

London Borough of Camden
Energy Efficiency and Renewable Energy and Sustainability Plan
S106 Pro-forma v.1 – Part A

(To be submitted prior to implementation: planningobligations@camden.gov.uk)

Scheme address:	277A GRAYS INN ROAD
Planning Reference:	2014/4267/P
Related Planning References:	
Scheme Description:	Demolition of existing building and comprehensive mixed-use redevelopment of the site to provide 60 residential units (including 14 affordable flats) comprising: 56 units arranged around the new open space (seven x 2 storey houses plus lower-ground floor, 49 x flats in 3, 7 and 8 storey blocks plus lower-ground floor) and 4 flats in a 4 storey plus lower-ground building on St Chads street, with ancillary basement gym; with offices at ground and lowerground floor, café/gallery (Class A1/Class A3) at ground floor, together with cycle parking, access, landscaping, boundary treatments and associated works.
Person/s undertaking review on behalf of applicant <i>(include organisation name and registration number):</i>	Telma Sugimoto Senior Consultant XCO2 06496460

This form must be completed by an appropriately qualified independent Energy and Sustainability Consultant, undertaking the review of the Energy Efficiency and Renewable Energy and Sustainability Plans, as required by the S106 Legal Agreement, on behalf of the applicant. Please complete the form in full. If you have any questions please contact planningobligations@camden.gov.uk

S106 CLAUSE DETAILS

Please summarise how the applicant is meeting their planning obligations relating to energy / sustainability as outlined within the S106 agreement (please add/ remove rows as applicable).

S106 clause no.	S106 clause wording	Summary of performance
4.7.1	On or prior to the Implementation Date to submit to the Council for approval the Energy Efficiency and Renewable Energy Plan	Performance demonstrated through the Design Stage energy efficiency and renewable energy plan, and the Design Stage sustainability plan, issued Nov and April/2015, respectively.
4.7.2	Not to Implement nor permit Implementation until such time as the Council has approved the Energy Efficiency and Renewable Energy Plan as demonstrated by written notice to that effect.	Documents submitted in 2015

BUILDING SPECIFICATION TARGETS

Energy and Sustainability Statement key targets:

Please outline in the table below the key targets from the Energy and Sustainability Statements submitted at Full Planning stage, and summarise how the detailed design specification compares. Add or delete rows as necessary.

Please clearly outline any reasons for changes to the approved building specification.

	Full Planning: energy and sustainability statement targets	Detailed Design: performance against targets
Carbon reduction targets	57% over Part L 2010 baseline buildings (regulated emissions only)	38.6% over Part L 2013 baseline buildings (regulated emissions only)
Building fabric u-values and air permeability	Walls: 0.13 W/m ² K Floor: 0.10 W/m ² K Roof: 0.13 W/m ² K Windows: 1.3 W/m ² K Air permeability: 3m ² /m ³ h	Walls: 0.13 W/m ² K Floor: 0.10 W/m ² K Roof: 0.13 W/m ² K Windows: 1.3 W/m ² K Air permeability: 3m ² /m ³ h
Low carbon technologies	ASHP for heating and cooling of non-residential spaces only	ASHP for heating and cooling of non-residential spaces only
Renewable energy	132m ² of PV panels (efficiency and total array output not provided)	15.1 kWp array (approx. 80m ²) of 19% efficiency panels
Decentralised energy network connection	Combined heat and power	Combined heat and power (CHP) engine with back-up gas boilers. This communal arrangement allows for future connection to a district heating network, if technically feasible and viable.
Metering, monitoring and management	N/A	Within the landlord's electrical installation, submeters shall be provided to monitor electricity generated and consumed by the CHP and Photovoltaic (PV) installations. All items of central plant serving the residential units

		shall be controlled and monitored using a Building Monitoring System (BMS), located within the plant room, which shall provide monitoring and control of the residential development's communal heating system and hours of use of plant.
Code for Sustainable Homes Rating	Code Level 4	All dwellings shall achieve at least Level 4 of the Code for Sustainable Homes attaining at least 50% of the credits in each of the Energy, Water and Materials categories, to be carried out by a recognised independent verification body in respect of the property. This section details how the scheme will achieve the Council's target for Code for Sustainable Homes.
BREEAM rating	BREEAM 'Very Good'	The development shall secure the incorporation of sustainability measures in the carrying out of the development in its construction and in its subsequent management and occupation, which shall be based on a Building Research Establishment Method assessment with a target of achieving a 'Very Good', 'Excellent' or 'Outstanding' rating, and attaining at least 60% of the credits in each of Energy and Water, and 40% of the credits in Materials categories. This section details how the scheme will achieve the Council's target for BREEAM.
Materials, sourcing and waste	<p>To reduce social and environmental impacts from consumption of resources by using sustainably produced and local products.</p> <p>To minimise waste generation during the construction and operation of a development and to divert waste from landfill by adopting the Waste Hierarchy approach and promoting waste reduction and recycling.</p>	<p>A majority of the main building elements within the development shall achieve between A+ to C rating according to the BRE's Green Guide to Specification. At least 50% of the materials will be obtained from responsible sources, and 100% of all timber will be legally sourced from certified sources such as FSP or PEFC.</p> <p>There will be provision for both non-recyclable and recyclable waste on all dwellings and communal waste storage facilities. Kitchen/food waste storage and collection will also be provided.</p> <p>The development will minimise the impact of construction waste on the environment through a Site Waste Management Plan, aiming to reduce waste production and increase diversion from landfill.</p>
Green infrastructure	To conserve and enhance the biodiversity of the region by conserving and enhancing areas valued for their diversity of wildlife, habitats, and landscape value.	An ecologist was appointed to create proposals to increase the site's ecological value. Planters containing species rich seed mix and green roofs will dramatically improve the site's ecological value.
Water efficiency and SuDS	To minimise impacts upon water resources by conserving water resources through the use of water efficient components and water recycling systems, and to reduce flood risk through management of surface water run-off.	All dwellings shall achieve a maximum consumption of 90 litres/person/day, well below Part G and London Plan's target of 105 litres/person/day. Rainwater butts will be available to collect rainwater for landscaping purposes. A SuDS strategy was developed, attenuation tanks and green roofs will avoid, reduce and delay the discharge of rainfall run-off to watercourses and public sewers.
Other		

