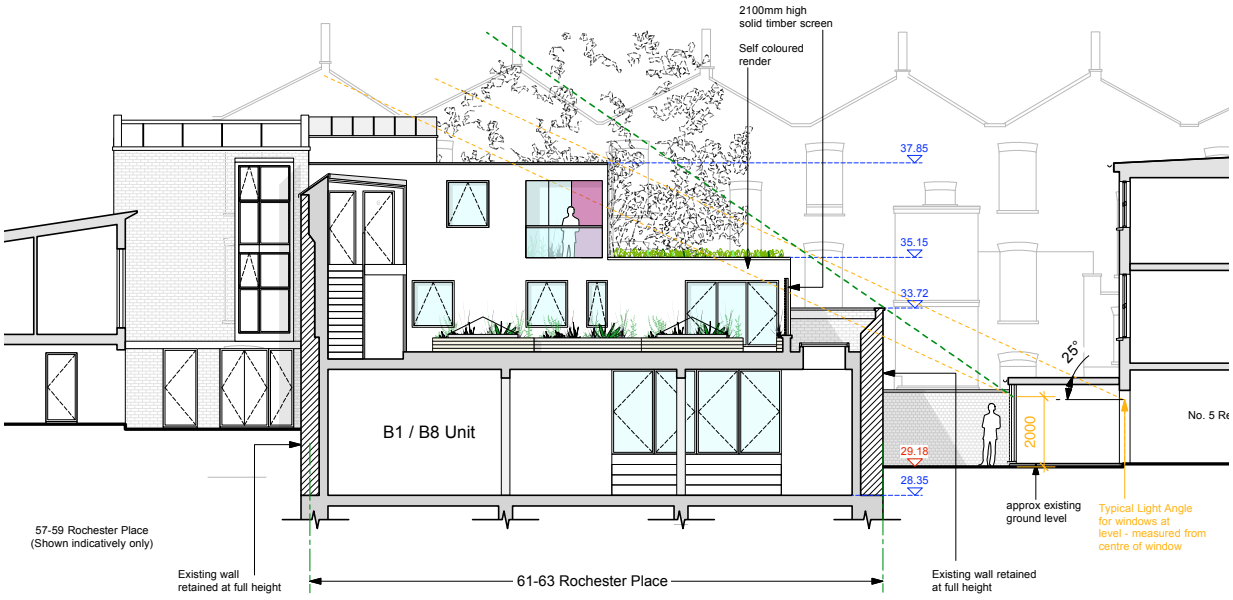
Sustainability Statement

61-63 Rochester Place

For Norton Ellis Architects

April 2012



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About us:
XCO2 Energy are a low-carbon consultancy working in the built environment. We are a multi-disciplinary company consisting of both architects and engineers, with specialists including CIBSE low carbon consultants, Code for Sustainable Homes, EcoHomes and BREEAM assessors and LEED accredited professionals.

	Issue 01	Issue 02	Issue 03	Issue 04
Remarks	Draft			
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Date	11/11/11	18/11/11	03/02/12	30/04/12
Project reference	8107	8107	8107	8107

Executive Summary

This report outlines the sustainability strategy for the proposed development at 61-63 Rochester Place, in line with the requirements set out by the London Plan and the London Borough of Camden.

This sustainability statement is divided into two parts:

- Policy and Sustainability Standards
- Code for Sustainable Homes

The first part provides an overview of the site and planning policies applicable to this development in the Camden Local Development Framework and the London Plan. The report then demonstrates how the policies have been met. In accordance with the Camden Planning Guidance - Sustainability CPG3 - 2011 the sustainability requirements have also been addressed.

The body of this report outlines the sustainability measures that have been adopted to achieve Code for Sustainable Homes level 3. A summary of the pre-assessment credits for the Code for Sustainable Homes is provided at the end of the report.

In summary, the proposed Rochester Place development meets the targets set out by Camden Council and the Greater London Authority (GLA).

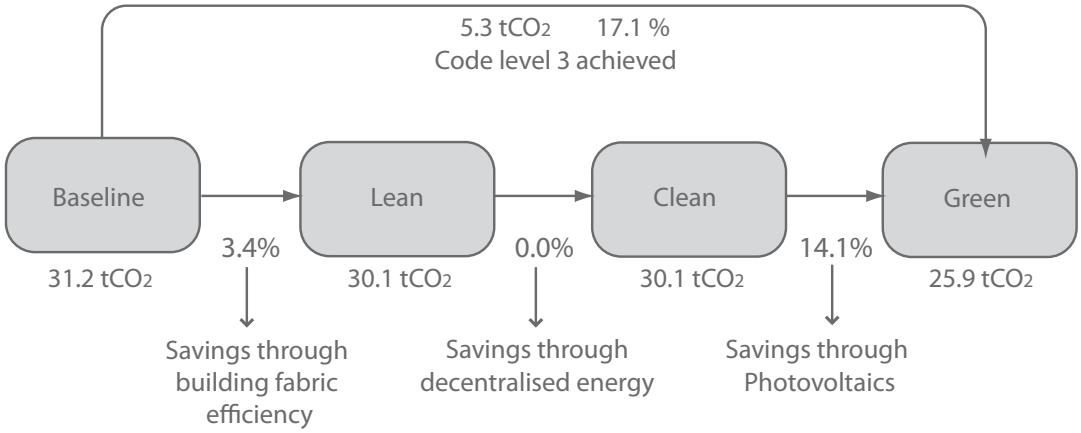
The residential component achieves 60.24 credits, which exceeds the required 57 credits for Code for Sustainable Homes level 3.

