



Amenity and Minimising Obtrusive Lighting

Planning Policy Advice

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Amenity and Minimising Obtrusive Lighting

This document is Planning Policy Advice: Amenity and Minimising Obtrusive Lighting. It is a material consideration in the determination of relevant planning applications.

Contacting the Council

If you have any questions on this document, please email planning@orkney.gov.uk



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1. Introduction

1.01 This Planning Policy Advice (PPA) has been drafted to support Policy 1 – Criteria for All Development and Policy 2 – Design of the Orkney Local Development Plan, April 2017. Both policies seek to preserve existing amenity and ensure the amenity of proposed users is of an acceptable standard. Policy 2 also looks to ensure that new external lighting is designed to minimise light pollution.

1.02 Amenity refers to the positive elements that contribute to the overall character and / or enjoyment of an area by residents, visitors and other users. For example, open spaces, trees, historic buildings and the inter-relationship between them, or less tangible factors such as the feeling of tranquilly.

1.03 The most common form of amenity that is considered in planning is residential amenity. It is important to protect existing residential amenity and ensure new development has appropriate levels of residential amenity to ensure Orkney's homes help improve people's quality of life now and in the future.

1.04 Light pollution or obtrusive lighting from artificial lighting can have a negative effect on the amenity of a location. It can be a source of annoyance to surrounding users, be harmful to the environment, waste energy and have a negative impact on observers of the night sky.

How to use this Planning Policy Advice

1.05 The relevant policies of the Orkney Local Development Plan 2017 are Policy 1 – Criteria for All Development and Policy 2 – Design. The content of this document is material for planning applications that are located within Orkney’s towns, villages, rural settlements and the open countryside.

Policy 1 – Criteria for All Development

Development will be supported where:

- i. It is sited and designed taking into consideration the location and the wider townscape, landscape and coastal character;
- ii. The proposed density of the development is appropriate to the location;
- iii. It is not prejudicial to the effective development of, or existing use of, the wider area;
- iv. The amenity of the surrounding area is preserved and there are no unacceptable adverse impacts on the amenity of adjacent and nearby properties/users;
- v. It would not create an unacceptable burden on existing infrastructure and services that cannot be resolved;
- vi. It does not result in an unacceptable level of risk to public health and safety;
- vii. It is resource efficient and utilises sustainable construction technologies, techniques and materials and, where practicable, low and zero carbon generating technologies are installed;
- viii. It facilitates the prevention, reuse, recycling, energy recovery and disposal of waste, including where relevant, the use of Site Waste Management Plans;
- ix. It protects and where possible enhances and promotes access to natural heritage, including green infrastructure, landscape and the wider environment; and
- x. It protects and where possible enhances Orkney’s cultural heritage resources.

Policy 2 - Design

Where relevant, proposals must demonstrate, through consideration of scale, massing, form, proportions, plot size/density, materials, layout and landscaping, that it complies with the following fundamental principles:

- i. it reinforces the distinctive identity of Orkney's built environment and is sympathetic to the character of its local area;
- ii. it has a positive or neutral effect on the appearance and amenity of the area;
- iii. it facilitates easy wayfinding to and around the development and is appropriately connected to pedestrian, vehicular and public transport routes, encouraging and prioritising pedestrian access;
- iv. it allows for future conversion, extension or adaptation to other uses;
- v. it promotes sustainable design, minimising use of energy and materials at all stages of the development, and maximises opportunities for shelter; and
- vi. all external lighting is designed to minimise light pollution.

2. General Amenity

Statement 1 - When considering proposals for new development, it must be demonstrated that the existing amenity value of a location and the surrounding area will be effectively preserved or enhanced. Development which has an unacceptable adverse impact on amenity will not be supported.

2.01 Amenity refers to the positive elements that contribute to the overall character or enjoyment of an area. Amenity value is the pleasant or satisfactory aspects of a location, which contributes to its character and the overall enjoyment for users, residents or visitors.

2.02 When considering new development proposals, it is important to protect how existing users enjoy a location by ensuring there is no adverse disturbance between existing and proposed users and their activities, through one or any combination of noise, vibration, smell, fumes, smoke, soot, ash, dust, grit, privacy, proximity, excessive traffic movement, loss of natural day lighting or any other form of disturbance.

