HARLEY HADDOW

King’s Cross Methodist Church

Sustainability Statement

November 2024

Document Revision Control

Revisions	Date	Reason for Issue	By	Approved
0	21/10/2024	Draft issued for comments	TS	
1	26/11/2024	Revised Report	TS	

Contents

Executive Summary

This report has been prepared by Harley Haddow Ltd in support of the planning application being submitted to the London Borough of Camden Council for the part demolition, extension and reconfiguration of the existing building to provide replacement church with ancillary café and student accommodation, together with associated plant, cycle and refuse storage at King's Cross Methodist Church, 58A Birkenhead Street, London, WC1H 8BW.

The proposed reconfiguration, extension and refurbishment of the building will provide the replacement church across the lower ground, ground and part first floor, in addition to student accommodation across part first and second floors, and the new third floor which is an additional storey provided through the proposal. The existing western wing of the building fronting Crestfield Street will be demolished and rebuilt to provide student accommodation including a shared communal living/kitchen/dining area, together with dedicated cycle and refuse stores and ancillary spaces for the church.

	GIA (m²)								
	Existing		Floorspace to be demolished		New Build Floorspace		Proposed Total (Church)	Proposed Total (Student)	Floor Total
	Church	Student	Church	Student	Church	Student	Church	Student	
LG	308	0	0	0	246	46	578	46	624
G	509	11	197	4	130	60	471	67	538
1	0	533	0	201	98	97	98	436	534
2	0	262	0	31	0	306	0	535	535
3	0	0	0	0	0	287	0	287	287
Total	817	806	197	236	474	796	1147	1371	2518
	1623		**433**		**1270**		**2518**		

This report sets out the sustainability strategy for the proposed development. In developing this strategy, local and regional planning policies have been addressed. The client is committed to creating a sustainable and environmentally friendly development, this report demonstrates that all feasible measures have been implemented to reduce environmental impact and improve efficiency as much as possible, in line with the national and local policy drivers listed in Table 1 below.

The relevant national and local policy drivers in sustainability for the proposed development are as follows.

Table 1: National and Local Policy Drivers

National Drivers	• National Planning Policy Framework (2023).
Local Driver	• The London Plan 2021. • Camden Council's Local Plan (2017) • Camden Planning Guidance (CPG): Energy Efficiency and Adaptation (2021) • GLA Sustainability Standards

A BREEAM pre-assessment has been undertaken and a score of 73.95% has been targeted to achieve Excellent. In line with CPG Energy Efficiency and Adaptation, the Energy and Water credits will achieve a minimum of 60% and the Materials credits will achieve a minimum of 40%. The final BREEAM score awarded will be determined based on evidence acquired throughout the design process.

1.0 Introduction

1.1 Purpose of Statement

This Sustainability Statement has been prepared in response to Camden's Local Plan and the London Plan, which states that all schemes must consider sustainable development principles from the start of the design process.

For non-domestic developments of 500m^2 or more, a BREEAM pre-assessment demonstrating an 'Excellent' rating must be provided, this is achieved in this project as shown in Appendix A of this statement.

1.2 Location and Background

The site is located within the London Borough of Camden Council boundary, between Crestfield St and Birkenhead St opposite the Kings Cross St Pancras station. The site is also situated in very close proximity to A501 road. Mechanical ventilation is proposed as the most suitable ventilation strategy for the student accommodation (rather than natural ventilation) on noise and air quality grounds.

Figure 1 - Existing Site Highlighted by Red Boundary

The proposed development will be retaining and reusing much of the existing building, with only the western wing designated for demolition and rebuilding. This approach focuses on refurbishing, reconfiguring, and extending the current structure, reducing material waste and maximizing resource efficiency.

The proposal involves the refurbishment and extension of the church area on the lower ground to the 1st floor of the building, as well as the refurbishment and extension of the student accommodation area from the 1st to the 3rd floor. There will be provisions for communal areas, bike storage, servicing areas, roof-level communal terraces, gardens, refuse spaces and external amenity areas for the building occupants. Please refer to the Design and Access Statement for more details of the proposed development.

2.0 Sustainability Drivers and Policy Context

Planning plays a key role in helping shape places to reduce as much greenhouse gas emission as possible and providing resilience to the impacts of climate change. The following sustainable development policies at national and local levels have been used and considered to be relevant for the proposed development.

2.1 National Planning Policy Framework

Figure 2: NPPF (2024)

The Government's National Planning Policy Framework (NPPF, 2024) is a strategic document that sets out a long-term vision for England's development. It provides a framework for making decisions on land use planning, infrastructure investment, and sustainable development across the country.

The NPPF outlines planning policies and the following are the key priorities applicable to this project:

- **Achieving sustainable development**
- **Delivering a sufficient supply of homes**, including to students.
- **Promoting sustainable transport**, including the provision of bike racks and promoting walking and use of public transport.
- **Meeting the challenge of climate change, flooding, and coastal change**
- **Conserving and enhancing the natural environment**, by increasing biodiversity through the provision of vegetation around the external amenity area.

New developments should demonstrate how they contribute to the country's common aspirations through this national planning policy framework.

