

Metropolitan Development Consultancy Ltd

BREEAM: Ecohomes Pre-assessment

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Report No

Date 9th February 2010

This report has been prepared for Metropolitan Development Consultancy Ltd in accordance with the terms and conditions of appointment for 75 Prince of Wales Road dated February 2010. Hyder Consulting (UK) Limited (2212959) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

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SUMMARY

The London Borough of Camden has required the submission of a pre-assessment Ecohomes report in support of the proposal for the creation of residential units at 75 Prince of Wales Road (in line with policy SD9 of the Replacement unitary Development Plan 2006 and guidance within Camden Planning Guidance 2006, in particular paragraph 44.21).

London Borough of Camden have also reinforced the need to score at least 60% in both the energy and water sections and at least 40% in the materials section of the Ecohomes scheme, whilst also suggesting the need to achieve an overall Ecohomes rating of VERY GOOD.

This report has therefore been prepared for Metropolitan Development consultancy Ltd by Hyder Consulting who have been appointed as the independent BREEAM Assessors for the development of 75 Prince of Wales Road. The report outlines the likely environmental performance under the BRE BREEAM Ecohomes Assessment. At this early stage in the design a score of **58.95%** is likely to be achieved which equates to a rating of 'VERY GOOD'.

2 Background

BREEAM Ecohomes is a market-focused tool aimed at encouraging significant improvements in the performance of standard housing development through the recognition and demonstration of improvements made.

The Ecohomes scheme has been used for this pre-assessment as this development is classed as a refurbishment. The Code for Sustainable Homes scheme is used for new builds

The BREEAM Ecohomes score provides a means of measuring the environmental impact of a building throughout its life and so benchmarking this against other buildings. There are a number of key uses for the methodology, which provide the following benefits:

- Maximising opportunities of the building's performance during the design phase of both new build and refurbishment schemes.
- Specifying environmental requirements in the procurement and management of office accommodation of any age or type.
- Providing an independently verifiable measurement tool for use within Environmental Management Systems.
- Providing an independently verifiable environmental label for marketing and promotional purposes.

The BREEAM rating is divided into four levels, with PASS, GOOD, VERY GOOD and EXCELLENT being the achievable ratings. The percentage score achieved within the assessment is categorised accordingly, based on calculations in the BREEAM software:

Minimum score required for Design and Procurement Assessment:

PASS	36%,
GOOD	48%,
VERY GOOD	58%,
EXCELLENT	70%,

3 Summary of Credits

The tables below summarise the BREEAM Ecohomes credits, detailing the maximum credits available under the scheme, and the credits achieved to secure a VERY GOOD rating.

- **Credits Likely to be achieved – VERY GOOD:** The credits detailed under this heading currently achieve a score of **(58.95%)** and a rating of VERY GOOD (58% is needed to score Very Good) as confirmed and agreed as suitable by the design team at this early stage in the design.

It should be understood that as a minimum the development must score at least 60% of the credits available in the energy and water sections and at least 40% of the credits available in the materials section. The pre-assessment has indicated that the following scores are likely:

- Energy – 62.5%
- Water – 66.66%
- Materials – 67.74

Table 1 – Credit Summary Table

Section	Env Weighting	Credits Available	Credits Achieved	Percentage Section Credits Achieved	Overall weighted Percentage
Energy	22%	24	15	62.5%	13.75%
Transport	8%	8	7	87.5%	7%
Pollution	10%	11	5	45.45%	4.5%
Materials	14%	31	22	70.97%	9.94%
Water	10%	6	4	66.66%	6.6%
Land use and Ecology	12%	9	5	55.55%	6.66%
Health and Wellbeing	14%	8	2	25%	3.5%
Management	10%	10	7	70%	7%
Total					58.95%