In addition, mandatory Code level 3 credits in the Energy and Water categories have also been satisfied.

The number of credits obtained in the Code pre-assessment reflects the client and design team's aspirations in incorporating as many sustainability measures as possible.

The diagram below provides a summary of the CO_2 savings achieved over Part L Building Regulations (2010) for the residential and commercial spaces combined. The reduction in CO_2 emissions reflects regulated energy use only, in accordance with Part L Building Regulations. Unregulated energy use is not taken into account in the calculation of Code credits (e.g. plug-in load and appliances).

Total savings over Part L 2010 Building Regulations
(savings is based on regulated energy only in accordance with Part L)



Site

The Rochester Place development is located between Camden Town and Kentish Town on a small side street called Rochester place. The development is located within the London Borough of Camden.

The proposed development contains 6 residential units of 1-3 bedrooms. The dwellings are distributed over the first and second floors with commercial space on the ground floor. The development will replace a disused office and warehouse unit, bringing additional residential accommodation to the area.

In total, the development comprises 409m^2 of residential floor area and 450m^2 of commercial space.

61-63 Rochester Place

61-63 Rochester Place Development Site

61-63 Rochester Place

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Planning Policies

The development at Rochester Place is in line with the requirements set out by the London Plan and the London Borough of Camden.

Camden Core Strategy 2010

The Camden Core Strategy sets out the key elements or the borough and is a central part of their Local Development Framework (LDF). The recommendations for the sustainability policy is inserted below:

CS13 – Tackling climate change through promoting higher environmental standards

Reducing the effects of and adapting to climate change

The Council will require all development to take measures to minimise the effects of, and adapt to, climate change and encourage all developments to meet the highest feasible environmental standards that are financially viable during construction and occupation by:

a) Ensuring patterns of land use that minimise the need to travel by car and help support local energy networks;

b) Promoting the efficient use of land and buildings;

c) Minimising carbon emissions from the redevelopment, construction and occupation of buildings by implementing, in order, all of the elements of the following energy hierarchy:

1. Ensuring developments use less energy,
2. Making use of energy from efficient sources, such as the King's Cross, Gower Street, Bloomsbury and proposed Euston Road decentralised energy networks;
3. Generating renewable energy on-site; and

d) Ensuring buildings and spaces are designed to cope with, and minimise the effects of, climate change.

The Council will have regard to the cost of installing measures to tackle climate change as well as the cumulative future costs of delaying reductions in carbon dioxide emissions

Local energy generation

The Council will promote local energy generation and networks by:

e) Working with our partners and developers to implement local energy networks in the parts of Camden most likely to support them, i.e. in the vicinity of:

– housing estates with community heating or the potential for community heating and other uses with large heating loads;
– the growth areas of King's Cross; Euston; Tottenham Court Road; West Hampstead Interchange and Holborn;
– schools to be redeveloped as part of Building Schools for the Future programme;
– existing or approved combined heat and power/ local energy networks;

and other locations where land ownership would facilitate their implementation.

f) protecting existing local energy networks where possible (e.g. at Gower Street and Bloomsbury) and safeguarding potential network routes (e.g. Euston Road);

Water and surface water flooding
We will make Camden a water efficient borough and minimise the potential for surface water flooding by:

g) protecting our existing drinking water and foul water infrastructure, including Barrow Hill Reservoir, Hampstead Heath Reservoir, Highgate Reservoir and Kidderpore Reservoir;

h) making sure development incorporates efficient water and foul water infrastructure;

i) requiring development to avoid harm to the water environment, water quality or drainage systems and prevents or mitigates local surface water and downstream flooding, especially in areas up-hill from, and in, areas known to be at risk from surface water flooding such as South and West Hampstead, Gospel Oak and King's Cross.

Camden Development Policies 2010

In addition to the Core Strategy Document the Camden Development Poicies also forms part of the LDF. The policy relating to sustainability is listed below:

DP22 – Promoting sustainable design and construction
The Council will require development to incorporate sustainable design and construction measures. Schemes must:

a) demonstrate how sustainable development principles, including the relevant measures set out in paragraph 22.5 below, have been incorporated into the design and proposed implementation; and

b) incorporate green or brown roofs and green walls wherever suitable.

The Council will promote and measure sustainable design and construction by:

c) expecting new build housing to meet Code for Sustainable Homes Level 3 by 2010 and Code Level 4 by 2013 and encouraging Code Level 6 (zero carbon) by 2016.;

d) expecting developments (except new build) of 500 sq m of residential floorspace or above or 5 or more dwellings to achieve "very good" in EcoHomes assessments prior to 2013 and encouraging "excellent" from 2013;

e) expecting non-domestic developments of 500sqm of floorspace or above to achieve "very good" in BREEAM assessments and "excellent" from 2016 and encouraging zero carbon from 2019.

The Council will require development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures, such as:

f) summer shading and planting;
g) limiting run-off;
h) reducing water consumption;
i) reducing air pollution; and
j) not locating vulnerable uses in basements in flood-prone areas.

