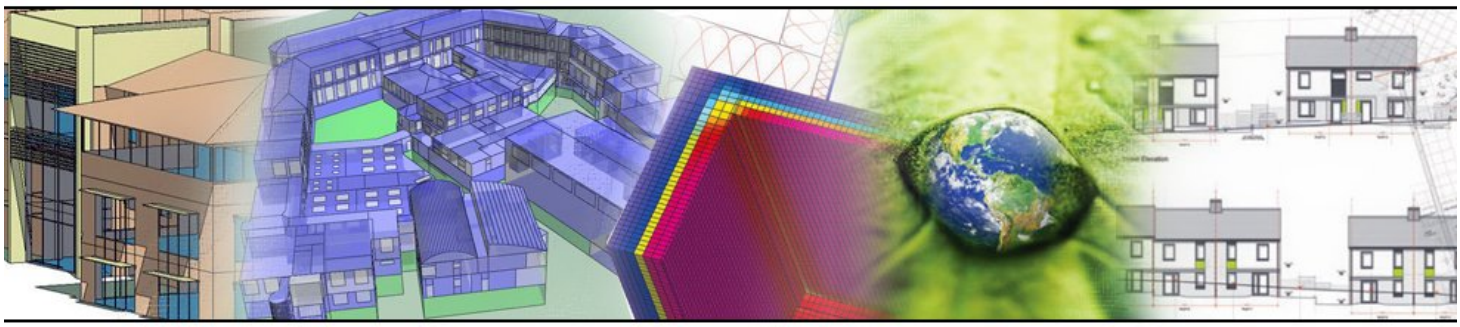

Code for Sustainable Homes

Pre-assessment Report

Plender Street,
Plender Street, London

NW1

Ref: 07-13-35053 PA2
Issue Date: 28/03/2014

Prepared for: Higgins Construction

Contents

Prepared By	Checked By
	
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1.0 Introduction

Stroma Technology were commissioned by Higgins Construction to undertake a Code for Sustainable Homes pre-assessment on Plender Street, to show how compliance can be gained with the November 2010 CSH scheme technical guide. The site consists of 31 apartments. In undertaking this assessment we have established that there should be one separate Code types on the development.

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 for Sustainable Homes covers nine categories of sustainable design:

- Energy and CO2 Emissions
- Water
- Materials
- Surface Water Run-off
- Waste
- Pollution
- Health and Well-being
- Management
- Ecology.

Each issue is a source of environmental impact which can be assessed against a performance target and awarded one or more credits. Performance targets are more demanding than the minimum standard 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.

2.0 The Code

The purpose of this pre-assessment report is to show how the site in question could achieve certification under the CSH scheme to Code Level 4. This has been based on current information provided by Higgins Construction, and is in the code assessor's opinion the most appropriate method of achieving the necessary award.

2.1 Mandatory Requirements

In undertaking this assessment, it is assumed that the *mandatory* requirements within Code have been met, these being –

- ENE1 – That a 25% improvement over Approved Document L1A compliance is made.

- WAT1 –Maximum daily water use of 105 litres/person/day.

- MAT1 –At least 3 of the 5 key construction elements must achieve a green-guide rating of A+ to D. These are Roof, External Walls, Internal walls, Floors & Windows.

- SUR1 –The development must demonstrate how surface water runoff has been designed to avoid, reduce and delay the discharge of rainfall runoff to watercourses and public sewers, therefore minimising the risk of pollution and flooding. It is important to note that a flood risk assessment must be undertaken to comply with this criterion, which should include an assessment of all sources of flooding listed within PPS25 (annex C).

- WAS1 –Development must demonstrate how adequate provisions for the storage of household waste has been allowed for, and that this will provide inclusive access and usability.

2.2 Code Types

The following is a summary of the Code types which have been identified within the development. These may be due to varying construction types, different dwelling types or where variations in scoring occurs.

Code Type	Description	Number
Type A	Flats	31

2.3 Scoring Overview

The following is a summary of the targeted credit for the Code types which have been identified within the development.