The building will be designed to meet UK Building Regulations through its fabric-first approach and the use of Low and Zero Carbon technology, such as utilising Air Source Heat Pumps (ASHP) to provide its heating and maximising the provision of Solar Photovoltaic (PV) Panels subject to roof space availability and feasibility considering the function of the development. The use of an all-electric solution means that the development will become net zero as the grid decarbonises. Details of this are provided in the Energy Statement.

A waste management strategy plan has been produced by the architect and implemented on-site to minimise waste generation and manage waste responsibly. This is provided in the Design and Access Statement, where the plan has covered details of how the municipal waste during the operation of the building will be managed, such as the number of bins to be provided for general, recyclable, and food waste.

The majority of the visitors and students will travel by walking, cycling, or using public transport. Car park spaces will not be provided to support sustainable transport. The site is also located within very close proximity of tube stations and major train stations, Kings Cross and St Pancras.

2.2 The London Plan 2021

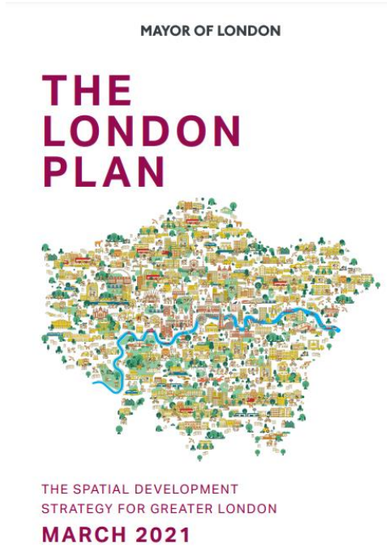


Figure 3: The London Plan (2021)

The proposed development will comply with the London Plan requirements for major refurbishments, achieving a reduction in carbon dioxide emissions by following the energy hierarchy: Be Lean, Be Clean, Be Green.

This approach focuses first on reducing energy demand through passive and active measures, such as a fabric-first design and high-efficiency heat recovery (Be Lean), then assesses the feasibility of connecting to a local heat network (Be Clean), and finally, cuts emissions further using on-site renewable energy technologies (Be Green).

Other relevant policies within the London Plan include:

- Policy SI 1: Improving air quality
- Policy SI 2: Minimising greenhouse gas emissions
- Policy SI 3: Energy infrastructure
- Policy SI 4: Managing heat risk
- Policy SI 5: Water infrastructure
- Policy SI 7: Reducing waste and supporting the circular economy
- Policy SI 8: Waste capacity and net waste self-sufficiency
- Policy SI 12: Flood risk management
- Policy SI 13: Sustainable drainage
- Policy T1: Strategic approach to transport

2.3 London Borough of Camden Local Plan

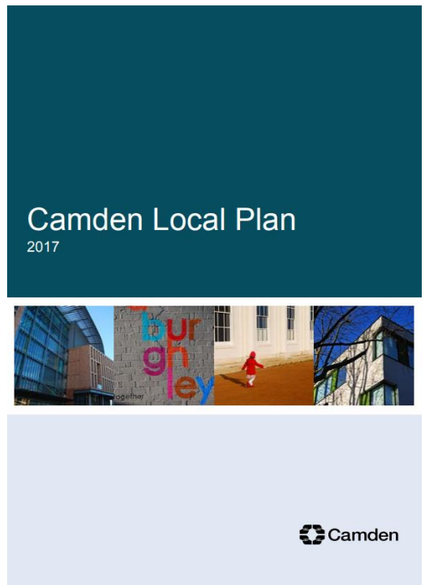


Figure 4: Camden Council Local Plan

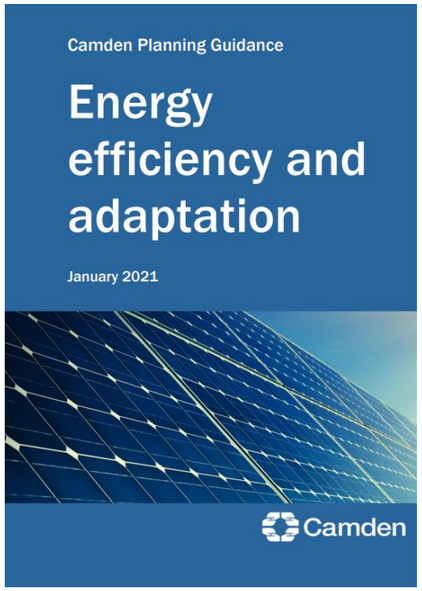
The development will be designed to meet policies set out in the Camden Local Plan (2017), specifically on the following aspects:

- Energy
- Nature
- Water
- Materials
- Pollutions
- Community, health, and wellbeing
- Transport connectivity

In line with Policy CC1: Climate Change Mitigation, the development will minimise the effects of climate change by meeting the London Plan targets for carbon dioxide emissions. The details of this are provided in the Energy Statement for the proposed development.

In line with Policy CC2: Adapting to Climate Change, the development will meet a BREEAM Excellent rating.

2.4 Camden Planning Guidance – Energy Efficiency and Adaptation



This CPG aligns with the London Plan and supports Policy CC1 and CC2 of the Camden Local Plan.

