

Camden Planning Guidance

Amenity

London Borough of Camden

CPG 6



CPG6 Amenity

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1 Introduction

What is Camden Planning Guidance?

- 1.1 We have prepared this guidance to support the policies in our Local Development Framework (LDF). It is therefore consistent with the Camden Core Strategy and Development Policies, and is a formal Supplementary Planning Document (SPD) which is an additional “material consideration” in planning decisions. This guidance will replace Camden Planning Guidance 2006, updating advice where appropriate and providing new guidance on matters introduced or strengthened in the LDF.
- 1.2 Camden Planning Guidance covers a range of topics (such as design, housing, sustainability and planning obligations) and all of sections should be read in conjunction with, and within the context of, Camden’s other LDF documents.

Amenity in Camden

- 1.3 A key objective of the Camden Core Strategy is to sustainably manage growth so that it avoids harmful effects on the amenity of existing and future occupiers and to nearby properties.

What does this guidance cover?

- 1.4 This guidance provides information on all types of amenity issues within the borough and includes the following sections:
 1. Air quality
 2. Contaminated land
 3. Noise and vibration
 4. Artificial light
 5. Daylight and sunlight
 6. Overlooking, privacy and outlook
 7. Construction management plans
 8. Access for all
 9. Wind and micro-climate
 10. Open space, outdoor sport and recreation facilities

- 1.5 This guidance supports the following Local Development Framework policies:

Camden Core Strategy

- CS5 - Managing the impact of growth and development
- CS15 - Protecting and improving our parks and open spaces & encouraging biodiversity
- CS16 - Improving Camden’s health and well-being

Camden Development Policies

- DP26 - Managing the impact of development on occupiers and neighbours
- DP28 - Noise and vibration
- DP31 - Provision of, and improvements to, public open space and outdoor sport and recreation facilities
- DP32 - Air quality and Camden's Clear Zones

2 Air quality

KEY MESSAGES:

- All of Camden is a designated Air Quality Management Area due to the high concentrations of nitrogen dioxide (NO₂) and particulate matter (PM₁₀).
- All developments are to limit their impact on local air quality.

2.1 Poor air quality can harm health and the environment. The Council aims to make sure that new development does not harm air quality. This guidance provides advice on how to address air quality issues in planning applications.

2.2 Camden Core Strategy policy CS16 - *Improving Camden's health and well-being* and policy DP32 – *Air quality and Camden's Clear Zone* of the Camden Development Policies sets out our approach to air quality in the borough.

2.3 *Planning Policy Statement PPS23: Planning and Pollution Control* contains the Government's core policies and principles on air quality and air pollution. The London Plan outlines regional policies related to protecting local air quality during the planning process.



Air quality in Camden

2.4 An Air Quality Management Area (AQMA) must be declared by the local authority for an area that is unlikely to meet the national air quality targets for specific air pollutants. The authority then produces a Local Air Quality Action Plan. See Camden's website for our air quality plan.

2.5 The whole of Camden is an Air Quality Management Area (AQMA) as it does not meet national air quality targets for nitrogen dioxide (NO₂) and particulate matter (PM₁₀). The main sources of air pollution in Camden are road transport and gas boilers. The Council's Air Quality Action Plan outlines measures to reduce emissions from the key sources of air pollution in the borough. Included in the plan are measures to minimise and control NO_x and PM₁₀ emissions associated with new developments both during the construction of a building and its future use.

2.6 Air quality is particularly poor in the south of borough which is characterised by high levels of traffic. We will only grant planning permission for development that significantly increases travel demand in

the south of the borough where it includes appropriate measures to minimise the transport impact of development.

- 2.7 Where appropriate we will seek developments to include monitoring equipment to allow us to better understand local air quality.

WHAT DOES THE COUNCIL REQUIRE?

The Council's overarching aim is for new development is to be 'air quality neutral' and not lead to further deterioration of existing poor air quality.

You will be required to include mitigation and offsetting measures to deal with any negative air quality impacts associated with your development proposals. At the same time your development should be designed to minimise exposure of occupants to existing poor air quality.

To manage and prevent further deterioration of air quality in Camden, we will require an air quality assessment with planning applications for development that could have a significant negative impact in air quality. This impact can arise during both the construction and operational stages of a development as a result of increased NO_x and PM₁₀ emissions.

- 2.8 An air quality assessment will also be required for a proposal if it introduces uses that are susceptible to poor air quality, such as housing or a school, into areas of particularly poor air quality.
- 2.9 The Council will not grant planning permission for developments that could significantly harm air quality or introduce people into areas of elevated pollution concentrations, unless mitigation measures are adopted to reduce the impact to acceptable levels and protect public exposure (see paragraph 32.4 of policy DP32 of the Camden Development Policies).
- 2.10 Although all of Camden is covered by an AQMA we will only require an air quality assessments where development could potentially cause significant harm to air quality as set out in the table below.

An Air Quality Assessment is required in developments:

- with potential to significantly change road traffic on any road exceeding 10,000 vehicles per day. Significant changes include:
 - increase in traffic volumes > 5% (Annual Average Daily Traffic (AADT) – or peak);
 - lower average vehicle speed or significant increase in congestion;
 - significant increase in the percentage of HGVs;
- that introduce, or increase car parking facilities by, 100 spaces or more;
- with commercial floorspace of more than 1,000sq m;
- with more than 75 homes;
- where people will be exposed to poor air quality for significant periods of the day, in particular developments located on busy roads;
- involving the following - biomass boilers, biomass or gas combined heat and power (CHP);
- involving industrial or commercial floorspace regulation under the Environmental Permitting (England and Wales) Regulations (EPR) which will be subject to Environmental Assessment under the Town and Country Planning (Environmental Impact Assessment) Regulations 1999.

What should an air quality assessment cover?

- 2.11 Air quality assessments for developments potentially contributing to poor air quality are to include the following:
- a) An inventory of the PM₁₀ and NO_x emissions associated with the proposed development, including the type and quantity of emission concentrations, during the construction and operational phase. This shall cover transport, stationary and mobile emission sources.
 - b) The application of atmospheric dispersion modelling to predicted existing and future NO₂ and PM₁₀ concentrations, both with and without the proposed development. Dispersion modelling shall be carried out in accordance with Air Quality and Planning Guidance, London Councils (2007) and Technical Guidance Note (TG09). (Specific guidance for modelling combustion plant emissions can be obtained from the Council's Sustainability Team – see Useful Contacts at the end of this section).
 - c) An assessment of the significance of air quality impacts during both the construction and operational phases. Reference shall be made to the Environmental Protection UK Guidance Note: Development Control: Planning for Air Quality (2010 Update).
 - d) Consideration of the potential cumulative impacts on air quality which may arise during the construction or operational phases as a result of emissions arising from other developments within a 100m radius of the development.
 - e) Where a biomass boiler or combined heat and power (CHP)/combined cooling, heating and power (CCHP) will be used for

on site energy generation, you are to complete the Council's Air Quality Information Request Form. This requires specific technical details related to the appliance, fuel type, emission concentrations, maintenance and exhaust stack. The forms can be obtained from Camden's Air Quality Officer or the Council's air quality webpage under Environment.

- f) Applications which include biomass boilers or biomass CHP, the air quality assessment shall compare the impact of emissions from the intended biomass boiler/CHP and a gas boiler/CHP of identical thermal rating.
- g) An indication of the number of new occupiers and users of the site who will be exposed to poor air quality as a result of the development (the occupiers/users should also be shown on a map). For further information please refer to the Environmental Protection UK Guidance Note: Development Control: Planning For Air Quality (2010 Update).
- h) An assessment of the impacts on air quality of the demolition and construction phase and details of mitigation methods for controlling dust and emissions from plant and machinery. Reference should be made to the Best Practice Guidance: The control of dust and emissions at construction and demolition, London Councils (2006).
- i) An outline of, and justification for, mitigation measures associated with the design, location and operation of the development in order to reduce air pollution and exposure to poor air quality.

Developments containing sensitive uses

- 2.12 Developments which will not result in additional NO_x and/or PM₁₀ emissions and present no risk in worsening air quality, but introduce new sensitive uses to an area which breaches the air quality standards for NO₂ or PM₁₀ need to submit an assessment of the local air quality but can omit requirements B, D and E above.

What measures can reduce air pollution emissions and protect public exposure?

- 2.13 Various actions can be taken to mitigate air pollution emissions arising from the construction and operational phases of a new development. Additional actions can be adopted to curtail public exposure in areas where air pollution levels are particularly high. These should be taken into account during the design stage of an application. The key measures are detailed below:

Demolition and construction

- 2.14 The impact of the construction and demolition phases of a development on air quality must be taken into account as part of your planning application. Exhaust



emissions from construction vehicles and machinery such as generators, piling and grinding equipment can result in:

- dust emissions;
- gases (NO_x); and
- fine particles.

2.15 Controlling dust emissions is important to:

- prevent disturbance to local residents due to soiling;
- minimise damage to vegetation; and
- reduce impacts on local PM₁₀ concentrations, thereby protecting public health.

2.16 We may require PM₁₀ monitoring, before and during the construction and demolition phase, dependant upon the scale of the proposed development.

