Code for Sustainable Homes

TG November 2010 - Full Technical Guide

Post Construction Report

STROMA CERTIFIED CODE ASSESSOR

Report Reference:	**ENV-JB-LIN-62NW54PH**
Site Registration:	
Site Name:	**74 Queens Crescent**
Assessor Number:	**STRO007778**
Company:	**EnvirAssist**
Assessor:	**David Oldham**

THE CODE FOR SUSTAINABLE HOMES

CERTIFICATION MARK

Code for Sustainable Homes

Post Construction Report (Report Reference: ENV-JB-LIN-62NW54PH)

Site Details	
Site Name:	74 Queens Crescent
Site Registration:	
Site Address:	74 Queens Crescent
	Camden
City/Town:	London
County:	Greater London
Postcode:	NW5 4PH
No. of Dwellings:	5
No. of Dwelling Types:	2
Planning Authority:	Camden Council
Funding Body:	

Assessor Details	
Company:	EnvirAssist
Assessor Name:	David Oldham
Cert Number:	STRO007778
Address:	17 Thorn Street
	Rawtenstall
City/Town:	
County:	Lancashire
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Tel:	01706 226519
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Client Details	
Company:	Linton
Contact Name:	josh Baron
Job Title:	Development Manager
Email:	
Tel:	
Address:	8 Headfort Place
	Belgravia
City/Town:	London
County:	Greater London
Postcode:	SW1X 7DH

Architect Details	
Company:	Clive Sall Architecture Ltd
Contact Name:	Clive Sall
Job Title:	Architect
Email:	
Tel:	
Address:	2 Providence Yard
	Ezra Street
City/Town:	London
County:	Greater London
Postcode:	E2 7RJ

Developer Details	
Company:	Linon
Contact Name:	Josh Baron
Job Title:	Development Manager
Email:	
Tel:	020 3637 1800
Address:	
	8 Headfort Place
	Belgravia
City/Town:	London
County:	Greater London
Postcode:	SW1X 7DH

Dwelling ID	Plot No.	Address	Social Unit
1	1	Flat 1 74 Queens Crescent	No
2	2	Flat 2 74 Queens Crescent	No
3	3	Flat 3 74 Queens Crescent	No
4	4	Flat 4 74 Queens Crescent	No
5	5	Flat 5 74 Queens Crescent	No

Development Summary & Ratings

Dwelling ID	Dwelling Type	Description	Level	Score
1	74 Queens Crescent		4	69.05
2	74 Queens Crescent		4	69.05
3	74 Queens Crescent		4	69.05
4	74 Queens Crescent		4	69.05
5	74 Queens Crescent		4	69.05

Deviations from Standard

No deviations from standard

Score Sheet for 74 Queens Crescent

	ENE									WAT		MAT			SUR		WAS			POL		HEA				MAN				ECO					Summary	
Dwelling ID	1	2	3	4	5	6	7	8	9	1	2	1	2	3	1	2	1	2	3	1	2	1	2	3	4	1	2	3	4	1	2	3	4	5	Score	Level
1	4.2	6.2	2	1	2	2	1	2	1	4	1	12	6	3	2	2	4	3	1	1	3	1	4	0	4	0	2	1	2	1	0	1	0	0	69.05	4
2	4.2	6.2	2	1	2	2	1	2	1	4	1	12	6	3	2	2	4	3	1	1	3	1	4	0	4	0	2	1	2	1	0	1	0	0	69.05	4
3	4.2	6.2	2	1	2	2	1	2	1	4	1	12	6	3	2	2	4	3	1	1	3	1	4	0	4	0	2	1	2	1	0	1	0	0	69.05	4
4	4.2	6.2	2	1	2	2	1	2	1	4	1	12	6	3	2	2	4	3	1	1	3	1	4	0	4	0	2	1	2	1	0	1	0	0	69.05	4
5	4.2	6.2	2	1	2	2	1	2	1	4	1	12	6	3	2	2	4	3	1	1	3	1	4	0	4	0	2	1	2	1	0	1	0	0	69.05	4

