London Borough of Camden

Energy Efficiency and Renewable Energy and Sustainability Plan

S106 Pro-forma V.3 – Part A Pre-implementation

(To be submitted for approval : planningobligations@camden.gov.uk)

Scheme address:	112a Great Russell Street London WC1B 3NP
Planning Reference:	
Related Planning References:	2015/3605/P
Scheme Description:	Change of use of part ground floor and basement levels -4 and -5 from Car Park (sui generis) to accommodate 208 bedroom hotel (Class C1), including alternations to openings, walls and fascia on ground floor elevations on Great Russell Street and Adeline Place.
Person/s undertaking review on behalf of applicant *(include organisation name and registration number)*:	Umer Uzair Syntegra Consulting Ltd. Syntegra House Unit 63 Milford Road Reading RG1 8LG Company Registration: 09163306

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 (add/ remove rows as applicable).

S106 clause no.	S106 clause wording	Summary of performance
Clause 2.18	A strategy setting out a package of measures to be adopted by the Owner in the management of the Development with a view to reducing carbon energy emissions through (but not be limited to the following: a) the incorporation of the measures set out in the Energy Strategy and BREEAM Pre-Assessment dated May 2015 prepared by Hoare Lea and	Please refer to the sections below for details of each point listed under the relevant clause 2.18.

	submitted as part of the Planning Application; b) Separate metering of all low and zero carbon technologies to enable the monitoring of energy and carbon emissions and savings; c) a building management system being an electronic system to monitor the Development's heating cooling and the hours of use of plant; d) measures to enable future connection to a local energy network at the boundary of the property; e) include a pre-implementation review by an appropriately qualified and recognised independent verification body in respect of the property certifying that the measures incorporated in the Energy Efficiency and Renewable Energy Plan are achievable in the Development and satisfy the aims and objectives of the Council's strategic policies on the reduction of carbon emissions contained within its Development Plan.	

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.

	Approved Planning Documents: energy and sustainability statement targets	**Pre-Implementation (Detailed Design Stage): performance against targets**
Carbon reduction targets	Reduction of 25% on Part L2A 2013 compliance.	In line with the London Plan's three step energy hierarchy, the regulated CO_2 emissions for the proposed development achieved reduction of approximately 33% on Part L2A 2013 compliance. Please refer to the enclosed BRUKL report which confirms that the TER (Target Emissions Rate) is 64kgCO_2/m^2/year and the BER (Building Emissions Rate) is 54kgCO_2/m^2/year, therefore in comparison 33% savings have been achieved.
Building fabric u-values and air permeability	Roof U-value: Not Applicable External Wall U-value =0.2W/m²K Floor U-value =0.22W/m²K Glazing: Not Applicable Air permeability: 3m³/hr/m² @ 50Pa	Please refer to the planning stage Energy report which has been followed as per current design and it meets the appropriate u values listed below, • U-values 0.2W/m²K wall • U-values 0.22W/m²K floor • Air permeability: 3m³/hr/m² @ 50Pa
Low carbon technologies	Air source heat pump (ASHP), Improved domestic hot water generator.	Due to the nature of the scheme being Basement, the most feasible Low Carbon technology is Air Source Heat Pump as mentioned under the Energy Strategy Report, which states the following efficiency for ASHP system, • Heating SCOP 4.71 • Cooling SEER 5.16 • Hot water is provided by ASHP 70% and electric boiler 30% with 6000 litres cylinder.
Renewable energy targets	Not applicable due to the site location, there is no available roof space for Photovoltaics, solar hot water and wind turbines.	As aforementioned that the only feasible option for this site is Air Source Heat Pump due to the nature of this site and unavailability of Roof space and other site constraints.
Decentralised energy network connection	Not applied due to the proposed scheme with ASHP has higher carbon reductions.	As per the proposed energy strategy for the scheme it can be noted that the decentralised energy network connection is not feasible for this site due to various site constraints and also the carbon benefits of such system is significantly lower than the other options.
	The provisions of sub metering are allowed for each floor to monitor the	The BREEAM pre-assessment report has been provided as per the energy strategy