Table 2 – Credits Summary Breakdown Table

Credit Ref	Credit Heading	Maximum Credits Available	Credits Likely to be Achieved
Energy			
Ene 1	Dwelling Emission Rate	15	8
Ene 2	Building Fabric	2	1
Ene 3	Drying Space	1	1
Ene 4	EcoLabelled Goods	2	1
Ene 5	Internal Lighting	2	2
Ene 6	External Lighting	2	2
Transport			
Tra 1	Public Transport	2	1
Tra 2	Cycle Storage	2	2
Tra 3	Local Amenities	3	3
Tra 4	Home Office	1	1
Pollution			
Pol 1	Insulant GWP	1	1
Pol 2	NOx Emissions	3	2
Pol 3	Reduction of Surface Runoff	2	0
Pol 4	Renewable and Low Emission Energy Source	3	0
Pol 5	Flood Risk	2	2
Materials			
Mat 1	Environmental Impact of Materials	16	15
Mat 2	Responsible Sourcing of Materials: Basic Building Elements	6	0
Mat 3	Responsible Sourcing of Materials: Finishing Elements	3	1
Mat 4	Recycling Facilities	6	6
Water			
Wat 1	Internal Potable Water Use	5	3
Wat 2	External Potable Water Use	1	1
Landuse & Ecology			
Eco 1	Ecological Value of Site	1	1
Eco 2	Ecological Enhancement	1	0
Eco 3	Protection of Ecological Features	1	1
Eco 4	Change of Ecological Value of Site	4	2
Eco 5	Building Footprint	2	1

Credit Ref	Credit Heading	Maximum Credits Available	Credits Likely to be Achieved
Health & Well Being			
Hea 1	Daylighting	3	0
Hea 2	Sound Insulation	4	2
Hea 3	Private Space	1	0
Management			
Man 1	Home user Guide	3	3
Man 2	Considerate Constructors	2	1
Man 3	Construction Site Impacts	3	2
Man 4	Security	2	1

4 Energy

The current ratings for energy are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Ene 1	Dwelling Emission Rate	8 of 15	To minimise emissions of carbon dioxide (CO ₂) to the atmosphere arising from the operation of a home and its services.	<p>Eight credits will be achieved as the CO₂ emissions / Dwelling Emission Rate (DER) is expected to be $\leq 22 \text{ kg / m}^2 \text{ / yr}$. This is based on information obtained for a similar development in February 2009.</p> <p>Documentation will need to be submitted to provide evidence that eight credits will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Copies of the completed Standard Assessment Procedure (SAP2005) worksheets, calculated by an accredited SAP Assessor. The Dwelling Emission Rate (DER), and Target Emission Rate (TER, if applicable) from an accredited SAP Assessor (to assess the CO₂ emissions, the DER is taken directly from the SAP 2005 worksheets. Proof of Building Regulation compliance. Written confirmation is required that this is the case for an Ecohomes rating to be awarded. Detailed drawings of the design, including compass orientation site position, elevations etc. If the details are stated in the specification, they should also be on the drawings. <p>Eight credits will be achieved upon the provision of the evidence highlighted above.</p>
Ene 2	Building Fabric	1 of 2	To future proof the efficiency of dwellings over their whole life, and to encourage refurbished dwellings to improve their insulation standards through good fabric performance.	<p>One credit will be achieved as the average heat loss parameter (HLP) across the whole site is likely to be ≤ 2.2. This is based on information obtained for a similar development in February 2010.</p> <p>The SAP 2005 worksheets outlined in Ene 1 will need to be provided to demonstrate that the HLP will be ≤ 2.2.</p> <p>This credit will be achieved upon the provision of the evidence highlighted above.</p>

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Ene 3	Drying Space	1 of 1	To minimise the amount of energy used to dry clothes.	<p>One credit will be achieved. The flats will have provision for a line over the bath in the bathroom, which will be adequately ventilated.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specification stating the type of drying appliance, location and details. Details must include the drying space requirements for the external terrace and the drying space requirements above the bath. • Appropriate drawings showing the type of drying appliance and location. <p>The credit will be achieved upon the provision of the evidence highlighted above.</p>
Ene 4	EcoLabelled Goods	1 of 2	To encourage the provision or purchase of energy efficient white goods, thus reducing the CO2 emissions from the dwelling.	<p>A decision has not yet been made as to whether to provide white goods. Despite this one credit has been awarded due to the commitment to either:</p> <ul style="list-style-type: none"> • Supply fridges, freezers or fridge/freezers with an A+ rating under the EU Energy Efficiency Labelling Scheme. • Not supply white goods but to develop an information pack to inform and advise the tenants of the EU Energy Efficiency Labelling scheme, explaining what energy labels are and how they work. <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Details of the relevant white goods that will be specified, or the performance criteria should be stated in the specifications. • If white goods are not to be provided, or if not all appliances within a category are to be provided, confirmation of this should be stated in the specifications. Also confirm that information regarding the EU Energy Efficiency Labelling Scheme and the purchasing of energy efficient appliances will be given to the occupier. <p>One credit will be achieved upon the provision of the evidence highlighted above.</p> <p>Please note: As explained above, the BREEAM Ecohomes guidance states that 1 credit can be awarded if a fridge, freezer or fridge/freezer is provided with an A+ rating under the EU Energy Efficiency Labelling Scheme and that details of the white goods are</p>

