



## Sustainability Statement

36 Lancaster Grove

For Nicholas Taylor and Associates

February 2016

---

XCO2 energy

w: [www.xco2energy.com](http://www.xco2energy.com) :: e: [mail@xco2energy.com](mailto:mail@xco2energy.com)

t: +44 (0) 20 7700 1000 :: f: +44 (0) 20 7183 6620

17-18 Hayward's Place :: Clerkenwell :: London :: EC1R 0EQ

## Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>Site .....</b>	<b>5</b>
<b>Planning Policies .....</b>	<b>6</b>
Camden Core Strategy 2010	6
Camden Development Policies 2010	7
Camden Planning Guidance - Sustainability CPG3 - 2013	8
The London Plan 2015	9
<b>Sustainability Standards.....</b>	<b>10</b>
<b>BREEAM Domestic Refurbishment Pre-Assessment.....</b>	<b>11</b>
<b>Credits not applicable for a Listed Building .....</b>	<b>16</b>
BREEAM Domestic Refurbishment Pre-Assessment Results	17

## About us:

XCO2 Energy are a low-carbon consultancy working in the built environment. We are a multi-disciplinary company consisting of engineers, environmental experts and architects, 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			
Prepared by	DB			
Checked by	SP			
Authorised by	RM			
Date	02/02/2016			
Project reference	8612			



# Sustainability Statement

## Executive Summary

This report outlines the sustainability strategy for the proposed development of 36 Lancaster Grove in line with the requirements set out by the London Plan and the Royal Borough of Camden.

This sustainability statement is divided into two parts:

- Policy and Sustainability Standards
- BREEAM Domestic Refurbishment

The first part provides an overview of the site and planning policies applicable to this development in the Royal Borough of Camden and the London Plan. The report then demonstrates how the policies have been met.

The body of this report outlines the sustainability measures that have been adopted in the team's aim to achieve BREEAM Domestic Refurbishment compliance for the proposed development. A summary of the pre-assessment credits for BREEAM Domestic Refurbishment is provided at the end of the report.

As the proposed development comprises the refurbishment of an existing Listed Building, the design team has aim to preserve the appearance and character, both internally and externally, of the building as far as possible. Therefore, it is not considered feasible to provide insulation to the existing external elements, and carry out extensive works to the existing windows and internal walls.

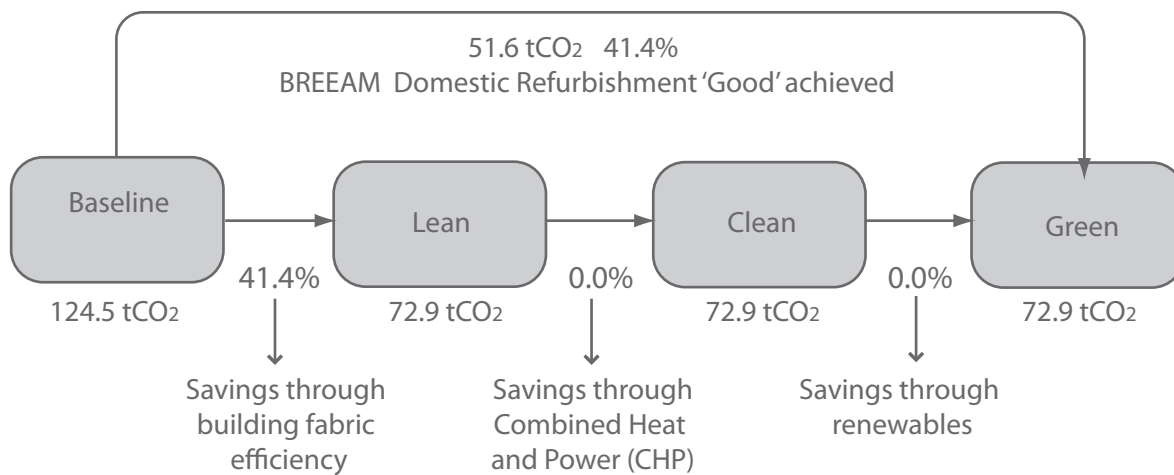
Through the provision of a range of sustainability measures, it is anticipated that the proposed development at 36 Lancaster Grove will achieve a maximum of 55.91 credits, whilst meeting all mandatory credits for BREEAM Domestic Refurbishment 'Good'. Although this fall short of Camden's Council's Target of BREEAM 'Excellent', it is considered to be a significant achievement for a Grade II Listed Building within a Conservation Area where the scope for alterations to the existing building is very limited.

