# Cliff Cottage
# Redlynch, Wiltshire

## Bat Mitigation Strategy

**October 2023**

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# Cliff Cottage
# Redlynch, Wiltshire

## Bat Mitigation Strategy

### 1.0 Introduction

#### 1.1 Background

A planning application is being submitted to seek permission to complete alterations (including a first floor extension) and renovation of an existing dwelling known as 'Cliff Cottage', Muddyford Lane, Redlynch, Wiltshire (SU1984 2184) (**Map 1**).

The proposals involve:

- Re-roofing, with plain clay tiling;
- Extending the upper floor at the northern end of the dwelling to create a larger living space, with new wrap-around balcony;
- Removal of hanging tiles on northern end section of the dwelling, and cladding the new extended walls of this northern section with vertical tongue-and-groove timber boarding.

In order to provide information regarding potential ecological impacts of the proposals a bat survey was considered necessary. Joanna Ramsey-Horbury completed a full bat survey of the property on behalf of the property owner during summer 2023 (Ramsey-Horbury, 2023a & b).

4Woods Ecology Ltd was subsequently commissioned by the property owners (Mr & Mrs Sims) to complete an appropriate bat mitigation strategy for the proposals based on those survey results, for submission with the planning application.

This document therefore details the bat mitigation strategy for the proposed building works at Cliff Cottage, based on Joanna Ramsey-Horbury's survey findings (as detailed in the 'Preliminary Bat Roost Assessment' Report, April 2023 and 'Presence/Absence Bat Survey' Report August 2023).

Note that an EPS bat license will be necessary before commencing the building work. This license will require surveys to be up to date (i.e. completed during the present/last survey season) and comply with published bat survey guidelines. Therefore, the mitigation strategy detailed in this document may be subject to revisions where any necessary update surveys result in new findings, and will be subject to agreement with Natural England in order for a license to be granted.

Based on current survey findings, an application to use the Bat Mitigation Class License (BMCL) would be appropriate.

## 2.0 Overview of Survey Findings

The full bat survey methodology and findings are contained in the two Bat Survey Reports of Cliff Cottage (J Ramsay-Horbury, 2023a & b).

The full survey included completion of a daytime preliminary survey of the building (including internal loft search and external assessment) in April 2023, followed by two dusk emergence and one dawn re-entry surveys completed in July and August 2023. These surveys were completed in accordance with published guidance (Collins, 2016).

The surveys resulted in the discovery of small quantities of droppings in each of the two loft spaces, but which were subsequently confirmed by DNA analysis to originate from Pygmy Shrew. No other evidence to suggest use of the loft by bats was found.

In addition, up to x3 Soprano Pipistrelle bats were observed emerging/re-entering crevices behind hanging tiles on the northern end gable of the property during the dusk/dawn surveys.

These identified bat roosts are classed as 'Day roosts', and of nature conservation value at the site level (Reason & Wray, 2023).

No evidence of any other bat species or roost types has been found at the property.

## 3.0 Assessment of Impacts & Mitigation/Enhancement

### 3.1 Likely Impact on Bats

The proposed building work will involve permanent removal of the hanging tiles, which will result in the loss of the Soprano Pipistrelle day roosts of nature conservation value at the site level.

There is also a high chance of individual bats (single or very small numbers) being disturbed during removal of the hanging tiles/fascia. These bats may be present at the property throughout the year. If disturbed during winter hibernation, the impact on individual bats will be significantly greater as this can reduce their ability to survive through the winter.

### 3.2 Legal Considerations

In summary, bats are legally protected from disturbance/harm and their roost sites (including access points) are legally protected from damage. If the proposed work is reasonably likely to result in such impacts (i.e. result in an offence), a licence can be obtained from Natural England (subject to certain conditions) to allow the proposed work to proceed lawfully.

Based on the predicted impacts, an EPS 'bat' license is therefore considered necessary from Natural England to allow the proposed building work to be completed.

A license may only be granted where the following conditions can be met:

- The proposal is necessary for *imperative reasons of overriding public interest including those of a social or economic nature……'*
- '*There is no satisfactory alternative'*;
- The proposals '*will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*'.

During determination of the planning application the local planning authority will also need to consider whether these conditions can be satisfied, and therefore whether Natural England is not unlikely to grant an EPS 'bat' license.

An application for an EPS 'bat' license may be made once full planning consent has been granted and any conditions relating to bats/wildlife have been discharged (where appropriate).

Full and up to date survey results (i.e. from the current or most recent survey season) would normally need to be submitted to Natural England with a license application.

In this case, an application to use the Bat Mitigation Class License (BMCL) would be appropriate, based on current findings.

