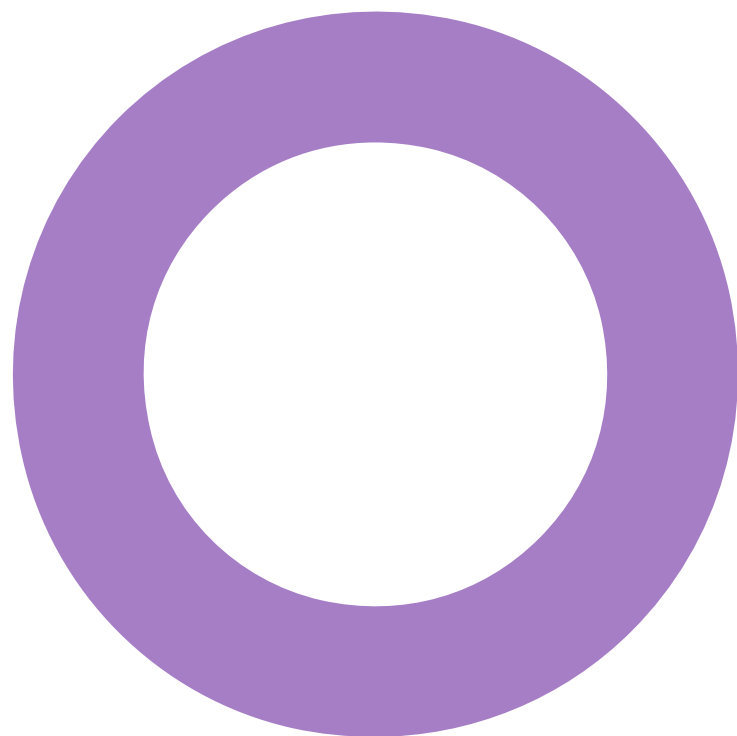


Guild Living Epsom. Epsom. Guild Living.

SUSTAINABILITY

BREEAM UK NEW CONSTRUCTION 2018 PRE-ASSESSMENT REPORT
APPROACH TO RETAIL, AND OTHER BUILDING TYPE (NURSERY) AREAS FOR GUILD LIVING EPSOM.
REVISION 0 - 20 DECEMBER 2019



Audit Sheet.

Rev.	Date	Description	Prepared	Verified
0	20/12/2019	Issue for Planning	AB	RC/GB

This document has been prepared for Guild Living only and solely for the purposes expressly defined herein. We owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law. The consequences of climate change and the effects of future changes in climatic conditions cannot be accurately predicted. This report has been based solely on the specific design assumptions and criteria stated herein.

BREEAM Audit box.

Assessment	Retail: Shell Only Other Building Types (Nursery): Shell Only
BRE registration number	Retail: BREEAM-0080-4120 Other Building Types Nursery: BREEAM-0080-4146
Licensed assessor	Alexandra Bryant
Assessor support	N/A
BREEAM scheme	BREEAM UK New Construction 2018.
BREEAM scheme version	Issue 3.0
Assessment Stage	Pre-Assessment

BREEAM Credit filtering box.

Building type and sub-group	Retail Other Building Types (Nursery)
Building floor area	Retail: TBC Other Building Types Nursery: TBC
Building services (heating)	Other type of heating system - to be installed by tenant.
Building services (cooling)	Other type of heating system - to be installed by tenant.
Building services (DHW system)	Direct Electric/Hot water cylinders - to be installed by tenant.
Building services (controls)	Standard times/controls
Commercial cold storage systems	N/A
Laboratory (type, area and size)	N/A
Laboratory containment level	N/A
Fume cupboards / containment devices	N/A
Unregulated water uses	Yes (Irrigation - TBC)

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1. Executive Summary.

This report provides an outline approach to the BREEAM 2018 New Construction (NC) Pre-Assessment strategy for the proposed commercial areas included in the Guild Living Epsom development. Upon initial review the proposed development is anticipated to include two main components: (1) Retail space, and (2) Other Building Type (OBT) areas - Nursery.

In order to demonstrate compliance with Epsom Ewell Borough Council, Core Strategy (2007) Policy CS6 and Guild Living Brand Standards, this Pre-Assessment will outline a route for each of the proposed areas to achieve 'BREEAM 'Very Good' (min. 55%)', with an aspiration for BREEAM 'Excellent' where feasible.

The current anticipated baseline score for the proposed Guild Living Epsom, Retail and Nursery areas are as follows:

- Retail - Baseline score / rating: 64.74% (BREEAM 'Very Good'); and
- Other building type (Nursery) - Baseline score / rating: 64.74% (BREEAM 'Very Good').

