

**CODE FOR SUSTAINABLE HOMES
PRE-ASSESSMENT REPORT**

Document History:

Revision:	Date:	Prepared by:	Reason for Issue:
1.0	25-04-2013	Piotr Berebecki	Planning Application

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1 EXECUTIVE SUMMARY

Faithful+Gould was commissioned to provide a Code for Sustainable Homes (Nov 2010 version) report for the proposed Convent Lane residential development.

This report is based upon the Code for Sustainable Homes (CSH) pre-assessment review of the design. It provides the stakeholders with an overview of the sustainability requirements that the dwelling must achieve to obtain the desired rating of Code Level 4.

At this stage, limited verifications have been made by the assessor as to the evidence of CSH compliance. This report therefore serves to benchmark the required status of the design, inform the ongoing design process and assist in the achievement of the desired CSH rating. Proof of documentation will still be required from the design team to secure the credits and establish the final Code score.

Below are the highlights of the features that are being proposed to achieve CSH Level 4.

Energy & CO₂

- CO₂ emissions of the development will be minimised thanks to reduced air leakage and low U values.
- Energy Display Devices will be installed to encourage the dwelling occupants to reduce energy use.
- A drying space has been included to promote a reduced energy means of drying clothes.
- A and A+ rated white goods will be installed.
- Low energy CFL and LED lighting will be specified.
- The house will source a proportion of its energy demand from renewable energy sources (photovoltaic panels).
- The occupants will be provided with weatherproof cycle storage spaces.

Water

- Water efficient sanitary ware: taps, showers, baths, WC, dishwashers and washing machines will be specified.
- Rainwater recycling systems will significantly reduce water demand.

Materials & Waste

- Materials with a high Green Guide rating will be prioritised. All the materials to be specified will be reviewed during the detailed design process to identify opportunities to reduce environmental impact.

Surface Water Run-Off

- Peak rate of run-off into watercourses will not be greater for the developed site than it was for the pre-development site.

Waste

- The occupants will be provided with an adequate storage for recyclable household waste.

Pollution

- The specifications for both building fabric and building services insulation will encourage using materials with a Global Warming Potential (GWP) of less than 5.
- Space and water heating options with NO_x emissions of no more than 40 mg/kWh will be prioritised.

Health & Wellbeing

- Efforts will be made to maximise daylight in all rooms.
- The aim is also to achieve high standards of sound insulation but more detailed design work will be required to confirm what level of performance can be achieved.

Management

- A 'home user guide' will be provided enabling occupants to understand and operate their home efficiently and make the best use of local facilities.

Ecology

- A suitably qualified ecologist will be appointed to undertake a baseline ecological study and to provide recommendations on enhancing the biodiversity of the site.

2 BACKGROUND TO THE CODE FOR SUSTAINABLE HOMES

The Code for Sustainable Homes was launched in December 2006 with the publication of "Code for Sustainable Homes: A step change in sustainable home building practice" (Department for Communities and Local Government, 2006). This introduced a single national standard to be used in the design and construction of new homes in England, based on the BRE's EcoHomes scheme. Adoption of the Code is intended to encourage continuous improvement in sustainable home building.

2.1 Code categories

The assessment is based upon criteria that define the environmental impact of a project and may be briefly defined as follows:

- **Energy and CO₂ Emissions (Ene)** – this section primarily measures the operational energy efficiency of the project.
- **Water (Wat)** – this part of the assessment measures the level of water economy within the building.
- **Materials (Mat)** – primarily an assessment of the embodied environmental impacts of the project due to material specification.
- **Surface Water Run-Off (Sur)** – assessing the risks of flooding.
- **Waste (Was)** – encourages waste reduction and recycling during construction and use.
- **Pollution (Pol)** – an assessment of measures taken to limit the main pollutants (other than CO₂) that inflict damage upon the atmosphere, land or local watercourses.
- **Health and Well-being (Hea)** – an assessment of the health risks and comfort levels of the future occupants.
- **Management (Man)** – an assessment of the Developer's commitment to management of the environmental impact of the project during construction and operation.

- **Ecology (Eco)** – an assessment of the degree to which a project affects the local biodiversity.

2.2 Code issues

Each of the Code categories includes a number of environmental issues which have a potential impact on the environment. They are presented in the table below. The issues are assessed against a performance target and can be awarded with 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.

Category	Issues
Energy and CO ₂ Emissions	Dwelling emission rate (M)
	Fabric energy efficiency (M)
	Energy display devices
	Drying space
	Energy labelled white goods
	External lighting
	Low and zero carbon technologies
	Cycle storage
Water	Home office
	Indoor water use (M)
	External water use
Materials	Environmental impact of materials (M)
	Responsible sourcing of materials – basic building elements
Surface Water Run-off	Responsible sourcing of materials – finishing elements
	Management of surface water run-off from developments (M)
Waste	Flood risk
	Storage of non-recyclable waste and recyclable household waste (M)
	Construction site waste management
	Composting
Pollution	Global warming potential (GWP) of insulants
	NO _x emissions
	Daylighting
Health and Well-being	Sound insulation
	Private space
	Lifetime Homes (M)
	Home user guide
Management	Considerate Constructors Scheme
	Construction site impacts
	Security
	Ecological value of site
Ecology	Ecological enhancement
	Protection of ecological features
	Change in ecological value of site
	Building footprint

(M) denotes issues with mandatory elements.

