



Wildlife Sensitive Lighting Strategy

Whitbread Group PLC

Premier Inn, Burgess Hill, Charles Ave, Burgess Hill, RH15 9TQ

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Guidelines

This assessment has been designed to meet:

- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

In consequence of the scale and intensity of the proposed development, this plan-led report is considered adequate and proportionate. It communicates all relevant information necessary to determine a planning application or support the recommendations for further surveys.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd was commissioned by Whitbread Group PLC to produce a Wildlife Sensitive Lighting Strategy for the new proposed development at Premier Inn, Burgess Hill, Charles Ave, Burgess Hill, RH15 9TQ (hereafter referred to as the site). The proposed development is described as *the demolition of the restaurant and the extension of the hotel* (hereafter referred to as the proposed development).

The site was subject to a Preliminary Ecological Assessment and Preliminary Roost Assessment (Arbtech August 2024). The site was assessed as moderate for roosting bats.

Two bat emergence surveys were carried out by Arbtech, in August and September 2024. No bats were recorded emerging or re-entering the building, and a likely absence of any bat roosts was determined. Therefore, no impacts to bats or their roosts are anticipated. Data gathered during the bat emergence surveys was used to identify the key foraging and commuting routes for bats using the site.

1.2 Project Description

A plan of the proposed development is provided in **Figure 1** below.

1.3 Site Location

The development site comprises the restaurant building and immediate surroundings, set in a larger commercial/industrial estate near the southwestern edge of Burgess Hill. Thin wooded areas link the site to the south and to tree-lined A273 road, approximately 170m away, and to the hedge lined fields beyond. The location of the site is shown in **Figure 2** below.