The diagram in the following page provides a summary of the CO<sub>2</sub> savings achieved by the proposed development over the building with existing fabric and systems properties. The 41.4% reduction in CO<sub>2</sub> 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 BREEAM credits (e.g. plug-in load and appliances).

In summary, the proposed development aims to meet the sustainability requirements set by Camden Council and the London Plan as far as feasible. The number of credits obtained in the BREEAM Domestic Refurbishment pre-assessment reflects the client and design team's aspirations in incorporating as many sustainability measures as possible, considering the constraints of a Listed Building.



**Total savings over part L 2013 Building regulations Baseline**  
(savings based on regulated energy only in accordance with Part L)



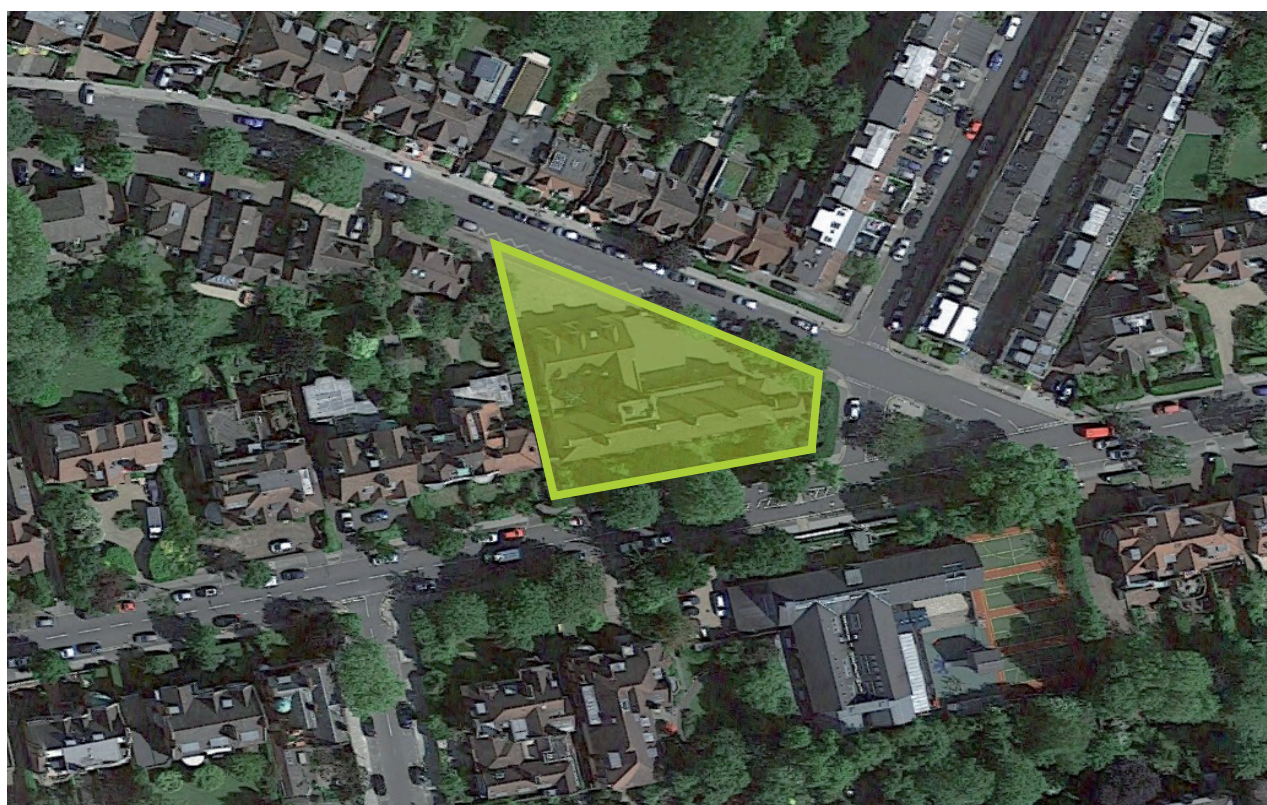
# Sustainability Statement

## Site

The proposed site is located between Lancaster Grove Road, Lambolle Place and Eton Avenue within the London Borough of Camden, just north of Primrose Hill.

