THE CODE FOR SUSTAINABLE HOMES™

Code for Sustainable Homes

Technical Guide May 2009 - TGN2

Pre-Assessment Report

MICHAEL COOK ASSOCIATES

Assessor:	**Neil St Clair**
Company:	**Michael Cook Associates Ltd**
Assessor Number:	**STRO002638**
Site Name:	**St Barnabas Hospice**
Site Registration:	**002638-10326-02-1108**
Report Reference:	**5435\AC\NS\F13 - Rev B - 100702**

STROMA CERTIFIED CODE ASSESSOR

Site Details

Site Name:	St Barnabas Hospice
Site Registration:	002638-10326-02-1108
Site Address:	St Barnabas Hospice Columbia Drive
City/Town:	Worthing
County:	West Sussex
Postcode:	
No. of Dwellings:	0
No. of Dwelling Types:	1

Assessor Details

Company Name:	Michael Cook Associates Ltd
Assessor Name:	Neil St Clair
Assessor Number:	STRO002638
Assessor Address:	Brooklyn Chambers 11 Goring Road
City/Town:	Worthing
County:	West Sussex
Postcode:	BN12 4AP
Tel:	01903 248777
Email:	nstclair@michaelcookassociates.co.uk

Client Details

Company Name:	Wilmington Homes Ltd
Contact Name:	Mr C, Wiggins
Job Title:	
Email:	charleswiggins@wilmingtonhomes.co.uk
Tel:	01903 720569
Address:	Thatchers The Thatchway
City/Town:	Angmering
County:	West Sussex
Postcode:	BN16 4HJ

Architect Details

Company Name:	Michael Cook Associates
Contact Name:	
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Tel:	01903 248777
Address:	Brooklyn Chambers 11 Goring Road
City/Town:	Worthing
County:	West Sussex
Postcode:	BN12 4AP

Developer Details

Company Name:	Wilmington Homes Ltd
Contact Name:	Mr C Wiggins
Job Title:	
Email:	charleswiggins@wilmingtonhomes.co.uk
Tel:	01903 720569
Address:	Thatchers The Thatchway
City/Town:	Angmering
County:	West Sussex
Postcode:	BN16 4HJ

Assessor Report Notes

This report provides an initial analysis on the sustainability performance of the scheme and is for discussion and comment purposes only. It is not intended as a final or full assessment. As such information should only be treated as indicative at this stage of the assessment process.

Information included within this report has been formed from discussions held and assumptions in regard to construction approach. All mandatory requirements are to be met with the total current score as indicated on page 3 of this report. In order to attain a Level 3 rating, 57 points are required and it is strongly recommended that the categories are reviewed and measures to achieve a minimum of 60 points are considered.

Development Summary & Ratings

Dwelling Type	Description	Level	Score
Indicative dwelling	indicative dwelling for Pre assessment	3	59.26

Deviations from Standard

Indicative house type used for the formation of this pre assessment report.

At design stage indivdual reports for each dwelling type or energy group will be prepared.

Summary Score Sheet

Dwelling Type: Indicative dwelling

Plots:

	Credit Score	Credits Available	Score Assessment Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
Ene 1 Dwelling Emission Rate	5	15	15	29	51.72	1.26	18.83
Ene 2 Building Fabric	1	2					
Ene 3 Internal Lighting	2	2					
Ene 4 Drying Space	1	1					
Ene 5 Energy Labelled White Goods	1	2					
Ene 6 External Lighting	2	2					
Ene 7 Low or Zero Carbon Energy Tech	0	2					
Ene 8 Cycle Storage	2	2					
Ene 9 Home Office	1	1					
Water							
Wat 1 Internal Potable Water Use	3	5	4	6	66.67	1.50	6
Wat 2 External Water Use	1	1					
Materials							
Mat 1 Environmental Impact of Materials	10	15	13	24	54.17	0.30	3.9
Mat 2 Responsible Sourcing (Basic Building Elements)	3	6					
Mat 3 Responsible Sourcing (Finishing Elements)	0	3					
Surface Water Run-off							
Sur 1 Reduction of Surface Water Run-off from Site	0	2	2	4	50.00	0.55	1.1
Sur 2 Flood Risk	2	2					
Waste							
Was 1 Household Waste Storage & Recycling Facilities	4	4	7	7	100.00	0.91	6.4
Was 2 Construction Site Waste Management	2	2					
Was 3 Composting	1	1					
Pollution							
Pol 1 Global Warming Potential of Insulants	1	1	4	4	100.00	0.70	2.8
Pol 2 NOx Emissions	3	3					
Health & Wellbeing							
Hea 1 Daylighting	0	3	4	12	33.33	1.17	4.67
Hea 2 Sound Insulation	3	4					
Hea 3 Private Space	1	1					
Hea 4 Lifetime Homes	0	4					
Management							
Man 1 Home User Guide	3	3	8	9	88.89	1.11	8.89
Man 2 Considerate Constructors Scheme	1	2					
Man 3 Construction Site Impacts	2	2					
Man 4 Security	2	2					
Ecology							
Eco 1 Ecological Value of Site	1	1	5	9	55.56	1.33	6.67
Eco 2 Ecological Enhancement	1	1					
Eco 3 Protection of Ecological Features	1	1					
Eco 4 Change of Ecological Value of Site	2	4					
Eco 5 Building Footprint	0	2					
	Level Achieved: 3				**Total Points Scored: 59.26**		

