volume 9. 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 10. 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). 1.1 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 10 and 11 cannot be achieved): 12. 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. 13. 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: 13.a The pre-development one-year peak flowrate 13.b The mean annual flowrate (Qbar) 13.c 2L/s/ha. For the one-year peak flowrate, the one-year return period event criterion applies. 14. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place. 15. For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance	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	Civil Engineer to review and feedback. One potential credit targeted.
Pol 03f Minimising watercourse pollution	One credit - Minimising watercourse pollution 16. There is no discharge from the developed site for rainfall up to 5 mm (confirmed by the appropriate consultant). 17. Areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques. 18. 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. 19. 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. 20. 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. 21.A comprehensive and up to date drainage plan of the site will be made available for the building or site occupiers. 22. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.	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. High and low risk areas of the site 2. Specification of SUDS, source control systems, oil/petrol separators and shut-off valves as appropriate A letter or other formal correspondence from the project team: 1. Confirming water pollution prevention systems are designed in accordance with PPG3 and the SUDS manual (where appropriate) 2. Outlining indicative examples of compliance with PPG3 and the SUDS manual 3. Confirming a copy of the drainage plan will be produced and handed over to the building occupier. 4. Confirming design of all external storage and delivery areas is in compliance with relevant Pollution Prevention Guidance 5. Outlining indicative examples of compliance with the PPG.	1	0	0	Civil Engineer	Civil Engineer to review and feedback. One potential credit.

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Pol 04 Reduction of night time light pollution									
Pol 04a Reduction of night time light pollution	One credit - Reduction of night time light pollution 1. External lighting pollution has been eliminated through effective design that removes the need for external lighting. This does not adversely affect the safety and security of the site and its users. OR alternatively, where the building does have external lighting, one credit can be awarded as follows: 2. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. 3. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes. 4. Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.(221)			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	One credit targeted.
Pol 05 Reduction of noise pollution									
Pol 05a Reduction of noise pollution	One credit - Reduction of noise pollution 1. There are no noise-sensitive areas within the assessed building or within 800 m radius of the assessed site. OR 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: 2.a Existing background noise levels: 2.a.i at the nearest or most exposed noise-sensitive development to the proposed assessed site. 2.a.ii including existing plant on a building, where the assessed development is an extension to the building 2.b Noise rating level from the assessed building. 3. The noise impact assessment must be carried out by a suitably qualified acoustic consultant. 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. 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			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	0	0	Main Contractor	Credit not sought
					12	6	1	0	
				8%	8	4	0.66	0	
Innovation - Exemplary Level Criteria									
Man 03i Responsible Construction	23. Achieve all items in Table 4.1 on page 47.			As Man 03 evidence.	1	0	0	Principal Contractor	Credit not currently targeted.
Hea 01i Daylighting	14. Daylighting criteria have been met using either of the following options: 14.a Relevant building areas meet exemplary daylight factors and the relevant criteria in Table 5.8 on the facing page. 14.b Relevant building areas meet exemplary average and minimum point daylight illuminance criteria in Table 5.9 on page 81.			As Hea 01 evidence.	1	0	0	Architect	Credit not currently targeted.
Hea 01ii Internal and external lighting levels, zoning and control	15. Lighting in each zone can be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations. Dimming and control gear should avoid flicker and noise.			As Hea 01 evidence.	1	0	0	Architect / M&E	Credit not currently targeted.
Hea02i Minimising sources of air pollution	Minimising sources of air pollution - Emissions from construction products To achieve one exemplary performance credit: One credit 11 Three of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.12 below. Where wood-based products are not one of the three selected product types, all wood-based products used for internal fixtures and fittings must be tested and classified as formaldehyde E1 class as a minimum.			As Hea 02 evidence	1	0	0	Architect	Credit not currently targeted.
Hea 06i Security of site and building	4. A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification.			As Hea 06 evidence.	1	0	0	SQSS	Credit not currently targeted.
Ene 01i Beyond zero net regulated carbon and carbon negative	Up to two credits - Beyond zero net regulated carbon 6. The building achieves an EPR NC ≥ 0.9 and zero net regulated CO ₂ emissions(see Definitions on page 134). 7. Energy generation from on-site and near-site LZC sources is sufficient to offset carbon emissions from regulated energy use plus a percentage of emissions from unregulated energy use. 8. Award the exemplary credits based on the percentage of additional emissions from unregulated energy that are offset by LZC sources(see Table 6.2). Three credits - Carbon negative 9. The building is deemed carbon negative where>100% (see Table 6.2 below) of carbon emissions from unregulated (and regulated) energy use are offset by energy generated from on-site and near-site LZC sources(see Definitions on page 126)			As above, plus evidence confirming: 1. The total carbon neutral energy generation (kWh/yr) 2. The source of the carbon neutral energy 3. Calculated estimate of energy consumption from unregulated systems or process(kWh/yr) (only required if confirming zero regulated carbon or carbon negative exemplary credits) 4. Calculated estimate of exported energy surplus(only required if confirming carbon negative status).	3	0	0	M&E	Credit not currently targeted.

