**9 Berkshire Close, Wilpshire BB1 9NG**

# DUSK EMERGENCE BAT SURVEY

**July 2024**

**ERAP (Consultant Ecologists) Ltd Reference: 2024-118**

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| Bat activity surveys | Amy Sharples, Leah Hart and Natalie Coffey | 16th May 2024<br>6th June 2024 |
| Updated daytime walkover survey | Brian Robinson | 12th June |
| **Reporting** | **Personnel** | **Date** |
| **Author** | Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM<br>Senior Ecologist | 10th June 2024 |
| **Signature(s)** |  | |
| **Checked** | Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM | 29th June 2024 |
| **Revised and issued** | Amy Sharples | 30th July 2024 |
| **Report issued to** | Mr Tom Greenwood | |
| **Version Number** | 1 | |

[1] *Licence reference number*

**Bats**

Brian Robinson Natural England Class Survey Licence (bats, Level 2) Registration Number 2015-13161-CLS-CLS

## SUMMARY


### Introduction and Scope

i. This report presents the results of two dusk emergence bat surveys and an updated daylight bat inspection carried out at 9 Berkshire Close, Wilpshire BB1 9NG. The surveys were required to supplement a daylight licensed bat survey carried out in February 2024 and to inform a planning application proposing the extension of the existing residential property.

ii. The February 2024 daytime bat survey of the building did not detect any bats, but found bat droppings (indicative of a day roost of a pipistrelle species) on the floor of the northern roof void (near the eastern gable end). The building was assessed to be of 'moderate' suitability for use by roosting bats.

iii. No emergence or re-entry was detected at the building during the dusk emergence surveys carried out on 16th May or 6th June 2024. No bat droppings were found around the external elevations of the building. An updated daytime inspection on 12th June 2024 confirmed the presence of droppings at the gable end of the eastern elevation of the property; DNA analysis was subsequently completed and the species was confirmed as common pipistrelle (*Pipistrellus pipistrellus*).

iv. A maternity roost is not present at the site and the survey evidence has confirmed that the building is a common pipistrelle day roost.

v. Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines, has been applied to inform the scope of mitigation required in relation to roosting bats. No further surveys for other protected species are required to inform the planning application.

vi. It is considered that, if works have not commenced by the next bat activity survey season (i.e. May 2025), a single bat activity survey will be required to ensure the survey findings remain valid. Recommendations relating to survey validity in respect of roosting bats are presented at **Section 4.0**.

vii. It is concluded that the proposals are feasible and acceptable in accordance with ecological considerations and relevant planning policy.

## 1.0 INTRODUCTION

### 1.1 Background and Rationale

1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Mr Tom Greenwood to carry out a suite of dusk emergence bat surveys at 9 Berkshire Close, Wilpshire BB1 9NG (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 68921 33020. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).

1.1.2 The surveys were required to supplement a daylight licensed bat survey carried out in February 2024 and to inform a planning application proposing the extension of the existing residential property.

1.1.3 The survey has been informed by the recommendations presented at Section 7.0 of *Inspection & Assessment in Relation to Bats & Breeding Birds* (Tyrer Ecological Consultants Ltd, 2024), hereafter referred to as the 'PRA report'.

As stated at Paragraph 6.4:

'*a collection of droppings (~10) accredited to a bat of the Pipistrellus genus was observed by the surveyor within the northern half of the loft space, close to the eastern gable;'*

1.1.5 Paragraphs 7.1 and 7.2 of the PRA report state:

'*Based upon the findings of the survey covered through sections 5.0 – 6.0 of the report and supported by Appendix I, 9 Berkshire Close is determined to offer a bat roost suitability of 'Moderate' in accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023); further survey work is recommended to be carried out at the site before an impact assessment can be concluded.*

*It is recommended that two dusk / emergence surveys are conducted at the building during the active season of bats (May – August, extending into September) in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence surveys. A total of 2 surveyors would likely be required at the site to cover all elevations host to roost potential*.'

### 1.2 Scope of Works and Survey Area

1.2.1 The scope of ecological works undertaken in May and June 2024 comprised two dusk emergence surveys at 9 Berkshire Close (hereafter the 'building') carried out in accordance with the guidance in Section 7.2 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition)* (Collins, J. (ed.), 2023). An updated daylight inspection has also been completed.

