

Land at Shortland Farm

Lighting Statement

Shortland Farm
Lighting Statement
P02
30 Oct 2025

LIGHTING STATEMENT

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Prepared by:	Prepared for:
RPS	Gleeson Land Ltd.
Rajendra Patel	Nick Keeley
Technical Director	Planning Manager
1 Newhall Steet Birmingham B3 3NH	Arena Offices, Building B, Watchmoor Park, Camberley, Surrey, GU15 3YL
T +44 121 515 0093	T +44 1276746960
E Rajendra.patel@rps.tetrattech.com	E Nkeeley@mjgleeson.com

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Appendix A - Site Layout

1 External Lighting Statement

1.1 Introduction

An outline planning application is to be made with all matters except for the accesses from Guildford Road and Wyke Lane reserved for subsequent approval for the demolition of the existing buildings and hardstanding and the erection of up to 200 residential dwellings including affordable housing and plots of self-build plots (Class C3); green and blue infrastructure; and associated service and utility structures.

This external lighting statement has been compiled to support the planning application. The statement will:-

- Propose sensible lux levels in accordance with design guidance.
- Identify ecological constraints in connection with external lighting.
- Provide parameters to limit obtrusive light and light pollution onto adjacent areas.

1.2 External Lighting Guidance and Requirements

1.2.1 National Legislation

The Environmental Protection Act 1990ⁱⁱ is an Act of UK Parliament that defines, as of 2008, within England and Wales and Scotland, the fundamental structure and authority for waste management and control of emissions into the environment, including that of artificial lighting. The Environmental Protection Act, Part III, Section 79 - Statutory Nuisances states that artificial light emitted from premises may be interpreted as having adverse effects towards health and may lead to nuisances.

British Standards Institution, BS EN 12464-2 – Lighting of Work Places – Part 2, Outdoor Work Places outlines the specific lighting requirements to enable people to perform outdoor visual tasks efficiently and accurately, especially during the hours of darkness. The degree of visibility and comfort required in a wide range of outdoor places is governed by the type and duration of activity. This standard specifies requirements for lighting of tasks in most outdoor places and their associated areas in terms of quantity and quality of illumination.

Other national legislation includes:

- British Standards Institution, BS EN 13201-2 – Road lighting – Part 2, Performance requirements. This national legislation outlines the standards for the lighting of roadways.
- The Chartered Institute of Building Services Engineers (CIBSE) Lighting Guide. This national legislation outlines outdoor lighting design considerations. The document provides valuable assistance for lighting designers to make decisions about how the health and safety of the environment is enhanced, whilst considering the visual pleasantness of artificial lighting in urban and rural areas.

1.2.2 National Planning Policy Framework (NPPF) (December 2024)

Section 15 of the NPPF, titled “Conserving and enhancing the natural environment”, paragraph 198, discusses the approach to minimising the impact of light pollution.

“198c). Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from

the development. In doing so they should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

1.2.3 Planning Practice Guidance

The NPPF is supported by Planning Practice Guidance (PPG). This Guidance details key issues in implementing policy to regulate artificial light and light pollution. The guidance identifies that artificial light offers valuable benefits to society. It also identifies artificial light is not always necessary and has the potential to create 'light pollution' or 'obtrusive light'. Lighting can be a source of annoyance to people, harmful to wildlife, undermine enjoyment of the countryside or detract from enjoyment of the night sky.

PPG outlines the possibility of when light pollution may arise. This can be defined as below:

- Does the new development proposal, materially alter light levels outside the development and/or have the potential to adversely affect the use or enjoyment of nearby buildings or open spaces?
- Does an existing lighting installation make the proposed location for a development unsuitable, for example, this might be because:
 - the artificial light has a significant effect on the locality;
 - users of the proposed development (e.g. a hospital) may be particularly sensitive to light intrusion from the existing light source.
- Does the proposal have a significant impact on a protected site or species e.g. located on, or adjacent to, a designated European site or where there are designated European protected species that may be affected?
- Is the proposed development in or near to a protected area of dark sky or an intrinsically dark landscape where it may be desirable to minimise new light sources?
- Are forms of artificial light with a potentially high impact on wildlife (e.g. white or ultraviolet light) being proposed close to sensitive wildlife receptors or areas, including where the light shines on water?
- Does the proposed development include smooth, reflective building materials, including large horizontal expanses of glass, particularly near water bodies because it may change natural light, creating polarised light pollution that can affect wildlife behaviour)?

