



ENERGY REPORT & BREEAM PRE- ASSESSMENT

SHMOREI HADASS KOSHER (SUPERMARKET)

PROPERTY ADDRESS

MANCHESTER,
M2S 0EY,

DATE

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PREPARED BY

EAL Consult

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1. EXECUTIVE SUMMARY

This report has been prepared to support the planning application for Shomrei Hadass Kosher Supermarket. The strategy highlights how the proposed development will promote sustainability through both design and operation and summarises the relevant regulatory and planning policies applicable and how the relevant policy targets will be addressed and achieved.

2. BREEAM Pre-assessment

This section presents the BREEAM pre-assessment for the development to support the planning application.

The development will be assessed under BREEAM New Construction V6. The pre-assessment outlined in this report demonstrates that the proposed development could achieve a BREEAM **'Excellent'** rating with a minimum score of **73.8%**. This is subject to a complete package of compliant evidence being submitted to the licensed BREEAM Assessor.

Further credits may be achieved with significant cost implications that may not be financially beneficial for this development.

The relevant design team members should assess each of the credits that have been awarded to confirm and provide comments upon their validity.

Table 7 outlines the credits targeted:

Table 7. Summary of credit targeted

Credit Allocation	Weighting	Credits Available	Credits Targeted	%Score
Management	11%	21	17	8.4%
Health and Wellbeing	14%	17	17	12.3%
Energy	16%	21	17	12.9%
Transport	10%	12	5	3.3%
Water	7%	9	8	2%
Materials	15%	14	5	5.4%
Waste	6%	10	8	4.8%
Land use & Ecology	13%	13	11	12%
Pollution	8%	12	9	6%
Innovation	10%	10	2	2.00%
Total				73.8%

The Appendix II highlights the BREEAM credits that have been awarded for the proposed change of use, which is deemed likely to achieve a BREEAM rating of **'Excellent'**.

We understand the pre-assessment will be submitted as part of the planning application and we recommend that the client is satisfied with the assumptions made and the approach taken at this stage are reasonable.

3.APPENDIX

I. BREEAM PRE-Assessment

Baseline Score
73.8%
Excellent

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Management [0.61% per credit]			21	17		
Man 01	Project brief and design	1 credit: Prior to completion of RIBA stage 2, the project delivery stakeholders meet to identify roles, responsibilities and contributions. 1 credit: Prior to completion of RIBA stage 2, the design team consult with all interested parties on matters that cover the BREEAM minimum consultation content. Pre Requisite for BREEAM AP credits (Concept and Developed Design - RIBA stage 2-3) The project team, including the client, formally agree strategic performance targets early in the design process (with the support of the BREEAM AP). 1 credit: BREEAM AP (RIBA stage 2): Involve a BREEAM AP in the project at an appropriate time and level to work with and assist the team in maximising the project's overall performance against BREEAM. 1 credit: BREEAM AP (RIBA stage 3): The first BREEAM AP credit is achieved AND the a BREEAM AP is involved in the project to monitor progress against the performance targets throughout all stages.	4	3	Project Manager	RIBA stage 2 (Stakeholder and 3rd party consultation. BREEAM AP and agreed targets) RIBA stage 3 and 4 (BREEAM AP reports)
Man 02	Life cycle cost and service life planning	2 credits: At RIBA stage 2 - An elemental life cycle cost (LCC) analysis 1 credit: At RIBA stage 4 - a component level LCC analysis. The results of the analysis and consideration of LCC have been implemented. The component level LCC includes (where present): 1 credit: Report the capital cost for the building in pounds per m²	4	2	Cost consultant	RIBA stage 2 (Elemental LCC study) RIBA stage 4 (Component level LCC)
Man 03	Responsible construction practices	Prerequisite: All timber to be 'legally harvested and traded timber' 1 credit: All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition contractor) operate an EMS and implement best practice pollution prevention policies and procedures on site in accordance with PPG6. 1 credit: Appoint a BREEAM AP sustainability champion during construction. Targets are formally agreed with the client. Up to 2 credits (Mandatory credits): The principal contractor evaluates the risks (on site and off site), plans and implements actions to minimise the identified risks, covering the following categories (vehicle movement, pollution management, tidiness, health & wellbeing, security, training awareness and feedback & monitoring and reporting). 1 credit: Monitor, record and report energy and water consumption during construction. 1 credit: Monitor, record and report transport (construction materials & waste) during the construction phase.	6	6	Contractor	N/A