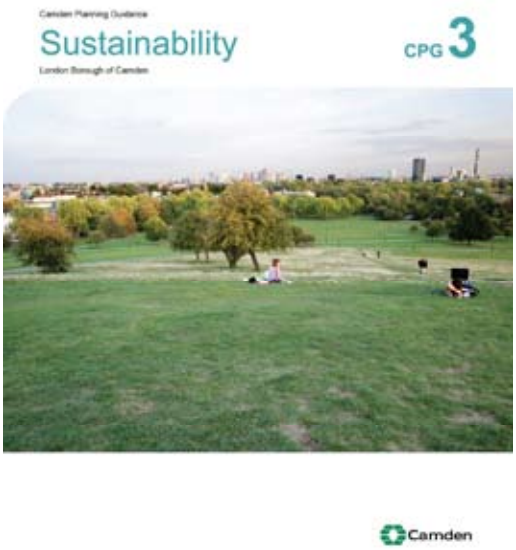
Camden Development Policies
2010-2025
Local Development Framework

Camden

Camden Planning Guidance - Sustainability CPG3 - 2011

Whilst the Camden LDF contains policies relating to sustainability in their Core Strategy and Development Policies documents, the Council also has a separate planning guidance specific to sustainability. The sections that will covered by a combination of the Sustainability Statement and accompanying Energy Statement are listed below:

- The energy hierarchy
- Energy efficiency: new buildings
- Decentralised energy networks and combined heat and power
- Renewable Energy
- Water Efficiency
- Sustainable use of materials
- Sustainability assessment tools
- Brown roofs, green roofs and green walls
- Flooding
- Adapting to climate change
- Biodiversity



The London Plan 2011

In addition to the Camden requirements the London Plan 2011 requires compliance with the following policies relating to climate change:

- Policy 5.2 Minimising Carbon Dioxide Emissions (refer to the supplementary Energy Report)
- Policy 5.3 Sustainable Design and Construction
- Policy 5.5 Decentralised Energy Networks (refer to the supplementary Energy Report)
- Policy 5.6 Decentralised Energy in Development Proposals (refer to the supplementary Energy Report)
- Policy 5.7 Renewable Energy (refer to the supplementary Energy Report for more details)
- Policy 5.9 Overheating and Cooling
- Policy 5.10 Urban Greening
- Policy 5.11 Green Roofs
- Policy 5.12 Flood Risk Management
- Policy 5.13 Sustainable Drainage
- Policy 5.15 Water use and Supplies
- Policy 5.16 Waste Self-Sufficiency
- Policy 5.18 Construction, Excavation and Demolition Waste
- Policy 5.19 Hazardous Waste
- Policy 5.20 Aggregates

Response to Planning Policies

The relevant sections of the CPG3- Sustainability planning guidance have been addressed below:

Energy efficiency: new buildings

Sunlight and Daylight

The development has been designed to provide good levels of daylight whilst also ensuring excessive solar gain does not cause overheating. This will help to avoid the use of energy-intensive artificial lighting. Particular daylighting initiatives include generous window sizing and the light colouring of interior walls to reflect light into rooms.

Preventing Overheating

Overheating has been prevented through the orientation of the building. The constrained site has meant that the windows will predominantly face north-west and north-east.

Natural Ventilation

A natural ventilation strategy is preferred for Rochester Place since it will avoid the electricity use and associated CO_2 emissions of fans within a mechanical ventilation system.

Water efficiency

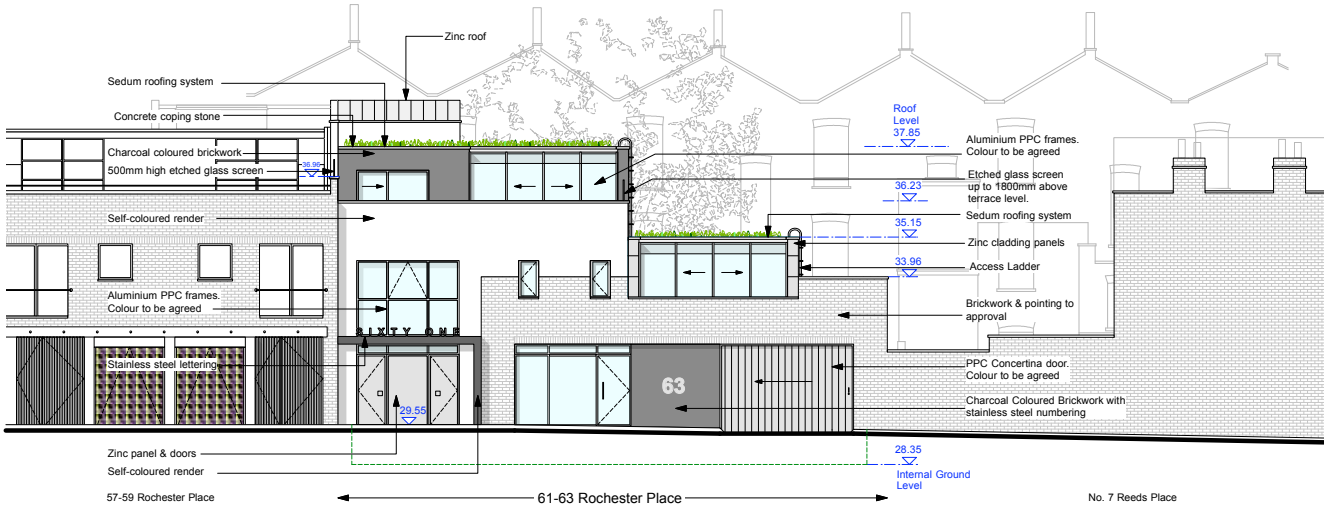
The Code for Sustainable Homes covers water efficiency. The use of low flow fixtures and fittings will be incorporated to reduce water consumption.

