Shurgard Self-Storage, Camden

BREEAM Pre-assessment Report

atelier ten
Environmental Design Consultants + Building Services Engineers + Fire Engineers + Lighting Designers
atelierten.com

ATELIER TEN
226 West George Street
Glasgow
G2 2PQ
T +44 (0) 141 333 0499

JOB TITLE: SHURGARD CAMDEN JOB NUMBER: TBC DOCUMENT TITLE: BREEAM REPORT VERSION: REV 00 FILE NAME: SHURGARD CAMDEN BREEAM PRE-ASSESSMENT 2019.11.22 REV 00	PREPARED BY: LUCY THOMSON SIGNED: DATED: 22/11/19	CHECKED BY: BERNIE CARR SIGNED: DATED: 22/11/19	APPROVED BY: BERNIE CARR SIGNED: DATED: 22/11/19

NO:	DATE	APPROVED

CONTENTS

1.0 EXECUTIVE SUMMARY

This report summarises the Shurgard Camden BREEAM Pre-Assessment at RIBA Stage 1 for the proposed extension at the existing Shurgard site in Camden. The development is targeting a BREEAM Excellent rating under the 2018 New Construction Scheme with a targeted score of 75.35% (70% required for Excellent).

Since the development will be assessed against the new BREEAM 2018 scheme, it is recommended that the cost plan reflects the increase in standards compared to the BREEAM 2014 scheme. Under BREEAM 2018, there is still the requirement to appoint specialist consultants as outlined in Section 3 of this report, with further improvements required in energy efficiency and low and zero carbon technologies.

A copy of the BREEAM pre-assessment document outlining the credits targeted is provided in Section 4 of this report.

2.0 INTRODUCTION

PROJECT BREEAM TARGET

The development is targeting a BREEAM Excellent rating. To accomplish this rating, an overall BREEAM assessment score of at least 70% must be achieved.

The development will be assessed against the BREEAM 2018 New Construction Scheme as a speculative office development.

BACKGROUND TO BREEAM ASSESSMENT

BREEAM is a system for measuring the environmental impact a building, and rating the performance on a simple single scale of PASS to OUTSTANDING. This simple rating draws together a comprehensive environmental assessment process that covers all of the following aspects of a building's design, construction and operation:

Management – Design; construction, commissioning, environmental management in operation

Energy – Reduced emissions of CO_2 arising from the operation of the building heating, cooling, hot water, lighting and ventilation systems

Transport – Reduced emissions of CO_2 arising from the careful location and provision of transport mode choice for building occupiers

Health and Well Being – Improved internal environmental conditions to improve the well-being and productivity of building occupants

Water – Reduced consumption and wastage of potable water resources

Materials – Specification of more environmentally friendly materials, which meet functional requirements. Embodied Energy/CO_2 and other life cycle impacts of material specification are included

Waste - Encouragement of more environmentally friendly waste management strategies in the construction and operation of the building

Site Ecological Value – Use of land of low ecological value, minimising ecological change/damage, encouraging ecological enhancement

Pollution – Minimising risks of pollution to atmosphere and water

Under each of the above sections, credits are awarded for compliance with specific sustainability issues which contribute towards an overall BREEAM score.

In order to achieve a BREEAM Excellent rating or above, it is essential that early stage involvement and buy-in from the design team, contractor and client are achieved. This is of particular importance since the BREEAM assessment is a continuous process throughout the life cycle of a project with key miles stones and outputs required for credit compliance. The BREEAM timeline below illustrates the BREEAM involvement throughout the RIBA stages.

