

BREEAM UK Domestic Refurbishment 2014 Pre-Assessment Estimator v0.1		BREEAM UK																																																		
This assessment and indicative BREEAM rating is not a formal certified BREEAM assessment or rating and must not be communicated as such. The score presented is indicative of a dwelling's potential performance and is based on a simplified pre-formal BREEAM assessment and unverified commitments given at an early stage in the design process.																																																				
Building name: <b>561-563 Upper Richmond Rd West SW14 7ED</b> Indicative building score (%): <b>73.52%</b> Indicative BREEAM rating: <b>BREEAM Excellent</b>		<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="5">Minimum Standards</th> </tr> <tr> <th>Pass</th> <th>Good</th> <th>Very Good</th> <th>Excellent</th> <th>Outstanding</th> </tr> </thead> <tbody> <tr> <td>Ene 02</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Wat 01</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✗</td> </tr> <tr> <td>Hea 05</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Hea 06</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Pol 03</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Mat 02</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </tbody> </table>					Minimum Standards					Pass	Good	Very Good	Excellent	Outstanding	Ene 02	✓	✓	✓	✓	✓	Wat 01	✓	✓	✓	✓	✗	Hea 05	✓	✓	✓	✓	✓	Hea 06	✓	✓	✓	✓	✓	Pol 03	✓	✓	✓	✓	✓	Mat 02	✓	✓	✓	✓	✓
	Minimum Standards																																																			
	Pass	Good	Very Good	Excellent	Outstanding																																															
Ene 02	✓	✓	✓	✓	✓																																															
Wat 01	✓	✓	✓	✓	✗																																															
Hea 05	✓	✓	✓	✓	✓																																															
Hea 06	✓	✓	✓	✓	✓																																															
Pol 03	✓	✓	✓	✓	✓																																															
Mat 02	✓	✓	✓	✓	✓																																															
<table border="1"> <tr> <td>Management</td> <td>Health &amp; Wellbeing</td> <td>Energy</td> <td>Water</td> <td>Materials</td> <td>Waste</td> <td>Pollution</td> </tr> </table>		Management	Health & Wellbeing	Energy	Water	Materials	Waste	Pollution																																												
Management	Health & Wellbeing	Energy	Water	Materials	Waste	Pollution																																														
<b>INNOVATION</b>		Section Weighting: 10%		Indicative Section Score: 2.00%																																																
Comments:																																																				
<b>MANAGEMENT</b>		Section Weighting: 12%		Indicative Section Score: 12.00%																																																
<b>Man 01 Home Users Guide</b>																																																				
No. of BREEAM credits available: <b>3</b> No. of BREEAM innovation credits: <b>0</b>		Available contribution to overall score: <b>3.27%</b> Minimum Standards applicable: <b>No</b>		Indicative Credits: <b>3</b>																																																
Assessment Criteria: Where a Home Users Guide be provided to all dwellings, covering all issues set out in the 'Users Guide Contents list', three credits may be awarded																																																				
Comments: A fully compliant Home User Guide will be created																																																				
<b>Man 02 Responsible Construction Practices</b>																																																				
No. of BREEAM credits available: <b>2</b> No. of BREEAM innovation credits: <b>1</b>		Available contribution to overall score: <b>2.18%</b> Minimum Standards applicable: <b>No</b>		Indicative Credits: <b>2</b>																																																
Assessment Criteria: Where a compliant considerate construction scheme will be used, credits are awarded depending on the score achieved as outlined below:																																																				
<b>Large Scale - project with more than 5 units</b>																																																				
		<table border="1"> <thead> <tr> <th></th> <th>One Credit</th> <th>Two Credits</th> </tr> </thead> <tbody> <tr> <td>Considerate Constructors Scheme</td> <td>Score of 25-34 with a score of 5 in each section</td> <td>Score of 35-39 with a score of 7 in each section</td> </tr> <tr> <td>Alternative Compliant Scheme</td> <td>Compliance</td> <td>Beyond Compliance</td> </tr> </tbody> </table>			One Credit	Two Credits	Considerate Constructors Scheme	Score of 25-34 with a score of 5 in each section	Score of 35-39 with a score of 7 in each section	Alternative Compliant Scheme	Compliance	Beyond Compliance																																								
	One Credit	Two Credits																																																		
Considerate Constructors Scheme	Score of 25-34 with a score of 5 in each section	Score of 35-39 with a score of 7 in each section																																																		
Alternative Compliant Scheme	Compliance	Beyond Compliance																																																		
<b>Small Scale - project with 5 units or fewer</b>																																																				
		<table border="1"> <thead> <tr> <th></th> <th>One Credit</th> <th>Two Credits</th> </tr> </thead> <tbody> <tr> <td>Considerate Constructors Scheme</td> <td>Score of 25-34 with a score of 5 in each section</td> <td>Score of 35-39 with a score of 7 in each section</td> </tr> <tr> <td>Alternative Compliant Scheme</td> <td>Compliance</td> <td>Beyond Compliance</td> </tr> <tr> <td>Checklist A-3</td> <td>50% of the optional items</td> <td>80% of the optional items</td> </tr> </tbody> </table>			One Credit	Two Credits	Considerate Constructors Scheme	Score of 25-34 with a score of 5 in each section	Score of 35-39 with a score of 7 in each section	Alternative Compliant Scheme	Compliance	Beyond Compliance	Checklist A-3	50% of the optional items	80% of the optional items																																					
	One Credit	Two Credits																																																		
Considerate Constructors Scheme	Score of 25-34 with a score of 5 in each section	Score of 35-39 with a score of 7 in each section																																																		
Alternative Compliant Scheme	Compliance	Beyond Compliance																																																		
Checklist A-3	50% of the optional items	80% of the optional items																																																		
<b>Exemplary Credit</b>																																																				
		<table border="1"> <tbody> <tr> <td>Considerate Constructors Scheme</td> <td>Score of 40 or more with a score of 7 in each section</td> <td rowspan="3">                     * Small Scale Project Only                 </td> </tr> <tr> <td>Alternative Compliant Scheme</td> <td>Exemplary Level Compliance</td> </tr> <tr> <td>Checklist A-3*</td> <td>All Items (Optional &amp; Mandatory)</td> </tr> </tbody> </table>		Considerate Constructors Scheme	Score of 40 or more with a score of 7 in each section	* Small Scale Project Only	Alternative Compliant Scheme	Exemplary Level Compliance	Checklist A-3*	All Items (Optional & Mandatory)	Indicative Innovation Credits Achieved: <b>0</b>																																									
