Preliminary Assessment
BREEAM 2018 NC
North Crescent

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Issue number
3

Date of issue
June 2021

Our reference
4839- Chenies Street - BREEAM 2018 NC Prelim report-2106-24jd.docx

Disclaimer

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Executive Summary
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Introduction

Eight Associates has been appointed, as registered BREEAM assessors, to carry out an assessment of the proposed new development at Chenies Street, London. This assessment is under BREEAM 2018 New Construction Methodology.

The development is a refurbishment and reconfiguration of the existing buildings; including a one storey extension, plus plant, minor demolition works associated with internal and external alterations to provide additional office accommodation and associated works.

This summary is a pre-assessment of the development and details the anticipated score following the information provided by the design team at a meeting held in September 2020 with BREEAM Accredited Professional Jeanne Davidson, and subsequent discussions.

Project Summary

Planning requirements for the new build non-residential extension are as follows:

- Excellent BREEAM rating

Score Summary

The site reviewed currently achieves a score of 71.2%, which equates to an Excellent rating.

Eight Associates recommends a safety margin of at least 3-5% to safeguard any rating at formal assessment.

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The BREEAM Standard

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's first sustainability rating scheme for the built environment. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance.

To date BREEAM has been used to certify over 560,000 building assessments across the building life cycle and is being applied in over 80 countries.

BREEAM is developed, operated and maintained by BRE Global Ltd and the operation and direction of the method is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry stakeholders. Further information about BREEAM, including copies of the BREEAM standards, can be found at www.breeam.org

Aims of BREEAM

- To mitigate the impacts of buildings on the environment
- To enable buildings to be recognised according to their environmental benefits.
- To provide a credible, environmental label for buildings.
- To stimulate demand for sustainable buildings.

BREEAM New Construction

BREEAM New Construction is a performance-based assessment method and certification scheme for new buildings.

The primary aim of BREEAM New Construction is to mitigate the life cycle impacts of new buildings on the environment in a robust and cost-effective manner. It attempts to quantify and reduce the environmental burdens of buildings by rewarding those designs that take positive steps to minimise their environmental impacts.

Projects are assessed at design and post-construction stages using a system of environmental issues grouped within the following sections:

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use & Ecology
- Pollution
- Innovation

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Process of the Assessment

Under BREEAM New Construction 2018, assessments take place over two phases:

a. Design Stage (DS): This is based on the final design for the development and the intentions of the design team. Submission before the completion of RIBA Stage 4.
b. Post Construction Stage (PCS): This is based on the built development and requires the BREEAM assessor to carry out a site visit. Submission at RIBA Stage 6.

An interim certificate will be provided following submission of the Design Stage Assessment, with final certification being awarded following the completion of the PCS Assessment.

Ratings

The assessment process results in a rating on a scale of PASS, GOOD, VERY GOOD, EXCELLENT and OUTSTANDING. The rating bands for each are as follows:

Rating	Minimum Score Required	Performance equivalent to (% of UK new non-domestic buildings)
Pass (P)	30%	<75% (standard good practice)
Good (G)	45%	<50% (intermediate good practice)
Very Good (VG)	55%	<25% (advanced good practice)
Excellent (E)	70%	<10% (best practice)
Outstanding (O)	85%	<1% (innovator)

Mandatory Credits

Some credits, or criteria within credits, are mandatory to achieve certain ratings:

BREEAM Issue	P	G	VG	E	O
Man 03: Responsible construction practices	–	–	–	1 credit	2 credits
Man 04: Commissioning & handover	–	–	1 credit[1]	1 credit	1 credit
Man 04: Commissioning & handover			Criterion 11[2]	Criterion 11	Criterion 11
Ene 01: Reduction of CO_2 emissions	–	–	–	4 credits	6 credits
Ene 02: Energy monitoring	–	–	1 credit	1 credit	1 credit
Wat 01: Water consumption	–	1 credit	1 credit	1 credit	2 credits
Wat 02: Water monitoring	–	Criterion 1[4]	Criterion 1	Criterion 1	Criterion 1
Mat 03: Responsible sourcing	Criterion 1[5]	Criterion 1	Criterion 1	Criterion 1	Criterion 1
Wst 01: Construction waste	–	–	–	–	1 credit
Wst 03: Operational waste	–	–	–	1 credit	1 credit

[1] Commissioning – testing schedule and responsibilities must be produced for the site.
[2] A Building User Guide must be developed prior to handover, for distribution to the building occupiers and premises managers.
[3] Complete required commissioning activities over a minimum 12-month period once the building has become occupied.
[4] A water meter must be specified on the mains water supply to each building
[5] All timber and timer-based products used on the project must be legally harvested and traded.

Full details for each credit follow later in this document.

