



BREEAM Domestic Refurbishment Pre-Assessment Report

Proposed Residential Conversion - 53-55 Argyle Road, Reading.

7th April 2022

ENVIRONMENTAL AND
SUSTAINABILITY CONSULTANTS

Document Control

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1 Executive Summary

Encon Associates Limited have been appointed by AB Construction and Development Ltd to undertake a BREEAM Domestic Refurbishment Pre-Assessment to evaluate the proposed residential conversion at 53-55 Argyle Rd, Reading against the BREEAM Domestic Refurbishment methodology. The project consists of an existing building to be converted to 10 No dwellings.

This BREEAM Domestic Refurbishment Pre-Assessment report has been undertaken based on a full BREEAM Pre-Assessment webinar meeting completed by Glenn Miles of Encon Associates Limited who is a qualified and licensed BREEAM assessor on the 20th Sept 2022.

This BREEAM Domestic Refurbishment Pre-Assessment report highlights that the proposed development could meet a BREEAM **Excellent Level of 72.86%** if the scheme were to be formally assessed against the BREEAM Domestic Refurbishment methodology.

2 Introduction

This BREEAM Domestic Refurbishment Pre-Assessment report summarises the buildings performance against the BREEAM Domestic Refurbishment methodology to establish its BREEAM rating in line with planning requirements in support of a full planning application.

The BREEAM Domestic Refurbishment scheme is a performance based assessment method and certification scheme for refurbished buildings. The primary aim of BREEAM is to mitigate the life cycle impacts of refurbished buildings on the environment in a robust and cost effective manner. This is achieved through integration and use of the scheme by clients and their project teams at key stages in the design and construction process. This enables the client, through the BREEAM Assessor and the BRE Global certification process, to measure, evaluate and reflect the performance of their building against best practice in an independent and robust manner. This performance is quantified by a number of individual measures and associated criteria stretching across a range of nine environmental issues which is ultimately expressed as a single certified BREEAM rating.

A pre-assessment exercise was conducted based on information provided at a webinar meeting held on the 20th September 2022. The attendees of this meeting are listed below:

- Sunil Mehan/Rammurti Design Ltd
- Glenn Miles/Encon Associates

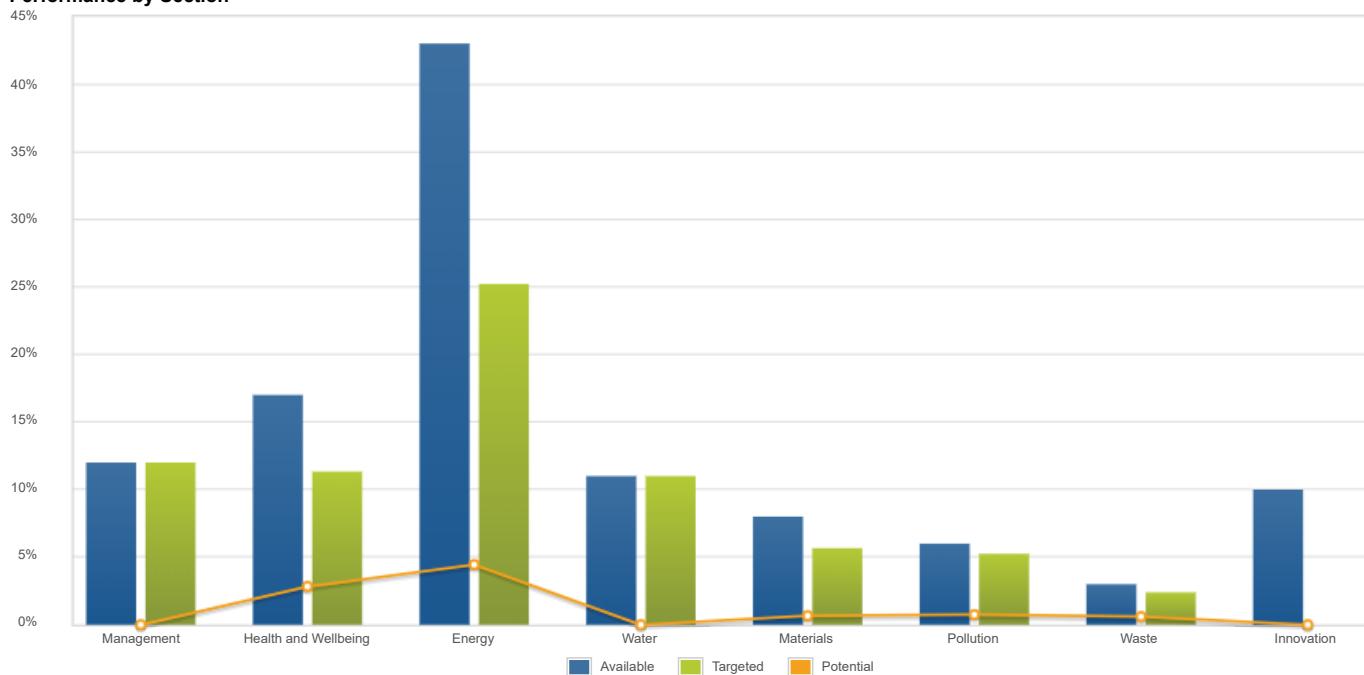
3 Pre-Assessment Results Summary

Section Summary

Project:	A5718 - 53-55 Argyle Road
Report:	Pre-Assessment Stage
Design Target:	Excellent - 72.86%
Potential Rating:	Excellent - 82.16%

Section	Available		Targeted		Potential	
	Credits	Percent	Credits	Percent	Credits	Percent
Management	11	12%	11	12%	0	0%
Health and Wellbeing	12	17%	8	11.33%	2	2.83%
Energy	29	43%	17	25.21%	3	4.45%
Water	5	11%	5	11%	0	0%
Materials	48	8%	34	5.67%	4	0.67%
Pollution	8	6%	7	5.25%	1	0.75%
Waste	5	3%	4	2.4%	1	0.6%
Innovation	10	10%	0	0%	0	0%
Total	128	110.00%	86	72.86%	11	9.30%

Performance by Section



4 Pre-Assessment Results Criteria Summary

Criteria Summary

Project:	A5718 - 53-55 Argyle Road
Report:	Pre-Assessment Stage
Design Target:	Excellent - 72.86%
Potential Rating:	Excellent - 82.16%

Management	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Man 01: Home Users Guide	Three credits 1. Provision of a home users guide: Where a Home User Guide containing the information listed in the 'User Guide Contents List' has been produced and supplied to all homes.	3	3.27%	3	3.27%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Three credits targeted - Home user guide to be completed in line with BREEAM requirements.