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<p><i>specified, or the performance criteria stated in the specifications.</i></p> <p><i>A further credit can be achieved where washing machines and dishwashers provided have an A rating under the EU Energy Efficiency Labelling Scheme and where washer dryers and tumble dryers have a B rating under the EU Energy Efficiency Labelling Scheme. If not all types of appliances within a credit category are to be supplied, the credit can still be achieved provided the white goods supplied have the appropriate rating, and information on purchasing energy efficient white goods is also provided. E.g. Washing machines are to be supplied but not dishwashers or tumble dryers. Provided the washing machines supplied are A rated and information about EU Energy Efficiency Labelling is also supplied, one credit can be awarded.</i></p>
Ene 5	Internal Lighting	2 of 2	To encourage the provision of energy efficient internal lighting, thus reducing the CO2 emissions from the dwelling.	<p>One credit will be achieved as a commitment has been made that all pendant fittings and at least 75% of all recessed fittings in habitable rooms will be low energy luminaires.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specifications stating type and location of all internal lighting. • Drawings showing the location and type of all internal light fittings. • Manufacturers literature confirming that low energy fittings are dedicated and have an efficacy of at least 40 lumens per watt. <p>The credit will be achieved upon the provision of the evidence highlighted above.</p> <p>Please note: Credits are only awarded for fixed internal light fittings. Non fixed light fittings are not appropriate for this credit as they could be replaced by the occupant. Fixed internal light fittings must be in a habitable room to be included. Light fittings located in cupboards cannot be included.</p>
Ene 6	External Lighting	2 of 2	The purpose of this credit is to encourage the provision of energy efficient external lighting.	<p>Two credits will be achieved. The first credit will be achieved as space lighting will occupy the internal corridors and stairwells. The space lighting will be equipped with dedicated fluorescent fittings controlled by either push button time switches or occupant sensors. Space lighting fittings will have sockets that will only accept lamps with an efficacy greater than 40 lumens per circuit watt. The second credit will be achieved by default as no security lighting will be installed.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved.</p>

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<p>Documentation required includes:</p> <ul style="list-style-type: none"> • Specifications stating the type and location of space lighting • Drawings showing the location and types of all space light fittings • Manufacturers literature confirming type of fittings highlighting details sufficient to meet the credit requirements <p>The credit will be achieved upon the provision of the evidence highlighted above.</p>

5 Transport

The current ratings for transport are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Tra 1	Public Transport	1 of 2	To encourage developers to provide a choice of transport modes for residents, with the aim of reducing the level of car use.	<p>One credit will be achieved as the development is within 1000m of a transport node providing a service to a local centre, town, city or a major transport node, at the following frequency levels:</p> <ul style="list-style-type: none"> 07:30 – 10:00 and 17:00 – 19:00 Monday to Friday – half hourly All other times between 07:00 and 22:00 Monday to Saturday – hourly <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> A plan of the site and surrounding area highlighting the public transport nodes. Indicate the most obvious safe pedestrian route to the transport node and the scale of the plan, giving details of the pedestrian crossing points of any major roads. Include details of the frequency of service of these public transport nodes. <p>The credit will be achieved upon the provision of the evidence highlighted above.</p> <p>Please note: the assumption has aired on the side of caution. If the development is within 500m (via a safe walking route) of a transport node providing a service to a local centre, town, city or a major transport node, at the following frequency levels: 07:30 and 22:00 Monday to Saturday – hourly. The same evidence will need to be provided as above if this is the case.</p>
Tra 2	Cycle Storage	2 of 2	To encourage the wider use of bicycles as transport, and thus reduce the need for short car journeys, by providing adequate and secure cycle storage facilities.	<p>Two credits will be achieved. All of the flats will have provision of one secure cycle storage space, except the three bedroom flat, which will have provision of two secure cycle storage spaces. Overall the cycle storage will accommodate six secure cycle storage spaces and will be situated on the ground floor in a dedicated cycle storage room. The room will be lockable and keys will only be issued to those using the cycle store. It will also be possible to lock all cycles safely to secure fittings within the cycle storage room.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Specification stating the location and details of the storage space