3. Residential Amenity

Statement 2 - New development that has an unacceptable adverse impact on existing residential amenity will not be supported. Additionally, all proposed residential units will only be acceptable if they include acceptable levels of residential amenity for existing and future residents.

3.01 The definition of residential amenity in this document is the benefit enjoyed by residents from internal and external spaces of a residential unit; which depends on the quality of these spaces, their location, size, orientation, sounds and surrounding noises and smells.

3.02 A development proposal to create new residential units will have to demonstrate how they have successfully considered the following Residential Amenity Criteria and Statement 1 and 2 in the creation and protection of residential amenity. Residential amenity will not be considered in isolation from other material considerations such as innovative design and the creation of new places. There may be special cases where exemptions to the criteria may be required. For example, when bringing an unused listed building into a residential use where traditional outside space is not a back garden.

3.03 For the purpose of this document, residential units include houses and flats that are proposed through new build development and the conversion of existing buildings (includes Listed Buildings or buildings in a Conservation Area) and the sub-division of an existing domestic curtilage to create a new house.

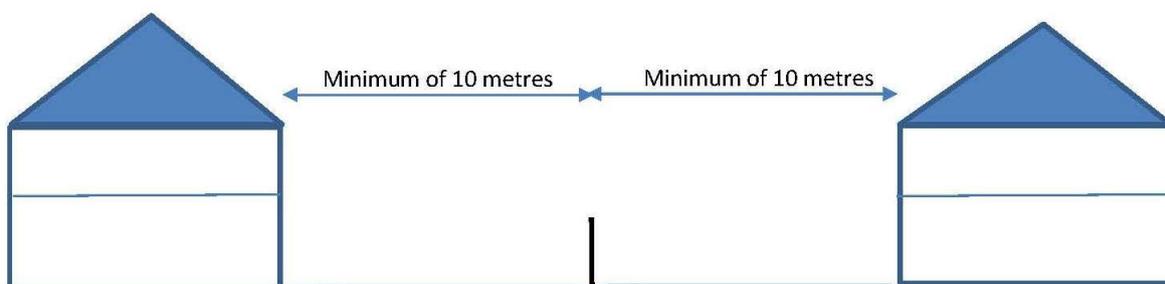
3.04 “Main Habitable Rooms” is a term that is used in this document and includes living rooms, dining rooms, kitchens, bedrooms and any other room that it considered to be frequently used by the occupants for general living purposes. This definition excludes halls, landings, bathrooms, utility rooms and garages. Within the document reference will be made to both main habitable rooms and main habitable room windows.

Residential Amenity Criterion 1 - The Creation and Protection of Dedicated Outside Space

For Housing Development

C1.01 All housing development is required to have dedicated outside space or garden ground to meet the recreational and domestic needs of the residents. This space should provide for passive and active recreational activity such as sitting out, entertainment, playing, gardening and clothes drying. These activities should generally be located in private enclosed garden ground at the rear of the property with the front garden ground generally having a more public character. As the public facing, principal elevations of properties will be more visible, the location of such items such as refuse bins and recycling storage, cycle storage or heating systems should be situated at the side or rear of the house; or in an outbuilding or garage.

C1.02 To create and maintain rear garden privacy, the minimum rear garden depth should be at least 10 metres as noted in picture 1. To maintain future residential amenity, if land is allocated for housing, or in the opinion of the planning authority has the potential for further housing development, this 10-metre requirement should be used. There may be material considerations why private garden ground cannot be created or protected in this manner. In these cases, the development will have to demonstrate how the existing private garden has been protected or recreated in another location within the curtilage, with consideration to direct overlooking from existing or proposed “main habitable room windows”.



Picture 1 - Demonstrating the 10-metre back garden rule

C1.03 To maintain and create garden privacy consideration should be given in the design to existing site features of the site such as topography, trees and shrubs as well as the proposed use of new planting and appropriate fencing. Note that these features could negatively affect the provision of sunlight and daylight.