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Man 04	Commissioning and handover	1 credit (Mandatory credit): Commissioning and testing schedule and responsibilities 1 credit: Specialist commissioning manager appointed during design stage to undertake design reviews, provide commissioning management and performance testing input 1 credit: Testing and inspecting building fabric 1 credit (Criterion 11-Mandatory requirement): Prior to handover, develop <u>two building user guides</u> for technical and non technical users. A draft copy is developed and discussed with users first (where the building occupants are known) to ensure the guide is most appropriate and useful to potential users. Prepare two training schedules timed appropriately around handover and proposed occupation plans for non technical and technical building occupiers.	4	4	Client	Specialist commissioning manager to be appointed by end of RIBA stage 4.
Man 05	Aftercare	1 Credit: Aftercare 1 Credit: Seasonnal commissioning 1 Credit : Post occupancy evaluation	3	2	Client	
Weighting					11%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Health and Wellbeing [0.73% per credit]			17	15		
Hea 01	Visual comfort	1 credit: Appropriate glare control is installed 2 credits: Day lighting (Achieve specified average Daylight Factor (DF) requirement - building type dependent) Note: Daylight factor thresholds dependent on building types. 1 credit: 95% of floor area in 95% of each relevant spaces is within 8m of external wall. Window opening is 20% of the surrounding wall area, or where the room depth is greater than 8m, window opening is as per table 1 of BS 8206:part 2. 1 credit: - Internal lighting provides lux levels in line with SLL Code for lighting 2012 and CIBSE Guide 7 - External lighting design complies with BS5489-1:2013+ BS EN 12464-2:2014 - Internal lighting is appropriately zoned to allow for occupant contro	4	2	Architect	N/A
Hea 02	Indoor air quality	Pre requisite to achieve credits within this issue: - Indoor air quality plan is produced 1 credit: Building design ensures minimum concentration and recirculation of pollutants in the building via fresh air provision in accordance with relevant standard for ventilation. 2 credits: Three out of the five product types meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 OR up to 2 credits: All of the product types listed meet the emission limits, testing requirements and any additional requirements listed in Table 5.11 1 credit VOC emission levels (post construction) and formaldehyde concentration level do not exceed certain limits (testing & measurement according to ISO 1600 & ISO 16017	4	4	TBC - Mechanical Engineer	N/A

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Hea 04	Thermal comfort	1 credit: Thermal modelling as per CIBSE AM11 1 credit: Thermal comfort criteria for the projected climate change environment 1 credit : Thermal comfort zoning and control strategy informed by the thermal modelling analysis	3	3	Specialist consultant (TBC)	N/A
Hea 05	Acoustic performance	1 credit: The building meets the appropriate acoustic performance standards and testing requirements defined in the relevant tables OR A suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements for all function areas in the building for the following principles:	3	3	Acoustician (TBC)	N/A
Hea 06	Security	1 credit: A Security Needs Assessment (SNA) to be produced by a suitably qualified security specialist (SQSS) at RIBA stage 2 . The SQSS will develop a set of recommendations which should be implemented into the building design.	1	1	Security Consultant /	RIBA stage 2 (SNA report)
Hea 07	Safe and healthy surroundings	1 credit: - Dedicated and safe cycle paths are provided from the site entrance to any cycle storage and connect to offsite cycle paths where applicable. - Dedicated and safe footpaths are provided on and around the site providing suitable links - Pedestrian drop-off areas are designed off, or adjoining to, the access road and should provide direct access to other footpaths. - Delivery areas are not accessed through general parking areas and do not cross external amenity and cycling routes 1 credit where outside amenity space is provided.	2	2	Architect	-
			Weighting		14.0%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Energy [0.67% per credit]			21	17		
Ene 01	Reduction of energy use and carbon emissions	Up to 9 credits (Mandatory credits: 4 for Excellent, 6 for Outstanding rating): Calculate an Energy Performance Ratio for New Constructions (EPR _{NC}). 4 credits: - Relevant members of the design team hold a preliminary design workshop focusing on operational energy performance. - Undertake additional energy modelling during the design and post-construction stage to generate predicted operational energy consumption - Report predicted energy consumption targets by end use, design assumptions and input data (with justifications). - Carry out a risk assessment to highlight any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process.	13	10	energy modeller	
Ene 02	Energy monitoring	1 credit (Mandatory credit): Energy metering systems for 90% of the estimated annual energy consumption of each fuel 1 credit: Energy sub-meters with pulsed output for future tenants	2	2	MEP Engineer	N/A
Ene 03	External lighting	1 credit: External lighting meets the following: a. Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt b. Automatic control to prevent operation during daylight hours c. Presence detection in areas of intermittent pedestrian traffic.	1	1	MEP	N/A
Ene 04	Low carbon design	1 credit: Hea 04 criterion1 achieved + passive design solutions analysis at RIBA stage 2 1 credit: Above + free cooling strategies 1 credit: LZCT feasibility study (by RIBA stage 2)	3	2	Sustainability	RIBA stage 2 (Passive and LZC feasibility studies)
Ene 06	Energy efficient transportation systems	1 credit: Analysis of transport demand, usage and lifts, escalators, etc., energy usage, regenerative drives 1 credits: Above + specification of energy efficient lifts, escalators (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 (VVVF) control of the drive motor)	2	2	Lift	N/A
			Weighting		16%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Transport [0.96% per credit]			12	5		
Tra 01	Transport assessment and travel plan	2 Credits: Before end of RIBA stage 2 undertake a site-specific transport assessment. Based on the site-specific transport assessment develop a travel plan based on a site-specific travel assessment or statement.	2	2	Transport consultant	RIBA stage 2 Transport Assessment
Tra 02	Sustainable transport measures	Up to 10 credits available: Identify sustainable transport measures and award credits according to the Accessible Index (AI) of the project and the total number of points achieved for the options implemented.	10	3	Architect	N/A
			Weighting		10%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Water [0.78% per credit]			9	8		
Wat 01	Water consumption	<u>Mandatory: 1 credit for excellent, 2 credits for outstanding</u> 1 credit: 12.5% Improvement over baseline case 2 credits: 25% Improvement over baseline case 3 credits: 40% Improvement over baseline case 4 credits: 50% Improvement over baseline case 5 credits: 55% Improvement over baseline case	5	4	Architect	N/A
Wat 02	Water monitoring	<u>1 credit (Criterion 1-Mandatory requirement):</u> Specifying a water meter, with pulsed output, on the mains water supply to each building (including borehole or other source). Water-consuming plant or building areas, (with 10% or more of the total water demand) fitted with sub meters or water monitoring equipment. Each meter to have pulsed/other protocol communication output to enable connection to a utility monitoring/BMS system.	1	1	PH engineer	N/A