2.3 Credits, percentage score and weightings

The Code for Sustainable Homes categories are weighted according to importance, as indicated in the table below. Each category is allocated a different number of credits and therefore individual credits carry specific weightings, as a percentage of the overall total.

The percentage points scores for each category are summed to arrive at the total percentage points score for the dwelling.

Categories	Total credits in each category	% contribution to overall percentage points score	Approximate weighed value of each credit
Energy and CO2 Emissions	31	36.40%	1.17
Water	6	9.00%	1.50
Materials	24	7.20%	0.30
Surface Water Run-off	4	2.20%	0.55
Waste	8	6.40%	0.80
Pollution	4	2.80%	0.70
Health and Well-being	12	14.00%	1.17
Management	9	10.00%	1.11
Ecology	9	12.00%	1.33
TOTAL	-	100.00%	-

2.4 Relationship between the percentage points score and the overall Code Level

The Code level is derived from the total percentage points score. Each Code level is represented on the certificate by an equivalent number of stars from 1 to 6.

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

2.5 The assessment process

Prediction of likely and potential Code ratings

It should be understood that no Code certification has been achieved yet and this report describes the project performance in conditional terms. The actual CSH score will only be established upon submitting written evidence in support of individual Code issues and receiving a certification issued by the Building Research Establishment (BRE). This is to ensure that all parties are aware of the uncertainty regarding the outcome of the assessment process and to provide advice on how to maximise the rating that could be achieved by the scheme.

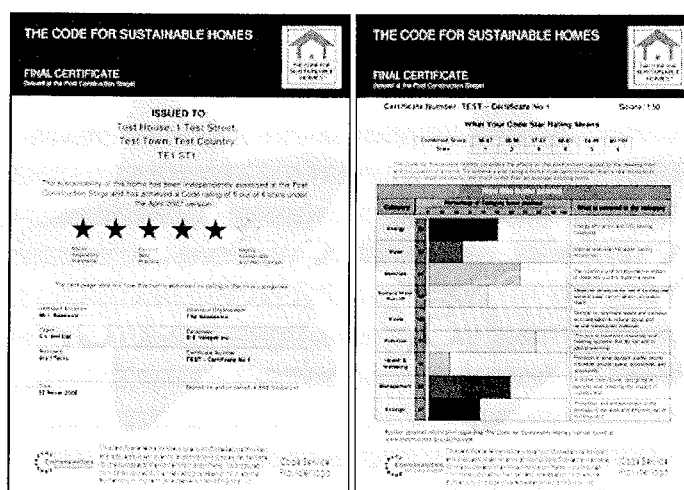
There are 2 stages to an assessment under Code for Sustainable Homes: the design stage assessment and the post construction stage assessment. The latter was an option rarely taken up under the EcoHomes scheme. It is now a requirement of the Code for Sustainable Homes.

Design Stage Assessment

Applied at the design and procurement stages of a project and maybe initiated from very early on in the design process, greatly assisting the integration of Code requirements within the scheme. Once the collection of evidence to demonstrate compliance with targeted credits has been completed a report is sent to the BRE for quality assurance. An interim rating is issued when this is finalised.

Post Construction Stage Assessment

To ensure that specifications stated in relation to a design stage assessments are followed through in the constructed development a post construction review is also required. This involves an assessor surveying the finished dwellings and associated documentation. When complete the assessor issues a further report to the BRE for quality assurance. Once passed through this process the final certificate is issued (see example below).



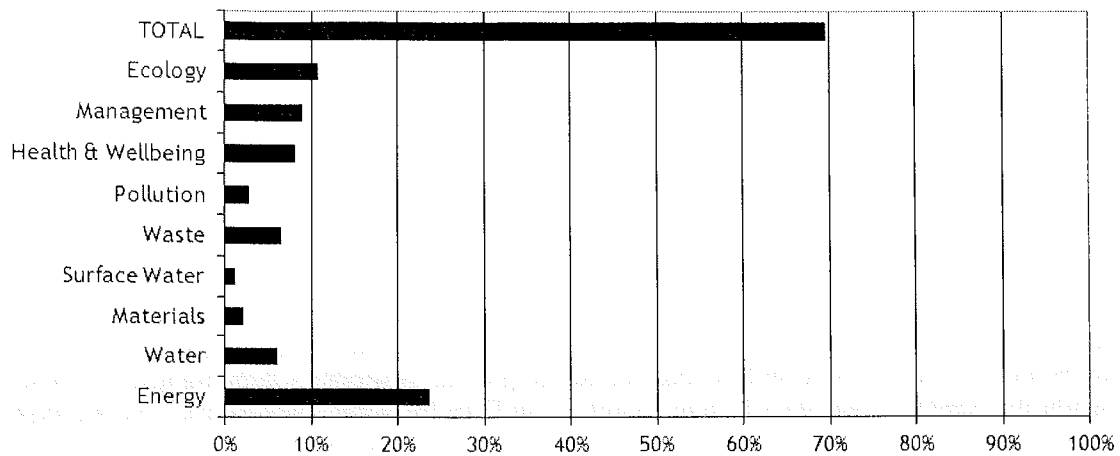
3 PRE-ASSESSMENT RESULTS - SUMMARY

This pre-assessment report shows how the proposed design for the Convent Lane residential development compares against the current Code for Sustainable Homes criteria (which became operational in Nov 2010).