1.2.2 As confirmed by examination of *24_0126_Amend_Proposed_Plan_4June.pdf* (24K Designs, 2024) no other buildings or trees will be affected by the proposals.

## 2.0 METHOD OF SURVEY

### 2.1 Presence / Absence Surveys: Dusk Emergence Surveys

2.1.1 Two dusk emergence surveys, supplemented by night vision aids (NVAs), were conducted at the building between May and June 2024. All surveys were conducted under suitable conditions. The dates of the surveys, surveyors, equipment used and weather conditions are presented in **Table 2.1**.

2.1.2 The dusk emergence surveys commenced at least 15 minutes before sunset, and continued until at least 1.5 hours after sunset.

2.1.3 Two surveyors, experienced in conducting bat surveys, were positioned at suitable locations to maximise the coverage of the building to determine any entry or emergence by roosting bats. Any bat emergence or re-entry activity was recorded, with brief notes relating to bat activity at each survey position collated at the end of the survey.

2.1.4 Anabat Scout detectors were used to determine any bat detected to species or group (Myotis species, for example, often cannot be reliably identified to species from their echolocation calls). Recordings made by the Ababat Scout detectors were also used to record and analyse echolocation calls after the survey using Anabat Insight bat call analysis software.

2.1.5 Night vision aids (NVA)[1], supplemented with additional infra-red lighting (comprising Nightfox XB5 torches) were used at the surveyor positions presented in **Table 2.1** and annotated on **Figure 1**. Footage was subsequently reviewed using VLC Media Player to determine any emergence / re-entry at the building.

2.1.6 Photographs showing each survey position from the darkest point of the surveys are appended at **Photos 1** to **2**.

**Table 2.1: Dusk Emergence Survey Dates, Weather Conditions and Surveyors**

| **Date** | **16th May 2024** | **6th June 2024** |
|---|---|---|
| Sunset time: | 21:08 | 21:36 |
| Start & end time | 20:55 until 22:40 | 21:20 until 23:06 |
| Weather | 14˚C and dry with a light air and light breeze (Beaufort scale 1 / 2) | 12˚C and dry with a light breeze (Beaufort scale 2) |
| **Survey Position** | **Surveyor, Detector and NVA** | **Surveyor, Detector and NVA** |
| 1 | Amy Sharples, Anabat Scout & Canon XA60 | Amy Sharples, Anabat Scout & Canon XA40 |
| 2 | Leah Hart, Anabat Scout & Canon XA60 | Natalie Coffey, Anabat Scout & Canon XA60 |

### 2.2 Updated Daytime Survey

*Survey Personnel*

2.2.1 The site was assessed for its suitability to support roosting bats by Brian Robinson, Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number2015-13161-CLS-CLS. The surveyor's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

[1] Canon XA40 and Canon XA60 camcorders.

*Preliminary Roost Assessment of the Building*

2.2.2 The survey was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023).

2.2.3 An inspection of the external surfaces, walls and roof of the building was carried out to find potential bat roosting habitat or accesses into internal areas where roosts may be present. Searches for evidence of bat presence in the form of droppings, urine stains, feeding signs, grease marks and other evidence were also carried out.

2.2.4 The internal survey involved an examination of the accessible internal areas (including roof voids) to search for roosting bats or evidence of past use of the building by bats such as droppings and prey remains.

2.2.5 A list of equipment used is detailed in **Table 2.2**.

**Table 2.2: Survey Equipment used during Daytime Bat Survey**

| |
|---|
| Ladders |
| LED Lenser P14 torch |
| Olympus Tough TG-6 |
| 8x20 binoculars |
| Ridgid Micro Inspection Camera Borescope CA-100 |

### 2.3 Survey Limitations

2.3.1 The surveys were completed under suitable conditions.

2.3.2 Due to the presence of dense vegetation it was not possible to get a view of the southern elevation and hipped roof during the bat emergence surveys, either by NVA or surveyor. In accordance with the proposal plans the southern elevation will not be affected by the proposed works. The restricted view of 9 Berkshire Close has not had an impact on the assessment of impacts at the site and it is considered that no significant survey limitations were experienced.