This document provides stringent guidance on energy efficiency and sustainability measures for all developments to tackle climate change, particularly under the following items:

- Energy efficiency in design, implementing the energy hierarchy.
- Going above and beyond the Part L Building Regulations.
- Sustainable energy generation
- Climate adaptation measures to address risks of overheating, flooding, and water scarcity.
- Retrofitting of existing buildings.
- Energy assessment and monitoring.
- Circular economy and sustainable materials.

Figure 5: CPG Energy Efficiency and Adaptation

3.0 Sustainability Aspirations

Energy

This category ensures that the proposed development will be designed with energy-efficient solutions, systems, and equipment to reduce energy consumption and carbon dioxide emissions and to maximise energy produced from renewable sources.

- To meet the requirements set out in Building Regulations Part L2 2021, by specifying better building fabrics and systems than what is set out for the notional performance. The energy strategy for this development will follow the GLA's energy assessment guidance:
    - Be Lean: fabric-first approach and other energy-efficient measures.
        - U-values to exceed Part L2's limiting fabric parameters.
        - Highly efficient LED lighting and daylight dimming.
        - Heat recovery to be at least 80%.
        - Specific fan power to meet or exceed notional values.
    - Be Clean: contact has been made to Camden Council regarding a future plan for the district heat network. No plans for future extensions to the heat network have been made. The building has therefore been designed to be supplied with an all-electric solution, i.e. ASHP.
    - Be Green: on-site renewable energy generation and/or Low and Zero Carbon (LZC) technologies have been reviewed and considered for the proposed development. The provision of PV panels has been maximised, and heating and hot water will be provided by ASHP.
    - Be Seen: energy consumption will be monitored and verified.
        - Small power appliances will be energy efficient and meet at least an 'A' energy label.
        - Highly efficient vertical transportation systems will be provided.
        - Space heating demand was calculated to be below 15 kWh/m^2/annum.

Nature

This category encourages enhancement of the existing ecology and improvements in biodiversity throughout the course.

- The site currently has no soft landscaping and the proposal will introduce new soft landscaping which will enhance urban greening and biodiversity benefits.
- Risks and opportunities will be identified to maximise ecological enhancement.

Water

This category encourages sustainable water use in the operation of the building and its site.

- The development will be designed with efficient water fittings with low flow rates. The overall water consumption of the building will be calculated to meet Wat 01 credits of BREEAM excellent standard.
- Achieving water consumption of 105 litres or less per head per day, with leak detection and flow control devices being proposed.
- Water consumption will be metered to allow for management and monitoring to identify high usage and potential causes.

Materials

This category encourages the use of sustainable materials for the construction of the development, by considering the products' whole lifecycle.

- The proposed major refurbishment is sustainable by retaining and reusing much of the existing building while expanding floor space for student accommodation and extending the church area to enhance its role as a community hub. Only the western wing of the building is to be demolished and rebuilt.
- Any timber used in the construction will be either FSC or PEFC certified, to ensure that it has been sourced from a sustainably managed forest source.
- The building will be designed and built with durability and resilience in mind, therefore, areas with a high risk of degradation or high usage areas will be identified.
- Materials used for construction will be responsibly sourced and their use will be optimised at each of the key stages. Construction waste will be minimised and as much material will be recycled where possible to divert from landfill.
- Operational waste will be separated between general waste, food waste, and mixed recycling. The details of the bin provision are provided in the Design and Access Statement.

Pollution

This category addresses the prevention and control of pollution and surface water run-off associated with the building's location and use.

- There will be no direct emissions for space heating and water heating for the development as the building is designed to be all-electric using ASHP.
- Emissions from construction and maintenance activities will be reduced through measures such as monitoring and using highly efficient equipment that runs using renewable energy.
- A Sustainable Urban Drainage System is being proposed through the use of a blue roof system on the flat roof areas on the third floor's roof. Whilst on the ground floor, a biodiverse green roof will be utilised.

Community, health and wellbeing

This category addresses the opportunity that the proposed development can offer to the local community in terms of its socio-economic benefit. It also addresses how health and well-being aspects have been considered for this development.

- The main function of the proposed development is to serve as a community church. This will serve as a gathering and worship place, which also serves as a community facility.
- Occupied spaces within the building have been proposed to be air-conditioned to provide thermal comfort. This is following a step-by-step judgment based on the GLA's cooling hierarchy.
    - An air quality and external noise assessment was undertaken and it was then concluded that nighttime ventilation is deemed unfeasible for this development.
    - G-value is proposed to be 0.4 to minimise solar gains and there is plenty of shadowing from adjacent buildings. The windows also have a 200mm sill depth.
    - Communal pipework will be well-insulated.
    - The roof will be shaded with PV panels and some blue roof.
- The space will be well-lit, maximising natural daylight where possible and glazing parameters have been selected to balance visual light transmittance while helping control solar gains and minimise cooling demand.

Transport connectivity

This category ensures provision and improved access to local amenities and encourages the use of sustainable modes of transport.

- A transport statement and sustainable travel plan have been undertaken by a suitable transport consultant to assess the current conditions of the site and where improvements can be made to encourage more sustainable transportation options.
- The development will provide cycle storage to encourage sustainable modes of transport to the site.

