



Saltbox – Development

Landlink Developments

External Lighting Statement Unit 3

Revision 0
03/12/2021

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Project Particulars

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Revision History

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1 Introduction

This document describes the proposed external lighting systems to be provided in connection with the proposed new development on the Saltbox Unit 3 – Bognor Regis site. It sets out the basis of design and criteria to be adopted for the external lighting design for the development including on site access roads and paths, car parking areas, external surface storage area and landscaped courts.

1.1 Design Requirement and Philosophy

The design requirement is to provide site wide lighting systems, to facilitate safe and secure movement around the site for pedestrians, cyclists, cars and delivery vehicles. Key drivers include:

- Energy efficiency, dictating that illuminance is directed to areas required, that high efficiency luminaires and lamp sources are used and that lighting is controlled to ensure that luminaires are not lit when not required.
- Minimised obtrusive light spill from the site, dictating that luminaires are selected and directed to manage light distribution to the areas required and to minimise light spill from the site either vertically, that would result in light pollution or horizontally, that may be obtrusive to external observers.

1.2 Relevant Sources

In determining the basis of design for the external lighting systems, the following sources have been duly considered:

Ref.	Title
1.	CIBSE LG6 –Lighting Guide, The Outdoor Environment, 1992
2.	BREEAM New Construction, Non-Domestic Buildings, Technical Manual SD5073 - 2.0:2011. Section Ene 03, External Lighting and Pol 04, Reduction of night time light pollution.
3.	ILE Guidance Notes for the Reduction of Obtrusive Light, as referenced by BREEAM (above).
4.	BS 5489 Code of Practice for the Design of Roadway Lighting, Part 9 – Car Park Lighting, dated 1992

Criteria defined by these reference sources identified by superscript numbers (e.g. ⁽¹⁾)

1.3 Basis Of Design

External lighting will be provided to site access roads and paths, car parking areas, external surface storage areas and landscaped courts in accordance with the above “Relevant Sources” and the following specific design criteria:

Area	Maintained Illuminance
General Car Parking Area	20 lux ⁽¹⁾
Service Yards	50 lux
Access Road	25 lux
Pedestrian Walkways	20-25 lux

Appendix 1 contains a plan showing deliniation of areas.

Uniformity ratio (minimum to average) 0.4 typical. 0.25 minimum. ⁽⁶⁾

Minimum colour rendering performance of light sources = 60Ra ^(2,6)

Note : The access road lighting shall be provided to adoptable standard utilising West Sussex County Councils approved highways lighting supplier Philips – Luma columns.

Luminaires will be selected to comply with the ILE Guidance Notes for the Reduction of Obtrusive Light⁽³⁾ based on the site being clasified as Environmental Zone E2 – “Rural , small villages”, including:

Environmental Zone	Sky Glow ULR (Max %)	Light Trespass into windows (lux)		Source Intensity (kcd)		Building Luminance Average, L (cd/m2)
		Pre-curfew	Post-curfew	Pre-curfew	Post-curfew	
E2 – Rural , small villages	2.5	5	1	7.5	0.5	5

1.4 Luminaire Types

Lighting to on-site roads and parking areas will be provided by LED column mounted luminaires, with a maximum column height of 8m and a minimum luminous efficiency of 95 lamp lumens / circuit watt ⁽²⁾.

Luminaires will be contemporary in style, in keeping with the architectural style and colour palette of the new building.

1.5 Control

External light will be controlled using a combination of photo cells, time switches and other control devices to:

- Prevent operation during daylight hours. ⁽²⁾
- Facilitate reduced coverage between midnight and 6am (curfew hours, variable by client) to satisfy minimum security requirements and reduce light pollution during unoccupied hours. ⁽³⁾

Luminaires will be divided on to logical circuits and control groups to facilitate different control strategies for primary access roads, general parking areas and primary pathways

2 Appendix: Indicative External Lighting Levels

Statistics					
Description	Symbol	Avg	Max	Min	Min/Avg
Parking & Roadway	+	17 lux	32 lux	11 lux	0.65
Unit 3A	+	27 lux	47 lux	14 lux	0.52
Unit 3B	+	27 lux	47 lux	13 lux	0.48
Unit 3C	+	25 lux	47 lux	12 lux	0.48
Unit 3D	+	23 lux	42 lux	11 lux	0.48
Walkway behind units	+	19 lux	39 lux	9 lux	0.47

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