Considerate Constructors Scheme	Score of 40 or more with a score of 7 in each section	* Small Scale Project Only																																																		
Alternative Compliant Scheme	Exemplary Level Compliance																																																			
Checklist A-3*	All Items (Optional & Mandatory)																																																			
Comments: A compliant Considerate Constructors Scheme																																																				
<b>Man 03 Construction Site Impacts</b>																																																				
No. of BREEAM credits available: <b>1</b> No. of BREEAM innovation credits: <b>0</b>		Available contribution to overall score: <b>1.09%</b> Minimum Standards applicable: <b>No</b>		Indicative Credits: <b>1</b>																																																
Assessment Criteria: Where evidence demonstrate that site impacts will be monitored, as detailed below:																																																				
		<table border="1"> <thead> <tr> <th></th> <th>One Credit</th> </tr> </thead> <tbody> <tr> <td>Large Scale</td> <td>Where there is evidence to demonstrate that <b>2 or more</b> of the sections in <b>Checklist A-4</b> are completed</td> </tr> <tr> <td>Small Scale</td> <td>Where there is evidence to demonstrate that <b>2 or more</b> of the sections in <b>Checklist A-5</b> are completed</td> </tr> </tbody> </table>			One Credit	Large Scale	Where there is evidence to demonstrate that <b>2 or more</b> of the sections in <b>Checklist A-4</b> are completed	Small Scale	Where there is evidence to demonstrate that <b>2 or more</b> of the sections in <b>Checklist A-5</b> are completed																																											
	One Credit																																																			
Large Scale	Where there is evidence to demonstrate that <b>2 or more</b> of the sections in <b>Checklist A-4</b> are completed																																																			
Small Scale	Where there is evidence to demonstrate that <b>2 or more</b> of the sections in <b>Checklist A-5</b> are completed																																																			
<table border="1"> <thead> <tr> <th colspan="2">Sections of Checklist</th> </tr> <tr> <th>Large Scale - Checklist A-4</th> <th>Small Scale - Checklist A-5</th> </tr> </thead> <tbody> <tr> <td>Monitor, report and set targets for CO2 production of energy use arising from site activities</td> <td>Set objectives for reducing CO2 production from energy use arising from site activities</td> </tr> <tr> <td>Monitor, report and set targets for water consumption arising from site activities</td> <td>Set objectives for reducing water use arising from site activities</td> </tr> <tr> <td>A main contractor with an environmental materials policy</td> <td>Main contractor environmental materials statement</td> </tr> <tr> <td>A main contractor that operates an Environmental Management System</td> <td>80% of site timber is reclaimed, re-used or responsibly sourced</td> </tr> <tr> <td>80% of site timber is reclaimed, re-used or responsibly sourced</td> <td></td> </tr> </tbody> </table>						Sections of Checklist		Large Scale - Checklist A-4	Small Scale - Checklist A-5	Monitor, report and set targets for CO2 production of energy use arising from site activities	Set objectives for reducing CO2 production from energy use arising from site activities	Monitor, report and set targets for water consumption arising from site activities	Set objectives for reducing water use arising from site activities	A main contractor with an environmental materials policy	Main contractor environmental materials statement	A main contractor that operates an Environmental Management System	80% of site timber is reclaimed, re-used or responsibly sourced	80% of site timber is reclaimed, re-used or responsibly sourced																																		
Sections of Checklist																																																				
Large Scale - Checklist A-4	Small Scale - Checklist A-5																																																			
Monitor, report and set targets for CO2 production of energy use arising from site activities	Set objectives for reducing CO2 production from energy use arising from site activities																																																			
Monitor, report and set targets for water consumption arising from site activities	Set objectives for reducing water use arising from site activities																																																			
A main contractor with an environmental materials policy	Main contractor environmental materials statement																																																			
A main contractor that operates an Environmental Management System	80% of site timber is reclaimed, re-used or responsibly sourced																																																			
80% of site timber is reclaimed, re-used or responsibly sourced																																																				
Same definition of small and large scale as in Man 02																																																				
Comments: The main contractor will have an Environmental Materials Policy Water consumption will be targeted, and monitored against this target																																																				

Man 04 Security			
No. of BREEAM credits available	2	Available contribution to overall score:	2.18%
No. of BREEAM innovation credits	0	Minimum Standards applicable:	No
Assessment Criteria			Indicative Credits
Where the following requirements will be met:			2
One Credit Secure windows and doors	External doors and accessible windows meet minimum standards and appropriately certified		⇒
	Principles and guidance of Secured by Design Section 2 are complied with		
Two Credits Secured by design	A suitably qualified security consultant is consulted at the design stage and their recommendations are incorporated into the refurbishment		
Comments			
The local Police Architectural Liaison Officer will be contacted to assist in obtaining Secure by Design			
Man 05 Protection and Enhancement of Ecological Features			
No. of BREEAM credits available	1	Available contribution to overall score:	1.09%
No. of BREEAM innovation credits	1	Minimum Standards applicable:	No
Assessment Criteria			Indicative Credits
Where the following requirements will be met:			1
One Credit Protecting Ecological Features	Site survey carried out to determine presence of ecological features		⇒
	Statutory Nature Conservation Organisation notified of protected species		
	Features of ecological value protected during refurbishment works		
Exemplary Credit Ecological enhancement	A suitably qualified ecologist recommends features to enhance ecology of the site		⇒
