

BREEAM Refurbishment - Pre Assessment Report

Min level : 70% Pre Ass level : 71.94%		Project : 9 Fitzjohn's Avenue, London. NW3 5JY Client : Aliya Kanji Nedungadi Dwelling Type : Refurbishment and extension, 1No private dwelling within detached 5 storey block.			Date : 19.04.2013 Ref : 074.PA130419 A
Information Drawings ; 28.02.13 Sap Cals ; 04.03.13		The following estimated credits and specification notes are estimates based on the current design as issued, current building regs and/or best estimates, so as to achieve the required pass code level. Information is based on current BRE Global BREEAM Refirbishment Domestic Buildings Technical Manual, dated August 2012, Version 1.0.2. The rating given in this report is for guidance only, please note predicted scores may vary from those obtained through the formal Design stage assessment process.			
Issued : 19.04.13		Revision : A Changes : As issued for planning			
Ref	Credit Type	Credit Specification Details	Max Credits	Estimated Credits	Options / Information required / Notes
ENE 1	Energy EER	Post SAP EER Energy average = 65 Pre SAP EER Energy average = 3 Improvement = 62 EER Existing Total Floor area=779m2, Proposed floor area =779m2.	6	6	Estimated SAP calculation. Draft, subject to design confirmation & BRE energy calculator. Estimated U values ; New Roof insulation=0.18 & 1.2 / DRYLINE Walls = 0.28 / New floor = 0.18 / New Windows 1.6 & 1.2w/m2K. All to be confirmed with Architects.
ENE 2	Post Energy EER	SAP post refurbishment EER = 65 Min `very good` level requirement, theretical. As per table = 2.5 credits	4	2.0	Estimated SAP calculations, Draft, subject to design confirmation & BRE energy calculator. Based on as proposed refurbishment / extension scheme.
ENE 3	Primary Energy Demand	Dwelling Primary Energy Demand post refurb as noted within SAP calculation = 240 kWh/m2/year. Equates to 4 credits	7	4.0	

ENE 4	Renewable Technology	Fitting of local energy generation from renewable sources to supply dwelling energy demand. None specified.	2	0	Not available
ENE 5	Energy Labeled white goods	Promote use of energy efficient white goods. Either through the supply of white goods to stipulated rating for full credits or supply labeling information to assist end user purchase, 1No credit for Fridge, Freezer and/or 1No credit for Washing Machine, Tumble Dryer, Dishwasher. Assumed developer to supply fittings or leaflet to end user regards White goods EU Energy Efficiency Labeling scheme.	2	1	White goods are : Fridge, Freezer, Washing Machine, Tumble Dryer, Dishwasher. Assume 1 No credit only for Washing Machine, Tumble Dryer, Dishwasher. Specification to be agreed. Please note some large American type appliances do not have Energy Efficient rating certificates. Possible increase in credits
ENE 6	Drying space	Internal Drying clothes to reduce energy use. Spec = 3 Bed + house = min 6m + drying line. Use fixed wall or ceiling mounted rail within dedicated room, locate within Basement utility room. Assume all can be achieved.	1	1	Specification of fittings and location to be agreed. Extract fan required in utility room.
ENE 7	Lighting	Use of Low Energy fittings internally and externally.	2	2	
ENE 8	Energy Display Devices	Requirement to supply and install compatible energy display device to monitor electricity and primary heating fuel so the end user can easily monitor fuel consumption for two credits. To monitor electricity or primary heating fuel for a single credit only. Suggest Electric, gas and water consumption monitored. Hardwired or Wireless wall mounted user display unit.	2	1	Basic model earns single credit. Compatible Smart Utility meters and/or pulse type gas/water meters required for two credits. Display devices : `ecoMeter P370 In Home` unit or a `EWG` display unit by EWGECO.