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Wat 03	Water leak detection	1 credit: A compliant leak detection system is specified or installed on the building's water supply. 1 credit: Flow control devices are fitted to each WC area/facility according to demand.	2	2	PH engineer	N/A
Wat 04	Water efficient equipment	1 credit: Identify all unregulated water demands and mitigate/reduce the demand through good practice design or specification.	1	1	PH engineer / Landscape consultant /	N/A
			Weighting		7%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Materials [1.25% per credit]			14	5		
Mat 01	Environmental impacts from construction products - Building life cycle assessment (LCA)	Up to 6 credits (Superstructure) During the Concept Design (RIBA stage 2): 1a. Carry out a building LCA of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT Compliant LCA tool according to the methodology 1b. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Concept Design, and before planning permission is applied for (that includes external material or product specifications). Comparison with the BREEAM benchmark during Technical Design (offices, industrial and retail buildings only) 2a. During Technical Design, demonstrate the environmental performance of the building 2b. Submit the Mat 01/02 Results Submission Tool to BRE at the end of Technical Design. Where a project has not achieved criterion 1, criterion 2 may still be achieved. Option appraisal during Concept Design (all building types) 3 For offices, industrial and retail building types, achieve criterion 1 (except where Notes 1.0, 1.1 and 1.2 above apply). 1 credit: During Concept Design identify opportunities for reducing environmental impacts of <u>Substructure and hard landscaping.</u>	7	0	Architect	RIBA stage 2 (Interim LCA results to be submitted to BRE)
Mat 02	Environmental impacts from construction products - Environmental Product Declarations (EPD)	1 credit: Specify construction products with EPD that achieve a total EPD points score of at least 20	1	1	Architect	N/A
Mat 03	Mat 03 Responsible sourcing of construction products	<u>Pre-requisite (mandatory requirement):</u> confirmation that all timber used on the project is sourced in accordance with the UK Government's Timber Procurement Policy. 1 credit: A sustainable procurement plan implemented by concept design must be used by the design team to guide specification towards sustainable construction products. Up to 3 credits: Based on the achieved Responsible Sourcing of Materials (RSM) points: 1 credit: superstructure >10% of RSM points 2 credits: superstructure as above, internal finishes and substructure& hard landscaping >20% of RSM points 3 credits: superstructure as above, internal finishes and substructure& hard landscaping >30% of RSM points	4	2	Architect	RIBA stage 2 (Sustainable Procurement Plan)
Mat 05	Designing for durability and resilience	1 credit: Protect vulnerable parts of the building from damage and exposed parts of the building from material degradation	1	1	Architect	N/A
Mat 06	Material efficiency assessment scope	1 credit: Identify and implement measures at each RIBA stage to optimise the use of materials in building design, procurement, construction, maintenance and end of life. Report the targets and actual material efficiencies achieved.	1	1	Architect	Actions should be carried out at all RIBA stages (starting during RIBA stage 1)
			Weighting		15%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Waste [0.64% per credit]			10	8		
Wst 01	Construction waste management	1 credit: Complete a pre-demolition audit by RIBA stage 2 of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible. Up to 3 credits: Resource Management Plan (RMP) developed Amount of non-hazardous on-site/off-site construction waste (m³/100m² or tonnes/100m²) generated: <u>1 credit:</u> 13.3 m³/100m² / 11.1 tonnes/100m² <u>2 credits:</u> 7.5 m³/100m² / 6.5 tonnes/100m² <u>3 credits:</u> 3.4 m³/100m² / 3.2 tonnes/100m² 1 credit: Diversion of resources from landfill Demolition = 80% by volume / 90% by tonnage Non-demolition = 70% by volume / 80% by tonnage <u>One credit under Wst01 is Mandatory for outstanding</u>	5	4	Project Manager	RIBA stage 2 Pre-demolition audit
Wst 02	Use of recycled and sustainably sourced aggregate	Prerequisite: If demolition occurs on site, to encourage the reuse of site-won material on site, complete a pre-demolition audit of any existing buildings, structures or hard surfaces One credit - Project Sustainable Aggregate Points: Achieve between 3.5 - 6 points	1	0		N/A