BREEAM NC 2018 Criteria				Potential Design stage Evidence Approach	Credits Available	Current Targeted	Additional Potential	Resp.	Comments
Ene 01iii Post occupancy stage	10. Achieve maximum available credits in Ene 02 Energy monitoring on page 139. In addition, preschools, primary schools, law courts, prisons and multi-residential buildings must meet the requirements of the second credit for sub-metering of high energy load and tenancy areas. 11. The client or building occupier commits funds to pay for the post occupancy stage. This requires an assessor to be appointed and to report on the actual energy consumption compared with the targets set in criterion 4 on page 383. 12. The energy model (criterion 3 on page 381) is: 12.a Submitted to BRE and 12.b Retained by the building owner.				2	0	0	M&E	Credit not currently targeted.
Wat 01i Water consumption	7. Achieve criteria 1 to 4 on the previous page (and if applicable 5 or 6 above). 8. The water consumption (litres/person/day)for the assessed building achieves the 65% improvement described as exemplary performance in Table 8.1 on the previous page				1	0	0	M&E	Credit not currently targeted.
Mat 01i 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	0	0	Architect	Credit not currently targeted.
Mat 01iii LCA and LCC alignment	One credit – LCA and LCC alignment (all building types) 10. Achieve criteria 3 to 5. 11. Achieve Elemental LCC plan and Component Level LCC options appraisal credits(Man 02 Life cycle cost and service life planning on page 41). 12. Include design options appraised for criteria 3 to 4 (and 6 to 7 and 8 to 9, if pursued) during Concept Design in Assessment scope - The elemental LCC plan: on page 42. 13. Include the design options appraised for criterion 5 during Concept Design in the 'Component level LCC option appraisal' (in Man 02 Life cycle cost and service life planning on page 41). 14. Integrate the aligned LCA and LCC options appraisal activity within the wider design decision-making process. Record this in an options appraisal summary document including the relevant cost information from the 'elemental LCC plan' and 'Component level LCC option appraisal'.			As Mat 01 evidence.	1	0	0	Architect	Credit not currently targeted.
Mat 01iii Third party verification	15. Criteria 1 to 7 (as applicable to the building type) are achieved. 16. A suitably qualified third party (see Definitions on page 228) either carries out the building LCA work or verifies the building LCA work (if by others), and produces a report describing how they have checked the building LCA work accurately represent the designs under consideration during Concept Design and Technical Design with reference to the requirements of criteria 1 to 7 (and 8 to 14 if pursued). 17. For each LCA option, itemise in the report the checks made by the suitably qualified third party including, as a minimum, the quality requirements shown in Table 9.4 on page 231. 18. Include details of the suitably qualified third party's relevant skills and experience and a declaration of their third party independence from the project client and design team in the report				1	0	0	Architect	Credit not currently targeted.
Mat03i Measuring responsible	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.				1	0	0	Principal Contractor	Credit not currently targeted.
Wst01i Construction resource efficiency and diversion from landfill	7. Non-hazardous construction waste generated, excluding demolition and excavation waste, is less than or equal to the exemplary level resource efficiency benchmarks(see Table 10.1). 8. The percentage of non-hazardous construction, demolition and excavation waste (if relevant) diverted from landfill meets or exceeds the exemplary level percentage benchmarks in Table 10.2. 9. All key waste groups in Table 10.3 for diversion from landfill are covered in the RMP. 10. Waste data obtained from licensed external waste contractors is reliable and verifiable, by using data from EA/SEPA/EA Wales/NIEA Waste Return Forms or from a PAS402:2013 compliant company (see Definitions on page 245).				1	0	0	Project Team	Credit not currently targeted.
Wst 02i	7. The Project Sustainable Aggregate Points score meets or exceeds the exemplary level performance benchmark in Table 10.4.				1	0	0	Principal Contractor	Credit not currently targeted.
Wst 05i Responding to climate change	Achievement of the following criteria demonstrates a holistic approach to the design and construction of the building's life cycle to mitigate against the impacts of climate change. To achieve an exemplary performance credit: 4. Meet criteria 1 to 3 above. 5. Meet the criteria or achieve credits of the assessment issues given in Table 10.11 below				1	0	0	Architect	Credit not currently targeted.
Le 02i Ecological outcomes for the site	Determine the ecological outcomes for the site (sustainability-related activities) 11. Achieve criteria 8 to 10 on page 300. 12. When determining the optimal ecological outcome for the site consider, in addition to those outlined in criteria 8 to 10, the wider site sustainability-related activities and the potential for ecosystem service related benefits. See Methodology on page 300 - a list of the minimum areas for consideration. 13. Achieve the credits of the assessment issues outlined below: 13.a Assessment scope on page 121 - Both credits 13.b Assessment scope on page 332 - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution' 13.c Assessment scope on page 349.				1	0	0	Ecologist	Credit not currently targeted.
Le 04i Change and enhancement of ecology	7. The change in ecological value occurring is calculated in accordance with the process set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology - Route 2. The credit is awarded as follows: 7.a Significant net gain in ecological value (percentage score of 110 or above).				1	0	0	Ecologist	Credit not currently targeted.
Section Total				Note: Maximum available is 10 credits	10	0	0	0	
Weighted Section Total				10.0%	10.00	0.00	0.00	0.00	
				Overall Total	110.00	56.72	3.99	0.00	
				Equating to a BREEAM Rating of: (PROVIDED MINIMUM ISSUE STANDARDS ARE ALSO MET)		Very Good	Potential	No Rating	
						Current targeted	Considered Potential		