APPENDIX 3 - BREEAM PRE-ASSESSMENT А3



The Hatchery

BREEAM Pre-assessment Summary Report

Pre-assessment

23 Mar 2021

Silcock Dawson & Partners

tel 01844271571 lperrin@silcockdawson.co.uk

Executive Summary

The purpose of the preliminary assessment is to ensure that where early action is required, it is brought to the attention of key decision makers, and the most cost effective approach to compliance is adopted. However, the pre-assessment can only provide an indication of the likely BREEAM rating and is based on the following assumptions:

- The project is completed according to the information provided at the pre-assessment workshop. If changes are made to the management, design or execution of the project following the pre-assessment, this could affect the final predicted BREEAM score.
- All evidence required by the BRE is made available during the formal BREEAM assessment. Robust evidence is the basis of all BREEAM assessments and without it credits cannot be awarded. Detailed evidence requirements and guidance for the design team will be provided within the online portal to be used for the assessment, which is called Tracker Plus.
- Credits are considered early enough in the design process to allow them to be achieved. Considering BREEAM credits from the project inception and design brief stage improves the cost effectiveness of delivering the sustainability measures required by BREEAM.

The Hatchery, Hatch End Industrial Estate, Middle Aston, Oxon OX25 5QL Pre Assessment requires a minimum BREEAM rating of 'Very Good' in line with The Cherwell Local Plan 2011-2031, Policy ESD 3: Sustainable Construction.

Using the information provided, the Pre Assessment shows that a 61.41% (Very Good) rating is achievable.

Introduction

This report is intended as a summary of the BREEAM pre-assessment review for the following project:

Project Name	The Hatchery
Version	BREEAM 2018 NC v3
Assessment stage	Pre Assessment
Target Rating	Very Good (55%)
Rating Achieved	Very Good (61.47%)
Potential Rating	Very Good (66.88%)
Specification	Shell only

The purpose of the preliminary assessment is to indicate the possible BREEAM score for The Hatchery, Hatch End Industrial Estate, Middle Aston, Oxon OX25 5QL BREEAM New Construction 2018.

It is the applicant's intention to construct the proposed development to a Shell only specification.

Performance of the building and compliance with BREEAM is therefore based on the available scope of works. The pre-assessment score set out in this document can only provide an indication of one of the likely routes to achieving the BREEAM Very Good rating required based on the information known at this stage and assumptions made by the assessor.

Based on the available information for the proposed development, a score of 61.47% (Very Good) is considered at this stage to be achievable, which is above the minimum score for a 'Very Good' assessment of 55.00%. There is a potential to achieve a further 5.47%, however these additional credits can only be realised after the detailed design at the end of RIBA Stage 4.

Middle Aston Ltd, in line with The Cherwell Local Plan 2011-2031, Policy ESD 3: Sustainable Construction has conducted a BREEAM Preliminary Assessment for the proposed site at The Hatchery, Hatch End Industrial Estate,. The Pre Assessment's aim is to analyse the potential to achieve the BREEAM 'Very Good' rating. There are a number of elements that determine the overall performance of a new construction project assessed using BREEAM they are:

- 1. The BREEAM rating level benchmarks
- 2. The minimum BREEAM standards
- 3. The environmental section weightings
- 4. The BREEAM assessment issues and credits

The BREEAM rating benchmarks for projects using the 2018 version of BREEAM UK New Construction are as follows:

Outstanding ≥ 85%

Excellent ≥ 70%

The BREEAM rating benchmarks enable a client and all other stakeholders to compare the performance of a newly constructed building with other BREEAM rated buildings, and the typical sustainability performance of a stock of new non-domestic buildings in the UK.

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

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

Minimum Standards

To maintain a flexible system BREEAM adopts a 'balanced score-card' approach to the assessment and rating of building performance. This means that, to achieve a particular level of performance the majority of BREEAM credits can be traded, i.e. non-compliance in one area can be off-set through compliance in another to achieve the target BREEAM rating.