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Wst 03	Operational waste	1 credit (Mandatory credit) Dedicated, clearly labelled, accessible and of appropriate capacity space(s) is/are provided for the segregation and storage of operational recyclable waste volumes. Static waste compactor(s) or baler(s), composting, if applicable.	1	1	Architect	N/A
Wst 05	Adaptation to climate change	1 credit: Climate change adaptation strategy appraisal for structural and fabric resiliency at RIBA Stage 2 . The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects and includes: 1.a.i Hazard identification 1.a.ii Hazard assessment 1.a.iii Risk estimation 1.a.iv Risk evaluation 1.a.v Risk management. Develop recommendations or solutions based on the climate change adaptation strategy appraisal, before or during Concept Design, that aim to mitigate the identified impact. Provide an update during Technical Design demonstrating how the recommendations or solutions proposed at Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing by the assessor.	1	1	Design team	RIBA stage 2 (Climate change adaptation Study) RIBA stage 4 (Climate change implementation study)

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Wst 06	Design for disassembly and adaptability	1 credit 1. Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design (Stage 2). 2. Develop recommendations or solutions based on the study (criterion 1 above), during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation. 2nd Credit 3. Achieve first credit 4. Provide an update, during Technical Design (stage 4), on: a. How the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective. Omissions have been justified in writing to the assessor. b. Changes to the recommendations and solutions during the development of the Technical Design. 5. Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.	2	2	Design team	RIBA stage 2 (Functional adaptation study) RIBA stage 4 (Functional adaptation implementation study)
			Weighting		6%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Land Use & Ecology [1.15% per credit]			13	11		
LE 01	Site selection	1 credit: At least 75% footprint is on previously developed land 1 credit: A contaminated land specialist's site investigation, risk assessment and appraisal has deemed land within the site to be affected by contamination.	2	2	Architect	N/A
LE 02	Identifying and understanding the risks and opportunities for the project	Prerequisite - Assessment route selection - An assessment route for the project has been determined using BREEAM Guidance Note GN34 BREEAM Ecological Risk Evaluation Checklist. - The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. Route 1 (project team member route) 1 credit for survey, evaluation and determining ecological outcomes for the site Route 2 (Ecologist) 1 credit for survey and evaluation of ecological value 1 credit for determining ecological outcomes for the site	2	2	Ecologist (TBC)	RIBA stage 2 (Site survey and evaluation of ecological value)

