

PARKER HOUSE

BREEAM DOMESTIC REFURBISHMENT 2014 - PRELIMINARY ASSESSMENT SCORESHEET

DATE: 31/07/2017

VERSION: 05

TARGET RATING: Excellent



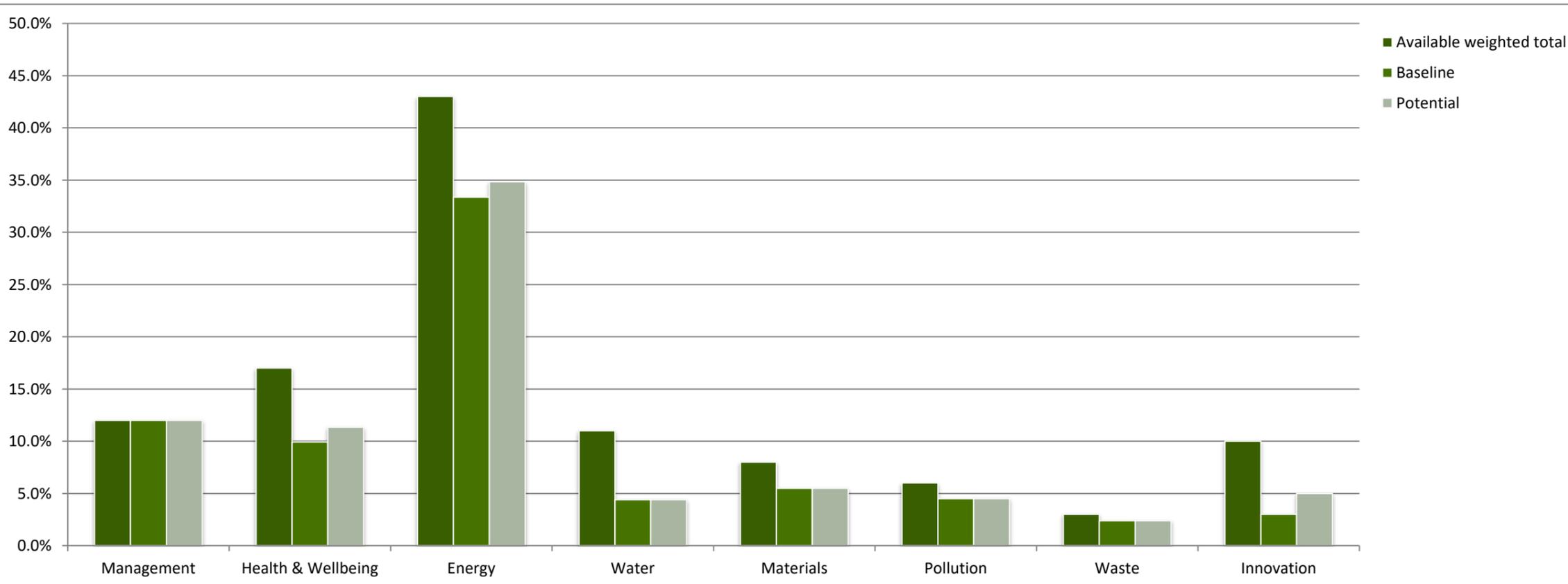
Clerkenwell House
45 Clerkenwell Green
London EC1R0HT

SUMMARY PERFORMANCE & RATING

Credit section	No. Credits available	Targeted credits		Credit weighting	Available weighted total	Targeted weighted total	
		Baseline	Potential			Baseline	Potential
Management	11	11	11	1.09%	12.0%	12.00%	12.00%
Health & Wellbeing	12	7	8	1.42%	17.0%	9.92%	11.34%
Energy	29	22.5	23.5	1.48%	43.0%	33.36%	34.85%
Water	5	2	2	2.20%	11.0%	4.40%	4.40%
Materials	48	33	33	0.17%	8.0%	5.50%	5.50%
Pollution	8	6	6	0.75%	6.0%	4.50%	4.50%
Waste	5	4	4	0.60%	3.0%	2.40%	2.40%
Innovation	Up to 10	3	5	1.00%	10.0%	3.00%	5.00%
TOTAL SCORE						75.08%	79.98%
BREEAM RATING						EXCELLENT	EXCELLENT

