



LIGHTING DESIGN STRATEGY FOR BIODIVERSITY

Discharge of Condition 6 of S.20/1239/FUL

Mariners Arms
Salter Street
Berkeley
Gloucestershire

Final Report
3rd November 2023

Client:
Midcounties Co-operative

Report author:



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QUALITY ASSURANCE

DATE	VERSION	PREPARED BY	CHECKED AND APPROVED BY
03.11.23	Final	[REDACTED] MCIEEM Principal Ecologist/Director	[REDACTED] MCIEEM Principal Ecologist/Director

The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Every reasonable attempt has been made to comply with BS 42020 (Biodiversity: Code of practice for planning and development), the Bat Conservation Trusts Bat Surveys for Professional Ecologists: Good practice guidelines 4th edition (Collins, 2023) and the CIEEM Guidelines for Ecological Report Writing (CIEEM, 2017). If compliance has not been achieved, justification/explanation has been given.

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1 INTRODUCTION

1.1 Background

This Lighting Design Strategy for Biodiversity has been prepared in relation to an approved development at The Mariners Arms, 49 Salter Street, Berkeley, Gloucestershire GL13 9BX, in connection with proposals to demolish the modern parts of the building and construct a new commercial building (Co-op Convenience Store). The site is located at approximate OS National Grid Reference ST681992.

Listed Building Consents and planning permission for the proposed development were granted by Stroud District Council in August 2020 and January 2021 respectively (planning references S.20/1240/LBC & S.20/1239/FUL).

Bat activity surveys

Bat surveys conducted by Swift Ecology Ltd in June 2020 confirmed the presence of a day roost for two soprano pipistrelle *Pipistrellus pygmaeus* within the part of the building proposed for demolition. General levels of bat activity recorded during the two surveys were low and consisted of low numbers of passes by common pipistrelle *P. pipistrellus* and soprano pipistrelle and single passes of an indeterminate *Myotis* species and brown long-eared bat *Plecotus auritus*. Noctule *Myctalus noctula* were also recorded foraging overhead.

Given the relatively low levels of bat activity, no specific flight lines or commuting routes were identified.

Condition 6 of the decision notices also requires the following for the consented development:

Prior to the installation of external lighting for the development hereby approved, a lighting design strategy for biodiversity shall be submitted to and approved by the Local Planning Authority. The strategy will:

- a) identify the areas/features on site that are particularly sensitive for foraging bats;*
- b) show how and where external lighting will be installed so that it can be clearly demonstrated that areas to be lit will not disturb or prevent the above species using their commuter route.*

All external lighting shall be installed only in accordance with the specifications and locations set out in the strategy.

Reason:

To maintain dark corridors for nocturnal wildlife in accordance with Local Plan Policy ES6.

The proposed works cannot commence until a European Protected Species Licence has been issued by Natural England. Licences can only be issued by Natural England once all planning consents are in place, and also once all relevant conditions have been discharged. Therefore Condition 6 S.20/1239/FUL must be discharged, before the licence application can be made.

1.2 Personnel

This report was prepared by [REDACTED] MCIEEM. [REDACTED] is employed as Principal Ecologist by Swift Ecology and is an experienced bat surveyor and holder of a Natural England survey licence for bats (Class Licence reference WML-CL18 2015-11209-CLS-CLS), and is a Registered Consultant under the Bat Low Impact Class Licence/Bat Mitigation Class Licence (CL21) and High Speed Rail (HS2) Mitigation Class Licences for Bats in Buildings (CL39) and Bats in Trees (CL40). [REDACTED] graduated in 2004 from the University of Plymouth and has over 15 years' experience in the ecological sector, working both as a consultant ecologist and as a local authority ecologist in this time. [REDACTED] has undertaken numerous preliminary ecological assessments, preliminary roost assessments (bats) and surveys for protected species including great crested newt, reptiles and dormouse; and prepared subsequent reports with appropriate recommendations. [REDACTED] is the named ecologist on over 60 Protected Species licence applications and is qualified in tree climbing and aerial rescue techniques.

1.3 Ecological Context

The Mariners Arms, a former public house, is located within the small town of Berkeley, Gloucestershire, situated within the Vale of Berkeley between the River Severn to the west and the M5 motorway to the east, and is located some 17 km south-west of Stroud.

Immediately adjacent to the north, east and west of the building are car parking areas and public highways, whereas adjacent to the south is a residential dwelling and associated garden. Habitats in close proximity to the building which contain foraging and commuting opportunities for bats are limited to small residential gardens.

