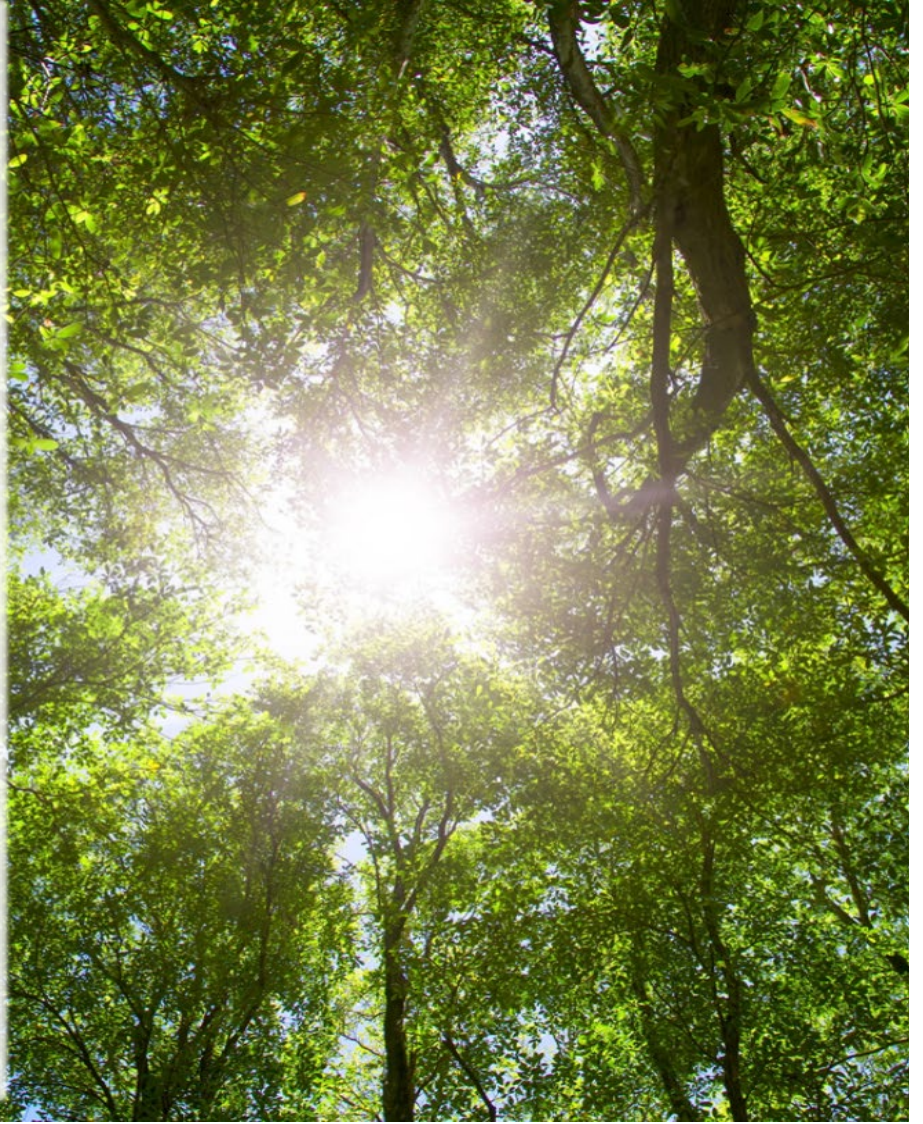


52 Tottenham Street, Camden

Sustainability Statement

**Ensphere Group Ltd on behalf of
Flower Island (UK) Ltd**



Ensphere Group Ltd
52 Grosvenor Gardens
London, SW1W 0AU
+44 (0) 20 7846 9040
www.enspheregroup.com



52 Tottenham Street, Camden

Sustainability Statement

Client Name: Flower Island (UK) Ltd

Document Reference: 19-E007-002

Project Number: 19-E007

Quality Assurance Approval Status

This document has been prepared and checked in accordance with Ensphere Group Ltd's Quality Management System.

Issue:	Version:	Prepared by:	Reviewed by:	Date:
Final	V6	Pete Jeavons	Pete Jeavons	June 2020

Sustainability	Energy	Climate Change	Socio-Economic
----------------	--------	----------------	----------------

Contents

1.	Executive Summary.....	1
2.	Introduction.....	2
3.	Assessment Methodology	3
4.	Planning Context	5
5.	Site Context.....	10
6.	Sustainable Design Proposals.....	13
7.	Sustainable Construction Proposals.....	16
8.	Summary	18

Appendices

A.	Site Plans	20
B.	Key Local Planning Policy Requirements	22
C.	General Notes	33

1. Executive Summary

- 1.1 This Sustainability Statement presents the sustainability credentials for a proposed scheme at 52 Tottenham Street, London, W1T 4RN.
- 1.2 Development proposals include the redevelopment of the site to residential flats with commercial space. At a strategic level, the development of residential will assist with addressing the supply side housing shortages and will improve affordability. The development of commercial uses will provide employment for local people, improve the local economy, increase the wealth and lifestyle of employed individuals and contribute to local business rates.
- 1.3 A range of sustainable design features are proposed and construction will be responsibly managed to ensure minimal impact on the environment and local community. The energy strategy was developed in line with the Energy Hierarchy; with a priority given to energy reduction and efficiency.
- 1.4 Overall, the proposals for the scheme are in line with the overarching principles of sustainable development as well as the policy requirements of the planning authority.

2. Introduction

- 2.1 Ensphere Group Ltd was commissioned by Flower Island (UK) Ltd to produce a Sustainability Statement for the proposed redevelopment at 52 Tottenham Street, Camden.

Site and Surroundings

- 2.1 The Application Site (“the Site”) is located on Tottenham Street, a connecting road between two much busier streets; Cleveland Street to the west and Charlotte Street to the east.
- 2.2 The Site is currently occupied by a four storey building, which was once part of a row of terrace houses.