Metering, monitoring and management	space heating, lighting and cooling requirements on site.	report which clearly indicates that 2 credits have been targeted for Ene 2 (Sub metering) which requires to monitor all the fossil fuel consumption on site and specifically space heating, lighting and cooling will be sub metered for each floor as per BREEAM credit requirements.
Code for Sustainable Homes - **Overall % + Rating** - **% credits Energy** - **% credits Water** **% credits Materials**	This is applied to residential scheme.	Due to the scheme being Hotel, this assessment is not applicable.
BREEAM - **Overall % + Rating** - **% credits Energy** - **% credits Water** - **% credits Materials**	Overall BREEAM Rating: Very Good Over Targeted Score: 59.13% The section breakdown is as below, • 11.72% credits Energy • 4.52% credits Water • 10.44% credits Materials	The development is assessed under BREEAM UK Refurbishment & Fit-out 2014 scheme for which the pre-assessment shows that by achieving the minimum standard requirements, together with the most feasible credits; the proposed project could achieve an overall score of 59.37% or above leading to a BREEAM rating of 'Very Good'.
Materials, sourcing and waste	The development will utilise low embodied materials - at least three of the key elements of the building envelope are to achieve a rating of A+ to D in the BRE's The Green Guide of specification. At least 50% of timber and timber products will be sourced from accredited Forest Stewardship Council (FSC) or Programme for the Endorsement of forestry certification (PEFC) where feasible. All material used will be durable to cater for their level of use and exposure and will not release toxins into the internal and external environment where feasible. The construction waste will be considered to minimise, recycle and reuse on site where possible, this will reduce the overall construction cost and at the same time minimise the amount of waste diverting to landfill. Site Waste Management Plan (SWMP) will be formalised before the construction works start and updated as the works continue on the site.	The development is designed to use the low embodied materials required from the planning stage. The BREEAM Pre assessment report also confirms that at least 3 credits will be achieved under Mat 01 section which is based upon the Mat 01 criteria. The scheme will adopt the best waste management procedures to reduce the amount of waste going to landfill. This will be established by creating provisions for recycling and also waste segregation from general to recyclable waste. This development has refused storage area at basement 5, with enough sizes in accordance with borough requirements. The contractor will develop a Site Waste Management Plan which is reduce and reuse the construction waste and the BREEAM credits for Was 1 also stipulates that the amount of waste will be reduce with the materials been recycled and reuse on site in order to reduce the amount of waste ending to landfill. The target is to reduce the amount of construction waste generated by 100m2 (gross internal floor area) to ≤11.3 m3 or ≤3.5tonnes. Furthermore approximately 85% by volume or 90% by tonnage the waste will be diverted from the landfill and to be reuse/ recycle on site. Please refer to the BREEAM Pre assessment report enclosed.
Green infrastructure	This is not applicable for this site.	This is not applicable for this site.
Water efficiency and SuDS	The development is based upon the specification of water efficient fittings including low volume dual flush WCs, and low flow taps/ showers/ bath. For the	The BREEAM pre-assessment report demonstrates that the scheme is targeting 2 credits under Water 01 section which means that the low flush WCs, wash hand

	development at least 2 credits will be achieved under BREEAM Water 01. In order to protect the site for future climate change impacts the Sustainable drainage strategy (SUDS) would be developed to incorporate attenuation for surface water runoff as well as habitat, water quality and amenity benefits.	basin taps and showers will be installed throughout the building. The scheme is also targeting to achieve BREEAM credits for Pol 03 which breaks down to Surface Water Run-Off and minimising water course pollution which is in line with the Sustainable drainage strategy (SUDS). The flood map for planning shows that the site is located **within Zone 1 of the flood risk**. Therefore, the detailed flood risk assessment is not required for the site.
Other	No further comments	No further comments

ENERGY HIERARCHY

Please enter in the tables below carbon reductions for each stage of the energy hierarchy (Baseline, Be Lean, Be Clean, Be Green) and for each development type, following the guidance outlined in the GLA's *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 provide details of their remedial proposals, either to:

1. Retrofit on-site carbon reduction measures with a view to meeting targets, or
2. Implement carbon reduction measures elsewhere in the borough (prior agreement with the Council will be sought)
3. Make a carbon offset payment, where appropriate.

Key targets from approved Energy Statement:

	Commercial New-build (includes major refurbishments assessed under Part L2A)			Residential New-build (includes major refurbishments assessed under Part L1A)			Commercial Refurbishment (assessed under Part L2B)			Residential Refurbishment (assessed under Part L1B)		
	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*
Baseline	425.97	N/A	N/A	-	N/A	N/A	-	N/A	N/A	-	N/A	N/A
Be Lean	355.06	70.91	16.65	-	-	-	-	-	-	-	-	-
Be Clean	-	-	-	-	-	-	-	-	-	-	-	-
Be Green	285.73	69.33	19.53	-	-	-	-	-	-	-	-	-
TOTAL	-	140.24	32.92	-	-	-	-	-	-	-	-	-
Target	-	140.24	25	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A
Shortfall	-	-	-	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A