All assessments are currently exceeding the minimum requirements for BREEAM 'Very Good' rating by X-X%. We recommend a margin of at least 5%-7% is recommended to be attained above the minimum required score at this stage in order to secure the target rating, as well as consider potential design changes and constraints identified during the construction stage.

Figure 1 summarises a visual representation of the current anticipated 'baseline' scores for each assessment, relative to the minimum required score for each BREEAM rating threshold.

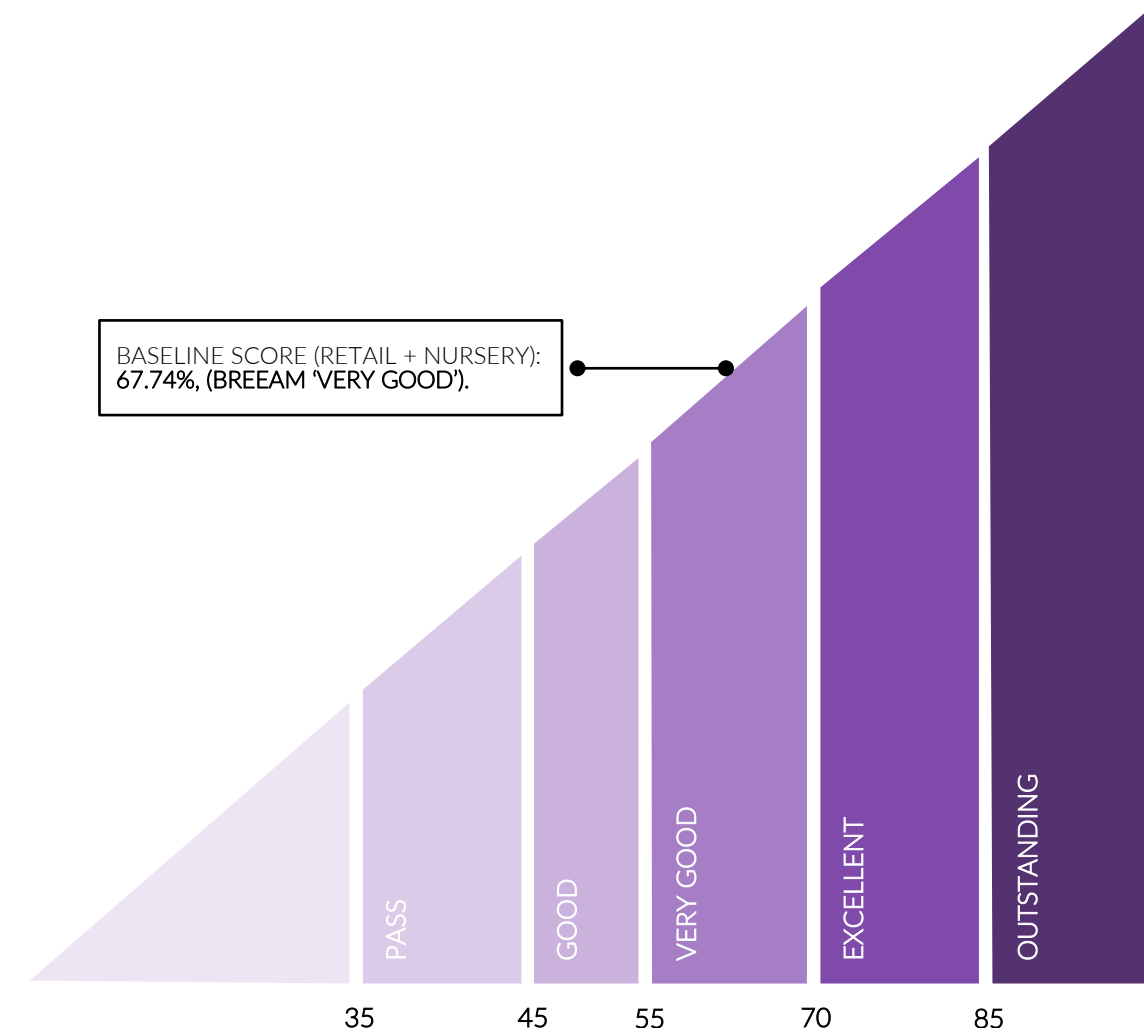


Figure 1: BREEAM 2018 Scale and Anticipated Performance Scores.