Proposed Development

- 2.3 Development proposals include the *redevelopment of the site, following demolition of the existing building, to provide a mixed use development comprising ground floor affordable workspace (Class B1), four residential units (Class C3) on the upper floors (3 x 1 Bed Units and 1 x 3 Bed Unit), alongside lower ground floor plant, cycle parking and refuse storage.*

Report Objective

- 2.4 The objective of the Sustainability Statement is to outline how sustainability and the principles of sustainable development have been incorporated into the development proposals.

3. Assessment Methodology

Sustainability & Sustainable Development

- 3.1 “Sustainability” is a broad concept generally used to describe the ability to perpetuate a particular state of being. It is widely used in the context of development and where there is potential for changing circumstances to cause an impediment to the perpetuation of a phenomenon.
- 3.2 The term is subjective and the understanding of the concept is influenced by perceptions and aspirations. “Sustainability” is therefore variably defined but normally encapsulates a wide range of issues, often characterised by their relationship with the economy, society and the environment (the “three pillars” of sustainability).
- 3.3 These issues are not necessarily mutually exclusive and whilst they are often presented as such, technically, the economy is a function of society; and society concerns the interrelationships and behaviours of one species within the wider environment. Nevertheless, the identification and characterisation of these issues enables a better understanding of the things that matter in decision making, which enable a balance to be struck when priorities compete.
- 3.4 The term “sustainable development” is often used interchangeable with “sustainability” but it is narrower in scope and seeks to promote the perpetuation of human advancement. The “Brundtland Report” (officially titled “Our Common Future” and written by the United Nations World Commission on Environment and Development, Chaired by Gro Harlem Brundtland in 1987), presents perhaps the most widely cited and understood interpretation of this concept:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

- 3.5 The definition introduces the concept of “needs” and the generational timeframe for evaluating whether an action is sustainable or otherwise.

Analysis Methodology

- 3.6 Given the broad definitions associated with the terminology of “sustainability” and “sustainable development”, understanding how these concepts have been interpreted and incorporated into the local planning regime requires a review of the planning policy as well as the documents upon which the policy is based. The report therefore commences with an overview of the planning policy and other considerations.

- 3.7 An appraisal of the sustainability credentials of the scheme then follows. Structure is important when assessing sustainability due to the breadth of issues being considered; an approach has been created based upon the phases of the development cycle relevant to the planning decision making processes, with consideration given to the “three pillars” (discussed above) and requirements of policy.

Assessment Matrix

	Economic	Social	Environmental
Strategic	✓	✓	✓
Design	✓	✓	✓
Construction	✓	✓	✓

- 3.8 It is recognised that the scale and nature of the scheme will affect the relative importance of the matrix dimensions and entries. For example, a single residential unit is unlikely to be viewed as having a major societal impact on the basis of its scale relative to its context. However, the societal implications of an urban extension may be much more significant.
- 3.9 The emphasis is therefore case specific, and the assessment sections of this report seek to highlight the relevant factors in a suitably balanced manner.

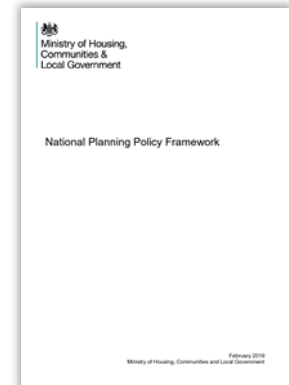
4. Planning Context

4.1 Local planning policy relevant to sustainable development is considered below:

National Context

National Planning Policy Framework (2019)

4.2 The National Planning Policy Framework (NPPF) was updated in February 2019. Paragraphs 7, 8 and 10 of the revised NPPF include reference to the following:



7. *“the purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs”.*

8. *“Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):*

- *An economic objective*
- *A social objective*
- *An environmental objective”*

10. *“So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development”*

Planning Practice Guidance (2016; updated 2018)

- Climate Change - Advises how planning can identify suitable mitigation and adaption measures in plan-making and the application process to address the potential for climate change.
- Design - Design affects how people interact with places and can affect a range of economic, social and environmental objectives. The guidance states that planning policies and decisions should seek to ensure that the physical environment supports these objectives.
- Natural Environment - Explains key issues in implementing policy to protect biodiversity, including local requirements.

London Context

The London Plan Consolidated with Alterations Since 2011 (2016)

4.3 The London Plan was further updated in March 2016. The Plan is the overall strategic plan for London. Chapter five of the Plan details London's Response to Climate Change. The following policies are considered pertinent to this Statement:



- Policy 5.2 (*Minimising Carbon Dioxide Emissions*) – includes:
 - An Energy Hierarchy: Be Lean; Be Clean; Be Green;
 - Carbon reduction targets for major developments; including a “zero carbon” target for 2019;
 - Sets out the information requirements for energy assessments.
- Policy 5.3 (*Sustainable Design & Construction*) – encourages consideration of sustainability as part of the design and construction;
- Policy 5.5 (*Decentralised Energy Networks*) – requires planning authorities to require developers prioritise connection to existing or planned decentralised energy networks where feasible;
- Policy 5.6 (*Decentralised Energy in Development Proposals*) – encourages development to establish or connect to energy networks;
- Policy 5.7 (*Renewable Energy*) – within the framework of the Energy Hierarchy, major development proposals should provide a reduction in expected carbon dioxide through the use of on-site renewable energy generation, where feasible;
- Policy 5.9 (*Overheating and Cooling*) – major development proposals should reduce potential overheating and reliance on air conditioning systems in accordance with a Cooling Hierarchy;
- Policy 5.10 (*Urban Greening*) – encourages development proposals to integrate green infrastructure;
- Policy 5.11 (*Green Roof and Development Site Environs*) – encourages major development to include roof, wall and site planting;
- Policy 5.12 (*Flood Risk Management*) – development proposals must comply with the flood risk assessment and management requirements of the NPPF;

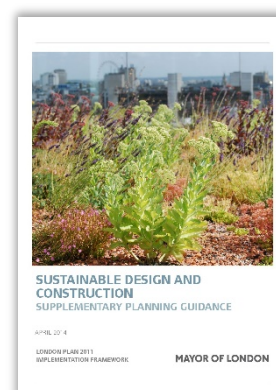
- Policy 5.13 (*Sustainable Drainage*) – encourages developers to utilise sustainable drainage systems (SUDS) unless there are practical reasons for not doing so;
- Policy 5.15 (*Water Use and Supplies*) – development should minimise the use of mains water by incorporating water saving measures and targeting 105 litres of less per head per day;
- Policy 5.17 (*Waste Capacity*) – suitable waste and recycling storage facilities are required in all new development.