C1.04 Areas within the curtilage that are occupied by garages, outbuildings, car parking and footpaths are not considered to be dedicated outside space for residential amenity.

C1.05 The size of outside amenity space will be dependent on the character of the development and the location, with ratios of builtform to outside space positively

considering the neighbouring properties. In the open countryside location, it will be expected that the density is lower with larger outside amenity space than in the centre of Orkney's urban areas such as Kirkwall or Stromness. The size of outside amenity space should be appropriate to the size of the residential unit that is being proposed or protected. For example, larger outside amenity spaces will be expected for a 3 to 4-bedroom house than a 1-bedroom house.

For Flatted Development

C1.06 For all flatted residential development it is expected that there will be communal outside amenity space for the proposed occupants within the curtilage of the building for their sole use. This area will provide space for passive and active recreational activities such as sitting outside, playing and clothes drying. Bin and recycling storage, car parking areas, garages and bicycle storage should not be situated within the outside amenity space and should be located conveniently for occupants without having a negative effect on the visual amenity of the development.

C1.07 An element of the outside amenity space should be private, in a location where overlooking from proposed or existing living room windows is limited, and where sunlight can be maximized. Ground floor flats could be designed with their own dedicated outside space that can be accessed directly from their homes.

C1.08 In the urban cores of Kirkwall and Stromness, the redevelopment of sites and the conversion of historic buildings to form flatted development may not allow for outside amenity space. In these cases, the application must discuss the material weight of other aspects of the development and critically how the proposed new residents will be able to access public open spaces within 300 metres from the centre of the proposed development, by means of either walking or cycling. Whilst access to public open space is not generally considered to be a suitable alternative to private amenity space, in certain situations it may be acceptable on balance if a strong argument can be made.

Residential Amenity Criterion 2 – Privacy in the Home

C2.01 This criterion seeks to maintain and create privacy within the residential unit itself. Privacy in the home is a necessity; individual houses and flats must be designed and sited in such a way that provides maximum amount of privacy for the occupants and at the same time avoids over-shadowing.

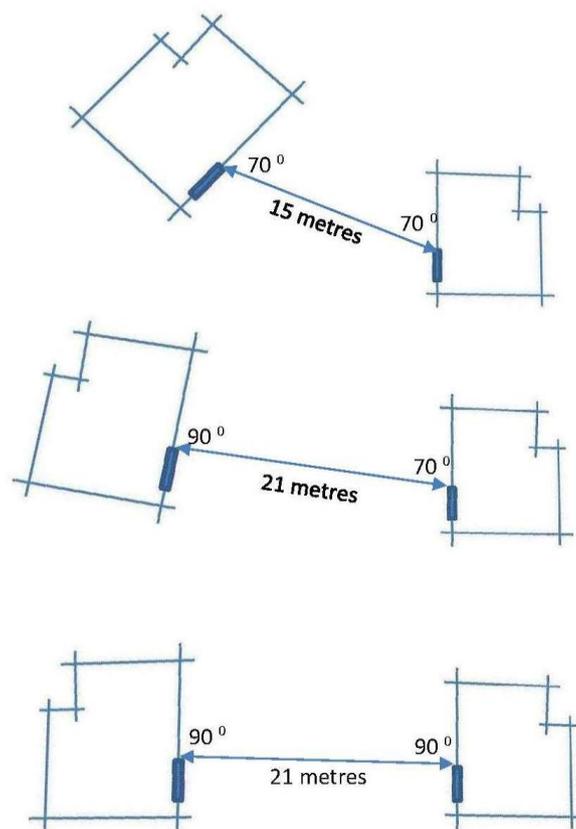
C2.02 Generally, this is achieved by not allowing any combination of main habitable room windows on any elevation, whether existing or proposed, on ground or first floors to directly face each within 21 metres. For a third storey this distance increases to 28 metres.

C2.03 This minimum distance between main habitable room windows may be reduced depending upon the angle of view. Table 1 provides an indication of

distances and picture 2 demonstrates the reductions dependent upon the horizontal angle included between the shortest line joining any part of a living room window.

