

77 Wilderness Road
Earley
Reading
Berkshire
RG6 7RF

Preliminary Roost Assessment

Report ref.: R2741_PRA_a

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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was instructed by Mr Stephen Sargood to undertake a Preliminary Roost Assessment (PRA) for bats at 77 Wilderness Road in Earley, Reading. The aim of the PRA is to determine the actual or potential presence of bats in the property and whether further survey and/or mitigation would be required for future proposed development activities.
- 1.1.2** The suburban area surrounding the property with gardens and woodland to the north of the site surrounding Whiteknights Lake provides continuous habitat that could be used as a flight path connecting to high-quality foraging habitats for any bat(s) roosting in the property.
- 1.1.3** One old medium-sized bat dropping, a typical size and shape of long-eared (*Plecotus* sp.) bats was found on top of a raised platform within the roof void of the house. The void had been recently boarded throughout in March 2024, and there was no further evidence of roosting bats found on top of the boarding and therefore can be concluded that the roost has not been used this year, and is likely historic. Externally, small-sized bat droppings, of a size and shape typically deposited by *Pipistrellus* sp. bats, were observed on the brickwork below a gap in the soffit on the rear elevation and on a storage box below gaps in the soffit at the eastern elevation of the house. The property has been assigned moderate potential suitability for bats.
- 1.1.4** The development proposals to convert the garage into habitable space will not directly impact the potential bat roosts under the soffits on the rear and eastern elevation of the house, therefore these potential crevice roost sites identified will be unaffected throughout the construction activities. The garage that will be impacted by the proposals possesses negligible potential roost features for bats with no evidence of use by roosting bats.
- 1.1.5** The development proposals for the house and garage are considered highly unlikely to result in the death, injury or disturbance of bats; the damage or destruction of a bat roost; or the obstruction of access to a bat roost. As such, a European Protected Species (EPS) mitigation licence would not be required for the planned works to go ahead lawfully. However, there is a small residual risk of disturbance of bats within the house and therefore non-licensed precautions should be adopted during the work.
- 1.1.6** In the unlikely event that bats are encountered during the construction activities, the works must stop immediately and a licensed ecologist should be called to site to attend

to the bat and provide advice on how to proceed.

- 1.1.7** This report contains information regarding a mobile species so it will likely be valid for less than 12 months (CIEEM 2019b).

2 INTRODUCTION

2.1 Project Background

- 2.1.1** John Wenman Ecological Consultancy LLP was instructed by Mr Stephen Sargood to undertake a Preliminary Roost Assessment (PRA) for bats at 17 Wilderness Road in Earley, Reading.
- 2.1.2** The PRA was commissioned to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for the conversion of the house's loft to living space and conversion of the garage into habitable space also, and a loft conversion within the garage (see proposed plans in **Appendix 4**).

2.2 Site Location and Context

- 2.2.1** The property is a detached two-storey residential dwelling situated on the southern side of Wilderness Road in Earley, Berkshire (OS grid reference: SU 74185 71434).
- 2.2.2** The property is within a suburban setting bordered by residential properties and their associated gardens along Wilderness Road. Whiteknights Campus is situated approximately 20m to the north side of the site, which includes over 99ha of mixed woodland priority habitat (NERC Act 2006 Section 41 habitat of principle importance) surrounding Whiteknights Lake and areas of open grassland. Maiden Erlegh Nature Reserve is present 540m to the south-east of the site, and includes Maiden Erlegh Lake, woodland and the open grassland of Laurel Park. Redhatch Copse is present 570m to the south of the site.

2.3 Report Objectives

- 2.3.1** The aim of the PRA is to ascertain if there is evidence of the presence of bats and/or potential for roosting bats to be present, and therefore whether further survey and/or mitigation would be required for future proposed development activities.

3 LEGISLATIVE AND POLICY BACKGROUND

3.1 Relevant Legislation

3.1.1 In England and Wales, all bat species found in the wild are fully protected under the Wildlife & Countryside Act 1981 (as amended) (WCA) and Conservation of Habitats and Species Regulations 2017 (as amended); the regulations are commonly referred to as the Habitat Regulations and hereafter referred to as such. The Habitat Regulations refer to European Protected Species (EPS) and all species of bats in the United Kingdom (UK) are EPS. Although the UK left the European Union on the 31st January 2020 and is therefore no longer tied to European legislation, the Habitat Regulations have been retained in their current format.