However, to ensure that performance against fundamental environmental issues is not overlooked in pursuit of a particular rating, BREEAM sets minimum standards of performance in key areas e.g. energy, water, waste etc. It is important to bear in mind that these are minimum acceptable levels of performance and, in that respect they should not necessarily be viewed as levels that are representative of best practice for a BREEAM rating level.

Issue	'Very Good
Man 04 - Commissioning and handover	One credit - Commissioning test schedule and responsibilities
Man 04 - Commissioning and handover	Criterion 11 - Building User Guide
Ene 02 - Energy monitoring	One credit - First sub-metering credit
Wat 01 - Water consumption	One credit
Wat 02 - Water monitoring	Criterion 1 (Pulsed output) Water meter on main supply
Mat 03 - Responsible sourcing of construction products Legally harvested timber	All timber and timber-based products used on the project are legally harvested and traded timber

Environmental Section Weightings

Environmental weightings are fundamental to any building environmental assessment method as they provide a means of defining, and therefore ranking, the relative impact of environmental issues. BREEAM uses an explicit weighting system derived from a combination of consensus based weightings and ranking by a panel of experts.

The environmental section weightings for a Shell and Core only building are as follows:

Management: 12% Health & Well Being: 7% Energy: 9.5%

Transport: 14.5% Water: 2% Materials: 22%

Waste: 8% Land Use & Ecology: 19% Pollution: 6%

Innovation (additional): 10%

BREEAM Assessment Issues and Credits

BREEAM UK New Construction consists of 51 individual assessment issues spanning the nine environmental categories, plus a tenth category called 'innovation' (described below). Each issue addresses a specific building related environmental impact or issue and has a number of 'credits' assigned to it.

'BREEAM credits' are awarded where a building demonstrates that it meets the best practice performance levels defined for that issue, i.e. it has mitigated an impact or, in the case of the health and wellbeing section, addressed a specific building occupant-related issue, e.g. good thermal comfort, daylight or acoustics.

The number of 'credits' available for an individual assessment issue will vary and generally the higher the number there are for a given issue, the more important that issue is in terms of mitigating its impact. In most cases, where there are multiple 'credits' available, the number awarded is based on a sliding scale or benchmark, where progressively higher standards of building performance are rewarded with a higher number of 'credits'.

It is worth noting that, in addition to the environmental section and overall score and BREEAM rating, verified performance against individual assessment issues also provides users with a credible set of key building performance indicators for a range of embodied, operational and construction phase building impacts. In this respect, in addition to using BREEAM to define overall targets, it is possible to use the method to define performance levels in support of specific organisational policy objectives for individual environmental issues. Care should be taken when setting design targets using individual issues and credit levels in this way as it can limit design flexibility and have an impact on project costs.

Credit Summary

		Available	Current	Scenario 1	Scenario 2
Management					
Man 01	Project brief and design	4	2	0	0
Man 02	Life cycle cost and service planning	4	1	0	0
Man 03	Responsible construction practices	6	4	1	0
Man 03 - Exemplary(1)	Responsible construction practices	1	1	0	0
Man 04	Commissioning and handover	1	0	0	0
	Standard Management Cre	dit Total: 15	7	1	0