Figure 1: BREEAM 2018 Manual

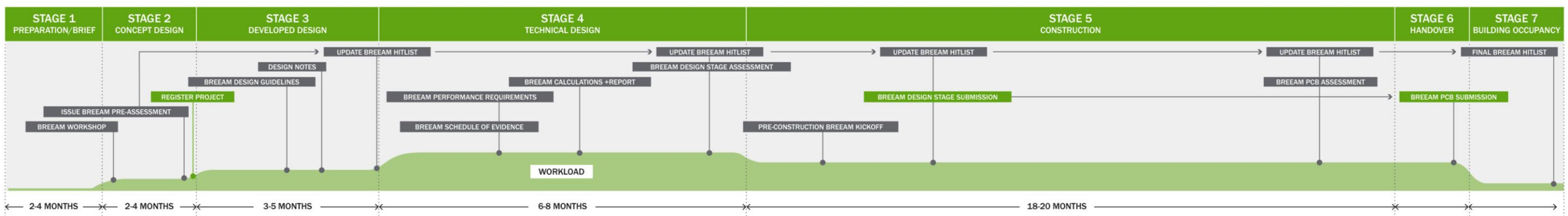

Figure 2: Project Life and Contractual Milestones

3.0 BREEAM SIMPLE BUILDING 2018 TARGETED CREDITS

This section of the report summarises the BREEAM credits targeted in order to achieve an Excellent rating with an overall score of 75.35%.

BREEAM New Construction 2018 - Full Fit Out Extension

Shurgard Self-Storage, Camden

Pass 30 credits **Good** 45 credits Very **Good** 55 credits Excellent 70 credits Outstanding 85 credits

Credit Information			Target Rating	EXCELLENT	75.35%				
Credits Available	Credits Targeted	Potential Credit	Credit Issue	Title	Mandatory Credits	Aim	Summary of criteria	Schedule of Evidence	Responsible
			For full details of credit compliance requirements, refer to the BREEAM 2018 Scheme Document (manual), which takes precedence to this document						
12	10	2	**Management**						
1	1	0	**Man 02: Life Cycle Cost and Service Life Planning (4 credits)**	Elemental Life Cycle Cost (LCC)	N/A	To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.	**2 credits - Elemental Life Cycle Cost** - <u>At RIBA Stage 2</u> - An elemental life cycle cost (LCC) analysis	Capital cost of the project	Shurgard
				Component Level Life Options Appraisal			**1 credit - Component Life Cycle Cost** - <u>At RIBA Stage 4</u> - a component level LCC analysis. The results of the analysis and consideration of LCC have been implemented.		
				Capital Cost Reporting			**1 credit - Capital Cost Reporting** - Report the capital cost for the building in pounds per m2		
0	0	0	**Man 03: Responsible Construction Practices (5 credits + 1 Exemplary)**	Prerequisite - Legally Harvested and Traded Timber	1 credit = Very Good 1 credit = Excellent 1 credit = Outstanding	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	**Prerequisite:** All timber to be 'legally harvested and traded timber'	Letter confirming that all timber will be legally harvested and traded timber. Letter confirming the targeted CCS score and construction site impact targets. EMS Certificate. Employer's Requirements.	Shurgard/Contractor
1	1	0		Environmental Management			**1 credit - Environmental Management**: The principal contractor operates an EMS and practices pollution prevention policies and procedures on-site		
0	0	0		BREEAM Advisory Professional (AP) (site)			**1 credit - BREEAM AP (site)** - Involve a BREEAM AP in the project at an appropriate time and level.		
1	1	0		Responsible Construction Management			**1 credit - Responsible Construction Management:** Appoint a sustainability champion during construction		
1	1	0		Monitoring of Construction Site Impacts			**1 credit:** a CCS score between 25 and 34 **2 credits:** a CCS score between 35 and 39		
1	1	0					Monitor, record, report & target: **1 credit:** Energy and water consumption **1 credit:** Transport (construction materials & waste)		

