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:	Highgate Newtown Community Centre, 25 Bertram Street, London, N19 5DQ
Planning Reference:	2018/5774/P
Related Planning References:	Section 106 Agreement
Scheme Description:	Variation of development granted under reference 2016/6088/P dated 30/06/17 for "Redevelopment of the existing Highgate Newtown Community Centre and Fresh Youth Academy and the change of use of the People's Mission Gospel Hall to provide replacement community facilities (Use Class D1) and 31 residential units (Use Class C3) with associated public open space, landscaping, cycle storage, plant and disabled parking." Namely to make the following changes: - Amend the height/bulk and massing, elevations - Increase the number of residential units from 31 to 41 - Include 7 affordable units (intermediate) as opposed to none - Reduce the area of the community facilities, to result in a smaller increase above the existing floorspace - Remove most of the basement - Include the existing right of way on the western side of the site
Person/s undertaking review on behalf of applicant *(include organisation name and registration number)***:**	Ryan Conlan Semple & McKillop Ltd

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
46. Refer to Clause 4.5 within S106 agreement. "Carbon offset fund contribution"	On or prior to Implementation, confirmation that the necessary measures to secure a carbon offset fund contribution (**£39,670**) shall be submitted to and approved in writing by the Local Planning Authority. *Reason: To ensure the proposal is energy efficient and sustainable in accordance with Camden Local Plan policies CC1, CC2, CC3 and CC4.*	*Contribution paid and obligation confirmed as being discharged on 20 August 2020 under LPA ref. S07948-LP00824.*
45. Refer to Clause 4.7 and 4.8 and associated definitions within S106 agreement. "BREEAM"	On or prior to the Implementation Date (excluding demolition and enabling works) an energy and sustainability plan shall be submitted to and approved in writing by the local planning authority. Such plan shall: (a) be based on a Building Research Establishment Environmental Assessment Method assessment with a target of achieving a Very Good or Excellent rating and attaining at least 60% of the credits in each of Energy and Water and 40% of the credits in Materials categories. (b) include a pre-Implementation review by an appropriately qualified and recognised independent verification body certifying that the measures incorporated in the Sustainability Plan are achievable. (c) provide details of the CHP. (d) provide future proofing details of opportunities to connect to a future decentralised energy network. Prior to first occupation of the non-residential elements of the development a post-completion certificate which demonstrates that the employment element has achieved BREEAM Very Good shall be submitted to and approved in writing by the local planning authority.	*Please refer to McBains Energy Strategy Report dated November 2018 (Rev P3) and February 2020 (Rev P5) for further information.*

	Reason: To ensure the proposal is energy efficient and sustainable in accordance with Camden Local Plan policies CC1, CC2, CC3 and CC4.	

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	The reduction of regulated carbon dioxide emissions of the proposed scheme has been estimated as 45.1% across the residential and commercial elements from a Part L 2013 compliant baseline by maximising the contribution at each step of the energy hierarchy. *Please refer to McBains Energy Strategy Report dated November 2018 (Rev P3) for further information.*	The reduction in regulated carbon dioxide emissions of the proposed site-wide scheme has been estimated as 42% under SAP 10 across the residential and commercial elements from a Part L 2013 compliant baseline by maximising the contribution at each step of the energy hierarchy. *Please refer to McBains Energy Strategy Report dated February 2020 (Rev P5) for further information.*
Building fabric u-values and air permeability	<u>New Residential</u> Floor – 0.11 W/m^{2}K External Walls Block A – 0.15 W/m^{2}K Block B – 0.18 W/m^{2}K Roof Block A – 0.11 W/m^{2}K Block B – 0.13 W/m^{2}K Windows – 1.4 W/m^{2}K Ext Doors – 1.4 W/m^{2}K Air tightness – 3 m^2/hr/m <u>Existing Residential</u> Floor – 0.6 W/m^{2}K Ext Walls – 1.8 W/m^{2}K Roof – 0.18 W/m^{2}K Windows – 1.4 W/m^{2}K Doors – 1.4 W/m^{2}K Air tightness – 10 m^2/hr/m	<u>New Residential</u> Floor – 0.11 W/m^{2}K External Walls Block A – 0.15 W/m^{2}K Block B – 0.18 W/m^{2}K Roof Block A – 0.11 W/m^{2}K Block B – 0.13 W/m^{2}K Windows – 1.4 W/m^{2}K Ext Doors – 1.4 W/m^{2}K Air tightness – 3 m^2/hr/m <u>Existing Residential</u> Floor – 0.6 W/m^{2}K Ext Walls – 1.8 W/m^{2}K Roof – 0.18 W/m^{2}K Windows – 1.4 W/m^{2}K Doors – 1.4 W/m^{2}K Air tightness – 10 m^2/hr/m