3.1.2 The legal framework underpinned by the WCA and Habitat Regulations makes these specific actions an offence as follows:

- Deliberately kill, injure, capture or take a wild bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or to significantly affect local distribution or abundance;
- Damage or destroy a place used by a bat for breeding or resting; and
- Intentionally or recklessly obstruct access to any place used by a bat for shelter or protection.

3.2 Planning Policy

3.2.1 The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England. Government planning policy, such as the ODPM Circular 06/2005, requires LPAs to account for the conservation of protected species when considering and determining planning applications.

3.2.2 The ODPM Circular 06/2005 states that *‘the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.’* This policy means that in instances where there is a reasonable likelihood of bats being present and affected by a development, surveys must be undertaken to inform a mitigation strategy to be agreed prior to granting planning permission.

3.3 Mitigation Licensing

3.3.1 The government's statutory nature conservation body, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests derived from Regulation 55 have been satisfied:

- (2)(e) – the derogation is 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.'*
- (9)(a) – there is *'no satisfactory alternative'* to the derogation; and
- (9)(b) – *'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.'*

3.3.2 LPAs have a statutory duty under Regulation 7(3)(e) of the Habitat Regulations to consider and determine whether these three tests are likely to be satisfied by planning proposals affecting EPS before granting planning permission. If an EPS mitigation licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

3.3.3 The Bat Mitigation Class Licence (BMCL) scheme allows ecologists to apply to become Registered Consultants to use this licence for low conservation status roosts, i.e. roosts comprising small numbers of seven commonly occurring species. A site registration form must be completed as a condition of the licence and submitted to Natural England at least three weeks before the licensable activities are due to start; Natural England aims to register sites within two weeks of submission.

3.3.4 Baseline survey information supporting EPS mitigation licence applications or BMCL site registrations must be up-to-date and have been completed within the current or most recent optimal season. A suitably experienced ecologist will be required to undertake a site walkover/check within three months prior to application/registration submission to confirm that conditions have not changed since the most recent survey.

4 SURVEY METHODOLOGY

4.1 Desk Study

4.1.1 A desk-based study for bats was undertaken to collate and review existing information about the site and the surrounding land. The study utilised the following open access resources:

- OS maps and Google Earth – maps and satellite imagery were used to identify potential flight-paths and foraging habitats for bats;
- DEFRA Data Services Platform and MAGIC – maps were used to locate relevant designated sites, habitats and granted European Protected Species licences; and
- existing bat survey reports – any available reports were obtained from the client or relevant planning portal.

4.2 Building Inspection

Survey Details

4.2.1 A detailed inspection of the exterior and interior of the property was undertaken on the 1st August 2024 by Conor Watson registered under Natural England Bat Survey Class Licence CL18 (Registration no. 2024-11877-CL18-BAT) and Meghan Porter registered under Natural England Bat Survey Class Licence CL17 (Registration no. 2023-11300-CL17-BAT), in accordance with good practice guidance (Collins 2023). The equipment used during the inspection comprised binoculars, a high-power (1 million candlepower) LED torch, a headtorch, ladder and PPE (facemask, gloves etc.). The inspection involved a systematic search of the exterior and interior of the structure during daylight hours to compile information on potential and actual bat access points; potential and actual bat roost sites; and any evidence of bat presence.

External Survey

4.2.2 Frequently used bat access points and/or roost sites include (but are not limited to) spaces:

- behind hanging tiles, weatherboarding, soffit boxes and barge boards;
- under lead flashing (particularly around chimneys) and roof tiles/slates; and
- in existing bat boxes.

4.2.3 It is important to note that the two most abundant and widespread bat species, common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*),

typically only require gaps measuring 15mm by 20mm to gain access to a roost inside a building.

4.2.4 The external survey involved a systematic search for evidence of bats including:

- live or dead specimens;
- droppings;
- urine marks;
- fur-oil staining; and
- squeaking noises.

4.2.5 It should be noted that bats can be present in a building while leaving no visible signs externally and wet weather has the potential to wash any evidence away. The search for evidence was focused on (but was not limited to) the ground, windowsills, windowpanes and walls (including cladding and hanging tiles); particularly in places near to potential bat access points and/or roost sites.