BREEAM Rating	Score
OUTSTANDING	85%
EXCELLENT	70%
VERY GOOD	55%
GOOD	45%
PASS	30%
UNCLASSIFIED	<30%

Note: The BREEAM rating is dependent on achieving the associated minimum standards



MANAGEMENT SECTION

Minimum standard applies

Credit weighting 1.09% 11 credits available

Credit at risk

Credit Issue	Credits Available	Credit Criteria	Targeted Credits	
			Baseline	Potential
Man 01				
Home Users Guide	3	Provision of information in line with BREEAM criteria, including improvements made. Available in alternative formats	3	3
Man 01 Credit Total	3		3	3
Weighted Total	3.27%		3.27%	3.27%
Man 02				
Responsible Construction Practices	2	1 credit = CCS score 24 - 34pts (5pts in each section) 2 credits = CCS score 35 - 39pts (7pts in each section)	2	2
Man 02 Credit Total	2		2	2
Weighted Total	2.18%		2.18%	2.18%
Man 03				
Construction Site Impacts	1	2 or more of the following: a. CO2 targets b. Water targets c. Environmental materials policy d. Contractor EMS e. 80% reclaimed/responsibly sourced timber	1	1
Man 03 Credit Total	1		1	1
Weighted Total	1.09%		1.09%	1.09%
Man 04				
Security	2	1 credit = secure windows & doors, OR 2 credits = SBD Section 2 and ALO/CPDA (design stage)	2	2
Man 04 Credit Total	2		2	2
Weighted Total	2.18%		2.18%	2.18%
Man 05				
Protection and Enhancement of Ecological Features	1	Site survey (team member or ecologist) + protection and retention OR no ecological features	1	1
Man 05 Credit Total	1		1	1
Weighted Total	1.09%		1.09%	1.09%
Man 06				
Project Management	1	Project roles and responsibilities assigned by PM across design and refurb stages	1	1
	1	Handover meeting plus 2 of the following: a. site inspection within 3 months of occupation b. Interviews/phone survey/posted info within 3 months c. 12 months aftercare e.g. helpline	1	1
Man 06 Credit Total	2		2	2
Weighted Total	2.18%		2.18%	2.18%
Section Credit Total	11		11	11
Section Weighted Total	12.00%		12.00%	12.00%

HEALTH & WELLBEING SECTION

Minimum standard applies

Credit weighting 1.42% 12 credits available

Credit at risk

Credit Issue	Credits Available	Credit Criteria	Targeted Credits	
			Baseline	Potential
Hea 01				
Daylighting	1	Neutral impact of refurb on daylighting levels in kitchen, living room, dining room and study, Plus "no" to Appendix A	1	1
	1	Min. levels: 2% kitchens; 1.5% living, dining & study; 80% working plane direct light from sky	0	0
Hea 01 Credit Total	2		1	1
Weighted Total	2.83%		1.42%	1.42%
Hea 02				
Sound Insulation	4	Dependent on dwelling type and whether subject to sound testing (see assessment criteria) <i>(2 credits Part E; 3 credits 3dB improvement; 4 credits 5dB improvement)</i>	3	3
Hea 02 Credit Total	4		3	3
Weighted Total	5.67%		4.25%	4.25%
Hea 03				
Volatile Organic Compounds	1	Paints & varnishes PLUS at least 5 of remaining product categories to meet European Standard	0	1
Hea 03 Credit Total	1		0	1
Weighted Total	1.42%		0.00%	1.42%
Hea 04				
Inclusive Design	2	1 credit = Access expert/SQ team member + Checklist A-8 section 1 + evidence of measures, OR 2 credits = As above + section 2	0	0
Hea 04 Credit Total	2		0	0
Weighted Total	2.83%		0.00%	0.00%
Hea 05				
Ventilation	2	1 credit = Background (habitable), extract (wet) and purge (habitable) ventilation in-line with Part F 2010 minimum levels, OR 2 credits = Advanced ventilation for dwelling meeting Part F Section 5 in full	2	2
Hea 05 Credit Total	2		2	2
Weighted Total	2.83%		2.83%	2.83%
Hea 06				
Safety	1	Mains-wired fire and carbon monoxide detection and alarm system	1	1
Hea 06 Credit Total	1		1	1
Weighted Total	1.42%		1.42%	1.42%
Section Credit Total	12		7	8
Section Weighted Total	17.00%		9.92%	11.34%