Sustainable Design and Construction Supplementary Planning Guidance (2014)

4.4 This SPG aims to support developers, local planning authorities and neighbourhoods to achieve sustainable development. It provides guidance on how to achieve the London Plan objectives effectively, supporting the Mayor's aims for growth, including the delivery of housing and infrastructure.

4.5 The guidance in this SPG is intended to:

- provide detail on how to implement the sustainable design and construction and wider environmental sustainability policies in the London Plan;
- provide guidance on how to develop more detailed local policies on sustainable design and construction;
- provide best practice guidance on how to meet the sustainability targets set out in the London Plan; and
- provide examples of how to implement sustainability measures within developments.



Emerging London Plan (2019)

4.6 The draft New London Plan is a broad plan to shape the way London develops over the next 20-25 years. Sustainability and energy are discussed in Chapter 3 (Design), Chapter 8 (Green Infrastructure and Natural Environment) and Chapter 9 (Sustainable Infrastructure). The following draft policies are considered important to this report:

- Draft Policy D1 (*London's Form, Character and Capacity for Growth*) – Development should aim for high sustainability standards (with reference to the policies within London Plan Chapter's 8 and 9);



- Draft Policy D6 (*Housing Quality and Standards*) – Encourages developers to consider qualitative aspects of a development to ensure successful sustainable housing;
- Draft Policy SI1 (*Improving Air Quality*) – Development should not lead to further deterioration of existing poor air quality;
- Draft Policy SI2 (*Minimising GHG Emissions*) – Encourages major development to be zero-carbon and minimise annual and peak energy demand in accordance to ‘Be Lean, Be Clean, Be Green, Be Seen’ energy hierarchy.
- Draft Policy SI3 (*Energy Infrastructure*) – Major development proposals in Heat Network Priority Areas should have a communal low-temperatures heating system and the heating source should be selected in accordance to the Heating Hierarchy;
- Draft Policy SI4 (*Managing Heat Risk*) – Encourages development to minimise adverse impacts on the urban heat island and to assess the risk of internal overheating and reduce reliance on air conditioning.

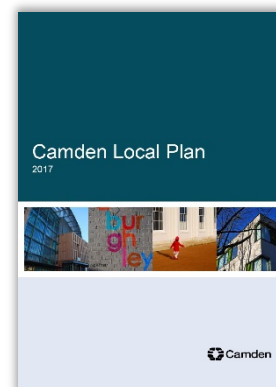
Local Context

Camden Local Plan (June 2017)

4.7 The Local Plan sets out the planning policies, site allocations and land designations Borough-wide and is the central document in the Borough’s Development Plan.

4.8 The following policies are considered relevant to this report:

- Policy G1 (*Delivery and Location of Growth*) – promotes sustainability with regards to the efficient use of land and buildings;
- Policy D1 (*Design*) – includes a requirement for development to be sustainable with regards to design and construction;
- Policy CC1 (*Climate Change Mitigation*) – promotes zero carbon development, consideration of the Energy Hierarchy (encouraging connection to District Energy Networks), reduced reliance on transport by car and resource efficiency;
- Policy CC2 (*Adapting to Climate Change*) – requires development to seek to protect existing green space, use of SUDS, incorporating biodiverse roofs, consideration of overheating risks, encourages the use of the Home Quality Mark and Passivhaus Standards along with BREEAM “excellent” for non-domestic and refurbishment developments >500sqm;



- Policy DM1 (*Delivery and Monitoring*) – supports sustainable development;

Fitzrovia Area Action Plan (March 2014)

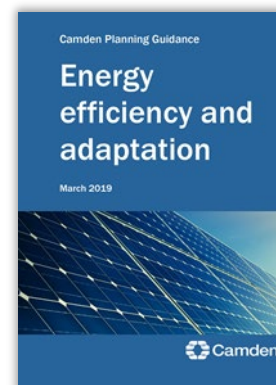
- 4.9 The purpose of the Area Action Plan is to help to shape the future of Fitzrovia and the western part of Bloomsbury. The following policies are considered relevant to this report:



- Policy F1 (*Planning Decisions in Fitzrovia*) - When considering development proposals within the boundary of the Fitzrovia Area Action Plan the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.

Camden Planning Guidance – Energy Efficiency & Adaptation (March 2019)

- 4.10 This guidance provides information on key energy and resource issues within the borough and supports Local Plan Policies CC1 Climate change mitigation and CC2 Adapting to climate change.
- 4.11 Includes requirements concerning credits under certain BREEAM categories (60% energy, 60% water and 40% materials); and reference the 20% renewables target.



5. Site Context

- 5.1 In line with the “three pillars” of sustainability discussed within the methodology section, the site context has been considered with regard to its economic, social and environmental context; acknowledging that interrelationships exist between many of these issues.

Socio Economic Context

ONS Household Projections

- 5.2 The Office for National Statistics presents data relevant to household projections for England, by region and local authority, mid-2016 to mid-2041 (formerly referred to as live tables on household projections).
- 5.3 The assumptions underlying national household and population projections are based on demographic trends. They are not forecasts as, for example, they do not attempt to predict the impact of future Government policies, changing economic circumstances or other factors that might influence household growth. The projections show the household numbers that would result if the assumptions based in previous demographic trends in the population and rates of household formation were to be realised in practice.
- 5.4 Nevertheless, data suggests that household numbers in Camden will increase from circa 110,000 in 2019 to around 136,000 by 2041; a 19.5% increase over the period.

