Dorset Council
Street Lighting and Illuminated Signs Policy 2025

1.0 Introduction

This policy sets out the requirements and standards for all new or replacement external public highway lighting, as adopted by Dorset Council. It is written to assist the council meet its corporate aims. The council will be guided by the requirements set out in this document but in some cases, it will not be practicable or desirable to meet all the current national standards and policy requirements.

Dorset Council, as Highway Authority, is automatically a Lighting Authority. Town and Parish Councils can also be Lighting Authorities as well as those Social Housing Groups – previously part of historic councils – with powers to provide lighting on the highway with the consent of the Highway Authority.

2.0 Street Lighting Objectives

The aim of this policy is to assist in ensuring that the following Street Lighting Objectives, listed in no particular order, are met:

- To improve the night-time safety of road users and members of the community.
- To reduce crime and the fear of crime during the hours of darkness.
- To provide public lighting that is cost effective, considering energy conservation and sustainability.
- To minimise the adverse effect on the environment whilst still enhancing the night-time ambience.
- To maintain the lighting asset to prevent premature structural failures

In conjunction with this policy the street lighting specification, as included in the council's own guidance for new streets, sets out the detailed requirements for developers to meet the standards of this Policy.

This document incorporates, wherever practicable, all relevant codes of practice and legislation, together with good industry practices and the national policies from the Institution of Lighting Professionals (ILP) and the UK Lighting Board.

3.0 Lighting Provision

There are several environmental factors that need to be considered when contemplating installing exterior highway lighting schemes. Firstly, whether there a real need to install lighting at all. If there is then the energy usage and light pollution must be taken into consideration (with sensitivity, if practicable, toward the daytime appearance of equipment).

The unique natural environment of Dorset means that we enjoy some of the darkest skies in England, using the Bortle scale as a reference most of our towns & landscapes already qualify to have healthy night skies. So, this policy sets a table of highway areas as below, to define how they will be lit so that we continue to protect that environment while still achieving a balance with highway safety and the also the public's perception of safety.

Population density; 300 people per sq km is the average in the UK, 150 is the average in Dorset and unique to Dorset using census data Population density - Census Maps, ONS

Environmental Zone D0

Dark Sky Areas or Reserves (Protected environmental areas & dark skies)

No or limited illumination.

Highways will only be lit where required by statute or safety issues that cannot be resolved by any other means. Lit all night and compliant with standards.

Full cut off lanterns, no upward tilt, CCT to not exceed 2700 but ideally lower where practical

Environmental Zone D1

Areas that currently have very low population densities (under 100 persons per sq km) and no, or intermittent, lighting.

Highway will only be lit where required by statute or safety issue that cannot be resolved by any other means. Lit all night and compliant with standards.

Ad hoc intermittent footpath lighting only where supported by the town or parish council. Lit part night, dimming where appropriate and restricted to strategic locations e.g. bus stops etc.

Full cut off lanterns, no upward tilt, CCT to not exceed 2700 but ideally lower where practical

Environmental Zone D2
Areas that have sparse population densities (less than 150 persons per sq km) and some roads already lit.

A – All Traffic Routes. Minor roads with a significant number and density of urban highway features e.g. roundabouts, traffic calming, pedestrian crossings. Lit all night and compliant with standards.
B – Local distributor and residential roads with some urban highway features present. Lit part night where permitted by statute and safety audit, compliant with standards.
C – Residential roads with no urban highway features present. Lit part night and compliant with standards.

Full cut off lanterns, no upward tilt, CCT to not exceed 2700 but ideally lower where practical

Environmental Zone D3
Areas that have medium / high population densities (over 150 persons per sq km) with most roads already lit:

A – All Traffic Routes. Minor roads with a significant number and density of urban highway features e.g. roundabouts, traffic calming, pedestrian crossings. Lit all night and compliant with standards.
B – Local distributor and residential roads with some urban highway features present. Lit part night where permitted by statute and safety audit, compliant with standards.
C – Residential roads with no urban highway features present. Lit part night and compliant with standards.

Full cut off lanterns, maximum 5 degree upwards tilt, CCT to not exceed 2700 but ideally lower where practical.

Environmental Zone D4
Town centre areas with high night-time activity

Lit all night and compliant with standards.

Upward light ratio no greater than 15%, CCT to not exceed 3000 but ideally lower where practical.