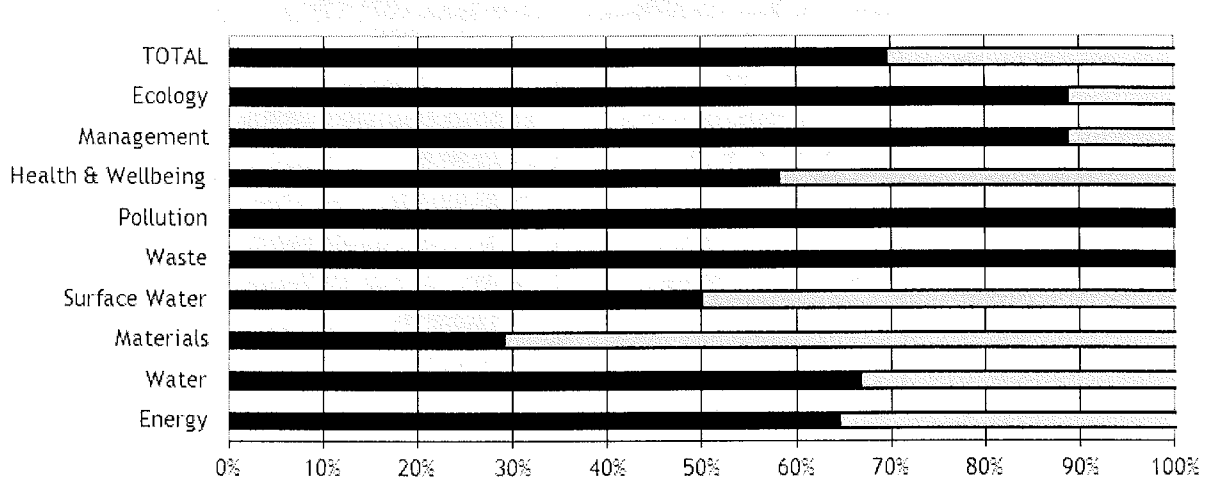
Based on the design review the following 'targeted' rating has been calculated.

Targeted Code for Sustainable Homes Rating: Code Level 4 with an overall percentage points score of 69.58%

The graph below presents the predicted contribution of individual categories to the total score.



The next graph shows predicted percentage of credits targeted within an individual category (e.g. 100% of the Waste credits available are targeted on the project).



4 PRE-ASSESSMENT RESULTS - DETAILS

This section includes the list of all Code for Sustainable Homes issues which are presented in the following template:

CATEGORY 1 ENERGY		Overall Level: 3	Overall Score: 58.96	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 61.29	Contribution to Overall % Score: 22.30 points	Credits: 19.0 of 31 Credits	Level: Level 4		
Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score What is the predicted number of credits? 3.0 OR Are zero net CO₂ emissions achieved? ☐	3.0 of 10 Credits	Level 4	Person responsible: M&E Engineer Assumed $\geq 25\%$ improvement over TER for 3 credits (required for Level 4).	Calculations and SAP outputs.
Ene 2 Fabric Energy Efficiency	Credits are awarded based on the Fabric Energy Efficiency (FEE) of the dwelling. Minimum standards apply at each Code level. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score What is the predicted number of credits? 5.0 OR Are zero net CO₂ emissions achieved? ☐	5.0 of 9 Credits	Level 4	Person responsible: M&E Engineer Assumed FEE $\leq 43\text{kWh/m}^2/\text{year}$ for 5 credits.	SAP outputs Summary of the evidence documents that will need to be provided to demonstrate compliance with a given issue. Please check the CSH Technical Guide for details.

CATEGORY 1 ENERGY		Overall Level: 4	Overall Score 69.58		
% of Section Credits Predicted: 64.51		Credits	Level	Assumptions Made	
Contribution to Overall % Score: 23.48 points		20.0 of 31 Credits	Level 4	Evidence Required (The below cells can be formatted by assessors if required.)	
Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score _____ What is the predicted number of credits? 3.0 OR Are zero net CO₂ emissions achieved? ☐	3.0 of 10 Credits	Level 4	3 credits is the minimum for CSH Level 4. This requires 25% improvement over Part L 2010.	Calculations and SAP outputs.
Ene 2 Fabric Energy Efficiency	Credits are awarded based on the Fabric Energy Efficiency (kWh/m²/yr) of the dwelling. Minimum standards apply at Code levels 5 and 6. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score _____ Apartments, Mid-terrace ☐ OR End terrace, Semi and Detached ☒ OR Staggered Mid terrace ☐ What is the predicted number of credits? 6.0	6.0 of 9 Credits	-	6 credits requires the Fabric Energy Efficiency (FEE) of equal or less than 49 kWh/m ² /year	SAP outputs confirming the FEE.
Ene 3 Energy Display Devices	Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption. Select whether the EDD monitors electricity and/or fuel _____ None Specified ☐ Primary Heating only ☐ OR Electricity only ☐ OR Electricity and primary heating fuel ☒	2 of 2 Credits	-	N/A	Specification clause requiring installation of a compliant electricity and/or heat energy display device.

