enims
Environmental Excellence

Project

Penn Farm, Bramshaw SO43 7JL

Preliminary Bat Roost Assessment Report

Project No

EC1929-01

Client

Austin Design Partnership

Date

May 2022

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Report consultants

Bat survey: Natalie Boote

Final Version completed by:
Natalie Boote ACIEEM

Technical check completed by:
Vicky Rusby ACIEEM

Project Manager Disclosure:

The advice which we have prepared and provided is true to the best of our knowledge and utilises information available at the time. The advice has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct.

Quality check completed by:
Nadia Smith

Date

May 2022

This Assessment is only valid for the named client and the project described. enims Ltd accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purpose for which it was commissioned. The assessment is only valid for a period ***of 12 months.*** *If the scope of works or timing of the project is altered the advice given in this report may not be valid.*

Contents

Summary

Enims Ltd have been commissioned to carry out a Preliminary Roost Assessment (PRA) of a residential dwelling located in Bramshaw, the New Forest, Hampshire (OS Grid Ref: SU 27595 16639). The preliminary assessment is to establish the presence or likely absence of bats, which are a protected species, and which may utilise the dwelling for roosting.

The proposed works include various ground and first floor alterations. Further works include conversion of roof space, replacement dormer window, new roof lights and installation of velux windows within the roof space to be extended.

Recently deposited bat droppings were found in the loft space and these will need to be sent off for DNA analysis to ensure the correct bat species are mitigated for. Gaps under raised tiles and missing mortar between ridge and hip tiles provide potential access points for roosting bats. Loose hanging tiles provide potential roosting features for bats as well as gaps underneath lead flashing.

It is concluded that the building is a confirmed active bat roost, as evidence of bat activity in the roof void, in the form of bat droppings, was present. The proposed development will impact the roof structure and, there is therefore, a significant risk of adverse impacts to roosting bats in the absence of appropriate mitigation for the current proposals.

The site has high potential for foraging and commuting bats as the site contains gardens with hedgerows and trees present within the site connecting to open fields and paddocks, parcels of woodland and the New Forest SSSI.

Insensitive lighting may disrupt bat activity such as foraging and commuting. Therefore, during development, all site security lighting should be motion sensitive and directed away from surrounding habitats to prevent disturbance to bats emerging from roosts both on site and nearby and/or foraging and commuting in the surrounding area.

A bat sensitive lighting scheme should also be implemented during the operation of development as well as after the development. Measures should include low-intensity lighting with very little or no UV light, zero upward spill. Low level lighting and directional lighting angled away from foraging and commuting areas and buildings with roosting potential.

Further surveys are required to determine which species of bats are using the site and building and to determine the character of the roost identified during the PRA. This should include three emergence/re-entry bat surveys, at least two of which should be conducted May through August.

Further Survey Effort/Ecology Requirements

The dwelling at Penn Farm is a confirmed bat roost and further surveys are required to determine the character of the roost, species of bats using the site and to identify if any further roosts are present. Two dusk emergence surveys and one dawn survey will need to be carried out, at least two weeks apart between May and September (inclusive), with two of these surveys before August. The results from the surveys will provide the relevant information to mitigate the impacts on bats and their roosts. This information is needed before applying for a European Protected Species Mitigation Licence for bats. A licence will be needed before works can take place.

Bat records will need to be ordered from the local bat group and bat droppings collected during the PRA will need to be sent for DNA analysis.

Should proposals change and conversion of the roof space impact other roofs or roof voids of the building, these will need to be inspected for evidence of bats.

1 Introduction

1.1 Context and Site Description

enims Ltd were commissioned in May 2022 to undertake a preliminary roost assessment at Penn Farm, as proposed designs indicated alterations to buildings which may provide potential roosts for bat species. As all native bat species are considered material planning considerations, which must be accounted for before a planning decision is made, it is necessary to establish their presence or likely absence prior to the removal of, or alterations to, any buildings which may potentially act as roosts. For this reason, internal and external inspections were conducted.

The proposed alterations are to the main residential dwelling at Penn Farm and involve various ground and first floor alterations. Further works include the conversion of roof space, replacement dormer window, new roof lights and installation of velux windows within the roof space to be extended.

The site is a large house with associated gardens located in the small village of Bramshaw within the New Forest, Hampshire (Figures 1 and 2, Appendix A) (OS grid reference SU 27595 16639). The village is within the New Forest National Park, designated as a SSSI, and is surrounded by Ramsar sites, Special Areas of Conservation (SACs), Special Protection Areas (SPAs), parcels of ancient woodland and Priority Habitats, including: Woodpasture and Parkland, Deciduous Woodland, Lowland Dry Acid Grassland, Purple Moor Grass and Rush Pasture, Coastal and Floodplain Grazing Marsh, Lowland Fens and Lowland Heathland.

1.2 Project Overview

The proposed works include various ground and first floor alterations. Further works include the conversion of roof space, replacement dormer window, new roof lights and installation of velux windows within the roof space to be converted.

Second floor plans are still to be finalised after further structural surveys.

1.3 Legislation and Policy Context

All native bat species are fully protected under nature conservation legislation. Protection is afforded under Section 9 of the Wildlife and Countryside Act 1981 (as amended) through the species' inclusion under Schedule 5.

All native bat species are also defined as European Protected Species (EPS) through inclusion in Schedule 2 of The Conservation of Habitats and Species Regulations, 2017 (as amended) / Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (commonly referred to as the Habitats Regulations); the UK implementation of the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora.