4.0 Obtrusive Light

Obtrusive light is light which falls outside of the area to be illuminated or causes annoyance, discomfort and distraction to the public. In extreme cases it reduces the ability to see. Obtrusive light can be divided into three categories:

Skyglow – caused by luminaries emitting light upwards or at high angles of elevation. This light is then scattered by dust particles and water droplets resulting in the familiar orange glow above urban areas.

Glare – an intense blinding light, usually seen against a dark background, which reduces a person's visual performance. Poorly designed, installed and maintained lighting can cause glare that affects the vision of pedestrians, cyclists and drivers, creating a hazard rather than increasing safety.

Light Trespass - light that falls where it is not needed or wanted e.g. light shining into bedrooms hinders sleep and reduces privacy.

Although it is not possible to negate obtrusive light designs will try to minimise or mitigate their effects, where possible, in accordance with the environmental zoning system. In artificially lit areas some light spill and pollution must be expected by residents living nearby, similar to the noise and atmospheric pollution that must be expected from vehicles using the Highway, it is therefore reasonable for residents to take their own steps in reducing the artificial light that must normally expected in suburban or urban areas by fitting and using curtains, blinds and black out etc.

To this end a national publication by the ILP, 'Guidance notes for the reduction of obtrusive light' is used to determine the acceptable limits for obtrusive light into bedroom windows, according to the environmental zone and population density etc. while still providing adequate lighting to the Highway.

5.0. Light sources

The type of light source used on the highway has a significant effect on the night-time scene, due to the different appearances produced and is one of the key elements in assisting the highway user.

Although a variety of sources have been used historically, to maximise efficiency in the appropriate circumstances, Light Emitting Diodes (LED) will now normally be used in all situations. Existing lanterns, using traditional types of light sources, will remain in use until the energy savings generated will offset the cost and environmental impact of their replacement with LED.

The Correlated Colour Temperature (CCT) of LED sources can vary, with the warmest (yellower light) being the least efficient and the coldest (white/blue light) the most efficient.

6.0 Road Safety

At night, traffic levels in Dorset reduce significantly when compared to daytime levels. However, a significant proportion of collisions occur during the hours of darkness. Street lighting may help to reduce the number of these collisions, but design guidance now requires a safety vs. lifetime cost evaluation to justify new or replacement lighting outside of urban areas. This may result in some rural highways having their lighting systems removed, instead of replaced.

7.0 Crime Reduction and Community Safety

The Crime and Disorder Act places an obligation on the local authority to develop and implement safer community strategies. The provision of modern public lighting, designed to the appropriate standard, is a tangible way in which the Authority's commitment to the provision of a safer and more attractive community can be demonstrated. This includes for an improvement in:

Personal Security - Lighting in areas of high pedestrian use helps reduce the risk of crime against the person.

Assisting the use of closed-circuit television - Installing lighting with good colour rendering increases the efficiency of the cameras in identifying suspects, colour of clothing and vehicles.

Crime against property, including car crime - Well-lit industrial, domestic and commercial areas aid the police in carrying out their duties and deterring the criminal.

Reduction of vandalism - Vandals are less likely to cause damage when they can be seen.

Increased ' feel good' factor (perception of safety) - Good lighting that creates the right ambience, increases the feel-good factor and the perception of safety. This, in turn, facilitates improved pedestrian use of our towns during the hours of darkness.

8.0 Energy

Energy is supplied via a competitively won contract. Both this tender process and continuing industry research into more energy efficient equipment, ensure best value in terms of energy consumption.

A term contract is in place with an external supplier to provide energy for street lighting assemblies, illuminated signs, lit bollards, beacons, subways, traffic signals, bus stop information displays and speed cameras.

9.0 Part Night Lighting and Dimming

A trial of part night lighting in selected rural communities was first introduced back in November 2008 but, in 2011 and faced with significant budget reductions, several options to save a significant percentage of the street lighting budget within a short period were considered. These options included dimming, temporary/permanent switching off units or part night lighting. Part night lighting was chosen as this approach ensures that the asset is appropriately used, balancing safe pedestrian and vehicular movements on the highway with the need to reduce costs.

Part night lighting now operates in all quiet and residential roads, but the lighting service is maintained all night in town centres, high crime areas, designated traffic routes, areas with road humps, roundabouts and other high risk locations.

Anyone using roads when the lights are switched off needs to make their own assessment of the possible risks, taking their own appropriate actions to mitigate those risks down to a level acceptable to them.