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
LE 03	Managing negative impacts on ecology	Prerequisite LE 02 has been achieved. AND The client or contractor confirms that compliance is monitored against all relevant UK, and EU or International legislation relating to the ecology of the site. 1 credit – Planning, liaison, implementation and data - Roles and responsibilities have been clearly defined, allocated and implemented to support successful delivery of project outcomes at an early enough stage to influence the concept design or design brief. - Site preparation and construction works have been planned for and are implemented at an early project stage to optimise benefits and outputs. - The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented solutions, and measures have been selected Up to 2 credits Route 1 - 1 credit - negative impacts have been managed Route 2 - 1 credit - ecological loss has been limited as far as possible OR 2 credits where there is no ecological loss	3	3	Ecologist (TBC) / Contractor	RIBA stage 2 (Site survey and evaluation of ecological value)
LE 04	Change and enhancement of ecological value	Prerequisite Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy, in line with the SQE's recommendations AND The client or contractor confirms that compliance is monitored against all relevant UK, and EU or International legislation relating to the ecology of the site. Route 1 - 1 credit - the project team lease with local expertise to adopt locally relevant ecological solutions Route 2 - 1 credit - Measures have been implemented that enhance ecological value, which are based on input from the <u>project team and SQE</u> in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02. Measures are implemented in the following order: a On site, and where this is not feasible, b Off site within the Zone of Influence. Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site. Route 2 - Up to 3 credits can be awarded based on the calculation of the change in ecological value occurring as a result of the project	4	2	Ecologist (TBC)	RIBA stage 2 (Site survey and evaluation of ecological value)

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
LE 05	Long term ecology management and maintenance	1 credit : Planning, liaison, data, monitoring and review management and maintenance of effectiveness of ecological solutions. Measures have been implemented to manage and maintain ecology throughout the project and take into account LE 02/LE 03 and LE04 studies/outcomes. A section on Ecology and Biodiversity has been included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site. 1 credit: Landscape management plan in line with BS42020:2013 covering at least the first five years after project completion as a minimum. The management plan to be updated to support ecological value of the site.	2	2	Ecologist (TBC) / Contractor	N/A
			Weighting		13%	
Pollution [0.75% per credit]			12	9		
Pol 01	Impact of refrigerants	3 credits: No refrigerant use Pre-requisite: All systems comply with the requirements of BS EN 378:2016 and where refrigeration systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice. 2 credits: Where the systems using refrigerants have Direct Effect Life Cycle CO₂ equivalent emissions (DELC CO₂e) of ≤100 kgCO₂e /kW cooling/heating capacity. To calculate the DELC CO₂e please refer to the Relevant definitions in the Additional information section and the Methodology section. OR Where air-conditioning or refrigeration systems are installed the refrigerants used have a Global Warming Potential (GWP) ≤ 10. 1 credit: Where the systems using refrigerants have Direct Effect Life Cycle CO₂ equivalent emissions (DELC CO₂e) of ≤ 1000 kgCO₂e/kW cooling/heating capacity. 1 credit: Where systems using refrigerants have a permanent automated refrigerant leak detection system installed; OR where an in-built automated diagnostic procedure for detecting leakage is installed.	3	2	Mechanical Engineer	N/A
Pol 02	Local air quality	Up to 2 credits - All heating and hot water is supplied by non-combustion systems. - Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Table 12.4 and Table 12.5 in the BREEAM manual . The measurements must be provided by manufacturers, following the labelling requirements of the European directive 2009/125/EC. - Emissions from all installed combustion plant that provide space heating and domestic hot water do not exceed the levels set in Table 1.21 and Table 1.22.	2	2	Mechanical Engineer	N/A
Pol 03	Flood and surface water management	2 credits: Where a site-specific flood risk assessment (FRA) confirms the development is situated in a flood zone that is defined as having a low annual probability of flooding. OR 1 credit: Where a site-specific FRA confirms the development is situated in a flood zone that is defined as having a medium or high annual probability of flooding and is not in a functional floodplain. Pre-requisite: Surface water run-off design solutions must be bespoke, i.e. they must take account of the specific site requirements and natural or man-made environment of and surrounding the site. 1 credit: Peak rate of run-off to show a 30% improvement for the developed site than it was for the pre-development site and should comply with the 1 in 100 yr. flood event 1 credit: Where flooding of property will not occur in the event of local drainage system failure AND EITHER: Drainage design measures are specified to ensure that the post development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development for the 100-year 6-hour event, including an allowance for climate change OR: Justification from the Appropriate Consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options. 1 credit: Minimising watercourse pollution - There is no discharge from the developed site for rainfall up to 5mm (confirmed by the Appropriate Consultant).	5	3	Civil engineer	N/A