## 3.3 Bat Mitigation

In order to minimise potential impacts on bats arising from the planned building work the following mitigation/compensation measures are proposed.

**Mitigation Measures during Building Work**

- Removal of roof/hanging tiles or fascia will be avoided during the bat hibernation season (i.e. avoid November to March, incl), as a precaution.
- A suitable mitigation bat box (i.e. crevice wooden or woodcrete box) will be erected on a gable of the garage, as directed by the ecologist, prior to commencing any building work.
- The ecologist will complete a thorough search of the loft space for any bats, immediately before roof tile removal commences (i.e. same day). Any bats present will be removed by hand, or handheld net by the ecologist.
- The ecologist will then brief the contractors regarding the presence of bats, legal protection and mitigation methods to be employed, immediately prior to commencing building work. They will be advised that only the ecologist should handle bats. The ecologist's contact details will be provided to the contractors.
- All hanging tiles, and roof tiles at the verge plus fascia at the northern gable end, will then be removed by hand, under supervision of the

licensed ecologist. The wall cavity will be exposed and checked for any bats by the ecologist. Any bats found will be captured by the ecologist (either by gloved hand, or hand-held net). Nobody else must handle bats.

- The remaining roof tiles will be removed by hand, but will not be supervised (since no evidence of any bat roosts has been found across the roof).

- In the event that any bats are discovered while the ecologist is not on site, work will stop immediately in that area and the ecologist will be contacted for further advice. If appropriate, the ecologist will go to site and remove the bat(s) by hand.

- Any captured bats will either be immediately released into the erected mitigation bat box on the site, or will be kept in a secure box in a dark/undisturbed location until it is released on site at dusk by the ecologist the same day (subject to favourable weather conditions).

**Re-creating bat roosts**

Given that the northern gable will be altered, with significant areas of glazing, it is not possible to reinstate existing roost sites in this location.

Therefore, in order to provide alternative bat roost sites at the property, suitable for day roosts of Pipistrelle bats (i.e. a crevice-dwelling species), a number of crevice-type roost sites will be provided upon completion of the work, as follows:

- A surface-mounted, crevice-type bat box (woodstone or high-quality timber box) will be installed at the top of the southern gable wall of the dwelling, where disturbance will be minimal and bat droppings are unlikely to cause any problems in the future *(note. an integrated box is not possible as this wall already exists and will remain unaltered*);

- Plain clay, handmade roof tiles will be used to re-roof the property. Gaps are expected to form naturally between the irregular tiles, which are likely to allow bats access to crevices beneath. Bitumen underfelt will be used beneath the roof tiling, or other roof lining approved by Natural England for use in bat roosts. In addition to ensure bats are able to gain access to crevices, two access gaps will be created at ridge tiles, to allow bats access beneath and through to the underside of adjacent ridge tiles. See specification at **Appendix II**.

(see **Map 2**)

If any new external lighting is proposed, lights will be avoided in the locations of the replacement bat roost sites/access points. Any lighting elsewhere will be minimal, with lights positioned at a low level with directional or hooded beams. Lights will have a low intensity, with a warm white colour. Timers or PIR systems will be used to avoid lights being left on unnecessarily.

### 3.4 Ecological Enhancement

As required by planning policy, ecological enhancement measures are included in the proposals, as follows:

- In addition to the proposed bat mitigation/compensation, the mitigation bat box will be retained on the garage following completion of the work.
- x2 bird nest boxes will be installed on trees at the property.

(see **Map 2**)

## 4.0 Conclusions

A full bat survey has been completed at Cliff Cottage by Joanna Ramsay Horbury (April/August 2023). The findings indicate presence of a day roost of small numbers of non-breeding Soprano Pipistrelle bats, using crevices behind hanging tiles/fascia on the northern gable.

Proposed building work at the property will result in permanent loss of this day roost (of nature conservation value at the site level) and has potential to disturb or harm individual bats.

In light of the predicted impacts, an EPS 'bat' license will be required from Natural England to allow the proposed building work to proceed in accordance with UK legislation. Based on current findings, an application to use the Bat Mitigation Class License would be appropriate.

Mitigation measures which aim to avoid/minimise impacts on bats during the building work are proposed, including avoiding certain work during the winter hibernation period. Alternative roost sites will be re-created beneath roof tiles, with the addition of bitumen underfelt (or other lining approved by Natural England for use in bat roosts) and x2 access gaps beneath ridge tiles. Plus a woodcrete or high quality timber bat box will be installed at the top of the southern gable of the dwelling.

Ecological enhancement will be provided by retention of the mitigation bat box on the garage, and provision of an additional x2 bird nest boxes on trees.