					Type A
CATEGORY	**ISSUE ID**	**ISSUE**	**CREDITS AVAILABLE**	**POINTS AVAILABLE**	**TARGET CREDITS**
ENERGY & CO2 EMISSIONS	ENE1*	Dwelling Emission Rate	10	11.74	3.0
	ENE2	Fabric Energy Efficiency	9	10.57	3.0
	ENE3	Energy Display Devices	2	2.35	2
	ENE4	Drying Space	1	1.17	1
	ENE5	Energy Labelled White Goods	2	2.35	2
	ENE6	External Lighting	2	2.35	2
	ENE7	LZC Technologies	2	2.35	1
	ENE8	Cycle Storage	2	2.35	2
	ENE9	Home Office	1	1.17	1
		Section Total	**31**	**36.40**	**17.0**
WATER	WAT 1*	Indoor Water Use	5	7.50	3
	WAT 2	External Water Use	1	1.50	0
		Section Total	**6**	**9.00**	**3**
MATERIALS	MAT 1*	Environmental Impact of Materials	15	4.50	10
	MAT 2	Responsible Sourcing of Materials Basic Building Elements	6	1.80	3
	MAT 3	Responsible Sourcing of Materials Finishing Elements	3	0.90	3
		Section Total	**24**	**7.20**	**16**
SURFACE WATER	SUR 1*	Surface Water Runoff from Developments	2	1.10	0
	SUR 2	Flood Risk	2	1.10	3
		Section Total	**4**	**2.20**	**3**
WASTE	WAS1*	Storage of Non-recyclable Waste and Recyclable Household Waste	4	3.20	4
	WAS2*	Construction Site Waste Management	3	2.40	3
	WAS3	Composting	1	0.80	1
		Section Total	**8**	**6.40**	**8**
POLLUTION	POL 1	GWP of Insulants	1	0.70	1
	POL 2	NOx Emissions	3	2.10	2
		Section Total	**4**	**2.80**	**3**
HEALTH & WELLBEING	HEA 1	Daylighting	3	3.50	2
	HEA 2	Sound Insulation	4	4.67	3
	HEA 3	Private Space	1	1.17	1
	HEA 4*	Lifetime Homes	4	4.67	4
		Section Total	**12**	**14.00**	**10**
MANAGEMENT	MAN 1	Home User Guide	3	3.33	3
	MAN 2	Considerate Constructors Scheme	2	2.22	2
	MAN 3	Construction Site Impacts	2	2.22	2
	MAN 4	Security	2	2.22	2
		Section Total	**9**	**10.00**	**9**
ECOLOGY	ECO 1	Ecological Value of Site	1	1.33	1
	ECO 2	Ecological Enhancement	1	1.33	1
	ECO 3	Protection of Ecological Features	1	1.33	1
	ECO 4	Change in Ecological Value of Site	4	5.33	4
	ECO 5	Building Footprint	2	2.67	1
		Section Total	**9**	**12.00**	**8**
		Total Score	**107**	**100.00**	**77**
		Total Points			**71.74**
					LEVEL 4

3.0 Code Criteria

3.1 Energy

ENE1 – Dwelling Emission Rate	Types
It is assumed that the mandatory level of compliance will be met for all level 4 dwellings, by achieving a 25% improvement of DER/TER, in accordance with Approved Document L1A (2010). This should be demonstrated through completing compliant SAP calculations. Credits are awarded in 0.1 increments.	All

ENE2 – Fabric Energy Efficiency	Types
It is assumed that credits will be achieved for fabric energy efficiency, by establishing a construction specification which focuses on a 'fabric-first' approach to compliance. This figure will be determined within the SAP calculations, and credits are awarded in 0.1 increments.	All

ENE3 – Energy Display Device	Types
It is assumed that an energy display device will be installed, which will comply with all requirements of ENE3. This will be required to show consumption data for primary electricity use and primary heating fuel consumption.	All

ENE4 – Drying Space	Types
Internal or external drying lines should be installed, minimum lengths to be 4m for properties of 2 or less bedrooms and 6m for properties with 3 or more bedrooms.	All

ENE5 – Energy Labelled White Goods	Types
It is assumed that no white goods will be supplied, however all properties will be provided with an EU energy labelling information leaflet.	All

ENE6 – External Lighting	Types
It is assumed that all space & security lighting will be fitted with energy efficient lamps and have appropriate control systems in place to prevent unnecessary operation.	All

ENE7 – Low & Zero Carbon Technologies	Types
It is anticipated that one credit can be awarded for achieving a 10% reduction in CO2 emissions through the use of LZC technologies.	All

ENE8 – Cycle Storage	Types
It is assumed that two credits can be gained for the provision of correctly specified cycle storage.	All