	Exemplary Management Credit Total:	1	1	0	0
	% Management Total (Standard + Exemplary):		6.60	0.80	0
Health & Wellbeing					
Hea 01	Visual comfort	4	2	2	0
Hea 01 - Exemplary(1)	Visual comfort	1	0	0	0
Hea 05	Acoustic performance	1	1	0	0
Hea 06	Security	1	0	0	0
Hea 06 - Exemplary(1)	Security	1	0	0	0
Hea 07	Safe and healthy surroundings	2	1	0	0
	Standard Health & Wellbeing Credit Total:	8	4	2	0
	Exemplary Health & Wellbeing Credit Total:	2	0	0	0
	% Health & Wellbeing Total (Standard + Exemplary):		3.50	1.75	0
Energy					
Ene 01	Reduction of energy use and carbon emissions	9	2	0	0
Ene 03	External Lighting	1	1	0	0
Ene 04	Low carbon design	3	1	2	0
	Standard Energy Credit Total:	13	4	2	0
	Exemplary Energy Credit Total:	0	0	0	0
	% Energy Total (Standard + Exemplary):		2.92	1.46	0
Transport					
Tra 01	Transport assessment and travel plan	2	2	0	0
Tra 02	Sustainable transport measures	10	3	0	0
	Standard Transport Credit Total:	12	5	0	0
	Exemplary Transport Credit Total:	0	0	0	0
	% Transport Total (Standard + Exemplary):		6.04	0	0
Water					
Wat 02	Water monitoring	1	1	0	0
Wat 03	Water leak detection	1	0	1	0
Wat 04	Water efficient equipment	1	1	0	0
	Standard Water Credit Total:	3	2	1	0
	Exemplary Water Credit Total:	0	0	0	0
	% Water Total (Standard + Exemplary):	-	1.33	0.66	0
Materials					
Mat 01	Environmental impacts from construction products - Building life cycle assessment (LCA)	7	5	0	0
Mat 01 - Exemplary(1)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	0	0	0
Mat 01 - Exemplary(2)	Environmental impacts from construction products - Building life cycle assessment (LCA)	1	1	0	0
Mat 02	Mat 02 Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	0	0	0
Mat 03	Responsible sourcing of construction products	4	3	0	0
Mat 03 - Exemplary(1)	Responsible sourcing of construction products	1	0	0	0

Mat 05	Designing for durability and resilience	1	1	0	0
Mat 06	Material efficiency	1	0	0	0
	Standard Materials Credit Total:	14	9	0	0
	Exemplary Materials Credit Total:	3	1	0	0
	% Materials Total (Standard + Exemplary):		15.14	0	0
Waste					
Wst 01	Construction waste management	5	3	1	0
Wst 01 - Exemplary(1)	Construction waste management	1	0	0	0
Wst 02	Use of recycled and sustainably sourced aggregates	1	0	0	0
Wst 02 - Exemplary(1)	Use of recycled and sustainably sourced aggregates	1	0	0	0
Wst 03	Operational waste	1	1	0	0
Wst 05	Adaptation to climate change	1	0	0	0
Wst 06	Design for disassembly and adaptability	2	2	0	0
	Standard Waste Credit Total:	10	6	1	0
	Exemplary Waste Credit Total:	2	0	0	0
	% Waste Total (Standard + Exemplary):		4.80	0.80	0
Land Use & Ecology					
LE 01	Site selection	2	1	0	0
LE 02	Ecological risks and opportunities	2	2	0	0
LE 02 - Exemplary(1)	Ecological risks and opportunities	1	0	0	0
LE 03	Managing impacts on ecology	3	3	0	0
LE 04	Ecological change and enhancement	4	3	0	0
LE 04 - Exemplary(1)	Ecological change and enhancement	1	0	0	0
LE 05	Long term ecological management and maintenance	2	2	0	0
	Standard Land Use & Ecology Credit Total:	13	11	0	0
	Exemplary Land Use & Ecology Credit Total:	2	0	0	0
	% Land Use & Ecology Total (Standard + Exemplary):		16.07	0	0
Pollution					
Pol 03	Flood and surface water management	5	4	0	0
Pol 04	Reduction of night time light pollution	1	1	0	0
	Standard Pollution Credit Total:	6	5	0	0
	Exemplary Pollution Credit Total:	0	0	0	0
	% Pollution Total (Standard + Exemplary):		5	0	0
Innovation					
Al	Approved Innovation	1	0	0	0
	Standard Innovation Credit Total:	0	0	0	0
	Exemplary Innovation Credit Total:	1	0	0	0
			1000	1 120	
	% Innovation Total (Standard + Exemplary):		0	0	0

