

14 Sandstone Close
Winnersh
Wokingham
Berkshire
RG41 5XS

Preliminary Roost Assessment

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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was instructed by Rachel and Adam Wescott-Brown to undertake a Preliminary Roost Assessment (PRA) for bats at 14 Sandstone Close, a detached house in Wokingham, Berkshire. The PRA was commissioned to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for a single storey front extension and second storey extensions to the southeastern and southwestern sides of the property t
- 1.1.2** The connected private gardens and scattered trees in the suburban setting provides continuous habitat that could be used as bat flight paths and feeding habitat, connecting to additional high-quality foraging habitats in the nearby area, for any bat(s) roosting in the property. Whilst no evidence of void-dwelling bat species was observed within the roof void, a single roost feature suitable for crevice-dwelling bat species was identified, comprising a gap in the verge mortar on the single storey sloped roof to the front of the house. The house has been assigned low potential suitability for bats.
- 1.1.3** Future development proposals could obstruct access to and result in the damage/destruction of bats roosts and lead to direct/indirect disturbance, injury and/or death of bats, and potentially result in the permanent loss of a bat roost, which may have the potential to significantly affect the local distribution or abundance of a bat species.
- 1.1.4** As future development proposals cannot be altered to avoid the potential adverse effects on bats in the property, a further survey is recommended to establish the presence or absence of bat roosts in the property, in order to be able to assess fully whether the development proposals will have an adverse effect on bats and design a mitigation strategy if necessary.
- 1.1.5** 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 Rachel and Adam Wescott-Brown to undertake a Preliminary Roost Assessment (PRA) for bats at 14 Sandstone Close, a detached house in Wokingham, Berkshire.
- 2.1.2** The PRA was commissioned to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for a single storey front extension and second storey extensions to the southeastern and southwestern sides of the property

2.2 Site Location and Context

- 2.2.1** The detached two-storey property is located on the northern side of Sandstone Close in Winnersh, Wokingham, Berkshire (central OS Grid Reference: SU 78070 70220).
- 2.2.2** The property is situated within a suburban area with neighboring properties and their associated gardens along Sandstone Close on all sides. The nearby surroundings are primarily suburban to the north and rural to the south with arable fields situated approximately 70 metres from the site, beyond the M4. Recreational grounds are situated 80 metres to the northeast. A strip of broadleaved woodland is situated approximately 90 metres to the south. Further parcels of mixed priority woodland are situated approximately 220 metres to the southwest and 520 metres to the east as well as a railway line 500 metres to the northeast providing a good commuting and foraging route for bats in the local suburban area.

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
- Pre-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 10th April 2025 by Vicky Potts - registered under Natural England Bat Survey Class Licence CL18 (Registration no. 2016-27162-CLS-CLS) and Jake Morgan – a qualifying member of CIEEM - 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 2019).

5 SURVEY RESULTS

5.1 Desk Study

5.1.1 The connected private gardens and scattered trees in the suburban setting provides continuous habitat that could be used as bat flight paths and feeding habitat, connecting to additional high-quality foraging habitats in the nearby area, such as the nearby recreational grounds, parcels of broadleaved and mixed priority woodland, and railway line for any bats roosting locally.

5.1.2 Bat mitigation licences that have been granted 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)
2015-13607-EPS-MIT-1	Common pipistrelle	01/12/2015 – 05/08/2020	Destruction of a resting place	820 SE
2015-18114-EPS-MIT-4	Brown long-eared, common pipistrelle, Daubenton's, noctule & soprano pipistrelle	28/02/2019 – 30/04/2021	Destruction of a resting place	1630 SW

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 had a pitched roof with a flat roof porch with sloped roof extension either side to the front, single-storey sloped roof extensions to the western side of the house, and a single-storey sloped roof extensions on the rear southeast corner (**Photographs 1 & 2**).



Photograph 1. Front of property viewed from west.



Photograph 2. Rear of property viewed from east.