### 2.4 Evaluation Methods

2.4.1 Government advice on wildlife, as set out in the NPPF and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.

## 3.0 SURVEY RESULTS

### 3.1 Dusk Emergence: 16th May 2024

3.1.1 No bat emergence was detected at 9 Berkshire Close.

3.1.2 Common pipistrelle (*Pipistrellus pipistrellus*) activity was detected at the site with the first bat entering the survey area from the south-west at 21:31. The first call sequence was detected 23 minutes after

sunset. Up to three bats were observed foraging around the building throughout the survey. No other species were recorded.

3.1.3 Survey data are appended in **Table 7.1**.

### 3.2 Dusk Emergence: 6th June 2024

3.2.1 No bat emergence was detected at 9 Berkshire Close.

3.2.2 Common pipistrelle activity was detected at the site with the first bat entering the survey area from the south at 21:43 and foraging over the garden, with the first call sequence detected at 21:42, 6 minutes after sunset. No other species were recorded.

3.2.3 Survey data are appended in **Table 7.2**.

### 3.3 Updated Daytime Survey

3.3.1 Refer to **Photo 3**. Low numbers (~10) of droppings were detected at the internal wall of the eastern gable end of the building, indicating a roosting location at the wall-top of the gable end; roosting positions such as these are typical of pipistrelle species. No bats or further signs of roosting bats were detected internally or externally. The location of the droppings corresponds to a suitable gap for bat access located at the gable end of the building, behind the dry-verge capping (refer to **Photo 4**).

3.3.2 The assessment presented in *Inspection & Assessment in Relation to Bats & Breeding Birds* (Tyrer Ecological Consultants Ltd, 2024) remains appropriate and accurate for the site.

### 3.4 DNA Analysis

3.4.1 A sample of the droppings found in the roof void were collected and sent for analysis. The DNA analysis confirms common pipistrelle bats at the property; the results are appended at **Section 8.4**.

## 4.0 EVALUATION AND ASSESSMENT

### 4.1 Introduction and Description of Proposals

4.1.1 In accordance with *24_0126_Amend_Proposed_Plan_4June.pdf* (24K Designs, 2024) it is proposed to extend the existing residential property to the rear (at the eastern elevation).

4.1.2 Appropriate and proportionate survey effort and assessment, in accordance with standard survey guidelines, has been applied to discount adverse effects on roosting bats and other relevant protected species. No further surveys for other protected species are required to inform the planning application.

### 4.2 Roosting Bats

4.2.1 Following the completion of the surveys undertaken in 2024, the conditions at the site and the assessed suitability of the building for use by roosting bats it is considered that appropriate and proportionate survey effort has been applied to demonstrate the presence / likely absence of roosting bats, characterise the roost and inform a mitigation strategy.

4.2.2 Approximately 10 common pipistrelle bat droppings were found inside the roof void at the area associated with the gable end at the eastern elevation of the property. During the two dusk emergence surveys completed at the site no bats were observed emerging from or re-entering the property. Based on the results of the initial daytime walkover survey, the dusk emergence surveys and the updated daytime walkover survey, the confirmation by DNA analysis of the species of bat, the number and location of the bat droppings and the absence of other field signs, it is considered that the building supports a day roost of common pipistrelle (Roost A). It is considered that the roost access position is likely to be behind the dry verge capping at the gable end of the building.

4.2.3 No evidence to indicate that the surveyed buildings are used by a roost of a high conservation significance as defined by Figure 4 of the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004) has been found in 2024. No evidence to indicate the presence of bat species that typically roosts in a roof void (such as a brown long-eared bat) has been found.

4.2.4 The presence of a hibernation roost at the site is reasonably discounted owing to the absence of suitable conditions at the heated, occupied dwelling.

4.2.5 The proposed extension works at the property will disturb bats and will remove the access to Roost A, a common pipistrelle day roost.

4.2.6 Works at or near to Roost A must only be carried out under a relevant Natural England European Protected Species Mitigation licence issued under Regulation 55 of *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*.

4.2.7 A Bat Mitigation Strategy is presented at **Section 5.1** and details the measures proposed to ensure bats are protected during the proposed works and also to ensure habitats remain suitable for use by roosting bats as a consequence of the proposed development.