Early Stage Credits
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Early Stage Considerations

There are a number of key actions that need to be undertaken at RIBA Stages 1 and 2 of the design to achieve BREEAM credits, as required for the project. Below is a summary of the credits targeted that require these considerations to be made. All issues greyed out, are not applicable to this project.

Credit	RIBA Stage	Requirement	Responsibility
Man 01 Project delivery planning	Stage 2	Project stakeholders must meet to define their roles, responsibilities and contributions for each key phase of the project by the end of RIBA Stage 2.	Project Manager, key design team members
Man 01 Stakeholder Consultation	Stage 2	Public consultation must be carried out with third party stakeholders (e.g. future building users, local community group).	Architect, Planning Consultant, Client
Man 01 BREEAM AP (Concept Design)	Stage 1 Stage 2	Appoint a sustainability champion (BREEAM AP) Agree BREEAM performance target.	Client / Project Manager
Man 02 Elemental Life Cycle Costing (LCC)	Stage 2	An Elemental Life Cycle Costing analysis must be carried out before the end of RIBA Stage 2.	Cost Consultant
Man 02: Component level Life Cycle Costing (LCC) options appraisal	Stage 4	A Component level Life Cycle Costing analysis must be carried out before the end of RIBA Stage 4.	Cost Consultant
Hea 06 Security of site and building	Stage 2	Consult with a security consultant (ALO / CPDA) to clarify security measures that should be implemented within the design	Architect
Ene 04 Passive Design Analysis	Stage 2	A Passive Design Analysis must be carried out at the early design stages to identify opportunities to implement passive design measures within the building design	Energy Specialist / M&E Consultant
Ene 04 Feasibility Study	Stage 2	A feasibility study must be carried out before the end of RIBA Stage 2 to establish the most appropriate local low or zero carbon (LZC) energy source(s) for the building	Energy Specialist
Tra 01: Transport Assessment and Travel Plan	Stage 2	A site-specific transport assessment and draft travel plan to assess existing local transport and identify improvements to make it more sustainable.	Transport Consultant
Mat 01 Environmental impacts from construction products – Building life cycle assessment (LCA)	Stage 2	Concept design stage: The options appraisal summary document must be carried out before the end of RIBA Stage 2	Life Cycle Analysis Consultant
Mat 03: Enabling sustainable procurement	Stage 2	A sustainable procurement plan must be developed by the design team to guide specification towards sustainable construction products.	Architect / client
Mat 06 Materials Efficiency	Stage 2	Materials efficiency must be investigated, and considerations recorded at RIBA stage 2, and each stage thereafter.	Specialist Consultant / Architect / M&E

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Credit	RIBA Stage	Requirement	Responsibility
Wst 05 Climate Change Adaptation	Stage 2	A climate change adaptation strategy appraisal must be carried out for structural and fabric resilience before the end of the Concept Design stage.	Specialist Consultant / M&E Consultant
Wst 06 Design for disassembly and adaptability	Stage 2	A building-specific functional adaptation strategy study must be undertaken by the Concept Design, which includes recommendations for measures to be incorporated to facilitate future adaptation.	Client / Design Team
LE02 Identifying & understanding the risks and opportunities for the project	Stage 1 – 2	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	Client / Project Manager / Ecologist
LE03 Managing negative impacts on ecology	Stage 2 – 4	Roles and responsibilities for managing negative impacts on the ecology are clearly defined to support successful delivery of project outcomes at an early enough stage to influence the Preparation and Brief or Concept Design	Client / Project Manager / Ecologist

Extra Appointment Considerations

It should also be considered that there are a number of external consultant reports that will be required to meet some of the BREEAM requirements for the credits that have been targeted.

These include the following appointments / reports:

- **Acoustician:** Acoustic Performance (Hea 05) and Noise Attenuation (Pol 05)
- **Daylighting Consultant**: Daylighting performance (Hea 01)
- **Security Consultant**: Safety and Security (Hea 06)
- **Energy Consultant**: Reduction of energy Use and Carbon Emissions (Ene 01), Low Carbon Design (Ene 04) and Thermal Comfort (Hea 04)
- **Transport Consultant**: (Tra 05): Travel Plan is required
- **Ecologist**: Minimising impact on existing site ecology, enhancing site ecology and Long term impact on biodiversity (LE 03, LE 04 and LE 05)
- **Flood Risk Consultant**: Surface Water run off (Pol 03)