** reduction calculated against previous stage (except TOTAL, which is calculated against Baseline)*

Pre-implementation (Detailed Design Stage) proposals:

	Commercial New-build (includes major refurbishments assessed under Part L2A)			Residential New-build (includes major refurbishments assessed under Part L1A)			Commercial Refurbishment (assessed under Part L2B)			Residential Refurbishment (assessed under Part L1B)		
	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*	Total tCO2	tCO2 reduction*	% reduction*
Baseline	425.97	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A
Be Lean	355.06	70.91	16.65	-	-	-	-	-	-	-	-	-
Be Clean	-	-	-	-	-	-	-	-	-	-	-	-
Be Green	285.73	69.33	19.53	-	-	-	-	-	-	-	-	-
TOTAL	-	140.24	32.92	-	-	-	-	-	-	-	-	-
Target	-	140.24	25	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A
Shortfall	-	-	-	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A

** reduction calculated against previous stage (except TOTAL, which is calculated against Baseline)*

EVIDENCE:

Pre-implementation (Detailed Design Stage)

	Enclosed? Yes	N/A	Notes:
Copies of SAP/ SBEM worksheets	☒	☐	Please submit SAP/SBEM calculations evidencing the CO2 savings for each stage of the energy hierarchy, including baseline (TER), alongside this report. State which apartments have been sampled (if applicable). Results need to reflect the detailed design of the development.

Title of Submission	Date produced	Author's Name, Organisation & Client
Energy Strategy and BREEAM Pre-Assessment Report	17/04/2020	Suyoung Lee & Umer Uzair Syntegra Consulting Ltd.

Code for Sustainable Homes Design Stage Assessment	☐	☒	This will need to be a Design Stage Assessment. Although the Council is no longer able to condition new housing developments to achieve CfSH certification, applications already committed through S106 to achieving certification will be required to fulfil this obligation.

Title of Submission	Date produced	Author's Name, Organisation & Client
N/A	N/A	N/A

BREEAM Design Stage Assessment and Certificate	☒	☐	Please note: this will need to be the Design Stage Assessment revie and not a copy of the "Pre-Assessment" review. Applicants should also submit Design Stage certificates, or evidence from BRE of submission of this review for certification.

Title of Submission	Date produced	Author's Name, Organisation & Client
Energy Strategy and BREEAM Pre-Assessment Report	17/04/2020	Suyoung Lee & Umer Uzair Syntegra Consulting Ltd.

Technical details/ plans/ drawings of installed CHP and other low/ zero carbon technologies (where relevant)	☐	☒	Please submit details where relevant, as outlined in the S106.

Title of Submission	Date produced	Author's Name, Organisation & Client
N/A	N/A	N/A

CHP Air Quality Assessment	☐	☒	Please follow the Council's guidance on completing air quality assessments outlined in *CPG6*.

Title of Submission	Date produced	Author's Name, Organisation & Client
N/A	N/A	N/A

Decentralised Energy Network connection details.	☐	☒	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 .

Title of Submission	Date produced	Author's Name, Organisation & Client
Energy Strategy and BREEAM Pre-Assessment Report	17/04/2020	Suyoung Lee & Umer Uzair Syntegra Consulting Ltd.

Remedial CO_2 and renewables proposals	☐	☒	Document containing full details of proposals to fulfil approved carbon reduction targets &/or renewable energy targets by: retrofitting on site, measures elsewhere in Borough, or additional offset contribution.

Title of Submission	Date produced	Author's Name, Organisation & Client
Energy Strategy and BREEAM Pre-Assessment Report	17/04/2020	Suyoung Lee & Umer Uzair Syntegra Consulting Ltd.

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

All the details are provided under relevant sections above and the supporting documents have been provided as attachment of this document. The scheme is following the design intent and would like to keep the scheme details as per the planning approval to throughout the construction and if any changes are necessary at the later stage this would be consulted to the council.

I confirm that the information supplied in this Proforma (and supporting evidence) is accurate. I will notify the Council should any of the information contained change. The agreed contents of the Energy Efficiency and Renewable Energy and Sustainability Plan, the information contained in this Proforma and the terms of Section 106 agreement pursuant to the planning permission must be complied with, unless otherwise agreed in writing by the Council.

Signed:	
Print full name:	Umer Uzair
Position:	Director of Energy & Sustainability
Date:	17/04/2020

Please submit to: planningobligations@camden.gov.uk

End of form A (Pre-Implementation)