Management	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Man 02: Responsible Construction Practices	For this issue large scale projects and small scale projects are assessed under different criteria. Up to 2 credits may be awarded with an innovation credit available for exemplary performance as follows: Two Credits - Large Scale Projects Where either option 1 or 2 is adopted as follows: 1. Option 1 - Where the principal contractor has used the Considerate Constructors Scheme (CCS) as detailed in CN1. Credits are awarded depending on the CCS Code of Considerate Practice score achieved, as outlined in Table - 10 2. Option 2 - Where the principal contractor has used a compliant alternative scheme as detailed in CN4. Credits are awarded on the level of compliance with the alternative compliant scheme, as outlined in Table - 10 Two Credits - Small Scale Projects 3. Where the requirements of criterion 1 or 2 has been met OR 4. Where the principle contractor addresses all mandatory items in Checklist A-3; Small Scale Refurbishment: Responsible Construction Practices, credits are as follows: a. Where 50% optional items in Checklist A-3; Small Scale Refurbishment: Responsible Construction Practices, have been addressed, one credit can be awarded b. Where 80% optional items in Checklist A-3; Small Scale Refurbishment: Responsible Construction Practices, have been addressed, two credits can be awarded. Exemplary Credit Requirements Where either option 1 or 2 (Table 4-1) is adopted as follows: 5. Option 1 - Where the principle contractor has been certified under the Considerate Constructors Scheme (CCS) and reaches the level required for the innovation credit. 6. Option 2—Where the principal contractor has used an alternative scheme which addresses all of the items(optional and mandatory) on the relevant checklist (Checklist A-2;Organisational, local or national Considerate Constructor scheme requirements:guidance for scheme administrators for large-scale or Checklist A-3: Small-scale refurbishment: Responsible construction practices, for small scale).	2	2.18%	2	2.18%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credits targeted - Scheme classed as large Scale based on budgets specified. - Registration with CCS and achieve a score of 35+ with a score of seven in each section required. Contractor responsibility.

Management	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Man 03: Construction Site Impacts	For this issue large and small scale projects are assessed under different criteria. Up to one credit may be awarded for this issue as follows: One Credit - Large Scale Projects 1. Where there is evidence to demonstrate that 2 or more of the sections a-e in Checklist A-4: Large-scale refurbishments are completed One credit - Small Scale Projects 2. Where there is evidence to demonstrate that 2 or more of the sections a-d in Checklist A-5: Small-scale refurbishments Construction site impacts are completed	1	1.09%	1	1.09%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Credit targeted • Scheme classed as large Scale • All timber to be sourced from suppliers capable of providing FSC/PEFC certification • Full monitoring of Construction site impacts to be undertaken (See Man 03 credits for full details) • Contractor responsibility.
Man 04: Security	Up to two credits may be awarded for this issue as follows: One Credit - secure windows and doors 1. Where retained external doors and accessible windows comply with the minimum security requirements as set out in CN6 2. Where the following newly added features are appropriately certified: a. External door sets b. Windows Two Credits - Secured by design 3. Where the principles and guidance of Secured by Design Section 2 – Physical Security are complied with. 4. A suitably qualified security consultant such as the Police Architectural Liaison Officer (ALO) or Crime prevention design advisor (CPDA) is consulted at the design stage and their recommendations are incorporated into the refurbishment specification.	2	2.18%	2	2.18%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Two credits targeted. • Minimum standard windows and doors to be installed in line with BREEAM requirements CN6. • Individual alarms will be installed for each property. • Sunil Mehan advised that a Secured by Design or a Security Needs Assessment will be undertaken. • Encon Associates to provide Security Needs Assessment proposals.

Management	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Man 05: Protection and Enhancement of Ecological Features	One Credit - Protecting ecological features 1. Where a site survey is carried out by a member of the project team or a Suitably Qualified Ecologist (SQE) to determine the presence of ecological features. 2. Where protected species have been identified as present on site, the relevant Statutory Nature Conservation Organisation (SNCO) has been notified and protected species have been adequately protected 3. Where all existing features of ecological value (including any of those listed in CN1) on the refurbishment site potentially affected by the works, are maintained and adequately protected during refurbishment works. Exemplary performance requirements – ecological enhancement The following outlines the exemplary level criteria to achieve an innovation credit for this BREEAM issue: 4. Where a Suitably Qualified Ecologist has been appointed to recommend appropriate ecological features that will positively enhance the ecology of the site and where the developer adopts all general ecological recommendations and 30% of additional recommendations.	1	1.09%	1	1.09%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Credit targeted. - It was advised that a review of ecology will be undertaken by a member of the project team OR suitably Qualified Ecologist and all features of ecological value will be suitably protected. - Ecological survey to be completed by the design team prior to works start. Glenn Miles (Encon Associates) to provide proposals for ecological surveying and BREEAM reporting.
Man 06: Project Management	Up to two credits may be awarded for this issue along with the opportunity for an additional two innovation credits as follows: First credit - Project Roles and Responsibilities 1. Where all of the project team are involved in the project decision making and individual and shared roles and responsibilities are assigned in accordance with CN1 and CN2 as follows: a. For small scale projects, the project manager writes a project implementation plan and holds an initiation meeting to assign individual and shared responsibilities amongst the project team including all trades on site: b. For large scale projects, the project manager assigns individual and shared responsibilities across the following key design and refurbishment stages: i. Planning and Building control notification ii. Design iii. Refurbishment iv. Commissioning and handover v. Occupation Second credit - Handover and Aftercare 2. Where a handover meeting is arranged	2	2.18%	2	2.18%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Project at early stages. - It was advised that project team responsibilities will be set at an early stage by the Developer/Client to target the credit, therefore first credit targeted. - Second credit targeted. It was advised that the Developer/Client to ensure handover and aftercare provided in line with BREEAM requirements. - A BREEAM Accredited Professional has not been appointed at this stage, therefore innovation credit marked as potential. - A Thermographic Survey/Air test has not been commissioned as yet, therefore innovation credit marked as potential. Encon Associates can provide proposals for BREEAM AP and Thermographic Surveying if required.