## 5.0 References

Ramsay-Horbury, J (2023)a. *Cliff Cottage: Preliminary Bat Roost Assessment, April 2023.* Survey report produced for Mr & Mrs Sims. Unpubl.

Ramsay-Horbury, J (2023)b. *Cliff Cottage: Presence/Absence Survey Report, August 2023.* Survey report produced for Mr & Mrs Sims. Unpubl.

Reason, PF & Wray, S (2023). *Bat Mitigation Guidelines*: a guide to impact assessment, mitigation and compensation for developments affecting bats. CIEEM, Ampfield.

Williams, Dr C.(2010). *Biodiversity for Low and Zero Carbon Buildings: A Technical Guide for New Build*. Bat Conservation Trust. RIBA Publishing, London.

# Map 1 – Site Location

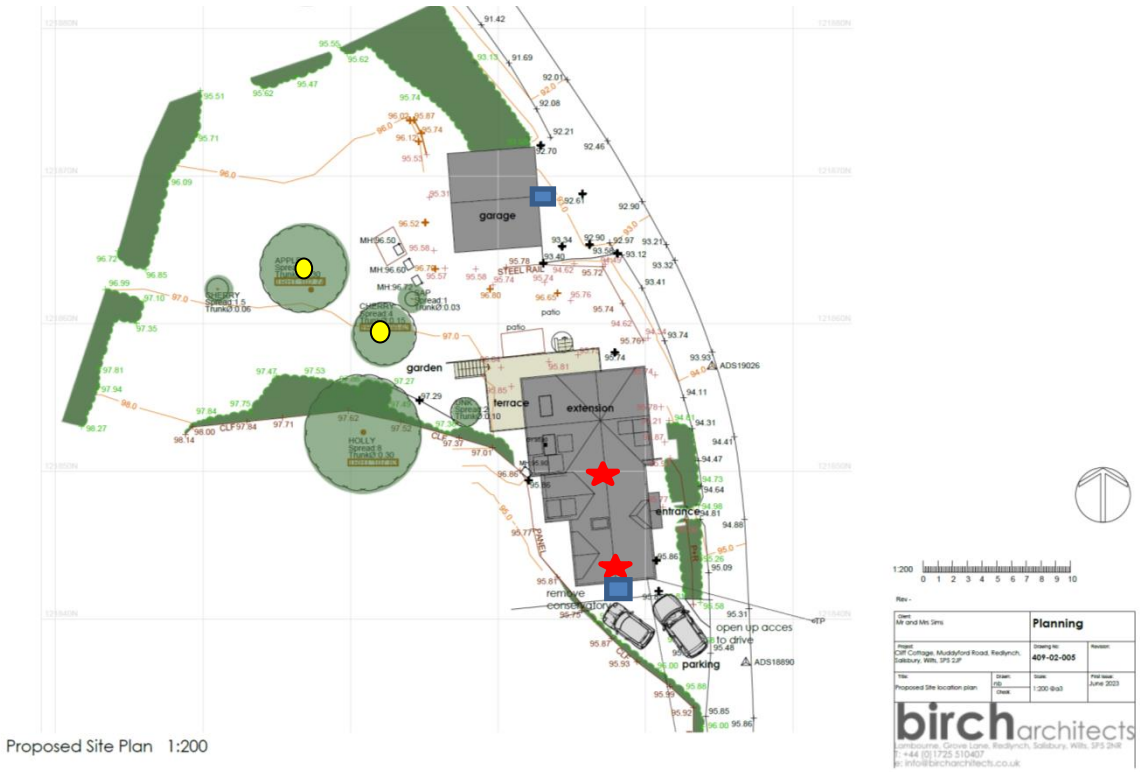
## Cliff Cottage, Muddyford Road, Redlynch, Wiltshire




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**Cliff Cottage, Muddyford Road, Redlynch, Wiltshire**

**Map 2 – Bat Mitigation & Ecological Enhancement**




Proposed Site Plan 1:200

**Key**

- Bat Box – wall mounted, crevice-type box, woodcrete or high quality timber
- Bat access gaps beneath ridge tiles (see Specification at **Appendix II**)
- Bird nest box (to be installed in the most suitable locations on trees)

# Appendix I – DNA Results

SureScreen Scientifics

Folio No: E19272
Report No: 1
Purchase Order: 27/9
Client: 4WOODS ECOLOGY LTD
Contact: Susan Forster

## TECHNICAL REPORT

### ANALYSIS OF BAT DROPPINGS FOR SPECIES OF ORIGIN IDENTIFICATION

**SUMMARY**

The droppings of bats contain small amounts of DNA belonging to the organism from which they originated. By analysing droppings collected from a bat roost or colony for the presence of DNA, a robust identification of the species present can be made. Recent advancements in molecular methods including PCR (polymerase chain reaction) and DNA sequencing mean that 92% of bat species worldwide can be identified including all 17 UK resident bat species.