The proposed scheme comprise the change of use, refurbishment and extension of the Grade II Listed former Belsize Park Fire Station Building into 12 units of apartment accommodation. The existing 7 units of residential accommodation will not form part of this application.

The approximate site location and boundary is shown in the figure below.



 Approximate site location of 36 Lancaster Grove

# Sustainability Statement

## Planning Policies

This report outlines the sustainability related strategies and policies for the proposed development at 36 Lancaster Grove, as set out by the London Borough of Camden's planning documents as well as the London Plan 2015 (further alterations to the London Plan).

## Camden Core Strategy 2010

The Camden Core Strategy sets out the Council's key planning policies and is a central part of their Local Development Framework (LDF). The pertinent sustainability excerpts are 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.

#### Water and surface water flooding

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

- 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.

### CS13 – Dealing with our waste and encouraging recycling

The Council will seek to make Camden a low waste borough. We will:

- b) make sure that developments include facilities for the storage and collection of waste and recycling.

Camden Core Strategy  
2010-2025

Local Development Framework





# Sustainability Statement

## Camden Development Policies 2010

In addition to the Core Strategy Document the Camden Development Policies 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 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:

- d) expecting developments (except new build) of 500 sqm 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;

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.

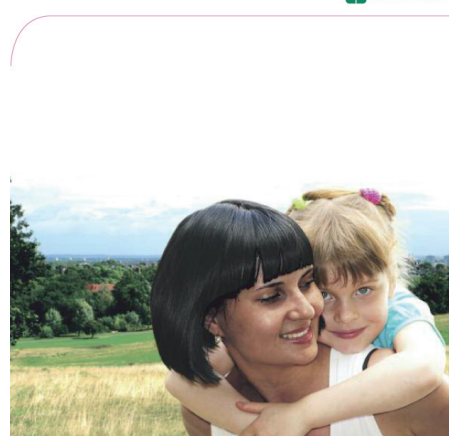
### DP23 – Water

The Council will require developments to reduce their water consumption, the pressure on the combined sewer network and the risk of flooding by:

- a) incorporating water efficient features and equipment and capturing, retaining and re-using surface water and grey water on-site;
- b) limiting the amount and rate of run-off and waste water entering the combined storm water and sewer network through the methods outlined in part a) and other sustainable urban drainage methods to reduce the risk of flooding;
- c) reducing the pressure placed on the combined storm water and sewer network from foul water and surface water run-off and ensuring developments in the areas identified by the North London Strategic Flood Risk Assessment and shown on Map 2 as being at risk of surface water flooding are designed to cope with the potential flooding;
- d) ensuring that developments are assessed for upstream and downstream groundwater flood risks in areas where historic underground streams are known to have been present; and
- d) encouraging the provision of attractive and efficient water features.

Camden Development Policies  
2010-2025

Local Development Framework



# Sustainability Statement

## Camden Planning Guidance - Sustainability CPG3 - 2013

The Camden Planning Guidance support the policies set out in the Local Development Framework (LDF). While 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 be covered by a combination of the Sustainability Statement and accompanying Energy Statement are listed below:

### The energy hierarchy

*All new developments are to be designed to minimise carbon dioxide emissions by being as energy efficient as is feasible and viable.*

### Energy efficiency: existing buildings

- *All buildings, whether being updated or refurbished, are expected to reduce their carbon emissions by making improvements to the existing building. Work involving a change of use or an extension to an existing property is included. As a guide, at least 10% of the project cost should be spent on the improvements.*