1	1	0	**Man 04: Commissioning and Handover(4 credits)**	Commissioning - testing schedule and responsibilities	Criterion 11 = Very Good, Excellent and Outstanding	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	**1 credit - Commissioning - testing schedule and responsibilities:** Commissioning programme, roles and responsibilities	Commissioning Programme,Evidence confirming stakeholders, roles and responsibilities. Employer's Requirements	Shurgard/Contractor
1	1	0		Handover			**1 credit - Handover:** Building User Guide and building occupiers/premises managers training schedule		
1	1	0		Aftercare Support		To ensure the building operates in accordance with the design intent and operational demands, through providing aftercare to the building owner and occupants during the first year of occupation.	**1 credit - Aftercare Support:** Provide aftercare support to building occupiers through having in place operational infrastructure and resources		
1	1	0	**Man 05: Aftercare**	Commissioning - implementation	3 credits		**1 credit - Commissioning:** Complete commissioning activities over a minimum 12-month period once the building becomes substantially occupied	Commitment letter	Shurgard
1	1	0		Post Occupancy Evaluation			**1 credit - POE:** The client or occupier commits to carry out a POE exercise one year after the building is substantially occupied.		
		Man section sub totals		6%					
8	5	6	**Health & Well Being**						
1	1	0	**Hea 01: Visual Comfort (5 Credits + 2 Exemplary)**	Control of glare from sunlight	N/A	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.	**1 credit:** Glare control strategy	Drawings and specification demonstrating the proposed glare control strategy. Drawings demonstrating the internal and external lighting along with zoning.	Architect/ M&E Engineer
1	1	0		Daylighting			**2 credits (building type dependent):** Achieve specified average DF requirement		
1	1	0		View out			**1 credit:** Achieve view out requirements		
1	1	0		Internal and External Lighting			**1 credit:** Internal and external lighting design & zoning (SLL CL 2012, LG7, BS5489-1:2013+ BS EN 12464-2:2014)		
1	1	0	**Hea 06: Security (1 credit + 1 Exemplary)**	Security of Site and Building	N/A	To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.	A Suitably Qualified Security Specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent). The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development.	Drawings demonstrating pedestrian and cycle routes, delivery area, turning areas, and pedestrian crossings etc. Meeting minutes or correspondence with the Architectural Liaison Officer (ALO).	Architect
							The SQSS develops a set of security controls and recommendations for incorporation into the proposals. Those controls and recommendations shall directly relate to the threats and assets identified in the preceding SNA.		
							The controls and recommendations shall be incorporated into proposals and implemented in the as-built development. Any deviation from those controls and recommendations shall be justified and agreed with the SQSS.		
		Hea section sub totals		9.4%					

19	17	2	Energy						
9	8	1	**Ene 01: Reduction of Energy Use and Carbon Emissions (13 credits + 5 Exemplary)**	Energy Performance	4 credits = Excellent 6 credits = Outstanding	To minimise operational energy demand, primary energy consumption and CO_2 emissions.	**Up to 9 credits:** Calculate an Energy Performance Ratio for New Constructions (EPR_{NC}) using BREEAM's Ene 01 calculator starting at: **1 credit:** EPR_{NC} = 0.1 **4 credits:** EPR_{NC} = 0.4 = Excellent: **6 credits:** EPR_{NC} = 0.6 = Outstanding: **9 credits:** EPR_{NC} = 0.90 AND zero net regulated CO_2 emissions	BRUKL Ene 01 Calculator Risk Assessment	M&E Engineer
				Prediction of operational energy consumption			**Pre-requisite:** Prior to completion of the Concept Design, relevant members of the design team hold a preliminary design workshop focusing on operational energy performance.		
							4 credits: Undertake additional energy modelling and risk assessment during the design and post-construction stage to generate predicted operational energy consumption figures and risks that should be monitored.		
1	1	0	**Ene 02: Energy Monitoring (1 credits)**	Sub-metering of end-use categories	1 credit= Very Good, Excellent and Outstanding	To encourage the installation of energy sub-metering to facilitate the monitoring of operational energy consumption. To enable managers and consultant's post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.	**1 credit:** Energy metering systems for 90% of the estimated annual energy consumption of each fuel	Calculation demonstrating estimated annual energy consumption of each fuel. Drawings demonstrating the location of the meters. Specification confirming the proposed BMS.	M&E Engineer
1	1	0		Sub-metering of high energy load and tenancy areas			**1 credit**: BMS to monitor energy use from the major building's service systems		
1	1	0	**Ene 03: External Lighting (1 credit)**	External lighting	N/A	To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.	**1 credit:** No external lighting (which includes lighting on the building, at entrances and signs). OR External light fittings within the construction zone with: 2.a: Average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt 2.b: Automatic control to prevent operation during daylight hours 2.c: Presence detection in areas of intermittent pedestrian traffic.	Drawings demonstrating the location of the external lighting. Specification detailing the external lighting.	M&E Engineer
1	1	0	**Ene 04: Low Carbon Design (3 credits)**	Passive Design	N/A	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	**1 credit:** Implement passive design measures	Drawings demonstrating the location of the LZCs. LZC Study. Specification detailing the passive design measures.	M&E Engineer
1	0	1					**1 credit:** Implement free cooling analysis		
1	1	0		Low or Zero Carbon technologies			**1 credit:** LZC Feasibility study by end of Concept Design		
1	1	0	**Ene 06: Energy Efficient Transportation**	Energy Consumption	N/A	To recognise and encourage the specification of energy	**1 credit**: Analysis of transport demand, usage and lifts, escalators, etc.	Lift Traffic Analysis	M&E Engineer