Summary Score Sheet

Dwelling Type: 74 Queens Crescent

Dwelling IDs: 1 to 5

	Credit Score	Credits Available	Score Assessment Sub Total	Credits Available	%	Weighting Factor	Points Score
Energy & CO2 Emissions							
ENE 1 Dwelling Emission Rate	4.2	10	21.4	31	69.03	36.4	25.13
ENE 2 Fabric Energy Efficiency	6.2	9					
ENE 3 Energy Display Device	2	2					
ENE 4 Drying Space	1	1					
ENE 5 Energy Labelled White Goods	2	2					
ENE 6 External Lighting	2	2					
ENE 7 Low or Zero Carbon Energy Technologies	1	2					
ENE 8 Cycle Storage	2	2					
ENE 9 Home Office	1	1					
Water							
WAT 1 Internal Water Use	4	5	5	6	83.33	9	7.5
WAT 2 External Water Use	1	1					
Materials							
MAT 1 Environmental Impact of Materials	12	15	21	24	87.5	7.2	6.3
MAT 2 Responsible Sourcing (Basic Building Elements)	6	6					
MAT 3 Responsible Sourcing (Finishing Elements)	3	3					
Surface Water Run-off							
SUR 1 Management of Surface Water Run-Off from Site	2	2	4	4	100	2.2	2.2
SUR 2 Flood Risk	2	2					
Waste							
WAS 1 Household Waste Storage and Recycling Facilities	4	4	8	8	100	6.4	6.4
WAS 2 Construction Site Waste Management	3	3					
WAS 3 Composting	1	1					
Pollution							
POL 1 Global Warming Potential of Insulants	1	1	4	4	100	2.8	2.8
POL 2 NOx Emissions	3	3					
Health & Wellbeing							
HEA 1 Daylighting	1	3	9	12	75	14	10.5
HEA 2 Sound Insulation	4	4					
HEA 3 Private Space	0	1					
HEA 4 Lifetime Homes	4	4					
Management							
MAN 1 Home User Guide	0	3	5	9	55.56	10	5.56
MAN 2 Considerate Constructors Scheme	2	2					
MAN 3 Construction Site Impacts	1	2					
MAN 4 Security	2	2					
Ecology							
ECO 1 Ecological Value of Site	1	1	2	9	22.22	12	2.67
ECO 2 Ecological Enhancement	0	1					
ECO 3 Protection of Ecological Features	1	1					
ECO 4 Change of Ecological Value of Site	0	4					
ECO 5 Building Footprint	0	2					
	Level Achieved: 4		Total Points Scored: 69.05				

Evidence for ENE 1 (Dwelling Emission Rate) - 74 Queens Crescent
Improvement above Part L Building Regulations 2010. 4.2 credits allocated
Credits allowed as per the SAP Calculations output

Evidence for ENE 2 (Fabric Energy Efficiency) - 74 Queens Crescent
Apartment 6.2 credits allocated
Block compliance credits added to calculation tool, credits awarded

Evidence for ENE 3 (Energy Display Device) - 74 Queens Crescent
Default Case: Electricity is the primary heating and current electricity. This will be displayed on a correctly specific device.
Ewgeco Energy Display Device included in all apartments, Code compliant for 2 Credits

Evidence for ENE 4 (Drying Space) - 74 Queens Crescent
Compliant internal drying space
4 Metre reatrctable drying line included in all apartments for 1 credit in ENE4

Evidence for ENE 5 (Energy Labelled White Goods) - 74 Queens Crescent
A+ rated fridge & freezers or fridge/freezer A rated washing machine and dishwasher, AND EITHER a tumble dryer (a washer-dryer would be an acceptable alternative to a standalone tumble dryer) with a B rating or where a tumble dryer is not provided, the EU Energy Efficiency Labelling Scheme Information will be provided.
Fridges, freezers and fridge/freezers Cat A+ Rated, Washing machines and dishwashers Cat A rated, Washer dryers and tumble dryers Cat B rated

Evidence for ENE 6 (External Lighting) - 74 Queens Crescent
Dual lamp luminaries with compliant space & security lamps
LED Daylight sensing and motion sensing fitted above all entrances to the apartments

Evidence for ENE 7 (Low or Zero Carbon Energy Technologies) - 74 Queens Crescent
Contribution of low or zero carbon technologies greater than or equal to 10%
Credits allowed as per the SAP Calculations output

Evidence for ENE 8 (Cycle Storage) - 74 Queens Crescent
2 or 3 bedroom dwelling - Storage for 2 cycles per dwelling
Credits awarded for correctly specified cycle storage