4.2.8 In accordance with *Bat Mitigation Guidelines* (Mitchell-Jones, 2004) and current Natural England guidance[2] the destruction of a day roost used by a low number of a common and widespread[3] species of bat is a 'low' scale impact.

4.2.9 In consideration of post-development interference impacts, subject to the implementation of an appropriate lighting strategy as recommended at **Section 5.2**, the site and wider area will remain suitable for use by foraging bats.

[2] https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects#assess-the-impacts

[3] The conservation status of common pipistrelle is reported to be favourable in the *European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) Fourth Report by the United Kingdom under Article 17 on the implementation of the Directive from January 2013 to December 2018* ***Invalid source specified.***

## 5.0 MITIGATION AND RECOMMENDATIONS

### 5.1 Bat Mitigation Strategy

**Natural England Licence**

5.1.1 Once planning permission is obtained the disturbance / destruction of Roost A must only be carried out in the presence of the appropriate European Protected Species Mitigation (EPSM) licence issued by Natural England.

5.1.2 Owing to the presence of only one roost used by a low number of bat(s) of a common and widespread bat species, the site is eligible to be registered under a Bat Mitigation (Low Impact) Class Licence (BMCL).

5.1.3 In determining whether or not to grant a licence Natural England must apply the requirements of Regulation 55 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b):

(1) Regulation 55(2)(e) states: '*a licence can be granted for the purposes of 'preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment'*, hereafter referred to as the 'Overriding Public Importance Test';

(2) Regulation 55(9)(a) states: '*the relevant licensing body must not grant a licence under this regulation unless it is satisfied that there is no satisfactory alternative'*, hereafter referred to as the 'No Satisfactory Alternative Test'; and

(3) Regulation 55(9)(b) states: '*the relevant licensing body must not grant a licence under this regulation unless it is satisfied that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*', hereafter referred to as the 'Favourable Conservation Status' test.

*Overriding Public Importance Test and No Satisfactory Alternative Test*

5.1.4 A Reasoned Statement is typically provided as part of an EPSM Licence Application to satisfy the Overriding Public Importance Test and No Satisfactory Alternative Test. *Protected species licences: when to include a reasoned statement with your application* (Natural England, 2023) states the following:

*'You don't need to include a reasoned statement where bats and their roosts will be affected by:*

- *repairs and maintenance;*
- *roof replacements, loft conversions and extensions;*
- *renovations of existing domestic dwellings and associated structures (e.g. garages);*
- *housing developments less than 1 hectare, including demolition of existing buildings (whether domestic dwellings or other types of buildings) and barn conversions for domestic dwellings.*

*However if the bat population is of regional or national importance you may still need to submit a reasoned statement.'*

5.1.5 The roosts detected are of common and widespread species; the bat population present at the site is not of regional or national importance.

5.1.6 It is not considered that any EPSM Licence Application will require a Reasoned Statement.

5.1.7 The proposals will enhance the suitability of the property as a residential dwelling for the occupying family. Bats have been detected early in the design stage of the project, and measures to protect and compensate for the loss of roosting habitat have been incorporated into the design of the site at an early stage.

5.1.8 It is considered that doing nothing at the site will not secure the benefits of the proposed development for the dwelling family, and will not secure the long-term viability of the roost.

5.1.9 An application to register the site under the BMCL can only be carried out once planning permission has been obtained and all ecology-related conditions have been discharged.

5.1.10 The bat survey data collated in 2024 will remain valid to support a Natural England licence application / registration under the BMCL until May 2025; if works are scheduled to commence after this date a supplementary survey may be required.