Score Breakdown
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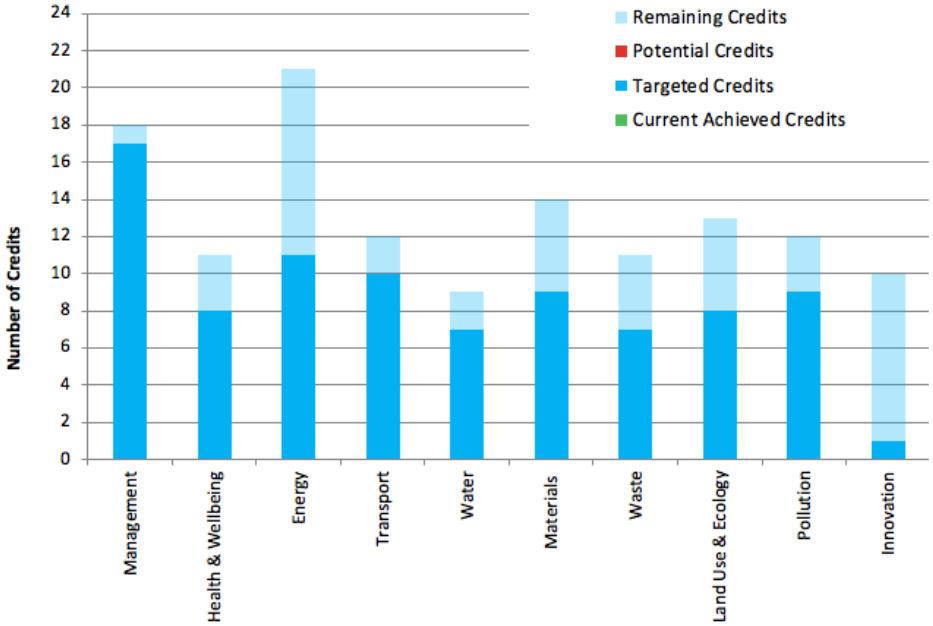
Rating Summary

The following summary represents the scheme's preliminary score based on the assumptions in the following pages. Please contact the assessor if a score sheet is required.

Credit Categories	% Achieved	Weighting	Score
Management	94%	11.0%	10.38%
Health and Wellbeing	73%	8.0%	5.81%
Energy	52%	14.0%	7.33%
Transport	83%	11.5%	9.58%
Water	78%	7.0%	5.44%
Materials	64%	17.5%	11.25%
Waste	64%	7.0%	4.45%
Land Use and Ecology	62%	15.0%	9.23%
Pollution	75%	9.0%	6.75%
Innovation	10%	10.0%	1.00%
Total Score			**71.2%**
Rating			**Excellent**

Graphics Breakdown

The graph below shows the credits currently targeted (dark blue), action credits (red) and remaining credits in each BREEAM section (light blue).



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Man 01: Project Brief and Design 4 of 4

Stakeholder Consultation (two credits)

The design team has met to identify roles and responsibilities, as well as contributions for each key phase of the project.
Detailed consultation with the appropriate stakeholders and a design team workshop, focusing on Ene 01 has formed part of the project brief in accordance with BREEAM requirements. However, an independent party will be appointed to carry out a third-party consultation exercise.

BREEAM AP (two credits)

The design team has confirmed that a BREEAM Accredited Professional (AP) will be involved to monitor and report progress against the established BREEAM targets by attending key project team meetings during all stages of the design and construction. The BREEAM AP attended the initial design team meeting in and will continue to attend key meetings, identifying risks and opportunities to achieving each target and provide feedback to the project team.

In total, four out of four credits are currently targeted for this issue.

Man 02: Life Cycle Cost and Service Life Planning 4 of 4

Elemental Life Cycle Costing (two credits)

An elemental life cycle cost analysis will be carried out by RIBA stage 2 in accordance with PD 156865-2008.

Component Level Life Cycle Options Appraisal (one credit)

A component level LCC options appraisal will be carried out by RIBA stage 4 to minimise life cycle costs and maximise value.

Capital Cost Reporting (one credit)

The design team has committed to report the capital cost for the building in pounds per square metre (£k/m^2), via the BREEAM Assessment Scoring and Reporting tool in line with BREEAM requirements.

In total, four out of four credits are currently targeted for this issue.

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Mandatory Requirements

At least one credit must be awarded under responsible construction management to achieve an Excellent rating.

Timber (prerequisite)

All timber is to be legally harvested and traded.

Environmental Management (one credit)

The design team will appoint a principal contractor who operates an Environmental Management System, certified under ISO14001/ EMAS or an equivalent standard, covering their main operations.

BREEAM AP (prerequisite)

The client and the contractor formally agree performance targets. Involve a BREEAM AP in the project at an appropriate time and level.

BREEAM AP (Site) (one credit)

The contractor will be required to appoint a BREEAM AP to ensure on-going compliance with the relevant sustainability performance on site. They will be involved with the project team undertaking regular spot checks to ensure risks are minimised and monitoring construction progress.

Responsible construction management (two credits)

The contractor will be required to complete all the items ticked in the table in Appendix A PLUS six additional items in the responsible construction management checklist found also in Appendix A.