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 4 Drying Space	One credit is awarded for the provision of either internal or external secure drying space with posts and footings or fixings capable of holding 4m+ of drying line for 1-2 bed dwellings and 6m+ for dwellings with 3 bedrooms or greater. Will drying space meeting the criteria be provided? Yes ☒ OR No ☐	1 of 1 Credits	-	N/A	Drawing/specification clause confirming: - location of drying fixings; - location/details of ventilation; - length of drying line - lock details (communal drying space only) Confirmation of number and size of dwellings.
Ene 5 Energy Labelled White Goods	Credits are awarded where each dwelling is provided with either information about the EU Energy Labelling Scheme, White Goods with ratings ranging from A+ to B or a combination of the previous according to the technical guide. Select the appropriate option below EU Energy labelling information <u>only</u> ☐ A+ rated appliances ☒ A rated washing machine and dishwasher ☒ B rated tumble dryer or washer dryer ☒ EU Energy labelling information provided ☐	2 of 2 Credits	-	A+ rated fridges and freezers or fridge-freezers A rated washing machines and dishwashers. B rated tumble dryer or washer dryer.	Manufacturer's documentation confirming ratings under the EU Energy Efficiency Labelling Scheme.
Ene 6 External Lighting	Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear.. Space Lighting None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting ☒ Security Lighting None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting and controls ☒ Dual lamp luminaires Compliant with both above criteria ☒	2 of 2 Credits	-	1st credit Space lighting: Compliant space lighting examples: tubular fluorescent and compact fluorescent light fittings. Non-compliant space lighting examples: tungsten lamps, tungsten halogen. 2nd credit: Burglar security lights: maximum wattage of 150W; movement detection control devices (PIR); daylight cut-off sensor. AND Other security lights: energy efficient fittings; daylight cut-off sensor OR time switch. If no security lighting, then awarded by default.	Drawings showing location and type of all external light fittings. Electrical specification confirming types of all light fittings; efficacy in lumens per circuit watt; control system.

* Statutory safety lighting is not covered by this requirement

* Statutory safety lighting is not covered by this requirement

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 7 Low or Zero Carbon Technologies	Credits are awarded where there is a 10% or 15% reduction in CO₂ emissions resulting from the use of low or zero carbon technologies. Select % contribution made by low or zero carbon technologies Less than 10% of demand ☐ OR 10% of demand or greater ☒ OR 15% of demand or greater ☐	1 of 2 Credits	-	10% assumed; based on including PV.	Calculations and SAP outputs. Documentary evidence confirming that LZC are: - Compliant with Directive 2009/28/EC. - When applicable certified under Microgeneration Certification Scheme. - When applicable, certified under CHPQA standard.
Ene 8 Cycle Storage	Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements. Fill in the development details below Number of bedrooms: 3 Number of cycles stored per dwelling* 2.0 * if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling	2 of 2 Credits	-	2 cycle spaces required for 2 credits (3-bedroom house) 3 cycle spaces required for 2 credits (4-bedroom house)	Documentary evidence confirming: - Number of bedrooms and corresponding number of cycle spaces. - Location and type of cycle storage. - Convenient access to cycle storage. - Security measures. - How requirements of clause 35 of Secured by Design - New Homes 2010 will be met.
Ene 9 Home Office	A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements. Will there be provision for a Home Office? Yes ☒ OR No ☐	1 of 1 Credits	-	The space dedicated for use as a home office must: - have adequate ventilation (openable window or alternative ventilation e.g. passive stack); - achieve an average daylight factor of 1.5%. - be 1.8m in length minimum to allow a desk, filing cabinet.	Documentary evidence confirming: - Location of and sufficient space for the home office. - Location and number of sockets. - Location of telephone points. - That adequate ventilation will be provided. - cable connection OR broadband OR two telephone points.

CATEGORY 2 WATER		Overall Level: 4	Overall Score: 69.58		
% of Section Credits Predicted: 66.66		Credits		Level	
Contribution to Overall Score: 6.00 points		4 of 6 Credits		Level 4	
				Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Wat 1 Indoor Water Use	Credits are awarded based on the predicted average household water consumption, calculated using the Code Water Calculator Tool. Minimum standards for each code level apply. Select the predicted water use / Mandatory Requirement greater than 120 litres/ person/ day ☐ OR ≤ less than 120 litres/ person/ day ☐ OR ≤ less than 110 litres/ person/ day ☐ OR ≤ less than 105 litres/ person/ day ☒ OR ≤ less than 90 litres/ person/ day ☐ OR ≤ less than 80 litres/ person/ day ☐	3 of 5 Credits	Level 3 AND Level 4	≥ 8% improvement --> 1 credit ≥ 16% improvement --> 2 credit ≥ 25% improvement --> 3 credits (required for Level 4) ... ≥ 100% improvement --> 9 credits (required for Level 5) Net Zero CO2 emissions --> 10 credits (required for Level 6)	Completed 'Water Efficiency Calculator' for each dwelling which has a different specification. Documentary evidence confirming: - Location, details and type of water fittings. - Location, size and details of any rainwater and greywater collection system
Wat 2 External Water Use	A credit is awarded where a compliant system is specified for collecting rainwater for external irrigation purposes. Where no outdoor space is provided the credit can be achieved by default. Select the scenario that applies No internal or communal outdoor space ☐ OR Outdoor space with collection system ☒ OR Outdoor space without collection system ☐	1 of 1 Credits	-	Compliant systems include rainwater butts and central rainwater collection systems.	Detailed documentary evidence stating type, size and location of any rainwater collection systems.