Credit Progress Log

Manage	Management								
Man 01 -	Project brief and design								
	Credit	Available	Current	Potential	Comments				
1	Project delivery planning	1	1	0	The objective at this stage is to develop outline proposals including site and spatial planning, building form, structural and building services strategies, outline specifications, preliminary cost budgets including relevant project strategies which support or influence the design programme and the ability to comply with BREEAM requirements as the project progresses. Activities can include: maintenance and operational strategy, handover strategies, carrying out risk assessments, reviewing the project programme, considering construction logistics to ensure efficiency, developing health and safety strategy, undertaking any third party consultations as required, and any research and development aspects. The meeting minutes must cover fundamental decisions that have influenced or affected the building's proposed design and its construction. Evidence Requirements - Design Team • Meeting minutes covering fundamental decisions that have influenced or affected the building's proposed design and its construction. • Meeting minutes must include the names of the stakeholders and their roles and responsibilities and cover the activities listed above and those listed in the Guidance Note. • Emails, containing information with regards to how the project stakeholders contributions and consultation process have influenced the projects design i.e. moving the car park for easy access, diverting a footpath to make access for pedestrians safer etc.				
2	Stakeholder consultation (interested parties)	1	1	0	Interested parties are defined as actual building users, facilities management staff responsible for the day to day operation of the building and grounds, the representative consultation group from the existing community, existing partnerships and networks that have knowledge of working on, existing buildings of the same type, again. Prior to the end of Stage 4, all consultees must receive consultation feedback. The interested parties must meet to discuss: 1. Functionality, build quality and impact (including aesthetics). 2. Provision of appropriate internal and external facilities (for building occupants and visitors or users). 3. Management and operational implications. 4. Maintenance resources implications.				

					 5. Impacts on the local community, e.g. local traffic or transportation impact. 6. Compliance with statutory (national or local) consultation requirements. 7. Energy use and sustainability measures. 8. Implementing principles and processes that deliver an inclusive and accessible design. This credit can be targeted on the basis of the consultation activities carried out to date. (Consultation with two local parishes, scouts, and tenant/ building user advisors (Carter Jonas and Bidwell). The required consultation content was covered within minuted discussions and advisory reports). Evidence Requirements - Design Team As Man 01
3	BREEAM AP (concept design)	1	0	0	Not targeted
4	BREEAM AP (developed design)	1	0	0	Not targeted
Man 02 -	Life cycle cost and service	e planning	w.		
	Credit	Available	Current	Potential	Comments
1	Elemental LCC	2	0	0	Carry out an outline, entire asset LCC plan at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865: 2008. Evidence Requirements - QS/LCA Consultant Copy of the Cost Plan report with breakdown of proposed material costs.
2	Component level LCC options appraisal	1	0	0	Not targeted Develop a component level LCC options appraisal by the end of Process Stage 4 (equivalent to Technical Design RIBA Stage 4) in line with PD 156865: 2008. The component level LCC includes (where present): 1. Envelope, e.g. cladding, windows, or roofing 2. Services, e.g. heat source cooling source, or controls 3. Finishes, e.g. walls, floors or ceilings 4. External spaces, e.g. alternative hard landscaping, boundary protection.