	Non-Domestic Ext Walls – 0.22 W/m^{2}K Floor– 0.18 W/m^{2}K Roof – 0.14 W/m^{2}K Windows – 1.4 W/m^{2}K Ext Doors – 1.63 W/m^{2}K Air tightness – 3 m^2/hr/m *Please refer to McBains Energy Strategy Report dated November 2018 (Rev P3) for further information.*	Non-Domestic Ext Walls – 0.22 W/m^{2}K Floor – 0.11 W/m^{2}K Floor Hall – 0.18 W/m^{2}K Roof – 0.14 W/m^{2}K Roof Hall – 0.18 W/m^{2}K Windows – 1.5 W/m^{2}K Ext Doors – 1.5 W/m^{2}K Air tightness – 3 m^2/hr/m *Please refer to McBains Energy Strategy Report dated February 2020 (Rev P5) for further information.*
Low carbon technologies	A Combined Heat and Power will be sized to meet approximately 60% of the annual space heating and domestic hot water load of the site wide load. The remaining heating load will be met by high efficiency gas boilers, with individual combi boilers for the 2 no. houses (Block C). Provision of lamps/ luminaires with high efficacy and efficient lighting controls. Provision of mechanical ventilation with heat recovery is to be installed in all dwellings, with a summertime boost function. *Please refer to McBains Energy Strategy Report dated November 2018 (Rev P3) for further information.*	This new design solution is being proposed in the form of ASHP, in place of the original CHP system. This was a requirement from the London Borough of Camden to allow for the use of a low carbon technology reducing the carbon footprint of the development and to be in line with the Draft New London Plan (that should be published in March 2020). Provision of lamps/ luminaires with high efficacy and efficient lighting controls. Provision of mechanical ventilation with heat recovery with summer bypass within residential and non-domestic areas. *Please refer to McBains Energy Strategy Report dated February 2020 (Rev P5) for further information.*
Renewable energy targets	Installation of Photovoltaic array (24.8kWp) to contribute towards the electrical load of the development. *Please refer to McBains Energy Strategy Report dated November 2018 (Rev P3) for further information.*	Installation of Photovoltaic array (24.8kWp) to contribute towards the electrical load of the development. *Please refer to McBains Energy Strategy Report dated February 2020 (Rev P5) for further information.*
Decentralised energy network connection	Connecting to a district heating network was the first option assessed. As no suitable heat network currently exists, nor plans confirmed in terms of future network routes, the next priority in Policy 5.6 of the London Plan (MALP) 2016 to be assessed is to install a Combined Heat and Power (CHP) unit.	The new proposed design solution does not include a connection to a District Heating Network nor the installation of an on-site CHP system. *Please refer to McBains Energy Strategy Report dated February 2020 (Rev P5) for further information.*