The table outlines the project's Sustainability Framework, including objectives, key performance indicators, policy requirements, and aspirations, with measurable targets that will be assessed as the design progresses, establishing a clear path for performance assessment.

Table 2: Sustainability Aspirations for Kings Cross Methodist Church

Concept	Key Performance Indicator	Policy Requirement	Project Aspiration
Net Zero Operational Carbon	On-site renewables	Maximise (GLA)	Maximise (circa 45m^2)
	GLA Part L2 Carbon Reduction	35% reduction - onsite	Circa 43% reduction following the GLA energy hierarchy
Sustainable Water Cycle	BREEAM Wat01 credit	1 credit minimum	2 credits to be achieved
Sustainable Connectivity & Transport	Provisions for active travellers	-	Provision of cycle storage in the basement and ground floor for both students and visitors.
	PTAL Score	-	Site achieving a PTAL score of 6b (best possible)
Sustainable Land Use & Ecology	Enhancing site ecology	Positive	Maximise
Sustainable Communities & Social Value	Places for social interaction	-	A church building can provide value to communities by serving as a hub for social support, fostering community engagement, and hosting activities that promote inclusivity and well-being.
Sustainable Life Cycle Cost	Measure all costs	-	Measuring management costs, and overall running costs.
	Life cycle analysis of key systems	-	Life cycle assessment to be undertaken to achieve a minimum of 3 credits under BREEAM Mat 01.
Additional Sustainable Outcome	**Key Performance Indicator**	**Policy Requirement**	**Project Aspiration**
Environmental Certification	BREEAM Bespoke Method, with RFO 2014 Technical Manual	Excellent	Excellent

4.0 Conclusion

The sustainability strategy for the proposed development encompasses a comprehensive approach across several key areas.

- The focus on energy efficiency aims to reduce consumption and carbon emissions using the ‘Be Lean’, ‘Be Mean’ and ‘Be Green’ strategy, through efficient building fabrics, ASHP, maximized PV panel usage, and highly efficient systems. The proposed development has met Building Regulations Part L2 2021 requirement. The full compliance results are detailed in the energy assessment report.
- Ecology and biodiversity are prioritized, with measures in place to enhance the natural environment.
- Sustainable water use will be achieved through efficient fittings and monitoring, aiming to meet high environmental standards.
- Responsibly sourced materials will be used, with an emphasis on minimizing waste and ensuring durability.
- Pollution control measures include the use of all-electric systems, efficient equipment, and sustainable drainage systems.
- The project is designed to serve the community, promoting health and well-being through comfortable, well-lit, and thermally balanced spaces.
- Sustainable transportation options, such as cycle storage, will encourage eco-friendly commuting.

Together, these strategies align with the London Plan's vision, setting a strong foundation for achieving sustainability to the highest standard possible.

Appendix A: BREEAM Pre-assessment

BREEAM Bespoke Refurbishment and Fit-Out 2014

Rev. 02 **Post Pre-assessment workshop**

Criteria Summary

Project:	**Kings Cross Methodist Church**
Report:	Pre Assessment Stage
Pre-Assessment:	**Excellent-73.95%**
Potential Rating:	Not Classified - 0.00%
Design Rating:	Not Classified - 0.00%

RAG Rating

RED	High risk of not achieving, ensure someone to monitor this credit
AMBER	Medium risk of not achieving, would require a higher someone to monitor
GREEN	Low risk of not achieving, lower degree of monitoring.

Refer to Main BREEAM report for the Compliance Requirements.
Responses should be made in detail against each requirement.
The type of evidence which should be provided is detailed below. Evidence should be collated in individual credit folders (electronically) along with a statement where further explanation is required.

