

Sustainability Statement for Planning

Collins Court,
Cascade Avenue,
London

Job number: S10559

Date: January 2023

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1 - Introduction

This Sustainability Statement (SS) has been prepared in support of the planning application for the proposed construction of eight dwellings consisting of two runs of four terrace houses and the conversion of an existing tennis pavilion into a bungalow, which will create a ninth dwelling.

2 - Planning Policies

National Planning Policy Framework 2021

The NPPF was updated in July 2021 to place greater emphasis on beauty, place-making, the environment, and sustainable development. The strengthened environmental objectives aim to protect and enhance the natural, built, and historic environment, and encourage effective land use, greater biodiversity, prudent use of natural resources, minimisation of waste and pollution, and adaptation to climate change alongside a move to a low carbon economy.

The London Plan has recently been updated for energy assessments. However, the below guidance has been used which refers to sustainability measure.

The London Plan 2021 (previously London Plan 2016).

All planning applications across the area are to take into account the requirements of The London Plan.

Within the Plan, Policy 5.3 Sustainable Design and Construction SPG sets out the following:

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 proposal, 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:

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 runoff)
- 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.

LDF Preparation

D - 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".

Haringey Council

The Core strategy sets out to promote Sustainable Development. Furthermore, Sustainable Design and Construction Policy UD2, requires a sustainability statement to be provided for all planning applications in line with the key principals of the Sustainable Design and Construction.

3 - Existing and Proposed Development



The site is located on land to The Chine and Cascade Avenue in London (see Figure 1). The site is currently overgrown tennis courts and a derelict pavilion.

Proposals are for the construction of nine dwellings consisting of two runs of four terrace houses and the conversion of an existing tennis pavilion into a bungalow.

Given the scale and nature of the development, this constrains the development proposals in terms of the layout, positioning and orientation of the proposed dwellings. Subsequently, these constraints will impact on the feasibility of certain sustainability and energy efficient measures that can feasibly be incorporated into the new dwellings.

4 – Sustainability Statement

Energy	
Issue	Compliance
Energy Demand	Throughout the new development of Collins Court, best efforts have been made to reduce the need for energy and reduce heat demand. A preliminary Energy assessment has been carried out on a sample dwelling to show how the dwellings can be improved beyond building regulations. As the drawings supplied are at a planning stage, assumptions have been made about the construction, heating and ventilation. Therefore the energy strategy which has been used is a guide only.
Maximise use of passive energy	Through the use of passive and active design measures the design team have enabled the development to require less energy through the use of optimised insulation, cross ventilation, improved window u-values, higher air tightness, reduced cold bridging and light coloured materials.
Increased Energy Efficiency	An Energy Statement has been carried out for the proposed dwellings which show the dwellings will go beyond building regulations Part L1a 2013 and Part L1 2021. The dwellings will incorporate: - • Low fabric element u-values, External wall u-value 0.17W/m2k, Floor 0.10W/m2k, Roof 0.10W/m2k • Air Source Heat Pump • Triple Glazed windows • Time and temperature zone control, • Heat recovery system • Solar PV

	This has shown to be an improvement over building regulations Part L1a 2013 baseline, by achieving a potential of 63% improvement in CO2 emissions. The dwellings have also been assessed under Part L 2021 and SAP 10 to check compliance for current building regulations.
Renewable Energy Sources	The feasibility of several renewable technologies has been reviewed and shown that an ASHP and Solar PV would be feasible for this development. Consultation should be gained from an M&E consultant or ASHP/PV specialist to ensure feasibility for the development.
Responsible Travel Provisions	The site is in an urban area and therefore has good access to public transport. There are 2 underground stations, Highgate approximately 1200m and East Finchley approximately 1800m away, Hornsey main station is approximately 2000m away and several bus nodes located along B550 (Muswell Hill Road) and Muswell Hill. There will also be cycle storage for 2 cycles provided for each dwelling to promote healthier travel methods and reduce CO2 emissions from vehicles.