ENE9 – Home Office	Types
It is assumed that suitable space and services will be provided for setting up a home office, in an appropriate room within the dwelling.	All

3.2 Water

WAT1 – Indoor Water Use	Types
It is assumed that the mandatory requirements will be met, by installing suitable appliances and fitting to achieve less than 105 litres/person/day internal water use.	All

WAT2 – External Water Use	Types
Credits are not sought in this category	All

3.3 Materials

MAT1 – Environmental Impact Of Materials	Types
As this is a mandatory criterion, it has been assumed that some credits will be gained. No formal assessment of the construction types has yet been undertaken, however our estimate has been made given the information currently available.	All

MAT2 – Responsible sourcing of materials – Basic Building Elements	Types
It is anticipated that the developer will obtain all necessary certificates of origin for materials within the basic building elements to allow credits to be awarded.	All

MAT3 – Responsible sourcing of materials –Building Finishing Elements	Types
It is anticipated that the developer will obtain all necessary certificates of origin for materials within the building finishing elements to allow credits to be awarded.	All

3.4 Surface Water Run-off

SUR1 – Management of surface water run-off from developments	Types
It is assumed that the mandatory requirements for SUR1 will be met by- • Ensuring that peak rate of runoff does not exceed pre-development levels (can be increased to 5l/s to prevent blockage of drainage. • Ensuring that volume of runoff does not exceed pre-development levels, or where this cannot be achieved this is reduced to within acceptable levels.	All

SUR2 – Flood Risk	Types
Initial investigation would suggest that the development lies within zone 1 (low) annual probability of flooding. A full flood risk assessment in accordance with PPS25 must be supplied to support this, which must also include an assessment of ALL sources of flooding listed under PPS25 Annex C.	All

3.5 Waste

WAS1 – Storage of non-recyclable waste and recyclable household waste	Types
It is assumed that the mandatory requirements will be met by providing sufficiently specified external waste storage, in addition to this full credits have been awarded for providing adequate external storage space for recycling containers (provided by local authority) and providing sufficient internal recycling storage.	All

WAS2 – Construction site waste management	Types
It is assumed that a site waste management plan will be developed, which will include procedures and commitments to monitor and report on waste generated, and seek to reduce this where possible. A commitment should be made to divert a minimum of 85% of non-hazardous construction waste from landfill.	All

WAS3 – Composting	Types
One credit can be awarded for the provision of home composters within private gardens, and where suitable space has been provided within kitchens to house a 7litre waste food container.***OR***The local authority provides a waste food collection service, therefore one credit can be awarded subject to suitable local authority refuse containers being housed within the development. A space should be indicated within the kitchens to house a 7litre waste food container.	All

3.6 Pollution

POL1 – Global Warming Potential of insulants	Types
One credit can be awarded where all insulation materials used within the development have a GWP of less than 5 in both manufacture and installation.	All

POL2 – NOx emissions	Types
Two credits has been awarded for the use of primary and secondary heating sources which have emissions with a dry NOx level of less than 70mg/kWh.	All

3.7 Health & Well-being

HEA1 – Daylighting	Types
Daylight calculations have not yet been undertaken, however it is assumed that two of the available three credits will be achieved once suitable daylight calculations are carried out for kitchen, living room, dining room and study.	All

HEA2 – Sound Insulation	Types
It is assumed that three credits will be gained within this issue by ensuring that acoustic performance is improved by a minimum of 5dB over building regulations requirements. This can be shown through either registering and	All

HEA3 – Private Space	Types
The dwellings will all be provided with sufficient private or semi-private external space, which will be adequately sized and provided with inclusive access and usability.	All

HEA4 – Lifetime Homes	Types
The scheme is thought to be designed in full compliance with all 16 Lifetime Homes criteria, therefore full credits can be awarded in this issue.	All

3.8 Management

MAN1 – Home User Guide	Types
3 Credits have been awarded for the developer providing a home user guide to all properties which gives information on the operation and maintenance of the dwelling and details of the site and its surroundings. This should be made available in alternative formats upon request by the occupier.	All

MAN2 – Considerate Constructors Scheme	Types
The developer should aim to achieve a beyond best-practice score under the Considerate Constructors Scheme, with a total final score of between 35 and 50, with a minimum score of 4 in each category. Should an alternative scheme be favoured this should be discussed direct with Stroma to ascertain the exact requirements.	All