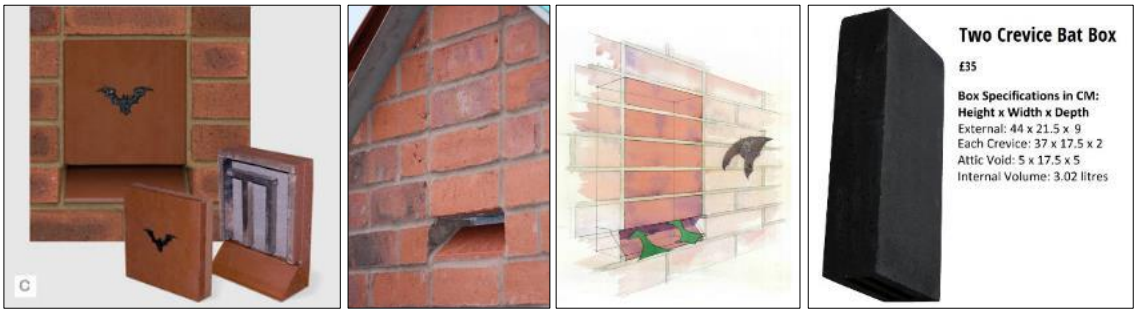
**Licensed Works**

5.1.11 The licensed works comprise actions that will directly affect (or have the risk of impacting) Roost A only.

**Works to Be Carried Out Prior to Commencement**

5.1.12 Prior to the commencement of works, to ensure there is no net loss of roost opportunity at the site and to ensure a suitable feature is present at the site to receive any bats found during the works, one bat box will be installed at an area of the property not impacted by the proposed extension works.

5.1.13 Suitable box specifications are detailed below:




**Insert 1:** Examples of integrated bat access panels and an externally mounted box[4]

5.1.14 The bat box will be installed to the following guidelines (Bat Conservation Trust, 2016):

a. At least 4 metres above the ground (where safe installation is possible);

b. Sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west). Ideally several bat boxes will be installed to provide a variety of different thermal options for bats; and

c. Installed where the bat box entrance is not cluttered or impeded by branches, or accessible to predators (such as cats) by large branches underneath them.

[4] Left to right: IBstock Enclosed Bat Box 'c' (left); Habibat Bat Access Panels (centre left and centre right) and Greenwood's Ecohabitat's two crevice bat box (right). Products with a brick face are illustrated, however the Habibat bat access panels can be supplied unfaced to enable the addition of matching material.

**Timing of Works**

5.1.15 In accordance with the BMCL there is no restriction on the timing of works at the roost (subject to the absence of nesting birds); measures relating to the protection of nesting birds are presented at **Section 5.3**.

**Toolbox Talk**

5.1.16 Prior to the commencement of works the Registered Consultant / licensed ecologist will inform all contractors of the following:

a. The wildlife legislation and protection afforded to bats and their roosts;

b. The presence of the licence and the associated method statement and the need to abide by the content;

c. The licensable actions;

d. Good working practices (i.e. lifting of roof coverings and turning to check for the presence of bats before discarding or stacking);

e. The presence of any provisions for roosting bats installed in advance of the works and the need for them to remain undisturbed;

f. The protocol to be followed if a bat is discovered when the licensed ecologist is not on site; and

g. An outline of the proposals and timescales.

**Capture and Exclusion During Works**

5.1.17 Based on the discrete location of Roost A it is proposed to carry out the 'soft-strip' of the roof at the gable end of the eastern elevation of the property under the supervision of the Registered Consultant / licensed ecologist. The soft strip will be preceded by an inspection of the surrounding areas with an endoscope, where access is possible.

5.1.18 If a bat is present the Registered Consultant / licensed ecologist will carefully collect the bat (using a hand-held static net or by direct handling), place the bat in an appropriate container and transfer the bat(s) to the bat box.

5.1.19 If at any time during the works a bat is discovered or suspected when the licensed bat surveyor is not on site all contractors must withdraw from the area and ERAP (Consultant Ecologists) Ltd (01772 750502) or the Bat Conservation Trust must be contacted for further guidance.

**Mechanism for Ensuring Implementation / Success**

5.1.20 If the licensed ecologist has any concerns regarding the quality of workmanship or there is non-compliance with the Natural England licence, the Mitigation Strategy and / or guidance provided by the licensed ecologist then this will result in additional site visits to make inspections.

5.1.21 It is always the intention to ensure all parties are aware of the importance of the Natural England licence and compliance with the Mitigation Strategy and this is achieved through good communication. However, in extreme / significant cases of non-compliance the licensed bat surveyor will report the issue to Natural England and further action may be taken.

**Monitoring**

5.1.22 There is no post-works monitoring requirement under the BMCL licence sought.

## 5.2 Appropriate Use of Lighting

5.2.1 Paragraph 191(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

*'limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'*

***Construction Phase***

5.2.2 Any lighting to be used at the site during construction should be directional and screened where possible.

***Development Lighting Design***

5.2.3 The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the areas of ecological enhancement, as lighting overspill may deter use by wildlife such as foraging bats.