f		T	T .		
					Evidence Requirements QS/LCA Consultant
					Evidence Requirements devices a constitution
					Copy of the component level appraisal
3	Capital cost reporting	1	1	0	The capital cost for the building in pounds per square metre of gross internal floor area (£k/m²)
					Evidence Requirements - QS/LCA Consultant
					Provide the capital cost figure
Man 03 -	Responsible construction	n practices			7 TOTAL THE SEPTIME COST HIGHER
	Credit	Available	Current	Potential	Comments
Pre-req	Prerequisite - Legally				Pre-requisite
1	harvested and traded				All timber and timber-based products used during the construction process of the project are 'legally
	timber				harvested and traded timber'
					Evidence Requirements - Client
					Commitment letter ensuring that the timber suppliers hold the appropriate FSC/PEFC
					certification. This should form part of the Employers Requirements for BREEAM.
1	Environmental	1	0	0	Not targeted
	management				All parties who at any stage manage the construction site (e.g. the principal contractor, the demolition
					contractor) operate an EMS covering their main operations. The EMS must be third party certified, to
					ISO 14001: 2015, EMAS (EU Eco-Management and Audit Scheme) or equivalent standard.
					All parties must implement best practice pollution prevention policies and procedures on-site in
					accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines.
					Evidence Requirements - Contractor/s
					Copy of the relevant contractors EMS and Pollution Prevention Policies
					Copy of the relevant contractors Livis and Foliution Frevention Folicies
					Appointed contractor (Hawkins Group) does not have ISO 14001 certification.
2	BREEAM AP (site)	1	0	1	Appoint a BREEAM AP to work with the project team, including the client, to consider the links between
					BREEAM issues and assist them in achieving and if possible going beyond the design intent, to maximise the projects performance against the agreed performance targets throughout the
					Construction, Handover and Close Out stages.
3	Responsible	2	2	0	The contractor must achieve the following mandatory items:
	construction				
	management				Manage the construction site entrance to minimise the impacts (e.g. safety, disruption) arising from vehicles approaching and leaving the development footprint.
					moni venicies approaching and leaving the development lootpinit.

					 Minimise the risks of air, land and water pollution. Practices ensure the development footprint is safe, clean and organised at all times. This includes, but is not limited to, facilities, materials and waste storage. Ensure clear and safe access in and around the buildings at the point of handover. Provide processes and equipment required to respond to medical emergencies. Establish management practices and facilities encouraging equality, fair treatment and respect of all site operatives. Ensure on-going training is provided, and up to date, for personnel and visitors The principal contractor ensures that site operatives are trained for the tasks they are undertaking (including any site-specific considerations). All visitor, workforce and community accidents, incidents and near misses are recorded and action is taken to reduce the likelihood of them reoccurring. Please note that the Considerate Constructors Scheme will not cover the above issues where only one credit is sought (a score below 35) therefore the contractor will have to provide evidence on how each of the items listed above have been achieved on site. Where the Considerate Constructors Scheme certificate is sought on site 2 credits can be awarded provided a score of 35 (or more) is achieved with at least a score of 7 in each of the 5 sections. Please note that item 'g' - Ensure clear and safe access in and around the building at the point of handover is not covered by the CCS. Photos will need to be taken during handover. Evidence Requirements - Contractor Commitment letter from client that the contractor will meet the above requirements
4	Monitoring of construction site impacts	2	2	0	One person from the principal contractor's organisation; such as the site foreman, manager or logistics manager must be responsible for monitoring, recording and reporting energy use, water consumption and transportation data resulting from all on-site construction processes (and dedicated off-site manufacturing) throughout the build programme. Targets must be set for the site energy consumption in kWh and Water in m³ Evidence Requirements - Contractor A letter of commitment, indicating that the contractor will keep: • Records to show the energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation and the total carbon dioxide emissions (kgCO ₂ /project value). • Records to show the water consumption in m³ as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. • Records to show distance travelled to site for material delivery and waste removal

e1	Responsible construction management	1	1	0	The exemplary level requires all of the items listed in Table 4.1 to be achieved (19 in total) the only ltems not covered by CCS when achieving a score of 35 are items G, P & Q
					Evidence Requirements - Contractor
					A letter of commitment, indicating that the contractor will:
					 (g) Ensure clear and safe access in and around building at the point of handover (p) Ensure the fleet operator(s) undertake driver training and awareness to promote safety within the development footprint and off-site. (q) Ensure the fleet operator(s) captures and investigates any road incidents and near misses and reports them back to the principal contractor. The principal contractor analyses these items.
Man 04	- Commissioning and han	dover			
	Credit	Available	Current	Potential	Comments
Pre-req	Prerequisite (Very Good to Outstanding)				MANDATORY
					1. Commissioning test schedule and responsibilities2. Building User Guides
3	Testing and inspecting building fabric	1	0	0	Not targeted
					The requirements of this issue, requires air tightness testing (as set out in the Approved Document) and also thermographic surveys to quality-assure the integrity of the building fabric. This includes continuity of insulation, avoidance of thermal bridging and air leakage paths.
					The credit also requires that the main contractor rectifies any defects identified in the thermographic survey prior to building handover.
					This credit is both difficult and costly to achieve and is dependent on timing and also requires the main contractor to rectify any defects identified in the thermographic survey prior to building handover.
	- Marie	15	7	1	Standard Management Credit Total
		1	1	0	Exemplary Management Credit Total
			6.60	0.80	% Management Total (Standard + Exemplary)
Health	& Wellbeing	ili.	A .	00	
	- Visual comfort				
	Credit	Available	Current	Potential	Comments
2	Daylighting (building type dependent)	2	0	2	All occupied spaces to achieve an average daylight factor of 2% (80% minimum area (m²) to apply).
	parii 60				Calculations will need to be undertaken to ascertain whether these credits can potentially be achievable.

