



HYBRID ECOLOGY LTD
joined up thinking

**Little Gables
Alphamstone Road
Lamarsh
Colchester
Essex
CO8 5ES**

**Robert McGregor
Whitemount Projects Ltd
3 Waterside Place
London
NW1 8JT**

26th November 2019

Re: 101 Brookmans Avenue, external lighting scheme

Dear Robert,

I write to provide a supporting ecological statement for an updated lighting scheme at 101 Brookmans Avenue, Brookmans Park.

The updated lighting scheme is required to address Local Planning Authority comments, specifically requesting the following:

- That the number of lights originally planned was reduced, due to the site's immediate context on the edge of Brookmans Park residential area and backing onto an extensive golf course with mixed habitats.
- Confirmation that the lighting scheme had been prepared in consultation with an ecologist.
- Further details on the nature of the lighting; the extent to which the lights will illuminate hedges, bushes, flowerbeds, and trees; and an indication of the impact on this vegetation (i.e. why these lights will not have negative impact on the habitats, invertebrates and their prey, e.g. bats), is required.

It was also noted that a further planning application would be required to have conditions relating to lighting approved.

Whitemount Projects Ltd subsequently contacted Hybrid Ecology for support in resolving the above comments and were directed to the “Bats and Artificial Lighting” (2018) guidelines, which give recommendations for safe lighting around bats, to ensure their behaviour is not altered as a result of development. In addition, it was communicated that lighting around the new bat boxes and hedgehog passes between gardens was controlled such that future use/occupation of new features was not compromised.

The lighting scheme provided in Figure 2 shows the updated proposed lighting arrangement on the site. It also includes the position of bat boxes, bird boxes and hedgehog passes through gardens.

The number of lights has been reduced from 52 to 27 and the type of light (see Figure 1) has been selected to comply with the aforementioned guidelines, as follows:

- Warm spectrum LED (2700k)
- Downward light component only, 770mm from ground
- Low brightness @ 5W
- Small beam angle @ 25 degrees
- Light spread at 50% intensity, 336mm diameter
- Set on short timers – quickly switched off when not in use
- Directed onto grassed lawn

Figure 1. Proposed bollard light



No lights are proposed along the northern boundary where the bat boxes will be sited, and this will also ensure there is no light spill onto the adjacent habitats to the north. Bollards have been sited to impact small areas of amenity lawn only, and therefore are unlikely to impact insects.

The lighting proposed will ensure that impacts on wildlife – specifically bats and hedgehog is minimised and helps to ensure their behaviour will be maintained post development. The low level, directional nature of the bollards means bat boxes installed on external walls and boundary trees will not be illuminated and importantly that surrounding habitats will not be affected.

Please contact me with any queries.

Yours sincerely,

Gemma Holmes (BSc ACIEEM)

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Figure 2. Lighting proposal

KEY



Summer bat roost boxes (2-3)
 Made from woodstone, the Harlech is a small cavity bat box that offers excellent insulation and minimum condensation for roosting bats. Suitable for free mounting. Ideally 2 to 3 boxes should be erected facing in different directions to account for temperature changes day to day. Boxes should be installed at least 3 metres from the ground and with a direct flight line. Dimensions: 19 x 24 x 18 cm. Entrance slot: 2 x 8 cm

(Photo from: <https://www.wildcare.co.uk/harlech-woodstone-bat-box-11266.html>)



Bat/swift box combined
 The well thought-out principle of the Double Chamber Swift Box, allows two pairs of Swifts to brood separately from each other and produce new offspring successfully. The rear wall is set back, providing sufficient space between the building wall the box for bats to use it as a roost or nursery room. The design, shape and texture of the rear bat area is created to meet the needs of bat species that live in buildings, such as the Pipistrelle Bat. Due to the robust design, the IMF can also be used in sunny, exposed locations with no problem at all. To be installed on northern wall.

(Photo from: <https://www.wildcare.co.uk/schwegler-1mf-double-swift-box-10117.html>)



Swift box
 Designed specifically for Swifts, this traditional Wooden Swift Nest Box with a sloping roof, is a single chambered box and has a semi-circular entrance hole at the front of the box.