Internal Survey

4.2.6 The internal survey comprised a systematic search for evidence of bats on the upper floors of the building (i.e. checking the exterior from windows) and inside the roof and eave spaces. Evidence of bats found during an internal inspection can include:

- live or dead specimens;
- droppings;
- urine marks;
- fur-oil staining;
- feeding remains (i.e. moth wings);
- squeaking noises;
- bat-fly (Nycteribiid) pupal cases; and
- odour.

4.2.7 It should be noted that only specimens or droppings can be relied upon in isolation to confirm the presence of a bat roost.

4.2.8 Frequently used roosting locations within the roof include (but are not limited to):

- the apex of the gable end or dividing walls;
- the top of chimney breasts;
- ridge and hip beams;
- mortise and tenon joints;

- behind purlins; and
- between tiles and roof lining.

Survey Limitations and Validity

- 4.2.9** There were no significant survey limitations because PRAs can be carried out at any time of year under any weather conditions and the building was fully accessible.
- 4.2.10** It should be noted that it is not always possible to inspect all potential roost sites during a survey, particularly for bat species which typically roost in hidden crevices. Therefore, an absence of bat evidence found during a survey does not necessarily equate to evidence of bat absence in a building.
- 4.2.11** This report contains information regarding a mobile species so it will likely be valid for less than 12 months (CIEEM 2019b).

5 SURVEY RESULTS

5.1 Desk Study

5.1.1 Neighbouring gardens along Wilderness Road with woodland present on the northern side of the road in close proximity to the site provide continuous habitat that could be used as a flight-path connecting to high-quality nearby foraging habitats such as Whiteknights lake present within Reading University Campus, approximately 300m to the north-west of the site.

5.1.2 Bat mitigation licences that have been granted within the last 10 years inside a 2-kilometre radius of the property are detailed in **Table 1** below.

Table 1. Bat mitigation licences granted within a 2km radius of the property (Source: MAGIC).

Case Reference of Granted Licence	Species on the Licence	Licensable Period	Licensable Works	Distance (m)
2014-500-EPS-MIT	Common pipistrelle and soprano pipistrelle	29/04/2014-30/09/216	Unknown	600 N
2014-441-EPS-MIT	Common pipistrelle and soprano pipistrelle	14/04/2014-30/09/2019	Destruction and damage of a resting place	1590 NE
2014-3941-EPS-MIT	Common pipistrelle and soprano pipistrelle	21/10/2014-30/11/2019	Destruction and damage of a resting place	1720 NW

5.2 Building Inspection

Overview

5.2.1 The findings from the external and internal inspections carried out for the property are described with photographs, and annotated in a plan, as follows:

External Survey

5.2.2 The detached house was a two-storey building with a hipped roof, an attached pitched roof garage on the northern elevation and a glass roofed conservatory on the rear elevation (**Photographs 1-3**).



Photograph 1. Front of property viewed from the north.



Photograph 2. Rear of property viewed from the south.



Photograph 3. Attached garage viewed from the north.

- 5.2.3** The hip and ridge tiles were all fully mortared across the roof of the house (**Photograph 4**). The roofs of the house and garage were covered with tightly fitting clay roof tiles, which were mossy on the northern elevation of the garage roof (**Photograph 5**).



Photograph 4. Tight roof tiles and intact hip tiles and mortar on the house (rear elevation).



Photograph 5. Mossy clay roof tiles on garage (front elevation).

- 5.2.4** There were gaps between the soffit and the brickwork on the rear and eastern elevation of the house (**Photographs 6 & 7; Target notes 1 & 2**). There were three small-sized bat droppings observed on the brickwork and timbers below the gap on the rear elevation and a further two small-sized bat droppings observed on top of a storage box below the eastern gable, which were all of typical size and shape of a *Pipistrellus* species (**Photographs 8 & 9**).



Photograph 6. Gap between soffit and brickwork (rear elevation).



Photograph 7. Gap between soffit and brickwork (eastern elevation).



Photograph 8. Small-sized bat dropping on brickwork below soffit (rear elevation).



Photograph 9. Small-sized bat droppings on storage box (eastern elevation).

5.2.5 The verge mortar was intact on the eastern gable of the garage, and the soffit was tight to the brickwork (**Photograph 10**). The soffit boxes around the eaves of the garage were sealed to the external wall offering no potential access opportunities for bats (**Photograph 11**). The lead flashing was tight around the chimney and above the glass-roofed conservatory, and where the garage joined the main house.



Photograph 10. Soffit tight to brickwork gable of garage (eastern elevation).