2. Assessment Details.

2.1 Introduction

This report provides an outline approach to the BREEAM 2018 New Construction Pre-Assessment strategy for the proposed commercial areas included in the Guild Living Epsom development

2.2 Assessment Type

Two BREEAM UK New Construction (NC) 2018 assessments are currently required for the proposed development. These assessments include:

- Retail: BREEAM UK NC 2018 Shell Only assessment; and
- Other building type (Nursery) BREEAM UK NC 2018 Shell Only assessment.

Figure 2 below identifies the alignment with MEP level of fit out and the BREEAM Assessment methodologies being completed.

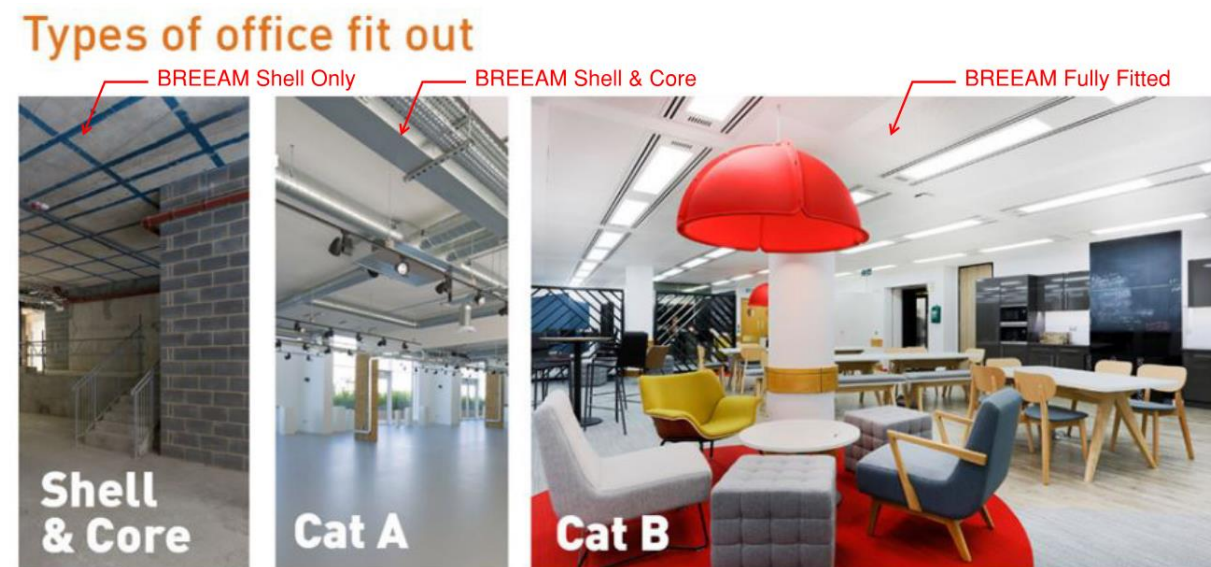


Figure 2 BREEAM Assessment Type Definitions

2.3 Assessment Rating

In line with Epsom Ewell Borough Council, Core Strategy (2007) Policy CS6 and Guild Living Brand Standards, the retail and nursery areas will be designed to achieve a BREEAM UK New Construction (NC) 2018 'Very Good' rating (55%+) with an aspiration for 'Excellent' where feasible.

2.4 Pre-Assessment

Two initial Pre-Assessment strategies were undertaken by an independently qualified BREEAM Assessor prior to review by the design team. The strategies set out a route to achieving BREEAM 'Very Good' (55%+), as well as highlighted the key stages evidence was to be received by, additional appointments, and the design team members responsible for each credit issue.

Credits currently included in the credit score have been reviewed by the design team, and each team member is expected to provide feedback regarding credits under their responsibility, identifying any relevant issues. Once comments have been raised by the project team, the report and the predicted scores will be updated.

The following predicted scores were calculated based upon experience with similar buildings and Hoare Lea's current understanding of the proposed development:

- Retail - Baseline score / rating: 64.74% (BREEAM 'Very Good'); and
- Other building type (Nursery) - Baseline score / rating: 64.74% (BREEAM 'Very Good').

All mandatory and minimum standards for the BREEAM 'Very Good' rating have been incorporated within the assessment strategy for the targeted baseline score.