<u>Water</u>	
Issue	Compliance
Water Saving Measures	Initial advice from the design team suggests that water saving measures can be incorporated in order to reduce water usage. It has been identified that there is the opportunity to have low flow rates and dual flush toilets.
Water Consumption Targets	Water efficient fixtures, fittings and appliances will be provided to ensure that internal water use targets are achieved to comply with the local council of Haringey target of 105 L/person/day. In comparison, Building Regulations Approved Document G requires internal water use to be at 125litres/person/day or less.
Reusing Water	In order to provide a simple level of rainwater harvesting, each dwelling should have a water butt; this will afford the opportunity to reduce the impact on potable water supply by enabling future occupants of the dwelling to reuse collected water, for example washing the bins. If this supply is used frequently it may also ensure that some additional storage is available during an extreme rainfall event.
Metering	A water meter could be provided. During detailed design, consideration will be given to the provision of digital meters with connectivity to a central building management / billing system, rather than standard analogue meters.

<u>Materials and Waste</u>	
Issue	Compliance
Design Stage Choosing materials that minimise the use of resources are sustainably sourced, do not cause harm to health and are robust.	The contractor and developer will need to design and choose materials that will influence the construction process and the embodied carbon of the development by, specifying materials using the Building Research Establishment's Green Guide Specification. Ensuring that materials are responsibly sourced, sourcing materials from local sources, minimising the harmful effects of some materials on human health, ensuring that specified materials are robust and sensitive to the building type and age. It is intended that insulation materials will have an Ozone Depletion Potential (ODP) of zero, and a Global Warming Potential (GWP) of less than five. Where specified by the developer (e.g. low VOC paint), finishes and other materials will not contain or emit toxic substances. Where timber is installed it will be 100% legally sourced and FSC certified.
Construction Stage Management of materials resulting from demolition through the waste hierarchy	The Contractor will need to reduce waste during the construction phase of the development via the hierarchy of, Reduce, Reuse (prioritising on-site reuse of demolition materials, followed by offsite reuse), Recycle (prioritising on-site recycling, then off-site recycling), Resource recovery (for energy generation processes – fuels, heat and power); and Disposal. A Site Waste Management Plan (SWMP) will be prepared and incorporate non-hazardous waste, demolition and excavation waste if applicable. The BRE Smartwaste tool can be used as an easy tool by contractors.

Storage for Recyclables & Waste	Sufficient internal and external space will be provided to facilitate recycling and composting and the good management of waste for the building occupiers. The dwellings will be fitted with internal waste storage facilities in the kitchen for the segregation of recyclable materials, in compliance with BS5096.
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Nature Conservation and Biodiversity

Issue	Compliance
Protecting Species Promoting the Protection and Planting of Trees	The existing site is a building with hardstanding areas and is considered to be of low ecological value. Existing trees (and the space they require) have been considered throughout this development. It has not been necessary to remove any trees on site. However, there are features of ecological significance (Trees) next to the construction zone to the rear of the site. These will have to be adequately protected. Located at the base of the south facing wall of the tennis pavilion there are 3 colonies of Jersey Cudweed which is a protected species under Schedule 8 of the wildlife and Countryside act 1981. On the Mitigation and Enhancement plan it has stated that the most suitable option for maintaining the colony on the development would be through the incorporation of a biodiverse/brown roof. With the Jersey Cudweed being relocated to surroundings that mimic those in which it was found, such as close to wall edge south facing in a sheltered location. The project has had a biodiversity net gain report carried out and is targeting to achieve a gain in biodiversity.