Degrees	90	80	70	60	50	40	30	20	10	0
90	21	21	21	21	15	12	8	6	4	2
80	21	21	21	15	12	8	6	4	2	
70	21	21	15	12	8	6	4	2		
60	21	15	12	8	6	4	2			
50	15	12	8	6	4	2				
40	12	8	6	4	2					
30	8	6	4	2						
20	6	4	2							
10	4	2								
0	2									

Table 1- Distances between main habitable room windows



Picture 2 - Distances between main habitable room windows

C2.04 Notwithstanding these general standards, the planning authority recognises that adherence to minimum distances can discourage innovative design and reinforces the use of standard layouts. These standards maybe relaxed; and privacy in the home maintained and protected by the use of innovative solutions that consider varying floor levels and gradients, staggering facing habitable room windows, using obscure glazing and restricted openings, moving a main habitable room to another location within the residential unit, the use of upward-directional

windows such as rooflights in upper storeys, the positioning of outbuildings, the erection of fencing and the planting of mature trees and shrubs.

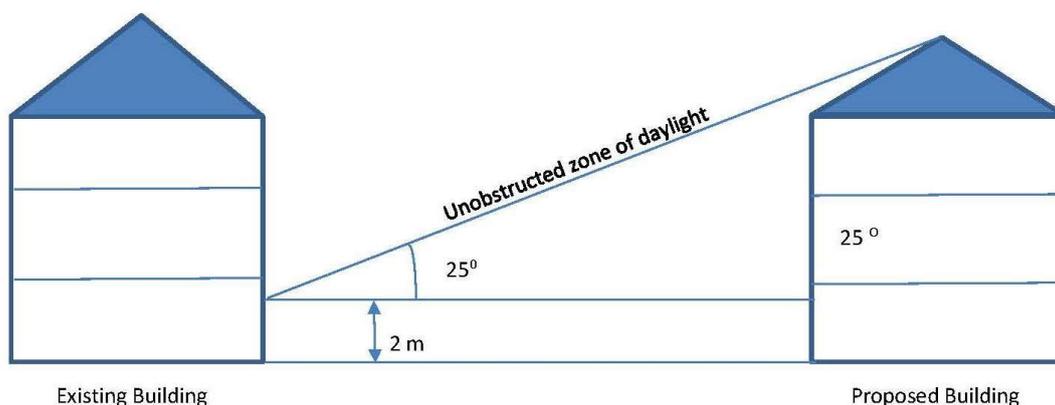
C2.05 The Council will not normally impose these standards on proposed residential units when they face either proposed or existing residential units across a public road.

Residential Amenity Criterion 3 – The Right to Light

C3.01 Existing and proposed residential development should benefit from an appropriate level of daylight, sunlight and minimise overshadowing. The planning authority will not support development that have a detrimental effect on daylighting, sunlighting or causes an unacceptable amount of overshadowing to another residential property's private outside space.

C3.02 Daylight is defined as the amount of natural light that enters a home to provide satisfactory illumination of main habitable rooms between sun rise and sunset. Sunlight refers to direct sunshine. All new development should be designed to maximise the benefits of sunlight and solar gain. Overshadowing of a neighbouring residential property's private outside space should be avoided so that residents can enjoy direct sunlight in these spaces.

C3.03 Quantitative standards are difficult to apply as cases can vary. The Building Research Establishment (BRE) publication of Site Layout Planning for Daylight and Sunlight provides guidance on good practice. One of the main standards used to inform design and a planning judgement is that no facing building breaks a 25-degree angle from the horizontal at a point 2 metres above floor level (the normal height of windows). This will achieve adequate levels of daylight and reduce other buildings being overbearing.



Picture 3 - The 25 degree rule for daylighting

C3.04 In some circumstances where a development is considered to potentially cause an excessive loss of daylight, sunlight and / or overshadowing, an applicant



will be required to complete an assessment using the methods that are set out in the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' so as to demonstrate that the development will not have a negative effect daylighting and sunlighting.

4. Minimising Obtrusive Lighting

Statement 3 - New artificial lighting, including the illumination of advertisements should not be obtrusive so that the amenity of surrounding users and the wider landscape/townscape setting is protected.