1.2.4 Surrey County Council - Transportation Development Control Good Practice Guide

This document details how the County Council considers highways and transportation matters for development proposals in Surrey. It contains standard conditions applied to developments containing highways. Condition HC11 relates to lighting:-

HC11 Screening of Illumination

The proposed lighting shall not be brought into use until measures to avoid unacceptable glare to users of the public highway have been provide in accordance with (the approved plans or a scheme to be submitted to and approved in writing by the Local Planning Authority) and thereafter retained in perpetuity.

This condition is imposed in order that the development should not prejudice highway safety or cause inconvenience to other highway users.

1.2.5 Surrey Local Government Association - Surrey Design - A Strategic Guide for Quality Built Environments.

This is a Technical Appendix to Surrey Design: A strategic guide to quality built environments. Chapter 7 of the appendix is specific to lighting and details designs to be submitted in accordance with BS5489 - Lighting of Roads and Public Amenity Areas - Code of Practice.

1.2.6 Surrey County Council - Developer Street Lighting Notes and Specifications Section 38 and 278 Works for Adoption

This document contains full briefing notes and specification requirements for new streetlighting as part of a section 38 or 278 development. All lighting designs should be undertaken in line with the requirements of BS5489-1:2020 and BS EN13201:2015 unless by prior written arrangement with the county council

1.3 Proposed Lighting and Controls

1.3.1 Lighting Environmental Zone

To provide guidance to the acceptable level of brightness within a site, the Environmental Zone in which the Site is situated needs to be identified in accordance with the Institute of Lighting Professionals (ILP) Guidance Note for the Reduction of Obtrusive Light 2021, (GN01-21). Table 2: Environmental zones of the Guide is reproduced in Table 1.3.1 below. Using the information provided in the table, the site can be classified as suburban with the Environmental Zone being E3.

Table 1.3.1: Environmental Zones

Sensitivity	Definition
E0	Protected / Dark: Astronomical Observable dark skies, UNESCO starlight reserves, IDA dark sky places
E1	Natural / Dark: Relatively uninhabited rural areas, National Parks, Areas of Outstanding Natural Beauty, IDA buffer zones etc
E2	Rural / Low district brightness: Sparsely inhabited rural areas, village or relatively dark outer suburban locations
E3	Suburban / Medium district brightness: Well inhabited rural and urban settlements, small town centres of suburban locations
E4	Urban / High district brightness: Town/city centres with high levels of night-time activity

1.3.2 Lighting Strategy

General road and street lighting will be designed in accordance with the following Statutory legislation: -

- BS EN 5489-1: Lighting of Roads and Public Amenity Areas - Code of Practice
- BS EN 13201- 1/2/3/5 2015/2014 Road Lighting
- BS EN 12464-2: Outdoor workplaces
- BS EN 60598-1: 2004 – Luminaire General requirement
- Electricity at Work Regulations 1989
- Health and Safety at Work Act 1974

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The development will consist of thoroughfares of differing categories. In terms of street lighting the designer will carry out the appropriate risk assessments in order to identify specific lighting needs for the road. Class classification will be in terms of lighting for traffic routes (M), conflict areas (C), subsidiary roads (P) including pedestrian areas.

The majority of areas will be designed in accordance with P lighting classes to the table below:-

Class	Horizontal illuminance		Additional requirement if facial recognition is required	
	$E_{(Av)}$ (min) lx	E_{min} (maintained) lx	$E_{v,min}$ (maintained) lx	$E_{sc min}$ (maintained) lx
P1	15.0	3.0	5.0	5.0
P2	10.0	2.0	3.0	2.0
P3	7.5	1.5	2.5	1.5
P4	5.0	1.0	1.5	1.0
P5	3.0	0.6	1.0	0.6
P6	2.0	0.4	0.6	0.2

Table 1.3.2.1 - BS13201 – Part 2 : Performance Requirements (Table 3)

For Environmental Zone 3 areas, the permissible light spillage beyond the development boundary should be as detailed in Institute of Lighting Professionals (ILP) Guidance Note for the Reduction of Obtrusive Light 2021, (GN01-21).