2.17 We will encourage best practice measures to be adopted during construction and demolition work to reduce and mitigate air pollution emissions. You will be encouraged to adopt the procedures outlined in the London Council's best practice guidance *The control of dust and emissions from construction and demolition*. These focus around three principles to control emissions – prevention, suppression and containment. We will expect you to include the following items in construction management plans:

- Identification of whether demolition/construction represents a low, medium or high risk site in the context of air quality.
- Identification of the best practice measure required to control and mitigate plant and vehicles exhaust emissions.
(See section 8 of this Guidance on Construction management plans for further details).

Distance of impacts

Depending of the size, location and characteristics of your development, impacts from demolition and construction phases can occur at distance of 10 to 500m.

Building location and design

2.18 The location of a development has a direct influence on exposure to elevated air pollution levels. This is particular relevant where developments include sensitive uses such as hospitals, schools and children's playgrounds. Suitable building design, layout and orientation can avoid increasing exposure whilst minimising energy demand and energy loss. The Council requires the impact of outdoor air pollution on indoor air quality in new developments to be taken into account at the earliest stages of building design.

- 2.19 The location of outside space is also an important consideration and any exposure of gardens and roof terraces should be screened and, where practicable, minimised through appropriate positioning and orientation. You should take care not to locate flues and exhaust vents in close proximity to recreational areas such as roof terraces or gardens. An energy efficient building design can minimise air pollution resulting from the use of gas boilers. Adopting sustainable building design (e.g. the Code for Sustainable Homes and the Building Research Establishment Environmental Assessment Method (BREEAM)), will reduce thermal heat losses and result in less gas use leading to lower NO_x emissions. See Camden Planning Guidance 3 – Sustainability for further details on the Code and BREEAM.

Gas boilers

- 2.20 Gas boilers are a large source of NO_x emissions in Camden. In order to minimise NO_x emissions arising from heating and hot water systems the Council requires boilers fitted in new development to achieve a NO_x emissions of <40 mg/m³ and an energy efficiency rating >90%.

Renewable Energy and Combined Heat and Power

- 2.21 Core Strategy policy CS13 promotes the use of renewable energy technologies to reduce carbon emissions and tackle climate change. The adoption of renewable energy and energy efficiency technologies in major developments can minimise air pollution emissions through reductions in gas consumption required for heating and hot water. These include solar thermal collectors and ground source heat pumps in addition to gas and hydrogen fuel cell combined heat and power (CHP) or combined cooling heat and power (CCHP).

Hydrogen fuel cell

A fuel cell is an electrochemical cell that converts energy from a fuel (hydrogen) into electricity.

- 2.22 Biomass boilers however can give rise to higher emissions of NO_x and PM₁₀ emissions than conventional gas boilers. Permission to operate these appliances will only be granted if the air quality impacts are demonstrated to be equivalent or lower than those associated with a conventional gas boiler of similar thermal rating. Where an assessment demonstrates adverse effects on air quality, this type of biomass boiler should not be used in the development.
- 2.23 You are advised to refer to the national guidance note *Biomass and Air Quality Guidance Note for Local Authorities*, published by Environmental Protection UK. In cases where emissions released from a biomass boiler do not lead to negative impacts on air quality, the



appliance will be required to meet high standards of air pollution control with particular emphasis given to:

- boiler design and operation;
- pollution abatement equipment;
- servicing and maintenance;
- fuel quality, storage and delivery; and
- exhaust stack height.

2.24 We will require evidence that the exhaust stack height of gas CHP/CCHP has been appropriately calculated to guarantee that NO_x emissions are effectively dispersed, and do not risk increasing ground level NO₂ concentrations. An air quality assessment will be required for developments including CHP/CCHP. Where the assessment reveals a negative impact on air quality, mitigation measures will be required entailing the best available techniques to reduce emissions. This includes the installation of NO_x abatement technology such as:

- use of low NO_x burners; or
- increasing stack height.

2.25 A programme of on-going maintenance and servicing will be necessary to minimise gas emissions released from CHP/CCHP.

2.26 The Council will use Section 106 obligations to set requirements for controlling emissions from biomass boilers and CHP/CCHP.

Traffic Reduction

2.27 Reducing car usage caused by new developments is the principle way to minimise vehicle emissions and protect local air quality. Please refer to transport policy *CS11 - Promoting sustainable and efficient travel* in the Camden Core Strategy for more on our approach to improving air quality through transport measures. This requires:

- the adoption of car free and car capped developments;
- provision cycling facilities to encourage sustainable transport;
- green travel plans;
- provision of car club bays; and
- infrastructure for low emissions vehicles such as electric vehicle recharging points.

Further information

Planning Guidance	<ul style="list-style-type: none"> • Planning Policy Statement 23: Planning and Pollution Control (2004) • Planning Policy Statement 23 Annex 1: Pollution Control, Air and Water Quality These documents outline the government's advice on methods of planning for pollution control.
Air Quality Guidance	<ul style="list-style-type: none"> • Technical Guidance Note: Assessment of Air Quality Issues of Planning Applications, Association of London Government (ALG), 2006 This provides technical advice on how to deal with planning applications that could have an impact on air quality. • Development Control: Planning for Air Quality. Environmental Protection UK, 2010 This advises of the significance of air quality assessments within the planning process. • Best Practice Guidance - The control of dust and emissions from construction and demolition (London Councils) 2006 The aim of this guidance is to protect the health of on-site workers and the public and to provide London-wide consistency for developers. • Biomass and Air Quality Guidance for Local Authorities (Environmental Protection UK) 2009 This guidance details procedures for assessing and managing the effects of biomass on air quality and provides background material. • Low Emission Strategies (Beacon Low Emission Group) 2009 This provides advice on how to reduce emissions of air pollutants and greenhouse gases from transport.
Useful Contacts	<p>Camden Council Corporate Sustainability Team www.camden.gov.uk/smallsteps (020 7974 4444) provides guidance on air quality in Camden</p>

3 Contaminated land

KEY MESSAGES:

- Contaminated land can pose a serious risk to health.
- The Council will expect developers to identify and assess potentially contaminated land at an early stage.
- Developers will be expected to follow the Council's Contaminated Land Strategy.

3.1 This guidance provides advice on how to approach the development of potentially contaminated sites. This guidance should be read in conjunction with Core Strategy policy CS16 – *Improving Camden's health and well-being*.

3.2 To protect the local environment and the health and well-being of residents, workers and visitors, we will carefully assess any proposals for the redevelopment of sites that:

- are known to be contaminated;
- have the potential to be contaminated, through previous or current uses; or
- are located in close proximity to these sites.

What is contaminated land?

3.3 Contaminated land is land that has been polluted with harmful substances to the point where it now poses a serious risk to health and the environment.

Causes of land contamination

- improper chemical handling or disposal practices,
- accidental spillages, or leakages of chemicals during manufacturing or storage.
- polluted groundwater migrating under a site
- particles settling from factory emissions.

3.4 The most common pollutants of land are metals and organic compounds. Typical land uses that can cause land contamination include petrol stations and gas works.

3.5 Contamination can also come from historical activities dating back many hundreds of years, such as spoil heaps from some Roman lead mines, and even from naturally occurring substances.

3.6 Contaminants may still be present above acceptable levels even though the polluting use stopped many years ago. 'Contaminated land' has a specific legal definition which is used in relation to an 'unacceptable risk'

of harm to health. For more information please see Department for Environment, Food and Rural Affairs (DEFRA) web pages.

- 3.7 In principle we will support the redevelopment of contaminated sites where the contamination issue can be successfully addressed and where future uses can be carried out safely. Remediation is particularly important where people have access to ground for gardening, play or planting food for consumption within redeveloped sites.

What should you do if your site is contaminated or potentially contaminated?

- 3.8 In accordance with Planning Policy Statement (PPS) 23: Planning and Pollution Control, if you propose a development on contaminated or potentially contaminated land, it is your responsibility to ensure that contaminated land issues are considered at the planning application stage.
- 3.9 Where contamination is known or suspected on a site or the proposed use would be vulnerable to contamination, we will expect you to provide, as a part of your planning application, the necessary information as outlined in this chapter to determine whether the proposed development is acceptable.
- 3.10 The information required will need to be sufficient for us to determine:
- the existence or otherwise of contamination;
 - the nature of the contamination and the risks it may pose; and
 - whether these can be satisfactorily reduced to an acceptable level.
- Please refer to Annex 2 of PPS23 for further details.
- 3.11 The identification and assessment of land contamination issues is to be carried out by a qualified and experienced consultant, in consultation with the Council's Environmental Health Service. The contamination report is to be submitted with your planning application so that contamination issues can be assessed at the planning application stage and any necessary remediation measures secured through conditions or a Section 106 legal agreement.
- 3.12 The Council's Contaminated Land Strategy sets out how we will:
- deal with contaminated land;
 - make information available to the public; and
 - implement the requirements of the Part IIa of the Environmental Protection Act 1990 and Environment Act 1995. This and other documents are available on the Council's website (www.camden.gov.uk/contaminatedland) and should be referred to where contamination is a potential issue.
- 3.13 If there is any existing contamination (or potential risk of contamination) to ground or surface water or to land with statutory nature conservation designation, either from the existing state of land or from proposed

works, the Environment Agency must be informed and their consent obtained to any works. The English Heritage Archaeological Section should be contacted where contaminated land is included within an Archaeological Priority Area.