CATEGORY 3 MATERIALS		Overall Level: 4	Overall Score 69.58		
% of Section Credits Predicted: 29.16		Credits	Level	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Contribution to Overall Score: 2.10 points		7 of 24 Credits	All Levels		
Mat 1 Environmental Impact of Materials	Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D. Tradable Credits: Points are awarded on a scale based on the Green Guide Rating of the specifications. The Code Materials Calculator can be used to predict a potential score. Mandatory Requirement ☐ Will the mandatory requirement be met? ☒ Enter the predicted score What is the predicted number of credits? 7	7 of 15 Credits	All Levels	Elements covered include: • Roof • External walls • Internal walls (including separating walls) • Upper and ground floors (including separating floors) • Windows Number of credits to be calculated using 'Code Mat 1 Calculator Tool'. Example scores: All B rated --> 5 credits All A rated --> 10 credits All A+ rated --> 15 credits	Completed Code Mat 1 Calculator Tool, showing building elements at the design stage with the relevant Green Guide element numbers. References stating the design or specification documentation used to complete the tool
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	Credits are awarded where materials used in the basic building elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score. Enter the predicted Score What is the predicted number of credits? 0	0 of 6 Credits	-	Difficult credit to achieve. Elements covered include: a) Frame b) Ground floor c) Upper floors (including separating floors) d) Roof e) External walls f) Internal walls (including separating walls)	Completed Code Mat 2 Calculator Tool, showing building elements at the design stage. Detailed documentary evidence stating the materials specified in each element. Certificates (e.g. BES6001, EMAS, ISO14001, Chain of custody for timber)
Mat 3 Responsible Sourcing of Materials - Finishing Elements	Credits are awarded where materials used in the finishing elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score. Enter the predicted Score What is the predicted number of credits?	0 of 3 Credits	-	Elements covered include: a) Staircase b) Windows c) External & internal doors d) Skirting e) Panelling f) Furniture	Completed Code Mat 3 Calculator Tool, showing building elements at the design stage. Detailed documentary evidence stating the materials specified in each element. Certificates (e.g. BES6001, EMAS, ISO14001, Chain of custody for timber)

CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 4	Overall Score 69.58		
% of Section Credits Predicted: 50.00%		Credits Level			
Contribution to Overall Score: 1.10 points		2 of 4 Credits	All Levels	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Sur 1 Management of Surface Water Run-off from developments	Mandatory Requirement: Peak rate of run-off into watercourses is no greater for the developed site than it was for the pre-development site and that the additional predicted volume of rainwater discharge caused by the new development is entirely reduced as far as possible in accordance with the assessment criteria. Designing the drainage system to be able to cope with local drainage system failure. Tradable Credits: Where SUDS are used to improve water quality of the rainwater discharged or for protecting the quality of the receiving waters. Mandatory Requirement ☐ Will the mandatory requirement be met? ☒ Select the appropriate option ☐ No SUDS ☐ No runoff into watercourses for the first 5 mm of rainfall ☒ Runoff from hard surfaces will receive an appropriate level of treatment ☐	1 of 2 Credits	All Levels	1 credit if: No discharge from the developed site for rainfall depths up to 5 mm. 2nd credit if: Run-off from all hard surfaces receives an appropriate level of treatment in accordance with The SuDS Manual to minimise the risk of pollution.	Confirmation that 'appropriately qualified professional' conducted the analysis and produced the rainfall run-off report. Flood Risk Assessment. Drawings showing the pre-development drainage. Drawings showing the proposed drainage solution. Confirmation from the appropriately qualified professional that local drainage system failure would not cause an increase in the risk of flooding.
Sur 2 Flood Risk	Credits are awarded where developments are located in areas of low flood risk or where in areas of medium or high flood risk appropriate measures are taken to prevent damage to the property and its contents in accordance with the Code criteria in the technical guide. Select the annual probability of flooding (from PPS25*) ☐ Zone 1 - Low ☐ OR Zone 2 - Medium ☒ OR Zone 3 - High ☐ Select the appropriate option(s) ☐ Low risk of flooding from FRA** ☐ All measures of protection are demonstrated in FRA ☒ Ground floor level and access routes are 600 mm above design flood level ☒	1 of 2 Credits	-	2 credits if: - low annual probability of flooding - FRA indicates low risk of flooding from all sources. 1 credit if: - medium or high annual probability of flooding - FRA covers flood protection, safe access and escape routes - ground floor level of all habitable parts of dwellings and access routes are placed at least 600 mm above the design flood level of the flood zone	If in zone 1 (low probability): Flood Risk Assessment If in zone 2 or 3a (medium or high probability): - Flood Risk Assessment - Site plans indicating the design flood level, the range of ground levels of the dwellings, car parking areas and site access. - Confirmation from the local planning authority that the development complies with PPS25 (Development and Flood Risk).