Output Area Classifications

- 5.5 Area classifications for Great Britain have been produced after every census since 1971, and as of the 2001 Census, they have been extended to cover the UK as a whole.
- 5.6 Using socioeconomic and demographic data from each census, the classifications seek to identify areas of the country with similar characteristics. Therefore, the presented information should not be interpreted as an assessment specific to the Application Site and the surrounding area; but rather it is a reflection of the characteristics of areas with a similar socioeconomic and demographic pattern.
- 5.7 Data from the 2011 Census has been released identifying the site as having an Output Area Code of E00174650 and is classified as “Cosmopolitans” (Supergroup Code 2), “Aspiring and Affluent” (Group Code 2d) and “EU White-Collar Workers” (Subgroup Code 2d3).
- 5.8 Radial Plots are provided by the Office for National Statistics. Each data point on a radial plot displays the value for each one of the 60 standardised and transformed 2011 Census variables used.

- 5.9 The data indicates higher than average occupancy of flatted accommodation, higher levels of social renting and overcrowding and a high reliance on public transport. Ownership is lower than average.

Indices of Multiple Deprivation

- 5.10 The English Indices of Deprivation use 38 separate indicators, organised across seven distinct domains of deprivation. The Indices of Multiple Deprivation data are then constructed by combining the seven transformed domain scores, using the following weights; income (22.5%); employment (22.5%); health and disability (13.5%); education, skills and training (13.5%); barriers to housing and services (9.3%); crime (9.3%); and living environment (9.3%).
- 5.11 The IMD can be used to rank every Lower Layer Super Output Area in England according to their relative level of deprivation. The data is not a measure of affluence; therefore the area ranked as the least deprived is not necessarily the most affluent.
- 5.12 The IMD data comprise a numeric value in a scale of 1 to 32,844 (1=most deprived) and are represented in a coloured scale of deciles (1=most deprived – dark red; 10=least deprived – dark blue) in the respective maps. Government data (illustrated below) indicates that the area ranks 18,390 out of 32,844; where 1 is the most deprived. The area is therefore considered to have an average level of deprivation overall.
- 5.13 The table below provides the data for the individual domains:

Table 5.1 **IMD Domain Scores**

Domain	Score
Income Rank	28,785
Employment Rank	30,903
Education, Skills and Training Rank	29,067
Health Deprivation and Disability Rank	30,016
Crime Rank	14,952
Barriers to Housing and Services Rank	8,260
Living Environment Rank	45
Rank of IMD Score	18,390

Note: Scores out of 32,844, where 1 is the most deprived.

Environmental Context

- 5.14 The environmental context is assessed in greater detail in the accompanying environmental reports. The following provides an overview of the pertinent matters:

Land Use

- 5.15 The site constitutes brownfield land, meaning that its development will reduce the pressure to develop elsewhere and on greenfield.

Flooding

- 5.16 From review of the Environment Agency (EA) Flood Map for Planning, the site is identified as being in a Flood Zone 1, with a low probability of flooding.

Ecology

- 5.17 The site is entirely covered by hardstanding and existing structures. The current ecological value is considered negligible.

Local Amenities & Public Transport

- 5.18 Many of the social and economic issues concern accessibility, which in its broadest sense is regarded as a combination of access to local shops, services, amenities, employment opportunities; as well as access to public and other transport facilities. Therefore, the accessibility of the proposed scheme to local amenities is a relevant consideration in determining whether the site represents a sustainable location.
- 5.19 The site's location close to the city centre puts a wide array of amenities and services within walking distance of the site, whilst nearby bus stops offer an alternative sustainable means of accessing the facilities.
- 5.20 The site has a PTAL rating of 6b (best), indicating excellent access to public transport.

6. Sustainable Design Proposals

- 6.1 This section presents an overview of the proposed sustainable design features for the scheme and is considerate of Camden Planning Guidance CPG3 (*Sustainability*).

Environmental Standards

- 6.2 The non-domestic element falls below the 500sqm size threshold stated within Policy CC2 for assessment against BREEAM.

Energy

- 6.3 Further detail on energy matters is presented in the Energy Statement accompanying the application.

Energy Efficiency

- 6.4 It is intended that the performance of the building fabric will incorporate relatively low U-Values to reduce the rate at which the building loses heat, preserving the heat within the space and reducing the requirement for mechanical heating.

Low Carbon & Renewable Technologies

- 6.5 Renewable and low carbon technologies have been considered as part of the design following the prioritisation of efficiency. The following is proposed:

- Air Source Heat Pumps to provide space heating to the upper flat and commercial space.

- 6.6 In line with the London Plan and Council policies, a carbon saving >19% against Part L 2013 baseline has been targeted for the development.

Water Conservation, Water Quality and Flooding

- 6.7 Water saving fittings and appliances shall be installed and the following outlines the proposed maximum flow / consumption rates for each of the proposed installation types:

- | | |
|--|-----------------------------------|
| • WCs | Dual flush 6 litre / 3 litre; |
| • Taps (excluding kitchen & external): | Flow rate 5 litres / minute; |
| • Baths | Capacity to overflow <158 litres; |
| • Showers | 7.75 litres / minute; |
| • Kitchen sink taps | 5 litres / minute; |
| • Washing machine | <9.5 litres / kg; |

- Dishwasher <1.25 litres / place setting;
- On the basis of the above, the total consumption will be ≤105 litres / person / day (excluding external water use). This is in line with the requirements of the planning condition.

6.8 The existing site is entirely hardstanding impermeable ground and therefore the volume of water run-off over the development's lifecycle will be no greater than it would have been prior to development.