Archaeological Priority Area

As specified in the Camden Proposals Map, and Map 4 of the Camden Development Policies, to help protect archaeological remains that might be affected by development. See policy DP25 Conserving Camden's Heritage of the Camden Development Policies for further guidance on the borough's Archaeological Priority Areas.

- 3.14 Your report should comply with the policies and advice given in PPS23 and its annexes. There are also various best practice documents and British Standards that should be followed. The London Boroughs have produced a local guidance document titled *Contaminated Land: A Guide to Help Developers Meet Planning Requirements*. This document provides guidance on what information should be contained within a contamination report and is available on Camden's website.

Supporting documents

PPS23	<p>Planning Policy Statement 23: Planning and Pollution Control. Office of the Deputy Prime Minister, November 2004. www.odpm.gov.uk</p> <p>In particular Annex 2 should be referred to as this section deals specifically with contaminated land issues. The policies and advice contained in PPS23 is not repeated in this guidance and therefore should be consulted for detailed guidance.</p>
Camden Council Website	<p>Information on the Council approach to management of land contamination, information on historical land uses in the Borough and a copy of the London Borough's 'Guide for Developers on Contaminated Land'.</p> <p>http://www.camden.gov.uk/contaminatedland</p>
Department of Food, Environment and Rural Affairs	<p>has published a number of documents on land contamination. These can be found at:</p> <p>www.defra.gov.uk/environment/land/contaminated/index.htm</p>
Environment Act 1995	<p>Available from Stationary Office:</p> <p>www.opsi.gov.uk/acts/acts1995/Ukpga_19950025_en_1.htm</p>

Useful Contacts

Camden Environmental Health Service (Contaminated Land) web page www.camden.gov.uk/contaminatedland has more information on the Council's approach to contaminated land.

English Heritage www.english-heritage.org.uk can provide advice on the approach to contaminated land within Archaeological Priority Areas.

4 Noise and vibration

KEY MESSAGES:

We will ensure that noise and vibration is controlled and managed to:

- Limit the impact of existing noise and vibration sources on new development; and
- Limit noise and vibration emissions from new development.

- 4.1 The impact of noise and vibration can have a major affect on amenity and health and can severely affect people's quality of life.
- 4.2 Policy *DP28 – Noise and Vibration* of the Camden Development Policies aims to ensure that noise and vibration is controlled and managed. It sets out the Council's thresholds for noise and vibration and goes beyond the thresholds set out in Planning Policy Guidance 24: Planning and noise (see below). DP28 contains noise/vibration thresholds for the day, evening and night.



How can the impact of noise and vibration be minimised?

4.3 The main sources of noise and vibration in Camden are generated from:

- Road traffic;
- Railways;
- Industrial uses;
- Plant and mechanical equipment;
- Entertainment uses (such as bars and nightclubs); and
- Building sites.

4.4 For details on how to manage noise and vibration from building sites see section 8 on Construction management plans.

Ways to minimise the impact of noise on your development

Design

- Locating noise sensitive areas/rooms away from the parts of the site most exposed to noises;
- Creating set backs;
- Designing the building so its shape and orientation reflect noise and protect the most sensitive uses;
- Stacking similar rooms (such as kitchens and living rooms) above each other; and
- Positioning non-residential uses closer to the noise source in mixed use developments.

Built fabric

- Insulating and soundproofing doors, walls, windows, floors and ceilings;
- Sealing air gaps around windows;
- Double glazing;
- Including architectural fins (where appropriate); and
- Laminated glass.

Landscaping and amenity areas

- Incorporating planting, landscaping, fencing/barriers and solid balconies to reflect sound.

4.5 Our preference for controlling noise:

- Begins with attempting to reduce noise at its source;
- Then to separate the development (or at least the sensitive parts e.g. habitable rooms) from the source or to use noise barriers; and

- Finally construction materials such as acoustic glazing should be used.

- 4.6 When you consider measures to minimise noise and vibration you also need to take into account our policies on design and crime prevention. You should consider the implications of noise and vibration at the beginning of the design process to enable prevention or mitigation measures to be designed into the scheme. Poorly designed schemes will not be acceptable.
- 4.7 Proposals will be expected to include appropriate attenuation to alleviate or mitigate the impact of noise and vibrations to an acceptable level, as set out in policy *DP28 – Noise and vibration* of the Camden Development Policies. Where appropriate, the Council will consider the cumulative impact of noise sources (for example, air conditioning units).
- 4.8 Everyday domestic activities can also generate noise, e.g. communal entrances and roof terraces. Sufficient sound insulation must be provided between dwellings to prevent the transmission of noise between them, particularly in conversions where new partition walls are often deficient in terms of insulation.

Ways to mitigate noise emitted by your development

Engineering

- Reducing the noise emitted at its point of generation (e.g. by using quiet machines and/or quiet methods of working);
- Containing the noise generating equipment (e.g. by insulating buildings which house machinery and/or providing purpose-built barriers around the site); and
- Protecting any surrounding noise-sensitive buildings (e.g. by improving sound insulation in these buildings and/or screening them by purpose-built barriers).

Layout

- Ensuring an adequate distance between source and noise-sensitive buildings or areas; and
- Screening by natural barriers, buildings, or non-critical rooms in the development.

Administrative

- Limiting the operating time of the source;
- Restricting activities allowed on the site; and
- Specifying an acceptable noise limit.

- 4.9 If your proposal could result in noise and vibration that would cause an unacceptable impact to nearby uses or occupiers, or proposes sensitive uses near a source of noise or vibration and cannot be adequately attenuated then planning permission is likely to be refused.

Developments will be assessed against the thresholds set out in policy DP28.

How will the Council manage the impact of noise and vibration?

- 4.10 Detailed acoustic/noise and vibration information in the form of a report will be required if your development proposes:
- The installation of plant, ventilation or air conditioning equipment;
 - A use that will create significant noise (e.g. new industry, nightclub)
 - A noise-sensitive development in an area where existing noise sources are present (e.g. an existing industrial site, busy road, railway line);
 - A use that will generate a significant amount of traffic.

Noise sensitive developments

Those developments located near sources of noise, including housing, schools and hospitals as well as offices, workshops and open spaces.

- 4.11 The list above is a guide only and you may need to provide noise and vibration information for other developments depending on the circumstances of the site or proposal.
- 4.12 The appropriate amount and detail of information required will depend on the specific circumstances of your proposal. At a minimum you will be expected to provide the following information to support your application:
- Description of the proposal;
 - Description of the site and surroundings, a site map showing noise and vibration sources, measurement locations and noise receivers;
 - Background noise levels;
 - Details of instruments and methodology used for noise measurements (including reasons for settings and descriptors used, calibration details);
 - Details of the plant or other source of noise and vibration both on plan and elevations and manufacturers specifications;
 - Noise or vibration output from proposed plant or other source of noise and vibration, including:
 - Noise or vibration levels;
 - Frequency of the output;
 - Length of time of the output;
 - Features of the noise or vibration e.g. impulses, distinguishable continuous tone, irregular bursts;
 - Manufacturers' specification of the plant, supporting structure, fixtures and finishes;

- Location of neighbouring windows (and use if applicable);
- Details of measures to mitigate noise or fume emissions and vibration;
- Details of any associated work including acoustic enclosures and/or screening;
- Cumulative noise levels of all the proposed and existing units;
- Hours/days of operation.

4.13 Where appropriate the Council will seek a legal agreement to control or reduce noise levels where this is unlikely to be met through the use of a condition attached to a planning permission.

Further information

PPG24	<p>Planning Policy Guidance Note 24: Planning and Noise provide Government guidance on noise. This guidance defines four Noise Exposure Categories (A-D) and outlines what should be done if your proposal falls into one of these categories. Advice is also provided on how to address noise issues and secure amelioration methods through the planning system.</p> <p>www.communities.gov.uk/publications/planningandbuilding/ppg24</p>
DEFRA	<p>The Department of Food, Environment and Rural Affairs provide a number of publications on noise and noise related issues.</p> <p>www.defra.gov.uk</p>
Camden Council website	<p>Camden's Environmental Health web pages provide strategic information on noise in Camden including the results of monitoring that has taken place</p> <p>www.camden.gov.uk/noise</p> <p>Also see <i>Camden's Guide for Contractors working in Camden</i> on the Camden website.</p>
The Mayor's Ambient Noise Strategy	<p>This provides details on the Mayor of London's approach to reducing noise in London.</p> <p>http://legacy.london.gov.uk/mayor/strategies/noise/docs/noise_strategy_all.pdf</p>

5 Artificial light

KEY MESSAGES:

When considering proposals for artificial lighting the Council will consider the:

- need for planning permission;
- need for the lighting;
- design of the lighting; and
- impacts on biodiversity.

5.1 This section provides guidance on the Council's approach to artificial lighting. This guidance should be read in conjunction with policy *DP26 Managing the impact of development on occupiers and neighbours* of the Camden Development Policies.

5.2 Artificial lighting has many benefits, however excessive or poorly designed lighting can be damaging to the environment and result in visual nuisance including by:

- Having a detrimental impact on the quality of life of neighbouring residents;
- Significantly changing the character of the locality;
- Altering wildlife and ecological patterns; and
- Wasting energy.



5.3 Nuisance often occurs due to glare and 'light spillage' because the lighting has been poorly designed.

5.4 *Planning Policy Statement 23 (PPS23): Planning and Pollution Control* enables the Council to take account of the possible obtrusive impact of

lighting and paragraph 3.25 of PPS23 permits us to use conditions or planning obligations to protect the environment.