HARLEY HADDOW

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
Man 01	**Project Brief and Design**	Stakeholder consultation (project delivery team)	1	1	Client / Team	**GREEN**	A list of all the stakeholders consulted and their roles & responsibilities for each key phases of the project delivery. Agenda/minutes from the project stakeholders meetings showing collaborations between the full project delivery team from incept to concept design stage.	Stage 1 and 2 Input	
		Stakeholder consultation (third-party SCI)	1	1	Planner/Consultation	**GREEN**	Public consultaion between relevant stakeholders which covers sustainability issues. Agenda/minutes from the consultation meeting. Documentation demonstrating consultation feedback and subsequent outcomes on the design		
		Sustainability champion (design stage)	1	1	PM	**GREEN**	Appointment of sustainability chammpion to facilitate the setting and achievement of BREEAM performance targets. Defined BREEAM performance targets at no later than concept design stage.		
		Sustainability champion (monitoring progress)	1	1	PM	**GREEN**	The above has been achieved. Sustainability champion to monitor progress against the agreed BREEAM targets and demonstrably achieved by the project design. Demonstrated via the BREEAM assessor's design stage assessment report.		
Man 02	**Life cycle cost and service life planning**	Elemental life cycle cost	2	0	Quantity Surveyor	**RED**	The entire asset elemental life cycle cost plan Examples provided by the design team of how the LCC plan has been used to influence building and system/s design to minimise life cycle costs and maximise critical value.		
		Component level life cycle cost appraisal	1	1	Quantity Surveyor	**GREEN**	A component level Life Cycle Cost options appraisal which details the different component types. Examples provided by the design team of how the LCC plan has been used to influence building and system/s design to minimise life cycle costs and maximise critical value.		
		Capital cost reporting	1	1	Quantity Surveyor	**GREEN**	Predicted capital costs via BREEAM Projects. (in pounds per sq metre).	Stage 1 and 2 Input	
Man 03	**Responsible construction practices**	Pre-requisite, legally harvested and traded timber	Y	Y	Contractor	**GREEN**	Written confirmation from the supplier/s that all timber is sourced in compliance with the UK Government Timber Procurement Policy for legal and sustainable sourcing OR Copies of the actual chain of custody evidence in accordance with CPET requirements OR A specification or letter of intent from the design team confirming that all timber will be procured in accordance with the policy.		
		Environmental management	1	1	Contractor	**GREEN**	Relevant section/clause of the building contract which confirms a Environmental Management System (EMS). Relevant section/clause of the building contract which confirms pollution prevention policies & procedures.		
		BREEAM AP (Site)	1	1	Contractor	**GREEN**	Project roles table identifying the appointed AP and their specific roles, specifically to facilitate the setting and achievement of BREEAM targets for the project. Meetings minutes, communication records, formal notes of conversations and other statements reporting on discussions related to performance targets and maximising performance. Progress report for each work stage. Construction Stage BREEAM assessment report.		
		Considerate contractor	2	2	Contractor	**GREEN**	Main contractor to be registered with the CCS		Yes Minimum 1 Credits for CCS
		Monitoring of construction site impacts	2	2	Contractor	**GREEN**	A formal letter of commitment from the contractor confirming any identified risks will be managed to minimise them. Project roles table identifying the responsibility of an individual/s for monitoring, recording and reporting energy use, water and transport data. A formal letter of commitment from the client/developer confirming that these items will be monitored.		
Man 05	**Aftercare**	Aftercare support	1	1	Architect/Services Engineer/ Contractor/Client	**GREEN**	Evidence of a commitment/contract to provide compliant aftercare support and training. Minutes from the aftercare support and building user meeting Appointment letter(s) and/or commissioning responsibilities schedule. The Building User Guide.		
		Seasonal commissioning	1	1	Architect/Services Engineer/ Contractor/Client	**GREEN**	Appointment letter(s) and/or commissioning responsibilities schedule		Yes commissioning implementation
		Post occupancy evaluation	1	1	Architect/Services Engineer/ Contractor/Client	**GREEN**	A letter of commitment by the client/developer or future building occupier to carry out a POE - has to be signed and dated.		
		Total	**17**	**15**					
		% Weighting	**12%**	**10.24%**					
		Glare control	1	1	Architect/Services Engineer	**GREEN**	Copy of the Glare control assessment Relevant section of project strategy or design drawings to show glare control strategy.		

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
Hea 01	**Visual comfort**	Daylighting	3	1	Architect/Services Engineer	**GREEN**	Daylighting calculations - Initial calculations carried out Design drawings and specification		
		View out	2	1	Architect/Services Engineer	**GREEN**	Design drawings showing window positions or permanent openings that provide adequate view out. Window opening size schedule		
		Internal and external lighting	1	1	Architect/Services Engineer	**GREEN**	Design drawings and/or room date sheets/schedules. Relevant section of the building specification OR a letter of formal confirmation of compliance from the relevant design team member.		
Hea 02	**Indoor air quality**	Indoor air quality	1	1	Air quality assessor	**GREEN**	Indoor air quality plan produced and implemented in accordance with GN06.		
		Ventilation	1	1	M&E	**GREEN**	Fresh air provision and indoor CO2 concentration		
		VOC emission levels (design)	1	1	Architect	**GREEN**	Paints and varnishes and 5 out of 7 products listed in BREEAM RFO 2014 table 20 to meet emission limit.		
		VOC emission levels (testing)	1	1	Contractor	**GREEN**	Post-construction indoor air quality testing is completed to determine levels of formaldehyde and TVOCs.		
		Adaptability - potential for natural ventilation	1	0	Architect /Services Engineer/Client	**GREEN**	Flexibility in the building ventilation strategy. At least two levels of natural ventilation is provided.		
Hea 04	**Thermal comfort**	Thermal Modelling	1	1	Services Engineer	**GREEN**	Approved thermal modelling software results against CIBSE TM52 criteria. AND/OR For Air conditioned buildings calculations or a statement confirming the PMV (predicted mean vote) and PPD (predicted percentage of dissatisfied)		
		Design for future thermal comfort	1	1	Services Engineer	**GREEN**	For Air conditioned buildings calculations or a statement confirming the PMV (predicted mean vote) and PPD (predicted percentage of dissatisfied) OR Relevant section of the building specification which identifies if thermal comfort criteria isn't met for project climate change environment, how the building has been adapted or designed to be easily adapted in the future.		
		Thermal zoning and controls	1	1	Services Engineer	**GREEN**	Thermal comfort strategy highlighting the points that have been considered and decisions on zoning and control strategy taken accordingly		
Hea 05	**Acoustic Performance**	Sound insulation	1	1	Acoustician	**GREEN**	Achieve sound insulation performance standards detailed in the relevant section Table 5.14-5.18 of BREEAM UK NC 2018, demonstrated pre-completion.		
		Indoor ambient noise level	1	1	Acoustician	**GREEN**	Achieve indoor ambient noise level criteria detailed in the relevant section Table 5.14-5.18 of BREEAM UK NC 2018, demonstrated at pre completion via on site testing.		
		Room acoustics	1	1	Acoustician	**GREEN**	Achieve room acoustics performance standards detailed in the relevant section Table 5.14-5.18 of BREEAM UK NC 2018, demonstrated pre-completion.	Stage 2 Input	
Hea 06	**Safety and Security**	Safety and Security	1	1	Architect	**GREEN**	Security Needs Assessment conducted by a Suitably Qualified Security Specialist including recommendations and/or solutions. Design drawings or relevant sections in the specification that identifies the recommendations/solutions are implemented.	Stage 2 Input	
		Total	**19**	**15**					
		% Weighting	**15%**	**12.21%**					
Ene 01	**Reduction of energy use and carbon emissions**	Whole building energy model	12	8	Services Engineer	**GREEN**	A copy of the Building Regulations Output Document from an approved software. The output documents must be based on the design stage of analysis. A copy of the Building Regulations Output Document from the design stage SAP calculations (where relevant for multi-residential buildings). Energy Performance Ratio for New Construction (EPR NC) Calculations. Minimum of 6 credits to achieve Excellent.		Yes 6 Credits Energy performance or Energy modelling and reporting
Ene 02	**Energy monitoring**	Sub-metering of end-use categories	1	1	Services Engineer	**GREEN**	Relevant section/clauses of the building specification or contract which details energy monitoring Design drawings		Yes First Sub Metering credit
		Sub-metering of high energy load and tenancy areas	1	1	Services Engineer	**GREEN**	Relevant section/clauses of the building specification or contract which details energy monitoring Design drawings		
Ene 03	**External Lighting**	External Lighting	1	0	Services Engineer	**GREEN**	1 Credit automatically awarded if there is no external lighting (which includes lighting on the building, at entrances and signs) Otherwise Please Provide: Relevant section/clauses of the building specification or contract which confirms the external lighting design. Design drawings		
		Passive design analysis	1	1	Services Engineer	**GREEN**	BREEAM Hea 04 Thermal Comfort to be achieved. Project strategy showing the analysis of passive design. Results from a dynamic simulation model demonstrating the reduced energy demand and CO_2 emissions.		