Management	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
	3. Where 2 or more of items a-c have been committed to determine project success: a. A site inspection within 3 months of occupation. b. Conduct post occupancy interviews with building occupants or a survey via phone or posted information within 3 months of occupation. c. Longer term after care e.g. a helpline, nominated individual or other appropriate system to support building users for at least the first 12 months of occupation. Exemplary Credit requirements Up to two innovation credits are available as follows: One credit – Early Design Input 4. Where a BREEAM Accredited Professional (AP) has been appointed to oversee key stages within the project at an early stage, prior to the production of a refurbishment specification. Or 5. for small scale projects where a BREEAM Accredited Professional (AP) or BREEAM Domestic Refurbishment Assessor has been appointed to oversee key stages within the project at an early stage, prior to the production of a refurbishment specification. Note: The appointment of a BREEAM Domestic Refurbishment Assessor early in the project may be the most appropriate option for small scale projects where the appointment of an AP (accredited professional) may not always be feasible. One credit - Thermographic Surveying and Airtightness Testing 6. Where Thermographic surveying and Airtightness testing have been carried out at both pre and post refurbishment stages. 7. Where an improved air tightness target has been set at design stage and testing demonstrates that this has been achieved post refurbishment.							
Management Totals		11	12.00%	11	12.00%	0	0.00%	

Health and Wellbeing	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Hea 01: Daylighting	Up to two credits may be awarded for this issue as follows: First credit - maintaining good daylighting 1. For existing dwellings and change of use projects (e.g. conversions): a. The refurbishment results in a neutral impact on the dwellings daylighting levels in the kitchen, living room, dining room and study with "no" answered for all questions in Checklist A-7: Daylight Factor, parts 1 and 2 (for existing dwellings) or parts 3 and 4 (for change of use e.g. conversions). 2. Where the property is being extended: a. new spaces achieve minimum daylighting levels See Criteria CN1 b. the extension does not significantly reduce daylighting levels in the kitchen, living room, dining room or study of neighbouring properties Second credit - minimum daylighting 3. The dwelling achieves minimum daylighting levels in the kitchen, living room, dining room and study See Criteria CN1	2	2.83%	0	0%	1	1.42%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - To target this credit a daylight simulation would be required to demonstrate the minimum daylight levels. It is understood that this has not been completed to date. - Credit marked as potential until daylight simulation provided. Encon Associates to provide proposals for daylight simulation as requested.

Health and Wellbeing	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Hea 02: Sound Insulation	The following demonstrates compliance (up to four credits may be awarded): Up to four credits are awarded - achieving and going beyond national Regulations Credits are awarded depending on the type of dwelling and whether they are subject to sound testing as follows: Properties where sound testing has been carried out: 1. Where sound testing has been carried out and where the dwelling meets or goes beyond Regulations, up to four credits may be awarded according to the sound insulation credit requirements as shown in Table - 14 and Table - 15. Properties where sound testing is not feasible (see CN4 and CN5) and not required by the appointed Building Control body: 2. Where existing separating walls and floors are designed to meet the requirements of Building Regulations with compliant construction details, two credit can be awarded (CN6). 3. Where a Suitably Qualified Acoustician (SQA) provides recommendations for the specification of all existing separating walls and floors, confirming in their professional opinion that they have the potential to meet or exceed, the sound insulation credit requirements. Where these recommendations are implemented up to four credits may be awarded as shown in Table - 15 and Table 14. Historic Buildings 4. Where the dwelling is a Historic Building and sound testing results demonstrate existing separating walls and floor meet the Historic Building credit requirements, up to four credits may be awarded as shown in Table - 13 and described in CN10. 5. Where criteria 2 and 3 is achieved using Table 13 OR 6. Where the dwelling achieves criterion 1 or 7 or 8. Detached Properties 7. Where the dwelling is a detached property with no separating walls or floors, four credits should be awarded Properties with separating walls or floors only between non habitable rooms 8. Where existing separating walls or floors only occur between non habitable rooms and where testing is not required by the appointed building control body, four credits should be awarded, see CN3.	4	5.67%	4	5.67%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Four credits targeted. Sunil Mehan advised that Part E acoustic testing will be completed in line with the Building Regulations. Sunil Mehan advised that the minimum 4 credit performance levels will be targeted. Encon Associates can provided design stage acoustic advice if required.

Health and Wellbeing	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Hea 03: Volatile Organic Compounds	One credit - avoiding the use of VOCs 1. Where all decorative paints and varnishes used in the refurbishment have met the requirement in Table - 16. 2. Where at least five of the eight remaining product categories listed have met the testing requirements and emission levels for Volatile Organic Compound (VOC) emissions against the relevant standards identified in Table - 16. 3. Where five or less products are specified within the refurbishment, all must meet the requirements in order to achieve this credit.	1	1.42%	1	1.42%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Credit targeted. • Consideration should be made to VOC's when specifying products. • Architect responsible for specification in line with the BREEAM requirements and Contractor to adopt. • All paints should meet the VOC testing requirements.

Health and Wellbeing	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Hea 04: Inclusive Design	The following demonstrates compliance (up to two credits may be awarded): One credit - minimum accessibility 1. An access expert or suitably qualified member of the design team (CN6) has completed section 1 of Checklist A8: Access statement template, accessibility template with evidence provided of the measures implemented in the refurbishment a. The access statement demonstrates reasonable provision to provide accessibility to the dwelling covering section 1 of Checklist A8: Access statement template in accordance with CN3 and CN4. Two credits - advanced accessibility 2. An access expert or suitably qualified member of the design team (CN6) has completed sections 1 and 2 of Checklist A8: Access statement template with evidence provided of the measures implemented in the refurbishment a. The access statement demonstrates reasonable provision to provide accessibility to the dwelling covering sections 1 and 2 of Checklist A8: Access statement template in accordance with CN3 and CN4. Exemplary performance requirements - lifetime homes and Part M The following outlines the exemplary level criteria to achieve an innovation credit for this BREEAM issue: 3. One innovation credit can be awarded where an access expert suitably qualified member of the design team (CN6) has completed sections 1, 2 and 3 of Checklist A8: Access statement template, access statement template with evidence provided of the measures implemented in the refurbishment a. The access statement demonstrates reasonable provision to meet sections 1, 2 and 3 of Checklist A8: Access statement template in accordance with CN3 and CN4.	2	2.83%	0	0%	1	1.42%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Sunil Mehan raised concerns that the credit would be difficult to achieve on the basis that there are raised access for basement and upper ground floors. • One credit marked as potential subject to review by Architect at detailed design stage.