5.2.4 The lighting scheme will be designed with reference to current guidance, namely:

a. *Guidance Note 08/23: Bats and Artificial Lighting at Night* (Institution of Lighting Professionals & Bat Conservation Trust, 2023); and

b. *Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

## 5.3 Protection of Nesting Birds

5.3.1 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. Any works such as vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.

5.3.2 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

# 6.0 CONCLUSION

6.1 The presence of one common pipistrelle day roost at 9 Berkshire Close is a material consideration in connection with a planning decision. The comprehensive mitigation strategy outlined in **Section 5.1** demonstrates that mitigation for roosting bats and conservation of roosting opportunities at the site in the long-term is feasible. The 'three tests' of *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019* can be met and the appropriate Natural England licence will be obtained to facilitate the works.

6.2 Other actions for the protection of wildlife and features for the enhancement of biodiversity at the site are presented at **Sections 5.2** to **5.3** and ensure compliance with wildlife legislation, the NPPF, relevant planning policy and best practice.

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## 8.0 APPENDIX: TABLES AND FIGURE

### 8.1 Bat Activity Survey Data

**Table 8.1: Activity Survey 1, 16th May 2024, Sunset Time 21:08, Start Time 20:55**

**Survey Position 1: Amy Sharples**

| Time | Species | Notes |
|---|---|---|
| 21:32 | Common pipistrelle | Foraging around building |
| 21:34 | Common pipistrelle | Foraging around building |
| 21:37 | Common pipistrelle | Foraging around building |
| 21:48 to 21:54 | Common pipistrelle | Foraging around building |
| | | No emergence or re-entry detected. |
| The Anabat Scout made the following recordings:<br>116 common pipistrelle call sequences between 21:31 and 22:17. | | |

**Survey Position 2: Leah Hart**

| Time | Species | Notes |
|---|---|---|
| 21:31 to end | Common pipistrelle | Foraging around building |
| | | No emergence or re-entry detected. |
| The Anabat Scout made the following recordings:<br>90 common pipistrelle call sequences between 21:32 and 22:26. | | |

**Table 8.2: Activity Survey 2, 6th June 2024, Sunset Time 21:36, Start Time 21:20**

**Survey Position 1: Amy Sharples**

| Time | Species | Notes |
|---|---|---|
| 22:26 | Common pipistrelle | Brief pass, heard not seen |
| | | No emergence or re-entry detected. |
| The Anabat Scout made the following recordings:<br>9 common pipistrelle call sequences between 22:07 and 22:44. | | |

**Survey Position 2: Natalie Coffey**

| Time | Species | Notes |
|---|---|---|
| 21:42 | Common pipistrelle | Brief pass, heard not seen |
| 21:43 | Common pipistrelle | Foraging over garden |
| 21:45 | Common pipistrelle | Foraging over garden |
| 21:54 | Common pipistrelle | Foraging over garden |
| 21:58 | Common pipistrelle | Foraging over garden |
| 22:05 | Common pipistrelle | Foraging over garden |
| 22:23 | Common pipistrelle | Foraging over garden |
| 22:26 | Common pipistrelle | Foraging over garden |
| | | No emergence or re-entry detected. |
| The Anabat Scout made the following recordings:<br>54 common pipistrelle call sequences between 21:42 and 22:26. | | |