Light technical parameter	Application conditions	Environmental zone (E3)
Illuminance in the vertical plane (E_v)	Pre-curfew	10 lx
	Post-curfew	2 lx

Table 1.3.2.2 – From Guidance Note for the Reduction of Obtrusive Light 2021, (GN01-21) (Table 3)

1.3.3 Ecological Considerations and Constraints

The ecologists assisting with the planning application have identified ecologically sensitive areas of the site. The public right of way and dry stream/ditch on the Southern border (marked in green below) should be given priority in being kept as dark as possible. The east and west site boundary hedgerows (marked in blue below) should also be kept dark.

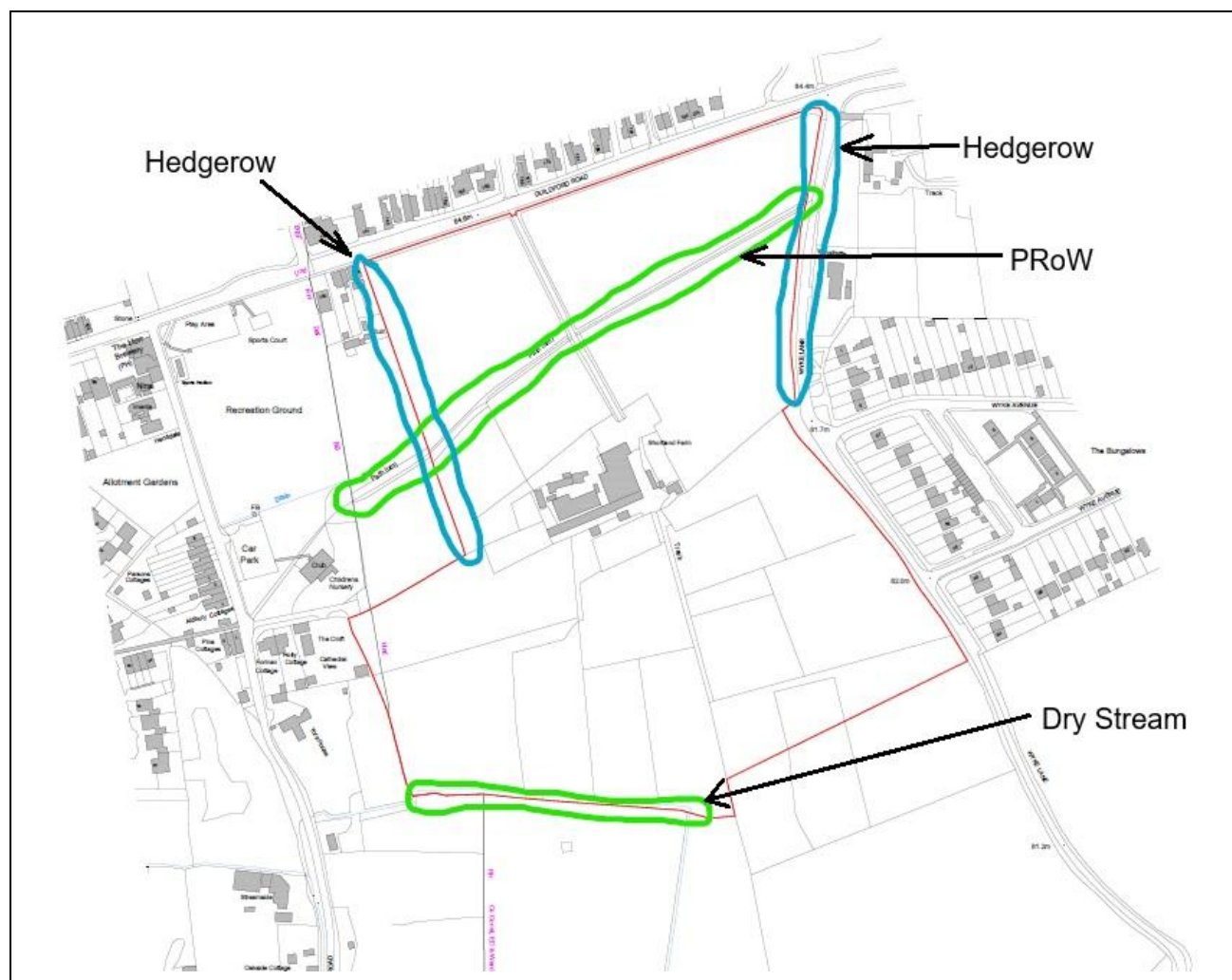


Figure 1.3.3 – Areas of Ecological Sensitivity

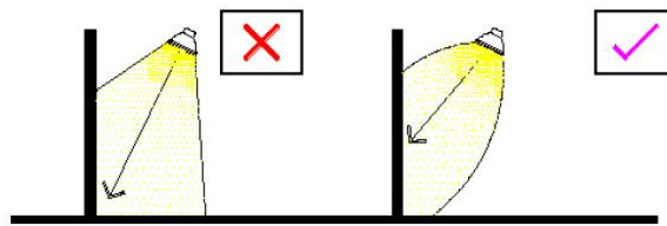
1.3.4 Mitigation Measures

Lighting solutions will be selected to avoid over-lighting thus reducing light pollution. Luminaires will be selected to minimise the upward spread of light near to, or above, the horizon. Luminaire controllers will reduce spill light and glare.

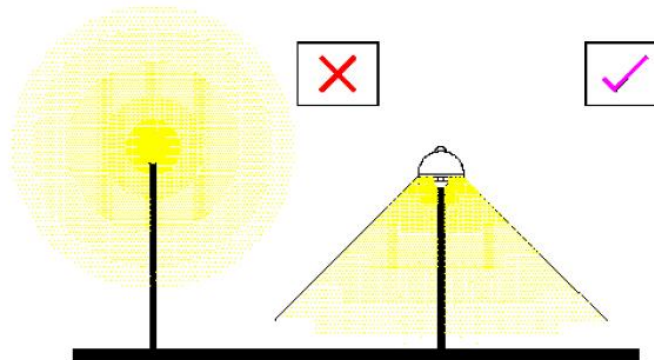
Solutions which will comply with the mitigation measures detailed above are set out below:-

- Lighting will be provided in the form of column mounted lanterns. Where possible, lanterns will be pointed into the development and away from the adjacent sites. The optics in the lanterns will control the distribution of light avoiding overspill, sky glow and glare.
- Glare will be kept to a minimum by ensuring the main beam angle of luminaires directed towards any potential observer is kept below 70°. Higher mounting heights allow for the provision of lower beam angles, which assists in reducing glare.

Spill Light evident in Example 1 may be reduced.



Obtrusive Sky Glow evident in Example 2 may be reduced.