Health and Wellbeing	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Hea 05: Ventilation	One credit - minimum ventilation requirements One credit can be awarded where the following whole dwelling is brought up to the following ventilation requirements: 1. A minimum level of background ventilation is provided (with trickle ventilators or other means of ventilation) for all habitable rooms, kitchens, utility rooms and bathrooms compliant with section 7, Building Regulations Approved Document Part F, 2010 2. A minimum level of extract ventilation is provided in all wet rooms (e.g. kitchen, utility and bathrooms), compliant with section 5, Building Regulations Approved Document Part F 2010. 3. A minimum level of purge ventilation is provided in all habitable rooms and wet rooms, compliant with section 7, Building Regulations Approved Document Part F, 2010. 4. The building is a historic building (CN4) and meets the requirements for Historic Buildings below. Two credits - advanced ventilation Two credits can be awarded where: 5. Ventilation is provided for the dwelling that meets the requirements of Section 5 of Building Regulations Part F in full 6. Where the building is a historic building and meets the requirements for Historic Buildings (CN4).	2	2.83%	2	2.83%	0	0%	BREEAM Pre-Assessment Meeting 20/09/22 • Sunil Mehan advised that minimum ventilation will be completed in line with Building Regulations Part F, therefore first credit targeted. • The second credit is targeted as compliance in full against Building Regulations Part F (Section 5) was also confirmed.
Hea 06: Safety	One credit may be awarded for this issue as follows: One Credit - fire and carbon monoxide (CO) detection and alarm systems Where a compliant fire detection and fire alarm system is provided in accordance with compliance notes 2-8. 1. Where the dwelling is provided with a compliant fire detection and alarm system in accordance with relevant compliance notes 2-9 2. Where the dwelling is supplied with mains gas or where any other form of fossil fuel is used within the building (e.g. coal), a compliant fire and carbon monoxide detector and alarm system is provided in accordance with compliance notes 2-9. 2. Where the project involves electrical re-wiring the power supply for the smoke alarm and compliant carbon monoxide alarm systems are derived from the dwellings main electricity supply in accordance with CN5. Please see CN9 for compliance where properties are undertaking electrical rewiring. 3. Where the project does not involve electrical re-wiring the power supply for the smoke alarm and carbon monoxide alarm systems are derived from a battery supply.	1	1.42%	1	1.42%	0	0%	BREEAM Pre-Assessment Meeting 20/09/22 • Credit targeted. • Sunil Mehan advised that all dwellings will be installed with mains fed fire, CO2 and smoke detectors in line with Building Regulations.

Health and Wellbeing	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Health and Wellbeing Totals		12	17.00%	8	11.33%	2	2.83%	

Energy	Compliance Requirements	Available		Targeted		Potential		Comments																										
		Credits	Percent	Credits	Percent	Credits	Percent																											
Ene 01: Improvement in Energy Efficiency	Up to 6 credits are awarded – improving the dwellings Energy Efficiency Rating (EER) 1. Where the refurbishment results in an improvement to the dwellings Energy Efficiency Rating, in accordance with CN2. Table - 16: EER improvement credit benchmarks. <table><tr><th>Credits</th><th>Improvement in EER</th></tr><tr><td>0.5</td><td>≥5</td></tr><tr><td>1.0</td><td>≥9</td></tr><tr><td>1.5</td><td>≥13</td></tr><tr><td>2.0</td><td>≥17</td></tr><tr><td>2.5</td><td>≥21</td></tr><tr><td>3.0</td><td>≥26</td></tr><tr><td>3.5</td><td>≥31</td></tr><tr><td>4.0</td><td>≥36</td></tr><tr><td>4.5</td><td>≥42</td></tr><tr><td>5.0</td><td>≥48</td></tr><tr><td>5.5</td><td>≥54</td></tr><tr><td>6.0</td><td>≥60</td></tr></table>	Credits	Improvement in EER	0.5	≥5	1.0	≥9	1.5	≥13	2.0	≥17	2.5	≥21	3.0	≥26	3.5	≥31	4.0	≥36	4.5	≥42	5.0	≥48	5.5	≥54	6.0	≥60	6	8.9%	3	4.45%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Early stage energy modelling has not been completed at this stage, therefore reasonable assumptions have been made in the absence of information. • Three credits assumed at this stage. • Glenn Miles (Encon Associates) advised that energy modelling should be completed ASAP to ensure credits targeted can be achieved.
		Credits	Improvement in EER																															
		0.5	≥5																															
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Energy	Compliance Requirements	Available		Targeted		Potential		Comments																											
		Credits	Percent	Credits	Percent	Credits	Percent																												
Ene 02: Energy Efficiency Rating Post Refurbishment	Up to 4 credits are awarded – EER Post Refurbishment 1. Where as a result of refurbishment, the dwelling meets a minimum Energy Efficiency Rating, cred-its can be awarded Table - 18: Minimum EER credit benchmarks. <table><tr><th>Credits</th><th>EER post refurbishment</th><th>Minimum requirements</th></tr><tr><td>0.5</td><td>≥50</td><td>BREEAM Pass level requires a minimum EER of 50</td></tr><tr><td>1</td><td>≥55</td><td>BREEAM Good level requires a minimum EER of 58</td></tr><tr><td>1.5</td><td>≥60</td><td></td></tr><tr><td>2</td><td>≥65</td><td>BREEAM Very Good level requires a minimum EER of 65</td></tr><tr><td>2.5</td><td>≥70</td><td>BREEAM Excellent level requires a minimum EER of 70</td></tr><tr><td>3</td><td>≥75</td><td></td></tr><tr><td>3.5</td><td>≥80</td><td>BREEAM Outstanding level requires a minimum EER of 81</td></tr><tr><td>4</td><td>≥85</td><td></td></tr></table> Exemplary performance requirements The following outlines the exemplary level criteria to achieve an innovation credit for this BREEAM issue: 2. One innovation credit can be awarded where the assessed dwellings achieve an EER post refurbishment of ≥90, equivalent to an Energy Performance Certificate band A 3. Two innovation credits can be awarded where the assessed dwelling achieves an EER post refurbishment of ≥100	Credits	EER post refurbishment	Minimum requirements	0.5	≥50	BREEAM Pass level requires a minimum EER of 50	1	≥55	BREEAM Good level requires a minimum EER of 58	1.5	≥60		2	≥65	BREEAM Very Good level requires a minimum EER of 65	2.5	≥70	BREEAM Excellent level requires a minimum EER of 70	3	≥75		3.5	≥80	BREEAM Outstanding level requires a minimum EER of 81	4	≥85		4	5.93%	2.5	3.71%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Early stage energy modelling has not been completed at this stage, therefore reasonable assumptions have been made in the absence of information. - Two and a half credits assumed at this stage in the basis this is the minimum to hit the BREEAM Excellent target. Glenn Miles (Encon Associates) advised that energy modelling should be completed ASAP to ensure credits targeted can be achieved.
Credits	EER post refurbishment	Minimum requirements																																	
0.5	≥50	BREEAM Pass level requires a minimum EER of 50																																	
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Energy	Compliance Requirements	Available		Targeted		Potential		Comments																														
		Credits	Percent	Credits	Percent	Credits	Percent																															
Ene 03: Primary Energy Demand	One credit 1. Primary Energy Demand Targets. Where as a result of refurbishment the dwelling meets the Primary Energy Demand targets, up to 7 credits may be awarded: Table - 19: Primary Energy Demand Targets. <table><tr><th>Credits</th><th>Primary Energy Demand Post Refurbishment (kWh/m²/year)</th></tr><tr><td>0.5</td><td>≤400</td></tr><tr><td>1.0</td><td>≤370</td></tr><tr><td>1.5</td><td>≤340</td></tr><tr><td>2.0</td><td>≤320</td></tr><tr><td>2.5</td><td>≤300</td></tr><tr><td>3.0</td><td>≤280</td></tr><tr><td>3.5</td><td>≤260</td></tr><tr><td>4.0</td><td>≤240</td></tr><tr><td>4.5</td><td>≤220</td></tr><tr><td>5.0</td><td>≤200</td></tr><tr><td>5.5</td><td>≤180</td></tr><tr><td>6.0</td><td>≤160</td></tr><tr><td>6.5</td><td>≤140</td></tr><tr><td>7.0</td><td>≤120</td></tr></table>	Credits	Primary Energy Demand Post Refurbishment (kWh/m²/year)	0.5	≤400	1.0	≤370	1.5	≤340	2.0	≤320	2.5	≤300	3.0	≤280	3.5	≤260	4.0	≤240	4.5	≤220	5.0	≤200	5.5	≤180	6.0	≤160	6.5	≤140	7.0	≤120	7	10.38%	2.5	3.71%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Early stage energy modelling has not been completed at this stage, therefore reasonable assumptions have been made in the absence of information. • Two and a half credits assumed at this stage. • Glenn Miles (Encon Associates) advised that energy modelling should be completed ASAP to ensure credits targeted can be achieved.
Credits	Primary Energy Demand Post Refurbishment (kWh/m²/year)																																					
0.5	≤400																																					
1.0	≤370																																					
1.5	≤340																																					
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3.0	≤280																																					
3.5	≤260																																					
4.0	≤240																																					
4.5	≤220																																					
5.0	≤200																																					
5.5	≤180																																					
6.0	≤160																																					
6.5	≤140																																					
7.0	≤120																																					
Ene 04: Renewable Technologies	One credit 1. Where at least 10% of the dwellings Primary Energy Demand per annum is supplied by low or zero carbon technologies AND 2. Where the dwelling has reduced energy demand prior to the specification of renewable technologies with a maximum Primary Energy Demand as follows: a. For detached, semi-detached, bungalows and end terraces: 250 kWh/m2/year b. Mid terraces and flats: 220 kWh/m2/year Two credits 3. Where for mid to high rise flats at least 15% of each dwellings Primary Energy Demand per annum is supplied by low or zero carbon technologies 4. Where for dwellings other than mid to high rise flats at least 20% of each dwellings Primary Energy Demand per annum is supplied by low or zero carbon technologies AND 5. Where the dwelling has reduced energy demand prior to the specification of renewable technologies with a maximum Primary Energy Demand as follows: a. For detached, semi-detached, bungalows and end terraces: 250 kWh/m2/year b. Mid terraces and flats: 220 kWh/m2/year	2	2.97%	0	0%	2	2.97%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Two credit marked as potential. • Early stage energy modelling has not been completed at this stage, therefore it is unknown if renewables are required for compliance against Building Regulations or if BREEAM credits can be achieved. • Glenn Miles (Encon Associates) advised that energy modelling should be completed ASAP to ensure credits targeted can be achieved.																														