* Planning Policy Statement 25 - Planning and Flood Risk

** FRA - Flood Risk Assessment

CATEGORY 5 WASTE		Overall Level: 4	Overall Score 69.58		
% of Section Credits Predicted: 100.00%		Credits		Level	
Contribution to Overall Score: 6.40 points		8 of 8 Credits		All Levels	
				Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Was 1 Storage of non-recyclable waste and recyclable household waste	Mandatory Requirement: The space provided for waste storage should be sized to hold the larger of either all external containers provided by the Local Authority or the min capacity calculated from BS 5906. <u>Tradable Credits</u> are awarded for adequate internal and/ or external recycling facilities. Mandatory Requirement — Will the minimum space be provided and be accessible to disabled people? ☒ Internal Recyclable household waste storage — Where there is no external recyclable waste storage and no Local Authority collection scheme Internal storage (capacity 60 litres) ☐ Local Authority collection Scheme — Post Collection sorting Internal storage (capacity 30 litres) ☐ Pre-collection sorting Internal storage (3 separate bins, capacity 30 litres) ☒ External Storage, no Local Authority collection scheme — 3 separate internal storage bins (capacity 30 litres) ☐ AND Houses External Storage(capacity 180 litres) ☐ Flats Private recycling operator ☐ 3 or greater types of waste collected ☐	0 of 2 Credits		4 credits for: - internal storage bin(s); - Local Authority recyclables collection scheme or no Local Authority recyclables collection	Mandatory requirement: Provide table: Cat 5.1 - Supplementary Information Sheet for Was 1 and Checklist IDP (Inclusive design principles). If 2 credits sought: Detailed documentary evidence stating: - the location of internal storage - the number, types and sizes of internal storage. If 4 credits sought: Detailed documentary evidence stating: - the location of internal and external storage - the number, types and sizes of internal and external storage. AND - Local Authority recycleble collection leaflet/letter confirming waste types, frequency, pre or post collection sorting.
		4 of 4 Credits	All Levels		
		0 of 4 Credits			

Issue		Credits	Level	Assumptions Made	Evidence Required
Was 2 Construction Site Waste Management	A credit is awarded where a compliant SWMP is provided with targets and procedures to minimise construction waste. Credits are available where the SWMP include procedures and commitments for diverting either 50% or 85% of waste generated from landfill. SWMP details Does the SWMP include: + No SWMP ☐ + SWMP with targets and procedures to minimise waste? ☐ + SWMP with procedures to divert 50% of waste ☐ + SWMP with procedures to divert 85% of waste ☒ <td>3 of 3 Credits</td> <td></td> <td> Diverting 50%/85% (by volume or weight) of non-hazardous construction waste from landfill can be 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 </td> <td>A copy of the compliant SWMP.</td>	3 of 3 Credits		Diverting 50%/85% (by volume or weight) of non-hazardous construction waste from landfill can be 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	A copy of the compliant SWMP.
Was 3 Composting	A credit is awarded where individual home composting facilities are provided, or where a community/ communal composting service, either run by the Local Authority or overseen by a management plan is in operation. Select the facilities available No composting facilities ☐ Individual composting facilities ☒ OR Communal/ community composting* ☐ Local Authority ☐ OR Private with management plan ☐ * including if an automated waste collection system is in place	1 of 1 Credit	-	All composting facilities must: - be in a dedicated position - provide inclusive access and usability (Checklist IDP) - have a supporting information leaflet provided to each dwelling.	Information confirming the specification of composting facilities.

* including if an automated waste collection system is in place

CATEGORY 6 POLLUTION		Overall Level: 4	Overall Score 69.58		
% of Section Credits Predicted: 100.00%		Credits		Level	Evidence Required (The below cells can be formatted by assessors if required.)
Contribution to Overall Score: 2.80 points		4 of 4 Credits		All Levels	
Pol 1 Global Warming Potential (GWP) of Insulants	A credit is awarded where <u>all</u> insulating materials only use substances (in manufacture AND installation) that have a GWP of less than 5. Select the most appropriate option All insulants have a GWP less than 5 ☒ OR Some insulants have a GWP of less than 5 ☐ OR No insulants have a GWP of less than 5 ☐	1 of 1 Credits	-	Elements covered include: - 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	Completed Checklist Pol 1 showing the proposed insulation materials (or none) for each element and whether they are foamed using blowing agents or are unfoamed (from table Cat 6.1)
Pol 2 NOx Emissions	Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling. Select the most appropriate option Greater than 100 mg/kWh ☐ OR Less than 100 mg/kWh ☐ OR Less than 70 mg/kWh ☐ OR Less than 40 mg/kWh ☒ OR Class 4 boiler ☐ OR Class 5 boiler ☐ OR All space and hot water energy requirements are met by systems who do not produce NOx emissions ☐	3 of 3 Credits	-	Average NOx emissions to be calculated for dwellings with more that one heating/hot water system.	Detailed documentary evidence describing: - The primary and any secondary heating systems and flue type - Dry NOX levels and/or boiler class of the primary and any secondary heating systems.