1	1	0	**Systems (2 credits)**	Energy Efficient Features		efficient transportation systems.	**1 credit**: Analysis of transport demand, usage and lifts, escalators, etc. +K99:L100		
2	2	0	**Ene 08: Energy Efficient Equipment (2 credits)**	Energy Efficient Equipment	N/A	To encourage installation of energy efficient equipment to ensure optimum performance and energy savings in operation.	**2 credits**: ensure that a significant majority of contributors to unregulated energy meet BREEAM criteria	Letter confirming the significant contributors to unregulated energy (appliances, kitchen etc). Calculation demonstrating the above.	M&E Engineer
Ene section sub totals			10%						
12	12	0	**Transport**						
2	2	0	**Tra 01: Transport Assessment and Travel Plan (2 credits)**	Travel Plan	N/A	To reward awareness of existing local transport and identify improvements to make it more sustainable.	**2 credits**: During the feasibility stages, develop a travel plan based on a site-specific travel assessment or statement.	Transport Assessment Travel Plan	Shurgard
10	10	0	**Tra 02: Sustainable Transport Measures (10 credits)**	Sustainable Transport Measures	N/A	To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.	**10 credits:** 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.	Various	Architect/ BREEAM Assessor
Tra section sub totals			12%						
8	6	2	**Water**						
5	3	2	**Wat 01: Water Consumption (5 credits + 1 Exemplary)**	Water consumption	1 credit = Good 1 credit = Excellent 2 credits = Outstanding	To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.	**Up to 5 credits:** Improvement over baseline case: **1 credit:** 12.5% **2 credits**: 25% **3 credits:** 40% **4 credits:** 50% **5 credits**: 55%	Drawings demonstrating the location of the sanitary ware. Wat 01 Calculator. Confirmation regarding number of sanitary wares.	Architect/ M&E Engineer
1	1	0	**Wat 02: Water Monitoring (1 credit)**	Water meter	Criterion 1	To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.	**1 credit:** 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.	Drawings demonstrating the location of the water meters and sub meters. Letter confirming water meters have pulsed output and are connected to BMS.	M&E Engineer
1	1	0	**Wat 03: Water Leak Detection (2 credits)**	Leak Detection Systems	N/A	To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.	**1 credit:** A compliant leak detection system is specified or installed on the building's water supply.	Drawings demonstrating the location of flow control devices. Specification detailing the water leak detection system.	M&E Engineer
1	1	0		Flow Control Devices			**1 credit:** Flow control devices are fitted to each WC area/facility according to demand.		
Wat section sub totals			5.6%						