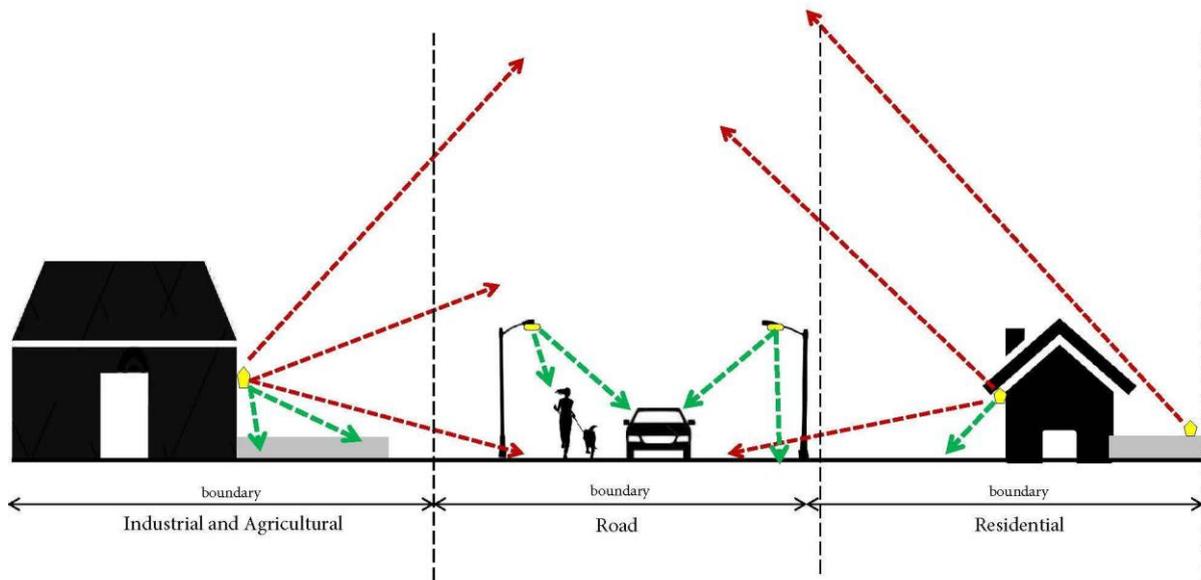
All artificial lighting should be directed to the required task with minimal or no upward spread or light spill; with the brightness appropriate to the task that the lighting is required for. Artificial lighting should be designed to be turned off or dimmed when not required.

C4.01 Artificial lighting can provide benefits socially and economically, but excessive and poorly designed artificial lighting can become a source of annoyance to surrounding users, be harmful to the natural environment, waste energy and detract from the enjoyment of the night sky. The best solution is to get the right light in the right place at the right time.

C4.02 Light pollution has a definition through the Environmental Protection Act 1990 as a statutory nuisance. This is when artificial lighting interferes unreasonably with how a neighbour enjoys their property, for example when a neighbour to the artificial light source requires black out blinds in a bedroom so that it is dark enough to sleep. Environmental Health at the Council administers the powers within this Act.

C4.03 The planning authority acknowledges that not all artificial lighting or changes to existing artificial lighting requires planning permission but advises developers to positively consider reducing energy consumption and obtrusive external lighting; so as to protect Orkney's night sky.

C4.04 Picture 4 depicts the difference between appropriate and useful artificial light (in green, that is directed downwards and is kept within the boundary of a property) and stray artificial light (in red, that may be directed upward and stray onto neighbouring properties). Stray artificial lighting can have a negative effect on the amenity of surrounding users and the wider landscape / townscape setting; and cause obtrusive light.