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 4	Overall Score 69.58		
% of Section Credits Predicted: 58.00%		Credits	Level		
Contribution to Overall Score: 8.16 points		7 of 12 Credits	No level		
Hea 1 Daylighting	Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky. Select the compliant areas — Room Kitchen: Avg DF of at least 2% ☒ Living Room*: Avg DF of at least 1.5% ☒ Dining Room*: Avg DF of at least 1.5% ☒ Study*: Avg DF of at least 1.5% ☒ 80% of working plane in all above rooms receive direct light from the sky? ☐ Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%.	2 of 3 Credits	-	Working plane - notional surface, typically at about desk or table height, at which daylight factor or the 'no-sky line' is calculated or plotted. For the calculations required under the Hea 1 issue, it is at 0.85 m above the floor.	Evidence Required (The below cells can be formatted by assessors if required.) Copy of calculations to demonstrate: - Average daylight factor using the formula described in the definitions section (method described in Littlefair (1998) as set out in BS 8206-2) or computer simulation or scale model measurements. - Position of the no-sky line and percentage of area of the working plane that receives direct light from the sky Confirmation from the developer that the calculations accurately reflect the dwelling as designed.
Hea 2 Sound Insulation	Credits are awarded where performance standards exceed those required in Building Regulations Part E. This can be demonstrated by carrying out pre-completion testing or through the use of Robust Details Limited. Select a type of property — Detached Property ☒ Attached Properties: - Separating walls and floors only exist between non habitable spaces ☐ - Separating walls and floors exist between habitable spaces ☐ Select a performance standard — Performance standard not sought ☒ Airborne: 3db higher; Impact: 3dB lower ☐ OR Airborne: 5db higher; Impact: 5dB lower ☐ OR Airborne: 8db higher; Impact: 8dB lower ☐	4 of 4 Credits	-	N/A	N/A

The above information is provided for the purpose of the assessment and is not to be used for any other purpose. The information is provided as a guide only and is not intended to be a substitute for professional advice. The information is provided on the basis that the user has accepted the terms and conditions of use. The information is provided on the basis that the user has accepted the terms and conditions of use.

Issue		Credits	Level	Assumptions Made	Evidence Required
Hea 3 Private Space	A credit is awarded for the provision of an outdoor space that is at least partially private. The space must allow easy access to all occupants. Will a private/ semi-private space be provided? — Yes, private/semi-private space will be provided ☒ OR No private/semi-private space ☐	1 of 1 Credits	-	The outdoor space (private or semi-private) must be: - Of a minimum size that allows all occupants to use the space (Private space: 1.5 m2 per bedroom; Shared space: minimum 1 m2 per bedroom). - Provided with inclusive access and usability (Checklist IDP). - Accessible only to occupants of designated dwellings.	Detailed documentary evidence confirming: - The number of bedrooms served by the outdoor space - That the outdoor space meets the minimum size requirements AND Completed Checklist IDP
Hea 4 Lifetime Homes	Mandatory Requirement: Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6. Tradable credits: Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Mandatory Requirement — Dwelling to achieve Code Level 6? ☐ Lifetime Homes Compliance — All Lifetime Homes criteria will be met ☐ OR Exemption from LTH criteria 2/3 applied ☐ Credit not sought ☒	0 of 4 Credits	No level	4 credits if: All principles of Lifetime Homes, applicable to the dwelling being assessed, have been complied with. 3 credits if: An exemption from Lifetime Homes criteria 2 (car parking) and/or 3 (footpaths) 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. The full 16 Lifetime Homes Design Criteria can be found at: www.lifetimehomes.org.uk	Confirmation from the developer that all 16 of the Lifetime Homes design criteria are met.

CATEGORY 8 MANAGEMENT		Overall Level: 4	Overall Score	69.58		Evidence Required
% of Section Credits Predicted: 88.00%		Credits		Level		(The below cells can be formatted by assessors if required.)
Contribution to Overall Score: 8.88 points		8 of 9 Credits		All Levels		
Man 1 Home User Guide	Credits are awarded where a simple guide is provided to each dwelling covering information relevant to the 'non-technical' home occupier, in accordance with the Code requirements. Tick the topics covered by the Home User Guide Operational Issues? ☒ Site and Surroundings? ☒ Is available in alternative formats? ☒	3 of 3 Credits	-	The guide should cover, - Operational Issues: Environmental strategy/design and features, Energy, Water Use, Recycling and Waste, Sustainable DIY, Emergency Information, Links and Further Information, Provision of Information in Alternative Formats. - Site and Surroundings: Recycling & Waste, SUDS, Public Transport, Local Amenities, Responsible Purchasing, Emergency Information, Links and Further Information.	Letter/specification confirming that the guide will be: • Supplied to all dwellings within the development. • Be developed to the required standards (as a minimum including a list of contents showing that the guide will cover all of the issues required in CSH Checklist Man 1 Part 1 and if relevant CSH Checklist Man 1 Part 2)	
Man 2 Considerate Constructors Scheme	Credits are awarded where there is a commitment to comply with best practice site management principles using either the Considerate Constructors Scheme or an alternative locally/nationally recognised scheme. Select the appropriate scheme and score No scheme used ☐ <u>Considerate Constructors</u> ☒ OR Best Practice ☐ OR Significantly Beyond Best Practice ☐ <u>Alternative Scheme*</u> ☐ OR Mandatory + 50% optional requirements ☐ OR Mandatory + 80% optional requirements ☐ * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	1 of 2 Credits	-	The following are covered by the CCS: - Considerate - Environmentally Aware - Site Cleanliness - Good Neighbour - Respectful - Safe - Responsible - Accountable.	Specification clause confirming commitment to comply with the Considerate Constructors Scheme and achieve formal certification under the scheme with the targeted score.	
Man 3 Construction Site Impacts	Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following: Tick the impacts that will be addressed <u>Monitor, report and set targets, where applicable, for:</u> - CO₂/ energy use from site activities ☒ - CO₂/ energy use from site related transport ☐ - water consumption from site activities ☐ <u>Adopt best practice policies in respect of:</u> - air (dust) pollution from site activities ☒ - water (ground and surface) pollution on site ☒ <u>80% of site timber</u> is reclaimed, re-used or responsibly sourced ☒	2 of 2 Credits	-	1 credit for compliance with two or more site impacts. 2 credits for compliance with four or more site impacts.	Completed copy of Checklist Man 3 (signed and dated) detailing the procedures that will be employed to minimise construction site impacts.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Man 4 Security	Credits are awarded for complying with Section 2 - Physical Security from Secured by Design - New Homes. An Architectural Liaison Officer (ALO), or alternative, needs to be appointed early in the design process and their recommendations incorporated. Secured by Design Compliance Credit not sought ☐ OR Secured by Design Section 2 Compliance ☒	2 of 2 Credits	-	Secured by Design certification is not required to achieve these credits.	Detailed documentary evidence showing: - That an ALO/CPDA has been consulted with to ensure that the requirements of Section 2 - Physical Security from 'Secured by Design - New Homes' are met - A commitment to follow the advice provided by the ALO/CPDA