MAN3 - Construction Site Impacts	Types
The developer should aim comply with 4 of the available 6 construction site impacts criteria. These are – • Monitor, report and set targets for CO2 production or energy use arising from site activities • Monitor and report CO2 or energy use arising from commercial transport to and from site • Monitor, report and set targets for water consumption through site activities • Adopt best practice policies in respect of air (dust) pollution from site activities • Adopt best practice policies in respect of water (ground and surface) pollution from site activities • 80% of site timber to be reclaimed, re-used or responsibly sourced. This should include items such as temporary walkways, hoardings, pallets, and formwork.	All

MAN4 - Security	Types
It has been assumed that the development will comply with the requirements of Section 2 (physical security) of Secured By Design, through liaison with the local CPDA.	All

3.9 Ecology

**Note – For Eco1-4 a site survey by a suitably qualified ecologist is required BEFORE any works are undertaken on site, including and site strip or demolition works.*

ECO1 – Ecological value of site	Types
Initial investigation would suggest that the construction zone does not feature any areas of ecological value, therefore this credit can be awarded.	All

ECO2 – Ecological enhancement	Types
It is assumed that the developer will seek to include all key recommendations from the ecologists report, along with at least 30% of the additional requirements.	All

ECO3 – Protection of ecological features	Types
As the land has been deemed as low ecological value, this credit can be awarded by default. ***OR*** It is assumed that all areas of ecological value will be adequately protected throughout construction works, in accordance with ecologists recommendations.	All

ECO4 – Change in ecological value	Types
It is assumed that the landscaping design will show how a neutral change in species per hectare will be achieved, of between -3 and +3 species per hectare.	All

ECO5 – Building footprint	Types
It is estimated that one credit can be awarded for the development achieving sufficient ratio of net internal floor area: net internal ground floor area.	All

3.9 Declaration

I Alex Tang, 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.

Alex Tang BSc (Hons)
Sustainability Consultant

4.0 Assessment Criteria

ENE1 Criteria		
% Improvement of DER over TER	Credits	Mandatory Levels
≥8%	1	
≥16%	2	
≥25%	3	Level 4
≥36%	4	
≥47%	5	
≥59%	6	
≥72%	7	
≥85%	8	
≥100%	9	Level 5
'True Zero Carbon'	10	Level 6

ENE2 Criteria			
Dwelling Type		Credits	Mandatory Levels
Apartment Blocks, Mid-Terrace	End Terrace, Semi-Detached & Detached		
Fabric Energy Efficiency kWh/m2/year			
≤ 48	≤ 60	3	
≤ 45	≤ 55	4	
≤ 43	≤ 52	5	
≤ 41	≤ 49	6	
≤ 39	≤ 46	7	Levels 5 & 6
≤ 35	≤ 42	8	
≤ 32	≤ 38	9	
Default Cases - None			

ENE3 Criteria	Credits
Where current electricity OR primary heating fuel consumption data are displayed to occupants by a correctly specified energy display device.	1
Where current electricity AND primary heating fuel consumption data are displayed to occupants by a correctly specified energy display device.	2
Default Cases - Where electricity is the primary heating fuel and current electricity consumption data are displayed to occupants be a correctly specified energy display device	2

ENE4 Criteria	Credits
Where space and equipment are provided for drying clothes: • For 1 - 2 bedroom dwellings, the drying equipment must be capable of holding 4m+ of drying line • For 3+ bedroom dwellings, the drying equipment must be capable of holding 6m+ of drying line The drying space (internal or external) must be secure	1
Default Cases - None	

ENE5 Criteria	Credits
Where the following appliances have an A+ rating under the EU Energy Efficiency Labelling Scheme: • Fridges and freezers or fridge/freezers.	1
Where the following appliances are provided and have an A rating under the EU Energy Efficiency Labeling Scheme: • Washing machines and dishwashers AND EITHER • Washer-dryers or tumble dryers have a B rating OR • EU Energy Labelling Scheme Information is provided to each dwelling in place of a tumble dryer or washer dryer	1
Where no white goods are provided but information on the EU Energy Efficiency Labelling Scheme information is provided to each dwelling Note: To obtain this credit any white goods available to purchase from the developer must be compliant with the above criteria.	1