ENERGY HIERARCHY

Please enter in the tables below carbon reductions for the development for each stage of the energy hierarchy (be lean, be clean, be green), following the guidance outlined in the GLAs *Guidance on Preparing Energy Assessments* and *Camden Planning Guidance CPG3*.

Please be aware that where carbon dioxide reduction targets are not met, the applicant will be required to either:

1. Retrofit on-site carbon reduction measures with a view to meeting targets
2. Implement carbon reduction measures elsewhere in the borough (prior agreement with the Council will be sought)

Key targets from Energy and Sustainability Statements:

	New build commercial (includes major refurbishments assessed under Part L2A 2010)		New build residential (includes major refurbishments assessed under Part L1A 2010)		Commercial Refurbishment (assessed under Part L2B 2010)		Residential Refurbishment (assessed under Part L1B 2010)		Overall area weighted reductions	
	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage
Baseline	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	109	N/A
Be Lean	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	97	10.9
Be Clean	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	59	48.3
Be Green	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47	20.26
TOTAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	57
Shortfall	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

****please note that the energy and sustainability statements did not differentiate between commercial/residential emissions. The CO2 emissions figures refer to regulated emissions only.**

Detailed design stage targets:

	New build commercial (includes major refurbishments assessed under Part L2A 2013)		New build residential (includes major refurbishments assessed under Part L1A 2013)		Commercial Refurbishment (assessed under Part L2B 2013)		Residential Refurbishment (assessed under Part L1B 2013)		Overall area weighted reductions	
	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage	Total tCO2	% reduction at each stage
Baseline	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	95.5	
Be Lean	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100.2	0
Be Clean	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	72.9	27.2
Be Green	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	58.6	19.6
TOTAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36.9	38.6
Shortfall	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

****please note that the design stage targets only display the results for site-wide emissions. The CO2 emissions figures refer to regulated emissions only.**

EVIDENCE:

Detailed Design Stage

	Enclosed?		Notes:
	Yes	N/A	
Copies of SAP/ SBEM worksheets	<input checked="" type="checkbox"/>		Please submit SAP/SBEM calculations evidencing the CO2 savings for each stage of the energy hierarchy, alongside this report. Please provide details of which apartments have been sampled (if applicable). Results need to reflect the detailed design of the development.
Code for Sustainable Homes Pre-implementation assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	This will need to be a "Pre-implementation" assessment. Although the Council is no longer able to condition new housing developments to achieve CfSH certification, any application which has already committed to achieving certification through S106 will be required to fulfil this obligation.
BREEAM In Design Review	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Please note: this will need to be the "In Design" review and not a copy of the "Pre-Implementation" review. Applicants should also submit Design Stage certificates.
Technical details/ plans/ drawings of installed CHP and other low/ zero carbon technologies (where relevant)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Please submit details where relevant, as outlined in the S106.
CHP Air Quality Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Please follow the Council's guidance on completing air quality assessments outlined in <i>CPG6</i> .
Decentralised Energy Network connection details.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Details should include: plans/drawings demonstrating: adequate plant room space provision; space for future heat exchanger; details of provisions made for connections (capped pipework, pipe routes, and provision of domestic hot water isolation valves); and any further details demonstrating that the connection has been designed in accordance with the CIBSE Heat Networks Code of Practice for the UK .

Please provide any further information relevant to this development – prior to implementation:

The Design Stage BREEAM assessment has been submitted to the BRE and we are currently awaiting the result of the QA process, certificate to follow once issued.

The agreed contents of this Energy Efficiency and Renewable Energy and Sustainability Plan must be complied with unless otherwise agreed in writing by the Council.

Signed:	
Print full name:	Telma Sugimoto
Position:	Senior Consultant
Date:	30/05/2017

Please submit to: planningobligations@camden.gov.uk

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