Photograph 11. Tight lead flashing around chimney (southern elevation).

Internal Survey

5.2.6 There were two roof voids (one in the house and one in the garage) in the property. The

house's void covered the two storey footprint of the house, was accessible via a loft hatch on the first floor, and the roof was of hipped, cut and pitch construction. The void had a ridge height of 2.5m, was lightly cobwebbed throughout and the roof was lined with timber sarking at the eastern end and had intact hessian and bitumen roofing felt at the western end (**Photograph 13 & 14**). The floor had been recently boarded throughout, with fibreglass insulation visible around the edge of the boards, and the boarding went up to the eaves, which were open (**Photograph 15**). There were water tanks upon a raised platform in the centre of the void, where one old medium-sized bat dropping was visible (**Photograph 16**). No other evidence was noted on the platform and water tanks, and the age of the dropping suggests that the roost is now historic.



Photograph 13. Lightly cobwebbed timber sarking at the eastern end (first roof void).



Photograph 14. Overlapping bitumen roofing felt at the western end (first roof void).



Photograph 15. Open eaves (first roof void).



Photograph 16. One old medium-sized bat dropping on raised platform (first roof void).

- 5.2.7** The second roof void covered the footprint above the garage, and was accessed via a loft hatch from the ground floor. The pitched roof was lined with intact hessian reinforced bitumen felt and was lightly cobwebbed along the ridge (**Photograph 17**). The floor was partially boarded, with no insulation on the floor, and the eaves were open (**Photograph 18**). Both brickwork gables were tight to the roofline and had intact mortar along the edge (**Photograph 19**). A small section of void was inaccessible, where the garage connects to the main house, but it was heavily cobwebbed throughout (**Photograph 20**).



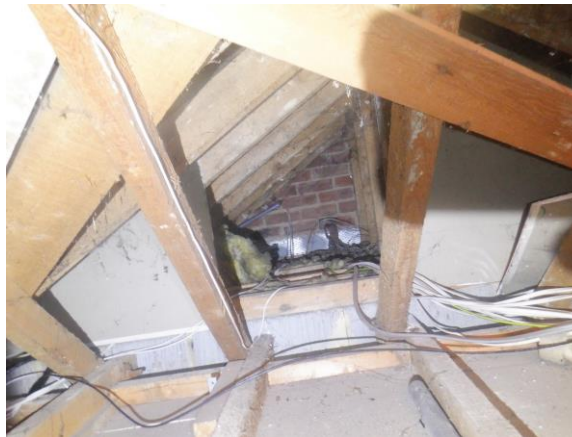
Photograph 17. Lightly cobwebbed ridge (Second roof void).