ENE 9	Cycle Storage	Promote use of cycling to reduce CO2 emissions. Secure protected communal storage facility noted. 1No credit = 2 cycles. 2No credits = 4 Cycles. Approx 5m2 space for within protected enclosure, plan area 2 x 2.50m.	2	2	Cycle store location, size and spec to be agreed.
ENE 10	Home Office	Create a functional Home office space within the dwelling, to reduce the need to commute. Provide adequate space to be identified for 1.8m desk space, chair and filing cabinet, with window within a dedicated room / bedroom.	1	1	Assumes dedicated room. Drawing with specific facilities / labels noted as required. Confirm window opens and adequate daylight.
		ENERGY (ENE) Credits Total =	29	20	= Total 69% credits
WAT 1	Internal Water Use	Aim is to reduce water consumption within the dwelling. Statutory Max allowance level = 107-117l/p/day min for `Excellent` & 2 credits.	3	2.0	Draft, subject to design confirmation & WAT 1 calculator tool, assume fittings to comply. Architects to confirm schedule of fittings.
WAT 2	External Water Use	Promote water recycling on site for external use only. Achieved by fitting suitable water collection system to rear external garden space.	1	1	Credit sought.
WAT 3	Water Meter	Fit suitable water meter.	1	1	
		WATER (WAT) Credits Total =	5	4	=Total 80% credits,
MAT 1	Environmental Impact Material	Specification of Low impact materials and methods of construction, based on life cycle criteria as stipulated within BRE Green Guide. Construction materials are rated from A+ to D and collectively an overall credit score using MAT 1 calculator tool. Initial estimates an above average 40% score.	25	10	MAT 1 calculator tool to be completed. Variations to some typical element specification may increase score.

MAT 2	Responsible sourcing - Materials	Promote specification or responsible sourced materials for basic elements of the building such as : Frame, Slab, upper floors, Roof, External and internal walls and staircase. 80% of each element to be responsibly sourced to score any credits. Mat 2 calculator to be completed to ascertain score.	12	2	MAT 2 calculator tool to be completed. Spec check and Variations to some typical element specification may increase score.
MAT 3	Insulation	Promote specification of responsible sourced materials for Insulation. 80% of each element to be responsibly sourced to score any credits. Mat 3 calculators to be completed to ascertain score.	8	4	MAT 3 calculator tool to be completed. Spec check and Variations to some typical element specification may increase score.
		MATERIAL (MAT) Credits Total =	45	16	= Total 36% credits,
WAS 1	Household waste	Provide adequate internal and external storage space for typical domestic recyclable household waste, in accordance with local authority collection facilities. Assumes local authority pre sorted collection service, and minimum internal storage can be provided. External waste storage area located GF near bike store. Home composting external space available, min 150 litres bin. Located in the rear garden.	2	2	Requires confirmation of size, location and possible drawing. Local authority collection leaflet required.
WAS 2	Refurb Construction Site waste management	To minimize site construction waste. Formulate and Utilize a site waste in accordance with best practice guidelines. Suggest SWMP Level 1 instigated due to scale of site and main contractor.	3	0	Suggest SWMP Level 1 instigated due to scale of site and main contractor. Assume scheme to Comply with certain criteria SWMP to be in use by the Contractor to instigate / run site waste management plan.
		WASTE (WAS) Credits Total =	5	2	= Total 40% category credits available
POL 1	Nitrogen Oxide Emissions	Reduce emissions of harmful gases new heating and hot water installation. Assumes above average hot water / heating gas fired boiler system, with equal to or less than 70mg/kWh dry NOx emissions.	3	2	Specification to be agreed.

POL 2	Surface Water Run off	Encourage domestic refurbishments to have a neutral impact upon site run off, to reduce flooding and pollution. New rear extension, will have an effect of rainwater run off / impact over existing.	3	0	Not sought Neutral impact expected, 1 credit, with use of permeable surfaces and SUDS drainage scheme. New load requires calculation by hydrologist.
POL 3	Flooding	Reward dwellings in low flood risk areas.	2	2	Environment agency flood map confirms no site risk. Detailed flood risk assessment required.
		POLLUTION (POL) Credits Total =	8	4	= Total 50% category credits available
HEA 1	Daylighting	Encourage good levels of natural day light to principle rooms within dwelling, to minimize energy use through artificial lighting. 1No credit for basic factors for refurbishment. 1No credit for undertaking Daylight calculations. Rooms to be assessed : Kitchen 2%, Living rooms, Dining room and Study 1.5%. 80% of the working plane must receive natural light. Undertake Daylight Factor Calculations to ascertain minimum levels. Expect design to pass minimum levels due to scale of existing glazing and high degree rear glazing.	2	2	Accurate Windows size and room areas to be confirmed. Undertake Daylight Factor Calculations to ascertain minimum levels for additional credit.
HEA 2	Sound insulation	Promote good levels sound insulation to habitable rooms between dwellings. Detached property. Credits by default.	4	4	
HEA 3	Volatile Organic Compounds	Specify low emissions of volatile organic compounds	1	1	Expect and Confirm specification