Beyond the built environment of the town, the landscape is open and consists of a mixture of arable and pastoral farmland and small villages, with a network of hedgerows, hedgerow trees and small copses (Figure 1.2). There are no large areas of broadleaved woodland in the nearby vicinity; however, there are two watercourses (The Little Avon River and the Berkeley Pill) located within 400 m south-west of the site; these are sparsely lined with trees in places and could provide foraging and commuting habitat for bats.

Other semi-natural habitats with foraging opportunities for bats include the Severn Estuary Site of Special Scientific Interest (SSSI), located some 1.5 km north-west of the site.



Figure 1.1: Aerial photograph of the site, showing the location of The Mariners Arms, Berkeley. Image date: 2018.



Figure 1.2: The landscape context of the site.

1.4 Purpose of Report

The purpose of this report is to detail a proposed Lighting Strategy for Biodiversity to facilitate discharge of Condition 6 of S.20/1239/FUL.

The planning policy and legal protection relevant to the habitats and species mentioned in this report are detailed in Appendix 1.

2 IDENTIFICATION OF AREAS/FEATURES ON SITE THAT ARE PARTICULARLY SENSITIVE FOR FORAGING BATS

2.1 *Habitat Assessment*

Although the general location of the building is considered to be of moderate value to foraging bats, the immediate surroundings are urban and considered to be of relatively poor value; furthermore, there are few features, such as hedgerows, lines of trees or tall walls, which could provide adequate flight lines close to the building for bats to commute along to access better quality foraging habitats in the area.

A moderate level of cover for bats emerging from potential roosts in the building is provided by shrubs in a residential garden adjacent to the south elevations of the building, and by scattered trees located on a small green roughly 20 m east.

The level of extant external lighting is relatively high due to the building's location on a cross-roads, with several streetlights in the immediate vicinity; however, there is no bright security lighting which would illuminate potential bat roost exit points around the building. Residential gardens, and the fields located along the edge of the town some 180 m south, are likely to provide relatively dark and undisturbed environments for commuting and foraging bats.

There are unlikely to be any significant bat commuting routes or dark corridors/habitats in close proximity to the site that form an important part of any bats foraging range.

2.2 *Bat flight lines*

Only a single emergence of two bats was recorded during the bat activity surveys and both bats flew west from their roost location in the west gable of the building. No specific flight lines were recorded, but bat activity was recorded relatively evenly to the south-east, south-west and east of the building at low levels. Only single passes of more 'light-averse' species (*Myotis* species and brown long-eared bat) were recorded to the west of the building.