There are no areas of landscaping that will require maintenance therefore, water butts will not be specified. Green roofs will also cover all substantial roof areas and therefore absorb a large amount of rain water.

Sustainable use of materials

The development will aim to re-use materials from the demolition of the existing building on-site as part of the new development. This will primarily include the use of the demolition material as hard core.

Construction waste will be managed through the Code for Sustainable Homes assessment and be minimised where possible.



Front Elevation - North East

Daylighting

Elevation showing generous areas of glazing

Brown roofs, green roofs and green walls

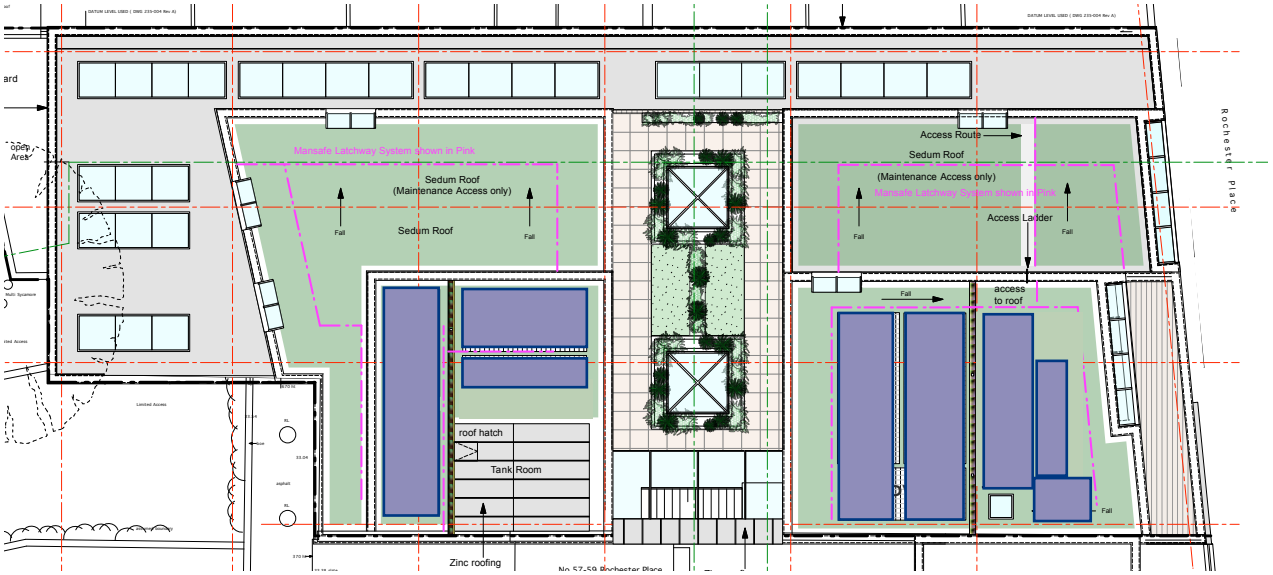
Extensive green roofs have been included on as much of the roof space as possible. Sedum roofs have been selected for their suitability to the site. The green roof will require minimum maintenance and little or no irrigation. As the site was previously developed the sedum roof will improve the biodiversity on site.

Extensive green roofs are designed to be light in weight adding little structural load to the roof. The rootzone of the sedum roof will be 40-80mm providing a bed for the drought, wind and frost resistant plant.

The green roof system to be used on this development consists of rools of pre-grown sedum delivered to site. This system is suitable for flat roofs with a maximum gradient of 50 degrees. The plants will be cultivated in the form of vegetation mats comprising a support framework and thin layer of soil on which up to ten varieties of sedum are usually grown to provide and aesthetically pleasing mix of colour . When the green roof system is delivered to site it will have at least 85% of vegetation cover.

Sedum roofs are low maintenance, however roof upstands and penetrations will be kept weed free. Any wind blown seedlings will be removed by the roots periodically.

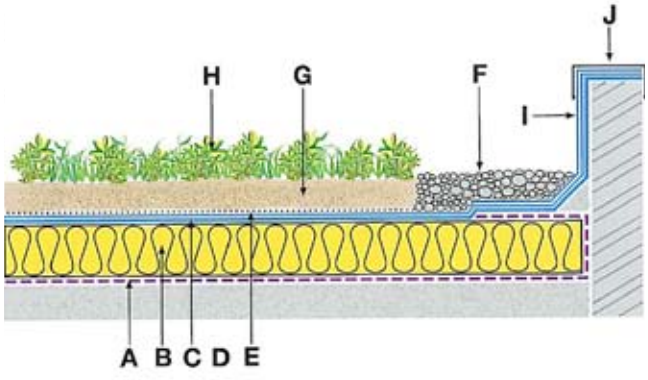
Green roofs - Roof plan showing the extent of the green roof.



