

RIDGE

Proposed Southern Policing Hub, Mitre Way, Old Sarum External Lighting Report For Planning

Wiltshire Police

SEPTEMBER 2026

Prepared for



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Contents

1.0	Introduction
2.0	Planning Polices, Standards and Guidance
3.0	Abbreviations
4.0	Lighting Design Strategy
5.0	Conclusion

1. Introduction

This external lighting report has been prepared in support of Outline Planning Application for the Land at Mitre Way, SP4 6GW.

At this stage, all matters relating to design are reserved, apart from means of access.

All design elements shown are indicative of a potential design approach that may be taken by the PCC, and will be developed at the Reserved Matters stage

The site is located approximately 3.2 miles (5 km) north of Salisbury city centre, within Wiltshire in the Southwest of England. The site lies to the east of the A345, which provides direct vehicular access and connections to the A36 and wider strategic road network.

The immediate surroundings comprise of a series of residential developments. The wider surroundings comprise of heritage assets, notably the Scheduled Monument of Old Sarum hillfort to the west. Salisbury historic city centre lies to the south.

The site is well connected in terms of transport, with bus routes serving the wider Old Sarum area and Salisbury railway station located approximately 3 miles to the south, providing regular services to London, Southampton, and Exeter.

Overall, the site is within the built form of the Old Sarum part of the Wiltshire Local Plans mixed-used development area, with close functional links to Salisbury.

Old Sarum hillfort is c1.25km from the site separated by existing woodland, trees and vegetation, Salisbury Park & Ride and A345 roadway, as well as buildings, topography and landform.

There is an existing residential development immediate ly to the East of the site which has street lighting. Further afield, the site is surrounded by major built up areas. These are listed below:

- North North East is Amesbury @ ~7km
- South is Salisbury @ ~3km

Ridge are aware of the S38 for the existing street lighting on Mitre way and that this is currently ongoing.