Energy	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Ene 05: Energy Labelled White Goods	First credit – Fridges, freezers and fridge-freezers 1. Fridges and freezers or fridges/freezers have an A+ rating or better under the EU energy efficiency labelling scheme OR 2. Where no white goods are provided to the dwelling(s) but the EU energy efficiency labelling scheme information leaflet is provided to each dwelling. Second credit – washing machines, dishwashers, tumble dryers and washer dryers 3. Washing machines have an A++ rating or better under the EU energy efficiency labelling scheme 4. Dishwashers have an A+ rating or better under the EU energy efficiency labelling scheme AND EITHER 5. Washer-dryers and tumble dryers have an A rating under the EU energy efficiency labelling scheme (where a washer dryer is provided, it is not necessary to also provide a washing machine) OR 6. Where a washer dryer or tumble dryer is not provided, the EU energy efficiency labelling scheme information leaflet is provided to each dwelling	2	2.97%	1	1.48%	1	1.48%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - One credit targeted. - The minimum EU Energy labelling to be provided as part of Home User Guide. - Second credit marked as potential subject to white goods provision.
Ene 06: Drying Space	One credit 1. An adequate, secure internal or external space with posts and footings, or fixings holding: a. 1-2 bedrooms: 4m+ of drying line b. 3+ bedrooms: 6m+ of drying line	1	1.48%	1	1.48%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Credit targeted. - It was agreed that 3No drying lines (Rotary) would be provided to meet compliance.
Ene 07: Lighting	One credit – External lighting 1. Where Energy Efficient Space lighting (including lighting in communal areas) and Energy Efficient Security lighting is provided OR 2. Where Energy Efficient Space lighting (including lighting in communal areas) and no Security Lighting is provided One credit - Internal Lighting 3. One credit is awarded where the energy required for internal lighting is minimised through the provision of a maximum average wattage across the total floor area of the dwelling of 9 watts/m2	2	2.97%	2	2.97%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credits targeted. - It was agreed that all lighting for the development will be LED and will be specified to meet BREEAM compliance by the lighting designer. - Individual external space lighting will be controlled via PIR and photocells. - Internal lighting is expected to meet <9w/m2