Materials & Waste

6.9 The materials strategy for the development shall consider lifecycle environmental impacts, durability, responsible sourcing and pre-fabrication potential, with a view to optimising materials utilisation and safeguarding natural resources. Measures will include:

- The majority of major elements (walls, floors, roof) with an 'A' or 'A+' rating in the BRE's Green Guide to Specification;
- Use of all timber products that come from an accredited Forest Stewardship Council (FSC) source;
- Use of suppliers/products that operate Environmental Management Systems (e.g. ISO14001, EMS) as per minimum and BES 6001 certification for major applications; and
- Consideration of durability, pre-fabrication and dismantling potential in selecting main elements.

6.10 The operational waste strategy comprises provision of dedicated space of adequate size and in convenient locations for storage of general refuse, recyclables and food waste. Internal and external storage will be considerate of the Building Regulations and Council requirements.

Pollution

6.11 Where conventional backup gas-fired boilers are employed, these will be selected to achieve a NO_x rating of <40mgNO_x/kWh.

6.12 Transport emissions shall be minimal, as the site offers excellent connections to public transport services and a wide range of amenities at walking distance; the development shall also promote cycling by providing secure cycle storage spaces.

6.13 Measures relating to building design, fabric design and landscaping shall be implemented as appropriate so that internal ambient noise levels are acceptable for the intended use and do not compromise the health & well-being of occupants.

- 6.14 The external lighting strategy shall be designed to minimise light spillage and night time light pollution in line with the ILP's Guidance notes for the reduction of obtrusive light; low illuminance levels, fittings and controls shall be employed accordingly.
- 6.15 Good internal air quality will be achieved through the creation of a building envelope with a low air permeability; meaning that the building fabric will reduce the infiltration of pollution from the external environment.
- 6.16 The developer will also endeavour to avoid the use of materials with a high VOC (volatile organic compound) content; therefore ensuring an improved air quality for the completed development.

Ecology

- 6.17 The ecological value of the proposed development will be greater than the existing development.

7. Sustainable Construction Proposals

- 7.1 It is recognised that the construction industry has the potential to cause significant environmental impacts through resource use, waste generation and pollution. It is therefore proposed to manage the construction phase in a sustainable manner to ensure that these impacts are reduced.

Responsible Construction Practices

Impacts on Neighbours, Pedestrians, Road Users and Workforce

- 7.2 The scheme will be registered with the Considerate Constructors Scheme to ensure that the contractor carries out the construction operations in a safe and considerate manner, with due regard to local residents, road users, the workforce and the environment. A target of achieving a score of at least 35 and with a minimum score of 7 in each of the five sections shall be set. This represents a high level of performance and a commitment to responsibly manage construction activities.

Environmental Management

- 7.3 It is expected that the principal contractor for the project shall also operate a third party certified Environmental Management System (EMS), demonstrating sound management and systematic control of environmental impacts.

Materials Optimisation and Waste

- 7.4 The Site Waste Management Plan (SWMP) will detail the design measures towards optimum use of materials, set specific targets for construction and demolition waste generation and appropriate mechanisms/protocols for segregating waste on-site and monitoring overall waste management.
- 7.5 The development will aim for more than 90% by tonnage of demolition and construction waste to be diverted from landfill as per minimum.

Pollution Prevention

Pollution Prevention Guidelines

- 7.6 The Environment Agency's (EA) Pollution Prevention Guidelines (PPG) shall be followed as appropriate to minimise pollution risks from construction activities; works will also be in line with the Environment Agency's Building a better environment, A guide for developers (2006) guidance.

Air Pollution

7.7 Best practice methods for minimising the formation of dust and emissions from construction activities shall be implemented, as appropriate to the specific site and proposed activities. Control measures may include:

- Appropriate site layout;
- Solid screens/barriers or other physical boundaries around dust/emission generating activities;
- Good site maintenance and regular inspections for liquid spillages; and
- Sealed storage for cement, sand and fine aggregates.

7.8 In addition to the above, the contractor shall comply with the BRE Code of Practice to control dust from construction and demolition activities.

Water Pollution

7.9 Appropriate measures shall be implemented to minimise risks of watercourse and underground water pollution, in line with EA's PPG 5 Works in, near or liable to affect watercourses and the Guide for developers Building a better environment, as stated above. Specific measures shall be outlined in the contractor's CEMP.

8. Summary

- 8.1 This Sustainability Statement provides an overview as to how the proposed scheme contributes to sustainable development in the context of the strategic, design and construction considerations.
- 8.2 Sustainability is a broad concept and covers a range of environmental, social and economic considerations. A review of Camden Council's planning policies has identified a number of requirements relating to sustainable development. Of these, Local Plan policies G1 (*Delivery and Location of Growth*), D1 (*Design*), CC1 (*Climate Change Mitigation*), CC2 (*Adapting to Climate Change*) and DM1 (*Delivery and Monitoring*) are considered most pertinent. Consideration has also been given to CPG3 (*Sustainability*) as well as to the National and London planning policy framework.
- 8.3 The proposed scheme includes the redevelopment of the site to residential with commercial space below. At a strategic level, the development of residential will assist with addressing the supply side housing shortages and will improve affordability. The development of commercial uses will provide employment for local people, improve the local economy, increase the wealth and lifestyle of employed individuals and contribute to local business rates.
- 8.4 A range of sustainable design and construction features are proposed including:
- Highly thermally efficient building fabric;
 - Air Source Heat Pumps for the upper flat and commercial space;
 - Highly efficient lighting;
 - Water saving sanitary fittings and appliances to deliver a water efficient development;
 - The use of materials with a low lifecycle environmental impact and embodied energy;
 - Efficient construction and operational waste management;
- 8.5 Overall, the proposals for the scheme are in line with the overarching principles of sustainable development as well as the policy requirements of the planning authority.