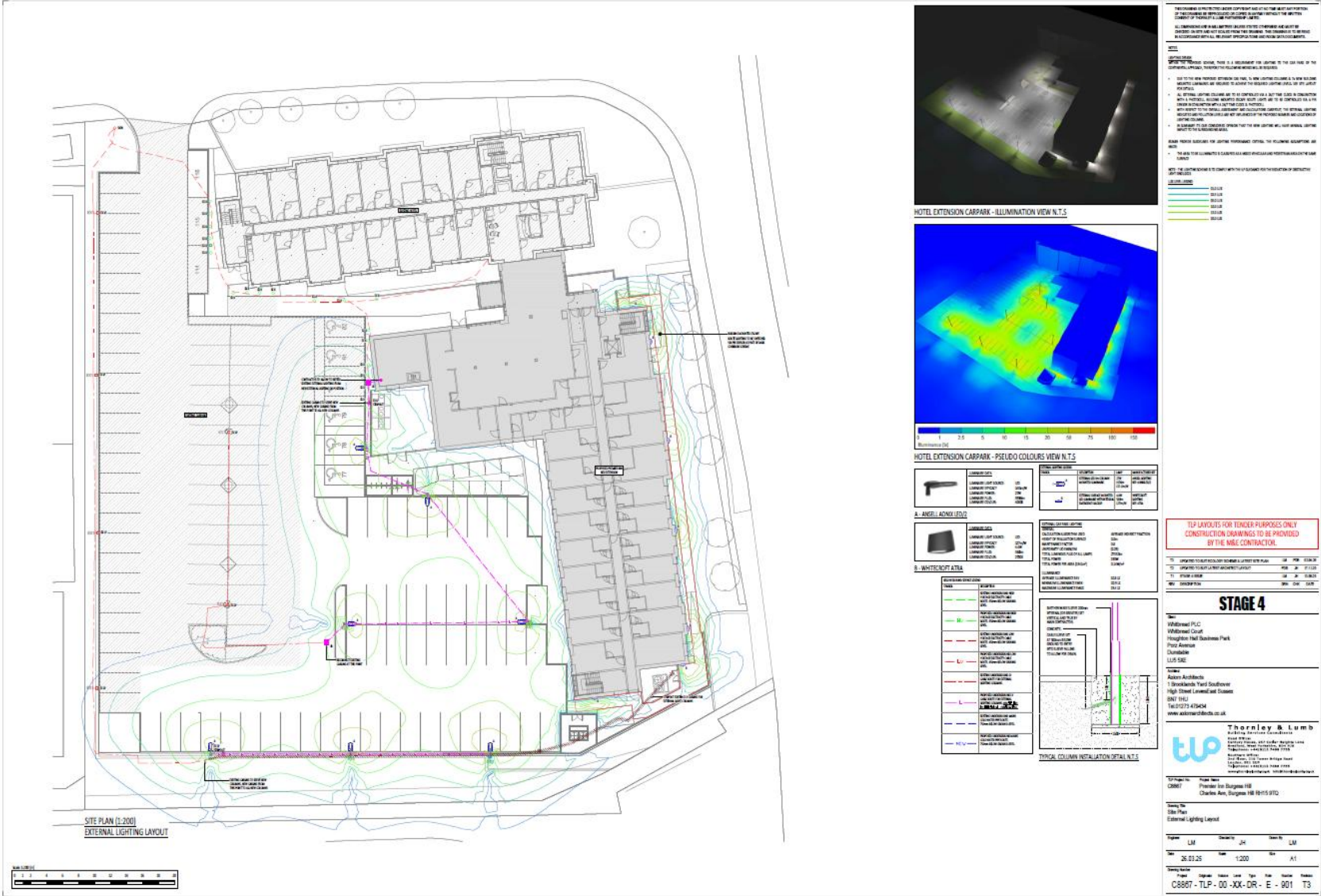




Figure 2: The location of the site in the context of the wider environment.

2.0 Ecological Conditions Relevant to This Report

The baseline ecological conditions of relevance to this report were determined as a result of the PEA/PRA undertaken at the site by Arbtech in August 2024 and BERS report undertaken by Arbtech concluding in September 2024.

2.1 Habitats recorded on Site

The survey site is centred on National Grid Reference TQ 2999 1847 and covers an area of approximately 0.36574ha. Habitats on site include buildings, developed/sealed surface, vegetated gardens with introduced shrub, modified grassland and an individual scattered tree.

Proposed Development and Potential Impacts

The proposed development comprises the demolition of the restaurant and the extension of the hotel. The individual tree is due to be retained and habitat creation in the form of grassland SuDS, mixed native scrub, additional tree planting, and hedgerow planting will enhance the biodiversity value of the site post-development.

Bat Activity

During emergence surveys (Arbtech, 2024), bat foraging and commuting activity was recorded only on the eastern boundary, and across the road near the tree lines. Common pipistrelles were observed foraging around mature trees adjacent to the site. Aerial imagery suggests that this linear feature extends into the wider landscape, likely functioning as a connective pathway used by commuting bats.

2.2 Anticipated Lighting Impacts from New Development

Figure 3 shows the new proposed layout of the new scheme and the proposal for bat mitigation. No unnecessary lighting should be incorporated on the eastern elevation of the building which faces the trees, where biodiversity enhancement and creation is proposed. Low output escape route lighting has been incorporated into this scheme for health and safety reasons and any impact on commuting and foraging bats is considered acceptably low.



Figure 3: New layout scheme with bat mitigation.

Enhancements in the form of one bat box, as per the bat emergence report (Arbtech, 2024) is proposed on the south elevation of the proposed development. The bat box should be suitable for crevice dwelling species. **Figure 4** indicates suitable options for bat boxes. There is not anticipated to be substantial light on this elevation, as it is the side of the dwelling (see Figure 3). Any lighting on this elevation should be pointed away from the bat boxes and not onto the scattered trees.

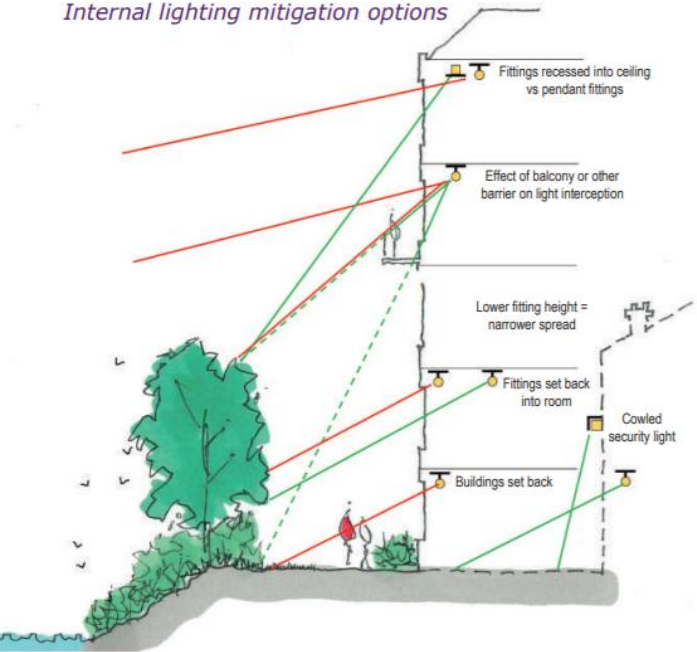
	
Integrated eco bat box, crevice - https://www.wildcare.co.uk/integrated-eco-bat-box-crevice.html .	Schwegler 1FR Bat Tube – arkwildlife.co.uk
The bat boxes are designed to be maintenance free and require no cleaning.	