Green roof detail

(taken from preferred manufacturer)

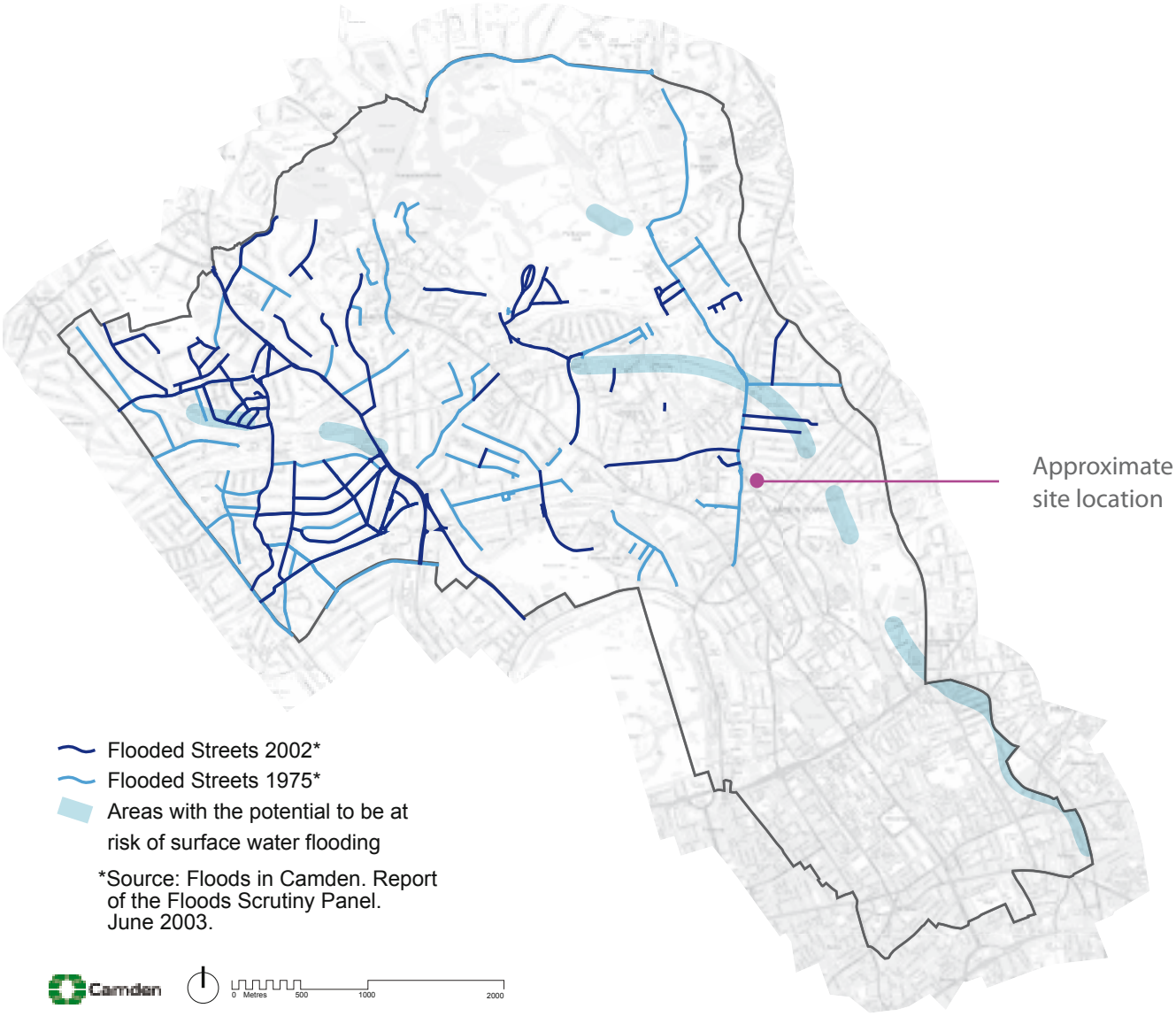
A - Prominent alu vapor barrier
B - Indexzone Insulation
C - 5mm Proteaduo underlay
D - 4mm Defend Anti-roots
E - Water retension/drainage mat
F - Vegetation barrier
G - Substrate/Rootzone
H - Sedum planting system
I - Mineral Antiroot Firestop
J - Metal coping



Flooding

There will be no increase in surface water run off on the development as the new development will cover 100% of the existing building footptint. There will be a marginally smaller volume of run-off on site due to the inclusion of the large absorbent sedum roof.

The extract map from the Camden Core Strategy document shows that the site is not at risk of flooding, based on historical data. The Environment Agency online flood maps also confirm this.



Adapting to climate change

The development has used the following measures to mitigate against climate change:

- The building is orientated to prevent excessive solar gains from the sun
- Green roofs have been used to soak up excess rainwater and cool the surrounding air trough transpiration.
- Natural ventilation has been used to ventilate the dwellings.

Biodiversity

The biodiversity will be significantly improved on site in comparison with the existing building. The improvements will come from the installation of a green roof and small shrubs on the roof terrace. The site currently has low ecological value and there are also no ecological features to protect on site.

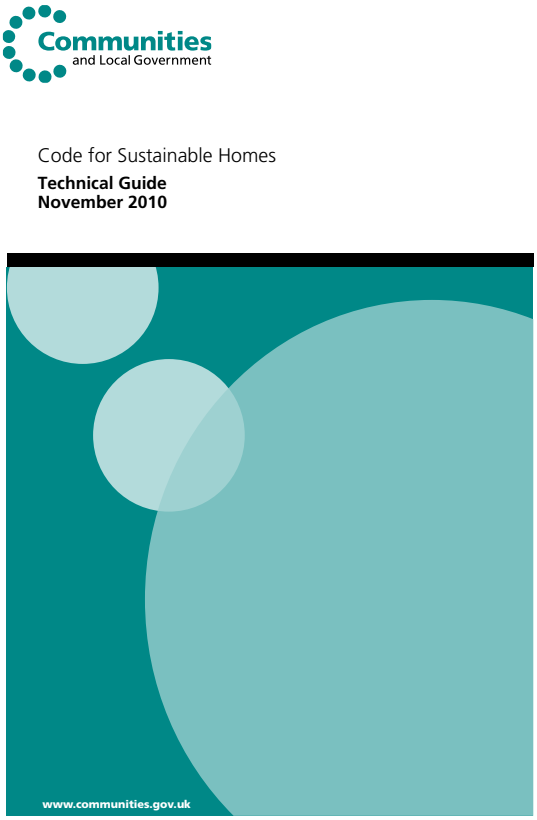
Sustainability Assessment Tools

Sustainability Standards

The residential component of this development will be assessed using Code for Sustainable Homes 2010 as required by planning Policy DP22.