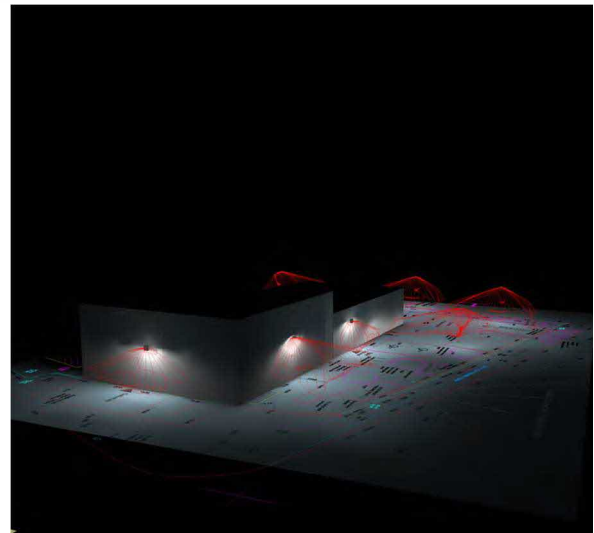
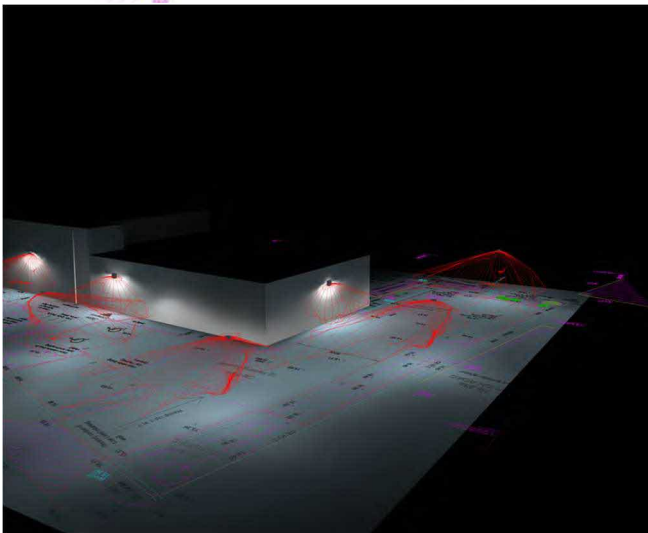
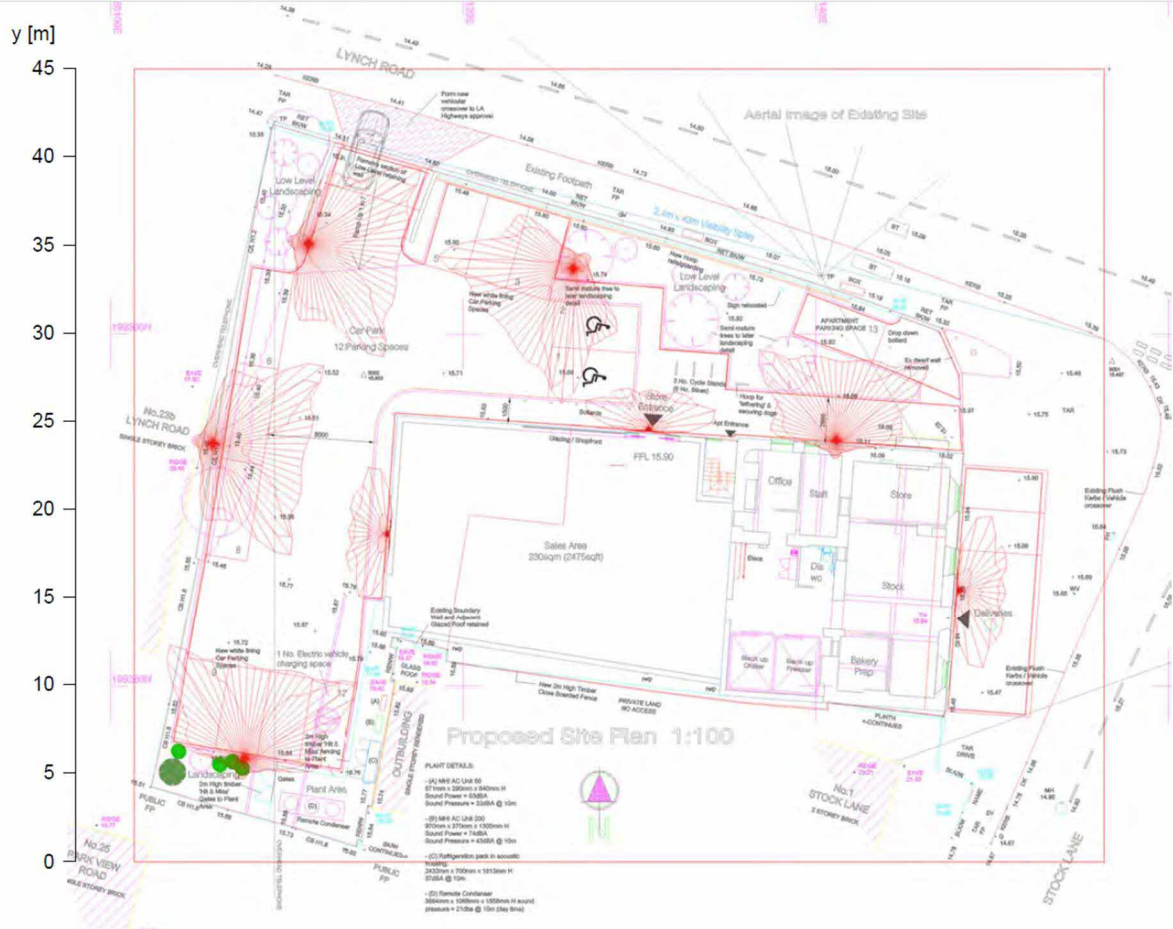
Bat activity levels during the surveys were low and it is unlikely there are any maternity roosts in close proximity to the site.

2.3 *Sensitive Areas for Foraging Bats and Retention of Dark Corridors*

In summary, there are no areas that are particularly sensitive for foraging bats. The site is small, and the addition of new lighting is unlikely to either have an adverse effect on the ability of local bat populations to survive or prevent bats from being able to access foraging grounds away from their roosts.