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Pol 04	Reduction of night time light pollution	1 credit: External lighting design in line with ILP Guidance notes for the reduction of obtrusive light, 2011. Daylight cut-off for general external lighting. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00.	1	1	Electrical engineer	N/A
Pol 05	Reduction of noise pollution	1 credit: Where there are, or will be, no noise-sensitive areas or buildings within 800m radius of the assessed site. OR where the building does have noise-sensitive areas or buildings within 800m radius of the site, a noise impact assessment is carried out in compliance with BS 4142:2014 by a suitably qualified acoustician, along with any remediation.	1	1	Acoustician(TBC)	N/A
Weighting				9.0%	8%	

Credit Issue	Title	Assessment Criteria	Credits Available	Credits Targeted	Responsible Party	Stage limitation
Innovation [1% per credit]			10	2		
Inn 01 - Man 03	Responsible construction practices - Exemplary	1 Credit where all items in table 4.1 issue Man 03 are achieved	1	1	Contractor	N/A
Inn 02 - Hea 01	Visual Comfort - Exemplary	To achieve an exemplary performance credit for daylighting: - Daylighting criteria have been met using either of the following options: a. Relevant building areas meet exemplary daylight factors. b. Relevant building areas meet exemplary average and minimum point daylight illuminance criteria	1	0	-	N/A
Inn 03 - Hea 01	Visual comfort - Exemplary	N/A to Shell and Core assessments	1	0	-	
Inn 04 - Hea 02	Indoor Air Quality - Exemplary	N/A to Shell and Core assessments	1	0	-	
Inn 04 - Hea 06	Security of Site and Building	A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification.	1	0	-	N/A
Inn 05 - Ene 01	Reduction of energy use and carbon emissions - Exemplary	Up to 5 exemplary level credits: up to 2 where the building is beyond zero net regulated carbon 3 credits where the building is carbon negative	1	0	-	N/A
Inn 06 - Wat 01	Water Consumption - Exemplary	1 credit: 65% improvement over baseline case.	1	0	-	N/A
Inn 07 - Mat 01	Environmental impacts from construction products - Building life cycle assessment (LCA) - Exemplary	Achieve Mat 01 credits PLUS: 1 credit: During Stage 2 carry out building LCA options appraisal of at least 3 significantly different core <u>building services</u> design options. 1 credit – LCA and LCC alignment (all building types) - Achieve Elemental LCC plan and Component Level LCC options appraisal credits - Include design options appraised in Mat 01 credits during Concept Design in Assessment scope - Include the design options appraised for criterion 5 during Concept Design in the ‘Component level LCC option appraisal’. - Integrate the aligned LCA and LCC options appraisal activity within the wider design decision-making process. Record this in an options appraisal summary document including the relevant cost information from the ‘elemental LCC plan’ and ‘Component level LCC option appraisal’. 1 credit – Third party verification (all building types) - A suitably qualified third party carries out the building LCAs or produces a report verifying the building LCAs accurately represent the designs under consideration during Concept Design and Technical Design - For each LCA option, itemise the findings of the verification checks made by the suitably qualified third party in a report.	3	0	-	N/A
Inn 08 - Mat 03	Responsible Sourcing of construction products - Exemplary	Building services >50% of RSM points	1	0	-	N/A
Inn 09 - Wst 01	Construction Waste Management - Exemplary	1 credit: Amount of non-hazardous on-site/off-site construction waste (m ³ /100m ² or tonnes/100m ²) generated = 1.6 /1.9 Divert from landfill (volume or tonnage) Demolition = 85%/95% Non-demolition = 95%/95% Key waste groups identified for diversion at pre-construction stage RMP	1	0	-	N/A

Credit Issue	Title	Assessment Criteria		Credits Available	Credits Targeted	Responsible Party	Stage limitation
Inn 10 - Wst 02	Recycled Aggregates - Exemplary	Achieve exemplary level recycled aggregate points >6		1	0	-	N/A
Inn 11 - Wst 05	Adaptation to climate change	1 credit: Wt05 1 credit, plus: - Hea 04 criterion 6 - 6 credits under Ene 01 - passive design analysis credit under Ene 04 - 3 credits under Wat 01 + Mat 05 criteria 2-4 - 1 credit under Flood risk - 2 credits under Surface water run-off within Pol 03		1	1	-	N/A
Inn 12	Approved Innovation credits	To support innovation within the construction industry through the recognition of sustainability related benefits which are not rewarded by standard BREEAM issues.		-	-	-	N/A
				Weighting		10%	