The commercial component is only 450m^2 so is therefore is exempt by Camden Council from meeting BREEAM. Policy DP22 states that any commercial development 500m^2 or above would need to meet BREAM 'Very Good'.

The following section provides an overview of the Code for Sustainable Homes assessment tool and the pre-assessment scores.



Code for Sustainable Homes

The Code for Sustainable Homes (also referred to as 'Code') is the national standard for the design and construction of sustainable homes for new residential developments. It was established by the Government in close working consultation with the Building Research Establishment (BRE) and Construction Industry Research and Information Association (CIRIA). The Code measures the sustainability of a development against design categories, rating the entire development as a complete package.

Although the Code is currently voluntary, many councils are now setting Code levels as mandatory targets and it is likely to become a national requirement in the future.

Each standard requires new developments to gain credits by meeting sustainable design principles over nine key areas:

- Energy
- Water
- Materials
- Surface Water Run-Off
- Waste
- Pollution
- Health and Wellbeing
- Management
- Ecology

In order to meet Camden's planning policy DP22- Promoting Sustainable Design and Construction, the development will meet Code Level 3 by implementing the measures detailed.

Energy

ENE 1 Dwelling Emission Rate

The Dwelling Emission Rate (DER) is the estimated CO_2 emissions per m^2 per year ($kgCO_2/m^2/year$) for a development. It accounts for energy used in heating, fixed cooling, hot water and lighting. To achieve Code Level 3, the Code stipulates that CO_2 emissions must meet Part L 2010 Building Regulations i.e the Dwelling Emission Rate (DER) should be at least the same or better than the Target Emission Rate (TER).

In addition to Code requirements Camden stipulate in the CPG3- Sustainability planning guidance that dwellings should achieve at least 50% of un-weighted credits in this category.

The methodology set out by the Department of Energy and Climate Change (DECC) for assessing the energy use of dwellings is the Standard Assessment Procedure (SAP). The current version is SAP 2009.

Preliminary SAP calculations were carried out to assess the potential CO_2 savings achieved through

- energy efficiency measures
- the efficient supply of energy through gas boilers and
- renewable systems

The preliminary calculations showed an improvement in CO_2 emissions over Part L Building Regulations 2010, amounting to at least 40%.

Given the improvement in DER over TER, the development at Rochester Place satisfies the mandatory credits within the Energy category in order to meet Code Level 3 and Camden's requirement.

ENE 2 Fabric Energy Efficiency (FEE)
The energy demand of the dwellings will be reduced through the adoption of high levels of insulation and good levels of air tightness to improve the buildings fabric efficiency. SAP calculations were based on a building fabric with low U-values and an air permeability rate of 5m^3/m^2 at 50 Pa, thereby achieving an average Fabric Energy Efficiency (FEE) of 55-57 kWh/m^2/year.

ENE 3 Energy Display Devices
Energy display devices will be installed in each of the dwellings to enable the occupants to gain an understanding of their energy consumption and to enable them to reduce their energy use in the future.

The display devices will provide information on current electricity and primary heating consumption data.

ENE 4 Drying Space
The proposed development will include provisions for internal clothes drying, thereby reducing the amount of electricity consumed through the use of tumble dryers. Each dwelling will include at least 4m of retractable drying lines within well-ventilated bathrooms for 1-2 bed flats and 6m for +3 bed flats.

ENE 5 Eco Labelled White Goods
All residential units within this development will be supplied with an EU Energy Efficiency Labelling Scheme Leaflet, which provides guidance on the purchase on energy efficient white goods.

The dwellings will also be supplied with energy efficient white goods which meet the following standard:
Fridges and freezers or fridge freezers - A+
Washing machines and dishwashers - A
Tumble dryers or washer dryers - B

ENE 6 External Lighting
Energy efficient light fittings will be installed throughout the development. In addition, external lights will be fitted with controls to reduce the energy consumption of the building during periods of infrequent use:

- external space lighting will include energy efficient fittings
- security lighting will include daylight cut-off devices, with a maximum wattage of 150W and PIR

ENE 7 Contribution of Low or Zero Carbon Technologies
A feasibility study was carried out to determine the Energy Strategy for the proposed development. Photovoltaics were considered to be the most feasible zero carbon solution and high efficiency gas boilers to be the most suitable low carbon solution. The low and zero carbon reductions from these measures is expected to be at least 15%.

ENE 8 Cycle Storage

Cycle spaces will be provided within the development for use by users of the residential units to reduce the frequency of short car journeys. Additionally cycle storage spaces will be made available for the users of the commercial space. The cycle storage will be adequately sized, secure and accessible to all occupants, thereby achieving some credits in this category. A minimum of one cycle space per dwelling will be supplied.