Evidence Gathered

Evidence for ENE1 - 5435 - St barnabas pre assessment rev B

Mandatory requirement for level 3:
= 25% improvement of Dwelling Emission Rate (DER) over the Building Regulations Target Emission Rate (TER)

It is strongly recommended that SAP calculations are obtained as soon as the design is finalised to confirm that the development will meet the mandatory level.

Provisional building specfication supplied to assessor for information only is as follows:
MVHR system
Air leagage rate of 4
External wall U value of 0.18
Roof U value of 0.13
Ground floor U value of 0.14
Window U value of 1.4

Evidence for ENE2 - 5435 - St barnabas pre assessment rev B

A Heat loss parameter (HLP) of equal to or less than 1.30 is assumed for the pre assessment.

A further credit can be achieved for reducing the HLP to equal or less than 1.10. This may occur to plots on the site subject to figures taken from design stage SAP 2005 worksheets.

Note: SAP calculations will be required to determine the final HLP score. It is strongly recommended that SAP calculations are obtained as soon as the design is finalised to confirm that the development will meet the levels as stated above.

Evidence for ENE3 - 5435 - St barnabas pre assessment rev B

At least 75% of the light fittings to be incorporated in the scheme to have dedicated energy efficient fittings.

Dedicated light fittings are fittings which will only accept specific energy efficient light bulbs.

Evidence for ENE4 - 5435 - St barnabas pre assessment rev B

Rotary driers with permanent fixings or internal drying spaces to be incorportaed in each dwelling or private gardens specified at:

- 4m of line for 1 - 2 bed units
- 6m of line for 3 bed units

If internal, the drying space must be located in a heated space with adequate ventilation. The fixings must be permanent.

Evidence for ENE5 - 5435 - St barnabas pre assessment rev B

EU energy labelling system information to be included in the Home User Guide and issued to each dwelling.

A further credit can be achievied if appliances are provided to each unit to the required EU energy rating as below.

Fridge / freezers - A+ rated
And
Washing machines and dishwashers - A rated
And either
Washer dryers or tumble dryers - B rated
Or
EU energy labelling information provided to each dwelling.

Evidence for ENE6 - 5435 - St barnabas pre assessment rev B

The requirements for external lighting to be specified to achieve all credits.

Statutory safety lighting is not included in space lighting requirements.

Confirmation should be gained that the Secure by Design lighting requirement does not conflict with these requirements.

Evidence for ENE7 - 5435 - St barnabas pre assessment rev B

Credit not being sought.

Evidence Gathered

Evidence for ENE8 - 5435 - St barnabas pre assessment rev B

Sheds or purpose built secure bike stores to be provided for dwellings with easy and direct access from store to public highway. And stores are assumed to be sized to meet the cycle storage requirements as below.

1 bedroom dwellings - 1 cycle: 2m long x 0.75m wide
2 & 3 bedroom dwellings - 2 Cycles: 2m long x 1.5m wide
4 + bedroom dwellings - 4 Cycles: 2m long x 2.5m wide

Note: Where cycle storage is in sheds allow 1sqm of area for tool storage. Where cycle storage is within a garage adequate space must be provided to store both bicycle and car at the same time.