**RESULTS**

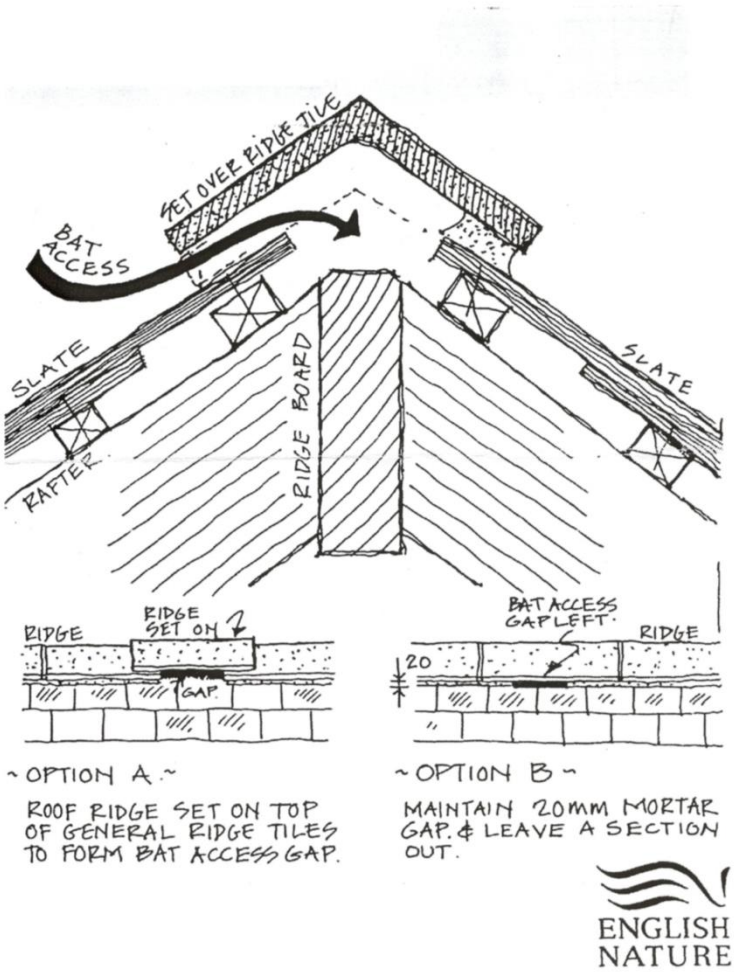
**Date sample received at Laboratory:** 29/09/2023
**Date Reported:** 06/10/2023
**Matters Affecting Results:** None

| Lab Sample ID. | Site Name | O/S Reference | Genetic Sequence | Common Name | Result | Sequence Simliarity |
|---|---|---|---|---|---|---|
| B2654 | Cliff Cottage (Main Loft) | SU19842184 | GGTAACTGACTCATTCCTCT AATAATTGGTGCACCAGATA TAGCATTTCCACGAATAAAT AATATAAGCTTCTGACTACT CCCACCATCATTTCTCCTATT ACTTGCCTCATCAACCGTAG AAGCCGGGGCTGGGACTGG CTGAACTGTATACCCACCAC TAGCCGGAAATCTAGCCTCA CGCAGGAGAA | Eurasian pygmy shrew (Sorex minutus) | | 97.87% |
| B2655 | Cliff Cottage (Extn Loft) | SU19842184 | TTGGTACTGACTTATTCCTCT AATAATTGGTGCACCAGATA TAGCATTTCCACGAATAAAT AATATAAGCTTCTGACTACT CCCACCATCATTTCTCCTATT ACTTGCCTCATCAACCGTAG AAGCCGGGGCTGGGACTGG CTGAACTGTATATCCACCAC TAGCCGGAAATCTAGCTCAC GCAGGAGA | Eurasian pygmy shrew (Sorex minutus) | | 97.88% |

If you have any questions regarding results, please contact us: ForensicEcology@surescreen.com

## Appendix II – Ridge Tile Bat Access Specification

**Ridge Tile Access Detail**




**Gap to be min. 15mm tall by 30mm wide.**

**Leave a gap in the joining bedding mortar to allow bats to crawl beneath adjacent ridge tiles.**

**Only bitumen underfelt (1F-type), or other roof lining approved by Natural England to be used across the roof.**