Site the box as high as possible, ideally close to the eaves of a building with a clear exit, as Swifts need to be able to freefall as they leave the nest. To be installed on northern wall.

(Photo from: <https://www.wildcare.co.uk/>)



Sparrow terrace
 This attractive wooden sparrow terrace is split into three chambers with a 32mm entrance at the front and one at either side of the box. Hinged roof for easy inspection. Install below the roof apex or eaves, away from windows and climbing plants/trees. To be installed on eastern wall.

(Photo from: <https://www.wildcare.co.uk/house-sparrow-terrace-nest-box-11263.html>)

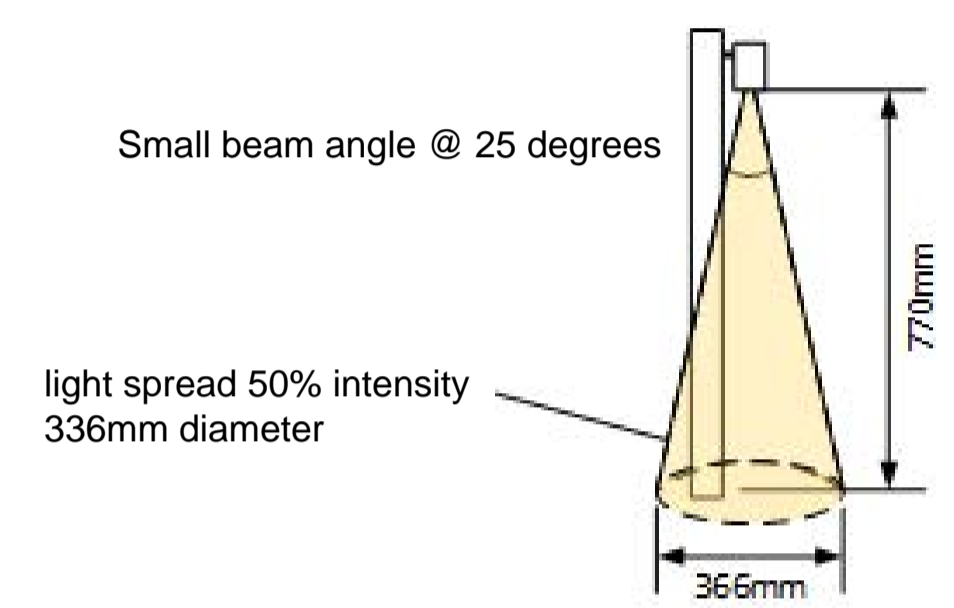


Hedgehog "highway"
 13 x 13 cm gaps left at ground level to allow movement of hedgehogs through the landscape and encourage them off the roads.



External Lighting
 Dan outdoor post light (manufactured by Mark Slojd)
 External lighting located and selected to mitigate effects on bats, according to ecologists' recommendations.
 Ref: Guidance Note 08/18 "Bats and artificial lighting in the UK"
 LED lights with the following characteristics:

- Warm spectrum LED lights (2700k)
- Downward light component only 770mm from ground
- Low brightness @ 5W
- Small beam angle @ 25 degrees
- light spread 50% intensity 336mm diameter
- Set on short timers – quickly switched off when not in use
- Directed onto grassed lawn



Note this plan is for planning purposes only and is not suitable to be used for construction. All ecological enhancements measures are advised at this stage. Their implementation is to be supervised by an ecologist during construction.

Refer to GUA-DR-L-001 for illustrative Landscape Masterplan.

Rev	Date	Comments	Dr'w	App
P02	27/08/2019	Amended to architect's comment rcvd 22.08.2019	MC	CX
P01	02/08/2019	First Issue	GH/MC	RM

Client: Seqoya		Site: 101 Brookmans Avenue, Brookmans Park	
Scale: 1:200 @ A1	Date: 02/08/2019	Drawn: GH/MC	Approved: RM
Drawing Title: ECOLOGICAL ENHANCEMENTS		Drawing No: 1903-GUA-DR-L-002 P01	

Hybrid Ecology Ltd.
 guarda landscape