					Evidence Requirements - Daylight Consultant Daylight Report and Daylight Factor Ranges,
3	View out	1	1	0	95% of the floor area in the office must provide an adequate view out. This requires 95% of the floor area to be within 8m of an external wall that has a window opening with a view out. The area of the relevant windows must be greater than or equal to 20% of the surrounding wall.
					Where the room depth is greater than 8m, compliance is only possible where the % of window/opening is ≥ the values in table 1.0 of BS 8206.
					Permanent workstations, desks, receptions, anywhere a building user will be located for a significant amount of time (e.g. more than 30 mins) whilst carrying out work, should be located within these compliant areas.
					The view out should be visible from a seated position unless a person would be expected to be standing at a work station.
					Evidence Requirements - Architect
					 Design drawings showing room depth and permanent work stations. (position of desks can be assumed for these purposes) Design drawings showing window sizes and location. Window area calculations carried out by a design team member
					, c
4	Internal and external lighting levels, zoning and control	1	1	0	All <u>external</u> lighting located within the construction zone is specified in accordance with BS 5489-1:2013 Code for the practice for the design of road lighting. Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places.
					External lighting should provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night.
					Evidence Requirements - Electrical Engineer
					 Electrical Spec covering BREEAM requirements M&E drawings showing the location of external lighting.
e1	Daylighting (building type dependent)	1	0	0	Not targeted
	, ,				Exemplary Level Criteria - Daylighting credit This credit is rarely achieved, and should not be relied upon to achieve the required 'Very Good' rating.

Hea 05	- Acoustic performance				
	Credit	Available	Current	Potential	Comments
1 1		Available 1	Current 1	Potential	Comments The basic built form has a large impact on the acoustic performance of the building and a suitably qualified acoustician (SQA) must carry out a quantifiable assessment of the specification of the build form, construction and any external factors likely to affect the indoor ambient noise levels. The SQA must then confirm the developer's works will enable a future tenant utilising a typical fit-out and specification to meet the levels required to demonstrate compliance. The building meets the appropriate acoustic performance standards and testing requirements defined below.; Indoor ambient noise level Achieve indoor ambient noise levels that comply with the design ranges given in Section 7 of BS 8233:2014. A programme of pre-completion acoustic testing must be carried out by a compliant test body. OR A suitably qualified acoustician (SQA) is appointed to define a bespoke set of performance requirements for all function areas in the building. The bespoke performance requirements use the three acoustic principles of sound insulation, indoor ambient noise levels and room acoustics. A programme of pre-completion acoustic testing must be carried out by the acoustician in order for the credits to be achieved. Where a programme of pre-completion testing identifies that spaces do not meet the standards, remedial works must be carried out. The remedial works should occur prior to handover and occupation and the spaces re-tested to ensure compliance. Remedial works must be carried out to all affected and potentially affected areas, including rooms or spaces of a similar construction and performance requirement that we restrict and include the relevant pass or fail criteria
					Evidence Requirements - Acoustician
					Acousticians report
Hea 06	- Security				
	Credit	Available	Current	Potential	Comments
1	Security of site and building	1	0	0	Not targeted
					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) to identify attributes