Appendices

A. Site Plans



B. Key Local Planning Policy Requirements

London Planning Policy Framework

Key London Plan planning policy is detailed below:

The London Plan as Altered (2016)

The London Plan is the overall strategic plan for London. Chapter five details London's Response to Climate Change and includes a number of policies that set the overarching principles for reducing carbon emissions in the built environment:

Policy 5.2 – Minimising Carbon Dioxide Emissions

Planning Decisions

- A) 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.
- B) The Mayor will work with boroughs and developers to ensure that major developments meet the following targets for 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.

Residential Buildings:

Year	Improvement in 2010 Building Regs
2010-2013	25% (Code Level 4)
2013-2016	40%
2016-2031	Zero Carbon

Non-Residential Buildings:

Year	Improvement in 2010 Building Regs
2010-2013	25%
2013-2016	40%
2016-2019	As per building regulations requirements
2019-2031	Zero Carbon

- C) Major development proposals should include a detailed energy assessment to demonstrate how the targets for carbon dioxide emission reduction outlined above are to be met within the framework of the energy hierarchy.
- D) As a minimum, energy assessments should include the following details:
- a) Calculations of the energy demand and carbon dioxide emissions covered by the Building Regulations and, separately, the energy demand and carbon dioxide emissions from any other part of the development, including

plant or equipment, that are not covered by the Building Regulations (see paragraph 5.22) at each stage of the hierarchy;

- b) Proposals to reduce carbon dioxide emissions through the energy efficient design of the site, buildings and services;
- c) Proposals to reduce carbon dioxide emissions through the use of decentralised energy where feasible, such as district heating and cooling and combined heat and power (CHP);
- d) Proposals to further reduce carbon dioxide emissions through the use of on-site renewable energy technologies.

The carbon dioxide reduction targets should be met on-site. Where it is clearly demonstrated that the specific targets cannot be fully achieved on-site, any shortfall may be provided off-site or through a cash in lieu contribution to the relevant borough to be ring fenced to secure delivery of carbon dioxide savings elsewhere.

Policy 5.3 – Sustainable Design & Construction

Strategic

- A) The highest standards of sustainable design and construction should be achieved in London to improve the environmental performance of new developments and to adapt to the effects of climate change over their lifetime.

Planning Decisions

- B) Development proposals should demonstrate that sustainable design standards are integral to the proposals, including its construction and operation, and ensure that they are considered at the beginning of the design process.
- C) Major development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and the following sustainable design principles apply:
 - a) Minimising carbon dioxide emissions across the site, including the building and services (such as heating and cooling systems);
 - b) Avoiding internal overheating and contributing to the urban heat island effect;
 - c) Efficient use of natural resources (including water), including making the most of natural systems both within and around buildings;
 - d) Minimising pollution (including noise, air and urban run-off);
 - e) Minimising the generation of waste and maximising reuse or recycling;
 - f) Avoiding impacts from natural hazards (including flooding);
 - g) Ensuring developments are comfortable and secure for users, including avoiding the creation of adverse local climatic conditions;
 - h) Securing sustainable procurement of materials, using local supplies where feasible; and
 - i) Promoting and protecting biodiversity and green infrastructure.

Within LDFs boroughs should consider the need to develop more detailed policies and proposals based on the sustainable design principles outlined above and those which are outlined in the Mayor's supplementary planning guidance that are specific to their local circumstances.

Policy 5.5 – Decentralised Energy Networks

Strategic

- A) The Mayor expects 25 per cent of the heat and power used in London to be generated through the use of localised decentralised energy systems by 2025. In order to achieve this target the Mayor prioritises the development of decentralised heating and cooling networks at the development and area wide levels, including larger scale heat transmission networks.

LDF Preparation

- B) Within LDFs boroughs should develop policies and proposals to identify and establish decentralised energy network opportunities. Boroughs may choose to develop this as a supplementary planning document and work jointly with neighbouring boroughs to realise wider decentralised energy network opportunities. As a minimum, boroughs should:
- a) Identify and safeguard existing heating and cooling networks;
 - b) Identify opportunities for expanding existing networks and establishing new networks. Boroughs should use the London Heat Map tool and consider any new developments, planned major infrastructure works and energy supply opportunities which may arise;
 - c) Develop energy master plans for specific decentralised energy opportunities which identify;
 - Major heat loads (including anchor heat loads, with particular reference to sites such as universities, hospitals and social housing);
 - Major heat supply plant;
 - Possible opportunities to utilise energy from waste;
 - Possible heating and cooling network routes;
 - Implementation options for delivering feasible projects, considering issues of procurement, funding and risk in the role of the public sector.

Require developers to prioritise connection to existing or planned decentralised energy networks where feasible.

Policy 5.6 – Decentralised Energy in Development Proposals

Planning Decisions

- A) Development proposals should evaluate the feasibility of Combined Heat and Power (CHP) systems, and where a new CHP system is appropriate also examine opportunities to extend the system beyond the site boundary to adjacent sites.
- B) Major development proposals should select energy systems in accordance with the following hierarchy:
- 1) Connection to existing heating or cooling networks;
 - 2) Site wide CHP network;
 - 3) Communal heating and cooling.

Potential opportunities to meet the first priority in this hierarchy are outlined in the London Heat Map tool. Where future network opportunities are identified, proposals should be designed to connect to these networks.

Policy 5.7 – Renewable Energy

Strategic

- A) The Mayor seeks to increase the proportion of energy generated from renewable sources, and expects that the projections for installed renewable energy capacity outlined in the Climate Change Mitigation and Energy Strategy and in supplementary planning guidance will be achieved in London.

Planning Decisions

- B) Within the framework of the energy hierarchy (see Policy 5.2), major development proposals should provide a reduction in expected carbon dioxide through the use of on-site renewable energy generation, where feasible.

LDF Preparation

- C) Within LDFs boroughs should, and other agencies may wish to develop more detailed policies and proposals to support the development of renewable energy in London – in particular, to identify broad areas where specific renewable energy technologies, including large scale systems and the large scale deployment of small scale systems, are appropriate. The identification of areas should be consistent with any guidelines and criteria outlined by the Mayor.