ENERGY SECTION

Minimum standard applies

Credit weighting **1.48%** **29 credits available**

Credit at risk

Credit Issue	Credits Available	Credit Criteria	Targeted Credits															
			Baseline	Potential														
Ene 01																		
Improvement in Energy Efficiency Rating	6	Improvement to the dwellings Energy Efficiency Rating obtained from EPC (SAP or RdSAP). E.g: <table border="1" style="margin-left: 20px;"> <tr> <td>0.5 credit = ≥5</td> <td>3.5 credits = ≥31</td> </tr> <tr> <td>1 credit = ≥9</td> <td>4 credits = ≥36</td> </tr> <tr> <td>1.5 credits = ≥13</td> <td>4.5 credits = ≥42</td> </tr> <tr> <td>2 credits = ≥17</td> <td>5 credits = ≥48</td> </tr> <tr> <td>2.5 credits = ≥21</td> <td>5.5 credits = ≥54</td> </tr> <tr> <td>3 credits = ≥26</td> <td>6 credits = ≥60</td> </tr> </table>	0.5 credit = ≥5	3.5 credits = ≥31	1 credit = ≥9	4 credits = ≥36	1.5 credits = ≥13	4.5 credits = ≥42	2 credits = ≥17	5 credits = ≥48	2.5 credits = ≥21	5.5 credits = ≥54	3 credits = ≥26	6 credits = ≥60	2	3		
			0.5 credit = ≥5	3.5 credits = ≥31														
			1 credit = ≥9	4 credits = ≥36														
			1.5 credits = ≥13	4.5 credits = ≥42														
			2 credits = ≥17	5 credits = ≥48														
			2.5 credits = ≥21	5.5 credits = ≥54														
3 credits = ≥26	6 credits = ≥60																	
Ene 01 Credit Total	6	2	3															
Weighted Total	8.90%	2.97%	4.45%															
Ene 02																		
Energy Efficient Rating Post Refurbishment	4	EER Post refurb obtained from SAP or RdSAP worksheets. E.g: <table border="1" style="margin-left: 20px;"> <tr> <td>0.5 credit = ≥50 ~high E</td> <td>2.5 credits = ≥70 ~low C (Ex)</td> </tr> <tr> <td>1 credit = ≥55 ~low D</td> <td>3 credits = ≥75 ~mid C</td> </tr> <tr> <td>1.5 credits = ≥60 ~mid D</td> <td>3.5 credits = ≥80 ~high C (Out)</td> </tr> <tr> <td>2 credits = ≥65 ~high D (VG)</td> <td>4 credits = ≥85 ~B</td> </tr> </table>	0.5 credit = ≥50 ~high E	2.5 credits = ≥70 ~low C (Ex)	1 credit = ≥55 ~low D	3 credits = ≥75 ~mid C	1.5 credits = ≥60 ~mid D	3.5 credits = ≥80 ~high C (Out)	2 credits = ≥65 ~high D (VG)	4 credits = ≥85 ~B	3.5	3.5						
			0.5 credit = ≥50 ~high E	2.5 credits = ≥70 ~low C (Ex)														
			1 credit = ≥55 ~low D	3 credits = ≥75 ~mid C														
			1.5 credits = ≥60 ~mid D	3.5 credits = ≥80 ~high C (Out)														
2 credits = ≥65 ~high D (VG)	4 credits = ≥85 ~B																	
Ene 02 Credit Total	4	3.5	3.5															
Weighted Total	5.93%	5.19%	5.19%															
Ene 03																		
Primary Energy Demand	7	Dwelling meets the Primary Energy Demand targets, e.g.: 0.5 credit = ≤400 kWh/m2/year... <table border="1" style="margin-left: 20px;"> <tr> <td>1 credit = ≤370</td> <td>4 credits = ≤240</td> </tr> <tr> <td>1.5 credits = ≤340</td> <td>4.5 credits = ≤220</td> </tr> <tr> <td>2 credits = ≤320</td> <td>5 credits = ≤200</td> </tr> <tr> <td>2.5 credits ≤300</td> <td>5.5 credits = ≤180</td> </tr> <tr> <td>3 credits = ≤280</td> <td>6 credits = ≤160</td> </tr> <tr> <td>3.5 credits = ≤260</td> <td>6.5 credits = ≤140</td> </tr> <tr> <td></td> <td>7 credits = ≤120</td> </tr> </table>	1 credit = ≤370	4 credits = ≤240	1.5 credits = ≤340	4.5 credits = ≤220	2 credits = ≤320	5 credits = ≤200	2.5 credits ≤300	5.5 credits = ≤180	3 credits = ≤280	6 credits = ≤160	3.5 credits = ≤260	6.5 credits = ≤140		7 credits = ≤120	7	7
			1 credit = ≤370	4 credits = ≤240														
			1.5 credits = ≤340	4.5 credits = ≤220														
			2 credits = ≤320	5 credits = ≤200														
			2.5 credits ≤300	5.5 credits = ≤180														
			3 credits = ≤280	6 credits = ≤160														
3.5 credits = ≤260	6.5 credits = ≤140																	
	7 credits = ≤120																	
Ene 03 Credit Total	7	7	7															
Weighted Total	10.38%	10.38%	10.38%															
Ene 04																		
Renewable Technologies	2	1 credit = 10% onsite LZC + 250 or 220 kWh/m2/yr 2 credits = 15% onsite LZC + 250 or 220 kWh/m2/yr	2	2														
Ene 04 Credit Total	2		2	2														
Weighted Total	2.97%		2.97%	2.97%														
Ene 05																		
Energy Labelled White Goods	1	Fridges, freezers, fridge-freezers carry Energy Saving Trust Recommended Label, OR Where no white goods, leaflet provided to each dwelling on EU Energy Efficiency Labelling Scheme	1	1														
	1	Washing machines and dishwashers, as above. PLUS washer dryers and tumble dryers have a B rating under EU scheme. (Where not specified credit not achievable)	1	1														
Ene 05 Credit Total	2		2	2														
Weighted Total	2.97%		2.97%	2.97%														
Ene 06																		