Monitoring of Construction-site impacts (two credits)

The design team has confirmed that an individual is responsible for monitoring, recording and reporting the following:

- Energy (kWh) consumption for the site as a result of construction plant, equipment and site accommodation. Total carbon dioxide emissions must be reported.
- Water (m3) consumption arising from the use of construction plant, equipment and site accommodation.
- Transport resulting from delivery of construction materials to site and removal of construction waste from site. The following information must be recorded:

i. Materials used in major building elements

- Ground works and landscaping materials
- Transportation of construction waste

ii. Litres of fuel used

- Distance travelled (km) for
- Carbon dioxide emissions (kgCO2 eq)

In total, six of six credits are currently targeted for this issue.

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Man 04: Commissioning and Handover 3 of 4

Mandatory Requirements

A Building User Guide must be produced in order to achieve an Excellent rating (even if this issue is not targeted).

Commissioning (two credits)

A member of the design team will be appointed to monitor commissioning in line with best practice (CIBSE, BSRIA and Current Building Regulations), with a specialist commissioning agent appointed for any complex systems.

Testing and inspecting building fabric (one credit)

The design team has stated that a thermographic survey and air tightness testing will not be carried out for the project.

Handover (one credit)

The production of a technical manual and a non-technical building user guide in line with the BREEAM requirements is planned. In addition, a training schedule will be prepared for building occupiers / facilities managers to aid handover.

In total, three of four credits are currently targeted for this issue.

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Hea 01: Visual Comfort 2 of 4

Daylighting (two credit)

It has been confirmed that daylight modelling will not be carried out that in line with BREEAM requirements at this time.

View out (one credit)

The design team has confirmed that all workstations will be 8m from a wall that has a window or permanent opening providing an adequate view out over 95% of floor area. In addition, windows or openings will comprise at least 20% of the surrounding wall area.

Internal and external lighting levels, zoning and controls (one credit)

The design team has confirmed the following will be met for the scheme:

- All fluorescent and compact fluorescent lamps will be fitted with high frequency ballasts;
- Internal lighting will provide illuminance levels in accordance with the SLL Code of Lighting 2012 (and any other relevant industry standard);
- For areas where computer screens are regularly used the lighting design will comply with the appropriate sections of CIBSE Lighting Guide 7;
- All external lighting will provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately;
- Internal lighting will be appropriately zoned to allow for occupant control within relevant building areas in accordance with the BREEAM criteria;
- External lighting will be specified in accordance with BS 5489–1:2013 Lighting of roads and pubic amenity areas and BS EN 12464–2:2014 Light and lighting – Lighting of workplaces – Part 2: Outdoor workplaces);

In total, two of four credits are currently targeted for this issue.

Hea 02: Indoor Air Quality 0 of 1

Indoor Air Quality plan (prerequisite)

The design team has confirmed that an Indoor Air Quality (IAQ) plan will be provided in line with BREEAM requirements.

Ventilation (one credit)

The design team has confirmed that the credit for this issue will not be targeted at design stage – the location of the air intakes and extracts will unlikely meet the BREEAM criteria.

In total, zero of one credits are currently targeted for this issue.

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Hea 04: Thermal Comfort 2 of 2

Thermal modelling (one credit)

Thermal modelling, in line with CIBSE AM11, will be undertaken for the development using full dynamic thermal analysis software. Summer and winter operative temperature ranges in occupied spaces will be in accordance with the criteria set out in CIBSE Guide A Environmental design.

Design for future thermal comfort (one credit)

The design team has confirmed that the thermal modelling will include an allowance for a projected climate change environment.

In total, two of two credits are currently targeted for this issue.

Hea 05: Acoustic Performance 1 of 1

The design team has confirmed that the building will comply with the requirements set out in Section 7 of BS 8233:2014 for:

- Sound insulation
- Indoor ambient noise level
- Room acoustics

The above will be confirmed via a programme of pre-completion testing, carried out by a compliant test body.

In total, one of one credit is currently targeted for this issue.

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Hea 06: Security

Security of site and building (one credit)

The design team has confirmed that a suitably qualified security consultant from the local police will be consulted during the planning process and recommendations will be incorporated into the design.

In total, one of one credit is currently targeted for this issue.

Hea 07: Safe and Healthy Surroundings

Safe access (one credit)

The design team has confirmed that dedicated and safe cycle paths will be provided from the site entrance to any cycle storage, as well as safe footpaths providing suitable links.

The pedestrian drop-off areas have been designed adjoining an access road allowing direct access to other footpaths. The delivery areas have been designed to not cross/ accessed through general parking areas and other pedestrian or cyclist paths.

Outside space (one credit)

The design team has confirmed the provision of outside amenity area for building users.

In total, two of two credits are currently targeted for this issue.

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Ene 01: Reduction of CO2 Emissions

Mandatory Requirements

At least four credits must be achieved in order to secure an Excellent rating.

Energy Performance (nine credits)

An Energy Performance Certificate will be produced at design stage, based on Part L 2013 standards. Based on the building services and fabric specified, it is assumed that at least 4 of the available nine credits under this issue will be achieved.