	adopts all general ecological recommendations		
	adopts 30% of additional recommendations		
Indicative Innovation Credits Achieved			
0			
Comments			
A site survey will identify and the project will subsequently protect any identified ecological features There are unlikely to be any as this is a refurbishment and the extension is likely over garden planting at worst			
Man 06 Project Management			
No. of BREEAM credits available	2	Available contribution to overall score:	2.18%
No. of BREEAM innovation credits	2	Minimum Standards applicable:	No
Assessment Criteria			Indicative Credits
Where the following requirements will be met:			2
One Credit Project Roles and Responsibilities	Where all of the project team are involved in the project decision making		⇒
	Small Scale - the project manager assigns individual and shared responsibilities amongst the project team including all trades on site		
	Large Scale - 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		
Small Scale projects: five units or fewer and less than £100k		Large Scale projects: more than five units and more than £100k	
One Credit Handover and Aftercare	Handover meeting arranged		⇒
	2 or more of the following committed to: - A site inspection within 3 months of occupation - Conduct post occupancy interviews with building occupants or a survey via phone or posted information within 3 months of occupation - 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		
Indicative Innovation Credits Achieved			
1			
Exemplary Credits			
One Exemplary Credit Early Design Input	Where A BREEAM Accredited Professional has been appointed to oversee key stages within the project.		⇒
	OR Where a BREEAM Domestic Refurbishment Assessor has been appointed at an early stage of the project, prior to the production of a refurbishment specification		
One Exemplary Credit Thermographic Surveying and Airtightness Testing	Where Thermographic surveying and Airtightness testing have been carried out at both pre and post refurbishment stages		⇒
	Where an improved air tightness target has been set at design stage and testing demonstrates that this has been achieved post refurbishment		
Comments			
Project Manager will assign Roles & Responsibilities A BREEAM Domestic Refurbishment Assessor will be engaged prior to Technical Design			

HEALTH & WELLBEING		Section Weighting: 17%		Indicative Section Score 11.33%	
<b>Hea 01 Daylighting</b>					
No. of BREEAM credits available	2	Available contribution to overall score	2.83%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
<b>Assessment Criteria</b>					<b>Indicative Credits</b>
Where the refurbishment results in a neutral impact on daylighting or where minimum daylighting standards are met, up to two credits may be awarded as follows:					2
<b>For Existing Dwellings and Change of Use Projects</b>					
<b>First Credit</b> Maintaining Good Daylighting		The refurbishment results in a neutral impact on the dwellings daylighting levels in the kitchen, living room, dining room and study			
<b>Where the property is being extended</b>					
<b>First Credit</b> Maintaining Good Daylighting		New spaces achieve minimum daylighting levels			
		The extension does not significantly reduce daylighting levels in the kitchen, living room, dining room or study of neighbouring properties			
<b>For All Properties</b>					
<b>Second Credit</b> Minimum Daylighting		The dwelling achieves minimum daylighting levels in the kitchen, living room, dining room and study			
<b>Comments</b>					
There is a neutral impact on the daylighting Minimum daylighting levels are achieved					
<b>Hea 02 Sound Insulation</b>					
No. of BREEAM credits available	4	Available contribution to overall score	5.67%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
<b>Assessment Criteria</b>					<b>Indicative Credits</b>
To ensure the provision of acceptable sound insulation standards and so minimise the likelihood of noise complaints.					2
<b>Properties where sound testing has been carried out:</b>					
<b>Up to Four Credits</b>		Four credits awarded according to the improvement over building regulations. See table in additional information in Technical Manual			
<b>Properties where sound testing is not feasible and not required by the appointed Building Control body</b>					
<b>Two Credits</b>		Where existing separating walls and floors are designed to meet the requirements of Building Regulations with compliant construction details			
<b>Up to Four Credits</b>		Where a Suitably Qualified Acoustician (SQA) provides recommendations for the specification of all existing separating walls and floors			
		SQA confirms in their professional opinion that they have the potential to meet or exceed the sound insulation credit requirements			
		Where these recommendations are implemented			
		See table in additional information in Technical Manual			
<b>Historic Buildings</b>					
<b>Up to Four Credits</b>		Where the dwelling is a Historic Building and sound testing results demonstrate existing separating walls and floor meet the Historic Building credit requirements			
		See table in additional information in Technical Manual			
		Where sound testing is not feasible and not required by the appointed Building Control body meeting criteria 2 and 3 using Table 12			
		Properties where sound testing has been carried out, credits awarded according to the improvement over building regulations. See table in additional information in Technical Manual			
		Where the dwelling is a detached property			
		Where the dwelling is a property with separating walls or floors only between non habitable rooms OR Testing not required by building control body			
<b>Detached Properties</b>					
<b>Four Credits</b>		By Default			
<b>Properties with separating walls or floors only between non habitable rooms OR Testing not required by building control body</b>					
<b>Four Credits</b>		By Default			
<b>Comments</b>					
Sound testing will meet building regulations, as a minimum					
<b>Hea 03 Volatile Organic Compounds</b>					
No. of BREEAM credits available	1	Available contribution to overall score	1.42%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
<b>Assessment Criteria</b>					<b>Indicative Credits</b>
Where the refurbishment avoids the use of VOCs with new products meeting the following requirements:					0
<b>One Credit</b> Avoiding the use of VOCs		Where all decorative paints and varnishes used in the refurbishment have met the requirement listed in table 5.4 in the Technical Manual			
		Where at least five of the eight remaining product categories listed in table 5.4 have met the testing requirements and emission levels for Volatile Organic Compound (VOC) emissions against the relevant standards identified within table 5.4 in the Technical Manual			
		Where five or less products are specified within the refurbishment, all must meet the requirements in order to achieve this credit.			