Drying Space	1	Internal or external fitting of 4m (1-2 bed) or 6m (3+ bed) drying line. Adequately ventilated.	0	0
Ene 06 Credit Total	1		0	0
Weighted Total	1.48%		0.00%	0.00%
Ene 07				
Lighting	1	Energy efficient external space (inc communal areas) and security lighting (if provided)	1	1
	1	Internal lighting minimised to max average of 9 watts/m2 across dwelling	1	1
Ene 07 Credit Total	2		2	2
Weighted Total	2.97%		2.97%	2.97%
Ene 08				
Energy Display Devices	2	1 credit = Compliant energy display device for electricity OR primary heating fuel 2 credits = Compliant energy display device for electricity AND primary heating fuel, or where electricity is primary heating fuel.	2	2
Ene 08 Credit Total	2		2	2
Weighted Total	2.97%		2.97%	2.97%
Ene 09				
Cycle Storage	2	Compliant cycle storage: 1 credit = - Studios/1 bed – 1 cycle for every two dwellings - 2 and 3 bed – 1 cycle per dwelling - 4+ bed - 2 cycles per dwelling 2 credits = - Studios/1 bed – 1 cycle per dwelling - 2 and 3 bed – 2 cycles per dwelling - 4+ bed - 4 cycles per dwelling	2	2
Ene 09 Credit Total	2		2	2
Weighted Total	2.97%		2.97%	2.97%
Ene 10				
Home Office	1	1.8m wall length for home office, near window, with ventilation in a suitable room	0	0
Ene 10 Credit Total	1		0	0
Weighted Total	1.48%		0.00%	0.00%
Section Credit Total	29		22.5	23.5
Section Weighted Total	43.00%		33.36%	34.85%