WHAT IS LIGHT POLLUTION?

Light pollution is the term used to describe any adverse effect of artificial lighting. Light pollution includes:

- Glare - the uncomfortable brightness of a light source when viewed against a dark sky;
- 'Light trespass' – the spread of light spillage the boundary of the property on which a light is located; and
- 'Sky glow' - the orange glow we see around urban areas caused by a scattering of artificial light by dust particles and water droplets in the sky.

Will planning permission be required for lighting?

- 5.5 Structures supporting, and the installation of lighting equipment may require planning permission, especially if they are substantial or affect the external appearance of a building. Planning permission is not required for the carrying out of maintenance which affects only the interior of the building or does not materially affect the external appearance of the building. Temporary lighting schemes generally do not require planning permission.
- 5.6 Planning permission is normally required for:
- the erection of columns to support lighting or other similar structures;
 - the erection of substantial structures or installations that affect the external appearance of a property;
 - external lighting as part of an industrial or commercial scheme;
 - new lighting structures or works which are integral to other development requiring planning permission; and
 - illuminated advertisements, although there are some exceptions such as those indicating medical services and some commercial advertisements on the front of business premises (See Camden Planning Guidance 1 - Design).
- 5.7 You are advised to check with the Planning Service before installing any lighting scheme. You will need to provide the following details:
- Number of lights;
 - Likely lux output;
 - The height of the lighting columns (if applicable); and
 - The area to be lit.

In accordance with policy DP26 in Camden Development Policies, schemes that would cause harm to amenity will not be permitted.

What information should accompany a planning application?

- 5.8 Where planning permission for lighting schemes is required you will need to submit the information required by paragraph 5.7. We will also expect the submission of the following additional information:
- The design of lights and infrastructure;
 - A plan or plans showing layout of the lights, including orientation of the beams of light;
 - Lighting levels, lumen details, lamp type, wattage;
 - Control systems including types and location of sensors, times lighting will be on; and
 - The need for the lighting, that is, an explanation of what activity the lighting is supporting.

- 5.9 All light installations must be energy efficient and 'Dark Sky' compliant, thereby not causing obtrusive light pollution, glare or spillage (by reference to the British Astronomical Association Campaign for Dark Skies).

Lumen

This is a measurement of the light output from a light source.

Lux

This is a measurement of the light intensity falling on a surface.

Dark sky compliance

To design lighting schemes in order to avoid lighting that extends beyond its intended target and would be inefficient and waste energy. It also avoids glare and light in unwanted areas.

What should you consider when designing lighting?

General lighting requirements

- 5.10 To minimise obtrusive light you should follow the general principles taken from the Institution of Lighting Engineers, Guidance Notes for the Reduction of Obtrusive Light (2005):
- a) Lighting is to be directed downwards wherever possible to illuminate its target. If there is no alternative to up lighting, then the use of shields will help reduce the spill of light to a minimum. Up lighting is a particularly bad form of obtrusive light and contributes to sky glow.
 - b) Lighting is to be designed to minimise the spread of light near to, or above, the horizontal. Again, any light that shines above the horizontal line of the light adds to the sky glow effect.
 - c) Lighting should be designed to the correct standard for the task. Over-lighting is a cause of obtrusive light and also represents a waste of money and energy.
 - d) The main beam angle of all lights proposed directed towards any potential observer is to be kept below 70°. It should be noted that the higher the mounting height, the lower the main beam angle could be. This will help reduce the effect of glare and light spill on neighbouring dwellings, passing motorists, pedestrians, etc.
 - e) Lighting should be directed to minimise and preferably avoid light spillage onto neighbouring properties. Wherever possible use floodlights with asymmetric beams that permit the front glazing to be kept at, or near parallel to, the surface being lit.
 - f) The lights used should be the most efficient taking into account cost, energy use, and the purpose of the lighting scheme required. All lighting schemes should meet British Standards.
- 5.11 We will seek to ensure that artificial lighting is sited in the most appropriate locations to cause minimal disturbance to occupiers and wildlife, while still illuminating the intended area. This includes considering any occupiers located above the lighting source.

- 5.12 Consideration should be given to lighting associated with buildings of special historic and architectural interest in order to protect their special interest and that of the wider area. This applies both to the lighting of such buildings and the impact of the lighting installation when seen by day.

Lighting Infrastructure

- 5.13 The visual effect of lighting infrastructure when viewed in the daytime needs to be considered. These elements can include junction boxes, poles, brackets and cabling. The design, size and colours of the physical infrastructure needs to be carefully considered and should relate to the building it is located on.

Use

- 5.14 The design of lighting should be specific to the use it supports (e.g. for recreation facilities). Hours of lighting should be limited to the times needed to support the use (both in summer and winter) and be restricted through the use of timers and sensors where relevant (e.g. for security lighting).
- 5.15 The Council may seek to secure conditions to any planning permission in order to control the hours of operation of any approved lighting scheme.

Why do impacts on biodiversity need to be considered?

- 5.16 Artificial lighting can often impact on wildlife habitats, particularly where lighting is proposed in open spaces, for example to provide lighting for sports courts and pitches or to improve security (such as along Regents Canal). Artificial lighting can have particularly severe implications for the natural daily rhythms of a range of animals and plants, and therefore sites and habitats identified for their nature conservation value should not be adversely affected by lighting. (See the Local Development Framework Proposals Map for a list of nature conservation sites).
- 5.17 If your proposed lighting is located within or adjacent to areas of open space we will expect that any biodiversity impacts arising from the installation or operation of the lighting is mitigated. This may require a survey to identify if there are any nesting birds in the immediate vicinity or if it is close to an area where bats may hibernate or emerge at feeding time. This is particularly important if the operation of the lighting extends beyond dusk, which is roughly the time bats will come out to forage. See Camden Planning Guidance 3 – Sustainability for further information on our approach to protecting biodiversity.
- 5.18 You should contact Camden's Biodiversity Officer at an early stage to discuss measures to mitigate the impact of lighting schemes on biodiversity.

Further information

PPS23	Planning Policy Statement 23: Planning and Pollution Control. Office of the Deputy Prime Minister, November 2004. www.odpm.gov.uk
DEFRA	The Department of Food, Environment and Rural Affairs has published a number of documents on light pollution. These can be found at: http://www.defra.gov.uk/environment
Environment Act 1995	Available at the Stationary Office: www.opsi.gov.uk/acts/acts1995/Ukpga_19950025_en_1.htm

Useful Contacts

Camden Planning Service www.camden.gov.uk/planning

The Institution of Lighting Professionals www.theilp.org.uk promotes good practice and excellence in lighting schemes.

The Chartered Institute of Building Services Engineers www.cibse.org provides information on appropriate lighting designs and mechanisms.

6 Daylight and sunlight

KEY MESSAGES:

- We expect all buildings to receive adequate daylight and sunlight.
- Daylight and sunlight reports will be required where there is potential to reduce existing levels of daylight and sunlight.
- We will base our considerations on the Average Daylight Factor and Vertical Sky Component.

6.1 Access to daylight and sunlight is important for general amenity, health and well-being, for bringing warmth into a property and to save energy from reducing the need for artificial lighting and heating. The Council will carefully assess proposals that have the potential to reduce daylight and sunlight levels for existing and future occupiers.

6.2 This guidance relates to:

- Camden Core Strategy policy CS5 - *Managing the Impact of Growth and Development*;
- Core Strategy policy CS14 - *Promoting high quality places and conserving our heritage*; and
- Policy DP26 – *Managing the impact of development on occupiers and neighbours* of the Camden Development Policies.

DP26 sets out how the Council will protect the quality of life of building occupiers and neighbours by only granting permission for development that does not cause harm to amenity.

When will a daylight/sunlight report be required?

6.3 The Council expects that all developments receive adequate daylight and sunlight to support the activities taking place in that building.

6.4 A daylight and sunlight report should assess the impact of the development following the methodology set out in the most recent version of Building Research Establishment's (BRE) "Site layout planning for daylight and sunlight: A guide to good practice". Reports may be required for both minor and major applications depending on whether a proposal has the potential to reduce daylight and sunlight levels. The impact will be affected by the location of the proposed development and its proximity to, and position in relation to, nearby windows.

WHAT DOES THE COUNCIL REQUIRE?

The Council will require a daylight and sunlight report to accompany planning applications for development that has the potential to reduce levels of daylight and sunlight on existing and future occupiers, near to and within the proposal site.

Daylight and sunlight reports should also demonstrate how you have taken into consideration the guidance contained in the BRE document on passive solar design; and have optimised solar gain. Please refer to the BRE guidance on daylight and sunlight.

- 6.5 While we strongly support the aims of the BRE methodology for assessing sunlight and daylight we will view the results flexibly and where appropriate we may accept alternative targets to address any special circumstances of a site. For example, to enable new development to respect the existing layout and form in some historic areas. This flexible approach is at the Council's discretion and any exception from the targets will be assessed on a case by case basis.