Evidence for ENE9 - 5435 - St barnabas pre assessment rev B

Home office provision has been included within the pre assessment.

Daylighting calculations for a suitable room to locate a home office space would need to be carried out to confirm if credit could be achievied.

Home office provision must meet required specification as defined in the CfSH Technical guidance.

Evidence for WAT1 - 5435 - St barnabas pre assessment rev B

Mandatory requirement for level 3:
Less than or equal to 105 litres per/person/day.

To meet the specified requirements of level 3 development to incude measures to reduce average household water useage. Information on flow rates for fittings including, WCs, showers, sink taps, basin taps and bath capacities to be provided to confirm water useage.

Calculation procedures to be carried out in line with the water efficiency calculator for new dwellings for CfSH May 2009.

Note: Typical practice washing machines and dishwashers - these are assumed if not provided at 8.17 litres per kilogram for washing machines and 1.25 litres per place setting for dishwashers. If dishwashers and washing machines are to be provided information in litres per place setting or per kilogram of dry load from figures quoted on the EU energy label will be required.

Evidence for WAT2 - 5435 - St barnabas pre assessment rev B

A rainwater collector (child safe water butt) shall be provided for each dwelling in private space for houses and communal gardens for flats were applicable and to meet all CfSH specification requirements.

Size requirements:
1-2 bed + garden = 150 litres min
3+ bed + garden = 200 litres min

Size requirements for communal gardens:
1 liter/sqm of land allocated to the dwelling with a min of 200 litres per communal garden. Where the communal garden is allocated to more than 6 dwellings, a max of 30 litres per dwelling can be applied.

Where planting is specified requiring little water (following Ecologists recommendations) the above requirements can be halved. This will need written confirmation from a suitably qualified Ecologist.

Evidence for MAT1 - 5435 - St barnabas pre assessment rev B

Mandatory requirement: 3 of the 5 key building elements must achieve an environmental impact rating of A+ to D according to the Green Guide 2007.

The development construction is uknown at the time of this report. It is expected that the roof, external walls, windows and internal walls will achieve the required green guide element rating.

A detailed building design will be required to undertake assessment and calculate final credits.

Evidence for MAT2 - 5435 - St barnabas pre assessment rev B

These credits are dependant on using construction materials that are sourced and manufactured responsibly, including:

- Sustainably sourced timber - with appropriate certification e.g. FSC, PEFC
- Other materials produced in factories with Environmental Management Systems (EMS) for the supply chain (i.e. sourcing of raw materials) and/or the key processes (i.e. manufacturing) are also rated.

A detailed building design will be required to undertake an assessment and calculate credits.

Evidence Gathered

Evidence for MAT3 - 5435 - St barnabas pre assessment rev B

Credits are currently not included within the pre assessment.

Credits within this catergory are dependant on using construction materials that are sourced and manufactured responsibly, including:

- Sustainably sourced timber - with appropriate certification e.g. FSC, PEFC
- Other materials produced in factories with Environmental Management Systems (EMS) for the supply chain (i.e. sourcing of raw materials) and/or the key processes (i.e. manufacturing) are also rated.

A detailed building design will be required to undertake an assessment and calculate credits.

Evidence for SUR1 - 5435 - St barnabas pre assessment rev B

Mandatory requirement: Surface water run-off from the development, must not exceed previous run-off from site.
A consultant will be required to assess wether the mandatory requirement is met by default or if additional attenuation measures are required.

Credits are not included for sustainable drainage equipment. In order to gain any credits a consultants report will be required to highlight that CfSH requirements have been met.

If SUDS are required to meet the target or are planned to be installed to gain credits, a consultant will be required to design this system.

Evidence for SUR2 - 5435 - St barnabas pre assessment rev B

Assessor informed that it has been confirmed by the EA that the site is within a low flood risk area Zone 1 and measures are to be taken in rising finished floor levels 300mm above ground level.

Two credits are achievable for locating in a low flood risk zone provided that a Flood Risk Assessment (FRA) is carried out in accordance with good practice guidance PPS25 to indicate a low risk of flooding from all sources.

A Flood Risk Assessment (FRA) is required, carried out in accordance with good practice guidance PPS25.