Energy	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Ene 08: Energy Display Devices	One credit 1. Where current electricity consumption data is displayed to occupants by a compliant energy display devices OR 2. Where current primary heating fuel consumption data is displayed to occupants by a compliant Energy Display Devices. Two credits 3. Where current electricity AND primary heating fuel consumption data are displayed to occupants by a compliant correctly specified Energy Display Devices. OR 4. Where electricity is the primary heating fuel and current electricity consumption data are displayed to occupants by a compliant Energy Display Devices. Exemplary Performance The following outlines the exemplary level criteria to achieve an innovation credit for this BREEAM issue: 5. Where criterion 2 or 3 have been achieved. 6. Where any specified Energy Display Devices is capable of recording consumption data.	2	2.97%	2	2.97%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credits targeted. - It was advised that Energy display devices will be installed within the property in line with full BREEAM compliance.
Ene 09: Cycle Storage	One credit 1. Where individual or communal compliant cycle storage is provided for the following number of cycles: a. Studios or 1 bedroom dwellings – storage for 1 cycle for every two dwellings b. 2 and 3 bedroom dwellings – storage for 1 cycle per dwelling c. 4 bedrooms and above – storage for 2 cycles per dwelling Two credits 2. Where individual or communal compliant cycle storage is provided for the following number of cycles: a. Studios or 1 bedroom dwellings – storage for 1 cycle per dwelling b. 2 and 3 bedroom dwellings – storage for 2 cycles per dwelling c. 4 bedrooms and above – storage for 4 cycles per dwelling	2	2.97%	2	2.97%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credits targeted. - It was advised that a dedicated cycle store will be provided with provision for 12No cycles. 6x1 bed= 6 cycles space required 2x2 bed= 4 cycles space required 3x3 bed= 4 cycles space required - It was agreed that an additional 2No spaces would be provided to ensure compliance met for two credits. Note: Cycle storage will need to meet security and lighting compliance and BREEAM requirements.
Ene 10: Home Office	One Credit 1. Where sufficient space and services have been provided which allow the occupants to set up a home office in a suitable room with adequate ventilation	1	1.48%	1	1.48%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Credit targeted. Sunil Mehan advised that home office provision will be provided per dwelling in line with the discussed BREEAM requirements. - Please see BREEAM compliance for the home office provision requirements.
Energy Totals		29	43.00%	17	25.21%	3	4.45%	

Water	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Wat 01: Internal Water Use	Up to three credits are available 1. Where terminal fittings meet the equivalent terminal fitting consumption standards as detailed in Table - 22 and Table - 23. OR 2. Where the BREEAM Domestic Refurbishment Wat 01 calculator is used to determine the dwellings water consumption, credits may be awarded depending on the calculated whole house water consumption, as detailed in Table - 22.	3	6.6%	3	6.6%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credits have been targeted based on the mandatory requirements of meeting a BREEAM Excellent. 107-118 litres/person/day maximum water use. - Water flows and fittings to be finalised at Detailed Design stage.
Wat 02: External Water Use	One credit 1. Where a compliant rainwater collection system for external/internal irrigation use has been provided to dwellings. OR 2. Where dwellings have no individual or communal garden space	1	2.2%	1	2.2%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Credit targeted. Sunil Mehan advised that water butts will be provided for external landscape watering. It is assumed that 2No water butts will be adequate to provide provision at 1litre/m2 of garden space.
Wat 03: Water Meter	One credit 1. Where an appropriate water meter for measuring usage of mains potable water has been provided to dwelling/s in accordance with CN1 or CN2	1	2.2%	1	2.2%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Credit targeted. - It was advised that a pulsed water meter will be fitted that is capable of monitoring the current and historic water use. Note: if the water meter is not within the home a separate monitoring station or way of monitoring in the home should be provided.
Water Totals		5	11.00%	5	11.00%	0	0.00%	

Materials	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Mat 01: Environmental Impact of Materials	Up to 25 credits available 1. The BREEAM Domestic Refurbishment Mat 01 calculator is used to determine the number of credits awarded. Credits are awarded according to the impact of new materials according to their Green Guide Rating and their impact on improving the thermal performance of the dwelling for the following elements: a. Roof b. External walls c. Internal walls (including separating walls) d. Upper and ground floors e. Windows 2. Up to a maximum of 25 credits can be awarded through achieving a combination of the credits available for each element Refer to supporting documents for Table - 25: The number of credits available for each element 3. Retained elements, where no work is being carried out on them, are assessed against the Refurbishment Green Guide Calculator. Typically they will be counted as being very low impact by the calculator. A maximum of 5 credits are available with elements rated from A+ (6) to E 4. Retained elements undergoing refurbishment (e.g. the installation of solid wall insulation) are assessed against the Refurbishment Green Guide Calculator. A maximum of 5 credits are available for refurbished elements depending on their Refurbishment Green Guide rating from A+ (6) to E. 5. New elements such as new windows, a newly constructed roof or walls are assessed against the Green Guide to Specification with a maximum of 3 credits available depending on their Green Guide rating from A+ to E 6. Additional credits are awarded for retained elements undergoing refurbishment as detailed in the calculation procedure (Mat01: Calculation procedure B-7) depending on the thermal improvement made as a result of refurbishment based upon the U value of elements before and after refurbishment.	25	4.17%	18	3%	2	0.33%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Full specifications not available at this stage. - Evaluation of the major building elements during the meeting highlights that the following credits could be targeted based on material discussions - Roof - New Green guide A or A+ composite tile - A rating - External Walls - Existing Walls, no changes to be made - A rating - External Walls - New Extension to be built assumed brick construction to match existing bricks - A rating - Upper Floor - Existing floor, no changes to be made - A rating - Internal walls to be timber stud with plasterboard - A rating - Windows - New UPVC - A rating - Based on the above a predicted score of 18/25 is assumed. - Credit to be further reviewed at Detailed Design Stage.
Mat 02: Responsible Sourcing of Materials	Prerequisite 1. All timber and timber-based products used on the project is 'legally harvested and traded timber'(see relevant definitions). Note: a. It is a minimum requirement for achieving a BREEAM rating (for any rating level)that compliance	15	2.5%	10	1.67%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Full specifications are not available at this stage. Architect and contractor/Developer to ensure that all materials are responsibly sourced where possible. Contractor/Developer to provide

Materials	Compliance Requirements	Available		Targeted		Potential		Comments														
		Credits	Percent	Credits	Percent	Credits	Percent															
	with criterion 1 is confirmed. b. For other materials there are no prerequisite requirements at this stage. Up to 3 credits - Sustainable procurement plan 2. Where the principal contractor sources materials for the project in accordance with a documented sustainable procurement plan (see the relevant definitions in the additional information section) three credits can be awarded OR 3. Where the principal contractor is a Micro-enterprise (according to the relevant definitions in the additional information section) up to 3 credits are available: a. Where the principal contractor addresses part 1 OR part 2 of Checklist A-9: Sustainable procurement statement one credit can be awarded. b. Where the principal contractor addresses parts 1 AND 2 of Checklist A-9: Sustainable procurement statement two credits can be awarded. c. Where the principal contractor addresses parts 1, 2 AND 3 of Checklist A-9: Sustainable procurement statement three credits can be awarded Up to 12 credits - Responsible sourcing of materials (RSM) 4. The available RSM credits (refer to Table - 44) can be awarded where the applicable building materials(refer to Table - 26) are responsibly sourced in accordance with the BREEAM methodology, as defined in steps 1 to 2 in Mat 02 Calculation Procedure B-8 Table - 26: The number of credits available for the number of points achieved <table><tr><th>BREEAM credits</th><th>% of available points achieved</th></tr><tr><td>12</td><td>≥54%</td></tr><tr><td>10</td><td>≥45%</td></tr><tr><td>8</td><td>≥36%</td></tr><tr><td>6</td><td>≥27%</td></tr><tr><td>4</td><td>≥18%</td></tr><tr><td>2</td><td>≥9%</td></tr></table> Exemplary level requirements The following outlines the exemplary level criteria to achieve one innovation credit for this BREEAM issue:	BREEAM credits	% of available points achieved	12	≥54%	10	≥45%	8	≥36%	6	≥27%	4	≥18%	2	≥9%							Sustainable Procurement Plan to meet three credits. - Assumed ten credits from fifteen at this stage based on responsible sourcing. - Credit to be further reviewed at Detailed Design stage.
BREEAM credits	% of available points achieved																					
12	≥54%																					
10	≥45%																					
8	≥36%																					
6	≥27%																					
4	≥18%																					
2	≥9%																					