	Please refer to McBains Energy Strategy Report dated November 2018 (Rev P3) for further information.	
Metering, monitoring and management	Mechanical Metering systems will be provided to record heat, water and gas consumption. The main site gas meter shall have a pulsed output and be linked to the BEMS. The community centre will be provided with metering systems to meet the BREEAM credits requirements. Electrical Each residential unit and commercial unit shall be individually metered, and separate three-phase Landlords service meters shall be provided in each Block. Sub metering of significant plant shall be provided to all Electrical and Mechanical systems to comply with BREEAM Ene 2 and Ene 3 requirements. To comply with Part L and BREEAM requirement's landlord electrical supplies feeding mechanical plant and Block A and D communal area distribution boards will be provided with electrical multi-meters connected to the BEMS to allow energy monitoring and compliance with BREEAM requirements. *Please refer to McBains Energy Strategy Report dated November 2018 (Rev P3) for further information.*	Mechanical Metering systems will be provided to record heat, water and gas consumption. The main site gas meter shall have a pulsed output and be linked to the BEMS. The community centre will be provided with metering systems to meet the BREEAM credits requirements. Electrical Each residential unit and commercial unit shall be individually metered, and separate three-phase Landlords service meters shall be provided in each Block. Sub metering of significant plant shall be provided to all Electrical and Mechanical systems to comply with BREEAM Ene 2 and Ene 3 requirements. To comply with Part L and BREEAM requirement's landlord electrical supplies feeding mechanical plant and Block A and D communal area distribution boards will be provided with electrical multi-meters connected to the BEMS to allow energy monitoring and compliance with BREEAM requirements. *Please refer to McBains Energy Strategy Report dated February 2020 (Rev P5) for further information.*
Code for Sustainable Homes - **Overall % + Rating** - **% credits Energy** - **% credits Water** **% credits Materials**	N/A	N/A
BREEAM - **Overall % + Rating** - **% credits Energy** - **% credits Water**	BREEAM Overall % + Rating = 73.48% % credits Energy = 73.9% % credits Water = 100.0%	BREEAM Overall % + Rating = 73.48% % credits Energy = 73.9% % credits Water = 100.0% % credits Materials = 46.2%

- **% credits Materials**	% credits Materials = 46.2%	*Please refer to BREEAM Pre Assessment Review – HNCC (Rev 8) Dated 17.01.2019*
Materials, sourcing and waste	Materials for the development will be selected in consideration of the Green Guide to Specification. The development will target ≥ 70% by tonnage of construction waste to be diverted from landfill.	Materials for the development will be selected in consideration of the Green Guide to Specification. The development will target ≥ 70% by tonnage of construction waste to be diverted from landfill.
Green infrastructure	Inclusion of green roofs (684m^2) and areas of planting will aid in microclimatic passive cooling for the proposed buildings and the immediate area surrounding the site.	Inclusion of green roofs (684m^2) and areas of planting will aid in microclimatic passive cooling for the proposed buildings and the immediate area surrounding the site.
Water efficiency and SuDS	The development shall achieve a maximum internal water use of 105 l/p/day, allowing 5 l/p/day for external water use. A Sustainable Drainage Strategy has been produced for the proposals. This provides a drainage strategy for the entire site that will provide attenuation up to and including the 1 in 100 year plus a 30% allowance for climate change storm event.	The development shall achieve a maximum internal water use of 105 l/p/day, allowing 5 l/p/day for external water use. A Sustainable Drainage Strategy has been produced for the proposals. This provides a drainage strategy for the entire site that will provide attenuation up to and including the 1 in 100 year plus a 30% allowance for climate change storm event.
Other	N/A	

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:

Information from McBains Energy Strategy Report dated November 2018 (Rev P3)

	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	22	N/A	N/A	48.98	N/A	N/A		N/A	N/A	13.76	N/A	N/A
Be Lean	25.4	-3.4	-15.4	46.19	2.79	5.7%				N/A	N/A	N/A
Be Clean	15.4	10.0	39.3	31.61	14.58	31.5%				8.97	4.79	34.8
Be Green	14.4	1.00	6.4	24.58	7.03	22.2%				N/A	N/A	N/A
TOTAL	14.4	7.6	35	24.58	24.4	49.81				8.97	4.79	34.8
Target	N/A	7.6	35.0	N/A	48.98	100.0	N/A	N/A	N/A	N/A	N/A	N/A
Shortfall	N/A	-	-	N/A	24.58	50.19	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:

Information from McBains Energy Strategy Report dated February 2020 (Rev P5)