<b>Comments</b>					
This credit will not be targeted					

Hea 04 Inclusive Design			
No. of BREEAM credits available	2	Available contribution to overall score	2.83%
No. of BREEAM innovation credits	1	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where an access statement has been carried out using Checklist A-8 of the Technical Manual to optimise the accessibility of the home as follows:			1
Checklist A-8 of the Technical Manual			
		Section 1	Section 2
One Credit Minimum Accessibility		Completed with Evidence	Completed with Evidence
Two Credits Advanced Accessibility		Completed with Evidence	Completed with Evidence
Exemplary Performance			Indicative Innovation Credits Achieved
One Credit	Where an access expert suitably qualified member of the design team has completed sections 1, 2 and 3 of Checklist A-8, access statement template with evidence provided of the measures implemented in the refurbishment		0
Comments			
Checklist A-8 will be completed showing at least minimum accessibility			
Hea 05 Ventilation			
No. of BREEAM credits available	2	Available contribution to overall score	2.83%
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes
Assessment Criteria			Indicative Credits
Where the dwelling meets the following ventilation requirements:			2
One Credit Minimum Ventilation Requirements	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  A minimum level of extract ventilation is provided in all wet rooms (e.g. kitchen, utility and bath-rooms), compliant with section 5, Building Regulations Approved Document Part F 2010.  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.  It is an historic building and meets historic building requirements in CN4 of the technical manual		
Two Credits Advanced Requirements	Ventilation is provided for the dwelling that meets the requirements of Section 5 of Building Regulations Part F in full  Where the building is a historic building and meets the requirements for Historic Buildings in compliance note 4 of the technical manual		
Comments			
Ventilation will meet section 5 of Part F in full			
Hea 06 Safety			
No. of BREEAM credits available	1	Available contribution to overall score	1.42%
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes
Assessment Criteria			Indicative Credits
Where a fire and carbon monoxide (CO) detection and alarm system is specified as follows:			1
One Credit Fire and Carbon Monoxide (CO) Detection and Alarm Systems	Where a compliant fire detection and fire alarm system is provided  Carbon Monoxide detector installed if dwelling is supplied with mains gas or other fossil fuel  Mains supplied fire detection and alarm system if project involves re-wiring*  Battery operated fire detection and alarm system if no re-wiring* is to take place  * see CN9 in Hea 06 for the definition of re-wiring		
Comments			
All necessary detection and alarm systems will be installed			
ENERGY		Section Weighting: 43%	Indicative Section Score 30.40%
Ene 01 Improvement in Energy Efficiency Rating			
No. of BREEAM credits available	6	Available contribution to overall score	8.90%
No. of BREEAM innovation credits	0	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where the following targets are met for the improvement in Energy Efficiency Rating achieved as a result of refurbishment:			3
		Improvement in EER	Credits
		≥ 5	0.5
		≥ 9	1
		≥ 13	1.5
		≥ 17	2
		≥ 21	2.5
		≥ 26	3
		≥ 31	3.5
		≥ 36	4
		≥ 42	4.5
		≥ 48	5
		≥ 54	5.5
		≥ 60	6
Comments			
There will be a minimum improvement of at least 9 EER points as a result of the refurbishment			

Ene 02 Energy Efficiency Rating Post Refurbishment			
No. of BREEAM credits available	4	Available contribution to overall score	5.93%
No. of BREEAM Innovation credits	2	Minimum Standards applicable	Yes
Assessment Criteria			Indicative Credits
Where the following Energy Efficiency Rating benchmarks will be met as a result of refurbishment:			2.5
EER post refurbishment	Credits	Minimum requirements	
≥50	0.5	'Pass' level EER of 50	
≥55	1	'Good' level EER of 58	
≥60	1.5		
≥65	2	'Very Good level' EER of 65	
≥70	2.5	'Excellent' level EER of 70	
≥75	3		
≥80	3.5	'Outstanding' level EER of 81	
≥85	4		
Exemplary		Credits	Indicative Innovation Credits Achieved
≥90		1	0
≥100		2	
Comments			
A minimum EER rating of 65 will be achieved			
Ene 03 Primary energy demand			
No. of BREEAM credits available	7	Available contribution to overall score	10.38%
No. of BREEAM Innovation credits	0	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where the following Primary Energy Demand benchmarks will be met as a result of refurbishment:			5
Primary Energy Demand Post Refurbishment	Credits		
≤ 400	0.5		
≤ 370	1		
≤ 340	1.5		
≤ 320	2		
≤ 300	2.5		
≤ 280	3		
≤ 260	3.5		
≤ 240	4		
≤ 220	4.5		
≤ 200	5		
≤ 180	5.5		
≤ 160	6		
≤ 140	6.5		
≤ 120	7		
Comments			
A Primary Energy Demand of ≤ 240 will be achieved			
Ene 04 Renewable Technologies			
No. of BREEAM credits available	2	Available contribution to overall score	2.97%
No. of BREEAM Innovation credits	0	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where the dwelling will meet the following % contribution from renewables and primary energy demand targets as a result of refurbishment			1