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
Ene 04	**Low carbon design**	Free cooling	1	0	Services Engineer	**GREEN**	BREEAM Hea 04 Thermal Comfort to be achieved. Project strategy showing the analysis of passive design. Results from a dynamic simulation model demonstrating the reduced energy demand and CO_2 emissions.		
		Low and zero carbon technologies	1	1	Services Engineer	**GREEN**	Feasibility study report Results from a dynamic simulation model demonstrating demand reductions from the specified low zero carbon technology. Design drawings/specification/schedules of LZC technologies Statement/design drawings confirming the built form can allow for the future installation of the most cost-effective LZC options	LZC Stage 2 and 3	
		Total	**18**	**12**					
		% Weighting	**12%**	**8.25%**					
Tra 1	**Sustainable transport solutions**	Accessibility index	5	3	Architect/Transport Consultant	**GREEN**	Up to 5 credits can be achieved here. However total available credits achievable under Tra 01 is only 5. Accessibility index to be calculated using BREEAM TRA01 calculator.		
		Alternative transport measure		1	Architect/Transport Consultant	**GREEN**	Up to 3 credits can be achieved here.However total available credits achievable under Tra 01 is only 5. Where alternative transport measures in table 35 are provided, credits can be awarded based upon the number of measures implemented as detailed in table 33.		
Tra 2	**Proximity to Amenities**	Proximity to Amenities	1	1	Architect/Transport Consultant	**GREEN**	Where a building is located within close proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants: - appropriate food outlet - access to cash - access to an outdoor open space - access to a recreation/leisure facility for fitness/sports		
Tra 3	**Cyclist Facilities**	Cycle storage	1	1		**AMBER**	Compliant cycle storage that meets the minimum levels set out in Table 38 of BREEAM RFO 2014.		
		Cyclist Facilities	1	0	Architect/Transport Consultant	**GREEN**	At least two of te following are provided: - showers - changing facilities - lockers - drying facilities		
Tra 5	**Transport assessment and travel plan**	Transport assessment and travel plan	1	1	Architect/Transport Consultant	**GREEN**	Transport assessment and travel plan is completed prior to the end of RIBA stage 2.		
		Total	**9**	**7**					
		% Weighting	**7%**	**5.57%**					