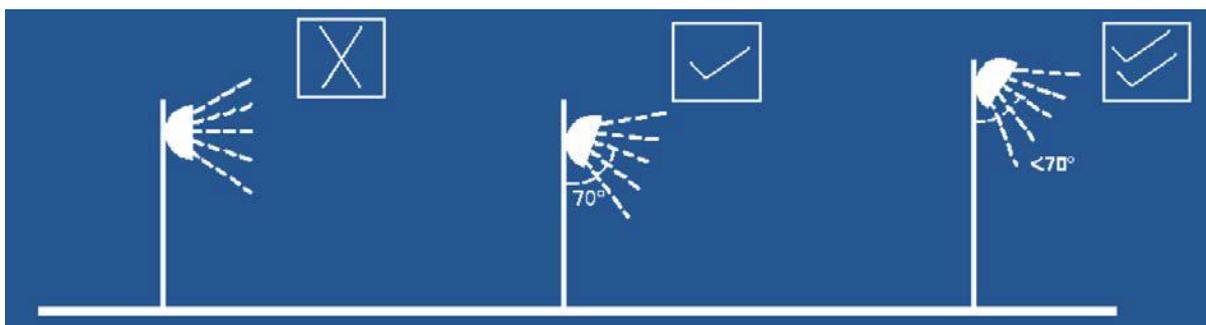
Picture 4 - Depicting the difference between appropriate and useful artificial light

The Artificial Lighting Criteria

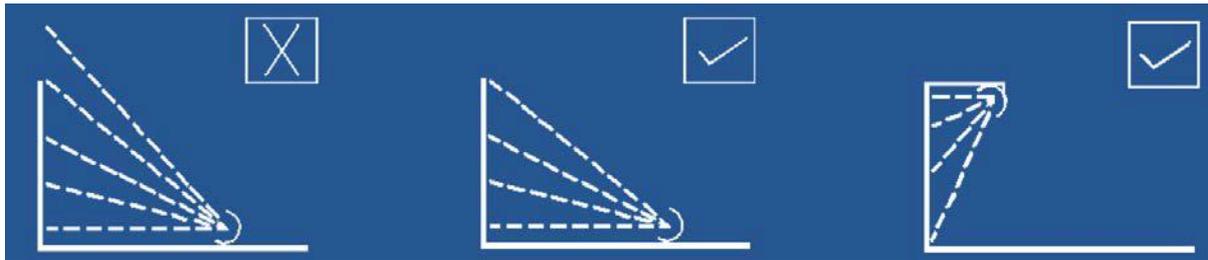
Below are 4 criteria that new artificial lighting should comply with to reduce obtrusive lighting, safeguard the amenity of surrounding users and protect the wider landscape / townscape setting.

Artificial Light Criterion 1 - Lighting Angle

This is the angle to which lighting is distributed or emitted. The main beam angle should be kept below 70 degrees. The higher, the light is fixed from the ground, the lower the angle should be kept below 70 degrees. This angle must not disturb surrounding users by spilling onto their property. Light spread could be reduced by fitting shields and hoods to ensure the required area is lit. The diagrams below depict this.



Luminaire aiming angles



Facade Illumination

Artificial Light Criterion 2 - Energy Efficient

The initial question to ask is the proposed lighting necessary and could the development proceed without it? Artificial lighting should consider costs, energy use and colour rendering. Artificial lighting especially task lighting should be designed so that it can be turned off when not required through the use of passive infra-red detectors, timers and / or on / off switches.

Artificial Light Criterion 3 - Security Lighting

Security lighting should be fitted with passive infrastructure detectors and / or timing devices to make sure they minimise nuisance to neighbours and surrounding users and are not triggered by passing traffic or pedestrians outside the proposed site.

Artificial Lighting Criterion 4 – The Location

Artificial lighting design should consider and respect the location of the proposed development and ensure that the lighting design is appropriate. For example, is the location urban or rural or is the development located within a designation such as a Conservation Area or a National Scenic Area.

The Lighting Design Process

The Scottish Government's publication of Controlling Light Pollution and Reducing Lighting Energy Consumption that can be found at:

<https://www2.gov.scot/Publications/2007/03/14164512/0>

Annex A of this document details the lighting design process. Depending on the size, type and location of a proposed development, the Council may request evidence that the process set in this document has been followed in the design of the proposed artificial lighting scheme.

Other useful guidance can be found on the Institute of Lighting Professionals' website at <https://www.theilp.org.uk/>

Dark Skies Status

Some of Orkney's communities already have limited obtrusive artificial lighting and are considering dark skies status; such as North Ronaldsay. The planning authority will work with these communities to develop their own lighting guidance and advice.