Evidence for WAS1 - 5435 - St barnabas pre assessment rev B

Mandatory requirement:
Waste storage provided must be either the size of all external containers provided by the local authority or min. capacity calculated from BS 9506, whichever is largest.

External storage space must meet mandatory requirements.

Confirmation required that Worthing Borough Council operate a recycling collection with after collection sorting.

In order to achieve the requirements for 4 credits, dedicated internal storage for recycling will meet the following requirements
- Minimum total capacity of 30 litres.
- Bins provided in an adequate internal space.

Evidence for WAS2 - 5435 - St barnabas pre assessment rev B

Mandatory requirement:

As it is mandatory, a site waste management plan must be drawn up, including plans for:
- Monitoring of waste generated on site
- Targets to promote resource efficiency.

In Addition, it has been agreed that the SWMP will include procedures and commitments for:
- Minimising construction waste

AND/OR
- Sorting, re-using and recycling construction waste.

Evidence for WAS3 - 5435 - St barnabas pre assessment rev B

A container specifically designed for home composting is to be specified.
Container to be sited according to manufactures instructions, be in a dedicated postition and to be accessible to disabled people. Information on composting must be provided to all households.

Evidence Gathered

Evidence for POL1 - 5435 - St barnabas pre assessment rev B

Foamed insulants to be specified as having a GWP of <5 for the blowing agent.

A detailed building design will be required along with the Pol 1 checklist completed by the contractor to confirm credits.

Evidence for POL2 - 5435 - St barnabas pre assessment rev B

Site will be on the gas network and it is therefore intended that gas boilers will be specified for heating with NOx emmissions of equal to or less than 40mg/kWh.

Evidence for HEA1 - 5435 - St barnabas pre assessment rev B

Credit not being sought.

Evidence for HEA2 - 5435 - St barnabas pre assessment rev B

Building of seperating elements between dwellings to achieve sound insulation values of 5db higher for airbourne sound and 5db lower for impact sound than those givern in AD E of the Building Regulations.

Confirmation will be required that a compliant test body will carry out a programme of pre-completion testing demostrating the above standard is achieved. Details of separating elements with evidence of the potential for the constructions to meet the required performance will be required e.g. a design statemement from an acoustic consultant.

Evidence for HEA3 - 5435 - St barnabas pre assessment rev B

Private rear garden space is to be provided for the use of the occupants of each House, with communal gardens assumed as being provided for occupants of the flats.

Outdoor spaces minimum space requirements:
1.5sqm per bedroom for Private space.
1sqm per bedroom for shared space.

The space needs to be adjacent or in close proimity to the dwelling.

Evidence for HEA4 - 5435 - St barnabas pre assessment rev B

Credit not being sought.

Development has not been designed to acheive all of the 16 Lifetime Homes Criteria applicable to each unit.

Evidence for MAN1 - 5435 - St barnabas pre assessment rev B

A home user guide to be compiled using checklist Man 1 Part 1 and issued to all dwellings with information that the guide is also available in alternative accessible formats.

Type of information to be included:
- Environmental strategy/ design and features
- Energy
- Water Use
- Recycling and Waste
- Sustainable DIY
- Emergency Information
- Links, References and Further Information
- Provision of information in alternative formats

A further credit for inclusion of items from checklist Man 1 Part 2 site and surroundings has also been allowed for.

Type of information to be included:
- Recycling and Waste
- Sustainable Urban Drainage (SUDS)
- Public transport
- Local amenities
- Responsible purchasing
- Emergenency information
- Links, references and further information

Evidence Gathered

Evidence for MAN2 - 5435 - St barnabas pre assessment rev B

Contractor intends to register with the Considerate Contactors Scheme and ensure that the development will comply, and will achieve a best practice score of 24-31.5.

If best practice is surpassed, with a score of 32 or over, another credit will be gained.

Evidence for MAN3 - 5435 - St barnabas pre assessment rev B

Site management processes to be specified to include four of the following:
- Monitor, report and set targets for CO2/energy use during construction
- Monitor, report and set targets water consumption from site activities
- Adoption of Best practice policies in respect of water pollution related to site activities
- Adopt best practice policies in respect of air (dust) pollution from site activities
- 80% of site timber is reclaimed, re-used or responsibly sourced (including formwork, site hoardings and other temporary site timber used for the purpose of facilitating construction)

Evidence for MAN4 - 5435 - St barnabas pre assessment rev B

This assessment assumes the scheme is intended to be regestered with Secured by Design and consulting the Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police at the design stage.