Figure 4: Suitable integrated bat boxes which are to be installed into the fabric of the new extension.

3.0 Wildlife Sensitive Lighting Strategy

The Wildlife Sensitive Lighting Strategy to be implemented at the site is detailed within **Table 1** below. The Lighting Strategy aims to mitigate potential impacts of artificial light spill on wildlife as a result the proposed development.

Table 1: Wildlife Sensitive Lighting Strategy Prescriptions

Prescription	Specification
Mitigating impacts of internal Lighting	Impacts of artificial light spill through windows will be mitigated by fitting internal lighting fixtures in line with recommendations within Guidance Note 08/23 (BCT & ILP 2023). <i>Internal lighting mitigation options</i>  Figure 5: Internal Lighting mitigation options. Image taken from Guidance Note 08/23: Bats and Artificial lighting in the UK (BCT & ILP 2023). The erection of the new extension increases the level of illumination onto the southwest boundary of the site. As such, the following advice must be adopted for internal lighting mitigation. • All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used. • LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition.

	• A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light. • Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012). • Internal luminaires can be recessed (as opposed to using a pendant fitting - See Figure 9) where installed in proximity to windows to reduce glare and light spill. These should be fitted a minimum of 1m from windows. Lighting should be controlled by dimmers. In addition, black-out blinds or curtains are recommended to be used on all southwest elevations to physically reduce the level of light spill from windows on this elevation. The use of window films, tints and low transmission glazing are now considered ineffective ways to fully mitigate against light spill from windows. As such, they are not prescribed for use.
Mitigating impacts of external lighting	External lighting will be limited to one low level lighting fixtures only. High powered security lights will not be installed on site. The external lighting will be installed in accordance with current guidance issued by the Bat Conservation Trust and Institute of Lighting Professionals: <i>Guidance Note 08/23: Bats and Artificial lighting in the UK</i> (BCT & ILP 2023). The below strategy utilises light prescriptions detailed within this guidance to limit impacts of artificial lighting on bats likely to be utilising adjacent habitats. The following lighting design prescriptions are considered suitable for the type and scale of the proposed development to minimise the impacts of artificial lighting on site on bats. Lighting design prescriptions recommended for the Site comprise: • Where appropriate, external security lighting should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1- or 2-minute timer is likely to be appropriate. • Lighting will be set to “off” by default, to turn up to a predetermined low intensity output in response to a trigger and be combined with a timeclock or photocell to further add an element of seasonal or diurnal control. For example, Passive Infrared (PIR), Artificial Intelligence enabled cameras, on demand controls, or pressure sensors may be used to trigger lights to come on or dim in response to movements. • Lighting will be controlled so not to be triggered by the movement of small animals such as bats or birds. • Lighting will be downward pointing The below lighting type is suitable for installation on site: • Lucide Arne LED Outside Wall Light: https://www.lighting-direct.co.uk/lucide-arne-led-outdoor-wall-light-with-pir-sensor-black.html



Figure 6: Recommended low level lighting suitable for the site. Image taken from: <https://www.lighting-direct.co.uk/lucide-arne-led-outdoor-wall-light-with-pir-sensor-black.html>

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Appendix 1: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

The ***Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*** came into force when Britain left the European Union on 31st January 2020. It covered amendments relevant to this survey to:

Wildlife and Countryside Act 1981: England and Wales (x1 amendment)

Conservation of Habitats and Species Regulations 2017 (x29 amendments)

All species of bat are fully protected under ***The Conservation of Habitats and Species Regulations 2017*** (amended by the ***Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019*** which continue the same provision for European protected species, licensing requirements and protected sites after the UK leaves the EU) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the ***Wildlife and Countryside Act 1981 (as amended)*** through their inclusion on ***Schedule 5***. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below).
- That there is no satisfactory alternative.
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

- 1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.***
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision.
- Policy 2; provides greater flexibility in the location of compensatory habitat.
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

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The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.