- *Development involving a change of use or a conversion of 5 or more dwellings or 500sq m of any floorspace, will be expected to achieve 60% of the un-weighted credits in the Energy category in their EcoHomes or BREEAM assessment, whichever is applicable. (See the section on Sustainability assessment tools for more details).*

- *Special consideration will be given to buildings that are protected e.g. listed buildings to ensure that their historic and architectural features are preserved.*

### Decentralised energy networks and combined heat and power

*Development should follow the Energy Hierarchy*

1. *use less energy*
2. *supply energy efficiently*
3. *use renewable energy*

### Renewable Energy

*All developments are to target at least a 20% reduction in carbon dioxide emissions through the installation of on-site renewable energy technologies. Special consideration will be given to heritage buildings and features to ensure that their historic and architectural features are preserved.*

### Water Efficiency

*The Council expects all developments to be designed to be water efficient by minimising water use and maximising the re-use of water. This includes new and existing buildings.*

### Sustainable use of materials

*Major developments are anticipated to be able to achieve 15-20% of the total value of materials used to be derived from recycled and reused sources.*

### Sustainability assessment tools

*Developments are anticipated to be able to achieve BREEAM 'Excellent' from 2013 onwards and at least 60% of Energy and Water credits and 40% of Materials credits.*

### Brown roofs, green roofs and green walls

*The Council will expect all developments to incorporate brown roofs, green roofs and green walls unless it is demonstrated this is not possible or appropriate. This includes new and existing buildings. Special consideration will be given to historic buildings to ensure historic and architectural features are preserved.*

### Flooding

*Developments must not increase the risk of flooding, and are required to put in place mitigation measures where there is known to be a risk of flooding.*

### Adapting to climate change

*All development is expected to consider the impact of climate change and be designed to cope with the anticipated conditions.*





# Sustainability Statement

## The London Plan 2015

The London Plan March 2015 (further alterations to the London Plan) requires compliance with the following policies relating to climate change:

- Policy 5.2 Minimising Carbon Dioxide Emissions (refer to the supplementary Energy Report)
  - *Development proposals should make the fullest contribution to minimising carbon dioxide emissions in accordance with the following energy hierarchy:*
    - 1 Be lean: use less energy
    - 2 Be clean: supply energy efficiently
    - 3 Be green: use renewable energy
  - *The Mayor will work with boroughs and developers to ensure that major developments meet a 40% carbon dioxide emissions reduction in buildings. These targets are expressed as minimum improvements over the Target Emission Rate (TER) outlined in the national Building Regulations leading to zero carbon residential buildings from 2016 and zero carbon non-domestic buildings from 2019.*

The GLA update of the London Plan (April 2014) states that a 35 per cent carbon reduction target beyond Part L 2013 of the Building Regulations will be required for major developments - this is deemed to be broadly equivalent to the 40 per cent target beyond Part L 2010 of the Building Regulations, as set out in London Plan Policy 5.2 above. Compliance with the following relevant London Plan policies are addressed within sections found later in this report.

- Policy 5.2 Minimising Carbon Dioxide Emissions
- Policy 5.3 Sustainable Design and Construction
- Policy 5.5 Decentralised Energy Networks
- Policy 5.6 Decentralised Energy in Development proposals
- Policy 5.7 Renewable Energy where feasible.
- Policy 5.9 Overheating and Cooling
- Policy 5.11 Green Roofs and Development site Environs

- Policy 5.12 Flood Risk Management
- Policy 5.13 Sustainable Drainage
- Policy 5.15 Water use and Supplies
- Policy 5.18 Construction, Excavation and Demolition Waste

The proposed refurbishment at 36 Lancaster Grove qualifies as a major development, thus the design team have endeavoured to reduce CO<sub>2</sub> emissions on site through the use of energy efficient building fabric, construction and materials in line with the London Plan target.



MARCH 2015



# Sustainability Statement

## Sustainability Standards

### BREEAM Domestic Refurbishment

BREEAM Domestic Refurbishment is a performance based assessment method and certification scheme for domestic buildings undergoing refurbishment, providing an authoritative rating for refurbished homes, covering houses, flats and apartments. It also recognises limitations of existing buildings including their inherent built form and location. Since June 2012, BREEAM Domestic Refurbishment has superseded the EcoHomes assessment method.