In order to comply with recommendations made by the Bat Conservation Trust, the following measures will be implemented in the technology used to deliver the lighting installation:-

- Use of narrow spectrum light sources to lower the range of species affected by lighting.
- Use of light sources that emit minimal ultra-violet light.
- Lights that peak higher than 550 nm.

Avoidance of white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are installed in order to manage the blue short wavelength content they will be of a warm / neutral colour temperature >3,000 kelvin (2700K preferred).

1.3.5 Lighting Controls

In March 2010, Surrey County Council entered into a new 25 year contract with Milestone. As part of this contract all county owned lighting has been replaced or upgraded. New lighting has been installed with a dimming and remote monitoring system allowing the council to save energy and monitor the lighting. This has provided benefits in terms of reduced energy usage and environmental benefits for local ecology.

1.3.6 Summary

The existing site currently consists of unlit grassland / farmland. The proposed lighting solution will be sympathetic to the local surroundings to avoid over lighting, sky glow and glare. The lighting solution will need to provide greater levels of light than the baseline conditions, to comply with current standards and to provide a safe and secure environment for residents.

Lighting controls should be utilised for dimming in line with the measures introduced by the local authority.

The estate lighting design should take account of the crossing point of the main access road and the PRow and balance the dark corridor requirement and street lighting design.

Appendix A - Site Layout



- KEY
- Site boundary
 - Site access
 - Public footpath 356



Illustrative Masterplan
Shortland Farm, Guildford Road, Ash

25019 / C101A

Scale 1:1000 @ A1 October 2025