ENE6 Criteria	Credits
Space Lighting Where all external space lighting, including lighting in the common areas, is provided by energy efficient fittings with appropriate control systems. Note: Statutory safety lighting is not covered by this requirement	1
Security Lighting Where all security lighting is designed for energy efficiency and are adequately controlled such that: All burglar security lights have: • A maximum wattage of 150 W AND •Movement detecting control devices (PIR) &• Daylight cut-off sensors All other security lighting: • Has energy efficient fittings AND • Is fitted with daylight cut-off sensors OR a time switch	1
Default Cases - If no security lighting is installed, then the security lighting credit can be awarded by default, provided all the conditions of the first issue covering space lighting have been met.	1
Dual lamp luminaries with both space and security lamps can be awarded both credits provided they meet the above criteria for energy efficiency	2

ENE7 Criteria	Credits
Where energy is supplied by low or zero carbon technologies AND There is a 10% reduction in CO2 emissions as a result OR There is a 15% reduction in CO2 emissions as a result	 1 2
Default Cases - None	

ENE8 Criteria	Credits
Where either individual or communal cycle storage is provided that is adequately sized, secure and convenient, for the following number of cycles Studio or 1 bedroom dwelling - 1 cycle for every two dwellings 2 and 3 bedroom dwellings - storage for 1 cycle 4 bedrooms and above - storage for 2 cycles. OR studios or 1 bedroom dwellings - storage for 1 cycle 2 and 3 bedroom dwellings - storage for 2 cycles 4 bedrooms and above - storage for 4 cycles. Note: The requirements for secure cycle storage are met where compliance with clause 35 of Secured by Design (SBD) New Homes 2010 is achieved.	1 2
Default Cases - None	

ENE9 Criteria	Credits
Where sufficient space and services have been provided which allow the occupants to set up a home office in a suitable quiet room. The space dedicated for use as a home office must have adequate ventilation and achieve an average daylight factor of 1.5%	1
Default Cases - None	

WAT1 Criteria	
Water consumption (litres/person/day)	Credits
≤ 120 l/p/day (Mandatory for Levels 1 and 2)	1
≤ 110 l/p/day	2
≤ 105 l/p/day (Mandatory for Levels 3 and 4)	3
≤ 90 l/p/day	4
≤ 80 l/p/day (Mandatory for Levels 5 and 6)	5
Default Cases - None	

WAT2 Criteria	Credits
Where a correctly specified system to collect rainwater for external/internal irrigation use has been provided to a dwelling with a garden, patio or communal garden space (examples of such systems include rainwater butts and central rainwater collection systems).	1
Default Cases - If no individual or communal garden spaces are specified or if only balconies are provided, the credit can be awarded by default.	1

MAT1 Criteria	Credits
Where at least three of the following five key elements achieve a relevant Green Guide rating from the 2008 version of *The Green Guide* of A+ to D: • Roof • External Walls • Internal Walls (including separating walls) • Upper & Ground Floors (including separating walls) • Windows	Mandatory at all levels
Where the *Mat 1 Calculator* is used to assess the number of credits awarded for the five key elements described above.	1-12
Default Cases - None	

MAT2 Criteria	Credits
Where 80% of the *assessed materials* in the following *Building Elements* are responsibly sourced: a) Frame b) Ground floor c) Upper floors (including separating floors) d) Roof e) External walls f) Internal walls (including separating walls) g) Foundation/substructure (excluding sub-base materials) h) Staircase Additionally, 100% of any timber in these elements must be legally sourced	1-6
Default Cases - None.	

MAT3 Criteria	Credits
Where 80% of the assessed materials in the following *Finishing Elements* are responsibly sourced: a) Stair b) Window c) External & internal door d) Skirting e) Panelling f) Furniture g) Fascias h) Any other significant use Additionally, 100% of any timber in these elements must be legally sourced.	1-3
Default Cases - None.	

