

KINGSBERRY HOUSE

Appendix A - Lighting Fitting Schedule, Dark-Sky Strategy and Control Philosophy

Prepared for the estate lighting quotation by Garden Lighting Solutions by Eagle & Spear

This appendix summarises the proposed external lighting fittings, the reason each fitting type has been selected, and the control strategy intended to support the planning, dark-sky, wildlife and bat-sensitive requirements for KingsBerry House.

The scheme is based on a restrained estate lighting approach. The intention is not to floodlight the property or garden, but to create selected warm-lit moments, safe movement routes, practical security coverage and a carefully controlled evening setting while preserving darkness between key areas.

Final fitting selection, lux levels, aiming, shielding, cable sizing, protection, controls, testing and certification remain subject to final site setting out, electrician verification and any planning/ecology comments.

1. Overall Lighting Design Principles

Principle	KingsBerry House approach
Warm light	Use warm white lighting throughout the decorative garden scheme, with lower colour temperatures preferred where practical.
Light only where needed	Avoid blanket illumination. Use selected lighting to reveal routes, planting, pedestals, pond features and security areas only.
Preserve darkness	Retain dark pockets between lit areas, particularly near boundaries, hedges, retained trees, roost features and potential wildlife corridors.
Control glare	Use capped fittings, careful aiming, shields, baffles, honeycomb lenses and dusk commissioning to reduce visible glare.
Avoid upward spill	Fittings to be aimed downwards, across planting or below horizontal wherever practicable.
Control operating hours	Lighting to be zoned, timed, dimmed where possible and switched off or reduced when not required.
Separate security lighting	Security lighting to remain normally off and operate only when triggered or manually overridden.

2. Pedestal / Pillar Lantern Lighting

Item	Proposed basis
Fitting type	High-quality capped pedestal or pillar lantern fitting.
Use	Front entrance, garden rhythm, formal route definition and visual structure.
Lamp type	Low-energy warm LED lamp.
Recommended colour temperature	2200K-2700K preferred.
Output	Low lumen output only, sufficient for visual rhythm and orientation rather than area lighting.

Dark-sky benefit	The capped lantern form helps prevent direct upward light and gives a more controlled downward-biased effect.
Control	Timed, switched or scene controlled as part of the pedestal lighting zones.
Reason for selection	Pedestal lighting gives the estate a formal, architectural rhythm while allowing low-output decorative lamps to be used rather than high-powered general lighting.

The pedestal fittings are intended to provide identity, rhythm and orientation. We will not use these fittings as security floodlights or general area lights. Our intention is to select low-output lamps carefully, so the fittings contribute warmth and structure without creating unnecessary brightness.

3. LightPro Low-Voltage Garden Lighting

Item	Proposed basis
System	LightPro professional low-voltage garden lighting system.
Use	Herbaceous borders, planting, shrubs, selected trees, garden depth, routes and feature moments.
Typical fittings	Castor 9 and other suitable LightPro garden fittings, subject to final setting out.
Colour	Warm white LightPro fittings, subject to final product confirmation.
Glare control	Baffles, hoods, honeycomb accessories or careful positioning where appropriate.
Mounting	Garden stakes or suitable mounting to lift fittings and allow controlled aiming.
Aiming	Downwards, across planting or onto selected features wherever practicable. Avoid unnecessary direct uplighting into canopies or open sky.
Dimming	Dimmable fittings, including Castor 9 where used, to be set to the lowest effective output during commissioning.
Reason for selection	LightPro provides a flexible, serviceable and commercially viable low-voltage garden lighting layer suitable for planted borders and seasonal adjustment.

The LightPro layer is proposed as the main garden lighting system because it provides a practical balance between design quality, flexibility, reliability and cost control. It allows the garden lighting to be installed around borders and planting without committing the client to a significantly more expensive professional architectural fitting range at this stage.

Where LightPro spotlights are used, they will be carefully positioned and aimed so that the effect remains restrained. The intention is to highlight selected planting and garden structure, not to wash the whole garden in light.

If the Local Planning Authority, ecologist or planning consultant requires lower colour-temperature fittings in specific sensitive areas, those fittings can be reviewed and substituted as an agreed variation before installation.

4. Castor 9 Spotlight Use

Item	Proposed basis
Fitting	LightPro Castor 9 or equal LightPro fitting.
Use	Stronger accent lighting for selected planting, shrubs, trees or focal points.
Control	Dimming to be used where required.

Beam control	Narrower beam / reflector / honeycomb or glare accessory to be used where suitable.
Mounting	Stake-mounted or otherwise positioned to control the direction of light.
Commissioning	Adjusted at dusk to avoid glare, over-lighting and unnecessary spill.
Reason for selection	Castor 9 gives useful output and dimming flexibility within the LightPro system, allowing stronger garden features to be lit without moving to a much higher-cost fitting range.

Because the Castor 9 is a stronger garden spotlight, GLS will use it selectively. It will not be aimed indiscriminately into open tree canopies, boundary hedges or areas likely to be used by bats or other wildlife. Its value is in controlled feature lighting, not general brightness.

5. Pond and Water Feature Lighting

Item	Proposed basis
Fitting type	LightPro pond-suitable or water-edge suitable fittings, subject to final product confirmation.
Use	Gentle pond edge, water movement, reflection and selected waterside planting.
Colour	Warm white, aligned with the wider estate lighting scheme.
Output	Low level only.
Control	Operated as a separate front garden / pond lighting zone.
Reason for selection	Pond lighting will create reflection and atmosphere without causing glare or excessive brightness across the water.