Materials	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
	5. Where at least 70% of the available RSM points are achieved.							
Mat 03: Insulation	Up to 8 credits may be awarded for this issue as follows: Pre-requisite 1. Any new insulation specified for use within the following building elements must be assessed: a. External walls b. Ground floor c. Roof d. Building services 4 Credits - Embodied Impact 1. Where the Insulation Index for new insulation used in the buildings is ≥ 2 and is calculated using the BREEAM Domestic Refurbishment Mat 03 Insulation Calculator with reference to CN1, CN2 and CN3. 2. Where Green Guide ratings, required by the BREEAM Domestic Refurbishment Mat 03 Insulation Calculator are determined using the Green Guide to specification tool. 4 Credits - Responsible Sourcing 3. Where $\geq 80\%$ of the new thermal insulation used in the building elements is responsibly sourced	8	1.33%	6	1%	2	0.33%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> • Sunil Mehan advised that only rockwool type insulation and Kingspan which is responsibly sourced to BES6001 will be specified. • At this stage six credits from eight are targeted based on no insulation information being provided. • Two credits marked as potential. • If alternative insulation is to be used this should be responsibly sourced to meet credit requirements.
Materials Totals		48	8.00%	34	5.67%	4	0.67%	

Pollution	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Pol 01: Nitrogen Oxide Emissions	Up to 3 credits – Low NOx space heating and hot water systems 1. Credits are awarded on the basis of NOx emissions arising from the operation of space heating and hot water systems for each refurbished dwelling as follows: a. One credit where the dry NOx emissions of space heating and hot water systems are ≤100 mg/kWh (NOx class 4 boiler). b. Two credits where the dry NOx emissions of space heating and hot water systems are ≤70 mg/kWh (NOx class 5 boiler). c. Three credits where the dry NOx emissions of space heating and hot water systems are ≤40 mg/kWh	3	2.25%	3	2.25%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Credits marked as potential. - As the heating strategy has not been specified as yet the NOx is unknown. - If gas systems installed NOx emissions should be in line with the NOx levels of <40mg
Pol 02: Surface Water Runoff	One Credit – neutral impact on surface water 1. Where there is no change in the size of the building footprint or hardstanding as a result of the refurbishment. 2. Where any new hard standing areas are permeable, this must include all new pavements, driveways and where applicable public rights of way, car parks and non-adoptable roads (e.g. community scale refurbishment projects). 3. Where the building is being extended onto any previously permeable surfaces, or an impermeable surface that drains onto a permeable surface (e.g. paving slabs set on concrete that drained onto soft landscaped areas) the additional run-off for rainfall depths up to 5 mm caused by the area of the extension must be managed on site using appropriate Sustainable Drainage Systems (SuDS) such as Soakaways. 4. Any calculations necessary to demonstrate that criterion 2 will be achieved should be carried out by an Appropriately Qualified Professional (AQP) see CN6. OR Two Credits – reducing run-off from site: basic 5. Where criteria 1, 2 and 3 have been achieved. 6. Where all run-off from the roof for rainfall depths up to 5 mm, have been managed on site using source control methods (e.g. through infiltration, soakaways etc.). This should include runoff from all existing and new parts of the roof. 7. Where required, an appropriately qualified professional should be used to design an appropriate drainage strategy for the site, ensuring criterion 1 is achieved OR Three Credits – reducing run-off from site: advanced	3	2.25%	2	1.5%	1	0.75%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> Sunil Mehan advised that 80% of the site is soakaway. - Two credits target and one credit marked as potential. - Drainage calculations to be provided to demonstrate credit at detailed design stage.

Pollution	8. An appropriately qualified professional should be used to design an appropriate drainage strategy for the site. Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
	9. Where run-off as a result of the refurbishment is managed on site using source control achieving the following requirements: a. The peak rate of run-off as a result of the refurbishment for the 1 in 100 year event has been reduced by 75% from the existing site. b. The total volume of run-off discharged into the watercourses and sewers as a result of the refurbishment, for a 1 in 100 year event of 6 hour duration has been reduced by 75% c. An allowance for climate change must be included for all of the above calculations, in accordance with the current best practice (PPS25, 2010) Exemplary level requirements The following outlines the exemplary level requirements to achieve an innovation credit for this BREEAM issue. 10. Where all run-off from the developed site is managed on site using source control. The following must be achieved to confirm compliance: a. The peak rate of run-off as a result of the refurbishment for the 1 in 1 year event is reduced to zero. b. The peak rate of run-off as a result of the refurbishment for the 1 in 100 year event is reduced to zero. c. There is no volume of run-off discharged into the watercourses and sewers as a result of the refurbishment, for a 1 in 100 year event of 6 hour duration. d. An allowance for climate change must be included for all of the above calculations, in accordance with current best practice (PPS25, 2010). 11. Where an appropriately qualified professional has been employed to provide the above calculations and design an appropriate drainage strategy for the site, ensuring all above criteria are achieved							

Pollution	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Pol 03: Flooding	Two Credits - low flood risk or flood mitigation Minimum standards 1. A minimum of two credits must be achieved for this issue at the Excellent and Outstanding levels Option 1 – Low flood risk 2. Where a Flood Risk Assessment (FRA) has been carried out and the assessed dwellings are defined as having a low annual probability of flooding. Option 2 – Medium/High Flood Risk 3. Where a Flood Risk Assessment (FRA) has been carried out and the assessed dwellings are defined as having a medium or high annual probability of flooding. 4. Two credits are awarded where as a result of the dwellings floor level or measures to keep water away the dwelling is defined as achieving avoidance from flooding by following Checklist A-11: Decision Strategy Flow Chart. 5. Where avoidance is not possible, two credits are achieved where a full flood resilience/resistance strategy is implemented for the dwellings in accordance with recommendations made by a Suitably Qualified Building Professional	2	1.5%	2	1.5%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credits targeted based on minimum mandatory requirements. - A review of the EA website during the meeting concludes that the site is of low flood risk. - Flood risk assessment will be required to demonstrate compliance of the credit, therefore appropriate appointment needs to be made. Encon Associates to provide costs for short flood risk assessment to meet BREEAM compliance.
Pollution Totals		8	6.00%	7	5.25%	1	0.75%	