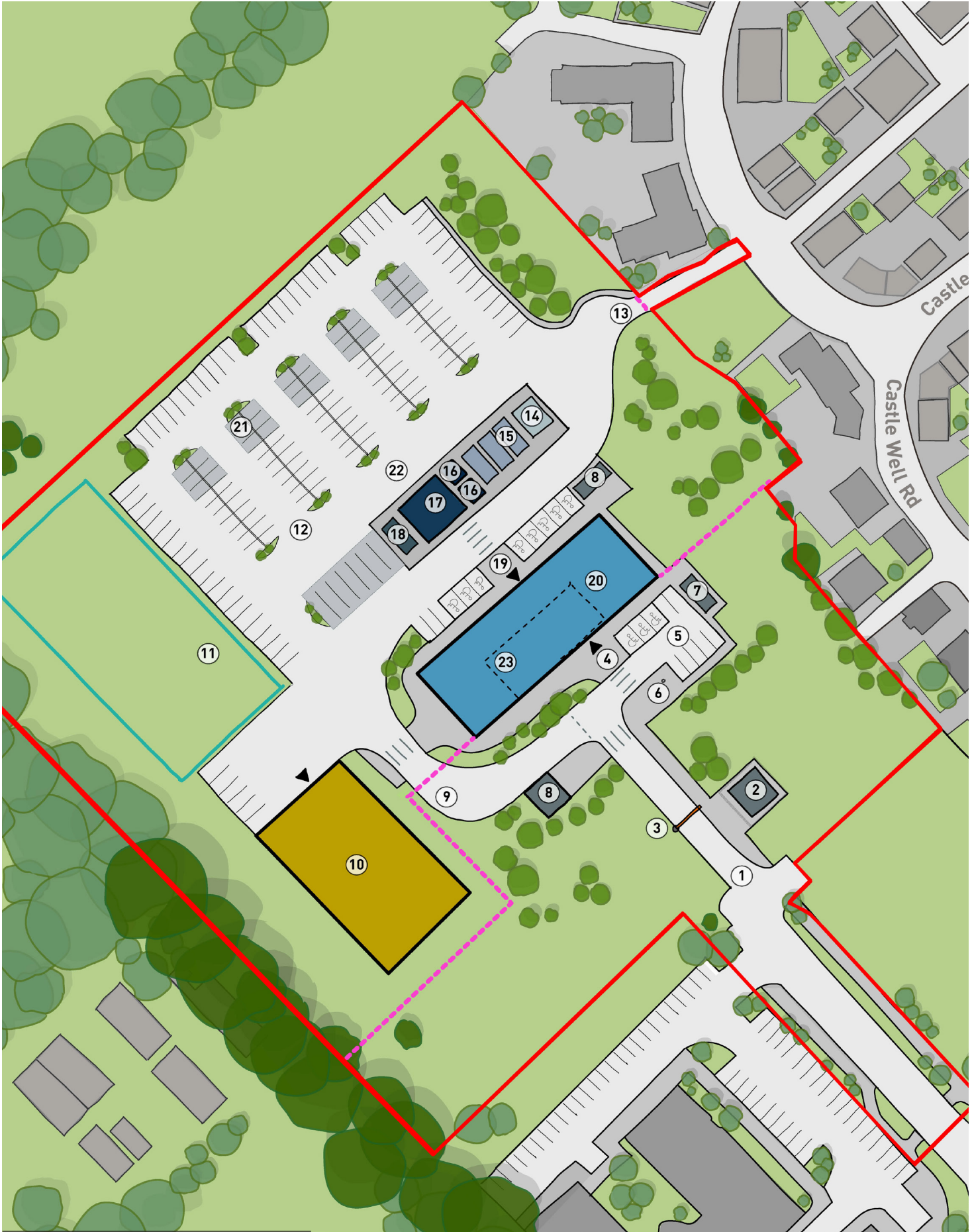


Image 01: Illustrative site plane and red line boundary

2. Planning Polices, Standards and Guidance

2.1 National Legislation and Planning Policy

The relevant document at this level is the Environmental Protection Act 1990 / Clean Neighbourhoods and Environment Act (2005)

Section 102 ‘Statutory nuisance: lighting’ of The Clean Neighbourhoods and Environment Act (2005) amended Section 79 of the Environmental Protection Act 1990 by extending the statutory nuisance regime to include light nuisance, by stating the following:

“S102 Statutory nuisance: lighting

(1) Section 79 of the Environmental Protection Act 1990 (c. 43) is amended as follows.

(2) In subsection (1) (matters constituting statutory nuisances) after paragraph (fa) (as inserted by section 101 (2)) insert— “(fb)artificial light emitted from premises so as to be prejudicial to health or a nuisance;”.

2.2 National Planning Policy Framework (NPPF)

At the national level, the need to consider the potential effects of artificial lighting is embodied in the wording of the National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government (MHCLG), 2026) and should be considered during the application process to reduce the potential for unnecessary delays owing to unacceptable (unknown) potential effects on local amenity and nature conservation.

Section 14 – Achieving Well Designed Places: DP3 – Key principles for well-designed places paragraph 2f states:

“Public Space: include spaces that are safe, secure, inclusive, and accessible for all ages and abilities, including for groups such as women and girls; and which facilitate and encourage social interaction, play and healthy lifestyles (for example by providing high quality, clear and legible pedestrian and cycle routes, a variety of recreational spaces and places to meet, integrating lighting and making building entrances and...”

Paragraph 5 states:

“Substantial weight should also be given to outstanding or innovative designs which promote high levels of sustainability, or which help raise the standard of design more generally in an area, so long as they are consistent with the overall form and layout of their surroundings.”

Section 17 – Pollution public protection and security: P3 – Living Conditions and pollution states:

“2. Within the context development proposals should:

- a. Provide healthy living conditions for occupiers and users in terms of adequate access to light and avoiding exposure to levels of air, noise, artificial light or other sources of pollution which could have an unacceptable adverse effect on health and the quality of life. Where necessary suitable mitigation measures should be incorporated to secure acceptable living conditions;*
- b. Not give rise to, or contribute to, an unacceptable level of access to daylight and sunlight for neighbouring residents and occupiers, or unacceptable levels of air, noise, artificial light, water, soil or other forms of pollution on or beyond the site. Adverse impacts of this nature should be avoided where possible, or else mitigated to an acceptable degree. Where possible, opportunities should be taken to reduce pollution affecting the wider area (such as through traffic and travel management or improved external lighting);*
- e. Limit any adverse impact from artificial light on local amenity, intrinsically dark landscapes (those areas entirely, or largely, uninterrupted by artificial light) and nature;”*

2.3 National Planning Practice Guidance (NPPG)

The UK Government’s National Planning Practice Guidance (NPPG) for England presents specific guidance on light pollution that advises on how to consider light within the planning system (MHCLG, 2024). The light pollution category was updated in 2019.