Daylight

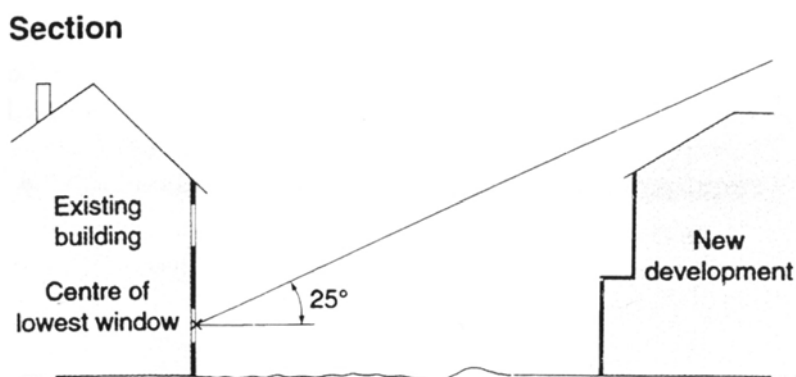
- 6.6 We will aim to minimise the impact of the loss of daylight caused by a development on the amenity of existing occupiers and ensure sufficient daylight to occupiers of new dwellings taking in account overall planning and site considerations. If your proposal will have an unreasonable impact on amenity the planning application will be refused. When assessing daylight issues, we will use the guidelines and methods contained in the BRE's *Site layout planning for daylight and sunlight: A guide to good practice*.
- 6.7 There are two quick methods that can be used to assess access to daylight:

Daylight to new development

- project a 25 degree line, starting 2m above ground level from a wall of your proposed development;
- if none of the existing surrounding buildings extend above this line, then there is potential for good daylighting to be achieved in the interior of your new development.

Daylight to existing development

- project a 25 degree line from the centre of the lowest window on the existing building;
- if the whole of your new development is lower than this line then it is unlikely to have a substantial effect on the daylight enjoyed by occupants in the existing building.



Source: BRE, Site layout planning for daylight and sunlight: A guide to good practice.

- 6.8 For either test, if buildings extend above the 25 degree line a more detailed test needs to be carried out to fully assess either the loss of daylight in existing buildings or the level of daylight achievable in the new development. The two most common measurements of daylight of the more detailed test are the Vertical Sky Component (VSC) and the Average Daylight Factor (ADF).

Vertical Sky Component

The amount of light striking the face of a window

- 6.9 The Vertical Sky Component is expressed as a ratio of the maximum value of daylight achievable for a completely unobstructed vertical wall. The maximum value is almost 40%. This is because daylight hitting a window can only come from one direction immediately halving the available light. The value is limited further by the angle of the sun. This is why if the VSC is greater than 27% enough sunlight should be reaching the existing window. Any reduction below this level should be kept to minimum.
- 6.10 Windows to some existing rooms may already fail to achieve this target under existing conditions. In these circumstances it is possible to accept a reduction to the existing level of daylight to no less than 80% of its former value. Any greater reduction than this is likely to have a noticeable affect on amenity. If this occurs then applications may be refused.

Average Daylight Factor

Average Daylight Factor is a measure of the level daylight in a room. It can be used to establish whether a room will have a predominantly daylit appearance. It provides light levels below which a room should not fall even if electric lighting is provided.

- 6.11 The Average Daylight Factor can be used as a measure to determine whether a room will receive adequate daylight (expressed as a percentage). The ADV takes into account the:
- net glazed area of windows;

- the total area of the room surfaces (ceiling, floor, walls, and windows);
 - the average reflectance; and
 - the angle of visible sky.
- 6.12 If a predominately daylit appearance is required, then the daylight factor should be 5% or more if there is no supplementary electric lighting, or 2% or more if supplementary electric lighting is provided. This figure should be as high as possible to enable occupiers to rely on as much natural light and not use artificial lighting, but as a minimum for dwellings the figures should be 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.
- 6.13 These minimum figures may not be applicable when measuring the impact of new buildings on existing dwellings as the simple preservation of minimum ADFs will not necessarily be seen as an indication of acceptability, especially if the VSC demonstrates a significant worsening in daylight levels. For existing dwellings the Council will consider the overall loss of daylight as opposed to the minimum acceptable levels of daylight. As the BRE guidance suggests, the readings will be interpreted flexibly as their aim is to support rather than constrain natural lighting. However, daylight is only one of the many factors in site layout design. Therefore, when applying these standards in Camden, we will take into consideration other site factors and constraints.
- 6.14 The calculation of the VSC and the ADF is complex. For full details on how these calculations are carried out you should refer to the most up to date version the BRE's "Site layout planning for daylight and sunlight: A guide to good practice". For more complex and larger developments we will expect a daylight study to be submitted with the planning application showing the windows that will be affected and provide before development and post development figures for VSC and ADF.
- 6.15 Other methods can be used to measure daylight and these can be incorporated in daylight and sunlight reports, where necessary, as a supplement to VSC and ADF measurements, such as the No Sky Line (NSL) test contained within BRE guidance.

Sunlight

- 6.16 The design of your development should aim to maximise the amount of sunlight into rooms without overheating the space and to minimise overshadowing.

WHAT DOES THE COUNCIL EXPECT?

New developments should be designed to provide at least one window to a habitable space facing within 90 degrees of south, where practical. This window should receive at least 25% of Annual Probable Sunlight Hours, including at least 5% of Annual Probable Sunlight Hours between 21 September and 21 March, where possible.

Annual Probable Sunlight Hours

The annual amount of sunlight a window receives in an average year.

- 6.17 The BRE's "Site layout planning for daylight and sunlight: A guide to good practice" provides guidance on access to sunlight in relation to:
- site layout, building orientation and overshadowing for new buildings;
 - protecting sunlight to existing buildings, and
 - new and existing gardens and open spaces.
- 6.18 Design for access to sunlight will be specific to the orientation of your site, and the specific design and uses within your proposed development. You should follow the detailed design requirements recommended in the "Sunlighting" section of the BRE document. The Council recognises that not all of the guidance contained within the BRE document, particularly orientation, can be adhered to in all developments due to the dense and constrained urban nature of Camden.

Other considerations**Right to Light**

- 6.19 The right to light is a legal right which one property may acquire over the land of another. If a structure is erected which reduces the light to an unobstructed property to below sufficient levels this right is infringed. A right to light can come into existence if it has been enjoyed uninterrupted for 20 years or more, granted by deed, or registered under the Rights of Light Act 1959. Planning permission does not override a legal right to light, however where a right to light is claimed, this is a matter of property law, rather than planning law. The Council will have no role or interest in any private dispute arising and it will be for the owner or occupier affected to seek a legal remedy.

Supporting documents

- 6.20 For further information on daylight and sunlight please refer to:
Building Research Establishment (BRE). Site layout planning for daylight and sunlight: A guide to good practice.
Copies of this are available directly from BRE.

BRE Bookshop, 151 Roseberry Avenue, London, EC1R 4GB
020 7505 6622
brebookshop@emap.com
www.constructionplus.co.uk

7 Overlooking, privacy and outlook

KEY MESSAGES:

- Development are to be designed to protect the privacy of existing dwellings;
- Mitigation measures are to be included when overlooking is unavoidable;
- Outlook from new developments should be designed to be pleasant;
- Public spaces benefit from overlooking as natural surveillance.

- 7.1 This section aims to ensure that when designing your development you successfully consider the potential impact on the privacy and outlook of neighbouring properties.
- 7.2 This guidance relates to Core Strategy policy CS5 Managing the Impact of Growth and Development and Core Strategy policy CS14 Promoting high quality places and conserving our heritage.
- 7.3 Policy *DP26 – Managing the impact of development on occupiers and neighbours* of the Camden Development Policies outlines how the Council will protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity.

Overlooking and privacy

- 7.4 Development should be designed to protect the privacy of both new and existing dwellings to a reasonable degree. Spaces that are overlooked lack privacy. Therefore, new buildings, extensions, roof terraces, balconies and the location of new windows should be carefully designed to avoid overlooking. The degree of overlooking depends on the distance and the horizontal and vertical angles of view. The most sensitive areas to overlooking are:
- Living rooms;
 - Bedrooms;
 - Kitchens; and
 - The part of a garden nearest to the house.

WHAT IS GOOD PRACTICE?

To ensure privacy, there should normally be a minimum distance of 18m between the windows of habitable rooms of different units that directly face each other. This minimum requirement will be the distance between the two closest points on each building (including balconies).

- 7.5 Where this standard cannot be met we may require you to incorporate some of the following design measures into your scheme to ensure

overlooking is reduced to an acceptable level. Design measures to reduce the potential for overlooking and the loss of privacy include:

- Careful consideration of the location of your development, including the position of rooms;
- Careful consideration of the location, orientation and size of windows depending on the uses of the rooms;
- Use of obscure glazing;
- Screening by walls or fencing; and
- Screening by other structures or landscaping.

7.6 Where landscaping is used as a method of screening, arrangements for ongoing maintenance should be put in place and this may be secured by a planning condition.

7.7 Public spaces and communal areas will benefit from a degree of overlooking due to the increased level of surveillance it can provide.

Outlook

7.8 Outlook is the visual amenity enjoyed by occupants when looking out of their windows or from their garden. How pleasant an outlook is depends on what is being viewed. For example, an outlook onto amenity space is more pleasant than an outlook across a servicing yard. You should design developments so that the occupiers have a pleasant outlook. You should screen any unpleasant features with permanent landscaping.

7.9 When designing your development you should also ensure the proximity, size or cumulative effect of any structures do not have an overbearing and/or dominating effect that is detrimental to the enjoyment of their properties by adjoining residential occupiers. You should carefully consider the location of bin or cycle stores if they are in close proximity to windows or spaces used by occupiers.