SUR1 Section 1	Credits
Hydraulic Control Criteria The SuDS Management Train should be used as a guide to achieve the following: 1) *Peak Rate of Run-off* If there is no increase in the man-made impermeable area as a result of the new development, then the peak rate of run-off criterion does not apply. Where there is an increase in impermeable area, ensure that the peak rate of run-off over the development lifetime, allowing for climate change, will be no greater for the period events. than it was for the pre-development site. This should comply at the 1 year and 100 year return developed site Where the pre-development peak rate of run-off for the site would result in a requirement for the post-development flow rate (referred to as the limiting discharge) to be less than 5 l/s at a discharge point, a flow rate of up to 5 l/s may be used where required to reduce the risk of blockage. Note: If as a result of the new development, there is an increase in the volume of run-off discharged for the 100 year 6 hour event and section 2A cannot be met (see section 2 below), these run-off rates do not apply.	Mandatory all levels
Section 2	
Volume of Run-off If there is no increase in the man-made impermeable area as a result of the new development, then the volume of run-off criteria does not apply. If the developed site would otherwise discharge, over the development lifetime allowing for climate change, a greater volume of rainwater run-off than the pre-development site for the 100 year 6 hour event, then criterion A applies. If A cannot be satisfied then B applies. A: Ensure that the post development volume of run-off, allowing for climate change over the development lifetime, is no greater than it would have been before the development. The additional predicted volume of run-off for the 100 year 6 hour event must be prevented from leaving the site by using infiltration or other SuDS techniques (see Definitions). OR B: If A cannot be satisfied then reduce the post development peak rate of run-off to the limiting discharge.	Mandatory all levels
Criteria 3	
Water Quality Criteria 1. One credit can be awarded by ensuring there is no discharge from the developed site for rainfall depths up to 5 mm (see Calculation Procedures). 2. One credit can be awarded by ensuring that: *Note: The SuDS Manual best practice recommendations should be followed where there is a risk to groundwater from infiltration (for example contaminated land, developments with high risk of pollution incidents)*	1 1
Default Cases - Credits can be awarded by default if the site discharges rainwater directly to a tidal estuary or the sea, because compliance with discharge flow rate requirements will not be required.	

SUR2 Criteria	Credits
EITHER 2 credits are available for developments situated in Zone 1 – low annual probability of flooding (as defined in PPS25 – 'Planning and Flood Risk') and where the site specific Flood Risk Assessment (FRA) indicates that there is low risk of flooding from all sources.	2
OR 1 credit is available for developments situated in Zones 2 and 3a – medium and high annual probability of flooding where the finished ground floor level of all habitable parts design flood level of the flood zone.and access routes to the ground level and the site, are placed at least 600mm above the of dwellings The Flood Risk Assessment (FRA) accompanying the planning application must demonstrate to the satisfaction of the local planning authority and statutory body that the required, and that any residual risk can be safely managed.	1

WAS1Criteria	Credits
Storage of household waste An *adequate external space* should be allocated for waste storage and sized to accommodate containers according to the largest of the following two volumes: •The minimum volume recommended by British Standard 5906 (British Standards Institution, 2005) based on a maximum collection frequency of once per week. This volume is 100 litres for a single bedroom dwelling, with a further 70 litres for each additional bedroom. •The total volume of the external waste containers provided by the Local Authority. Storage space must provide *inclusive access and usability* (Checklist IDP). Containers must not be stacked.	Mandatory All Levels
Storage of recyclable household waste: Dedicated internal storage for recyclable household waste can be credited where there is no (or insufficient) dedicated external storage capacity for recyclable material, no Local Authority collection scheme and where the following criteria are met: At least, three internal storage bins: • all located in an adequate internal space • with a minimum total capacity 60 litres	2
Storage of recyclable household waste A combination of internal storage capacity provided in an adequate internal space, with either: • a Local Authority collection scheme, or • no Local Authority collection scheme but adequate external storage capacity. Local Authority collection scheme In addition to a Local Authority collection scheme (with a collection frequency of at least fortnightly), at least one of the following requirements must be met: • Recyclable household waste is sorted after collection and a single bin of at least 30 litres is provided in an adequate internal space. • Materials are sorted before collection and at least three separate bins are provided with a total capacity of 30 litres. Each bin must have a capacity of at least 7 litres and be located in an adequate internal space. • An *automated waste collection system* which collects at least three different types of recyclable waste.	4

No Local Authority collection scheme but adequate external storage capacity For houses and flats there must be at least three identifiably different internal storage bins for recyclable waste located in an adequate internal space: • with a minimum total capacity of 30 litres • with a minimum individual capacity of at least 7 litres. AND For houses, an adequate external space must be provided for storing at least three external bins for recyclable waste: • with a minimum total capacity of 180 litres • with a minimum individual capacity of 40 litres. For flats, a *private recycling scheme operator* must be appointed to maintain bins and collect recyclable waste regularly. Recycling containers must: • be located in an adequate external space • be sized according to the *frequency of collection*, based on guidance from the recycling scheme operator • store at least three types of recyclable waste in identifiably different bins.	4