Please note that the BREEAM guidance requests a copy of the Building Regulations Output (BRUKL Output Document) based on the design stage of analysis and an as-built copy of the document for the PCR stage.

Prediction of operational energy consumption (four credits)

It is not yet confirmed that relevant members of the design team will hold a preliminary design workshop focusing on operational energy performance.

Four of thirteen credits are targeted for this issue.

Ene 02: Energy Monitoring

Mandatory Requirements

One credit is required for sub-metering of major energy consuming systems in order to achieve an Excellent rating.

Sub-metering of end-use categories (one credit)

Pulsed sub-meters will be provided to ensure the following are met:

1. Energy metering systems are installed that enable at least 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems.
2. The energy consuming systems in buildings with a total useful floor area greater than 1,000m^2 are metered using an appropriate energy monitoring and management system.
3. The systems in smaller buildings are metered either with an energy monitoring and management system or with separate accessible energy sub-meters with pulsed or other open protocol communication outputs, to enable future connection to an energy monitoring and management system
4. The end energy consuming uses are identifiable to the building users, for example through labelling or data outputs.

In addition, an accessible energy monitoring and management system or with pulsed or other open protocol communication outputs are to be provided. These will cover a significant majority of the energy supply to the relevant function areas or departments within the building.

Sub-metering of high energy load and tenancy areas (one credit)

The design team has confirmed that there will be sub-metering per floor plate.

Two of two credits are currently targeted for this issue.

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Ene 03: External Lighting

1 of 1

The design team has confirmed that any external lighting will have an average initial luminous efficacy of greater than 70 luminaire lumens per circuit Watt. All external light fittings will be automatically controlled to prevent operation during daylight hours.

One of one credit is currently targeted for this issue.

Ene 04: Low Carbon Design

2 of 3

Passive Design Analysis (one credit)
The project team will carry out an analysis of the proposed building design/development to influence decisions made during Concept Design stage and identify opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services.

The building will use passive design measures to reduce the total heating, cooling, mechanical ventilation and lighting loads and energy consumption in line with the findings of the passive design analysis, and the analysis will demonstrate a meaningful percentage reduction in the total energy demand.

Free Cooling (one credit)
The design team has confirmed that the credit for free cooling will not be targeted at design stage.

Low and Zero Carbon Technologies (one credit)
A feasibility study will be carried out by an independent energy specialist to establish the most appropriate local low or zero carbon energy source for the development, and an LZC technology will be specified in line with the recommendations of this report (resulting in a reduction in CO_2 emissions).

Two of three credits are currently targeted for this issue.

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Ene 06: Energy Efficient Transportation Features 2 of 2

Energy consumption (one credit)

The design team has confirmed that a transportation demand and usage pattern analysis will be carried out for the building to determine the optimum number and size of lifts, escalators or moving walks in accordance with BS EN ISO 25745. The energy consumption will be calculated for at least two types of system and the one with the lowest energy consumption is specified.

Energy efficient features (one credit)

The design team has confirmed they will be specifying the following energy efficient features for each lift:

- A standby condition for off-peak periods.
- 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.
- Use of a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVF) control of the drive motor.

Regenerative drives are considered where these would produce an energy saving greater than the additional standby energy used to support the drives.

Two of two credits are targeted.

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Tra 01: Transport Assessment and Travel Plan

Travel Plan (two credits)
The design team has confirmed that during the feasibility and design stages a travel plan will be developed based on a site-specific travel assessment or statement.

The travel plan will include proposals to increase/improve sustainable modes of transport and movement of people and goods.

Two of two credits are targeted for this issue.

Tra 02: Sustainable Transport Measures

Transport options implementation (ten credits)
The design team has confirmed that the potential sustainable transport measures can be targeted, which will include:

- Demonstrate an increase over the existing Accessibility Index (i.e. provide a bus service for the site work force)
- Install compliant cycle storage spaces and cyclist facilities (showers and cyclist facilities)
- Provision of a new amenity for building users (within the second phase of the site development)
- Proximity to existing amenities
- 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.

Eight out of ten credits are targeted for this issue.

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Wat 01: Water Consumption 4 of 5

Mandatory Requirements

At least one credit is required for an Excellent rating.

The design team has confirmed that they will aim for a 40% improvement in water consumption (litres/person/day) compared to BREEAM's notional baseline performance using low flow rates and flush volumes in the sanitary fittings.

In addition, a rainwater harvesting tank will be included in the development, which will increase the improvement on the baseline by at least another 10%.

Four of five credits are currently targeted for this issue

Wat 02: Water Monitoring 1 of 1

Mandatory Requirements

A water meter must be specified (even if this credit is not targeted) in order to achieve an Excellent rating.

The design team has confirmed that a pulsed water meter will be installed on the mains water supply to each building.

Water–consuming plant or building areas consuming 10% or more of the building's total water demand, will be fitted with easily accessible sub–meters or have water monitoring equipment integral to the plant or area.