BREEAM Domestic Refurbishment measures the sustainability of a development against design categories, rating the entire development as a complete package. Each standard requires developments to gain credits by meeting sustainable design principles over seven key areas:

1. Management
2. Health and Wellbeing
3. Energy
4. Water
5. Materials
6. Waste
7. Pollution

The London Borough of Camden requires refurbishments and conversions to achieve a minimum of BREEAM Domestic Refurbishment 'Excellent', with 60% of the unweighted credits achieved in the energy, water and 40% in the material categories.

As the proposed development comprise the refurbishment of an existing Listed Building, the design team has aimed to preserve the appearance and character, both internally and externally, of the building as far as possible. Therefore, it is not considered feasible to provide insulation to the existing external elements, and carry out extensive works to the existing windows and internal walls. As such, a number of the credits were deemed not achievable for the proposed scheme at 36 Lancaster Grove.

The following section outlines the measures the will be adopted at 36 Lancaster Grove to achieve BREEAM Domestic Refurbishment compliance, reflecting the client and design team's aspirations in incorporating appropriate sustainability measures as far as possible. The credits that were considered to be not possible to achieve are discussed in the subsequent section.



## Sustainability Statement

### BREEAM Domestic Refurbishment Pre-Assessment

#### Management

##### MAN 1 Home User Guide

A 'Home User Guide' will be made available to the dwelling providing occupants with an understanding of the energy associated with the operation of their home. This non-technical guide will include operational instructions, recommendations on improving energy use and information on the surrounding area (local amenities) to obtain full credits in this section.

##### MAN 2 Responsible Construction Practices

The tender specification will require contractors to be compliant with the Considerate Constructors Scheme (CCS) (or compliant alternative). Additional credits have been awarded as it is expected that formal certification will be achieved and that contractors will operate to 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 reduction of CO<sub>2</sub> arising and from site activities in respect to energy and water.

##### MAN 5 Protection and Enhancement of Ecological Features

An ecological survey will be carried out to confirm the presence of ecological features. As the site only includes the existing building itself, the site is likely to be considered to have limited features of ecological value. However, All of the general ecological recommendations made by the suitably qualified ecologist will be adopted.

##### MAN 6 Project Management

The project manager will write a project implementation plan and assigns individual and shared responsibilities across the following key design and refurbishment stages. Upon completion

of the refurbishment works, a handover meeting will be carried out, with a site inspection undertaken within 3 month of occupation. Post occupancy interviews with building occupants will also be conducted within 3 months of occupation.

#### Health and Wellbeing

##### HEA 5 Ventilation

The minimum ventilation levels set out in Sections 5 and 7 of Building Regulations Approved Document Part F will be provided for all habitable rooms, kitchens, utility rooms and bathrooms.

##### HEA 6 Safety

Carbon monoxide detection systems will be installed as part of the refurbishment and extension. A compliant fire detection and alarm system will also be provided.



# Sustainability Statement

## Energy

### ENE 1 Improvement in Energy Efficiency Rating (EER)

The Energy Efficiency Rating (EER) is a measure of the overall efficiency of a dwelling. It accounts for regulated energy use in terms of heating, hot water, equipment, lighting and auxiliary energy use.

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).

A preliminary SAP calculation was carried out to assess the potential CO<sub>2</sub> savings achieved through energy efficiency measures.

The preliminary SAP calculation for the proposed development at 36 Lancaster Grove showed a reduction in energy demand in comparison to an existing building. The SAP calculation results indicate that the EER will increase by a minimum of 25 for the proposed development.

### ENE 2 Energy Efficiency Rating (EER) Post Refurbishment

Reduction in energy demand of the proposed dwelling will be achieved through the use of well insulated external building elements and high performance glazing for the new build elements of the development, use of efficient lighting throughout the dwelling, and installation of energy efficiency heating system.

SAP calculations show that an area averaged EER of 55 will be achieved for 36 Lancaster Grove, which achieves the BREEAM Mandatory target for a 'Good' rating.