Paragraph 002 asks ‘What factors can be considered when assessing whether a development proposal might have implications for light pollution?’.

- Will a new development, or a proposed change to an existing site, be likely to materially alter light levels in the environment around the site and/or have the potential to adversely affect the use or enjoyment of nearby buildings or open spaces?*
- Will the impact of new lighting conflict with the needs of specialist facilities requiring low levels of surrounding light (such as observatories, airports and general aviation facilities)? Impacts on other activities that rely on low levels of light such as astronomy may also be a consideration, but will need to be considered in terms of both their severity and alongside the wider benefits of the development.*
- Is the development in or near a protected area of dark sky or an intrinsically dark landscape where new lighting would be conspicuously out of keeping with local nocturnal light levels, making it desirable to minimise or avoid new lighting?*
- Would new lighting have any safety impacts, for example in creating a hazard for road users?*
- Is a proposal likely to have a significant impact on a protected site or species? This could be a particular concern where forms of artificial light with a potentially high impact on wildlife and ecosystems (e.g. white or ultraviolet light) are being proposed close to protected sites, sensitive wildlife receptors or areas, including where the light is likely to shine on water where bats feed.*
- Does the proposed development include smooth, reflective building materials, including large horizontal expanses of glass, particularly near water bodies? (As it may change natural light, creating polarised light pollution that can affect wildlife behaviour.)*

Whilst there is no specific mention of construction lighting in the guidance, there are relevant comments including the use of security lights, floodlights, turning lights off, glare, dark sky areas, intrinsically dark areas, sensitive areas, white light with more blue content, safety and ecology. (See paragraphs 003 to 006).

2. Planning Polices, Standards and Guidance

2.4 Wiltshire Council

The County Council in which Old Saurm sits references ‘Wiltshire Core Strategy [WCS] (2015)’ and ‘Wiltshire Design Guide (2024)’. Both of these documents have been referenced in developing the lighting strategy and the lighting design.

- Part 5 of the Wiltshire Design Guide has been used as this describes the expectations for lighting for parking.
- WCS Strategic Objective 5 has been used as this informs the design of an external lighting scheme by ensuring that lighting protects and enhances Wiltshire’s landscapes, biodiversity, heritage assets, green infrastructure and public realm, while governing the need to minimise environmental and visual impacts, respect local character and sensitive ecological and historic sites, and support high-quality, sustainable development.
- Core Policy 57 of the WCS covers external lighting to ensure that this is designed and integrated sensitively within its surroundings, protecting Wiltshire’s landscape character, heritage assets, biodiversity, important views and public amenity, while governing issues such as light intrusion, visual impact, public safety, crime prevention and the quality of the public realm through a high standard of context-led design.

2.5 Professional Guidance

2.5.1 Institution of Lighting Professionals (ILP)

2.5.1.1 GN01:2021 Guidance on the Reduction of Obtrusive Light

This document outlines what is obtrusive light and limits of source glare, sky glow and facade luminance which are suitable for different types of spaces (environmental zones). The document is widely used in the UK.

Within GN01 there is a table with target sky glow, light spill, source and other lighting levels targets. These target levels change depending on the environmental zone a location is considered to exist. The environmental zone for this development is considered to be E2 – Rural (Low District Brightness).

Table 2: Enviromental Zones			
Zone	Surrounding	Lighting Enviroment	Examples
E0	Protected	Dark (SQM 20.5+)	Astronomical Observable dark skies, UNESCO starlight reserves, IDA dark sky places
E1	Natural	Dark (SQM 20 to 20.5)	Relatively uninhabited rural areas, National Parks, Areas of Outstanding Natural Beauty, IDA Buffer Zones etc.
E2	Rural	Low District Brightness (SQM ~15 to 20)	Sparsley inhabited rural areas, village or relativley 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

Table 01: Copied from the ILP GN01:2021 Guidance

2.5.1.2 GN08:2023 Bats and Artificial Lighting in the UK

This document outlines how light impacts bats and the principles of how to mitigate against external lighting impacting bats. The document is widely used in the UK.