7.10 You should take particular care if your development adjoins properties with a single aspect over your development.

7.11 You should note that the specific view from a property is not protected as this is not a material planning consideration.

Further information

Better Places to Live: By Design - A companion guide to PPG3 (ODPM) makes number of design recommendations which recognise the importance of privacy in the home.

Perceptions of Privacy and Density in Housing report available from Design for Homes; 0870 416 3378 or www.designforhomes.org. This report highlights some of the issues facing households living at higher densities, and the implications for future design of buildings.

11 Open space, outdoor sport and recreation facilities

KEY MESSAGES:

- If your scheme is over a certain size it is expected to make a contribution towards the provision of public open space in the borough;
- Our priority is for the provision of public open space on-site, therefore it is important this is taken into account at the design stage of your scheme;
- Other forms of public open space contributions could be provision off-site or as a payment in lieu.

- 11.1 This guidance gives details of how the Council expects development to provide for a variety of public open space, outdoor sport and recreation facilities. It sets out:
- Which developments are expected to make provision for open space, outdoor sport and recreation opportunities;
 - The amount of open space we expect;
 - The type of open space and outdoor sport and recreation facilities we expect;
 - How we will calculate the open space expected for a specific development; and
 - The Council's priorities for how open space, outdoor sport and recreation facilities will be provided.

- 11.2 This guidance primarily relates to:

Core Strategy Policies:

- CS5 – Managing the impact of growth
- CS15 – Protecting and improving our parks and open spaces and encouraging biodiversity

Development Policies:

- DP26 – Managing the impact of development on occupiers and neighbours
- DP31 – Provision of, and improvements to, open space and outdoor sport and recreation facilities.

Which developments are expected to contribute towards open space, outdoor sport and recreation facilities?

- 11.3 As set out in paragraph 31.6 the Camden Development Policies document you will need to make a contribution to the provision of these facilities in the borough if your development falls within the following categories:

- Five or more additional dwellings;
- Student housing schemes creating an additional 10 or more units/rooms or occupiers; and
- Developments of 500sq m or more of any floorspace that are likely to increase the resident, worker or visitor populations of the borough.



How much open space do we expect?

- 11.4 Development Policy *DP31 – Provision of, and improvements to, open space and outdoor sport and recreation facilities* sets out the amount of open space to be provided by developments as follows:

Figure 2. Amount of open space to be provided by land use

Development type	Open space provision
Residential (all types)	9 sq m per occupier
Commercial development	0.74 sq m per worker

- 11.5 Non-residential developments for higher education are considered to generate requirements per occupier (including employees and students) at the same rate as commercial developments.

What types of open space, outdoor sport and recreation facilities will we expect?

- 11.6 Open space standards relate specifically to public open space. The Council acknowledges the private amenity space and other private open land can reduce pressure on the use of public open space. However public open spaces provide opportunities for social interaction and a focus for community activities. Private spaces cannot be used as a substitute for public open space.

- 11.7 Public open space includes a wide variety of different facilities that are available to the public:
- Green amenity spaces, including natural and semi-natural spaces;
 - Active spaces for outdoor sport and recreation and for children’s play; and
 - Civic spaces.
- 11.8 Green amenity spaces can be formal or informal parks and gardens or other landscaped areas, which provide areas of passive recreation for all age groups and attractive green areas within the urban environment. They are intended to be attractive spaces for people to enjoy using or viewing. This type of open space can include areas of natural or semi-natural green spaces, which support wildlife conservation and biodiversity and promote environmental education and awareness.
- 11.9 Active spaces are areas of grassed or artificial surfaces providing opportunities for sport and recreation together with ancillary facilities such as changing rooms and flood lighting. These include playing pitches, courts, greens, athletic tracks and Multi Use Games Areas (MUGAs). Formal recreation areas may be stand-alone facilities or may form part of a larger open space (e.g. the tennis courts and bowling greens at Hampstead Heath).
- 11.10 Civic spaces are hard surfaced areas designed for pedestrians, such as piazzas, which often provide a setting for civic buildings.
- 11.11 Given the amount of hard surfaces in Camden, our priority will generally be for green spaces, especially in the south of the borough. Paragraphs 11.12 to 11.17 give more details of specific types of public open space.

Children’s play space and young people’s recreation space

- 11.12 These are formal or informal areas designed to engage children or young people. Formal spaces are designated areas for children and young people containing a range of facilities and an environment that has been designed to provide focused opportunities for outdoor play. There are three categories of formal children’s play space defined by the National Playing Fields Association (NPFA).
1. LAP - Local Area for Play;
 2. LEAP - Local Equipped Area for Play;
 3. NEAP - Neighbourhood Equipped Area for Play.
- 11.13 Informal spaces are less well defined areas and can be incorporated into smaller spaces such as local footpaths where wide enough or town centre spaces. It involves incorporating features that children can play with such as fountains or objects to climb.
- 11.14 Contributions to children’s play space and young people’s recreation space can include formal and informal areas. We must be satisfied that any informal space has been sufficiently designed to meet the requirements of children and young people.

Natural and semi-natural green spaces

- 11.15 These include sites and areas formally recognised for their nature conservation value such as Sites of Special Scientific Interest, Sites of Nature Conservation Importance and Local Nature Reserves as well as other areas with biodiversity such as gardens, parks and open spaces.
- 11.16 In exceptional circumstance, generally in areas deficient in nature conservation sites, we may consider the inclusion of a biodiverse green roof, brown roof or green wall as a contribution towards natural and semi-natural green spaces in the borough. For more information about areas of deficiency please see Appendix A to this section. For more information about green roofs, brown roof and green walls please see Camden Planning Guidance 3 – Sustainability.

Allotments and Community Gardens

- 11.17 Allotments and community gardens provide opportunities for people to grow food as part of the long term promotion of sustainability, health and social inclusion.

What type of open space, outdoor sport and recreation facilities are expected for specific development types?

- 11.18 For this guidance, and in line with *Camden's Open space, Sport and Recreation Study Update 2008* we have identified the following five broad categories of open space:
- Public amenity open space;
 - Children's play space and young people's recreation space;
 - Natural and semi-natural green space;
 - Allotments and community gardens; and
 - Outdoor sport and recreation.
- 11.19 We recognise that not every type of development will generate a need for all types of open space, outdoor sport and recreation facilities. For example, housing for older people will not generate demand for children's play space. Figure 3 sets out the types of open space that are likely to be needed for various types of development.

Figure 3. Type of open space to be provided by development

	Amenity open space	Children's playspace	Natural green-space	Outdoor sport facilities	Allotments / Community gardens
Self-contained homes (Use Class C3)	✓	✓	✓	✓	✓
Student housing	✓	x	✓	✓	x
Housing for older people	✓	x	✓	x	✓
Commercial	✓	x	✓	✓	x

Source: adapted from Camden Open Space, Sport and Recreation Study Update 2008.

- 11.20 The requirement for 9 sq m of public open space per residential occupier and 0.74 sq m of public open space per employee/ student (commercial/ higher education developments) should generally be divided into different types of open space approximately as set out in Figure 4.
- 11.21 In Camden the potential to add to outdoor sports facilities for adults is limited. Provision for outdoor sports will be sought within the overall requirement of 9 sq m per residential occupier where an opportunity for provision arises. Where a development provides public facilities for outdoor sports these will reduce the requirement for other types of open space.
- 11.22 The Camden Open Space, Sport and Recreation Study Update 2008 derived a separate standard for allotments of 0.9 sq per residential occupier. The study indicated that additional space to grow food could only be provided by taking a flexible approach including community gardens, roof gardens, temporary use of vacant sites and converting parts of existing open spaces. Although the standard is not included within the 9 sq m overall requirement, paragraph 31.7 of the Camden Development Policies document indicates that allotments and community gardens are a Council priority. Provision will be sought wherever an opportunity arises, and will be considered to reduce the requirement for other types of open space.

**Figure 4. Break down of open space by type of provision
Residential Developments (all types)**

Type of open space	Provision per adult	Provision per child
Amenity open space	5 sq m	4 sq m
Children's playspace (where applicable)		2.5sq m
Natural green space	4 sq m	2.5 sq m

Commercial / higher education (non-residential)

Type of open space	Provision
Amenity open space	0.4 sq m per person
Natural green space	0.34 sq m per person

How we will calculate the open space expected for a specific development

- 11.23 Figure 5 below shows the figures we will use to assess open space requirements for individual residential, commercial and higher education developments. The figures are based on the break down of open space requirements in Figure 4 and the occupancy rates recommended by the Camden Open Space, Sport and Recreation Study Update 2008. The occupancy rates are given in Appendix B to this section.

Figure 5. Open space required for specific developments

Self-contained homes in Use Class C3	Amenity open space	Children's play space	Natural green space	Total
One bedroom home	6.5 sq m		5.2 sq m	11.7 sq m
Two bedroom home	9.2 sq m	0.6 sq m	7.2 sq m	17.0 sq m
Three bedroom home	12.8 sq m	2.9 sq m	9.5 sq m	25.2 sq m
Four bedroom home	14.1 sq m	3.6 sq m	10.2 sq m	27.9 sq m
Student housing, hotels and hostels				
Single room	5.0 sq m		4.0 sq m	9.0 sq m
Double room	10.0 sq m		8.0 sq m	18.0 sq m
Commercial/ higher education development				
Per 1,000 sq m gross external area	21.6 sq m		17.9 sq m	38.9 sq m

- 11.24 Appendix D sets our worked examples showing the open space required for a number of different development types and sizes.