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<ul style="list-style-type: none"> Drawings showing the location and details of the cycle storage, including any security devices. <p>Two credits will be achieved upon the provision of the evidence highlighted above.</p>
Tra 3	Local Amenities	3 of 3	To encourage developers to plan new housing developments that are close to, or include, local shops and amenities. This will help to reduce the reliance of local residents on their cars.	<p>An assumption has been made that three credits will be achieved. Due to the following:</p> <ul style="list-style-type: none"> The development is within 500m of a food shop and a post box. The development is within 1000m of at least 5 of the amenities listed in the BREEAM Ecohomes guidance. Safe pedestrian routes to the local amenities are already in place. <p>Documentation will need to be submitted to provide evidence that the credits will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> A plan of the site and surrounding area highlighting the location of the local amenities you wish to be assessed against (these should be named (e.g. food shop), preferably with the trading name). The plan should also indicate the most obvious safe pedestrian routes to the amenities and the scale of the plan, giving details of pedestrian crossing points. <p>The credits will be achieved upon the provision of the evidence highlighted above.</p> <p>Please note: A safe pedestrian route to the transport node is defined as:</p> <p>BOTH</p> <ul style="list-style-type: none"> Any pavement, or specific walking path >900mm wide subject to the following conditions: <ul style="list-style-type: none"> <i>Lit in all areas which are either built up or where there is significant on street parking.</i> <i>Any footpaths indicated as possible routes, are official 'rights of way' and are safe to use (i.e. with artificial lighting).</i> The carriageway of low-traffic roads with a speed limit of 20mph or below <p>AND</p> <ul style="list-style-type: none"> When any of the above pedestrian routes cross a vehicular road with a speed limit above 20 mph, a safe crossing point should be provided. A safe crossing point includes a subway, footbridge, traffic island, zebra, pelican, toucan or puffin crossing, or where there is a crossing point controlled by a police officer, a school crossing patrol or a traffic warden.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<ul style="list-style-type: none"> Where none of the above safe crossing points are provided crossing can be allowed in exceptional circumstances on a 30mph road if it can be proven that significant measures have been taken to reduce the speed to 20 mph or below. Such measures include chicanes, traffic humps or any other type of traffic calming measures. At the point of crossing the road must also be well lit and there should be a clear line of sight for at least 300 m in each direction
Tra 4	Home Office	1 of 1	For the provision of a space and services which allows the occupants to set up a home office in a quiet room.	<p>One credit will be achieved. All flats are of an adequate size to accommodate a small home office either in the main reception room or one of the additional bedrooms. Each flat will comply with the minimum services set out below:</p> <ul style="list-style-type: none"> Two double sockets; sockets should be positioned to avoid the use of extension leads. Two telephone points (or double telephone point) or equivalent (in the case of access to broadband, cable network, etc). The provision of splitters does not comply with the criteria. (Note: It is not necessary to have two separate telephone lines to the dwelling). Window. Adequate ventilation, either through an openable window or with alternative ventilation such as passive stack, etc. Trickle vents would not comply. Minimum size (1.8m wall length) to allow a desk and filing cabinet or bookshelf to be installed, with space to move around and open the door (the 1.8m wall size requirement can, in some circumstances, be altered if drawings can prove that a desk can be fitted in any other type of arrangement, i.e. alcove or similar, fulfilling all the above criteria). <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Specifications must state the home office location and required services. The appropriate drawings should show the home office location and its features. <p>The credit will be achieved upon the provision of the evidence highlighted above.</p> <p>Please note: If the development is connected to any cable network, broadband or similar, this can replace the requirement for two telephone points, subject to the following conditions:</p>