Incorporating their recommendations and compling with section 2 (Pyhsical Security) of the Secure By Design New Homes 2010.

Evidence for ECO1 - 5435 - St barnabas pre assessment rev B

The Site is concluded to have low ecological value as stated in the provided ecology report prepared by Sophie Miller BSC MSC MIEEM forwarded to the code assessor on 28 June 2010.

Evidence for ECO2 - 5435 - St barnabas pre assessment rev B

All key recommendations and 30% of additional recommendations from report prepared by Sophie Miller BSC MSC MIEEM are to be met.

Evidence for ECO3 - 5435 - St barnabas pre assessment rev B

Credit awarded as the site is concluded to have low ecological value as stated in the provided ecology report prepared by Sophie Miller BSC MSC MIEEM forwarded to the code assessor on 28 June 2010..

Evidence for ECO4 - 5435 - St barnabas pre assessment rev B

As part of the ecologist report, recommendations will need to be made to gain credits in this section.

Credits are awarded where the change in ecological value is measured before and after development , and the overall change in species per hectare.

For this report a neutral change: greater than -3 and less than or equal to +3 has been allowed for.

Credits will be confirmed on completion of the Eco 4 calculator or similar tool and Code Ecology template, which a qualified Ecologist is required to complete.

Evidence for ECO5 - 5435 - St barnabas pre assessment rev B

Credit not being sought.

Site is made up of houses and flats therfore credit is unlikley to be achievied.

Assessor Declaration

I Neil St Clair, can confirm that I have compiled this report to the best of my ability, I have based all findings on the information that is referenced within this report, and that this report is appropriate for the registered site.

To the best of my knowledge all the information contained within this report is correct and accurate. I have within my possession all the reference material that relates to this report, which is available for inspection by the client, the clients representative or Stroma Certification for Quality Assurance monitoring.

Signed:



Neil St Clair
Michael Cook Associates Ltd
02 July 2010

Information about Code for Sustainable Homes

The Code for Sustainable Homes (the Code) is an environmental assessment method for rating and certifying the performance of new homes. It is a national standard for use in the design and construction of new homes with a view to encouraging continuous improvement in sustainable home building. The Code is based on EcoHomes©.

It was launched in December 2006 with the publication of *'Code for Sustainable Homes: A step-change in sustainable home building practice'* (Communities and Local Government, 2006), and became operational in England from April 2007. Code ratings for new-build homes became mandatory from 1st May 2008, for all developments where a local authority received the building notice, initial notice or full plans application for new dwellings on or after this date.. Developments where a local authority received these stages on or before 30 April 2008 are exempt.

The Code for Sustainable Homes covers nine categories of sustainable design. Each category includes a number of environmental issues. Each issue is a source of impact on the environment which can be assessed against a performance target and awarded one or more credits. Performance targets are more demanding than the minimum standards needed to satisfy Building Regulations or other legislation. They represent good or best practice, are technically feasible, and can be delivered by the building industry.
The Issues and category's are as follows:

- Energy and CO_2 Emissions
    - Dwelling Emission Rate
    - Building Fabric
    - Internal Lighting
    - Drying Space
    - Energy Labelled White Goods
    - External Lighting
    - Low or Zero Carbon Technologies
    - Cycle Storage
    - Home Office
- Water
    - Internal Water Use
    - External Water Use
- Materials
    - Environmental Impact of Materials
    - Responsible Sourcing of Materials - Basic Building Elements
    - Responsible Sourcing of Materials - Finishing Elements
- Surface Water Run-off
    - Management of Surface Water Run-off from the development

- Flood Risk
- Waste
  - Storage of non-recyclable waste and recyclable household waste
  - Construction Site Waste Management
  - Composting
- Pollution
  - Global Warming Potential of Insulates
  - NO_x Emissions
- Heath and Wellbeing
  - Daylighting
  - Sound Insulation
  - Private Space
  - Lifetime Homes
- Management
  - Home User Guide
  - Considerate Constructors Scheme
  - Construction Site Impacts
  - Security
- Ecology
  - Ecological Value of Site
  - Ecological Enhancement
  - Protection of Ecological Features
  - Change in Ecological Value of Site
  - Building Footprint

The Code assigns one or more performance requirements (assessment criteria) to all of the above environmental issues. When each performance requirement is achieved a credit is awarded. (With the exception of the four mandatory requirements which have no associated credits). The total number of credits available to a category is the sum of credits available for all the issues within it.