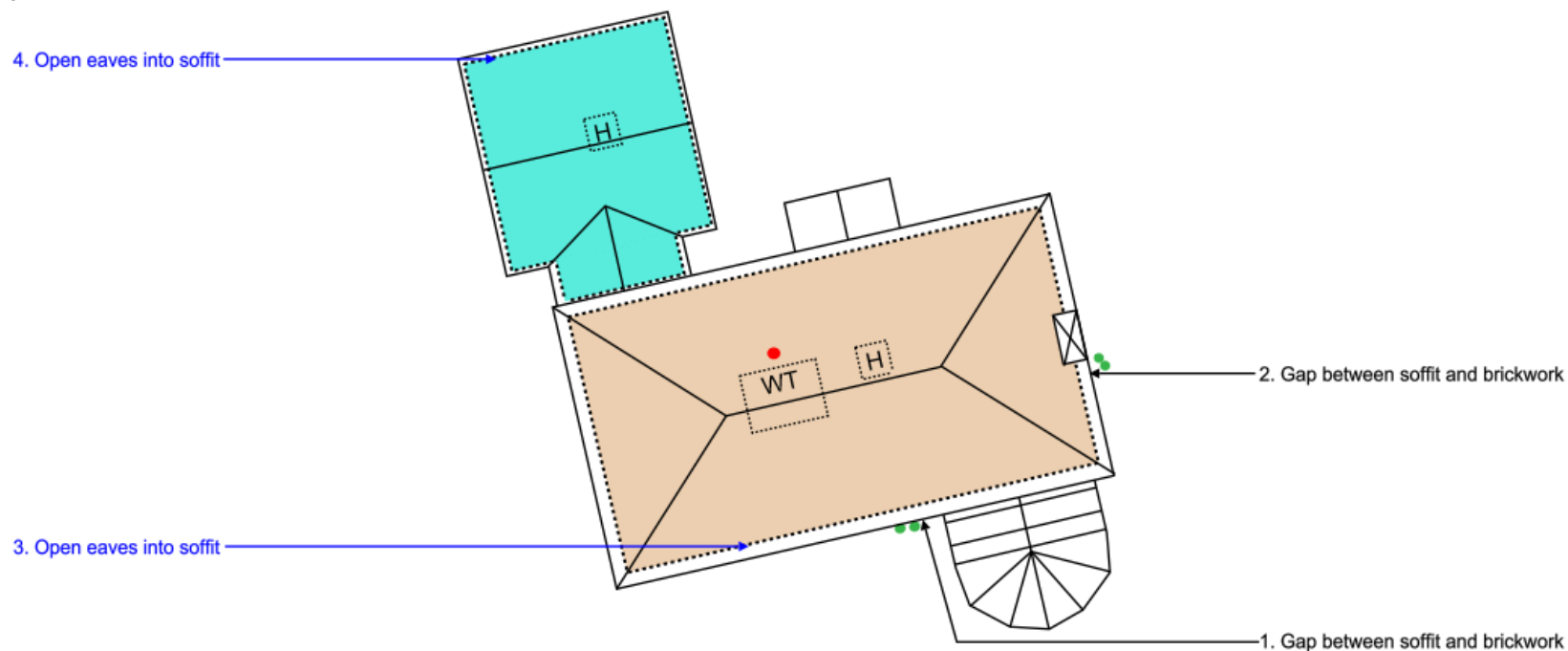
Photograph 18. Open eaves (Second roof void).



Photograph 19. Intact mortar on brickwork rear gable (Second roof void).



Photograph 20. Inaccessible roof section (Second roof void).



- Small-sized bat dropping **n.** External Target Note
- Medium-sized bat dropping **n.** Internal Target Note
- First roof void ■ Second roof void [H] Loft Hatch [WT] Water Tank [X] Chimney

Drawn by:	Date	Scale:	77 Wilderness Road, Earley	
MP	August 2024	Not to scale	Preliminary Bat Roost Assessment Findings	

6 DISCUSSION

6.1 Assessment of Potential Roost Suitability

6.1.1 The suburban area surrounding the property with gardens connect to high-quality foraging habitats, such as the lake and woodland to the north, for any bat(s) roosting in the property. Furthermore, the search of granted bat mitigation licences identified common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) day roosts in the local area: species that favour crevice roosts.

6.1.2 The suitable/potential bat access points on the house included gaps under the soffit on the rear and eastern elevation (**Photographs 6 & 7; Target notes 1 & 2**). These external features are likely to have sufficient space, shelter, protection, conditions and surrounding habitat for use by small numbers of crevice-dwelling bats, such as the locally recorded common and soprano pipistrelle bats. No potential roost features were observed on the garage.

6.1.3 Taking into account the number and type of features present, the house has been assigned moderate suitability for bats; the garage is of negligible bat roost potential (see **Appendix 1** for potential suitability categories).

6.2 Assessment of Confirmed/Potential Roost Status

6.2.1 There was one old medium-sized bat dropping observed within the first roof void within the house, on top of the raised platform adjacent to the water tank. The floor had been boarded throughout in March 2024, and no further evidence observed within the void, which indicates that the roof space has not been used by bats recently and is therefore historic.

6.2.2 Three small-sized bat droppings, of a typical size and shape of those deposited by *Pipistrellus* sp., were observed beneath a gap between the soffit and brickwork on the house's rear elevation, with a further two droppings observed on a storage box below a gap between the soffit and wall on the eastern elevation (**Photographs 8 & 9**). This confirms the presence of a roost within the house, likely to be a day roost used by a small number of crevice-dwelling bats. The external features offer roosting opportunities for a range of crevice-dwelling species, such as the abundant, widespread and locally recorded common pipistrelle (*P. pipistrellus*) bat and potentially the rarer Brandt's / whiskered bats (*Myotis brandtii* / *mystacinus*). The presence of a maternity colony is considered unlikely given the scale and nature of the features and extent of evidence observed.