14	10	4	**Materials**						
7	5	2	**Mat 01: Environmental Impacts from Construction Products - Building Life Cycle Assessment (LCA) (7 credits + 3 exemplary)**	Life cycle impacts	N/A	To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.	**Up to 7 credits:** Mat01 calculation points for - external& internal walls, windows, roofs, upper floor slab, Internal walls, Floor finishes / coverings	Drawings demonstrating the location of materials used in the external and internal walls, roofs, upper floor slab, internal walls and floor finishes and coverings. Areas, Green Guide Ratings and element numbers of materials. Mat 01 Calculator Life Cycle Assessment	Architect/ M&E Engineer
1	1	0	**Mat 02: Environmental Impacts from Construction Products - Environmental Product Declarations (EPD) (1 credit)**	Specification of products with a recognised environmental product declaration (EPC)	N/A	To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.	**1 credit:** Specify construction products with EPC that achieve a total EPD points score of at least 20.	Drawings demonstrating the location of the materials used for the external hard landscaping. Area, Green Guide Ratings and element numbers of materials.	Architect/ Structural Engineer
0	0	0	**Mat 03 (Responsible Sourcing of construction products (4 credits + 1 Exemplary)**	Pre-requisite	Criterion 1 only	To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.	**Pre-requisite:** Confirmation that all timber used on the project is sourced in accordance with the UK Government's Timber Procurement Policy.	Letter confirming that all timber used on the project will be sourced in accordance with the UK Government's Timber Procurement Policy and Sustainable Procurement Plan.	Shurgard/ Contractor
1	1	0		Enabling Sustainable Procurement			**1 credit:** The principal contractor sources materials in accordance with a documented sustainable procurement plan.		
3	2	1		Measuring responsible sourcing			**Up to 3 credits:** Based on the achieved Responsible Sourcing of Materials (RSM) points: **1 credit:** RSM point = 10% **2 credits:** RSM point = 20% **3 credits:** RSM point = 30%		
1	1	0	**Mat 05: Designing for Durability and Resilience (1 credit)**	Designing for durability and resilience	N/A	To recognise and encourage adequate protection of exposed elements of the building and landscape, therefore minimising the frequency of replacement and maximising materials optimisation.	**1 credit:** Protect vulnerable parts of the building from damage and exposed parts of the building from material degradation	Drawing demonstrating the location of vulnerable areas internally and externally along with proposed durability measures (kick plates, bollards, durable flooring etc). List of elements exposed to material degradation along with environmental factors.	Architect/ Contractor
Mat section sub totals			12.5%						

10	8	3	Waste						
3	3	0	**Wst 01: Construction Waste Management (4 credits + 1 Exemplary)**	Construction resource efficiency	1 credit = Outstanding	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.	**Up to 3 credits**: RMP + pre-demolition audit + the amount of non-hazardous on-site/off-site construction waste (m^3/100m^2 or tonnes/100m^2) generated: **1 credit:** 13.3 / 11.1 **2 credits:** 7.5 / 6.5 **3 credits:** 3.4 / 3.2	Resource Management Plan or letter of commitment and pre-demolition audit.	Contractor
2	1	1		Diversion of resources from landfill			**1 credit:** Divert from landfill (volume or tonnage) Demolition = 80%/90% Non-demolition = 70%/ 80%		
1	1	0	**Wst 03: Operational Waste (1 credit)**	Operational waste	1 credit = Excellent 1 credit = Outstanding	To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.	Clearly labelled, accessible, dedicated space for segregation and storage of operational recyclable waste. Static waste compactor(s) or baler(s), composting, if applicable.	Drawing demonstrating the location of the waste storage area. Specification confirming that the waste storage area will be clearly labelled, appropriately sized and accessible to building occupants.	Architect
1	1	0	**Wst 05: Adaption to Climate Change (1 credit + 1 Exemplary)**	Resilience of structure, fabric, building services and renewables installation	N/A	To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.	**1 credit:** Climate change adaptation strategy appraisal for structural and fabric resiliency at RIBA Stage 2.	Climate Change Adaption Strategy	All
1	1	0	**Wst 06: Design for Disassembly and Adaptability (2 credits)**	Design for disassembly and functional adaptability - recommendations	N/A	To recognise and encourage measures taken to accommodate future changes of use of the building over its lifespan.	**1 credit:** Conduct a study to explore the ease of disassembly and the functional adaption potential of different design scenarios by the end of Concept Design.	Functional Adaption Strategy	Architect
1	1	0		Disassembly and functional adaptability - implementation			**1 credit:** Provide an update during Technical Design on how the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective and information on any changes to the recommendations and solution during the development of the Technical Design. Produce a building adaptability and disassembly guide to communicate the characteristics allowing functional adaptability and disassembly to prospective tenants.		
Wst section sub totals			5.6%						