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
Wat 01	**Water Consumption**	Water Consumption	5	2	Architect/Client	**GREEN**	Please Provide: A completed copy of the BREEAM Wat 01 calculator. Documentary evidence supporting the data used to complete the calculator tool. Relevant section of the building specification or design drawings confirming technical details of sanitary components and rainwater and greywater collection system. OR where detailed documentary evidence is not available at this stage; The 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.		Yes Minimum of 1 credit
Wat 02	**Water Monitoring**	Water Monitoring	1	1	Services Engineer	**GREEN**	Please Provide: Relevant section/clauses of the building specification or contract Design drawings		Yes Criteria 1
Wat 03	**Water Leak Detection**	Leak detection system	1	1	Services Engineer	**GREEN**	Relevant section/clauses of the building specification or contract. Design drawings. Manufacturers product details.		
		Flow control devices	1	1	Services Engineer	**GREEN**	Relevant section/clauses of the building specification or contract. Flow control device manufacturer specification & details. Design drawings showing the installation.		
		Total	**8**	**5**					
		% Weighting	**6%**	**3.98%**					
Mat 01	**Environmental impacts from construction products - Building life cycle assessment (LCA)**	Project lifecycle assessment study	6	3	Architect/Structural Engineer/ HH	**AMBER**	Up to 6 credits when the project uses a Life Cycle Assessment (LCA) BREEAM Mat 01 calculator tool or Impact Compliant LCA tool. Provide summary document. Completed BREEAM Mat 01/02 tool to be issued to BRE at the end of concept design Documentary evidence detailing how the calculator tool has been completed (either drawings and/or relevant section/clauses of the building specification) A BRE Global email confirmation for receipt of the model.	Stage 1 and 2 Input	

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
Mat 03	Responsible sourcing of construction products	Legal and sustainable timber	Pre-requisite	Y	Architect / Services Engineer / Contractor / Structural Engineer / Landscape Architect	GREEN	Written confirmation from the supplier/s that all timber is sourced in compliance with the UK Government Timber Procurement Policy for legal and sustainable sourcing OR Copies of the actual chain of custody evidence in accordance with CPET requirements OR A specification or letter of intent from the design team confirming that all timber will be procured in accordance with the policy.		Yes Criteria 1
		Enabling sustainable procurement	1	1	Architect / Services Engineer / Contractor / Structural Engineer / Landscape Architect	AMBER	Sustainable procurement plan (SPP)		
		Measuring responsible sourcing	3	2	Architect / Services Engineer / Contractor / Structural Engineer / Landscape Architect	GREEN	Completed copy of the Mat 03 Calculator tool Documentary evidence detailing how the Calculator tool has been completed. Design plan and/or specification confirming: 1. The building elements. 2. Details of the materials specification for each element. A copy of the relevant responsible sourcing scheme certificate(s) for the relevant specification/products. AND/OR A letter of intent from the design team or other detailed documentary evidence confirming the product shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.		
Mat 04	Insulation	Insulation	1	1	Architect	GREEN	If insulation index is 2.5 or greater. Any new insulation specified for use within the following building elements must be assessed: - external walls - ground floor - roof - building services		
Mat 05	Designing for Durability and Resilience	Designing for Durability and Resilience	1	1	Architect	GREEN	Please Provide: **Protecting vulnerable parts of the building from damage** Design drawings showing vulnerable areas/parts of the building. And/or relevant section/clauses of the building specification or contract confirming the durability measures specified. **Protecting exposed parts of the building from material degradation** Design drawings and/or relevant section/clauses of the building specification or contract confirming the durability measures specified. Risk assessment AND EITHER Elements or products manufacturer specifications and/or statement of quality standards and design guides met OR A detailed element resilience assessment		
Mat 06	Material efficiency	Material efficiency	1	1	Client / Architect / Structural Engineer / Services Engineer / Contractor	AMBER	Please Provide Evidence at all stages of design/construction: **Preparation and Brief Stages -** Dedicated report that sets out a clear framework to guide material efficiency activities. The report should set out aims, objectives, targets, performance indicators, opportunities, constraints and responsibilities to guide material efficiency activities. **Concept Stage -** Minutes of the workshops held. Documentation demonstrating how the feedback from the workshop has been incorporated in the concept design of the project, for example: outline specification for materials selection, report on approximate predicted reductions in material quantities. **Developed design and technical design -** Report on deviations from previous stages and additional actions to be taken. Documentation demonstrating the incorporation of the outcomes from the concept stage and additional actions, for example: design drawings or specifications demonstrating materials efficiency measures undertaken. **Construction Stage -** Report on deviations from previous stages. Documented evidence of activity to further identify efficiencies, for example: meeting minutes, training events, waste reduction documentation etc.	Stage 1 and 2 Input	
		Total	**13**	**9**					
		% Weighting	**15%**	**10.34%**					
Wst 01	Construction waste management	Compliant pre-refurbishment audit	1	1	Contractor / Prelims	GREEN	Pre-refurbishment audit of all existing structures or hard surfaces within the scope of the refurbishment or fit out zone is completed.		
		Reuse and direct recycling of materials	2	1	Contractor / Prelims	GREEN	Were waste is generated by the refurbishment or fit out works, waste materials detailed in Table 65 are either directly reused on-site or off-site or are sent back to manufacturer for closed loop recycling.		
		Resource efficiency	3	2	Contractor / Prelims	GREEN	A copy of the Resource Management Plan and where relevant, a copy of the pre-demolition audit. A copy of the compliant Site Waste Management Plan. Relevant section/clauses of the building specification or contract AND/OR A letter from the client or their representative		