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<ul style="list-style-type: none"> <i>The necessary infrastructure to support the service is in place and that the connection goes all the way up to the individual dwellings.</i> <i>Two items can be plugged in at the same time (but not necessarily be used at the same time).</i> <p><i>For one and two bedroom or studio homes, the space may be in the living room, one of the bedrooms or any other suitable area in the home such as a large hall or dining area (provided the minimum service requirements are met). However, the room must be large enough not to prevent the intended use of that room i.e. if a home office is to be set up in the main bedroom that room also needs to be able to fit in a double bed and other necessary furnishing.</i></p>

6 Pollution

The current ratings for Pollution are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Pol 1	Insulant GWP	1 of 1	To reduce the potential global warming from substances used in the manufacture or composition of insulating materials.	<p>An assumption has been made that one credit will be achieved. It is intended that any new insulation products will be specified considering their manufacturing/composition process and that the products specified will avoid the use of substances that have global warming potential of 5 or more and an ODP of zero in either manufacture or composition.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specification stating the insulation to be used and in what location. • Appropriate drawings showing the insulation to be used • Manufacturer's details confirming for those insulation materials not inherently having a GWP of less than 5, giving sufficient information to check that the insulation meets the Credit Requirements both in composition and manufacture. <p>The credit will be achieved upon the provision of the evidence highlighted above.</p>
Pol 2	NOx Emissions	2 of 3	To reduce the nitrous oxides (NOx) emitted into the atmosphere.	<p>Two credits will be achieved. The design team propose to use Worcester bosch Greenstar 27Cdi condensing combi boilers in all flats. This boiler has a classification of 5 meaning that the dry NOx level (mg/kWh) is ≤70.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Details of primary and secondary space and hot water heating systems. Such details should include the estimated annual consumption (from the SAP calculations). • Where fossil fuel boilers are present: <ul style="list-style-type: none"> • Make, model and dry NOx levels and/or class of boiler specified. • Confirmation of NOx levels and/or class from manufacturer, e.g. manufacturer's literature. Printouts from manufacturers' websites are acceptable if the web address is included. (Note: If NOx levels are not in the literature, details can

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<p>generally be obtained from the technical sales department of the relevant manufacturer. Full details of the source must be given in the assessor's report).</p> <ul style="list-style-type: none"> • Type of flue i.e. open or balanced. • NOx levels may be stated in the general contract specification as an alternative to supplying the make and model of a specific boiler. <p>The credits will be achieved upon the provision of the evidence highlighted above.</p>
Pol 3	Reduction of Surface Runoff	0 of 2	To reduce and delay water run-off from the hard surfaces of a housing development to public sewers and watercourses, thus reducing the risk of localised flooding, pollution and other environmental damage.	This credit will not be achieved.
Pol 4	Renewable and Low Emission Energy Source	0 of 3	To reduce atmospheric pollution by encouraging locally generated renewable and low emission energy to supply a significant proportion of the development's energy demand.	This credit will not be achieved.
Pol 5	Flood Risk	2 of 2	To encourage developments in areas with low risk of flooding or if developments are to be situated in areas with a medium risk of flooding, that appropriate measures are taken to reduce the impact in an	<p>Two credits will be achieved as the development is located within an area with a low annual probability of flooding.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specification stating the flood zone or annual probability of flooding for the site, location and details of any flood protection measures. The information must also state how/where this definition/information was sourced e.g. from the Local Authority,

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
			eventual case of flooding.	<p>Environment Agency flood maps etc.</p> <p>The credits will be achieved upon the provision of the evidence highlighted above.</p>