13	5	8	Land Use & Ecology						
1	1	0	**LE 01: Site Selection (2 credits)**	Site selection - Previously occupied land	N/A	To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.	**1 credit:** 75% footprint on previously developed land	Evidence confirming the presence of Japanese knot-weed and how it will be removed.	Architect/ Landscape Architect
1	0	1		Site selection - Contaminated land			**1 credit:** Contaminated land investigation by a contaminated land specialist and remediation.		
1	1	0	**LE 02: Identifying and Understanding the Risks and Opportunities for the Project (2 credit + 1 Exemplary)**	Survey and Evaluation	N/A	To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.	**1 credit:** Site of 'land of low ecological value'.	Ecology Report	Ecologist (TBC)
1	0	1		Determining the ecological outcomes for the site			**1 credit:** Protection of existing ecological features. Construct ecological protection prior to any preliminary site construction or preparation works.		
3	1	2	**LE 03: Managing Negative Impacts on Ecology (3 credits)**	Minimising negative impacts on ecology	N/A	To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.	**1 credit:** Change in ecological value of the site is minimal, between -9 & 0 **2 credits**: Change in ecological value of the site is positive, greater than zero	Ecology Report	Ecologist
0	0	0	**LE 04: Change and Enhancement of Ecological Value (4 credits)**	Pre-requisite - Identifying and understanding the risks and opportunities for the project	N/A	To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.	**Pre-requisite:** LE 03 has been achieved and the client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.	Ecology Report	Ecologist
1	1	0		Enhancement of ecology			**1 credit:** The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented solutions and measures based on recommendations from recognised 'local' ecological expertise, specialist input and guidance to inform the adoption of locally relevant ecological solutions and measures which enhance the site.		
1	0	1		Liaison, implementation and data collation			**1 credit:** The project team liaising and collaborating with representative stakeholders, taking into consideration data collated and shared, have implemented the solutions and measures selected in a way that enhances ecological value.		
2	0	2		Enhancement of ecology			**3 credits:** Enter figures into Ecology Calculator.		
2	1	1	**LE 05: Long Term Ecology Management and Maintenance (2 credits)**	Long term impact on ecology management and maintenance	N/A	To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term.	**Up to 2 credits:** SQE appointed prior to any site works, UK & EU legislation to be complied with, minimum 5 year landscape management plan. **1 credit:** 2 measures from below where applicable. **2 credits:** 4 measures from below where applicable. Biodiversity Champion, train work force, protect & monitor biodiversity during construction stages, create new habitats, programme site works to minimise damage.	Ecology Report. Landscape and Habitat Management Plan. Letter of commitment. Employer's Requirements.	Shurgard/Contractor
LE section sub totals			6%						

8	6	2	**Pollution**						
0	0	0	**Pol 03: Flood and Surface Water Management (5 credits)**	Pre-requisite	N/A	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.	**Pre-requisite:** An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.	Flood Risk Assessment. Drawings demonstrating SUDs.	Civil Engineer
2	2	0		Surface water run-off - Flood resilience			**2 credits**: FRA confirming low risk zone. OR **1 credit:** FRA confirming medium or high-risk zone (not within the Functional Floodplain). Increase the resilience and resistance to flooding by raising ground floor levels or reflecting measures in BS8533:2011.		
2	2	0		Surface water run-off - Surface water run-off			**1 credit:** Peak rate of run-off no greater than the pre-developed site. **1 credit:** Flooding will not occur if local drainage system fails AND SUD techniques.		
1	1	0		Surface water run-off - Minimising watercourse pollution			**1 credit:** SUDs or source control systems		
1	1	0	**Pol 04: Reduction of Night Time Light Pollution (1 credit)**	Reduction of night time light pollution	N/A	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, thereby reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	**1 credit:** External lighting pollution has been eliminated through effective design that removes the need for external lighting. This does not adversely affect the safety and security of the site and its users. OR External lighting design in line with ILP Guidance notes for the reduction of obtrusive light, 2011. Daylight cut-off for general external lighting.	Drawings demonstrating the external lighting and controls. Specification confirming external lighting types and their compliance.	M&E Engineer
Pol section sub totals			5%						