2.5.1.3 PLG04 Guidance on the Undertaking of Environmental LIA’s

This document provides advice on undertaking LIA’s. This is not applicable on this project.

2.5.1.4 PLG05 The Brightness of Illuminated Advertisements

This document provides maximum brightness levels for signage of different scales in different light and dark environments. This is not applicable on this project

2.5.2 Society of Light and Lighting (SLL)

2.5.2.1 Applicable Documents

The SLL produce a number of applicable documents, all of which shall form part of the lighting design process for the student hub. However, there is no mention of construction or temporary lighting.

- SLL LG21 Protecting the Night-time environment : 2021
- SLL LG23 Design, Creativity and Compliance : 2026

2.6 Other Documents

In addition to the above there are British Standards, Independent Dark Sky Design Guides, Secured by Design and Countryside Protection Guides. They have not been specifically included in this report as the information is either identical to other listed documents, or, their date of publication is older than more recent up to date documents, e.g. Lighting in the Countryside: Towards good practice (1997).

3. Abbreviations

Commonly used abbreviations in this report are described below.

Term	Definition
CCT	Correlated Colour Temperature in Kelvins
Kelvin (K)	This is the black body temperature coloyr of the light 2700K is considered very warm white 3000K is considered warm white 4000K is considered white 6500K is considered daylight
Glare	Excessive and uncontrolled brightness which can cause visual impairment
Lux	The unit of illuminance, or luminous flux per unit of area (H) Horizontal light meter reading, typically at floor level (V) Vertical light meter reading, typically at eye level
Sky Glow	Brightness of the night sky as a result of light polution in or around a built up area
Scource Luminance	Brightness of the light scource of a light fitting. This is always considered from a viewing angle.
Flat Glass Lens	A luminaire which has a flat glass or flat surface and the fitting is aimed parallel to the ground. This ensures there is no upward light.

Table 02: Abbreviations

4. Lighting Design Strategy

4.1 Introduction

The following pages describe the lighting strategy and presents the style of products which will be used throughout the development. A lux plot has not been created at this time as there are more details to resolve ahead of precisely positioning lights, setting mounting heights and aiming angles. A lux plot will be produced during the next stage and submitted to the local authority to demonstrate compliance with the relevant lighting standards, road standards and ecology, environmental and heritage requirements.

4.2 Lighting Standards and Guidance

The information and numerical criteria in the documents below have been used to create the lighting zone plan in section 4.7. Where discrepancies exist in the numerical criteria we have used the most recently published standard or guidance.

- ILP GN01 : Guidance Note on the Reduction of Obtrusive Light
- ILP GN08 : Bats and Artificial Lighting
- BS5489-1 : Road Lighting
- BSEN12464-2 : Lighting Workplaces, Outdoor Workplaces
- BSEN13201-1 : Guidance on Classes
- BSEN13201-2 : Road Lighting Performance
- SLL LGO : Code for Lighting : 2022
- SLL LG6 : The Exterior Environment : 2016
- SLL LG21 : Protecting the Night-time environment : 2021
- Wiltshire Council : Wiltshire Validation Checklist : Aug 2025
- Ecology : GE Consulting Report

The requirements for an E2 ‘low district brightness’ area from ILP GN01 relevant to this site have been reproduced to the right.

Criteria (ILP GN01, E2 Zone)	Target
[1] Sky Glow	2.5%
[2] Light Trespass into windows	5 Lux Pre Curfew 1 Lux Post Curfew
[3] Source Luminance	7,500 Lux Pre Curfew 500 Lux Post Curfew
[4] Building Facade Luminance	5 cd/m2

Table 03: ILP GN01 Criteria

Criteria (ILP GN08)	Target
[5] Horizontal Illuminance at Hedgerows	0.2lx
[6] Vertical Illuminance at Hedgerows	0.4lx

Table 04: ILP GN08 Criteria

4. Lighting Design Strategy

4.3 Ecology

GE Consulting have produced an ecology impact assessment for the site July 2026,. With respect to light impacting wildlife on and around the site the report made the key statements below:

5.3.2 Bats

5.3.2.1 Foraging and commuting

Lighting within the development has the potential to impact on commuting/ foraging bats by causing avoidance behaviour and therefore habitat fragmentation effects which can impact upon the success of roosts and viability of populations. A sensitive lighting strategy ... implemented to keep all lighting on Site to a minimum, particularly along the south western corridor, adjacent to the woodland areas, where a darker buffer will be maintained to ensure bats of all species will continue to be able to commute and forage through the Site.