Was2 Criteria	Credits
Minimising Construction Waste Where there is a compliant Site Waste Management Plan (SWMP) that contains: a. Target benchmarks for resource efficiency, i.e. m3 of waste per 100 m2 or tonnes of waste per 100 m2 set in accordance with best practice b. Procedures and commitments to minimize non-hazardous construction waste at design stage. Specify waste minimisation actions relating to at least 3 waste groups and support them by appropriate monitoring of waste. c. Procedures for minimising hazardous waste. d. Monitoring, measuring and reporting of hazardous and non-hazardous site waste production according to the defined waste groups (according to the waste streams generated by the scope of the works)	1
Diverting Waste from Landfill Where there is a compliant Site Waste Management Plan (SWMP) including procedures and commitments to sort and divert waste from landfill, through either; a. Re-use on site (in situ or for new applications) b. Re-use on other sites c. Salvage/reclaim for re-use d. Return to the supplier via a 'take-back' scheme e. Recovery and recycling using an approved waste management contractor f. Compost according to the defined *waste groups* (in line with the waste streams generated by the scope of the works). AND One of the following has been achieved: •Where at least 50% by weight or by volume of non-hazardous construction waste generated by the project has been diverted from landfill. OR •Where at least 85% by weight or by volume of non-hazardous construction waste generated by the project has been diverted from landfill.	2 3

WAS3 Criteria	Credits
•Individual home composting facilities. OR •A local communal or community composting service, which the Local Authority runs or where there is a management plan in place. OR •A Local Authority green/kitchen waste collection system (this can include an automated waste collection system). All facilities must also: • be in a dedicated position • be accessible to disabled people (Checklist IDP) • have an information leaflet that is delivered to each dwelling	1
Default Cases - None	

POL1 Criteria	Credits
Credits are awarded where all insulating materials in the elements of the dwelling listed below only use substances that have a GWP < 5 (manufacture AND installation): •Roofs: including loft access •Walls: internal and external including lintels and all acoustic insulation •Floors: including ground and upper floors •Hot water cylinder: pipe insulation and other thermal stores •Cold water storage tanks: where provided •External doors	1
Default Cases - None	

POL2 Criteria		Credits
Dry NOx Level (mg/kWh)	Boiler Class (BS EN 297: 1004)	
< 100 < 70 < 40	4 5 -	1 2 3
Default Cases - Where all space heating and hot water energy requirements are fully met by systems which do not produce NOx emissions.		

HEA1 Criteria	Credits
Kitchens must achieve a minimum average daylight factor of at least 2%	1
All living rooms, dining rooms and studies (including any room designated as a home office under Ene 9 - Home Office) must achieve a minimum average daylight factor of at least 1.5%	1
80% of the working plane in kitchens, living rooms, dining rooms and studies (including any room designated as a home office under Ene 9 - Home Office) must receive direct light from the sky.	1
Default Cases - None	

HEA2 Criteria	Credits
Where: ·airborne sound attenuation values are at least 3dB higher ·impact sound attenuation values are at least 3dB lower OR ·airborne sound attenuation values are at least 5dB higher ·impact sound attenuation values are at least 5dB lower OR ·airborne sound attenuation values are at least 8dB higher ·impact sound attenuation values are at least 8dB lower than the performance standards set out in the Building Regulations for England and Wales, Approved Document E (2003 Edition, with amendments 2004) This can be demonstrated through EITHER A commitment to carry out a programme of pre-completion testing based on the *Normal programme of testing* described in Approved Document E for every group or sub-group* of houses or flats, meeting the performance standards stated above; OR A commitment to use constructions for all relevant building elements that have been assessed and approved by Robust Details Limited, and found to achieve the performance standards stated above;	1 3 4
Default Cases Detached dwellings Attached dwellings where separating walls or floors only occur between non habitable rooms.	 4 3

HEA3 Criteria	Credits
Where *outdoor space* (private or semi-private) has been provided that is: • Of a *minimum size* that allows all occupants to use the space. • Provided with *inclusive access and usability* (Checklist IDP). • *Accessible only to occupants of designated dwellings*.	1
Default Cases – None	

HEA4 Criteria	Credits
Where all principles of *Lifetime Homes*, applicable to the dwelling being assessed, have been complied with. (Mandatory for level 6)	4
Where an exemption from Lifetime Homes criteria 2 and/or 3 is applied to selected pathways subject to a steeply sloping plot gradient, but all other principles of Lifetime Homes, applicable to the dwelling being assessed, have been complied with.	3
Default Cases - None	