3. Project Team Members.

Discipline	Organisation
Developer/Client	Guild Living
Project Manager	Cast Consultancy
Quantity Surveyor Team/Cost Consultant	Cast Consultancy
Architect	Marchese Partners
Principle Designer	Orsa
Building Services Consultant	Hoare Lea LLP
Civils / Drainage / Structural Consultant	Hydrock
Vertical Transportation Consultant	TBC
Security Consultant	TBC
Daylighting and Glare Control Consultant	Avison Young
Air Quality Consultant	TBC
Energy Assessor (Part L)	Hoare Lea LLP
Landscape Architect	TBC
Ecologist	Arup
Acoustician	Hoare Lea LLP
Planning Consultant	QED
Transport Consultant	Mayer Browne

4. Summary Score Sheet.

The summary table below highlights the list of targeted credits for the current BREEAM UK NC 2018 Pre-Assessment. Mandatory credits to achieve a 'Very Good' rating and above are highlighted by **(M)**. Additional mandatory credits for an 'Excellent' or 'Outstanding' rating is highlighted by **(Me)** and **(Mo)** respectively. Exemplary (innovation) credits are written in brackets, e.g. (+1).

Table 1: BREEAM Target Summary.

Category	Issue	Retail Shell Only		OBT Nursery Shell Only	
		Available	Targeted	Available	Targeted
Management	Man 01: Project brief and design	4	2	4	2
	Man 02: Lifecycle cost and service life planning	4	4	4	4
	Man 03: Responsible construction practices (Me), (Mo)	6	6	6	6
	Man 04: Commissioning and handover (Me), (Mo)	1	1	1	1
	Man 05: Aftercare (Me), (Mo)	N/A	N/A	N/A	N/A
Health & Wellbeing	Hea 01: Visual comfort	4	3	4	3
	Hea 02: Indoor air quality	N/A	N/A	N/A	N/A
	Hea 04: Thermal comfort	N/A	N/A	N/A	N/A
	Hea 05: Acoustic performance	1	1	1	1
	Hea 06: Safety	1	1	1	1
	Hea 07 Safe and healthy surroundings	2	1	2	1
Energy	Ene 01: Reduction of energy use and CO ₂ emissions (Me) (Mo)	9	0	9	0
	Ene 02: Energy monitoring (M) (Me) (Mo)	N/A	N/A	N/A	N/A
	Ene 03: External lighting	1	1	1	1
	Ene 04: Low carbon design	3	0	3	0
	Ene 05: Energy efficient cold storage	N/A	N/A	N/A	N/A
	Ene 06: Energy efficient transportation systems	N/A	N/A	N/A	N/A
	Ene 07 Energy efficient laboratory systems	N/A	N/A	N/A	N/A
	Ene 08: Energy efficient equipment	N/A	N/A	N/A	N/A
Transport	Tra 01: Transport assessment and travel plan	2	2	2	2
	Tra 02: Sustainable transport measures	10	5	10	5
Water	Wat 01: Water consumption (M) (Me) (Mo)	N/A	N/A	N/A	N/A
	Wat 02: Water monitoring (M) (Me) (Mo)	1	1	1	1

Category	Issue	Retail Shell Only		OBT Nursery Shell Only	
		Available	Targeted	Available	Targeted
	Wat 03: Water leak detection and prevention	1	1	1	1
	Wat 04: Water efficient equipment	1	1	1	1
Materials	Mat 01: Environmental impacts from construction products - Building life cycle assessment	7	2	7	2
	Mat 02: Environmental impacts from construction products	1	1	1	1
	Mat 03: Responsible sourcing of materials (M) (Me) (Mo)	4	2	4	2
	Mat 05: Designing for durability and resilience	1	1	1	1
	Mat 06: Material efficiency	1	0	1	0
Waste	Wst 01: Construction waste management (Mo)	5	4	5	4
	Wst 02: Use of recycled and sustainably sourced aggregates	1	0	1	0
	Wst 03: Operational waste (Me), (Mo)	1	1	1	1
	Wst 04 Speculative floor and ceiling finishes	N/A	N/A	N/A	N/A
	Wst 05: Adaptation to climate change	1	1	1	1
	Wst 06: Design for disassembly and adaptability	2	2	2	2
Land Use and Ecology	LE 01: Site selection	2	1	2	1
	LE 02: Identifying and understanding the risks and opportunities for the project	2	2	2	2
	LE 03: Managing negative impacts on ecology	3	3	3	3
	LE 04: Change and enhancement of ecological value	4	3	4	3
	LE 05: Long term ecology management and maintenance	2	2	2	2
Pollution	Pol 01: Impact of refrigerants	N/A	N/A	N/A	N/A
	Pol 02: Local air quality	N/A	N/A	N/A	N/A
	Pol 03: Flood and surface water management	5	4	5	4
	Pol 04: Reduction of night time light pollution	1	1	1	1
	Pol 05: Reduction of noise pollution	N/A	N/A	N/A	N/A