Dwelling Type	Primary Energy Demand	Percentage from Renewables	
		1 Credit	2 Credits
Detached	≤ 250 kWh/m <sup>2</sup> /year	≥10%	≥20%
Semi-Detached		≥10%	≥20%
Bungalow		≥10%	≥20%
End of Terrace		≥10%	≥20%
Mid Terrace	≤ 220 kWh/m <sup>2</sup> /year	≥10%	≥20%
Low Rise Flat		≥10%	≥20%
Mid Rise Flat		≥10%	≥15%
High Rise Flat		≥10%	≥15%
Comments			
The Primary Energy Demand ≤ 220 kWh/m <sup>2</sup> /year will be achieved with a ≥ 10% renewables contribution			
Ene 05 Energy Labelled White Goods			
No. of BREEAM credits available	2	Available contribution to overall score	2.97%
No. of BREEAM Innovation credits	0	Minimum Standards applicable	No
Assessment Criteria			Indicative Credits
Where Energy Efficiency White goods are to be provided as follows:			2
First Credit			
Appliance	Appliance provided	Appliance not to be provided	
Fridges, Freezers and Fridge-Freezers	A+ Rating under EU Energy Efficiency Labelling Scheme	EU Energy Efficiency Labelling Scheme Information Leaflet provided to all dwellings	
Second Credit			
Appliance	Appliance provided	Appliance not to be provided	
Washing Machines and Dishwashers	Washing Machine A++ under EU Energy Efficiency Labelling Scheme AND Dishwasher A+ under EU Energy Efficiency Labelling Scheme	Second credit not achieved	
Washer-Dryers and Tumble Dryers	Appliances specified with A Rating under EU Energy Efficiency Labelling Scheme	EU Energy Efficiency Labelling Scheme Information Leaflet provided to all dwellings	
Comments			
Fridge Freezers rated A+, Washing Machine rated A++ and Dishwasher rated A+ will be provided (BRE provided a cross reference of these values to the new EU rating scheme)			

Ene 06 Drying Space																	
No. of BREEAM credits available	1	Available contribution to overall score	1.48%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Where adequate, secure internal or external space with posts and footings or fixings is provided with the following:			1														
<table border="1"> <tr> <th colspan="2">1 Credit</th> </tr> <tr> <th>Number of bedrooms</th> <th>Drying line required</th> </tr> <tr> <td>1-2</td> <td>4m+</td> </tr> <tr> <td>3+</td> <td>6m+</td> </tr> </table>			1 Credit		Number of bedrooms	Drying line required	1-2	4m+	3+	6m+							
1 Credit																	
Number of bedrooms	Drying line required																
1-2	4m+																
3+	6m+																
Comments																	
A 4+ metre length drying line (retractable probably) will be provided																	
Ene 07 Lighting																	
No. of BREEAM credits available	2	Available contribution to overall score	2.97%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Where energy efficient internal and external lighting is provided as follows:			2														
<table border="1"> <tr> <th colspan="2">External Lighting - 1</th> </tr> <tr> <td>Energy Efficient Space Lighting of more than 45 lumens per circuit watt and Energy Efficient Security Lighting OR</td> <td></td> </tr> <tr> <td>Where Energy Efficient Space Lighting is provided ONLY</td> <td></td> </tr> <tr> <th colspan="2">Internal Lighting - 1</th> </tr> <tr> <td>Maximum average wattage across the total floor area of the dwelling of 9 watts/m2</td> <td></td> </tr> </table>			External Lighting - 1		Energy Efficient Space Lighting of more than 45 lumens per circuit watt and Energy Efficient Security Lighting OR		Where Energy Efficient Space Lighting is provided ONLY		Internal Lighting - 1		Maximum average wattage across the total floor area of the dwelling of 9 watts/m2						
External Lighting - 1																	
Energy Efficient Space Lighting of more than 45 lumens per circuit watt and Energy Efficient Security Lighting OR																	
Where Energy Efficient Space Lighting is provided ONLY																	
Internal Lighting - 1																	
Maximum average wattage across the total floor area of the dwelling of 9 watts/m2																	
Comments																	
Any external lighting will be > 45 lm/cw The units will achieve better than 9 w/m2																	
Ene 08 Display Energy Devices																	
No. of BREEAM credits available	2	Available contribution to overall score	2.97%														
No. of BREEAM innovation credits	1	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Where consumption data is displayed to occupants by a compliant energy display device			2														
<table border="1"> <thead> <tr> <th rowspan="2">Electricity usage data displayed</th> <th colspan="2">Primary Heating Fuel</th> </tr> <tr> <th>Electricity</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Electricity usage data displayed</td> <td>2 credits awarded</td> <td>1 credit awarded</td> </tr> <tr> <td>Primary Heating Fuel usage data displayed</td> <td>N/A</td> <td>1 credit awarded</td> </tr> <tr> <td>Electricity &amp; Primary Heating Fuel usage displayed</td> <td>N/A</td> <td>2 credits awarded</td> </tr> </tbody> </table>			Electricity usage data displayed	Primary Heating Fuel		Electricity	Other	Electricity usage data displayed	2 credits awarded	1 credit awarded	Primary Heating Fuel usage data displayed	N/A	1 credit awarded	Electricity & Primary Heating Fuel usage displayed	N/A	2 credits awarded	
Electricity usage data displayed	Primary Heating Fuel																