### ENE 3 Primary Energy Demand

An area averaged primary energy demand of less than 348 kWh/m<sup>2</sup>/year will be achieved after refurbishment works are carried out for the development at 36 Lancaster Grove.

### ENE 5 Energy Labelled White Goods

The development at 36 Lancaster Grove 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, washing machines and dishwashers - Energy Saving Trust recommended appliances
- Tumble dryers or washer dryers - B rating under EU Energy Efficiency

### ENE 6 Drying Space

The proposed refurbishment will include provisions for clothes drying, thereby reducing the amount of electricity consumed through the use of tumble dryers. The dwelling will include at least 6m of internal or external retractable drying lines for the 3 bedroom dwellings and 4m for the 1-2 bedroom dwellings.

### ENE 7 Lighting

External - Energy efficient light fittings will be installed in the external spaces. Existing external lighting will also meet the compliance requirements. 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.

The energy required for internal lighting will be minimised through the provision of maximum average wattage across the total floor area of the dwelling of 9 watts/m<sup>2</sup>.



## Sustainability Statement

### ENE 8 Energy Display Devices

Energy display devices will be installed in 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 device will provide information on current electricity and primary heating consumption data, as well as be capable of recording consumption data.

### ENE 9 Cycle Storage

22 no. cycle storage spaces will be provided within the development for the occupants, in order to reduce the frequency of short car journeys. The cycle storage space will be adequately sized, secure and accessible to all residents.

### ENE 10 Home Office

The proposed development will allow for a home office space in an appropriate room comprising:

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

## Water

### WAT 1 Internal Water Use

The water category aims to reduce the consumption of potable water in the home from all sources. These are mandatory credits within BREEAM Domestic Refurbishment, with BREEAM 'Excellent' setting an upper limit of 117 litres per person per day. Water efficiency sanitary fittings will be provided to the proposed dwellings to meet this target.

### WAT 3 Water meter

A water meter providing visual display of mains potable water consumption will be installed at a secure and visible location within the dwelling. The water meters will be capable of recording and displaying historical water consumption, and allowing occupants to monitor their water consumption over time. The meter will also be able to display current consumption either instantaneously or at half hourly intervals.





# Sustainability Statement

## 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 due to a large proportion of the building being retained, the majority of the main building elements will achieve an A+ to C rating.

### MAT 2 & MAT 3 Responsible Sourcing of Materials and Insulation

The principle contractor sources materials for the project in accordance with a documented sustainable procurement plan.

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.



Responsibly sourced timber

Where possible, on-site materials will be reused and recycled to lower transport CO<sub>2</sub> emissions associated with off-site recycling. Where practicable, materials with a high recycled or waste content will be specified.

The Insulation Index for new insulation used in the building is greater than 2, Green Guide ratings determined using the Green Guide to specification tool. All insulation used will be responsibly sourced (with ISO14001 or BES6001 certificates)

## Waste

### WAS 1 Household Waste

- Recyclable: A Local Authority Collection Scheme will be in operation for the collection of mixed recyclable household waste, at least 30 litres of storage space for recycling will be provided internally at a dedicated position in the kitchen.
- Camden Council provides a food waste collection service. A food waste collection bin will be provided as part of the communal waste store.

### WAS 2 Refurbishment Site Waste

A Compliant Level 2 SWMP is produced (depending on value of project) which includes:

- Procedures and commitments for minimising non-hazardous construction waste
- Procedures for sorting, reusing and recycling construction waste into key defined waste groups
- License details for the waste carrier, and permit details for the site the waste is taken to, if waste is removed offsite.
- The name/job title of the individual responsible for implementing the above.