...Any new external lighting will be in line with recommendations in the Guidance Note 8 – ‘Bats and Artificial Lighting at Night’ (ILP & BCT, 2023). Whilst the area along the north western boundary is located within the Primary Roads and Car Parks area and will require lighting, any luminaires installed along the north western boundary will be directional to prevent spill onto the offsite grassland and woodland areas, and will provide 0% up light. PIR will be utilised to ensure these lights are not on throughout the night.

Lighting on and around the new buildings should also be minimised, particularly adjacent to the boundaries, so as to avoid disturbance to bats utilising these for commuting and foraging. It is recommended that outdoor lighting erected within the Site should be on motion sensors (where appropriate) and use low wattage rated bulbs which do not emit light from the UV end of the spectrum. It is also recommended that the bulbs are covered and positioned downwards so as to minimise light spill. No windows are proposed within the buildings along the south western boundary therefore internal light spill will not have an impact on the darker corridor.

Between 1st April and 31st October, works during the construction phase should be undertaken starting no earlier than 30 minutes after sunrise and finishing no later than 30 minutes before sunset with no Site lighting overnight. Should this not be possible, any lighting considered necessary will have timers/ motion sensors fitted to reduce the duration they are on. Noise disturbance should also be kept to a minimum during this time.

9 Conclusions

In summary, the development of the Site has the potential to impact on a variety of protected species as a result of direct impacts due to loss of habitats as well as indirect impacts caused by disturbance factors both during construction and operation, particularly in regard to lighting.

4.4 Lighting Design Response to Ecology comments

The statements above do not generally cause any concern with regards to providing a lighting scheme for the roads, paths and buildings.

4.5 Lighting Principles

The development of the lighting for the new development will follow the principles set out below.

- LIGHTING PRINCIPLE NO. 1: The external lighting design for the site will be fully ‘dark sky compliant’ as defined by Dark Sky International. This approach includes:
 - Only areas which require lighting will be lit, spill light beyond the site boundary will be eliminated
 - Areas will only be lit when they need to be for people, safety and security
 - Spaces will be lit to the correct level and not overlit
 - There will be no direct upward light
 - Warm colour temperature and low blue content lamps will be used
- LIGHTING PRINCIPLE NO. 2: The roads and paths will be illuminated to meet the relevant British Standards for Car Park and Road lighting (BS5489 and BS EN 13201). The proposal is to use automatic dimming and short time sensor control. Sensors within the fittings will bring the lights up to 100% for 1 minute when a person is detected.
- LIGHTING PRINCIPLE NO. 3: All lighting will be designed to minimise the potential for obtrusive light into neighbouring residential buildings. Particularly the adjoining Care Home, to the South West, and the and Residential properties, to the East. The obtrusive light will be assessed again the ILP guidance note on obtrusive lighting document GN01:2021. The environmental zone is considered to be E2 – Rural – Relatively Uninhabited Rural Areas.

- LIGHTING PRINCIPLE NO. 4: Where lighting is close to the perimeter of the site, the lighting components will be positioned towards the edge of the site and the light will be aimed inwards towards the roads, car park and buildings. Light shields and suitable optics will be used to eliminate spill light into the perimeter hedgerows.
- LIGHTING PRINCIPLE NO. 5: All light fittings will have 0% direct upward light spill and fully shielded light sources. This is achieved through selecting appropriate light fittings and aiming the light down; selecting BUG 0,0,0 rated light fittings and installing them correctly or using light shields to ensure no light is emitted up into the night sky.
- LIGHTING PRINCIPLE NO. 6: Lighting columns will be installed no higher than 6m AFFL.
- LIGHTING PRINCIPLE NO. 7: All external lighting will be a maximum CCT of 2700K. For specific sensitive areas this will be reduced to 2200K if required.