- 5.2.3** The main roof and single-storey extensions to the front and rear of the house were covered by interlocking tiles that were fully sealed (**Photograph 3**). Whilst the ridge mortar and verge mortar across the brickwork gables and southern extensions was fully intact, the mortar had a crack visible along the front extension, however, close inspection with a high-powered torch confirmed the feature to be superficial (**Photographs 4 & 5; Target note 1**).



Photograph 3. Fully sealed roof tiles (front elevation).



Photograph 4. Intact mortar along the ridge and gable (rear elevation).



Photograph 5. Superficial crack in verge mortar along the front extension (north elevation).

- 5.2.4** The lead flashing across all elevations was mostly sealed to the roof tiles and brickwork apart from at the northern elevation of the front porch which was slightly lifted. On close

inspection with a high-powered torch the feature was confirmed to be of limited extent and heavily cobwebbed (**Photographs 6 & 7; Target note 2**).



Photograph 6. Fully sealed lead flashing (front elevation).



Photograph 7. Heavily cobwebbed gap of limited extent behind lifted lead flashing (front elevation).

- 5.2.5** The metal cap roof along the northern extension and front porch was fully sealed to the brickwork walls (**Photograph 8**). Whilst the painted timber soffit was fully sealed along the second-storey, a gap was present behind the soffit along the southwest single-storey extension, offering potential roosting and access opportunities for bats (**Photograph 9; Target note 3**).



Photograph 8. Metal cap sealed to the brickwork (rear elevation).



Photograph 9. Gap behind timber soffit (south elevation).

5.2.6 *Internal Survey*

- 5.2.7** The property had one roof void that covered its second-storey footprint, accessible via a first-floor loft hatch. The void was of trussed construction with an approximate floor-to-ridge height of 0.75 metres at its highest point (**Photograph 10**). The southern and western sections of the void were inaccessible due to a water tank, pipes and rafters (**Photograph 11**).



Photograph 10. Roof void of trussed construction



Photograph 11. Southern and western sections of the void inaccessible.

- 5.2.8** The roof was lined by type 1F bitumen felt that was fully sealed throughout other than a small tear around the flue pipe which was sealed with a guard and no daylight was visible (**Photograph 12**).



Photograph 12. Tear in felt blocked by a plastic guard.

- 5.2.9** The floor was centrally boarded over fibreglass insulation which blocked the eaves, preventing access to the timber soffit (**Photograph 13**). The eastern blockwork gable had slight gaps along its edge although no daylight was visible and a vent brick was present at the apex in which daylight was visible (**Photographs 14 & 15; Target notes 4 & 5**).



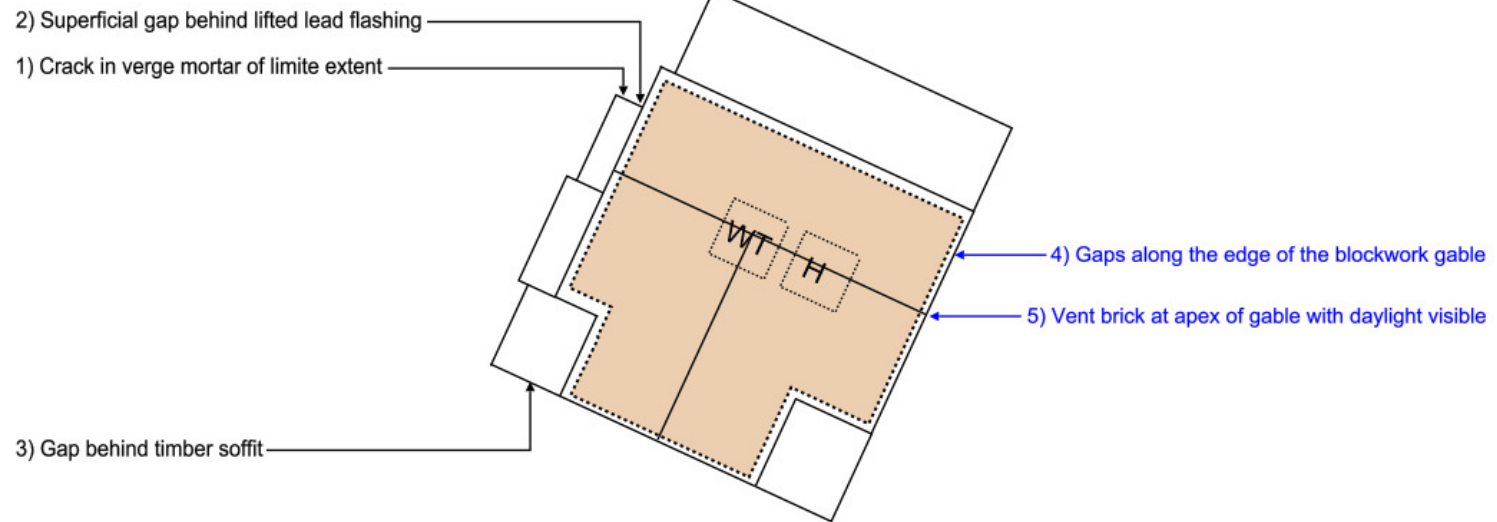
Photograph 13. Eaves blocked and filled by fibreglass insulation.