Category	Issue	Retail Shell Only		OBT Nursery Shell Only	
		Available	Targeted	Available	Targeted
Innovation	Inn 01: Approved Innovation and Exemplary Level Credits	10	1	10	1
Totals	Targeted weighted score:	64.70%		64.70%	
	Targeted weighted Rating	BREEAM Very Good (55%>)			

5. Early Action Credits.

Under the BREEAM Assessment, there are a number of credits that are time critical and require early action by the design team in order for the credits to be achieved. For these credits, the actions required prior to end of RIBA Stages 1 and 2.

It is advised the Design Team fully to review the actions required in Tables 2 and Table 3 below to understand the required evidence needed to be demonstrated prior to the completion of RIBA Stages 1 and 2.

Table 2: BREEAM NC 2018 RIBA Stage 1 Evidence Requirements

Credit Issues	RIBA Stage 1 Actions	Owner	Comment
LE 02 Ecological risks and opportunities	<p>A Suitably Qualified Ecologist (SQE) carries out a survey and evaluation (see Methodology) for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions.</p> <p>The SQE's survey and evaluation determines the site's ecological baseline (see Definitions), including:</p> <ul style="list-style-type: none"> Current and potential ecological value and condition of the site and related areas within the Zone of Influence. Direct and indirect risks to current ecological value from the project. Capacity and feasibility for enhancement of the site's ecological value and, where relevant, areas within the Zone of Influence. 	Arup	Arup are providing Ecological Impact Assessment to support the planning application, with a Preliminary Ecological Appraisal and Bat Report appended

Table 3 BREEAM NC 2018 RIBA Stage 2 Evidence Requirements

Credit Issues	RIBA Stage 2 Actions	Owner	Comment
Man 01 Project brief and design	<p>Prior to completion of the Concept Design, the project delivery stakeholders meet to identify and define for each key phase of project delivery: (a) Roles; (b) Responsibilities, and (c) Contributions.</p> <p>The project team demonstrates how the project delivery stakeholders' contributions and the consultation process outcomes influence the following: (a) Initial Project Brief; (b) Project</p>	Guild Living + Cast Consultancy	DAS Report to be provided alongside early stage meeting minutes, and Public Consultation Documents.

Credit Issues	RIBA Stage 2 Actions	Owner	Comment
	<p>Execution Plan; (c) Communication Strategy; and (d) Concept Design.</p> <p>Prior to completion of the Concept Design, the design team consult with all interested parties on matters that cover the minimum consultation content.</p> <p>Demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design.</p>		
Man 02: Life cycle costing and service life planning	<p>Stage 2 Elemental Life Cycle Cost analysis is completed in line with 'Standardised method of life cycle costing for construction procurement' PD 156865: 2008(6).</p> <p>The plan informs the client on: (a) Future replacement costs over a period of analysis as required by the client (e.g. 20, 30, 50 or 60 years); and (b) Includes service life, maintenance and operation cost estimates.</p>	Cast Consultancy	Cast Consultancy to provide a fee to complete the work.
Hea 06 Security	Appoint a Suitability Qualified Security Specialist (SQSS) to conduct a Security Needs Assessment (SNA).	TBC	Security Needs Assessment to be completed ASAP.
Tra 01 Transport assessment and travel plan	A site-specific transport assessment AND draft travel plan, are provided demonstrating full compliance with Tra 01 issue.	Mayer Browne	Mayer Browne have confirmed they will be providing a Transport Assessment to comply with BREEAM criteria.
Wst 01 Construction waste management	<p>Complete a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for Demolition*.</p> <p>*If Demolition is not taking place at RIBA Stage 2 this documentation can be accepted at a later stage.</p>	Demolition Contractor	Demolition is not required to take place until after Stage 3. Requirement will be captured within Demolition Specification for Contractor.
Wst 05 Adaptation to climate change	Conduct a climate change adaptation strategy appraisal. The assessment covers the installation of building services and renewable systems, as well as structural and fabric resilience aspects.	Marchese Partners + Hydrock + Hoare Lea LLP	Wst 05 Proforma document to be completed and supporting drawings to be provided.
Wst 06 Design for disassembly and adaptability	<p>Conduct a study to explore the ease of disassembly and the functional adaptation potential of different design Scenarios.</p> <p>Develop recommendations or solutions based on the study during or prior to Concept Design, that aim to enable and facilitate disassembly and functional adaptation.</p>	Marchese Partners + Hydrock + Hoare Lea LLP	Wst 06 Proforma document to be completed and supporting drawings to be provided.