4. Lighting Design Strategy

4.6 Lighting Zone Layout

The lighting strategy has been kept simple and follows the principles set out in the previous page of only lighting areas where and when needed.



Image 02: Lighting Strategy Layout

- Primary Roads and Carparks**
 - 6m column mounted pole fittings providing light onto the primary road and car parking spaces.
 - 100% down light. 0% up light.
 - Photocell and PIR override control
- Covered parking bays**
 - Surface mounted downlights providing light to covered parking bays
 - 100% down light. 0% up light.
 - Photocell and PIR override control
- Building Entrances, Bike Sheds and Bin Stores**
 - Wall mounted light fitting with non adjustable tilt.
 - 100% down light. 0% up light.
 - PIR control only
- Secondary Road**
 - The Secondary road is not proposed to be illuminated. This decision is based on (1) this entrance being reserved for emergency use only (2) not wanting to spill light into the adjacent residential properties.

4. Lighting Design Strategy

4.7 Proposed lighting design layout

This scheme follows the Lighting Principles to meet the necessary light levels for the Policing hub while minimising light spill into neighbouring residential windows. The final selection and arrangement of luminaires will be determined during detailed design, but the chosen luminaires are appropriate for this type of development.

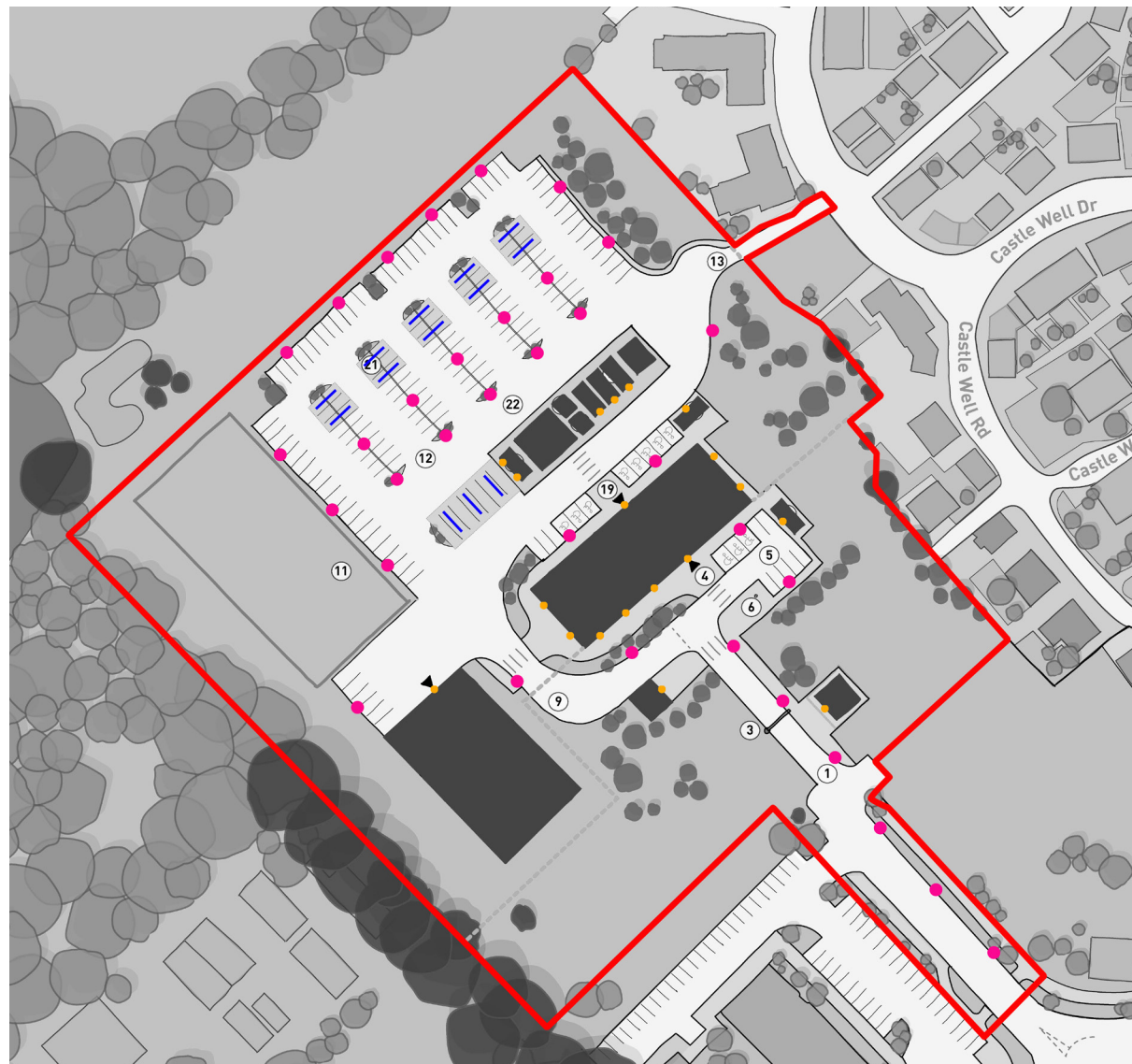


Image 03: Proposed lighting design layout

-  Primary Roads and Carparks - 6m column
-  Surface mounted under canopy downlights
-  Building mounted wall lights

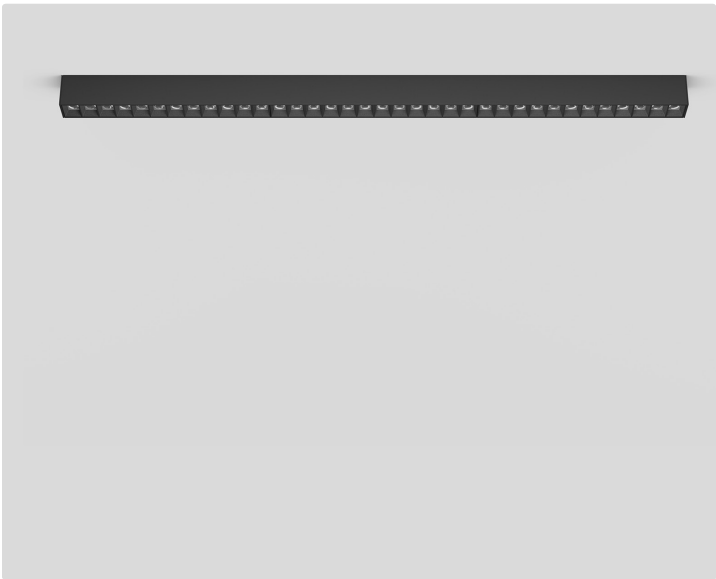
4. Lighting Design Strategy

4.8 Proposed lighting product styles



Primary Roads and Car Parks

Road and Area lighting distrubition
2700K Colour Temperature
100% down light. 0% up light.
6m column maximum



Covered parking bays