All renewable energy systems should be located and designed to minimise any potential adverse impacts on biodiversity, the natural environment and historical assets, and to avoid any adverse impacts on air quality.

Policy 5.9 – Overheating and Cooling

Strategic

- A) The Mayor seeks to reduce the impact of the urban heat island effect in London and encourages the design of places and spaces to avoid overheating and excessive heat generation, and to reduce overheating due to the impacts of climate change and the urban heat island effect on an area wide basis.

Planning Decisions

- B) Major development proposals should reduce potential overheating and reliance on air conditioning systems and demonstrate this is in accordance with the following cooling hierarchy:
- 1) Minimise internal heat generation through energy efficient design;
 - 2) Reduce the amount of heat entering a building in summer through orientation, shading, albedo, fenestration, insulation and green roofs and walls;
 - 3) Manage the heat within the building through exposed internal thermal mass and high ceilings;
 - 4) Passive ventilation;
 - 5) Mechanical ventilation;
 - 6) Active cooling.
- C) Major development proposals should demonstrate how the design, materials, construction and operation of the development would minimise overheating and also meet its cooling needs. New development in London should also be designed to avoid the need for energy intensive air conditioning systems as much as possible. Further details and guidance regarding overheating and cooling are outlined in the London Climate Change Adaptation Strategy.

LDF Preparations

Within LDFs boroughs should develop more detailed policies and proposals to support the avoidance of overheating and to support the cooling hierarchy.

Policy 5.10 – Urban Greening

Strategic

- A) The Mayor will promote and support urban greening, such as new planting in the public realm (including streets, squares and plazas) and multifunctional green infrastructure, to contribute to the adaptation to, and reduction of, the effects of climate change.
- B) The Mayor seeks to increase the amount of surface area greened in the Central Activities Zone by at least five per cent by 2030, and a further five per cent by 2050.

Planning Decisions

- C) Development proposals should integrate green infrastructure from the beginning of the design process to contribute to urban greening, including the public realm. Elements that can contribute to this include tree planting, green roofs and walls, and soft landscaping. Major development proposals within the Central Activities Zone should demonstrate how green infrastructure has been incorporated.

LDF Preparation

- D) Boroughs should identify areas where urban greening and green infrastructure can make a particular contribution to mitigating the effects of climate change, such as the urban heat island.

Policy 5.11 – Green Roof and Development Site Environs

Planning Decisions

- A) Major development proposals should be designed to include roof, wall and site planting, especially green roofs and walls where feasible, to deliver as many of the following objectives as possible:
 - a) adaptation to climate change (i.e. aiding cooling);
 - b) sustainable urban drainage;
 - c) mitigation of climate change (i.e. aiding energy efficiency);
 - d) enhancement of biodiversity;
 - e) accessible roof space;
 - f) improvements to appearance and resilience of the building;
 - g) growing food.

LDF Preparation

- B) Within LDFs boroughs may wish to develop more detailed policies and proposals to support the development of green roofs and the greening of development sites. Boroughs should also promote the use of green roofs in smaller developments, renovations and extensions where feasible.

Policy 5.12 – Flood Risk Management

Strategic

- A) The Mayor will work with all relevant agencies including the Environment Agency to address current and future flood issues and minimise risks in a sustainable and cost effective way.

Planning Decisions

- B) Development proposals must comply with the flood risk assessment and management requirements set out in the NPPF and the associated technical Guidance on flood risk¹ over the lifetime of the development and have regard to measures proposed in Thames Estuary 2100 (TE2100 – see paragraph 5.55) and Catchment Flood Management Plans.
- C) Developments which are required to pass the Exceptions Test set out in the NPPF and the Technical Guidance will need to address flood resilient design and emergency planning by demonstrating that:
- a) the development will remain safe and operational under flood conditions;
 - b) a strategy of either safe evacuation and/or safely remaining in the building is followed under flood conditions
 - c) key services including electricity, water etc will continue to be provided under flood conditions
 - d) buildings are designed for quick recovery following a flood.
- D) Development adjacent to flood defences will be required to protect the integrity of existing flood defences and wherever possible should aim to be set back from the banks of watercourses and those defences to allow their management, maintenance and upgrading to be undertaken in a sustainable and cost effective way.

LDF Preparation

- E) In line with the NPPF and the Technical Guidance, boroughs should, when preparing LDFs, utilise Strategic Flood Risk Assessments to identify areas where particular flood risk issues exist and develop actions and policy approaches aimed at reducing these risks, particularly through redevelopment of sites at risk of flooding and identifying specific opportunities for flood risk management measures.

Policy 5.13 – Sustainable Drainage

Planning Design

- A) Development should utilise sustainable urban drainage systems (SUDS) unless there are practical reasons for not doing so, and should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible in line with the following drainage hierarchy:
- 1) store rainwater for later use;
 - 2) use infiltration techniques, such as porous surfaces in non-clay areas;
 - 3) attenuate rainwater in ponds or open water features for gradual release;
 - 4) attenuate rainwater by storing in tanks or sealed water features for gradual release
 - 5) discharge rainwater direct to a watercourse
 - 6) discharge rainwater to a surface water sewer/drain

- 7) discharge rainwater to the combined sewer.

Drainage should be designed and implemented in ways that deliver other policy objectives of this Plan, including water use efficiency and quality, biodiversity, amenity and recreation.

LDF Preparation

- B) Within LDFs boroughs should, in line with the Flood and Water Management Act 2010, utilise Surface Water Management Plans to identify areas where there are particular surface water management issues and develop actions and policy approaches aimed at reducing these risks.