	Electricity	Other															
Electricity usage data displayed	2 credits awarded	1 credit awarded															
Primary Heating Fuel usage data displayed	N/A	1 credit awarded															
Electricity & Primary Heating Fuel usage displayed	N/A	2 credits awarded															
<b>Exemplary Credits</b> <table border="1"> <tr> <th>One credit</th> <th>Where the first two credits are achieved</th> </tr> <tr> <td>Recording consumption data</td> <td>Where any compliant Energy Display Device is capable of recording consumption data</td> </tr> </table>			One credit	Where the first two credits are achieved	Recording consumption data	Where any compliant Energy Display Device is capable of recording consumption data	Indicative Innovation Credits Achieved 1										
One credit	Where the first two credits are achieved																
Recording consumption data	Where any compliant Energy Display Device is capable of recording consumption data																
Comments																	
An Energy Usage Display will be provided that also records consumption data The display will monitor and record Electricity & Primary Heating fuel usage																	
Ene 09 Cycle Storage																	
No. of BREEAM credits available	2	Available contribution to overall score	2.97%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Where individual or communal compliant cycle storage is provided as follows:			1														
<table border="1"> <thead> <tr> <th>Dwelling Size</th> <th>One Credit</th> <th>Two Credits</th> </tr> </thead> <tbody> <tr> <td>Studios/ 1 bedroom</td> <td>1 per two dwellings</td> <td>1 per dwelling</td> </tr> <tr> <td>2-3 bedrooms</td> <td>1 per dwelling</td> <td>2 per dwelling</td> </tr> <tr> <td>4 bedrooms</td> <td>2 per dwelling</td> <td>4 per dwelling</td> </tr> </tbody> </table>			Dwelling Size	One Credit	Two Credits	Studios/ 1 bedroom	1 per two dwellings	1 per dwelling	2-3 bedrooms	1 per dwelling	2 per dwelling	4 bedrooms	2 per dwelling	4 per dwelling			
Dwelling Size	One Credit	Two Credits															
Studios/ 1 bedroom	1 per two dwellings	1 per dwelling															
2-3 bedrooms	1 per dwelling	2 per dwelling															
4 bedrooms	2 per dwelling	4 per dwelling															
Comments																	
A Bike Store to hold 2 bikes per house (total 4 bikes) will be installed																	
Ene 10 Home Office																	
No. of BREEAM credits available	1	Available contribution to overall score	1.48%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Where sufficient space and services will be provided to allow occupants to set up a home office in a suitable room with adequate ventilation			1														
Comments																	
Each unit will have a compliant Home Office																	

WATER		Section Weighting: 11%		Indicative Section Score 9.90%	
<b>Wat 01 Internal Water Use</b>					
No. of BREEAM credits available	3	Available contribution to overall score	6.60%		
No. of BREEAM innovation credits	1	Minimum Standards applicable	Yes		
<b>Assessment Criteria</b>				<b>Indicative Credits</b>	
Where the dwellings water consumption meets the following consumption benchmarks, or where terminal fittings meet the following water consumption standards:				2.5	
Calculated Water Consumption (litres/person/day)	Equivalent terminal fitting standards	Minimum Standard	Credits		
>150	Typical baseline performance	N/A	0		
from 140 to ≤ 150	All showers specified to 'Good' OR All taps and WC's to 'Good' OR Kitchen fittings specified to 'Excellent'	N/A	0.5		
from 129 to < 140	All showers specified to 'Excellent' OR All showers and bathroom taps to 'Good'	BREEAM Very Good	1		
from 118 to < 129	All bathroom and WC room fittings specified to 'Good' OR All bathroom fittings specified to 'Excellent'	N/A	1.5		
from 107 to < 118	All Bathroom and WC room fittings specified to 'Excellent' OR All Bathroom fittings Specified to 'Excellent' and WC room fitting specified to 'Good' OR All Bathroom fittings, kitchen and utility fittings specified to 'Good'	BREEAM Excellent	2		
from 96 to < 107	All kitchen, bathroom, utility room and WC room fittings specified to 'Good' OR All bathrooms, kitchens and utility rooms specified to 'Excellent'	N/A	2.5		
< 96	All bathroom fittings specified to 'Excellent' and WC room, kitchen and utility room fittings specified to 'Good'	BREEAM Outstanding	3		
NOTE: 'Good' fittings are equivalent to good practice fittings with "Excellent" fittings equivalent to best practice fittings (see the technical manual for full details).					
		Exemplary Credit	If the water consumption is less than 80l/person/day	Indicative Innovation Credits Achieved	
				0	
<b>Comments</b>					
All units will achieve 105 litres/person/day or better					
<b>Wat 02 External Water Use</b>					
No. of BREEAM credits available	1	Available contribution to overall score	2.20%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
<b>Assessment Criteria</b>				<b>Indicative Credits</b>	
Where the following requirements will be met:				1	
<b>Requirements:</b>					
One Credit		Where a compliant rainwater collection system for external/internal irrigation use has been provided to dwellings. OR Where dwellings have no individual or communal garden space.			
