



**BREEAM UK Domestic Refurbishment 2014 Pre-Assessment Estimator v0.1**

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	Athlone House London N6 4RU
Indicative building score (%)	81.12%
Indicative BREEAM rating	BREEAM Excellent

	Minimum Standards				
	Pass	Good	Very Good	Excellent	Outstanding
Ene 02	✓	✓	✓	✓	✗
Wat 01	✓	✓	✓	✓	✗
Hea 05	✓	✓	✓	✓	✓
Hea 06	✓	✓	✓	✓	✓
Pol 03	✓	✓	✓	✓	✓
Mat 02	✓	✓	✓	✓	✓

Management	Health & Wellbeing	Energy	Water	Materials	Waste	Pollution
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**INNOVATION** Section Weighting: 10% Indicative Section Score: 2.00%

Comments

**MANAGEMENT** Section Weighting: 12% Indicative Section Score: 12.00%

<b>Man 01 Home Users Guide</b>			
No. of BREEAM credits available	3	Available contribution to overall score	3.27%
No. of BREEAM innovation credits	0	Minimum Standards applicable:	No

**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 Indicative Credits: 3

Comments

<b>Man 02 Responsible Construction Practices</b>			
No. of BREEAM credits available	2	Available contribution to overall score:	2.18%
No. of BREEAM innovation credits	1	Minimum Standards	No

**Assessment Criteria** Where a compliant considerate construction scheme will be used, credits are awarded depending the score achieved as outlined below: Indicative Credits: 2

**Large Scale - project with more than 5 units**

	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

**Small Scale - project with 5 units or fewer**

	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

**Exemplary Credit**

Considerate Constructors Scheme	Score of 40 or more with a score of 7 in each section	Indicative Innovation Credits Achieved: 0
Alternative Compliant Scheme	Exemplary Level Compliance	
Checklist A-3*	All Items (Optional & Mandatory)	

\* Small Scale Project Only

Comments

<b>Man 03 Construction Site Impacts</b>			
No. of BREEAM credits available	1	Available contribution to overall score	1.09%
No. of BREEAM innovation credits	0	Minimum Standards applicable	No

**Assessment Criteria** Where evidence demonstrate that site impacts will be monitored, as detailed below: Indicative Credits: 1

	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

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

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			
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		Indicative Innovation Credits Achieved 1
	adopts all general ecological recommendations		
	adopts 30% of additional recommendations		
Comments			
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		
Exemplary Credits			Indicative Innovation Credits Achieved 0
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			

HEALTH & WELLBEING		Section Weighting: 17%	Indicative Section Score 12.75%	
<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:				1
<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>				
<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.				4
<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>Four Credits</b>	<b>Properties with separating walls or floors only between non habitable rooms OR Testing not required by building control body</b>			
	By Default			
<b>Comments</b>				
<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>				

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		
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			
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			
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			
ENERGY Section Weighting: 43% Indicative Section Score 37.81%			
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:			3.5
	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			

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:			3
	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			
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:			7
	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			
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			2
	Dwelling Type	Primary Energy Demand	Percentage from Renewables
			1 Credit
			2 Credits
	Detached	≤ 250 kWh/m <sup>2</sup> /year	≥10%
	Semi-Detached		≥10%
	Bungalow		≥10%
	End of Terrace		≥10%
	Mid Terrace	≤ 220 kWh/m <sup>2</sup> /year	≥10%
	Low Rise Flat		≥10%
	Mid Rise Flat		≥10%
	High Rise Flat		≥10%
Comments			
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			

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 is provided with the following:				1
<b>1 Credit</b>				
Number of bedrooms		Drying line required		
1-2		4m+		
3+		6m+		
Comments				
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
<b>External Lighting - 1</b>				
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				
<b>Internal Lighting - 1</b>				
Maximum average wattage across the total floor area of the dwelling of 9 watts/m2				
Comments				
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
Electricity usage data displayed		Primary Heating Fuel		
Electricity usage data displayed		Electricity	Other	
Primary Heating Fuel usage data displayed		2 credits awarded	1 credit awarded	
Electricity & Primary Heating Fuel usage displayed		N/A	1 credit awarded	
Electricity & Primary Heating Fuel usage displayed		N/A	2 credits awarded	
<b>Exemplary Credits</b>				
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
Comments				
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:				2
Dwelling Size		One Credit		
Studios/ 1 bedroom		Two Credits		
2-3 bedrooms		1 per two dwellings		
4 bedrooms		1 per dwelling		
2-3 bedrooms		2 per dwelling		
4 bedrooms		2 per dwelling		
4 bedrooms		4 per dwelling		
Comments				
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				

**WATER** Section Weighting: 11% Indicative Section Score 6.60%

<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

**Assessment Criteria** Where the dwellings water consumption meets the following consumption benchmarks, or where terminal fittings meet the following water consumption standards: Indicative Credits **2**

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).

<b>Exemplary Credit</b>	If the water consumption is less than 80l/person/day	Indicative Innovation Credits Achieved <b>0</b>
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Comments

<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

**Assessment Criteria** Where the following requirements will be met: Indicative Credits **0**

<b>Requirements:</b>	
<b>One Credit</b>	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.

Comments

<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

**Assessment Criteria** Where an appropriate water meter for measuring usage of mains potable water meter has been provided to dwelling(s), one credit may be awarded Indicative Credits **1**

Comments

**MATERIALS** Section Weighting: 8% Indicative Section Score 3.67%

<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

**Assessment Criteria** 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: Indicative Credits **19**

Elements	Green Guide Rating credits available	Thermal performance credits available*
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.

<b>Elements</b>	<b>Minimum U-Value</b>
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	Roof	0.11
	External walls	0.15
	Internal walls (including separating walls)	-
	Upper and Ground Floor	0.15
	Windows	1.4
Comments		





Exemplary Credit	meets or exceeds the resource efficiency benchmark
	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

**Projects over £300k**

First Credit Management Plan	Where a compliant Level 2; Site Waste Management Plan (SWMP) is in place
Second Credit Good Practice Waste Benchmarks	First credit achieved
	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
Third Credit Best Practice Waste Benchmarks	If demolition is included as part of the refurbishment programme, then the audit should also cover demolition materials
	Where the first two credits have been achieved
Exemplary Credit	Where Non-hazardous demolition waste generated by the dwellings refurbishment meets or exceeds the refurbishment & demolition waste diversion benchmarks
	Where non-hazardous construction waste generated by the dwellings refurbishment meets or exceeds the <i>exemplary level resource efficiency benchmark</i>
Exemplary Credit	Where Non-hazardous demolition waste generated by the dwellings refurbishment meets or exceeds the exemplary level diversion benchmarks

**Comments**

POLLUTION		Section Weighting: 6%		Indicative Section Score 4.50%	
<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:				3	
		<b>Dry NOx Emissions</b>			
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>					
<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:				1	
<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 from 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>					