The available credit is currently targeted for this issue.

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Wat 03: Water leak detection and prevention 1 of 2

Leak detection (one credit)
The design team has confirmed a major leak detection system on the mains water supply within the building and between the building and the utilities water meter will be provided. The system will comply with the following:

- Permanent and automated
- Activated when the flow of water is at a flow rate above a pre-set maximum for a pre-set period of time
- Able to identify different flow and leakage rates
- Programmable to suit the owner/occupiers' water consumption criteria.
- Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as chillers.

Sanitary shut-off system (one credit)
Flow control devices that regulate the supply of water to each WC area/facility according to demand will not currently be installed.

One of two credits are currently targeted for this issue.

Wat 04: Water efficient equipment 1 of 1

The design team has confirmed that there will not be any sources of unregulated water demand (e.g. irrigation systems or vehicle wash equipment) installed within the development. All other domestic scale water systems are assessed under the Wat 01 credit issue. Therefore, this can be awarded by default.

The available credit is currently targeted for this issue.

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Mat 01: Environmental impacts from construction products

Building life cycle assessment (LCA) 4 of 7

Superstructure (six credits)
The design team has confirmed that a Life Cycle Assessment (LCA) will be carried out at key stages to demonstrate that the specification of material build-ups and their impact has been considered.

Substructure and hard landscaping options appraisal during Concept Design (all building types) (one credit)
The design team has confirmed that during Concept Design opportunities have been identified to reduce environmental impacts.

Four of seven credits are targeted for this issue.

Mat 02: Environmental impacts for construction products

Environmental Product Declarations (EPD) 0 of 1

The design team has not confirmed the specified construction products which will have an EPD.

The available credit is not currently targeted for this issue.

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Mat 03: Responsible Sourcing of Materials 3 of 4

Mandatory Requirements

The pre-requisite for this issue must be complied with (even if this issue is not targeted) in order to achieve any rating.

Pre-requisite

The design team has confirmed that all timber used on the project will be legally harvested and traded timber.

Enabling sustainable procurement (one credit)

The developer or architect will implement a sustainable procurement plan before Concept Design to guide specification towards sustainable construction products.

Measuring Responsible Sourcing (three credits)

The design team has confirmed that, where possible, key building elements will be responsibly sourced (e.g. all timber FSC certified, and any bricks, pavers, concrete, glass, metals, plaster etc. covered by BRE Global, BES 60001 certification, or EMS certified for both the key process and supply chain extraction process).

Three of four credits are targeted for this issue.

Mat 05: Designing for Durability and Resilience 1 of 1

Protecting Vulnerable Parts of the Building from Damage

Materials and features will be specified to protect vulnerable parts of both the internal and external areas of the building.

Protecting Exposed Parts of the Building from Material Degradation

The relevant building elements incorporate appropriate design and specification measures to limit material degradation due to environmental factors. The elements will either achieve an appropriate quality or durability standard or a resilience assessment will be carried out on the element.

The available credit is targeted for this issue.

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Mat 06: Material Efficiency

The design team has confirmed that opportunities will be identified, and appropriate measures investigated and implemented, to optimise the use of materials in building design, procurement, construction, maintenance and end of life.

The above will be carried out by the design team in consultation with the relevant parties at each of the following RIBA stages:

- Preparation and Brief
- Concept Design
- Developed Design
- Technical Design
- Construction.

The available credit is targeted for this issue.

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Wst 01: Construction Site Waste Management 4 of 5

Pre-demolition audit (one credit)

The design team will complete a pre-demolition audit of any existing buildings or hard surfaces being considered for demolition. This will be used to determine whether refurbishment or reuse of materials is feasible.

Construction resource efficiency (three credits)

The design team has confirmed that a BREEAM compliant Site Waste Management Plan will be produced and will ensure that non-hazardous waste generated by the building's design and construction (excluding demolition and excavation waste) is less than 7.5m^3 (or 6.5 tonnes) per 100m^2 of gross internal floor area.

Diversion of resources from landfill (one credit)

It is currently foreseen that at least 70% by volume (80% by weight) of non-hazardous waste generated by the project will be diverted from landfill, and 80% by volume (90% by weight) of demolition waste will be diverted from landfill.

Four of five credits are targeted for this issue.

Wst 02: Use of recycled and sustainably sourced aggregates 1 of 1

Pre-requisite

The design team will complete a pre-demolition audit of any existing buildings or hard surfaces being considered for demolition (as outlined in Wst 01 above) to encourage the reuse of site-won material on site.

Project Sustainable Aggregate Points (one credit)

The use and type of aggregates must be identified, as well as the total amount of recycled and/or secondary aggregate, the region the aggregate was sourced, and the distance travelled. At present, the design team are expecting to monitor this information.

The available credit is targeted for this issue.