Mandatory minimum performance standards are set for some issues. For four of these, a single mandatory requirement is set which must be met, whatever Code level rating is sought. Credits are not awarded for these issues. Confirmation that the performance requirements are met for all four is a minimum entry requirement for achieving a level 1 rating. The four un-credited issues are:

- Environmental impacts of materials
- Management of Surface Water Runoff from developments
- Storage of non-recyclable waste and recyclable household waste
- Construction site waste management

If the mandatory minimum performance standard is met for the four un-credited issues, three further mandatory issues need to be considered. These are agreed to be such important issues that separate Government policies are being pursued to mitigate their effects. For two of these, credits are awarded for every level of achievement recognised within the Code, and minimum mandatory standards increase with increasing rating levels.

The two issues with increasing mandatory minimum standards are:

- Dwelling Emission Rate
- Indoor Water Use

The final issue with a mandatory requirement for Level 6 of the Code is:

- Lifetime Homes

Further credits are available on a free-choice or tradable basis from other issues so that the developer may choose how to add performance credits (converted through weighting to percentage points) achieve the rating which they are aiming for.

The environmental impact categories within the Code are not of equal importance. Their relative value is conveyed by applying a consensus-based environmental weighting factor (see details below) to the sum of all the raw credit scores in a category, resulting in a score expressed as percentage points. The points for each category add up to 100.

The weighting factors used in the Code have been derived from extensive studies involving a wide range of stakeholders who were asked to rank (in order of importance) a range of environmental impacts. Stakeholders included international experts and industry representatives.

It is also important to note that achieving a high performance in one category of environmental impact can sometimes result in a lower level of performance for another. For instance, if biomass is used to meet heating demand, credits will be available for performance in respect of energy supplied from a renewable source, but credits cannot be awarded for low NO_X emission. It is therefore impossible to achieve a total percentage points score of 100.

The Code uses a rating system of one to six stars. A blue star is awarded for each level achieved. Where an assessment has taken place by where no rating is achieved, the certificate states that zero stars have been awarded:

Code Levels	Total Points Score (equal to or greater than)
Level 1 (★)	36 Points
Level 2 (★★)	48 Points
Level 3 (★★★)	57 Points
Level 4 (★★★★)	68 Points
Level 5 (★★★★★)	84 Points
Level 6 (★★★★★★)	90 Points

Formal assessment of dwellings using the Code for Sustainable Homes may only be carried out using Certified assessors, who are qualified 'competent persons' for the purpose of carrying out Code assessments.

Energy and CO_2 Emissions

ENE 1: Dwelling Emission Rate

Available Credits: 15

Aim: To limit emissions of carbon dioxide (CO_2) to the atmosphere arising from the operation of a dwelling and its services.

ENE 2: Building Fabric

Available Credits: 2

Aim: To future proof the energy efficiency of dwellings over their whole life by limiting heat losses across the building envelope.

ENE 3: Internal Lighting

Available Credits: 2

Aim: To encourage the provision of energy efficient internal lighting, thus reducing the CO_2 emissions from the dwelling.

ENE 4: Drying Space

Available Credits: 1

Aim: To provide a reduced energy means of drying clothes.

ENE 5: Energy Labelled White Goods

Available Credits: 2

Aim: To encourage the provision or purchase of energy efficient white goods, thus reducing the CO2 emissions from appliance use in the dwelling.

ENE 6: External Lighting

Available Credits: 2

Aim: To encourage the provision of energy efficient external lighting, thus reducing CO_2 emissions associated with the dwelling.

ENE 7: Low or Zero Carbon Technologies

Available Credits: 2

Aim: To reduce carbon emissions and atmospheric pollution by encouraging local energy generation from renewable sources to supply a significant proportion of the energy demand.

ENE 8: Cycle Storage

Available Credits: 2

Aim: To encourage the wider use of bicycles as transport by providing adequate and secure cycle storage facilities, thus reducing the need for short car journeys.