How public open space will be provided

11.25 There are three ways in which you can make a contribution to public open space in Camden:

1. On site provision of new public open space;
2. Off site provision of new public open space;
3. Providing a financial contribution in lieu of direct provision.

On site provision of new public open space

11.26 If your development is located in an area deficient in public open space or with an under provision of public open space we expect provision of new public open space on the development site (see Appendix A to this section and Core Strategy Map 7). This is in accordance with paragraph 31.7 of the Camden Development Policies document. Paragraph 31.7 and accompanying Table 1 also set out other developments that are expected to provide open space on-site. Some on-site provision is expected for residential development adding 60 or more homes and commercial development adding 30,000 sq m or more.

11.27 The amount and type of public open space that can be achieved on-site will be determined by the size of the site. Where children's play facilities are required as a result of the development, priority should be given to the provision of these facilities. On sites already covered by development, and where appropriate access may have to be restricted to the occupiers of the building, the provision of a roof garden as a contribution to public open space may be considered. If a roof garden is to be considered as public open space, as a minimum it should be able to be used by all the occupants of the building.

11.28 Any new public open space that is provided as part of your development should be:

- Large enough to cater effectively for the intended users;
- Designed to be fully accessible, where possible;
- Designed in consultation with the Council's Open space team; and
- Practical to maintain.

11.29 Where you are required to make a contribution to public open space we will ensure that the type of open space you provide best meets the needs of the occupiers or users of the development. You should consider designing your open space carefully to enable different types of open space to be located together or adjacent to each other to complement the overall provision of open space, sport and recreation opportunities.

11.30 We will expect new open space provision to be publicly accessible, however in exceptional circumstances, for example where an existing open space is in private ownership or already has restricted access we may accept an alternative access arrangement.

Off site provision of new public open space

- 11.31 Where a site cannot provide public open space on-site, the preferred option will be provision of new suitable open space off-site. Once again this is especially important where a site does not have access to existing open space in accordance with the distance thresholds (see Appendix A to this section). The new provision should be within the distance threshold for the type of public open space to be provided. For example, if a developer is to provide a children's play area of 100 sq m this should be provided within 50 m walking distance of the development, if amenity open space is to be provided, this should be a maximum of 280 m from the development. If the developer is to provide for a new formal recreation area such as a multi-use games area, this should be provided within 1,200 m of the development.
- 11.32 We will accept the provision of public access to an existing open space that currently has restricted access as a contribution to off-site public open space provision.

Providing a financial contribution in lieu of direct provision

- 11.33 The Council may agree to accept financial contributions in place of direct provision of new public open space where the development site is too small to incorporate on-site open space and the densely built up character of Camden prevents direct provision of off-site public open space. Financial contributions may be used for:
- The creation of an area of public open space, including buying additional land or leasing it at a nominal rate;
 - Improving access to existing public open space;
 - Opening up access to existing private open space;
 - Fit out of a new or existing open space, or some elements of the open space; and
 - Qualitative improvements to existing open space.
- 11.34 Financial contributions may be pooled to create, fit out, improve or provide access to open space. For example, where the Site Allocations Document indicates that new public open space is required on a development site, contributions from other developments within 280 m may be pooled to facilitate the creation of the new public open space.
- 11.35 Financial contributions are calculated on the basis of the costs and requirements set out in Figure 6.. We will aim to spend the collective amount in the proportions set out in Figure 6 and within the same ward as the contributing development where possible. However individual financial contributions will be spent on priorities identified in:
- Camden's open space, sport and recreation study update 2008;
 - Camden's open space strategy;
 - Camden's biodiversity action plan;
 - Camden's play strategy;
 - Camden's sport strategy;

- Individual park management plans.

11.36 A financial contribution is based on the:

- Capital cost of providing new public open space;
- Cost of maintenance for the first 5 years; and
- Cost for the open space team to administer the contribution and design schemes.

Figure 6. The financial contributions

	Capital cost	Maintenance	Design and admin
Self-contained homes in Use Class C3			
One bedroom home	£385	£386	£46
Two bedroom home	£663	£561	£80
Three bedroom home	£1,326	£832	£159
Four bedroom home	£1,537	£921	£184
Student housing, hotels and hostels			
Single room	£297	£297	£37
Double room	£593	£594	£71
Commercial/ higher education development			
Per 1,000 sq m	£1,265	£1,284	£152

- 11.37 These aggregate contributions are based on provision of public open space, natural green space and (where applicable) children's play space. Specific contributions to allotments and community gardens and to outdoor sport and recreation provision will be sought on a case by case basis depending on whether there are opportunities to add to provision or are local facilities that need to be maintained.
- 11.38 The calculation of the aggregate contributions is set out in Appendix C to this section. Appendix C includes break down of the capital cost by open space type. This may be needed for developments where a proportion of the open space requirement is met on site or where adequate open space of some types is already available locally.
- 11.39 Payments for maintenance and design and administration are explained in paragraphs 11.45 to 11.50. They have not been aggregated with capital costs as payments will sometimes be required need to be calculated separately (eg where open space will be provided by the developer but maintained by the Council. The Council may also wish to draw separately on funds for capital works, funds for maintenance and funds for design and administration.
- 11.40 The contributions may be adjusted upwards or downwards according to the particular circumstances of the development. They provide a starting

point for negotiations between the Council and developers. The scale of financial contributions will be reviewed and updated as appropriate.

- 11.41 Appendix D to this section sets out worked examples showing the contributions required for a number of different development types and sizes.

Providing a combination of open space provisions

- 11.42 Your development may contribute to public open space through one of the ways listed above or by a combination of them. To determine the amount and type of public open space you are expected to provide, either on-site or off-site we will consider the:

- Type and size of the existing public open space provision within the distance threshold of your development; and
- Size and likely users of your development.

- 11.43 For example, if you propose a residential development located within 280 m of a small local park you may not be required to contribute to amenity open space, but may still be required to contribute to children's play facilities or a formal recreation area if suitable facilities do not exist within the distance threshold of the development.

- 11.44 In all cases a legal agreement will be required to secure the ongoing use of the open space provided as public open space, or to secure the financial contribution in lieu of direct provision.

Maintenance

On or off-site provision

- 11.45 Where you provide a contribution towards public open space outdoor sport or recreation facilities (either on-site or off-site), the Council will need to be satisfied that it has been properly laid out and completed and that suitable contractual arrangements for its long-term maintenance have been put in place. If you provide new public open space (either on-site or off-site) you will be expected to transfer the space to the Council to maintain and retain for such use.

- 11.46 Where your new public open space is to be transferred to us, you will normally be required to remain responsible for its maintenance for an initial establishment period of 5 years. After this time, we will take full responsibility for the maintenance of that public open space.

Financial contribution

- 11.47 If you make a financial contribution in lieu of direct provision, whether it is for substantial qualitative or accessibility improvements to existing sites already maintained by the Council or for the provision of a new public open space, we will expect you to provide a commuted sum for the maintenance of these facilities for a period of five years.
- 11.48 Where your new public open space is not to be transferred to the Council a commuted sum for maintenance will not be required. However,

if you choose to retain control of your public open space, we will need to be sure that adequate provision for the maintenance and access of that public open space is in place.

- 11.49 In ALL cases a legal agreement will be required to secure the maintenance of public open space over a defined period or to secure the financial contribution in lieu of direct maintenance.

Design and administration

- 11.50 For payments in lieu of providing public open space, on-site or off-site payments we will also require a 12% contribution towards the costs of our open space team to administer the financial contribution and to plan and design works within our open spaces.

Further information

Open Space, Sport And Recreation Study	Camden's open space, sport and recreation study update 2008 provides an assessment of open space, sport and recreation provision and demand in the borough. www.camden.gov.uk/planning
Biodiversity Action Plan	Camden's Biodiversity Action Plan provides Camden's priorities for improving our greenspaces and biodiversity. www.ukbap-reporting.org.uk/plans/lbap.asp
PPS17	Planning Policy Guidance 17 – Planning for open space and its companion guide provide policy and guidance for the provision of open space including the quantitative and qualitative considerations. www.communities.gov.uk
Mayor of London's Supplementary Planning Guidance	The Mayor of London's Supplementary Planning Guidance Providing for children and young people's play and informal recreation provides guidance and examples of how to incorporate space for children and young people. http://legacy.london.gov.uk/

Appendix A

Public Open Space Deficiency

Figure 7 shows the maximum distance that people can reasonably be expected to travel on a regular basis to use different types of open space. Amenity open space and children's play space should be available within easy walking distance of the development to which they relate. People are generally willing to travel further to use recreation areas providing outdoor sport facilities or to larger parks.

Figure 7. Distance threshold for different types of public open space

Type of public open space	Minimum size (where applicable)	Distance from development to public open space
Public amenity open space		280m*
Formal recreation area		1.2 km
Play Space		
LAP	100sq m	50m*
LEAP	400sq m	280m*
NEAP	1000sq m	500m*
Natural greenspace	Any	500m
Allotments and community gardens	Any	Any

*This distance is the actual walking distance, taking into account local circumstances, such as the location of entrance gates, street patterns, the severance effects of railway lines or heavy traffic flows that could all reduce the accessibility of open spaces.