WATER SECTION

Credit weighting **2.20%**

5 credits available

Minimum standard applies

Credit at risk

Credit Issue	Credits Available	Credit Criteria	Targeted Credits	
			Baseline	Potential
Wat 01				
Internal Water Use	3	Improvement on baseline (>150 l/p/d) through water efficient fittings and white goods: 0.5 credit = 140-150 1 credit = 129-139 (VG) 1.5 = 118-128 2 = 107-117 (Ex) 2.5 = 96-106 3 = <95	2	2
Wat 01 Credit Total	3		2	2
Weighted Total	6.60%		4.40%	4.40%
Wat 02				
External Water Use	1	Rainwater collection for external irrigation, or no garden space	0	0
Wat 02 Credit Total	1		0	0
Weighted Total	2.20%		0.00%	0.00%
Wat 03				
Water Meter	1	Per dwelling, visible and capable of recording and displaying current and historic consumption	0	0
Wat 03 Credit Total	1		0	0
Weighted Total	2.20%		0.00%	0.00%
Section Credit Total	5		2	2
Section Weighted Total	11.00%		4.40%	4.40%

MATERIALS SECTION

Credit weighting **0.17%**

48 credits available

Minimum standard applies

Credit at risk

Credit Issue	Credits Available	Credit Criteria	Targeted Credits	
			Baseline	Potential
Mat 01				
Environmental Impact of Materials	25	Up to 25 credits available for combination of Green Guide rating of new/retained/refurbished building elements and improved thermal performance.	16	16
Mat 01 Credit Total	25		16	16
Weighted Total	4.17%		2.67%	2.67%
Mat 02				
Responsible Sourcing of Materials	3	Sustainable Procurement Plan	3	3
	12	Tier Levels for certification. E.g. FSC = Tier level 3; EMS = Tier level 7. Points accrued for each tier level to give overall score and credit allocation	6	6
Mat 02 Credit Total	15		9	9
Weighted Total	2.50%		1.50%	1.50%
Mat 03				
Insulation	4	Embodied impact: Insulation Index for new insulation is ≥ 2 + Green Guide ratings for Ex walls, ground floor, roof and Building Services	4	4
	4	Responsible sourcing: 80% of new insulation is responsibly sourced	4	4
Mat 03 Credit Total	8		8	8
Weighted Total	1.33%		1.33%	1.33%
Section Credit Total	48		33	33
Section Weighted Total	8.00%		5.50%	5.50%

POLLUTION SECTION Minimum standard applies
 Credit weighting **0.75%** **8 credits available** Credit at risk

Credit Issue	Credits Available	Credit Criteria	Targeted Credits	
			Baseline	Potential
Pol 01				
NOx Emissions	3	1 credit = 100mg/kWh (space heating and hot water) 2 credits = 70mg/kWh (space heating and hot water) 3 credits = 40mg/kWh (space heating and hot water)	3	3
Pol 01 Credit Total	3		3	3
Weighted Total	2.25%		2.25%	2.25%
Pol 02				
Surface Water Runoff	1	Neutral impact a. New hardstanding must be permeable b. Additional run-off of rainfall up to 5mm from extensions must be managed using SUDs c. Any calculations by suitably qualified professional	1	1
	1	Reducing run-off - basic a. Roof runoff up to 5mm managed using source control (e.g. infiltration, soakaways, etc). Includes existing and new roof areas b. AQP used to design drainage strategy	0	0
	1	Reducing run-off - advanced AQP used to design drainage strategy and source control used to achieve: a. Peak rate run-off of refurbishment for 1 in 100 year event reduced by 75% from existing site b. Total volume discharged run-off for 1 in 100 year event of 6 hour duration reduced by 75%	0	0
Pol 02 Credit Total	3		1	1
Weighted Total	2.25%		0.75%	0.75%
Pol 03				
Flood Risk	2	Option 1 - Low flood risk: FRA + Low annual probability of flooding Option 2 - Medium/High flood risk FRA + Measures to avoid flooding following Checklist A-10 'Decision Strategy Flow Chart'. Where avoidance not possible, full flood resilience/resistance strategy implemented (SQP)	2	2
Pol 03 Credit Total	2		2	2
Weighted Total	1.50%		1.50%	1.50%
Section Credit Total	8		6	6
Section Weighted Total	6.00%		4.50%	4.50%