Evidence for ENE 9 (Home Office) - 74 Queens Crescent
Compliant home office
Home Office facility included in each apartment, should the householder wish to work from home there are adequate facilities to convert into a Home Office

Evidence for WAT 1 (Internal Water Use) - 74 Queens Crescent
Internal water use less than or equal to 90 litres per person per day
Part G Calculations show that the minimum requirement of 90 litres/person/day has been met on all apartments

Evidence for WAT 2 (External Water Use) - 74 Queens Crescent
No individual garden space No communal garden space

Evidence for MAT 1 (Environmental Impact of Materials) - 74 Queens Crescent
Mandatory requirements met: At least 3 elements rated A+ to D, 12 credits scored

Evidence for MAT 2 (Responsible Sourcing (Basic Building Elements)) - 74 Queens Crescent
6 credits scored

Evidence for MAT 3 (Responsible Sourcing (Finishing Elements)) - 74 Queens Crescent
3 credits scored

Evidence for SUR 1 (Management of Surface Water Run-Off from Site) - 74 Queens Crescent
Mandatory Met: Peak rate of run-off and annual volume of run-off is no greater for the developed than for the pre-development. The system has also been designed for local drainage system failure. No discharge to watercourse(s) for rainfall depth up to 5mm. Run-off from all hard surfaces shall receive an appropriate level of treatment (as per the SudS manual) to minimise risk of pollution.
1 Credit awarded for SUR 1

Evidence for SUR 2 (Flood Risk) - 74 Queens Crescent
Low flood risk - zone 1
Low flood risk zone as evidenced by Environment Agency

Evidence for WAS 1 (Household Waste Storage and Recycling Facilities) - 74 Queens Crescent
Mandatory requirements met: Adequate storage of household waste with accessibility in line with checklist WAS 1. Local authority collection: Before collection sorting with appropriate internal storage of recyclable materials

Evidence for WAS 2 (Construction Site Waste Management) - 74 Queens Crescent
Compliant site waste management plan containing benchmarks, procedures and commitments for the minimizing and diverting 80% waste from landfill in line with the criteria and with Checklist WAS 2a, 2b & 2c

Evidence for WAS 3 (Composting) - 74 Queens Crescent
Local authority kitchen waste collection scheme - No Garden

Evidence for POL 1 (Global Warming Potential of Insulants) - 74 Queens Crescent
All insulants have a GWP of less than 5

Evidence for POL 2 (NOx Emissions) - 74 Queens Crescent
All space heating and hot water energy requirements are fully met by a system which does not produce NOx emissions

Evidence for HEA 1 (Daylighting) - 74 Queens Crescent
All rooms (kitchen, living, dining and where applicable the home office) have 80% of the working plane with direct light from the sky

Evidence for HEA 2 (Sound Insulation) - 74 Queens Crescent
Robust details have been incorporated Airborne 8dB higher, impact 8dB lower

Evidence for HEA 3 (Private Space) - 74 Queens Crescent
Credit not sought or no compliant space provided

Evidence for HEA 4 (Lifetime Homes) - 74 Queens Crescent
All criteria of Lifetime Homes in line with all 16 principals of Lifetime Homes

Evidence for MAN 1 (Home User Guide) - 74 Queens Crescent
All criteria inline with checklist MAN 1 Part 2 - Site and Surroundings will be met

Evidence for MAN 2 (Considerate Constructors Scheme) - 74 Queens Crescent
Considerate constructors scheme: Significantly beyond best practise, a score of between 35 - 50, and at least a score of 7 in each section*

Evidence for MAN 3 (Construction Site Impacts) - 74 Queens Crescent
Monitor, report and set targets for water consumption from site activities 80% of timer reclaimed, re-used or responsibly sourced

Evidence for MAN 4 (Security) - 74 Queens Crescent
Secured by design section 1 & 2 compliant

Evidence for ECO 1 (Ecological Value of Site) - 74 Queens Crescent
Land of low ecological value, achieved through checklist ECO 1. Development site has been identified as low ecological value by a suitably qualified ecologist

Evidence for ECO 2 (Ecological Enhancement) - 74 Queens Crescent
Credit not sought or no compliant enhancement

Evidence for ECO 3 (Protection of Ecological Features) - 74 Queens Crescent
Land of low ecological value as identified under ECO 1

Evidence for ECO 4 (Change of Ecological Value of Site) - 74 Queens Crescent
Credit not sought

Evidence for ECO 5 (Building Footprint) - 74 Queens Crescent
Credit not sought

Assessor Declaration

I David Oldham, 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:

David Oldham
EnvirAssist
Monday, November 7, 2016

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 stepchange in sustainable home building practice' (Communities and Local Government, 2006), and became operational in England from April 2007.