Designing development proposals	The green space has been reduced in compared to the previous site, however there will be new gardens to the dwellings. Efforts will be made to improve the ecological value of the site with planting of native plant species and bird boxes relevant to the native birds in the area. There is also the opportunity of planting not native varieties of plants taking into consideration the affects of climate change. Developers should adhere to the following hierarchy when considering biodiversity on their development by; avoiding adverse impact to the biodiversity interest, minimise impact, seek mitigation, and seek appropriate compensation where the benefits of the proposal clearly outweigh the biodiversity impacts
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<u>Increased Green Cover and Trees</u>	
Issue	Compliance
Promoting Urban Greening	To help the city to adapt to future climates. Green infrastructure is a network of mainly vegetated spaces and other environmental features which can promote urban cooling, reduced runoff, reduced energy demand, improved air quality, improved biodiversity, enhanced aesthetic and an increased health and well-being. The development will look to encompass ecological features such as native plant species and trees in the rear garden.

<u>Tackling Increased Temperatures and Drought</u>	
Issue	Compliance

Preventing Developments from Overheating	Overheating within buildings can result from either too much heat entering a building and not being released or too much heat being generated within a building and not being released. Therefore, if the internal environment becomes too hot it is likely occupiers will try to find a way to cool their environment. In order to continue minimising CO ₂ emissions the design team have considered the internal comfort and implemented the following measures to reduce over heating, via cross ventilation, as well as mechanical ventilation. The dwellings are orientated where summer over heating should be reduced with less windows facing in a south direction.
Promoting Heat and Drought Resistant Planting	London's water demand already outstrips mains water supply. Therefore it is essential that landscaping does not use excessive amounts of water. have ensured the landscaping of the development does not require excessive amounts of water. Consideration will be given the including plant species which are heat and drought resistant. Advice from an ecologist should ideally be sought before any plant species are selected.

Flooding

Issue	Compliance
Surface Water Flooding	The proposals will result in a decrease in hardstanding areas of ~1ha and will therefore provide significant betterment in terms of surface water management when compared with the existing situation.
Flooding Resilience and Resistance	It is understood that the site is at low risk of flooding from all sources. However, should it come to light that there are some localised risks, flood resilient construction techniques could be incorporated into the dwellings in line with best practice guidance

	The development site is located in a flood zone 1 area, which is low risk.
Flooding and Basement Developments	The proposals include lower ground floor development, and it is important to note that the site slopes which can increase velocities of overland flows of surface water. The site is underlain by London Clay and it is therefore unlikely that groundwater would be a problem. However, it is strongly recommended that advice is sought from a structural / geotechnical engineer as to whether measures such as tanking would be required to protect against flooding.

Land Contamination

Issue	Compliance
Responsible Person/Organisation	The current site is not identified as being contaminated as a result of previous uses.
Bioremediation	Bioremediation is not required.

Air Pollution

Issue	Compliance
Assessment Requirements	An air quality test should not be needed for the proposed development being located on a residential road.

Construction and Demolition	To recognise and encourage construction-sites which are managed in an environmentally and socially considerate, responsible and accountable manner. For the proposed development, the contractor will comply with 'The Control of Dust and Emissions during Construction Demolition SPG'. Control measures will be implemented by the contractor on site to prevent air and dust pollution. An example of this could be using dust sheets on materials and skips, damping down in waste areas.
Design and Occupation	Ventilation pathways will need to be designed to reduce the build-up of air pollutants in the dwellings, through cross ventilation, and either naturally ventilated or mechanical ventilation. Where there is mechanical ventilation, exhaust flues will be positioned away from intake flues for fresh air. In naturally ventilated buildings/spaces: openable windows/ventilators are over 10m from sources of external pollution.

<u>Noise</u>	
Issue	Compliance
Sources of Noise	The proposed site is located within an existing residential area, with few commercial units in the vicinity. The area is identified having a low potential for noise pollution from residential dwellings.