6.2.3 Common pipistrelle (*P. pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) are

the most abundant and widespread bats in Great Britain. These species occur in almost any habitat type and are well adapted to the built environments; they are the species most regularly reported roosting in houses and churches (Mathews *et al.* 2018). Brandt's / whiskered bat (*Myotis brandtii* / *mystacinus*) are small *Myotis* species that are widespread and will roost in the same buildings as the much more abundant pipistrelle species (Mathews *et al.* 2018). Roosts supporting these species hold site to county level conservation importance subject to the roost type, i.e. non-breeding roosts supporting individual bat or small groups through to maternity roosts supporting large numbers of female bats (Reason & Wray 2023).

7 IMPACT ASSESSMENT

7.1 Potential Impacts of Development Proposals

Overview

- 7.1.1** The development proposals consist of a loft conversion with the addition of a rear dormer and rooflights across the house's roof, and converting the garage into habitable space, to include a garage loft conversion and addition of rooflights. The impacts of the proposals have been assessed in accordance with the mitigation hierarchy during construction and post development as follows:

Construction Phase

- 7.1.2** No potential roost features were identified on the garage and no evidence of roosting bats were found within the garage void and therefore construction work on the garage is unlikely affect bats or their roosts or lead to the disturbance of bats.
- 7.1.3** The development proposals to convert the roof void of the house will not have an impact on the confirmed roost between the soffit and wall on the rear elevation and identified roost features under the soffit on the eastern elevation. These features will remain in-situ throughout the construction activities. Therefore, it is considered highly unlikely that the proposals will result in the damage and/or destruction of a bat roost or cause disturbance, injury and/or death of bats, particularly disturbance that would affect the ability of bats to survive, reproduce, nurture young or hibernate.

Post Development

- 7.1.4** The development proposals include the long-term retention of the soffit around the house. Therefore, it is considered highly unlikely that the proposals will result in the loss, damage or disturbance of a bat roost.

7.2 Recommendations

- 7.2.1** The development proposals will avoid directly impacting on bats and their roosts. As such, a European Protected Species (EPS) mitigation licence would not be required for the planning works to go ahead lawfully.
- 7.2.2** However, due to the presence of a presumed *Pipistrellus* sp. day roost at the eaves of the rear elevation of the house, there a small residual risk of disturbing impacts on bats occupying the roost and therefore a non-licensed precautionary method statement

should be adopted to ensure that there would be no indirect impacts from noise, dust and vibrations to the *Pipistrellus* sp. roost. The avoidance measures that should be adopted are as follows:

- A toolbox talk to the contractors working on site detailing the location of the confirmed roost sites, the legislation that protects bats and their roosts, good working practices, the measures that are required to protect bats during the work and what to do if bats are found; and
- The works to install the rear dormer window should be timed to avoid the peak summer breeding season (May to mid-September).

7.2.3 If these non-licensed avoidance measures are adhered to, the proposals are considered highly unlikely to impair the ability of bats to survive, breed or reproduce or nurture their young, or lead to the loss of a bat roost. Therefore, a European Protected Species Mitigation Licence (EPSML) is not required to allow the works to go ahead lawfully.

7.2.4 In the unlikely event that bats are encountered during the course of the construction, the work must stop immediately and a licensed ecologist should be called to site to attend to the bat(s) and provide further advice on how to proceed; work must continue only once further written advice has been received. At this point, an EPSML may be required to permit the work to continue lawfully.

8 REFERENCES

CIEEM (2019b). *Advice Note on the Lifespan of Ecological Reports and Surveys*. CIEEM, Winchester.

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Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3rd edition)*. JNCC, Peterborough.

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APPENDIX 1 – POTENTIAL SUITABILITY CATEGORIES FOR ROOSTING BATS

The categories detailed in **Table 1** below are derived from the '*Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*' (Collins 2023) and provide guidance for assessing the potential suitability of buildings (and other structures) for roosting bats. These categories are applied using professional judgement and irrespective of whether the presence of a bat roost has been confirmed during a survey, as additional bat roosts could be present which have not yet been discovered.

Table 1. Categories for potential suitability of buildings (and other structures) for roosting bats.