MAN1 Criteria	Credits
A Home User Guide, compiled using *Checklist Man 1 Part 1* together with information that the guide is available in alternative accessible formats	2
Where the guide also covers information relating to the site and its surroundings, compiled in accordance with *Checklist Man 1 Part 2*.	3
Default Cases – None	

MAN2 Criteria	Credits
Where there is a commitment to meet Best Practice under a nationally or locally recognised certification scheme such as the Considerate Constructors Scheme.	1
Where there is a commitment to go significantly beyond Best Practice under a nationally or locally recognised certification scheme such as the Considerate Constructors Scheme.	2
Default Cases - None	

MAN3 Criteria	Credits
Where there are procedures that cover 2 or more of the following items: •Monitor, report and set targets for CO2 production or energy use arising from site activities; •Monitor and report CO2 or energy use arising from commercial transport to and from site; •Monitor, report and set targets for water consumption from site activities; •Adopt best practice policies in respect of air (dust) pollution arising from site activities; •Adopt best practice policies in respect of water (ground and surface) pollution occurring on the site; •80% of site timber is reclaimed, re-used or responsibly sourced.	1
OR Where there are procedures that cover 4 or more of the items listed above.	2
Default Cases - None	

MAN4 Criteria	Credits
An Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police force is consulted at the design stage and their recommendations are incorporated into the design of the dwelling. AND *Section 2 – Physical Security from 'Secured by Design - New Homes'* is complied with (Secured by Design certification is not required).	2
Default Cases - None	

ECO1 Criteria	Credits
Where the *development site* is confirmed as land of inherently *low ecological value* EITHER By meeting the criteria for low ecological value (using Checklist Eco 1 – Land of Low Ecological Value under Checklists and Tables below) OR By being confirmed by a *suitably qualified ecologist* OR Where an independent ecological report of the site, prepared by a suitably qualified ecologist, confirms that the construction zone is of low or insignificant ecological value AND Any land of ecological value outside the construction zone but within the development site will remain undisturbed by the construction works.	1
Default Cases – None	

ECO2 Criteria	Credits

Where a suitably qualified Ecologist has been appointed to recommend appropriate ecological features that will positively enhance the ecology of the site. AND Where the developer adopts all key recommendations and 30% of additional recommendations.	1
Default Cases - None	

ECO3 Criteria	Credits
Where all existing features of ecological value on the development site potentially affected by the works, are maintained and adequately protected during site clearance, preparation and construction works.	1
Default Cases The credit can be awarded by default where the site has been classified as having low ecological value in accordance with Eco 1 - Ecological Value of the Site AND no features of ecological value have been identified. If a suitably qualified Ecologist has confirmed a feature can be removed due to insignificant ecological value or where an arboriculturalist has confirmed a feature can be removed due to poor health/condition (e.g. diseased trees which require felling, either for health and safety and/or conservation reasons), the credit can be achieved provided all other features are adequately protected in accordance with the Eologist's recommendations.	

ECO4 Criteria	Credits
The ecological value before and after development is measured, and the overall change in species per hectare is:	
• Minor negative change: between –9 and less than or equal to –3	1
• Neutral: greater than –3 and less than or equal to +3	2
• Minor enhancement: greater than +3 and less than or equal to +9	3
• Major enhancement: greater than +9	4
Default Cases - None	

ECO5 Criteria	Credits
For houses, where the Net Internal Floor Area: Net Internal Ground Floor Area ratio is greater than or equal to 2.5:1 OR For blocks of flats, where the Net Internal Floor Area: Net Internal Ground Floor Area is greater than or equal to 3:1 OR For a combination of houses and flats, a ratio of Total Net Internal Floor Area: Total Net Internal Ground Floor Area of all houses and flats (i.e. the Site Wide Footprint to Floor Area ratio) is greater than the area weighted average of the two target ratios above (see calculation procedures)	1
For houses, where the Net Internal Floor Area: Net Internal Ground Floor Area ratio is greater than or equal to 3:1 OR For block of flats, where the Net Internal Floor Area: Net Internal Ground Floor Area is greater than or equal to 4:1 OR For a combination of houses and flats, a ratio of total Net Internal Floor Area: Total Net Internal Ground Floor Area of all houses and flats (i.e. the Site Wide Footprint to Floor Area ratio) is greater than the area weighted average of the two target ratios above (see calculation procedures)	2