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Wst 03: Operational Waste 1 of 1

Mandatory Requirements

One credit is required in order to achieve an Excellent rating.

The design team has confirmed that a dedicated recyclable waste storage area will be provided for the scheme. The space will be clearly labelled and accessible. A compactor / baler and composting facilities are not required for the building function.

The available credit is targeted for this issue.

Wst 04: Speculative floor and ceiling finishes 1 of 1

The design team has confirmed that no finishes will be specified; this credit can therefore be awarded by default.

The available credit is currently targeted for this issue.

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Wst 05: Adaptation to climate change 0 of 1

Resilience of structure, fabric, building services and renewables installation (one credit)

The design team has confirmed that a climate change adaptation strategy will not be undertaken for the development at present.

The available credit for this issue is not targeted.

Wst 06: Designing for disassembly and adaptability 0 of 2

Design for disassembly and functional adaptability recommendations (one credit)

The design team has conducted a study to explore the ease of disassembly and functional adaptation potential of different scenarios before the end of Concept Design will not be carried out.

Disassembly and functional adaptability implementation (one credit)

The design team will not be undertaking this credit.

Zero of two credits are targeted for this issue.

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LE 01: Site Selection 1 of 2

Previously developed land (one credit)

The development is situated on previously developed land.

One of one credit targeted.

Contaminated land (one credit)

It is not currently clear if the site has been significantly contaminated and requiring remediation prior to development, therefore the credit cannot currently be targeted.

Zero of one credit targeted.

One of two credits are targeted for this issue.

LE 02: Identifying and understanding the risks and opportunities for the project 1 of 2

Prerequisite – Assessment route role

The contractor will confirm that compliance is monitored against all relevant UK and EU legislation relating to the ecology of the site.

Route 2 – Survey and evaluation (two credits)

The design team has confirmed that the ecologist was appointed at an early project stage to ensure early involvement in the project. An appropriate level of survey and evaluation has been carried out (during the preparation and brief) to determine the ecological baseline of the site.

Two of two credits targeted.

One of two credits are targeted for this issue.

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LE 03: Managing negative impacts on ecology 2 of 3

Pre-requisite – Identification and understanding the risks and opportunities for the site

LE 02 is achieved to meet the pre-requisite requirements.

Planning, liaison, implementation and data (one credit)

The design team has confirmed that individuals are aware of their roles and responsibilities. The potential impact of site preparation and construction works has been identified by the ecologist, to optimise benefits and outputs.

The project team (whilst liaising and collaborating with representative stakeholders and, taking into consideration data collated and shared), has confirmed they will propose solutions and selected measures to be implemented during site preparation and construction works.

One of one credit targeted.

Route 2 – Managing negative impacts of the project (two credits)

The design team has confirmed that negative site impacts from site preparation and construction works will be managed according to the hierarchy but there may be a small overall loss of ecology.

One of two credits targeted.

In total, two of three credits are targeted for this issue.

LE 04: Change and enhancement of ecological value. 2 of 4

Prerequisite – Identifying and understanding the risks and opportunities for the project

Roles and responsibilities have been clearly defined by the design team, site preparation and construction works have been planned, and all UK and EU legislation has been complied with.

Route 2 – Liaison, implementation and data collection (one credit)

The design team has confirmed they have liaised and collaborated with representative stakeholders, taking into consideration data collated and shared, and they will implement solutions and measures selected in a way that enhances ecological value on and off site.

One of one credit targeted.

Route 2 – Enhancement of ecology (up to 3 credits)

The project team has confirmed they will liaise and collaborate with representative stakeholders, taking into consideration data collated and shared. They will implement solutions and measures based on recommendations from recognised 'local' ecological expertise, providing solutions and measures which enhance the site.

Data collated has been provided to the local environmental records centres nearest to, or relevant for, the site.

One of three credits targeted.

In total, two of four credits are targeted for this issue.

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LE 05: Long term ecology management and maintenance 2 of 2

Prerequisite – Roles and responsibilities, implementation, statutory obligations

The design team confirms that all UK and EU legislation has been complied with.

Planning, liaison, data, monitoring and review management and maintenance (one credit)

The project team has confirmed that they will liaise and collaborate with representative stakeholders, taking into consideration data collated and shared, on solutions and measures implemented. Monitoring and reporting of outcomes and successes will be completed.

Landscape and ecology management plan (or similar) development (one credit)

The project team has confirmed that the landscape and ecology management plan will be developed in accordance with BS 42020:2013, covering as a minimum the first five years after the project completes. One of one credit targeted.

In total, two of two credits are targeted for this issue.

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Pol 01: Impact of refrigerants

Pre-requisite

All systems with electronic compressors will comply with the requirements of BS EN 378:2008 (parts 2 and 3) and, where systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice.