Photograph 14. Slight gaps along the edges of the eastern blockwork gable.



Photograph 15. Vent brick with daylight visible.



n. External target note	n. Internal target note	 Chimney	 Roof void	 Loft hatch	 Water tank
Drawn by: JM	Date: April 2025	Scale: Not to scale	14 Sandstone Close, Wokingham Preliminary Roost Assessment Plan		

Figure 1. Preliminary Roost Assessment Survey Findings

6 DISCUSSION

6.1 Assessment of Potential Roost Suitability

6.1.1 The connected private gardens and scattered trees in the suburban setting provides continuous habitat that could be used as bat flight paths and feeding habitat, connecting to additional high-quality foraging habitats in the nearby area, such as the nearby recreational grounds, farmland, parcels of broadleaved and mixed priority woodland, and railway line for any bats roosting locally. Furthermore, the search of granted bat mitigation licences identified five species known to be roosting within a 2km radius of the property: common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), Daubenton's (*Myotis daubentonii*) and noctule (*Nyctalus noctula*). A license was granted for a breeding roost covering all species at a residential site situated approximately 1630 metres to the southwest.

6.1.1 The detached property had the following suitable/potential bat access points and roost features:

- Gaps behind the timber soffit along the southwest single-storey extension (**Photograph 9; Target note 3**); and

6.1.2 The roof void had sub-optimal space for void-dwelling species such as brown long-eared bats (*Plecotus auritus*) being cluttered with a trussed rafter construction and pipework, furthermore no bat droppings were found internally so the presence of void-dwelling bats is considered highly unlikely.

6.1.3 Potential crevice roosting sites for crevice-dwelling bats such as the locally recorded common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) were restricted to gaps behind the timber soffit along the single-storey extension on the southwest corner of the building. Evidence of crevice-roosting species is typically hidden from view in areas such as gaps between tiles and internal linings/insulation and furthermore this section of roof did not have an accessible void.

6.1.4 The detached house is considered to be of low potential suitability for bats (see **Appendix 1** for potential suitability categories).

6.2 Assessment of Potential Roost Status

6.2.1 The potential crevice roost site in the building is considered to be suitable for use by typically crevice-dwelling bat species such as the abundant and widespread soprano

pipistrelle (*P. pygmaeus*) & common pipistrelle (*P. pipistrellus*) and the rarer Brandt's / whiskered bats (*Myotis brandtii* / *mystacinus*). The presence of a maternity colony is considered to be highly unlikely given the absence of visible roosting evidence together with the scale and nature of the feature observed.

- 6.2.2** The common pipistrelle (*P. pipistrellus*) and soprano pipistrelle (*P. 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 include a single storey front extension and second storey extensions to the southeastern and southwestern sides of the property.

7.1.2 The impacts of the proposals have been assessed in accordance with the mitigation hierarchy during construction and post development as follows:

Construction Phase

7.1.3 The development proposals will directly impact the potential bat roosting feature behind the timber soffit along the single-storey extension at the southwest corner of the building (**Photograph 9; Target note 3**). As such, the construction activities could therefore lead to direct/indirect disturbance, injury and/or death of bats if bats were found to be using these features.