ENE 9: Home Office

Available Credits: 1

Aim: To reduce the need to commute to work by providing residents with the necessary space and services to be able to work from home.

Water

WAT 1: Indoor Water Use

Available Credits: 5

Aim: To reduce the consumption of potable water in the home from all sources, including borehole well water, through the use of water efficient fittings, appliances and water recycling systems.

WAT 2: External Water Use

Available Credits: 1

Aim: To encourage the recycling of rainwater and reduce the amount of mains potable water used for external water uses.

Materials

MAT 1: Environmental Impact of Materials

Available Credits: 15

Aim: To encourage the use of materials with lower environmental impacts over their lifecycle.

MAT 2: Responsible Sourcing of Materials - Basic Building Elements

Available Credits: 6

Aim: To recognise and encourage the specification of responsibly sourced materials for the basic building elements.

MAT 3: Responsible Sourcing of Materials - Finishing Elements

Available Credits: 3

Aim: To recognise and encourage the specification of responsibly sourced materials for the finishing elements.

Surface Water Run-off

SUR 1: Management of Surface Water Run-off from developments

Available Credits: 2

Aim: To design housing developments which avoid, reduce and delay the discharge of rainfall to public sewers and watercourses. This will protect watercourses and reduce the risk of localised flooding, pollution and other environmental damage..

SUR 2: Flood Risk

Available Credits: 2

Aim: To encourage housing development in low flood risk areas, or to take measures to reduce the impact of flooding on houses built in areas with a medium or high risk of flooding.

Waste

WAS 1: Storage of non-recyclable waste and recyclable household waste

Available Credits: 4

Aim: To recognise and reward the provision of adequate internal and external storage space for non-recyclable waste and recyclable household waste.

WAS 2: Construction Site Waste Management

Available Credits: 2

Aim: To promote reduction and effective management of construction related waste through the use of a Site Waste Management Plan (SWMP).

WAS 3: Composting

Available Credits: 1

Aim: To encourage developers to provide the facilities to compost household waste, reducing the amount of household waste sent to landfill.

Pollution

POL 1: Global Warming Potential of Insulants

Available Credits: 1

Aim: To reduce global warming from blowing agent emissions that arise from the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials.

POL 2: NO_x Emissions

Available Credits: 3

Aim: To reduce the emission of nitrogen oxides (NO_X) into the atmosphere.

Health and Wellbeing

HEA 1: Daylighting

Available Credits: 3

Aim: To limit emissions of carbon dioxide (CO_2) to the atmosphere arising from the operation of a dwelling and its services.

HEA 2: Sound Insulation

Available Credits: 4

Aim: To ensure the provision of improved sound insulation to reduce the likelihood of noise complaints from neighbours.

HEA 3: Private Space

Available Credits: 1

Aim: To improve the occupiers' quality of life by providing an outdoor space for their use, which is at least partially private.

HEA 4: Lifetime Homes

Available Credits: 4

Aim: To encourage the construction of homes that are accessible and easily adaptable to meet the changing needs of current and future occupants.

Code for Sustainable Homes Report

Management

MAN 1: Home User Guide

Available Credits: 3

Aim: To encourage and reward provision of guidance enabling occupants to understand and operate their home efficiently and make the best use of local facilities.

MAN 2: Considerate Constructors Scheme

Available Credits: 2

Aim: To recognise and encourage construction sites managed in an environmentally and socially considerate and accountable manner.

MAN 3: Construction Site Impacts

Available Credits: 2

Aim: To recognise and encourage construction sites managed in a manner that mitigates environmental impacts.

MAN 4: Security

Available Credits: 2

Aim: 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.

Ecology

ECO 1: Ecological value of site

Available Credits: 1

Aim: To encourage development on land that already has a limited value to wildlife, and discourage the development of ecologically valuable sites.

ECO 2: Ecological enhancement

Available Credits: 1

Aim: To enhance the ecological value of a site.

ECO 3: Protection of ecological features

Available Credits: 1

Aim: To protect existing ecological features from substantial damage during the clearing of the site and the completion of construction works.

ECO 4: Change in ecological value of site

Available Credits: 4

Aim: To reward steps taken to minimise reductions and to encourage an improvement in ecological value.

ECO 5: Building footprint

Available Credits: 2

Aim: To promote the most efficient use of a building's footprint by ensuring that land and material use is optimised across the development.

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