<b>Comments</b>					
A compliant water butt will be installed in each garden to collect water run-off from the house					
<b>Wat 03 Water Meter</b>					
No. of BREEAM credits available	1	Available contribution to overall score	2.20%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
<b>Assessment Criteria</b>				<b>Indicative Credits</b>	
Where an appropriate water meter for measuring usage of mains potable water meter has been provided to dwelling(s), one credit may be awarded				1	
<b>Comments</b>					
A water meter will be installed in a visible space (not in a cupboard)					
MATERIALS		Section Weighting: 8%		Indicative Section Score 2.50%	
<b>Mat 01 Environmental Impact of Materials</b>					
No. of BREEAM credits available	25	Available contribution to overall score	4.16%		
No. of BREEAM innovation credits	0	Minimum Standards applicable	No		
<b>Assessment Criteria</b>				<b>Indicative Credits</b>	
Up to 25 credits can be awarded, with credits calculated using the Mat 01 calculator tool. The table below shows the maximum number of credits available for each element:				5	
Elements	Green Guide Rating credits available	Thermal performance credits			
Roof	5	3			
External walls	5	3.8			
Internal walls (including separating walls)	5	-			
Upper and Ground Floor	5	1.2			
Windows	5	2			
The full 25 credits represents all of the elements containing refurbished or existing materials that meet the Green Guide Rating of A+(6)					
GG Rating	Points for existing / refurbished elements	Points for new elements			
A+ (6)	5				
A+ (5)	4.6				
A+ (4)	4.2				
A+ (3)	3.8				
A+ (2)	3.4				
A+	3	3			
A	2	2			
B	1	1			
C	0.5	0.5			
D	0.25	0.25			
E	0	0			
Where the full 25 credits cannot be achieved the score can be 'topped up' with thermal performance credits. The full number of thermal performance credits for each element can be achieved when achieving the minimum U-values shown below.					
		Elements	Minimum U-Value		
		Roof	0.11		
		External walls	0.15		

Internal walls (including separating walls) Upper and Ground Floor Windows	-	
	0.15	
	1.4	
Comments	The Mat 01 calculator will be completed and will show at least 3 credits have been obtained	



Mat 02 Responsible Sourcing of Materials																	
No. of BREEAM credits available	15	Available contribution to overall score	2.50%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes														
Assessment Criteria			Indicative Credits														
Where new materials are responsibly sourced, up to 12 credits may be awarded where 80% of new materials for an element are responsibly sourced. The credits achieved are dependent on % of point achieved which is based upon the responsible sourcing tier level of each material sourced as detailed below:			6														
Sustainable Procurement Plan (3 BREEAM credits)		Will all new timber used in the project be sourced in accordance with the UK Government's Timber Procurement Checklist A-9 is filled in with supporting evidence															
The principal contractor sources materials for the project in accordance with a documented sustainable procurement plan		Yes															
OR Where the principal contractor is a Small Company (up to 3 BREEAM credits)																	
Checklist A-9 is filled in with supporting evidence																	
<table border="1"> <caption>Table 1</caption> <thead> <tr> <th>BREEAM credits</th> <th>% of available points achieved</th> </tr> </thead> <tbody> <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> </tbody> </table>				BREEAM credits	% of available points achieved	12	≥54%	10	≥45%	8	≥36%	6	≥27%	4	≥18%	2	≥9%
BREEAM credits	% of available points achieved																
12	≥54%																
10	≥45%																
8	≥36%																
6	≥27%																
4	≥18%																
2	≥9%																
Comments																	
Materials will be sourced in line with the documented Sustainable Procurement plan																	
Mat 03 Insulation																	
No. of BREEAM credits available	8	Available contribution to overall score	1.33%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Where any new insulation specified for use within external walls, ground floor, roof and buildings services meet the following requirements:			4														
Requirements																	
4 Credits	Where the Insulation Index for new insulation used in the buildings is ≥2																
	Where Green Guide ratings are determined using the Green Guide to specification tool																
Requirements																	
4 Credits	Where ≥ 80% of the new thermal insulation used in the building elements is responsibly sourced.																
Comments																	
4 credits will be achieved using the Insulation Index >= 2																	
WASTE Section Weighting: 3% Indicative Section Score 2.40%																	
Was 01 Household Waste																	
No. of BREEAM credits available	2	Available contribution to overall score	1.20%														
No. of BREEAM innovation credits	0	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Where compliant recycling and composting facilities are provided, up to two credits may be awarded as follows			1														
First Credit - Recycling Facilities																	
Compliant collection scheme in place	Internal recycling storage requirements																
	3 internal recycling containers provided where recycling is not sorted post collection																
	1 internal recycling container provided where recycling is sorted post collection																
	Minimum 30 litre total capacity, no single container less than 7 litre capacity																
No compliant collection scheme in place No adequate external storage	Dedicated position in accordance with compliance note 1																
	3 internal recycling containers provided																
	Minimum 60 litre total capacity																
No compliant collection scheme in place Adequate external storage provided	Dedicated position in accordance with compliance note 1																
	3 internal recycling containers provided																
	Minimum 30 litre total capacity, no single container smaller than 7 litre																
Second credit - Composting facilities																	
With external space		Without external space															
Where a composting service or facility is provided for green/garden waste		Where a composting service or facility is provided for kitchen waste															
Where a composting service or facility is provided for kitchen waste		Where an interior container is provided for kitchen composting waste of at least 7 litres															
Where an interior container is provided for kitchen composting waste of at least 7 litres																	
Comments																	
Compliant internal & external recycling container will be installed																	
Was 02 Refurbishment Site Waste Management																	
No. of BREEAM credits available	3	Available contribution to overall score	1.80%														
No. of BREEAM innovation credits	1	Minimum Standards applicable	No														