ENE 9 Home Office

The proposed residential units will allow for a home office space comprising

- sufficient space for a chair, desk and bookshelf
- adequate ventilation
- an average daylight factor of 1.5%
- 2 No. double power sockets and
- 2 No. telephone sockets (or one telephone socket where broadband is provided)

Water

WAT 1 Indoor Water Use

The water category aims to reduce the consumption of potable water in the home from all sources. These are mandatory credits within Code for Sustainable Homes, with Level 3 setting an upper limit of 105 litres per person per day.

The development at Rochester Place aims to reduce water consumption through the use of water efficient fittings, and these are listed below.

It is estimated that the proposed residential development will achieve a water consumption rate of 103.2 litres/person/day, exceeding the mandatory target for Code Level 3 and 4.

Estimated Water Consumption

	Residential Units	
Fitting	**Consumption per Use**	**Consumption (l/person/day)**
WC (full flush)	6 litres per flush	
WC (half flush)	3 litres per flush	
All WCs		17.64
Kitchen sink tap	6 litres per min	13
Wash basin tap	4 litres per min	7.9
Bath	No baths	-
Shower	9.5 litres per min	53.2
Washing machine	8.17	17.16
Dishwasher	1.25	4.5
Net internal water consumption		113.4
Normalisation factor		0.91
Total		103.2

Materials

MAT 1 Environmental Impact of Materials

Embodied energy is the energy that is used in the manufacture, processing and the transportation of the materials to site.

The construction build-ups for each of the main building elements are rated from A+ to E. Each element to be used in the building has been rated according to the BRE Green Guide to Specification whereby:

- A+ rated elements are least likely to affect the environment
- E rated elements are most likely to affect the environment

It is assumed that most of the main building elements within this development will achieve between an A+ to C rating.

MAT 2 & MAT 3 Responsible Sourcing of Materials

At least 50% of the materials specified will be obtained from legally and responsible sources. This includes all basic building elements, comprising the building frame, floors, roof, external walls, foundations and internal walls and all finishing elements.

In addition, 100% of all timber used on site will be legally sourced, thereby satisfying the mandatory requirements set out in this category. Any timber used in the structural and finishing elements will be specified from certified sustainable sources such as FSC or PEFC.

Where possible, on-site materials will be reused and recycled to lower transport CO_2 emissions associated with off-site recycling. Where practicable, materials with a high recycled or waste content will be specified.

Aggregates from the demolition of any existing hard surfacing/landscaping on site will be crushed and used as substrate material for the building base and road surfaces, this is to meet to meet the Camden 10% target.

Surface Water Runn-off

SUR 1 Surface Water Run-off

The aim of this category is to avoid, reduce and delay the discharge of rainfall run-off to watercourses and public sewers using sustainable drainage systems (SuDS).

The development at Rochester Place will meet all mandatory requirements. As the development footprint sits in the footprint of the existing building there will be no additional surface water run-off.

SUR 2 Flood Risk

The environment Agency flood map shows that there is a low risk of flooding on site. An engineer will be brought in to investigate this further. Precautions will be taken to reduce the risk of flooding on site.

Waste

WAS 1 Household Waste

- Non-recyclable: External space will be allocated for communal non-recyclable household waste, this will be collected by the Local Authority
- Recyclable: A Local Authority Collection Scheme will be in operation for the collection of recyclable household waste, and at least at least three separate bins will be provided with a total capacity of 30 litres. Each bin will have a capacity of at least 7 litres and be located in the kitchen.

WAS 2 Construction Site Waste Management

The development will minimise the impact of construction waste on the environment through a Site Waste Management Plan (SWMP). This plan will include:

- benchmarks for resource efficiency
- procedures and commitments to reduce hazardous and non-hazardous waste
- monitoring hazardous and non-hazardous waste

Additional credits have been taken into account whereby 50% of non-hazardous waste will be diverted from landfill. Details of the SWMP will be developed at a later stage, prior to construction.

Internal waste storage and separation

Pollution

POL 1 Global Warming Potential (GWP) of Insulants

Global warming potential (GWP) is a measure of how effective a gas is at preventing the passage of infra-red radiation. Blowing agents, used in the production of insulation, are a common source of gases with high GWPs.

The development will specify insulation materials that have a Global Warming Potential (GWP) of less than 5 to achieve the maximum credits in this category.

POL 2 NOx Emissions

This section aims to reduce the release of nitrogen oxide (NOx) into the atmosphere.

Space heating and hot water requirements will be met through efficient gas condensing boilers with inherently low NOx emissions.

Health and Wellbeing

HEA 1 Daylighting

The dwellings have been designed with daylight in mind and measures have been taken to maximise daylight where possible.

HEA 2 Sound Insulation

The development proposes that airborne sound insulation is at least 5dB higher and impact sound insulation at least 5dB lower than required by current Building Regulations. This will be determined through either robust details or a programme of pre-completion testing.

HEA 3 Private Space

The occupants will have access to either private balconies or private communal space, with the aim of improving the quality of life of the occupants. The private space provided within this development will meet the minimum requirements set out in this category.

HEA 4 Lifetime Homes

All dwellings will be Lifetime Homes compliant, ensuring the dwellings are easily adaptable for future use.

Management

MAN 1 Home User Guide

'Home User Guides' will be made available to each dwelling providing occupants with an understanding of the energy associated with the operation of their home. These non-technical guides will include operational instructions as well as information on the surrounding area (local amenities) to obtain full credits in this section.