Post Development

7.1.4 In the absence of mitigation and/or compensation, the development proposals could result in the permanent loss of bat roosts. The loss of a roost has potential to significantly affect the local distribution or abundance of a bat species, subject to its conservation status.

7.2 Conclusions

7.2.1 The development proposals cannot be altered to avoid the potential adverse effects on bats in the property. Therefore, further survey is recommended to determine the presence or likely absence of a bat roost(s) in the property, in order to be able to assess fully whether the development proposals will have an adverse effect on bats (see **Appendix 3** for further survey rationale). The recommended further survey is detailed in **Section 8.1** below.

8 RECOMMENDATIONS

8.1 Further Survey

- 8.1.1** One dusk emergence survey visit should be undertaken in the period of May to August. If roosting bats are present, then an additional emergence survey spaced at least three weeks apart from the initial visit will be carried out to enable the roost characterisation necessary to inform an impact assessment and mitigation strategy.
- 8.1.2** Once roost characterisation is complete, an impact assessment with reference to the mitigation hierarchy will be made. In cases where the adverse effects caused by the development proposals are unavoidable, an application for a European Protected Species (EPS) mitigation licence or the registration of the site under the Bat Mitigation Class Licence (BMCL) would be required to permit the work to proceed lawfully. An EPS mitigation licence or BMCL can be issued by Natural England if the three licensing tests (detailed in **Paragraph 3.3.1**) have been satisfied by the proposals.
- 8.1.3** To satisfy one of the licensing tests, it would be necessary to demonstrate that the 'favourable conservation status' of the bat species using the house is maintained during the construction phase and post development. A mitigation strategy setting out avoidance, mitigation, compensation and enhancement measures would be required to achieve this. Indicative and provisional measures are summarised in **Section 8.2** below.

8.2 Indicative Mitigation Strategy

- 8.2.1** Dependent on the findings of the further surveys and the impact assessment have demonstrated that an EPS mitigation licence or BMCL (if applicable) is required to permit lawful development, the commencement of construction activities impacting the bat roosts would be timed to avoid the periods when bats are most susceptible to disturbance, i.e. winter hibernation period if there is a reasonable likelihood of hibernating bats (mid-November to mid-March) and peak breeding season (May to August) if a maternity colony is present.
- 8.2.2** Alternative roost sites would be made available to bats prior to and throughout the construction phase by installing at least one woodcrete bat box (suitable for the type of roost/species present) on a suitable mature tree or a pole mount. The bat box should be positioned at least 3-4 metres from the ground, away from artificial lighting and sheltered from strong wind while being exposed to sunshine (usually south, south east or south west facing).

- 8.2.3** Before the commencement of construction activities impacting the bat roost (i.e. the licensable works), a licensed ecologist or 'Registered Consultant' under the BMCL would provide a toolbox talk to all contractors working on site detailing how bats use buildings, legal protection, working methods (i.e. soft demolition/roof strip by hand), actual and potential roost sites, actions to be taken if a bat is found and personal safety procedures.
- 8.2.4** A soft demolition/roof strip approach to the works affecting the bat roosts would be adopted, i.e. careful removal of roof coverings by gloved hands and handheld tools under the direct supervision of a licensed ecologist or 'Registered Consultant'. In the event that a bat is found during the course of the works, the licensed ecologist or 'Registered Consultant' would capture the bat and transfer it directly to a woodcrete bat box installed in advance.
- 8.2.5** Replacement bat access points and roost sites may need to be created and/or reinstated into the house as part of an EPS mitigation licence or BMCL site registration. This compensation should aim for like-for-like roost sites with access points corresponding as closely as possible to the previous locations.
- 8.2.6** Where access is provided for bats, a bituminous roofing felt that does not contain polypropylene/polyethylene filaments (e.g. bitumen felt type 1F) or a non-bitumen coated 'breathable' membrane that has passed the snagging propensity test (e.g. TLX 'Bat Safe') should be used; other non-bitumen coated membranes are harmful to bats and must be avoided.

9 REFERENCES

CIEEM (2019). *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 2** 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 2. 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 3** below.

Table 3. 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