Potential Suitability	Category Justification
None	A building (or structure) that has no features likely to be used by any roosting bats at any time of the year (i.e. a complete absence of cracks, crevices or voids that could provide suitable shelter).
Negligible	A building (or structure) that has no obvious features likely to be used by roosting bats, but in this case a small element of uncertainty remains as bats will occasionally use small and apparently unsuitable features. This category may also be used where a bat could potentially roost due to one attribute, but it is considered unlikely due to another attribute (e.g. a feature that is subject to constant illumination from artificial lighting).
Low	A building (or structure) that has one or more potential roost sites suitable for opportunistic use by individual bats at any time of the year. However, these potential roost sites for bats do not provide sufficient space, shelter, protection, conditions and/or surrounding suitable habitat to be used regularly or by large numbers (i.e. unlikely to be suitable for a maternity colony and not a classic hibernation site).
Moderate	A building (or structure) that has one or more potential roost sites suitable for regular use by individual bats, or small non-breeding groups, due to sufficient space, shelter, protection, conditions and surrounding habitat. However, these potential roost sites for bats are unlikely to support a roost of high conservation status with regards to the type of roost only (i.e. maternity colonies and classic hibernation sites).
High	A building (or structure) that has one or more potential roost sites suitable for use by large numbers of bats more regularly and for longer periods of time due to sufficient space, shelter, protection, conditions and surrounding habitat. These potential roost sites for bats are capable of supporting high conservation status roosts (i.e. maternity colonies and classic hibernation sites).

APPENDIX 2 – DEFINITION OF BAT ROOST TYPES

The potential suitability of a building in conjunction with any evidence of bat presence is used to provide an initial assessment of likely roost type and importance. The types of roost considered are based on the following Natural England definitions:

- Day roost – a summer resting place used by individual bats, or small non-breeding groups, during the day;
- Night roost – a resting place used by individual bats on occasion, or by a whole colony regularly, during the night;
- Feeding perch – a resting place used by individual bats, or a few individuals, primarily for short periods of feeding during the night;
- Transitional roost – a place used by a few individual bats, or occasionally small groups, for a short period of time upon waking from hibernation or in the period prior to hibernation;
- Maternity roost – a place used by small to large groups of female bats to give birth and raise their young to independence;
- Hibernation roost – a place used by individual bats, or in groups, during winter where there is a constant cool temperature and high humidity; and
- Satellite roost – a place used by a few individuals to small groups of breeding female bats found in close proximity to the main nursery colony throughout the breeding season.

The importance of a bat roost is underpinned by the conservation status of the suspected species (i.e. the distribution/rarity of a species in a specific geographic location) and the type of roost (i.e. not all roosts have the same level of importance in supporting the local bat population). Further roost characterisation surveys may be required to fully determine the importance of a confirmed roost to allow for a robust impact assessment.

APPENDIX 3 – FURTHER SURVEY RATIONALE

In cases where no evidence of use by bats is found during a building inspection but the possibility of their presence cannot be ruled out, further presence/likely absence survey is likely to be required if the development proposals will impact potential roost sites. Emergence surveys are carried out to establish the presence or likely absence of roosting bats in buildings (and other structures) and these are designed in accordance with the ‘*Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*’ (Collins 2023) detailed in **Table 2** below.

Table 2. Recommended further survey for establishing presence/likely absence of roosting bats in buildings (and other structures).

Potential Suitability	Further Survey
None	No further surveys are required.
Negligible	No further surveys are required.
Low	A minimum of one dusk emergence survey visit should be undertaken in the period of May to August. However, if all areas (including cracks, crevices and voids) can be thoroughly inspected and no evidence of use by bats is found, then emergence surveys may not be required. In cases where a complete inspection cannot be carried out, professional judgement and proportionality should be applied when assessing the impacts of the development proposals.
Moderate	A minimum of two dusk emergence survey visits should be undertaken in the period of May to September, with at least one of the surveys between May and August; the survey visits should be spaced at least three weeks apart.
High	A minimum of three separate dusk emergence survey visits should be undertaken in the period of May to September (inclusive), with at least two of the surveys between May and August; the survey visits should be spaced at least three weeks apart.

In cases where the PRA and/or further survey establishes the presence of roosting bats in a building (or structure), this will likely trigger the need for roost characterisation to collect sufficient information to inform the impact assessment and mitigation strategy. The roost characterisation comprises information collected during the PRA, emergence surveys and by other methods, such as DNA analysis of bat droppings, and ultimately aims to determine the bat species roosting; the number of bats the roosts support; the roost access points; the locations of the roosts and the types of roost present. This information is crucial when applying for planning permission and/or a European Protected Species mitigation licence.

APPENDIX 4 – PROPOSED PLANS