Water reflects light differently from planting and stone. For this reason, the pond lighting will be treated as a low-level feature layer and reviewed carefully at dusk. Any fitting used in or immediately around the pond must be suitable for its exact location and installation condition.

6. Post-Mounted Security Floodlights

Item	Proposed basis
Fitting type	Specialist shielded post-mounted floodlight, such as TRT Aspect Floodlight 32 LED or equal approved.
Use	Security-only lighting for agreed post positions.
Normal status	Off under normal conditions.
Activation	Triggered only by the agreed security control system or manual override.
Colour temperature	2200K or PC-Amber preferred where available; 2700K maximum target unless otherwise agreed.
Direction	Downwards and below horizontal only.
Glare control	Shielded / baffled / controlled optics, with front, side or rear shields where required.
Mounting	Pole or post-mounted, with twin-head arrangement where required.
Reason for selection	Security lighting carries the highest risk of glare and ecological impact, so the fittings must be controlled, warm, directional and normally off.

The security floodlights are not intended to form part of the normal evening garden scene. They are a practical security layer only. Their purpose is to provide short-duration visibility when required, not continuous amenity lighting.

The preferred fitting selection will support warm colour temperature, controlled beam angles, shielding accessories, post mounting and manufacturer photometric data, so the lighting can be evidenced if required for planning or ecology review.

7. Security Detection and Control System

The security lighting will not rely on standard integral PIR floodlights. Instead, the preferred approach is to separate the detection system from the floodlight fittings.

This allows GLS to select better dark-sky and wildlife-sensitive floodlights while using a more suitable external intruder detection system to control when they operate.

Control item	Proposed basis
Detection type	Animal-tolerant external intruder detection, preferably dual-technology where appropriate.
Purpose	To reduce nuisance triggering from foxes, cats, small animals, moving planting and weather conditions.
Control output	Detector output to trigger the GLS lighting control / relay / contactor arrangement.
Normal condition	Security lights remain off.
Triggered condition	Security lights operate for a short timed period only.
Override	Manual override available for maintenance or security use.
Reset	Lights return automatically to off after the timed period unless further activation is detected.
Commissioning	Detection zones to be walk-tested, masked and adjusted on site.

The detection system will be animal-tolerant rather than animal-proof. It is designed and commissioned to detect human-scale movement and reduce false activations from smaller wildlife, while recognising that no external detection system can absolutely guarantee that it will never respond to animals, weather or unusual movement.

Final detector selection, mounting height, beam pattern, masking and sensitivity will be confirmed during detailed controls design and commissioning.

8. Control Philosophy by Lighting Layer

Lighting layer	Normal operation	Control approach
Pedestal / pillar lighting	Evening scene and route rhythm.	Timed, switched or scene controlled.
LightPro planting lighting	Garden atmosphere, planting depth and selected features.	Zoned and timed, with dimming where available.
Pond lighting	Gentle front garden feature.	Separate pond/front garden feature zone.
Security floodlights	Off.	Security trigger, timed operation and manual override only.
House / remote control	Client convenience and practical operation.	House control leg / WiFi / remote switching subject to final control design.
Manual override	Maintenance and resilience.	Local or central override where agreed.

The estate control system is designed around lighting layers. This allows the garden to operate as a calm evening scene, while security lighting remains separate and only activates when required.

9. Cost-Control and Quotation Position

This appendix forms part of the KingsBerry House quotation package and is to be read alongside the estate lighting quotation already supplied. The quotation sets out the commercial scope, infrastructure allowance, PC sums and exclusions. This Appendix A explains the fitting selection, dark-sky rationale and control philosophy behind that quotation.

The quotation is based on LightPro as the principal garden lighting system, pedestal lantern PC sums, estate distribution infrastructure, control cabling and a separate security lighting allowance. The lighting strategy described in this appendix aligns with that priced basis.

Item	Commercial position
LightPro garden lighting	Included within the current quotation basis.
Pedestal fittings	Based on the stated PC Sum allowance.
Security lighting	To be selected within the current allowance where possible, subject to final fitting and detector confirmation.
Lower-Kelvin architectural substitutions	Variation / upgrade if specifically required by planning or ecology.
Additional security posts or floodlight positions	Variation if the final quantity exceeds the current quoted allowance.
Additional lux modelling / specialist ecology reports	Excluded unless separately instructed.

We have not allowed for a wholesale upgrade of the garden lighting system to higher-cost architectural fittings. LightPro remains the base proposal unless planning or ecology review requires specific substitutions.

Our intention is to meet the planning and wildlife-sensitive requirements through careful fitting selection, warm lighting, shielding, dimming, aiming, timing and controls, while keeping the proposal aligned with the commercial framework already presented to the client. If the Local Planning Authority or ecologist requires a specific lower colour-temperature fitting, different floodlight, additional shielding, additional detector arrangement or further lux evidence beyond the current design basis, GLS will provide the necessary adjustment as an agreed variation.

10. Planning Statement Summary

The proposed KingsBerry House lighting scheme uses a restrained, layered approach to external lighting. The scheme avoids general floodlighting and instead uses warm, selected lighting for entrance rhythm, garden structure, planting, water features and security.

Decorative and garden lighting will be carefully aimed, shielded where necessary, dimmed where possible and commissioned at dusk. Security floodlights will remain normally off and will only operate when triggered by the agreed intruder detection system or manual override.

The design preserves darkness between lit features and seeks to avoid unnecessary light spill onto boundaries, hedges, retained trees, roost features and wildlife-sensitive areas.

Final aiming, dimming, detection settings, timings and controls will be confirmed during commissioning so that the finished scheme remains warm, controlled, practical and appropriate to the estate setting.