CATEGORY 9 ECOLOGY		Overall Level: 4	Overall Score 69.58	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 88.00%		Credits 8 of 9 Credits	Level All Levels		
Contribution to Overall Score: 10.66 points					
Eco 1 Ecological Value of Site	One credit is awarded for developing land of inherently low value. Select the appropriate option Credit not sought ☐ OR Land has ecological value ☐ OR Land has low/ insignificant ecological value* ☒ * Low ecological value is determined either a) by using Checklist Eco 1 across the whole development site; or b) where an suitably qualified ecologist is appointed and can confirm or c) produces an independent ecological report of the site, that the construction zone is of low/ insignificant value; AND the rest of the development site will remain undisturbed by the works.	1 of 1 Credits	-	Some of the issues covered by Checklist Eco 1: - trees or hedges above 1 m high or with a trunk diameter greater than 100 mm; - ponds, streams or rivers on, or running through, the site; - marsh or other wetland present on the site; - meadows or species-rich grassland present on the site; - heath land, consisting of heather and/or scrub present on the site.	Where using Checklist Eco 1, provision of: - Site visit report from the design team/assessor confirming details adequate to meet Checklist Eco 1 based on plans of the site and surrounding area prior to the commencement of construction works/site clearance. Where a suitably qualified ecologist is appointed: a copy of the CSH compliant report.
Eco 2 Ecological Enhancement	A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? ☒ AND Will all key recommendations be adopted? ☒ AND 30% of other recommendations be adopted? ☒	1 of 1 Credits	-	Types of recommendations: - planting of native species; - adoption of horticultural good practice (e.g. no or low use of residual pesticides); - installation of bird, bat and/or insect boxes at appropriate locations on the site; - proper integration, design and maintenance of SUDS and green roofs, community orchards etc	A copy of the ecologist's report highlighting the information required as set out in 'Code for Sustainable Homes Ecology Report Template' AND Detailed documentary evidence stating: - How the key recommendations and 30% of additional recommendations will be incorporated into the design - The planting schedule of any species to be incorporated from suitably qualified ecologists recommendations
Eco 3 Protection of Ecological Features	A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features Site with features of ecological value? ☐ OR Site of low ecological value (as Eco 1)? ☒ AND All* existing features potentially affected by site works are maintained and adequately protected? ☐ *If a suitably qualified ecologist has confirmed that a feature can be removed due to insignificant ecological value or poor health conditions, as long all the rest have been protected, then this box can be ticked.	1 of 1 Credits	-	The credit can be awarded by default where the site has been classified as having low ecological value in accordance with Section 1 of Checklist Eco 1 AND no features of ecological value have been identified.	Detailed documentary evidence confirming ecological features present and how they will be protected.

Issue		Credits	Level	Assumptions Made	Evidence Required
Eco 4 Change of Ecological Value of Site	Credits are awarded where the change in ecological value has been calculated in accordance with the Code requirements and is calculated to be: Change in Ecological Value Major negative change: fewer than -9 Minor negative change: between -9 and -3 OR Neutral: between -3 and +3 Minor enhancement: between +3 and +9 Major enhancement: greater than 9	4 of 4 Credits	-	N/A	Copy of the calculations supported by the following detailed documentary evidence: - Proposed site layout - The pre-development site survey, clearly indicating natural and built features on both the site and land surrounding the site before the proposed development - Landscape and plot categories (in accordance with the Assessment Methodology) with a list of site areas provided for both before and after development.
Eco 5 Building Footprint	Credits are awarded where the ratio of combined floor area of all dwellings on the site to their footprint is: Ratio of Net Internal Floor Area: Net Internal Ground Floor Area Credit Not Sought OR Houses: 2.5:1 OR Flats: 3:1 OR Houses: 3:1 OR Flats: 4:1 OR Houses & Flats Weighted (2.5:1 & 3:1) OR Houses & Flats Weighted (3:1 & 4:1)	1 of 2 Credits		The following ration needs to be calculated: net internal floor area / net internal ground floor area.	Calculation of the building footprint ratio, stating the Net Internal Floor Area (NIFA) and the Net Internal Ground Floor Area (NIGFA)