HEA 4	Inclusive design	Requires design to consider access and use for current and any future users. Specifically required under local Authority planning requirements. Lifetime Homes checklist of 16 items to be confirmed and met covers number of items, so expect to be compliant.	2	2	Specific checklist criteria to be checked and agreed with Architects.
HEA 5	Ventilation	Encourage healthy internal environment through good levels ventilation. Have background vents, purge vents and extract vents.	2	2	Fit extract rates systems in compliance with section 5 of the building regs Part F in full.
HEA 6	Safety	Install Fire and carbon monoxide detection and alarm systems.	1	1	Specification to be confirmed by SMR.
		HEALTH & WELL BEING (HEA) Credits Total =	12	12	= Total 100% category credits available
MAN 1	Home user guide	Create a Home User guide using a best practice and MAN 1 part 1 & 2 checklist guidance notes. Created in combination with standard O&M manuals.	3	3	Issue checklist MAN 1 part 1 & 2. Confirm author of Home User Guide. To be co-ordinated with O&M.
MAN 2	Responsible Construction Practices	Contractor to register the scheme and instigate Considerate Constructors Scheme best practice. Work to `Best Practice` levels with an expected score of between 24 to 31.5. Contractor item.	2	1	Advise that site is registered before works start on site
MAN 3	Construction site Impact	Minimize environmental impacts on site during the works. Contractor item. Complete MAN 3 checklist. 2 Credits earned by achieving: 80% site timber reused/responsibly sourced, reduce air/dust pollution, water pollution minimized, site water use monitored.	1	0	Issue MAN 3 checklist. Confirm contractor is able to instigate necessary procedures.

MAN 4	Security	Promote user safety and secure long term design measures. 1 credits = Ext doors/windows minimum standards 2 credits = Register and consult with local crime prevention officer under Secured by Design (SBD) scheme optional and consultant. Scheme able to include at minimal cost / change.	2	1	Doors windows Fitted with minimum PAS & BS standard CERTIFICATION and window locks. Design measures expected to be equal to or above SBD standards. Optional to Communicate with local police liaison officer for full credits. Include measures, Issue SBD section 2 forms and receive notice from local officer.
MAN 5	Ecological features	Protect and enhance existing ecological value of the sites features. No features assumed.	1	1	
MAN 6	Project Management	Functional and sustainable refurbishment delivered in accordance with performance expectations.	2	2	
MANAGEMENT (MAN) Credits Total =			11	8	= Total 72% category credits available
BREEAM Score % =			100%	71.94%	Equates to an ... Excellent score
<p>Note :</p> <p>Minum `Very Good` level only estimated for ENE 2.</p> <p>Suggested modifications to increase credits for :</p> <p>WAT 1 – For additional credits, suggest 96-106L/p/day min, for 2.5 credits. MAN 4 - Register with local SBD officer, instigate changes for extra credit. ENE 5 – All white goods EU energy labeled.</p> <p>SAP calcs – Dated 04.03.13 / Greenheat Ltd. Existing and Proposed Scheme. Property Reference:1002-0002-GH13030401. Surveyor ID: 1002-0002</p>				<p>The total percentage scores that are to be equal to or greater than : Good = 45%, Very Good = 55%, Excellent =70%, Outstanding = 85%</p>	
				<p>Credits are weighted different for each category.</p> <p>On line pre assessment tool calculates and confirms the credits as listed above.</p>	
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