Surface mounted linear profile with non-adjustable tilt.
2700K Colour Temperature
100% down light. 0% up light.
Surface mounted to underside of canopies



Building Entrances, Bike Sheds and Bin Stores

Adjacent PIR and integral emergency where required
2700K Colour Temperature
100% down light. 0% up light.
Wall mounted

5. Conclusion

This report sets out the policies and standards related to light pollution and the lighting strategy and product styles. The key deliverable at the next stage will be a lux plot calculation and report demonstrating that the site is lit in accordance with these policies, including but not limited to NPPF DP3 and P3, WCS Strategic Objective 5, and Policy CP57, and with the relevant standards, and that obtrusive light along the Ecology corridors and to the Residential developments meets the relevant criteria.

The lux plot calculation will include:

- Road, path, square and building lighting details.
 - Isoline and numerical lux level drawing,
 - Horizontal and vertical calculation results at key receptor locations,
 - Source luminance calculation results for key receptors,
 - Sky glow results for the development,
 - Building façade brightness results,
 - ILP Compliance evidence, e.g. light spill, sky glow, etc.
 - The standards and guidance used for the lighting design.
 - Fitting types, lumen output, beam angles, heights etc.
 - Colour temperature details.
 - Control system for the road, car park and building lighting, including on / off / dimming times.
-

The word "RIDGE" is written in a bold, white, sans-serif font. The letter 'i' is lowercase and features a dot. The background is a dark teal color with a pattern of concentric, slightly wavy lines that create a sense of depth and movement, resembling a stylized landscape or a topographical map.

RIDGE

Find out more at [ridge.co.uk](https://www.ridge.co.uk)