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 categories are as follows:

- Energy & CO2 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 Insulants
  - NOx Emissions

- Health & 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 Run-off 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, four 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

For one issue a mandatory requirement at Level 5 or 6:

- Fabric Energy Efficiency

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 demands, credits will be available for performance in respect of energy supplied from a renewable source, but credits cannot be awarded for low NOX 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 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 & CO2 Emissions
ENE 1: Dwelling Emission Rate **Available Credits:**10 **Aim:**To limit CO2 emissions arising from the operation of a dwelling and its services in line with current policy on the future direction of regulations.
ENE 2: Fabric Energy Efficiency **Available Credits:**9 **Aim:**To improve fabric energy efficiency performance thus future-proofing reductions in CO2 for the life of the dwelling.
ENE 3: Energy Display Device **Available Credits:**2 **Aim:**To promote the specification of equipment to display energy consumption data, thus empowering dwelling occupants to reduce energy use.
ENE 4: Drying Space **Available Credits:**1 **Aim:**To promote a reduced energy means of drying clothes.
ENE 5: Energy Labelled White Goods **Available Credits:**2 **Aim:**To promote 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 promote the provision of energy efficient external lighting, thus reducing CO2 emissions associated with the dwelling.
ENE 7: Low or Zero Carbon Technologies **Available Credits:**2 **Aim:**To limit CO2 emissions and running costs arising from the operation of a dwelling and its services by encouraging the specification of low and zero carbon energy sources to supply a significant proportion of energy demand.
ENE 8: Cycle Storage **Available Credits:**2 **Aim:**To promote the wider use of bicycles as transport by providing adequate and secure cycle storage facilities, thus reducing the need for short car journeys and the associated CO2 emissions.
ENE 9: Home Office **Available Credits:**1 **Aim:**To promote working from home by providing occupants with the necessary space and services thus reducing the need to commute.

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 promote 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 specify materials with lower environmental impacts over their life-cycle.
MAT 2: Responsible Sourcing of Materials - Basic Building Elements **Available Credits:**6 **Aim:**To promote the specification of responsibly sourced materials for the basic building elements.
MAT 3: Responsible Sourcing of Materials - Finishing Elements **Available Credits:**3 **Aim:**To promote 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 surface water drainage for housing developments which avoid, reduce and delay the discharge of rainfall run-off to watercourses and public sewers using SuDS techniques. This will protect receiving waters from pollution and minimise the risk of flooding and other environmental damage in watercourses.
SUR 2: Flood Risk **Available Credits:**2 **Aim:**To promote 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 promote resource efficiency via the effective and appropriate management of construction site waste.
WAS 2: Construction Site Waste Management **Available Credits:**3 **Aim:**To promote resource efficiency via the effective and appropriate management of construction site waste.
WAS 3: Composting **Available Credits:**1 **Aim:**To promote the provision of compost facilities to reduce the amount of household waste send to landfill.

Pollution
POL 1: Global Warming Potential of Insulants **Available Credits:**1 **Aim:**To promote the reduction of emissions of gases with high GWP associated with the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials.
POL 2:NOx Emissions **Available Credits:**3 **Aim:**To promote the reduction of nitrogen oxide (NOX) emissions into the atmosphere.

Health & Wellbeing
HEA 1: Daylighting **Available Credits:**3 **Aim:**To promote good daylighting and thereby improve quality of life and reduce the need for energy to light the home.
HEA 2: Sound Insulation **Available Credits:**4 **Aim:**To promote 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 quality of life by promoting the provision of an inclusive outdoor space 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.

Management
MAN 1: Home User Guide **Available Credits:**3 **Aim:**To promote the 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:**3 **Aim:**To promote the environmentally and socially considerate, and accountable management of construction sites.
MAN 3: Construction Site Impacts **Available Credits:**2 **Aim:**To promote construction sites managed in a manner that mitigates environmental impacts.
MAN 4: Security **Available Credits:**2 **Aim:**To promote 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 promote 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 promote the protection of 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 minimise reductions and promote 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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