Part night lighting is carried out by an “intelligent” photocell which turns off each lantern between approximately true midnight (halfway between dusk and dawn) and 05.30 GMT (or approx. 01.00 and 06.30 BST in summer). True midnight can vary from clock midnight by a changing margin over the year, so the indicated operating times are not exact.

Part night operation will include dimming lights to 50% of their output from 22.00 GMT until midnight GMT when they will switch off (so dimming at approx. 23.00 until 01.00 BST in summer) where this is technically possible, to further reduce carbon emissions and obtrusive light in quiet and residential roads.

High crime areas were determined from the www.police.uk website using ‘all crime’ data. The high crime designation is compiled using data from similar policing areas in England and Wales.

Areas to remain lit all night were identified by survey using the Ordnance Survey mapping, highway data, aerial photography and Google Street View. This is supplemented with limited site surveys to clarify areas of uncertainty. There are insufficient resources to undertake a full risk assessment of every road and footpath.

No arrangements exist for modifying the areas subject to part night lighting, nor are resources available to monitor changes in crime rates. If statistical evidence of a significant change in crime levels in a particular area is brought to the attention of officers the circumstances will be investigated and, if required, funding will be sought to make any changes, so ensuring that the policy guidelines are met.

If the public highway is modified, for example by a scheme that installs road humps, the cost of converting the street lighting back to all night lighting will be met by the scheme promoter.

All new estate roads offered for adoption will be subject to the part lighting policy before being maintained at the public expense.

10.0 Street lighting Maintenance

This Street Lighting Policy and its related specification standards seeks to comply with recommendations set out in the Code of Practice for Well-Managed Highway Infrastructure, the statutory Electricity at Work Act, Health & Safety Legislation and CDM regulations.

To ensure that streetlights and illuminated signs are maintained to a satisfactory standard Dorset Council employs a service provider via a Private Finance Initiative (PFI) contract, let in 2006. In general, this contract covers all aspects of the service including areas such as routine maintenance, electrical testing, night scouting, non-routine repairs, random repairs, new works, structural maintenance and emergency cover.

A small team of Dorset Council staff administers the contract; assists and advises local people, local parish and town councils, housing associations and also deals with enquiries made by our own members and MPs.

To maintain a high standard of service provision across Dorset every streetlight and illuminated sign is cleaned, serviced and inspected in accordance with its designed parameters and good industry practice.

Electrical testing of each unit is undertaken in line with national regulations. Structural inspection and testing are carried out at recommended intervals.

To identify faulty lights, night inspections are carried out by patrol at regular intervals.

Dependent upon the situation there is a defined target response time for the service provider to repair any fault, including where the replacement of equipment is necessary. In general emergency calls are attended within 2 hours with almost all straightforward repairs carried out within 5 working days. If a fault is due to a power failure or unit replacement, then this could take up to three weeks to rectify.

11.0 Street Lighting Replacement

The current PFI contract is for twenty-five years and during the first five years it required the replacement of nearly 28,000 units with a further limited replacement program completed in 2019, resulting in nearly all the asset stock being replaced prior to the end of the contract. The replaced units have a design life of at least 50 years, with minimal routine maintenance required to achieve this target.

Where replacements are required, designs are carried out by the service provider, who seeks to achieve a British Standard for Lighting which is appropriate to the highway use and Dorset Council's own environmental policy. This results in the alteration of some historic column positions, where efficiencies in the design process have been achieved or additional positions are required to meet modern standards. Most residential roads and traffic routes also see an

increase in column height, further increasing efficiency and minimising the number of additional positions required to meet today's lighting standards.

Advances in technology mean that lanterns designed today can be more energy efficient and better reduce light pollution. The installation of more modern equipment assists in reducing energy consumption.

Lantern replacements are carried out at the same time as column replacements. Lanterns on units not being replaced may also be replaced under maintenance. The type of light source and lantern shall be in line with the PFI contract.

Column and lantern replacements will be of similar appearance and quality e.g. functional for functional or Victoriana for Victoriana etc. If local town and parish councils wish for alternatives in equipment e.g. changing functional to bespoke or functional to Victoriana, then they can fund the improvements or meet the additional costs if a maintenance replacement is being planned. If this upgrade includes building mounted lights, then listed buildings consent will be obtained and all local engagement carried out by that town or parish council.

In Conservation Areas, authority is delegated to the Executive Director for Place in consultation with the Cabinet Member for Place Services, to agree funding for heritage style lighting equipment in place of standard equipment.