# Sustainability Statement

## Pollution

### POL 1 NOx Emissions

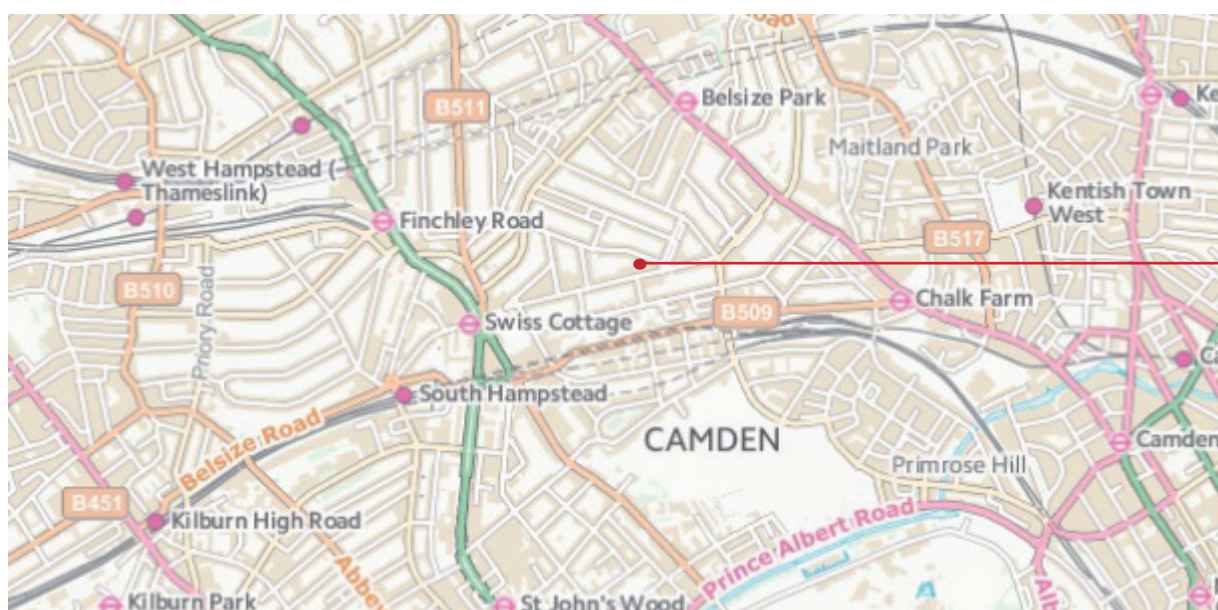
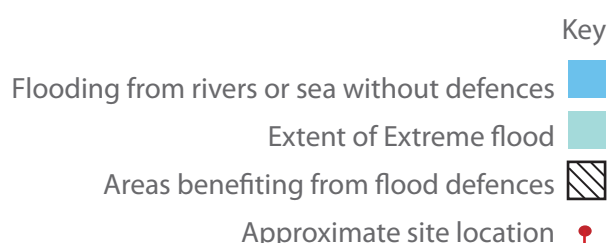
The section aims to reduce the release of nitrogen oxide (NOx) into the atmosphere. Space heating and hot water requirements of the dwellings will be met by a high efficiency gas boiler with low inherent NOx emissions. Gas boiler with NOx emissions of less than 40 mg/kWh will be specified.

### POL2 Surface Water Runoff

A drainage consultant will be appointed to confirm that additional permeable area for run-off must be managed on site.

### POL3 Flooding

The Environment Agency flood map below shows the site to be at low risk of flooding.



EA Flood Map - showing site located within area of low flood risk from seas and rivers

## Credits not applicable for a Listed Building

### Management

#### MAN 4 Security

As the former Belsize Park Fire Station is a Grade II Listed Building located within the Belsize Park conservation area, all of the existing facades, roof, windows and floors will be retained and re-used as far as possible to maintain the character of the existing building. The existing external doors and windows will not be able to meet minimum security standards to be appropriately certified. Nevertheless, design considerations will be taken to increase the level of security of the site as far as feasible without any significant alterations to the appearance of the building.

### Health and Wellbeing

#### HEA 1 Daylighting

All of the existing facades and windows will be retained and re-used as far as possible, and it is not considered feasible to alter the areas of any openings. Although the development will not be able to achieve the credit criteria in Hea01, daylight levels within the dwellings have been well considered through minimising internal partitions within the dwellings and the provision of shallow rooms where possible.

#### HEA 2 Sound Insulation

Sound insulation improvements - particularly for existing mews and main houses will not be feasible since the development is a Grade II Listed Building which requires the existing appearance of the external facades and internal walls to be retained.