7 Materials

The current ratings for materials are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Mat 1	Environmental Impact of Materials	15 of 16	To encourage the use of materials that have less impact on the environment, taking account of the full life-cycle.	<p>In total twelve credits will be achieved as follows:</p> <ul style="list-style-type: none"> Three credits will be achieved as the existing flat roof will be retained. Three credits will be achieved as the solid brick, rendered external walls containing feature mouldings and band courses will be retained. The existing two-storey extension along Prince of Wales Road, constructed some fifty years ago will be reconstructed to adopt the same facade features as the existing Prince of Wales elevation. However, the existing external walls account for over 80% of the total external wall area, when including the extension highlighted above. Three credits will be achieved as some of the internal walls will remain, any new internal walls will be constructed from material rated 'A' from the Green Guide. Three credits will be achieved as the suspended floors (timber boarded and joisted) and the solid concrete basement floor will be retained. Two credits will be achieved as the painted timber framed and glazed shop-fronts will be retained in their general style (minor alterations will be made to give the shop fronts openable windows for ventilation purposes. One credit will be awarded by default as there will be no changes to the boundary. The site is adjoined either side by properties. <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Relevant specification stating the materials, locations and details for each element Drawings showing the details of the structure(s), sufficient to confirm the make-up of the building components. <p>The credits will be achieved upon the provision of the evidence highlighted above.</p>
Mat 2	Responsible Sourcing of Materials: Basic	0 of 6	To recognise and encourage the specification of responsibly sourced	This credit will not be achieved.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
	building Elements		materials for key building elements.	
Mat 3	Responsible Sourcing of Materials: Finishing Elements	1 of 3	To recognise and encourage the specification of responsibly sourced materials for secondary building and finishing elements.	<p>An assumption has been made that responsible sourcing will be undertaken for the following secondary building and finishing elements (where relevant):</p> <ul style="list-style-type: none"> • Stair (including handrails, balustrades, banisters, other guarding rails (excluding staircase)) • Window (including sub-frames, frames, boards, sills) • External and internal door (including sub-frames, frames, linings, door) • Skirting (including architrave, skirting board and rails) • Panelling (including any other trim) • Furniture (including fitted: kitchen, bedroom and bathroom) • Facias (soffit boards, bargeboards, gutter boards, others) • Any other significant use. <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specification or letter of intent which states that the relevant materials will come from a certified source (EMS or timber certification) • Letters of intent from all potential suppliers conforming that the full chain of custody requirements and or the EMS requirement can be met for all elements gaining the credit.. For more information on the exact requirements please refer to the Guidance (Mat 2, Ecohomes Documentation Requirements page 77). <p>The credit will be achieved upon the provision of the evidence highlighted above.</p>
Mat 4	Recycling facilities	6 of 6	To encourage developers to provide homeowners with the opportunity and facilities to recycle household waste.	<p>As an appropriate local authority kerbside collection scheme for at least three types of recyclable waste will operate on the site, the bin sizes quoted in the Ecohomes manual do not apply. Therefore, six credits will be achieved. A secure refuse storage facility will be provided on ground floor to provide one bin and one recycling box per flat. This is in line with the requirements from the local authority.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specification referring to the recycling facilities (must state the recycling bin location(s)).

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<ul style="list-style-type: none"> Drawings should show the recycling bin location(s) , type and size of recycling facilities <p>The credits will be achieved upon the provision of the evidence highlighted above.</p> <p><i>Please note: The provision of recyclable material storage must be in addition to the provision of bin storage for non-recyclable refuse, both internally and externally.</i></p>

8 Water

The current ratings for water are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Wat 1	Internal Potable Water Use	3 of 5	To reduce consumption of potable water in the home.	<p>An assumption has been made that water consumption (m^3 / bedspace / year) will be ≤ 42, therefore three credits will be achieved.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specification referring to the internal water devices • Drawings showing the location of water consuming items. <p>The credits will be achieved upon the provision of the evidence highlighted above.</p> <p>Please note: Calculations demonstrating water consumption of $\leq 42 \text{ m}^3$ /bedspace/year will also need to be provided.</p>
Wat 2	External Potable Water Use	1 of 1	To encourage the recycling of rainwater, and reduce the amount of water taken from the mains, for use in landscape/garden watering.	This credit will be achieved by default as there will be no individual or communal outdoor spaces.