Assessment Criteria			Indicative Credits														
Up to three credits are available depending on the site waste management plan to be implemented as follows			3														
Projects up to £100k																	
Three Credits	Where waste generated through the refurbishment process is managed in accordance with Checklist A-9																
Exemplary Credit	Where a compliant Level 1; Site Waste Management Plan (SWMP) is in place																
Projects up to £300k																	
Three Credits	Where a compliant Level 1; Site Waste Management Plan (SWMP) is in place																
	Where a compliant Level 2; Site Waste Management Plan (SWMP) is in place																
Exemplary Credit	Non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the resource efficiency benchmark																
			Indicative Innovation Credits Achieved														
			0														

	The percentage of non-hazardous construction waste and demolition waste generated by the project has been diverted from landfill and meets or exceeds the refurbishment & demolition waste diversion benchmarks
<b>Projects over £300k</b>	
<b>First Credit</b> Management Plan	Where a compliant Level 2; Site Waste Management Plan (SWMP) is in place
	First credit achieved
<b>Second Credit</b> Good Practice Waste Benchmarks	Non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the resource efficiency benchmark
	Amount of waste generated against £100,000 of project value is recorded in the SWMP
	Pre-refurbishment audit of the existing building is completed
	If demolition is included as part of the refurbishment programme, then the audit should also cover demolition materials
<b>Third Credit</b> Best Practice Waste Benchmarks	Where the first two credits have been achieved
	Where Non-hazardous demolition waste generated by the dwellings refurbishment meets or exceeds the refurbishment & demolition waste diversion benchmarks
<b>Exemplary Credit</b>	Where non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the <i>exemplary level resource efficiency benchmark</i>
	Where Non-hazardous demolition waste generated by the dwellings refurbishment meets or exceeds the exemplary level diversion benchmarks
<b>Comments</b>	A Level 3 Site Waste management Plan will be in place

POLLUTION		Section Weighting: 6%		Indicative Section Score 3.00%									
<b>Pol 01 NOx Emissions</b>													
No. of BREEAM credits available	3	Available contribution to overall score	2.25%										
No. of BREEAM innovation credits	0	Minimum Standards applicable	No										
<b>Assessment Criteria</b>				<b>Indicative Credits</b>									
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:				0									
		<table border="1"> <thead> <tr> <th colspan="2">Dry NOx Emissions</th> </tr> </thead> <tbody> <tr> <td>One Credit</td> <td>≤100 mg/kWh (NOx class 4 boiler)</td> </tr> <tr> <td>Two Credits</td> <td>≤70 mg/kWh (NOx class 5 boiler)</td> </tr> <tr> <td>Three Credits</td> <td>≤40 mg/kWh</td> </tr> </tbody> </table>				Dry NOx Emissions		One Credit	≤100 mg/kWh (NOx class 4 boiler)	Two Credits	≤70 mg/kWh (NOx class 5 boiler)	Three Credits	≤40 mg/kWh
Dry NOx Emissions													
One Credit	≤100 mg/kWh (NOx class 4 boiler)												
Two Credits	≤70 mg/kWh (NOx class 5 boiler)												
Three Credits	≤40 mg/kWh												
<b>Comments</b>													
Electrical heating is to be used													
<b>Pol 02 Surface Water Runoff</b>													
No. of BREEAM credits available	3	Available contribution to overall score	2.25%										
No. of BREEAM innovation credits	1	Minimum Standards applicable	No										
<b>Assessment Criteria</b>				<b>Indicative Credits</b>									
Where impacts of the refurbishment on surface water runoff are neutralised or where runoff is reduced as a result of refurbishment, up to three credits can be awarded as follows:				2									
<b>Requirements</b>													
<b>One Credit</b> Neutral Impact on Surface Water		New hard standing areas must be permeable If building on to previously permeable area additional run-off must be managed on site Calculations should be carried out by an appropriately qualified professional											
<b>Requirements</b>													
<b>OR Second Credits</b> Reducing Run-Off From Site: Basic		Where the criteria needed for One Credit has been achieved Where all run-off from the roof for rainfall depths up to 5 mm, have been managed on site using source control methods Include runoff from all existing and new parts of the roof. An appropriately qualified professional should be used to design an appropriate drainage strategy for the site											
<b>Requirements</b>													
<b>OR Three Credits</b> Reducing Run-Off From Site: Advanced		Where run-off as a result of the refurbishment is managed on site using source control An appropriately qualified professional should be used to design an appropriate drainage strategy for the site. 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. 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%. An allowance for climate change must be included for all of the above calculations, in accordance with current best practice (PPS25, 2010).											
<b>Requirements</b>													
<b>Exemplary Credit</b>		Where all run-off from the developed site is managed on site using source control The peak rate of run-off as a result of the refurbishment for the 1 in 1 year event is reduced to zero. The peak rate of run-off as a result of the refurbishment for the 1 in 100 year event is reduced to zero. 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. An allowance for climate change must be included for all of the above calculations, in accordance with current best practice (PPS25, 2010).											
				<b>Indicative Innovation Credits Achieved</b>									
				0									
<b>Comments</b>													
<b>Pol 03 Flooding</b>													
No. of BREEAM credits available	2	Available contribution to overall score	1.50%										
No. of BREEAM innovation credits	0	Minimum Standards applicable	Yes										
<b>Assessment Criteria</b>				<b>Indicative Credits</b>									
Where the dwelling is located in a low flood risk zone, or where in a medium to high flood risk zone and a flood resilience/resistance strategy has been implemented, up to two credits can be awarded as follows:				2									
<b>Minimum Standards</b>		A minimum of two credits must be achieved for this issue at the Excellent and Outstanding levels											
<b>Option 1 - Low Flood Risk</b>													
<b>Two Credits</b>		Where a Flood Risk Assessment (FRA) has been carried out and the assessed dwellings are defined as having a low annual probability of flooding.											
<b>Option 2 - Medium / High Flood Risk</b>													
<b>Two Credits</b>		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. 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-10; Decision Strategy Flow Chart. 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											
<b>Comments</b>													
This project is in a low Flood Risk zone and a Flood Risk Analysis will be carried out													