### Energy

#### ENE 1, ENE 2, ENE 3 Energy Efficiency (EER)

The measures to improve energy efficiency of the building as part of the refurbishment works are limited to the implementation of 100% energy efficient lighting, a new heating and hot water system for each dwelling, as well as the provision of good insulation levels to the new thermal elements.

As such, it will not be technically feasible to achieve any further credits than what has currently been assumed in the BREEAM pre-assessment for these categories, and that it will not be possible to achieve the targeted 60% of the unweighted credits in the Energy Section as set out by Camden Council. Nevertheless, the proposed development is expected to reduce CO<sub>2</sub> emissions by 41.4% when compared to the existing building, which is significant saving for a refurbishment scheme of this nature.

#### ENE 4 Renewable Technologies

It is not considered appropriate to provide roof mounted renewable technologies or wind turbines at the proposed Listed Building within a Conservation Area. Air source heat pumps are likely to result in acoustic issues, and ground source heat pump are not deemed to be technically and financially feasible for the scheme.

### Water

#### WAT 2 External Water Use

It was not considered appropriate to provide a rainwater collection tank to the proposed development as it will impact on the external appearance of the building. The proposal will result in no change in impermeable areas and therefore will have no negative impact to surface water drainage of the local area.

# Sustainability Statement

## BREEAM Domestic Refurbishment Pre-Assessment Results

A BREEAM Domestic Refurbishment pre-assessment was carried out for the proposed development at 36 Lancaster Grove using the targets set by the client and project team. The table below summarises the number of credits achieved for the dwelling in each of the BREEAM categories, using the BRE Pre-Assessment Estimator.

The development at 36 Lancaster Grove achieves a total of 55.91 credits, which falls short of meeting

BREEAM 'Excellent' and 60% of the unweighted credits in the Energy Category for the various reasons outlined in the previous section. However, every effort was made by the client's and project team in adopting a range of sustainability measures over the life-cycle of the development, and that at least 60% of the water credits and 40% of the material credits are met, which is in line with Camden's policy.

				Score Assessment		
9 Elm Park Road		Credit Score	Credits Available	Sub Total	Weighting Factor	Points Score
Management	MAN 1 Home User Guide	3	3	9	12%	9.82
	MAN 2 Responsible Construction Practices	2	2			
	MAN 3 Construction Site Impacts	1	1			
	MAN 4 Security	0	2			
	MAN 5 Protection & Enhancement of Ecological Features	1	1			
	MAN 6 Project Management	2	2			
Health & Wellbeing	HEA 1 Daylighting	0	2	2	17%	2.83
	HEA 2 Sound Insulation	0	4			
	HEA 3 Volatile Organic Compounds	0	1			
	HEA 4 Inclusive Design	0	2			
	HEA 5 Ventilation	1	2			
	HEA 6 Safety	1	1			
Energy	ENE 1 Improvement in Energy Efficiency Rating	2.5	6	14.5	43%	21.50
	ENE 2 Energy Efficiency Rating Post Refurbishment	1	4			
	ENE 3 Primary Energy Demand	1	7			
	ENE 4 Renewable Technologies	0	2			
	ENE 5 Energy Labelled White Goods	2	2			
	ENE 6 Drying Space	1	1			
	ENE 7 Lighting	2	2			
	ENE 8 Display Energy Devices	2	2			
	ENE 9 Cycle Storage	2	2			
	ENE 10 Home Office	1	1			
Water	WAT 1 Internal Water Use	2	3	3	11%	6.60
	WAT 2 External Water Use	0	1			
	WAT 3 Water Meter	1	1			
Materials	MAT 1 Environmental Impact of Materials	20	25	34	8%	5.67
	MAT 2 Responsible Sourcing	6	15			
	MAT 3 Insulation	8	8			
Waste	WAS 1 Household Waste	2	2	5	3%	3.00
	WAS 2 Refurbishment Site Waste Management	3	3			
Pollution	POL 1 NOx Emissions	3	3	6	6%	4.50
	POL 2 Surface Water Runoff	1	3			
	POL 3 Flooding	2	2			
Innovation		2	10			2.00
Level Achieved:		Good		Total Point Scored: 55.91		