9 Landuse and Ecology

The current ratings for landuse and ecology are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Eco 1	Ecological Value of Site	1 of 1	To encourage development on land that already has a limited value to wildlife and discourage the development of ecologically valuable sites.	One credit will be awarded by default as there is no new building or infrastructure (e.g. access roads, car parking or landscaping).
Eco 2	Ecological Enhancement	0 of 1	To enhance the ecological value of a site.	This credit will not be achieved.
Eco 3	Protection of Ecological Features	1 of 1	To protect existing ecological features from substantial damage during the clearing of the site and the completion of construction works.	No ecological features are present on site, therefore the site is likely to be defined as being of low or insignificant ecological value, therefore the credit can be awarded by default.
Eco 4	Change of Ecological Value of Site	2 of 4	The aim of this credit is to reward steps taken to minimise reductions in ecological value and to encourage an improvement.	No ecological features exist on site (the site consist of a building only) as such there will be no change of ecological value, therefore two credits can be awarded.
Eco 5	Building Footprint	1 of 2	To promote the most efficient use of a building's footprint by	One credit will be achieved as the total combined floor area: Footprint ratio for the flats is likely to be greater than 3.5:1. Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
			ensuring that land and material use is optimised across the development.	<ul style="list-style-type: none"> Drawings showing the layout of all dwellings. The drawings should also show the dimensioned floor plans. <p>The credits will be achieved upon the provision of the evidence highlighted above.</p>

10 Health and Wellbeing

The current ratings for health and wellbeing are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Hea 1	Daylighting	0 of 3	To improve the quality of life in homes through good daylighting, and to reduce the need for energy to light a home.	This credit will not be achieved.
Hea 2	Sound Insulation	2 of 4	To ensure the provision of sound insulation and reduce the likelihood of noise complaints.	<p>Two credits will be achieved. A commitment has been made to carry out a programme of pre-completion testing based on the frequency listed in table 2, Column A in the Ecohomes 2006 guidance document for every group / sub group of flats. A commitment has also been made to achieve the performance standards set out in the Building Regulations for England and Wales, Approved Document E.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> • Specifications referring to the sound insulation requirements. This should include details of the programme of pre-completion testing to be carried out on the development. • Drawings of the dwellings showing the sound insulation requirements and make-up. • Evidence that the proposed building design has the potential to achieve the performance standards associated with the Ecohomes credit. This evidence could be field test data from previous developments or expert advice from an acoustic consultant. • Confirmation that the acoustic consultancy is accredited by UKAS or a European equivalent for field sound insulation testing, OR that the testing is carried out in accordance with the relevant ISO requirements and the report and all measurement data are checked and verified by an organisation with UKAS accreditation for field sound insulation testing. <p>The credits will be achieved upon the provision of the evidence highlighted above.</p>

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Hea 3	Private Space	0 of 1	To improve the occupiers' quality of life by providing an outdoor space for their use, which is at least partially private.	This credit will not be achieved

11 Management

The current ratings for management are summarised below.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Man 1	Home User Guide	3 of 3	To recognise and encourage the provision of guidance to enable home owners/occupiers to understand and operate their home efficiently, in line with current good practice and in the manner envisaged by the developer, and to make best use of local facilities	<p>Three credits will be achieved as there is a commitment to provide a simple guide that covers information relevant to the non-technical tenant occupant on the operation and environmental performance of their home.</p> <p>A further credit will be achieved as there is a commitment to ensure that the guide contains information relating to the site and its surroundings.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Copies of the relevant specifications referring to the Home Users Guide Requirements. A copy of the Home User Guide <p>OR</p> <ul style="list-style-type: none"> A copy of the contents list showing that the Guide will contain the required information <p>AND</p> <ul style="list-style-type: none"> Written confirmation from the developer confirming that the Guide is going to be developed to the required standard and supplied to all homes. <p>Please Note: The Home User Guide should contain information about:</p> <ul style="list-style-type: none"> Environmental strategy/design and features: Details of specific environmental/energy design strategy/features including an overview of the reasons for their use and how they should be operated. Energy: Part L1 (2006) requires the following: Information on the operations and maintenance of the heating and hot water systems, mechanical ventilation and cooling systems e.g. operating and maintenance instructions. Also details of renewable systems and how they operate. Details of low energy fittings and their use and benefits. General information on heat loss from the home. Tips on other energy saving methods. Water use: Details of water saving features and advice on how to save water.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<ul style="list-style-type: none"> Recycling and waste: Location of recycle bins and compost bins and how to use them. Local authority collection schemes/local communal facilities. Sustainable DIY Environmental recommendations for home improvement works. Low VOC products. Certified timber. Emergency information: Smoke detectors. Links, references and further information: Further information on running the home efficiently e.g. Energy Savings Trust programme and Local Authority. To include address, telephone contact and web link. <p><i>If the user guide also addresses the surrounding area, the following information also needs to be included:</i></p> <ul style="list-style-type: none"> Recycling and Waste: What to do with waste not covered by standard weekly collections. Local recycling facilities and waste tips. Emergency information: Contact details for emergency services inc minor injuries clinics and A&E. Links, references and further information on how to reduce environmental impact in terms of transport, use of local amenities, responsible purchasing. Public transport: Local public transport facilities inc maps, timetables, location of bus stops/train/tube stations. Cycle storage and cycle paths. Car parking/park and ride/car sharing/car pools/car rentals. How to get to local amenities by public transport. Local Amenities: Location of local amenities. Responsible purchasing: White goods, electrical equipment (inc light fittings and bulbs), timber products from sustainable sources, organic food procurement, local produce
Man 2	Considerate Constructors	1 of 2	To recognise and encourage construction sites managed in an environmentally and socially considerate and accountable manner.	<p>One credit will be achieved as a commitment has been made to ensure that the contractor complies with the Considerate Constructors Scheme (CCS) and achieve a formal certification under the scheme with a score between 24 and 31.5.</p> <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Specification stating the requirement for the appointed contractor to comply with the scheme. Information must be provided that confirms: EITHER <ul style="list-style-type: none"> A commitment from the contractor, or on the contractor (if not yet appointed), to comply with the Considerate Constructors Scheme and achieve the appropriate score.