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
		Diversion of resources from landfill	1	1	Contractor / Prelims	GREEN	A copy of the Resource Management Plan and where relevant, a copy of the pre-demolition audit. A copy of the compliant Site Waste Management Plan. A letter from the client or the contractor		
Wst 02	Recycled Aggregates	Use of recycled and sustainably sourced aggregates	1	0		GREEN	Calculation of all aggregates used and distance travelled by transport, using Wst 02 calculator.		
Wst 03	Operational waste	Operational Waste	1	1	Architect /Client/Contractor	GREEN	Please Provide: 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 / specification confirming likely building waste streams and indicative volumes.		Yes Minimum 1 credit
Wst 05	Adaption to Climate Change	Adaption to Climate Change	1	1	Architect/ Services engineer/Structures	GREEN	Concept stage Climate change adaptation strategy appraisal including a systematic (structural and fabric resilience specific) risk assessment including recommendations & Solutions. Design drawings and/or relevant specification section/clauses to support the recommendations in the CCASA. Any omitted recommendations to be justified in writing by the assessor.	Stage 1 and 2 Input	
Wst 06	Functional adaptability	Design for disassembly and adaptability	1	0	Structures and Services Engineer	GREEN	A funcitonal adaptation strategy report during or prior to concept design, including recommendations for measures to be incorporated to facilitate future adaptation. Achieve the above and update during technical design where things have changed or have been implemented, along with a guide for prospective tenants.	Stage 2 and 3 Input	
		Total	**11**	**7**					
		% Weighting	**8%**	**5.22%**					
Le 2	Ecological risks and opportunities	Protection of ecological features	1	1	Ecologist / Client	GREEN	Suitable Qualified Ecologist (SQE) to to be contracted prior to any preliminary site refurbishment works. Please provide the SQE's qualifications and professional status and experience. A copy of the ecological report based on a site survey. Confirmation the data collated has been shared with the project team. All existing features of eecological value within and surrounding the boundary area are protected from damage.	Ecology survey prior to site start	

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
Le 4	**Enhancing site ecology**	Enhancing site ecology	1	1	Ecologist / Design Team	**GREEN**	SQE to be appointed and provide a report and recommendations for the enhancement of the site's ecology at concept stage. Based on site survey by the SQE.		
Le 5	**Long term ecological management**	Long term impact on biodiversity	2	1	Ecologist/ Contractor/ Client	**GREEN**	Where a SQE is appointed prior to commencement of activities onsite, to confirm that all relevation UK and EU legislation regarding protection and enhancement of ecology has been complied with during the RFO process. Landscape and habitat management plan is produced to cover first five ears after project completion, to be handed over to building owner. Any additional measures for improvement are adopted.	Ecology survey prior to site start	
		Total	**4**	**3**					
		% Weighting	**12%**	**8.96%**					
Pol 01	**Impact of Refrigerants**	Impact of Refrigerants	2	2	Services Engineer	**GREEN**	A copy of the specification clauses or manufacturer product details for Ammonia Refrigeration Systems. A copy of the specification clause or letter from the M&E engineer/system manufacturer confirming the relevant refrigerant type and system information. A completed copy of the BREEAM Pol 01 calculator tool & documentary evidence supporting the data used to complete the calculator tool. Confirmation of Direct Effect Life Cycle CO2 equivalent emissions for the relevant heating/cooling plant.		

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
		Leak detection	1	1	Services Engineer	GREEN	Leak Detection details for the refrigerant systems.		
Pol 02	Nox Emissions	Nox Emissions	3	1	Services Engineer	GREEN	Nox emission levels to meet the specified level depending on heating and hot water demands (mg/kWh)		
Pol 03	Flood and surface water management	Flood resilience	2	2	Civil Engineer	GREEN	A site-specific flood risk assessment (FRA) Design drawings Where appropriate, correspondence from the appropriate statutory body confirming reduced annual probability of flooding due to existing flood defences.		
		Surface water run off	2	2	Civil Engineer	GREEN	One credit could be achieved based on achieving neutral impact on surface water. Two credits based on reducing run off.		
		Minimising watercourse pollution	1	1	Civil Engineer	GREEN	One credit achieved where first 5mm of rainfall can be attenuated on site, pollution prevention treatment is provided, etc.		

Credit			Credits Applicable	Credits Targeted	Design Stage Responsibility	RAG Rating	Information Required	Time Critical	Mandatory (Excellent)
Pol 04	**Reduction of Night Time Light Pollution**	Reduction of Night Time Light Pollution	1	0	Services Engineer	**GREEN**	Where external lighting pollution has been eliminated through effective design.		
Pol 05	**Reduction of Noise Pollution**	Reduction of Noise Pollution	1	1	Acoustician	**GREEN**	Credits could be achieved if there are no noise sensitive areas within 800m of the building or assessed site. OR If there are, a noise impact assessment to be carried out.	Noise Survey prior to site start	
		Total	**13**	**10**					
		% Weighting	**12%**	**9.18%**					
Inn 01		Innovation	10	0	Design team	**GREEN**	Demonstrate exemplary level of performance in existing BREEAM issues. Or Approved innocations by BRE gloval.		
		Total	**10**	**0**					
		% Weighting	**10%**	**0.00%**					

Overall Target Score: **73.95%** **"Outstanding" Rating**

Confirmed Score: **"Unclassified" Rating**