2.4 *Proposed Lighting*

There will be some new lighting along the west, north and east elevations of the new Coop building to allow safe access to staff, customers and deliveries during times of darkness (see ASD Lighting Exterior Lighting Plan Ref: DN-SW-0923-002-R01 and Figures 2.1-2.3 below).

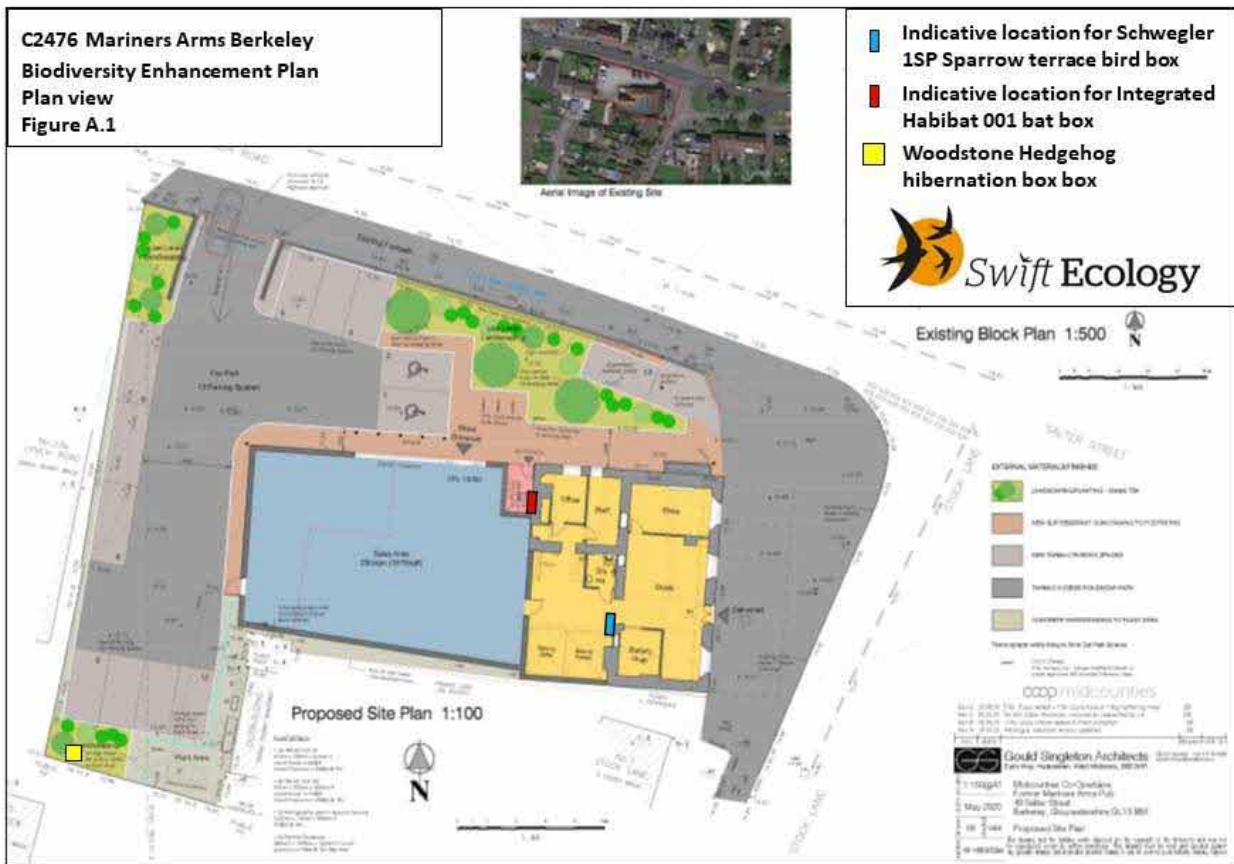


Figures 2.1 (top) and Figures 2.2 (bottom left) and 2.3 (bottom right) showing lighting plan and 3-D illuminance.

The lighting is relatively low-level and designed to illuminate the shop entrance and delivery/access areas only with minimal light spill onto adjacent residential gardens which may provide some potential bat foraging habitat of limited quality.

The two-storey parts of the building and all areas to the south of the new Coop store frontages will be retained with existing light levels. In particular the location of proposed compensation bat box

on the west-facing second-storey gable of the retained section of the building, will not be illuminated (See Figure A.1 below).



3 RELEVANT LITERATURE

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