Impact of refrigerants (two credits)

At present, it is confirmed that the cooling strategy of the scheme will have Direct Effect Life Cycle CO_2 equivalent emissions (DELC CO_2e) of $\leq$ 1000 $kgCO_2e/kW$ cooling/heating capacity.

One of two credits targeted.

Leak detection (one credit)

The design team has confirmed that the credit for leak detection will not be targeted at design stage.

One of three credits is targeted for this issue.

Pol 02: Local air quality

The design team has confirmed the heating, cooling and hot water will be supplied using electricity so both credits ae awarded by default.

Two of two credits are targeted for this issue.

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Pol 03: Surface water run-off 4 of 5

Flood risk (two credits)

A site-specific Flood Risk Assessment will be undertaken for the site, confirming the site is situated in a low flood risk area.

Two of two credits targeted.

Surface water run-off (two credits)

The design team has confirmed that measures will be specified for now to ensure that the peak run off rate for the developed site will have a 30% reduction compared to the pre-developed site AND that the post development run-off volume, over the development lifetime, is no greater than it would have been prior to the site's development. The design team has also confirmed that flooding of property will occur in the event of local drainage system failure.

Two of two credits targeted.

Minimising watercourse pollution (one credit)

The design team has confirmed that the credit for minimising watercourse pollution will not be targeted at design stage, as there is no scope to include the necessary attenuation measures to ensure there is no discharge from the site for rainfall depths of up to 5 mm.

Zero of one credit targeted.

In total, four of five credits are targeted for this issue.

Pol 04: Reduction of night-time light pollution 1 of 1

The design team has confirmed that external lighting will be designed and installed in compliance with ILP Guidance. All external lighting will have the capacity to be switched off automatically between 11pm and 7am.

One of one credit is targeted for this issue.

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Pol 05: Noise attenuation

1 of 1

A Suitably Qualified Acoustic Consultant will conduct a noise impact assessment in compliance with BS 4142:2014. 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. Where noise greater then attenuation measures will be specified.

One of one credit is targeted for this issue.

Appendix A – Man 03
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Ref	Criteria	Required for two credits plus the exemplary credit
Risk evaluation and implementation		
The principal contractor evaluates the risks (on site sand off site), plans and implements actions to minimise the identified risks, covering the following, where appropriate:		
Vehicle movement		
a	Manage the construction site entrance to minimise the impacts (e.g. safety, disruption) arising from vehicles approaching and leaving the development footprint.	X
b	Ensure the development footprint is accessible for delivery vehicles fitted with safety features (e.g. side under run protection) to remove or limit the need for on street loading or unloading. Where on–street loading is unavoidable, this should be appropriately managed.	X
c	Identify access routes to the development footprint, including for heavy vehicles to minimise traffic disruption and safety risks to others.	X
Pollution Management		
d	Minimise the risks of air, land and water pollution.	X
e	Minimise the risks of nuisance from vibration, light and noise pollution.	X
Tidiness		
f	Practices ensure the development footprint is safe, clean and organised at all times. This includes, but is not limited to, facilities, materials and waste storage.	X
g	Ensure clear and safe access in and around the buildings at the point of handover.	X

Ref	Criteria	Required for two credits plus the exemplary credit
Health and Wellbeing		
h	Provide processes and equipment required to respond to medical emergencies.	X
i	The principal contractor identifies and implements initiatives to promote and maintain the health and wellbeing of all site operatives within the development footprint. This can be via site facilities, site management arrangements, staff policies etc.	X
j	Establish management practices and facilities encouraging equality, fair treatment and respect of all site operatives.	X
k	Provide secure, clean and organised facilities (e.g. changing and storage facilities) for site operatives within the development footprint.	X
Security processes		
l	Minimise risks of the site becoming a focus for antisocial behaviour in the local community (e.g. robust perimeter fencing, CCTV, avoid creating dark corners etc.).	X
Training, awareness and feedback		
The principal contractor is responsible for ensuring:		
m	Aspects of the construction process that might impact the community are communicated regularly, ensuring that nuisance and intrusion are minimised.	X
n	Ensure ongoing training is provided, and up to date, for personnel and visitors (covering items a to l above, as appropriate.)	X

Appendix A – Man 03
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Continued...

Ref	Criteria	Required for two credits plus the exemplary credit
Training, awareness and feedback		
o	The principal contractor ensures that site operatives are trained for the tasks they are undertaking (including any site-specific considerations).	X
p	The fleet operators undertake driver training and awareness to promote safety within the development footprint and off site.	X
Monitoring and reporting		
The principal contractor ensures:		
q	The fleet operator captures and investigates any road accidents, incidents and near misses and reports them back to the principal contractor. The principal contractor analyses these items.	X
r	All visitor, workforce and community accidents, incidents and near misses are recorded and action is taken to reduce the likelihood of them reoccurring.	X
s	Processes are in place to facilitate collecting and recording feedback from the community and to address any concerns related to the development footprint.	X