12.0 Design

The Policy for design and approval of lighting schemes is based on the principles listed in Section 2.0. In this way Dorset Council's Street Lighting Policy is having a positive direct impact on the nature of Dorset's local environment.

The consequence of designing street lighting to produce zero upward light pollution will usually result in additional units being installed with subsequent increases in the energy consumed and future maintenance costs if the applicable lighting standards are to still be met. A careful balance is therefore being struck between using minimal resources, both locally and globally, and achieving minimal light pollution.

In addition to a quality-based maintenance programme Dorset Council also has a policy to take a proactive lead role in providing guidance to local developers, parish and town councils and housing associations to ensure high quality design for new or replacement street lighting. To ensure the appropriate lighting standard, relevant to the "Zone" Dorset Council designs most of the new street lighting itself using national design standards. It also checks all third-party designs, offering advice to ensure that Dorset Council's own Street Lighting Policy and Specification are met.

In new developments, lanterns can be affixed to buildings, particularly where footways are narrow and subject to considerable pedestrian traffic. Wayleave Agreements will be required in these circumstances.

To ensure that public funds are used to best effect Dorset Council also requires a commuted sum to cover all additional costs of non-standard street lighting

furniture installed by developers. Only if approved in terms of its design and suitability shall such equipment then be authorized for subsequent installation. The commuted sum shall cover the full cost of both installation and subsequent maintenance, the latter including for any additional energy related running costs over the costs for a standard unit.

13.0 Attachments on Street Lighting Columns

Lighting columns are not designed to take the additional load of any type of attachment, other than small traffic signs. As an inappropriate attachment could result in damage or structural failure any proposed attachment must first receive written authority in principle from the Street Lighting Team. Every application is considered with public safety in mind and weighed against any potential merits put forward for such an attachment.

If any third party wishes to attach a sign, festive light or local advertising etc to a street column it may be possible provided that the column has been specially designed to safely hold the required attachment. Alternatively, a replacement street lighting unit to an appropriate standard may be installed, if the full costs of doing so are met by the third party.

No cross road spans of catenary lights, cables, bunting or other similar attachments are to be fixed to lighting columns, as it is not always possible to ensure the minimum 5.8m (7.5m on abnormal load routes) height clearance in the middle of the span and the high risk of traffic then contacting with the span.

A considerable number of lighting columns already have traffic signs attached to them even though they have not been specially designed for such. This has largely come about through past pressures to keep the highway environment as uncluttered as possible by utilising lighting columns as signposts. Although it will be permissible to fix smaller traffic signs to lamp columns that have been specially designed to withstand the additional loading, fixing signs totalling more than 0.6 sq. metres to standard columns will no longer be permitted. The Street Lighting Specification, for standard columns, allows for the attachment of signs at 2.5m from the ground and up to a total of 0.6 sq. metres installed per lighting column.

If the written authority of the Street Lighting Principal Engineer is obtained a license, to erect equipment within the highway, must also be obtained from the relevant highway authority and permission to attach the load obtained from the PFI street lighting service provider. As all risk in the asset rest with them, this permission will be dependent upon the agreed detail of loads, fixings, insurances, use of approved contractors etc and can only be obtained from the PFI service provider.

Some types of attachments may involve planning issues, with the impact on the environment may be seen to be detrimental, in such cases approval from the local planning authority must first be obtained.

14.0 Public Interface and Complaints Procedure

The street lighting service in Dorset is externalised to the private sector by means of a Private Finance Initiative (PFI) contract. This contract is under the Local Authorities (Contracting out of Highway Functions) Order 1999, made under the Deregulation and Contracting Out Act 1994 and which places a duty on the service provider to act on behalf of the authority.

The PFI contract covers all aspects of the service, including any service user's contacts and includes a complaints process to mirror that of the council, where they act on behalf of the authority according to the statute above. The service provider is required to respond to any concerns within 5 working days and act in a reasonable manner when resolving them, residents will be directed to the service provider in all matters arising from the front-line service. If residents remain dissatisfied by the decision of the service provider, then they will be directed to the Local Government and Social Care Ombudsman (LGSCO).

Where concerns relate to backward light spill into bedroom windows the service provider has an established procedure for determining whether a shield can and should be fitted. If a shield or other adjustment is reasonably required, then this is carried out by the service provider at no cost to the resident.

Queries relating to Dorset Council's policy and the PFI contract are dealt with by the in-house Dorset Council team.