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
				<p>OR</p> <ul style="list-style-type: none"> A commitment from the contractor, or on the contractor (if not yet appointed), to comply with an equivalent local or nationally recognised independent scheme. The necessary information should be provided to allow the assessor to satisfactorily complete the appropriate checklist detailed in the BREEAM Ecohomes <i>Supplementary Guidance</i>. <p>Please note: No credits can be awarded for the Considerate Constructors Scheme where any of the section scores within the scheme are less than 3, as this represents non compliance with the CCS code.</p>
Man 3	Construction Site Impacts	2 of 3	To recognise and encourage construction sites managed in an environmentally sound manner in terms of resource use, energy consumption, waste management and pollution.	<p>Two credits will be achieved. The first credit will be achieved as there is a commitment to provide a strategy to monitor, sort and recycle construction waste on site. The second credit will be achieved as there is a commitment to achieve 2 or more of items a-f listed below:</p> <ul style="list-style-type: none"> A. Monitor and report on CO₂ or energy arising from site activities B. Monitor and report on CO₂ or energy arising from transport to and from the site C. Monitor and report on water consumption from site activities D. Adopt best practice policies in respect of air (dust) pollution arising from the site E. Adopt best practice policies in respect of water (ground and surface) pollution occurring on site F. 80% of site timber is reclaimed, reused or responsibly sourced. <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Specification stating a commitment and strategy to monitor and report on construction site impacts (adhere to the requirements of checklist A3 – Construction Site Impacts in the Guidance) Relevant drawings referring to site impacts Written confirmation from the contractor, or on the contractor to monitor and minimise the site impacts in line with the requirements of checklist A3. OR Written confirmation to demonstrate that the developer has made it a requirement in the contractor's contract that the site impacts are monitored and minimised in line with checklist A3. <p>The credits will be achieved upon provision of the evidence highlighted above.</p>

Credit	Credit Heading	Credits Likely to be Awarded	Aims	Assumptions
Man 4	Security	1 of 2	To encourage the design of developments where people feel safe and secure; where crime and disorder, or the fear of crime, does not undermine quality of life or community cohesion.	<p>One credit will be achieved as there is a commitment to ensure that all external doors and windows achieve a minimum of either :</p> <ul style="list-style-type: none"> LPS1175 SR1 (All doors and windows) OR PAS24-1 (All external pedestrian doorsets falling within scope of PAS24-1) AND BS7950 (All windows falling within the scope of BS7950) <p>Documentation will need to be submitted to provide evidence that the credit will be achieved. Documentation required includes:</p> <ul style="list-style-type: none"> Details of the external doors and windows and their third party certification levels. <p>The credit will be achieved upon provision of the evidence highlighted above.</p>