MAN 2 Considerate Constructors Scheme

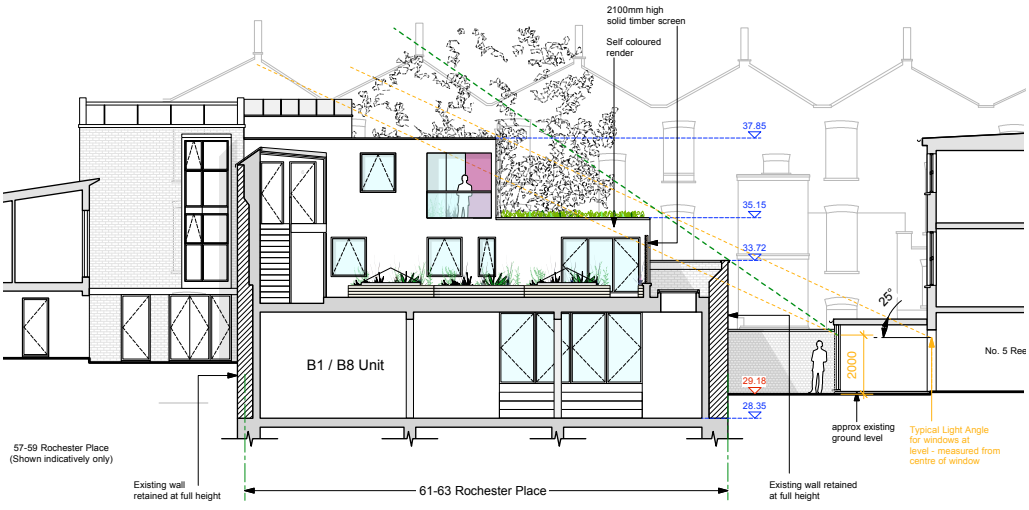
The tender specification will require contractors to be compliant with the Considerate Constructors Scheme (CCS). Additional credits have been awarded as it is expected that formal certification will be achieved and that contractors will go significantly beyond best practice.

MAN 3 Construction Site Impacts

To minimise the construction impacts of the site, contractors will be required to monitor, report and set targets for:

- the production of CO_2 arising from site activities
- energy use from commercial transport to and from site

In addition, contractors will be required to adopt best practice policies for air (dust) and water (ground and surface) pollution occurring on site. 80% of all timber used on site will also be reused and/or responsibly sourced.



Balconies shown on the section drawing

Ecology

ECO 1 and 3 Ecological Assessment

The development is currently located on a developed site. An ecologist is involved and has determined the site is of low ecological value.

ECO 2 Ecological Enhancement

All key recommendations and at least 30% of additional recommendations made by an ecologist will be adopted.

Green roofs and a selection of landscaping improvements will be included in the development.

ECO 4 Change in Ecological Value of the Site

It is anticipated that an ecologist will determine an improvement in ecological value.

Code for Sustainable Homes Pre-Assessment Results

A Code for Sustainable Homes pre-assessment was carried out for Rochester Place, using the targets set by the client and project team.

The table below summarises the number of credits achieved in each of the Code categories, using the Stroma Core software.

The proposed development achieves a total of 60.24 credits, which is above Code level 3. 50% of credits have been gained in the energy section to meet Camden's guidance CPG3. This reflects the client's and project team's commitment in adopting a range of sustainability measures over the life-cycle of the development.

				Score Assessment		
		Credit Score	Credits Available	Sub Total	Weighting Factor	Points Score
Energy & CO2 Emissions	ENE 1 Dwelling Emission Rate	4.5	10	15.5	36.4	18.20
	ENE 2 Fabric Energy Efficiency	0	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	2	2			
	ENE 8 Cycle Storage	1	2			
	ENE 9 Home Office	1	1			
Water	WAT 1 Internal Water Use	3	5	3	9	4.5
	WAT 2 External Water Use	0	1			
Materials	MAT 1 Environmental Impact of Materials	8	15	13	7.2	3.9
	MAT 2 Responsible Sourcing (Basic Building Elements)	4	6			
	MAT 3 Responsible Sourcing (Finishing Elements)	1	3			
Surface Water Run-off	SUR 1 Management of Surface Water Run-Off from Site	0	2	2	2.2	1.1
	SUR 2 Flood Risk	2	2			
Waste	WAS 1 Household Waste Storage and Recycling Facilities	4	4	6	6.4	4.8
	WAS 2 Construction Site Waste Management	2	3			
	WAS 3 Composting	0	1			
Pollution	POL 1 Global Warming Potential of Insulants	1	1	4	2.8	2.8
	POL 2 NOx Emissions	3	3			
Health & Wellbeing	HEA 1 Daylighting	1	3	9	14	10.5
	HEA 2 Sound Insulation	3	4			
	HEA 3 Private Space	1	1			
	HEA 4 Lifetime Homes	4	4			
Management	MAN 1 Home User Guide	3	3	7	10	7.78
	MAN 2 Considerate Constructors Scheme	2	2			
	MAN 3 Construction Site Impacts	2	2			
	MAN 4 Security	0	2			
Ecology	ECO 1 Ecological Value of Site	1	1	5	12	6.67
	ECO 2 Ecological Enhancement	1	1			
	ECO 3 Protection of Ecological Features	1	1			
	ECO 4 Change of Ecological Value of Site	2	4			
	ECO 5 Building Footprint	0	2			
	Level Achieved:	**3**		**Total Points Scored:**		**60.24**