WASTE SECTION

Credit weighting **0.60%**

5 credits available

Minimum standard applies

Credit at risk

Credit Issue	Credits Available	Credit Criteria	Targeted Credits	
			Baseline	Potential
Wst 01				
Household Waste	2	1 credit = Internal storage requirements met, dependent on scenerio, PLUS 1 credit = Composting service/facility and internal container for dwellings with significant external space (green and kitchen waste), OR where no external space just for kitchen waste	1	1
Wst 01 Credit Total	2		1	1
Weighted Total	1.20%		0.60%	0.60%
Wst 02				
Refurbishment Site Waste Management (for projects over £300K)	1	Compliant Level 2 Site Waste Management Plan	1	1
	1	Resource efficiency: a. Non-haz construction waste per £100K of project value meets/exceeds 26.52m3 or 16.90 tonnes benchmarks b. Record amount of waste generated in SWMP c. Pre-refurbishment audit of existing building (must cover demolition materials if demolition is included as part of refurb project.	1	1
	1	Diversion from landfill: Non-haz waste generated meets/exceeds the diversion benchmarks: - Construction waste: 70% vol or 65% tonnes - Demolition waste: 80% vol or 90% tonnes	1	1
Wst 02 Credit Total	3		3	3
Weighted Total	1.80%		1.80%	1.80%
Section Credit Total	5		4	4
Section Weighted Total	3.00%		2.40%	2.40%

INNOVATION SECTION

Credit weighting

1.00%

Up to 10 credits available



Credit Issue	Credits Available	Credit Criteria	Targeted Credits	
			Baseline	Potential
Man 02 Responsible Construction Practices	1	40 pts or more under CCS (score of 7 in each section achieved)	0	1
Man 05 Protection and Enhancement of Ecological Value	1	SQEcologist appointed + recommendations for enhancement Adopt all general recommendations and 30% additional recommendations	1	1
Man 06 Project Management	1	1 Innovation credit = BREEAM AP at early stage, prior to refurb spec	1	1
	1	1 Innovation credit = Thermographic survey and air tightness testing carried out at both pre and post refurbishment stages PLUS improved air tightness target set at design stage and testing demonstrates achievement post refurb	0	0
Hea 04 Inclusive Design	1	Complete sections 1,2 and 3 (i.e. Lifetime Homes) of A-8 Checklist	0	0
Ene 02 Energy Efficiency Rating Post Refurbishment	2	1 Innovation credit = EER of ≥90, equivalent to EPC rating A 2 Innovation credits = ≥100	0	0
Ene 08 Display Energy Devices	1	Where any display device is capable of recording data	1	1
Wat 01 Internal Water Use	1	Less than 80 l/p/d	0	0
Was 02 Refurbishment Site Waste Management	1	Non-hazardous construction waste generated meets or exceeds the resource efficiency benchmark of 17.32m ³ or 8.78 tonnes (per £100K) Plus Diversion from landfill benchmarks of: - Construction waste = 80% vol or 85% tonnes - Demolition waste = 85% vol or 95% tonnes	0	1
Pol 02 Surface Water Run-off	1	1. All run-off managed on site using source control to achieve: a. Zero peak rate run-off for the 1 in 1 year event b. Zero peak rate run-off for the 1 in 100 year event c. No volume of run-off discharged into the watercourses and sewers for a 1 in 100 year event of 6 hour duration. d. Allowance for climate change in all of the above calculations 2. SQP to provide calcs and drainage strategy	0	0
Section Credit Total	Up to 10		3	5
Section Weighted Total	10.00%		3.00%	5.00%