Mitigation of Noise Emitted by Development	Noise attenuation measures will be incorporated on-site where required, to ensure that any noise generated by equipment or services will not generate a source of noise pollution or negatively impact the surrounding area. The developer will comply with the council's construction noise rules which states what hours of the day the site can work within.
Mitigation of Noise impacts on the Development	For the occupiers of the dwellings, the specification of the partition walls, floors and external walls will be designed to go beyond Document E of the building regulations. The following should be followed, and best efforts will be made here were possible to avoid impacts of external noise to the occupiers. Locate noise sensitive areas/rooms away from the parts of the site most exposed to noises, create setbacks, design the building so its shape and orientation reflect noise and protect the most sensitive uses, position non-residential uses closer to the noise source in mixed use developments, design in lobbies, balconies, winter gardens and dual facades; and carefully locate noise generating equipment for the building such as plant and services away from sensitive uses.

Light Pollution

Issue	Compliance
Type of Light Pollution	Light pollution comprises any adverse effect of lighting for building occupiers, and for this development includes; Glare, 'Light Trespass' and 'Sky Glow' and Poor Artificial Lighting
Potential Effects	Light pollution can have a detrimental impact on the quality of life of residents; by significantly changing the character of the locality, altering wildlife and ecological patterns and wasting energy

Lighting Design to Minimise Impacts	To minimise obtrusive light where applicable, lights will be designed to be used only in appropriate areas, and that upward lighting is minimised, this will help to reduce light pollution and effect to neighbours. Where there is external lighting, it will have to be designed to the following standards. First to be energy efficient going beyond Part L of the building regulations, with the aim to achieve no less than 80 lumens per circuit watt. Second all external lights will be automatically controlled for the prevention of operation during daylight hours and presence detection in areas of intermitted pedestrian traffic. The ILP Guidance for the reduction of obtrusive light, 2001 will be used to design the lighting strategy. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes. Illuminated advertisements, where specified, must be designed in compliance with ILE Technical Report 5 – The Brightness of Illuminated Advertisements
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<u>Water Pollution</u>	
Issue	Compliance
How Sustainable Drainage Contributes to Water Quality	Surface water runoff will be managed through a combination of SuDS, in line with the London Plan Drainage Hierarchy, and based on a desktop study of underlying ground conditions. Through a combination of SuDS, water quality will be improved.
Connection of New Developments to the Sewer Network	It is proposed that surface water runoff from hardstanding areas will ultimately connect into the public sewer system, via attenuation storage with a controlled outlet.

5 Conclusion

The proposed development is to be located on land off Cascade Avenue and The Chine, where the existing site is currently an overgrown tennis court with a disused pavilion. Proposals are for the construction of eight dwellings consisting of two runs of four terrace houses and the conversion of an existing tennis pavilion into a bungalow, which will create a ninth dwelling.

Haringey Council Local Plan sets out Policy UD2: Sustainable Design and Construction, requires a sustainability statement to be provided for all planning applications in line with the key principals of the Sustainable Design and Construction of the London Plan Policy 5.3 to promote Sustainable Development.

Given the scale and nature of the development, this constrains the development proposals in terms of the layout, positioning and orientation of the proposed dwelling. Subsequently, these constraints will impact on the feasibility of certain sustainability and energy efficient measures that can feasibly be incorporated into the development (as discussed in Section 4 of this report).

The above sustainability statement sets out what the requirements are of the planning policies and what can be achieved for the proposed development.

The main features of the site to meet the building environmental standards are:

- The energy efficiency measures of the building are to go beyond Part L1a 2013, with a potentially a 63% saving in CO₂.
- The energy efficiency measures of the building are to go beyond current Part L1 2021
- The development is to take a fabric first approach, which is to be designed to be highly insulated, with low u-values, good air tightness and Mechanical ventilation with heat recovery
- The development has also reviewed feasible renewable and low carbon technology and is incorporating an ASHP with solar PV.
- Water efficiency is a big driver of sustainability and indoor fittings which will have water efficiency will be installed. These will help to go beyond building regulations and aim for 105L/person/day
- The location lends itself to good transport links

Appendix A Site Plan

Appendix B SAP Worksheet Improvement over Part L1a 2013

Appendix C SAP Worksheet Improvement over Part L1 2021