Waste	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Was 01: Household Waste	First credit – Recycling facilities 1. One credit can be awarded where the dwelling complies with one of the scenarios detailed in Table - 27 below: Refer to supporting documents for Table - 27: Recycling storage requirements Second credit – Composting Facilities Dwellings with significant external private space - all of the following are met: 2. Where a composting service or facility is provided for green/garden waste 3. Where a composting service or facility is provided for kitchen waste 4. Where an interior container is provided for kitchen composting waste of at least seven litres Dwellings without significant external private space - all of following are met: 5. Where a composting service or facility is provided for kitchen waste 6. Where an interior container is provided for kitchen composting waste of at least seven litres	2	1.2%	2	1.2%	0	0%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credit targeted. - A triple bin system should be installed in the dwellings along with provision for composting. External Local Authority bin provision is assumed to be provided for general waste and recyclable waste.
Was 02: Refurbishment Site Waste Management	Credits are awarded depending on the scale and the estimated cost of refurbishment. Up to three credits may be awarded for this issue along with the opportunity for an innovation credit as follows: Projects up to £100k Three credits 1. Where waste generated through the refurbishment process is managed in accordance with Checklist A-10: Refurbishment Site Waste Management - up to £100k value Projects up to £300k Three credits 2. Where a compliant Level 1 Site Waste Management Plan See Criteria (SWMP) is in place in accordance with CN3. Projects over £300k First credit – management plan 3. Where a compliant Level 2 SWMP is in place in accordance with CN4 Second credit – good practice waste benchmarks 4. Where the first credit has been achieved 5. Where Non-hazardous construction waste generated by the dwellings refurbishment meets or	3	1.8%	2	1.2%	1	0.6%	<u>BREEAM Pre-Assessment Meeting 20/09/22</u> - Two credits targeted and one credit marked as potential. - Contract value is expected to be over £300k - The main contractor to adopt a full SWMP in line with their statutory requirements and waste benchmarks indicated with the BREEAM manual.

Waste	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
	exceeds the resource efficiency benchmark in accordance with CN7 6. Where the amount of waste generated against £100,000 of project value is recorded in the SWMP 7. Where a pre-refurbishment audit of the existing building is completed in accordance with CN10 8. Where the demolition is included as part of the refurbishment programme, then the audit should also cover demolition materials Third credit – best practice waste benchmarks 9. Where the first two credits have been achieved 10. Where Non-hazardous demolition waste generated by the dwellings refurbishment meets or exceeds the refurbishment & demolition waste diversion benchmarks in accordance with CN8 Exemplary Level Requirements Projects less than £100k 11. Where a compliant Level 1 Site Waste Management Plan (SWMP) is in place in accordance with CN3 Projects up to £300k 12. Where a compliant Level 2 SWMP is in place in accordance with CN4 13. Where Non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the resource efficiency benchmarks in accordance with CN7 14. The percentage of non-hazardous construction waste and demolition waste (where applicable) generated by the project has been diverted from landfill and meets or exceeds the refurbishment & demolition waste diversion benchmarks in accordance with CN8 Projects over £300k 15. Where non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the exemplary level resource efficiency benchmark in accordance with CN11 16. Where Non-hazardous demolition waste generated by the dwellings refurbishment meets or exceeds the exemplary level diversion benchmarks in accordance with CN12							
Waste Totals		5	3.00%	4	2.40%	1	0.60%	

Innovation	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Inn 01: Innovation	Up to a maximum of 10 credits available in aggregate from a combination of the following: Exemplary level requirements in existing BREEAM issues 1. Where the building demonstrates exemplary performance by meeting defined exemplary level performance criteria in one or more of following BREEAM assessment issues: a. Ene 2 Energy Efficiency Rating (2 credits available) b. Ene 8 Display Energy Devices (1 credit available) c. Wat 1 Internal Water Use (1 credit available) d. Was 2 Refurbishment Site Waste Management (1 credit available) e. Pol 2 Surface Water Run-off (1 credit available) f. Man 2 Responsible Construction Practices (1 credit available) g. Man 5 Protection and Enhancement of Ecological Value (1 credit available) h. Man 6 Project Management (2 credits available) i. Hea 4 Inclusive Design (1 credit available) Once innovation credit can be awarded for each individual BREEAM issue exemplary performance level complied with. Please refer to the relevant BREEAM issue within this Scheme Document for the exemplary level performance assessment criteria. Approved Innovations 2. One innovation credit can be awarded for each innovation application approved by BRE Global, where the building complies with the criteria defined within the Approved Innovation application form.	10	10%	0	0%	0	0%	
Man 02: Responsible Construction Practices		1	1%	0	0%	0	0%	
Man 05: Protection and Enhancement of Ecological Value		1	1%	0	0%	0	0%	
Man 06: Project Management		2	2%	0	0%	0	0%	
Hea 04: Inclusive Design		1	1%	0	0%	0	0%	
Ene 02: Energy Efficiency Rating		2	2%	0	0%	0	0%	
Ene 08: Display Energy Divices		1	1%	0	0%	0	0%	
Wat 01: Internal Water Use		1	1%	0	0%	0	0%	

Innovation	Compliance Requirements	Available		Targeted		Potential		Comments
		Credits	Percent	Credits	Percent	Credits	Percent	
Pol 02: Surface Water Run-off		1	1%	0	0%	0	0%	
Was 02: Refurbishment Site Waste Management		1	1%	0	0%	0	0%	
Innovation Totals (Up to a maximum of 10 credits)		10	10.00%	0	0.00%	0	0.00%	
Overall Totals		128	110.00%	86	72.86%	11	9.30%	

5 Assessor Declaration

This Pre-Assessment report has been prepared by Encon Associates Ltd based on a full Pre-Assessment webinar meeting completed 20th Sept 2022.

Signed for and on behalf of Encon Associates

A handwritten signature in black ink, appearing to read 'Glenn Miles', is positioned above the printed name.

Glenn Miles BREEAM Accredited Assessor and Professional (BREEAM AP 0137)

Director

Encon Associates Limited