Credit Issues	RIBA Stage 2 Actions	Owner	Comment
LE 02 Ecological risks and opportunities	The project team liaise and collaborate with representative stakeholders early enough to influence key planning decisions to: (a) Identify the optimal ecological outcomes for the site; and (b) Identify, appraise and select measures to meet the optimal ecological outcomes for the site in line with the mitigation hierarchy of action, according to the route being used.	Arup	Arup to provide a fee in order to undertake BREEAM Ecology Report and 5-year Landscape and Habitat Management plan.
LE 03 Managing impacts on ecology	Further planning to avoid and manage negative ecological impacts on-site is carried out early enough to influence the concept design and design brief as well as site preparation planning.		

6. Conclusion.

Based upon an initial credit review, it is anticipated that the assessed areas can achieve a targeted score well within the BREEAM 'Very Good' (55%+) benchmark rating. Currently the targeted scores for each assessment are as follows:

- Retail - Baseline score / rating: 64.74% (BREEAM 'Very Good'); and
- Other building type (Nursery) - Baseline score / rating: 64.74% (BREEAM 'Very Good').

Following from this Pre-Assessment issue it is advised all early stage credits are fully reviewed and actioned as soon as possible in order to secure the strategy moving forward.

Figures 3 and 4 below provide a visual representation for the scores targeted and unachievable credit scores currently identified for each assessment.

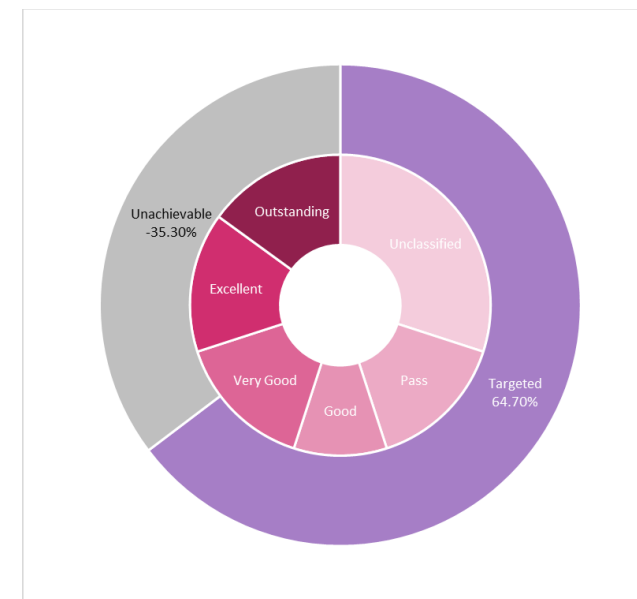


Figure 3 BREEAM Performance Summary and Targeted Credits: Retail and Nursery assessment.

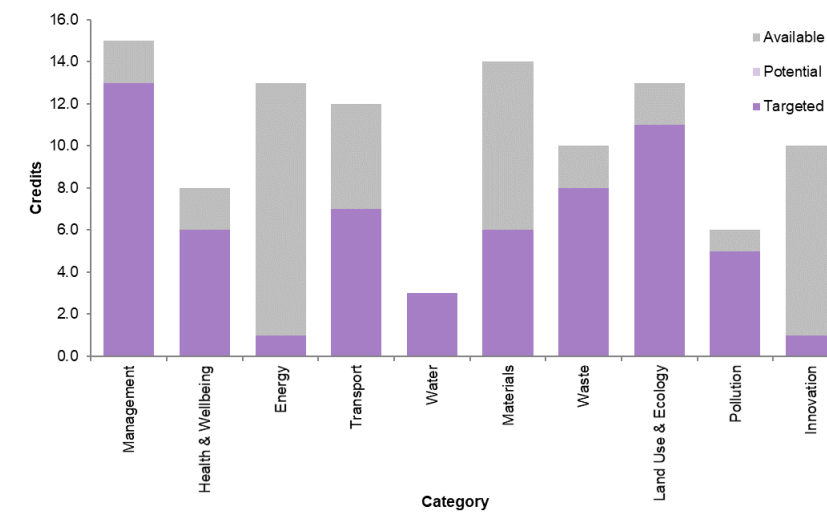


Figure 4 BREEAM Performance Summary and Targeted Credits: Retail and Nursery assessment. Bar representation.



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