	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	20	N/A	N/A	40	N/A	N/A		N/A	N/A	40	N/A	N/A
Be Lean	20	0	0	38	2	6				38	2	6
Be Clean	20	0	0	38	0	0				38	0	0
Be Green	13	7	0	22	15	39				22	15	39
TOTAL	13	7	35	422	18	45				22	18	45
Target	N/A	-	-	N/A	-	-	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	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 Report	November 2018	Giuseppe Siracusa, McBains, London Borough of Camden
Energy Strategy Report	February 2020	Claudia Cioli, McBains, London Borough of Camden

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

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
BREEAM – Pre-Assessment Review (Rev 8)	17.01.2019	Lucila Porthe, McBains, London Borough of Camden

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

carbon technologies
(where relevant)

Title of Submission	Date produced	Author's Name, Organisation & Client
Energy Strategy Report	November 2018	Giuseppe Siracusa, McBains, London Borough of Camden
Energy Strategy Report	February 2020	Claudia Cioli, McBains, London Borough of Camden
Specification	December 2019	Ed Bowditch, McBains, London Borough of Camden

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

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

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 Report	November 2018	Giuseppe Siracusa, McBains, London Borough of Camden

Energy Strategy Report	February 2020	Claudia Cioli, McBains, London Borough of Camden
Specification	December 2019	Ed Bowditch, McBains, London Borough of Camden

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

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:	Ryan Conlan
Position:	Senior Building Services Engineer
Date:	26.01.2021

Please submit to: planningobligations@camden.gov.uk

End of form A (Pre-Implementation)

London Borough of Camden

Energy Efficiency and Renewable Energy and Sustainability Plan

S106 Pro-forma – Part B Post Completion

(To be completed and submitted for approval prior to occupation)

S106 CLAUSE DETAILS

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

S106 clause no.	S106 clause wording	Summary of performance

BUILDING SPECIFICATION TARGETS

Key targets from approved Energy and Sustainability Statements:

Please outline in the table below the key targets from the Energy and Sustainability Statements submitted at Full Planning stage, and summarise how the as-built building 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	Post completion (Post Construction Stage): performance against targets
Carbon reduction targets		
Building fabric u-values and air permeability		

Low carbon technologies		
Renewable energy targets		
Decentralised energy network connection		
Metering, monitoring and management		
Code for Sustainable Homes - **Overall % + Rating** - **% credits Energy** - **% credits Water** **% credits Materials**		
BREEAM rating - **Overall % + Rating** - **% credits Energy** - **% credits Water** **% credits Materials**		
Materials, sourcing and waste		
Green infrastructure		
Water efficiency and SuDS		
Other		

Post-Completion (Post Construction Stage) results:

Please enter in the tables below the 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 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 provide details of their remedial proposals 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)
3. Make a carbon offset payment, where appropriate.

	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		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A
Be Lean												
Be Clean												
Be Green												
TOTAL												
Target							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)*

Post Completion (Post Construction Stage) Review

	Enclosed? Yes	No	**Notes:**
Copies of SAP/ SBEM worksheets	☐	☐	Please submit SAP/SBEM calculations evidencing the CO_2 savings for each stage of the energy hierarchy, including baseline (TER), alongside this report. Please provide details of which apartments have been sampled (if applicable). Results will need to reflect the actual constructed building.

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

Code for Sustainable Homes Post Construction Assessment and Certificate	☐	☐	This will need to be the final Post Construction Stage Assessment review and certificate. 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.

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

BREEAM Post Construction Assessment and Certificate	☐	☐	This will need to be the Post Construction Assessment review and not a copy of the “Pre-Assessment” or “Design Stage” review. Applicants should also submit Post Construction Stage certificates, or evidence from BRE of submission of this review for certification

Title of Submission	Date produced	Author’s Name, Organisation & Client

Technical details/ plans/ drawing of installed CHP and other low/ zero carbon technologies (where relevant)	☐	☐	Please provide confirmation/ evidence that approved measures have been implemented.

Title of Submission	Date produced	Author’s Name, Organisation & Client

Decentralised Energy Network connection details.	☐	☐	Please provide confirmation/ evidence that approved measures have been implemented.

Title of Submission	Date produced	Author’s Name, Organisation & Client

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

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:	
Position:	
Date:	

Please submit to: planningobligations@camden.gov.uk

End of form – B (Post Completion)