10	3	10	**Innovation**						
1	1	0	**Inn 1**	**Man 03: Responsible construction practices**	N/A	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	**1 credit:** CCS score of 40 or more		Contractor
1	1	0	**Inn 2**	**Man 03: Responsible construction practices**	N/A	To support innovation within the construction industry through the recognition of sustainability related benefits which are not rewarded by standard BREEAM issues.	**1 Credit:** Monitor, record, report & target: 1 credit: Transport (construction materials & waste)		Contractor
1	1	0	**Inn 14**	**Pol 03: Flood and Surface Water Management**	N/A	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.	**1 credit:** development run-off no greater than pre development run off		Civil Engineer

4.0 EARLY STAGE ACTIONS

Several of the BREEAM Issues include time critical actions that must be completed before credits can be secured. The Table below summarises the BREEAM credits applicable to Shurgard Camden that have early stage actions that must be undertaken in order to secure the BREEAM Excellent rating. Further information and specific credit criteria can be found within the relevant sections of the BREEAM 2018 Manual.

There is also the requirement to appoint the following specialist consultants:

- Ecologist
- Transport Consultant
- Materials Life Cycle Assessment Consultant
- Pre-demolition audit (if there are any proposed demolition/ down taking works)

BREEAM Issue and Criteria Reference	BREEAM Action	Specific BREEAM Requirement	Stage
Hea 06	Suitably Qualified Security Specialist (SQSS) or Architectural Liaison Officer (ALO) conducts an evidence-based Security needs assessment (SNA) during or prior to Concept Design	The purpose of the SNA will be to identify attributes of the proposal, site and surroundings which may influence the approach to security for the development. The SQSS/ALO develops a set of security controls and recommendations for incorporation into the proposals.	Stage 2
Ene 04	Energy specialist (usually MEP) completes a feasibility study by the end of Concept Design	This is to establish the most appropriate recognised local (on-site or near-site) low and zero carbon (LZC) energy sources for the building or development. The recommended LZC's can then be specified in line with the feasibility study.	Stage 2
TRA 01	Appointment of a transport Consultant to provide travel plan	Appointment: transport consultant is appointed to undertake a site-specific transport assessment (or develop a travel statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form.	Stage 2
Mat 01	Life Cycle Carbon Consultant to carry out a Life Cycle Assessment (LCA)	Carry out a building LCA on of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT Compliant LCA tool according to the methodology	Stage 2
Mat 03	Sustainable Procurement Plan to be in place before Concept Design	The plan should include sustainability aims, objectives and strategic targets to guide procurement activities.	Stage 2
Wst 01	Pre-demolition audit carried out at Concept Design stage by a competent person (an individual who has appropriate knowledge of buildings, waste and options for reuse and recycling of different waste streams (demolition contractor).	Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition. This must be used to determine whether refurbishment or reuse is feasible and, in the case of demolition, to maximise the recovery of material for subsequent high grade or value applications.	Stage 2
LE 02	Appointment of an ecologist to provide early stage advice on enhancing site ecology	Appointment: suitably qualified ecologist (SQE) is appointed to provide advice on plant types to maximise site ecology.	Stage 1

5.0 CONCLUSIONS

This report presents the results from a BREEAM Pre-assessment for the proposed extension at the existing Shurgard site. The project is targeting BREEAM Excellent certification against the BREEAM 2018 New Construction scheme as a simple building development.

The results from this pre-assessment indicate that a score of 75.35% can be achieved. Since an overall score of 70% is required for Excellent, this provides a 5.35% margin in the score for potential credit loss, as the project progresses through the design and construction phases.

There are early stage actions that must be completed in order to secure credits, which have been outlined within this report. Similarly, there are specialist consultants required such as a transport consultant, Ecologist and Life Cycle Carbon Consultant. It is recommended that the cost plan makes an allowance for the project being assessed against the more onerous BREEAM 2018 criteria.