## 8.2 Photographs

**Table 8.3: Photographs**

**Photo 1:** NVA view at survey position 1

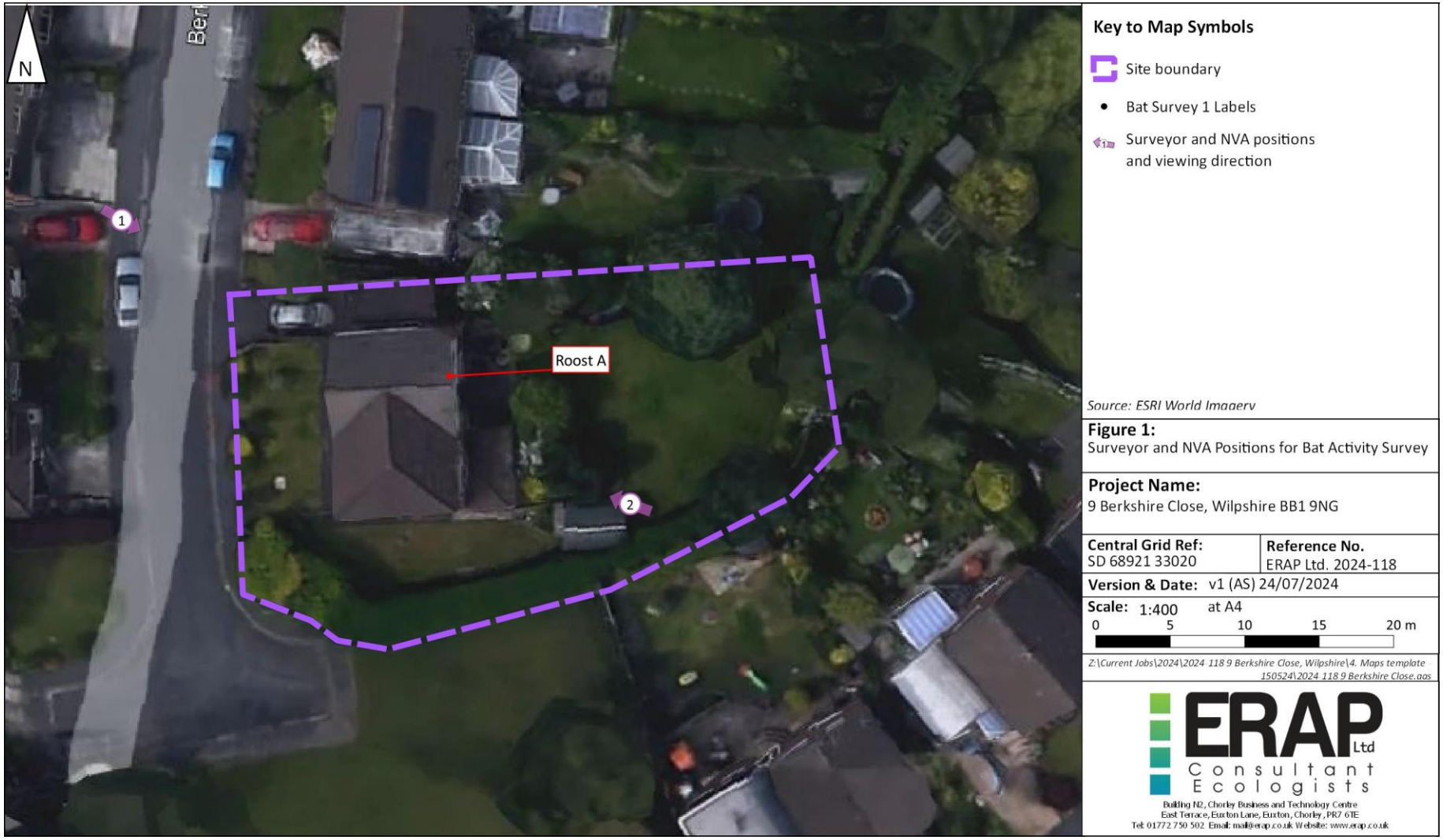
**Photo 2:** NVA view at survey position 2 showing eastern aspect

**Photo 3:** Droppings on internal wall of eastern gable end (Roost A)

**Photo 4:** Assumed roost entrance point for Roost A

## 8.3 Figures

**Figure 1: Surveyor and NVA Positions for Bat Activity Survey**



## 8.4 DNA Results

WARWICK
THE UNIVERSITY OF WARWICK

CeoWarwicker
Ceological Forensics

12 July 24

Re: Identification Results for Amy Sharples, ERAP Ltd

Job number 20829, received 26 June 2024
Sample labelled: 2024-118 9 Berkshire Close 12/6/24
PCR amplification successful. DNA sequence:
GATGCCTAATAGGGACCCAAAATTTCATCATGCTGAAATGTTTGATGGAGCTGGTAG
ATCAATGAATGAGTTATTGATGATTTTGATCAGGGGGTGGGATTTTCGAATGTTTGTC
AT

Phylogenetic analysis identification: *Pipistrellus pipistrellus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

**Professor Robin Allaby**

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