Policy 5.15 – Water Use and Supplies

Strategic

- A) The Mayor will work in partnership with appropriate agencies within London and adjoining regional and local planning authorities to protect and conserve water supplies and resources in order to secure London's needs in a sustainable manner by:
- a) minimising use of mains water;
 - b) reaching cost-effective minimum leakage levels;
 - c) in conjunction with demand side measures, promoting the provision of additional sustainable water resources in a timely and efficient manner, reducing the water supply deficit and achieving security of supply in London;
 - d) minimising the amount of energy consumed in water supply
 - e) promoting the use of rainwater harvesting and using dual potable and grey water recycling systems, where they are energy and cost effective
 - f) maintaining and upgrading water supply infrastructure
 - g) ensuring the water supplied will not give rise to likely significant adverse effects to the environment particularly designated sites of European importance for nature conservation.

Planning Decisions

- B) Development should minimise the use of mains water by:
- a) incorporating water saving measures and equipment
 - b) designing residential development so that mains water consumption would meet a target of 105 litres or less per head per day
- C) New development for sustainable water supply infrastructure, which has been selected within water companies' Water Resource Management Plans, will be supported.

Policy 5.17 – Waste Capacity [extract]

Planning Decisions

- E) Suitable waste and recycling storage facilities are required in all new developments.

Local Planning Policy Framework

Camden Local Plan (June 2017)

The Local Plan was adopted by Council on 3 July 2017 and has replaced the Core Strategy and Camden Development Policies documents as the basis for planning decisions and future development in the borough. Policies relevant to this report are presented below:

Policy G1 Delivery and Location of Growth [extract]

The Council will create the conditions for growth to deliver the homes, jobs, infrastructure and facilities to meet Camden's identified needs and harness the benefits for those who live and work in the borough.

Delivery of Growth

The Council will deliver growth by securing high quality development and promoting the most efficient use of land and buildings in Camden by:

- a) Supporting development that makes best use of its site, taking into account quality of design, its surroundings, sustainability, amenity, heritage, transport accessibility and any other considerations relevant to the site;
- [...]

Policy D1 Design [extract]

The Council will seek to secure high quality design in development. The Council will require that development:

[...]

- c) Is sustainable in design and construction, incorporating best practice in resource management and climate change mitigation and adaptation; is of sustainable and durable construction and adaptable to different activities and land uses;
- [...]

Policy CC1 Climate Change Mitigation

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

We will:

- a) Promote zero carbon development and require all development to reduce carbon dioxide emissions through following the steps in the energy hierarchy;
- b) Require all major development to demonstrate how London Plan targets for carbon dioxide have been met;
- c) Ensure that the location of the development and mix of land uses minimise the need to travel by car and help to support decentralised energy networks;
- d) Support and encourage sensitive energy efficiency improvements to existing buildings;

- e) Require all proposals that involve substantial demolition to demonstrate that it is not possible to retain and improve the existing building; and
- f) Expect all developments to optimise resource efficiency.

For decentralised energy networks, we will promote decentralised energy by:

- g) Working with local organisations and developers to implement decentralised energy networks in the parts of Camden most likely to support them;
- h) Protecting existing decentralised energy networks (e.g. at Gower Street Bloomsbury, Kings Cross, Gospel Oak, and Somers Town) and safeguarding potential network routes; and
- i) Requiring all major developments to assess the feasibility of connecting to an existing decentralised energy network, or where this is not possible establishing a new network.

To ensure that the Council can monitor the effectiveness of renewable and low carbon technologies, major developments will be required to install appropriate monitoring equipment.

Policy CC2 Adapting to Climate Change

The Council will require development to be resilient to climate change.

All development should adopt appropriate climate change adaptation measures such as:

- a) The protection of existing green spaces and promoting new appropriate green infrastructure;
- b) Not increasing, and wherever possible reducing, surface water run-off through increasing permeable surfaces and use of Sustainable Drainage Systems;
- c) Incorporating bio-diverse roofs, combination green and blue roofs and green walls where appropriate; and
- d) Measures to reduce the impact of urban and dwelling overheating, including application of the cooling hierarchy.

Any development involving 5 or more residential units of 500sqm or more of any additional floorspace is required to demonstrate the above in a Sustainability Statement.

Sustainable Design and Construction Measures

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

- e) Ensuring development schemes demonstrate how adaptation measures and sustainable development principles have been incorporated into the design and proposed implementation;
- f) Encourage new build residential development to use the Home Quality Mark and Passivhaus design standards;
- g) Expecting developments (conversions / extensions) of 500sqm of residential floorspace or above or five or more dwellings to achieve “excellent” in BREEAM domestic refurbishment; and
- h) Expecting non-domestic developments of 500sqm of floorspace or above to achieve “excellent” in BREEAM assessments and encouraging zero carbon in new developments from 2019.

Policy DM1 Delivery and Monitoring [extract]

The Council will deliver the vision, objectives and policies of the Local Plan by:

[...]

d) Using planning contributions where appropriate to:

i. Support sustainable development;

C. General Notes

The report is based on information available at the time of the writing and discussions with the client during any project meetings. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by Ensphere Group Ltd for inaccuracies in the data supplied by any other party.

The review of planning policy and other requirements does not constitute a detailed review. Its purpose is as a guide to provide the context for the development and to determine the likely requirements of the Local Authority.

No site visits have been carried out, unless otherwise specified.

This report is prepared and written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in guidance may necessitate a re-interpretation of the report in whole or in part after its original submission.

The copyright in the written materials shall remain the property of Ensphere Group Ltd but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to Ensphere Group Ltd by the client of the outstanding amounts.

The report is provided for sole use by the Client and is confidential to them and their professional advisors. No responsibility whatsoever for the contents of the report will be accepted to any person other than the client, unless otherwise agreed.

These terms apply in addition to the Ensphere Group Ltd "Standard Terms of Business" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms of Business the said Standard Terms of Business shall prevail.). In the absence of such a written contract the Standard Terms of Business will apply.



Ensphere Group Ltd
52 Grosvenor Gardens
London, SW1W 0AU
+44 (0) 20 7846 9040
www.enspheregroup.com