(Based on Guide to preparing Open Space Strategies: Best practice guidance of the London Plan, Mayor of London, 2002)

Camden Core Strategy Map 7 shows areas of the borough that are deficient in public open space.

AREAS DEFICIENT IN PUBLIC OPEN SPACE

Areas more than 280m walking distance away from a public open space with a multi-functional role, that is a space over 0.25ha (2,500sq m).

Core Strategy policy CS13 also refers to areas with an under-provision of open space. These are areas with access to open space, but the provision is not sufficient to meet the level of local need due to the number of children, dwelling density, and social disadvantage in the area. These are shown in Figure 4.4 of Camden's Open Space, Sport and Recreation Study Update.

Both components are needed to ensure that everyone is within an appropriate distance of public open space based upon their needs and to ensure that people are not prevented from accessing that open space as a result of prohibitive costs. Contributions to open space will be

encouraged within the distance thresholds for the particular type of open space to be provided.

Paragraph 15.18 of Camden's Core Strategy indicates that residents and visitors further than 1 km away from a metropolitan or borough Site of Nature Conservation Importance (SNCI) are considered to have poor access to the natural environment. Core Strategy Map 8 shows all areas greater than 500 m from an SNCI as deficient in access to nature conservation areas.

AREAS DEFICIENT IN NATURE CONSERVATION SITES

Areas more than 500m walking distance away from a Borough or Metropolitan level Site of Nature Conservation Interest.

Appendix B

Occupancy rate by development type

The Camden Open Space, Sport and Recreation Study Update 2008 recommends calculating occupancy rates and child yields on the basis of the London Housing Survey 2002 and DMAG briefing 2005/25. The occupancy rates are shown in Figure 8.

Figure 8. Occupancy rate for C3 homes based on the London Housing Survey and DMAG briefing 2005/25

Self-contained homes in Use Class C3	Total persons	Children (average)	Adults (net)
One bedroom home	1.3	0.04*	1.3
Two bedroom home	1.9	0.25	1.65
Three bedroom home	2.8	1.15	1.65
Four bedroom home	3.1	1.44	1.66

Source: Camden Open Space, Sport and Recreation Study Update 2008.

*The average child yield for a one bedroom home equates to 1 child per 25 homes, which would not generate a meaningful play space requirement, and has been treated as 0.

Occupancy rates for student housing, hotels and hostels are assumed to be one person per single bedroom and two people per double bedroom.

The study recommends assuming an employee density of one worker per 19 sq m (gross external area) for commercial floorspace. This generates an occupancy rate of 52.6 employees per 1,000 sq m (gross external area). Non-residential developments for higher education are considered to generate the same number of occupants (including employees and students) as commercial developments.

Appendix C

Calculation of financial contributions

This appendix shows how we have calculated the financial contributions for provision or enhancement of public open space.

In addition to this capital cost, you will be expected to pay a commuted sum to cover:

- Maintenance of the facility and open space provision over a 5 year period; and
- Designing the new open space works and administering the financial contribution by Camden's open space team.

Figure 9. Capital cost of provision

Type of public open space	Capital cost
Amenity open space	£46.22 per sq m
Children's play space and young people's recreation space	£199.48 per sq m
Natural and semi-natural greenspace	£16.42 per sq m
Allotments/Community Gardens	£32.50 per sq m

Source: Camden Open Space, Sport and Recreation Study Update 2008

Figure 5 sets out the break down of open space requirements for developments of specific sizes. The capital costs have been aggregated in accordance with Figure 5 as set out in Figure 10.

Figure 10. Calculation of financial contribution to capital cost

Capital cost per square metre	Amenity open space £46.22 psm	Children's play space £199.48 psm	Natural green space £16.42 psm	Total (amenity space + play space + green space)
Self-contained homes in Use Class C3				
One bedroom home: space required	6.5 sq m		5.2 sq m	
Space required x cost per square metre	£300		£85	£385
Two bedroom home: space required	9.2 sq m	0.6 sq m	7.2 sq m	
Space required x cost per square metre	£425	£120	£118	£663
Three bedroom home: space required	12.8 sq m	2.9 sq m	9.5 sq m	
Space required x cost per square metre	£592	£578	£156	£1,326
Four bedroom home: space required	14.1 sq m	3.6 sq m	10.2 sq m	
Space required x cost per square metre	£652	£718	£167	£1,537
Student housing, hotels and hostels				
Single room: space required	5 sq m		4 sq m	
Space required x cost per square metre	£231		£66	£297
Double room: space required	10 sq m		8 sq m	
Space required x cost per square metre	£462		£131	£593
Commercial/ higher education development				
Space required per 1,000 sq m	21.0 sq m		17.9 sq m	
Space required x cost per square metre	£971		£294	£1,265

Contributions to maintenance costs

In addition to capital costs, the Council has established a maintenance cost of £6.60 per square metre per year, based on the 2006 Parks and Open Spaces Budget, plus inflation.

The standard length of time developers should provide for maintenance of new and enhanced public open space is 5 years.

Commuted sums for maintenance of public open space are calculated as follows: open space requirement (sq m) x £6.60 x 5. This equates to £33 per square metre of open space required.

Contributions to the cost of design and administration

Design and administration costs have been assessed as 12% of the capital cost of the open space provision or contribution.

Appendix D

Worked Examples

Worked Example 1:

Public open space provision for self-contained homes (C3)

A residential development of 16 new homes provides the following mix of dwelling sizes: 3 x 1-bedroom, 8 x 2-bedroom, 4 x 3-bedroom and 1 x 4-bedroom. The open space requirement can be calculated as follows:

Home size	No of homes	x open space requirement per home (sq m) from Figure 5	= total requirement (sq m)
One bedroom home	3	11.7	35.1
Two bedroom home	8	17.0	136.0
Three bedroom home	4	25.2	100.8
Four bedroom home	1	27.9	27.9
Total for all homes	16		299.8

The total open space requirement for this 16 home scheme would be approximately 300 sq m.

Worked Example 2:

Public open space provision for non-residential development

An office development provides 1,500sq m of additional floorspace. The open space requirement can be calculated as follows:

Additional floorspace	÷ 1,000 to give floorspace in thousands of sq m	x open space requirement per 1,000 sq m from Figure 5	= total requirement (sq m)
1,500 sq m	1.5	38.9	58.35

The total open space requirement for this additional non-residential floorspace would be approximately 60 sq m.

Worked Example 3:

Payment in lieu of open space provision for non-residential development – capital costs

As per example 2, an office development provides 1,500 sq m of additional floorspace. The payment in lieu of open space provision can be calculated as follows:

Additional floorspace	÷ 1,000 to give floorspace in thousands of sq m	x capital cost per 1,000 sq m from Figure 6	= total payment for capital costs
1,500 sq m	1.5	£1,265	£1,897.50

The payment in lieu of open space provision for this additional non-residential floorspace based on capital costs would be £1,897.50. However, we would also expect payments towards maintenance and design and administration – see example 5.

Worked Example 4

Payment in lieu of open space provision for student housing – capital costs

A student housing scheme provides 30 single rooms and 10 double rooms. The payment in lieu of open space provision can be calculated as follows:

Bedroom type	No of bedrooms	x capital cost per bedroom from Figure 6	= total payment for capital costs
Single	30	£297	£8,910
Double	10	£593	£5,930
Total for all bedrooms	40		£14,840

The payment in lieu of open space provision for this student housing based on capital costs would be £14,840. However, we would also expect payments towards maintenance and design and administration – see example 5.

Worked Example 5

Payment in lieu of open space provision for self-contained homes (C3) – all costs

A residential development of 5 new homes provides the following mix of dwelling sizes: 1 x 1-bedroom, 3 x 2-bedroom, 1 x 3-bedrooms. The total payment in lieu of open space provision can be calculated in 4 stages

Stage 1 – Capital costs

Home size	No of homes	x capital cost per home from Figure 6	= total payment for capital costs
One bedroom home	1	£385	£385
Two bedroom home	3	£663	£1,989
Three bedroom home	1	£1,326	£1,326
Total for all homes	5		£3,700

The payment in lieu of open space provision for this 5 home scheme based on capital costs would be £3,700.

Stage 2 – Maintenance costs

Home size	No of homes	x maintenance cost per unit from Figure 6	= total payment for maintenance
One bedroom home	1	£386	£386
Two bedroom home	3	£561	£1,683
Three bedroom home	1	£832	£832
Total for all homes	5		£2,901

The payment in lieu to cover maintenance of new or enhanced open space for this 5 home scheme would be £2,901.

Stage 3 – Design and administration costs

Home size	No of homes	x design and administration cost per unit from Figure 6	= total payment for design and administration
One bedroom home	1	£46	£46
Two bedroom home	3	£80	£240
Three bedroom home	1	£159	£159
Total for all homes	5		£445

The payment in lieu to design and administration for new or enhanced open space for this 5 home scheme would be £445.

Stage 4 – Sum of all costs

The three separate types of costs will not usually be aggregated for the Council's purposes (see paragraph 11.39). However, for the guidance of developers, the three costs can be added together.

In this example, the total cost to the developer would be:

Capital costs	£3,700
+ maintenance costs	£2,901
+ design and administration costs	£445
= grand total	£7,046