In brief, these legislative instruments make it an offence to deliberately or recklessly capture, injure, or kill any bat. Roosts are protected from damage or destruction. Furthermore, it is an offence to deliberately disturb a bat, whether roosting or otherwise.

In addition, the following native bats are identified as Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities Act 2006:

- Barbastelle Bat - *Barbastella barbastellus*
- Bechstein's Bat - *Myotis bechsteinii*
- Noctule - *Nyctalus noctula*

- Soprano Pipistrelle - *Pipistrellus pygmaeus*
- Brown Long-eared Bat - *Plecotus auritus*
- Greater Horseshoe Bat - *Rhinolophus ferrumequinum*
- Lesser Horseshoe Bat - *Rhinolophus hipposideros*

Hampshire Biodiversity Action Plan species of bat include barbastelle, Bechsteins, common pipistrelle (*Pipistrellus pipistrellus)*, greater horseshoe bat, grey long-eared bat (*Plecotus austriacus)* and serotine (*Eptesicus serotinus)*.

1.4 Local Policy

The National Planning Policy Framework (Department of Communities and Local Government, 2021) requires local authorities to avoid and minimise impacts on biodiversity and, where possible, to provide net gains in biodiversity when making planning decisions: "*The planning system should contribute to and enhance the natural and local environment protecting and enhancing valued landscapes and minimising impacts on biodiversity and providing net gains in biodiversity*".

Other planning policies at the local level which are of relevance to this development include the New Forest National Park Authority with the New Forest National Park Local Plan 2016-2036 Policy SP6 The Natural Environment:

"Proposals should protect, maintain and enhance nationally, regionally and locally important sites and features of the natural environment, including habitats and species of biodiversity importance, geological features and the water environment. Development which is likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) will not be permitted. Only where the benefits of the development clearly outweigh both the impacts on the special interest features of the SSSI and on the broader national network of SSSIs will an exception be considered.

Development proposals which adversely affect locally designated sites, priority habitats and species populations, protected species or those identified of importance by national or local biodiversity plans will be refused unless the Authority is satisfied that: a) it has been demonstrated that suitable measures for mitigating adverse effects will be provided and maintained in order to achieve a net gain in biodiversity value b) there are no alternative solutions c) there are overriding reasons which outweigh the harm. In cases where it is not possible to fully avoid or mitigate for the loss of biodiversity interests resulting from a development, appropriate compensation will be secured for any residual losses via on or off-site compensation measures. The latter may include the provision of compensatory habitats elsewhere. In addition, opportunities to enhance ecological or geological assets and the water environment should be maximised, particularly in line with the Authority's 'Action for Biodiversity' . Applicants will be required to demonstrate the impacts of their proposal on biodiversity, and for certain types of development by submission of an Ecological Appraisal, which should outline the mitigation and enhancement measures needed to achieve a net gain in biodiversity".

2 Methodology

2.1 Desk Study

A desk study was carried out to determine if any Mitigation Licences for Bats have been granted within 2km of the site. European Protected Species Mitigation licences for bats were searched for using the Multi-Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk). Aerial photographs were reviewed to identify any habitats surrounding the site, or wildlife corridors connecting the site to other habitats.

Records of bat species within the site and up to 5km from the site boundary, were obtained from NBN Atlas website (www.nbnatlas.org)

Scientific names are given following the species first mention. Thereafter, only common names are used.

2.2 Site Survey

The aim of the inspections was to gather evidence to determine whether the building either had the potential to support bat roosts or showed direct indication of current/previous use by roosting bats. All surveys were carried out in strict accordance with Good Practice Guidelines published by the Bat Conservation Trust (Collins 2016).

During the survey, a search was made for direct evidence of bat activity, such as corpses, droppings, urine stains and scratch marks. Potential access points, particularly those free of cobwebs and other obstructions, were also recorded, irrespective of whether there was direct evidence of use in the vicinity. Equipment included high-powered torches, endoscopes and binoculars.

The survey was carried out on 10 May 2022.

2.3 Impact Assessment and Approach to Mitigation

The potential for protected species presence was based on the following criteria:

- **Present** – Confirmed presence through first hand survey evidence or recent verified records
- **High Potential** – Local records highlight presence in the local vicinity. The site and immediate surrounds support good quality habitat or good connectivity to such habitat
- **Moderate Potential** – Habitat within the site provides key elements for any species or species group, although may be limited by factors including habitat area, isolation or disturbance. Desk study records highlight presence in proximity to site
- **Low Potential** – On-site habitat is of low or moderate quality for any species or species group, lacking key elements and limited by factors including habitat fragmentation and habitat area. Few or absence of local records, but within national distribution and thus cannot be completely discounted.
- **Negligible Potential** – Habitats within the site are very poor quality or completely absent for any species or species group. Desk study records are absent, the site is outside of the normal range of the species or species group, and the surrounding habitat is unlikely to support wider populations. Presence cannot be completely ruled out but it is considered ‘reasonably unlikely’ to support any species or species group.

When assigning a level of bat roosting potential (negligible, low, moderate or high) to a feature, the descriptions in Table 1 were considered.

Table 1. Criteria for the potential of features and habitats to support roosting and foraging/commuting bats (Collins 2016).

Suitability	Description of roosting habitat	Commuting or foraging habitat
Negligible	Negligible habitat features on-site likely to be used by roosting bats	Negligible habitat features on-site likely to be used by commuting or foraging bats.
Low	A structure with one of more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e., unlikely to be suitable for maternity or hibernation. A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gapped hedgerow or un-vegetated stream, but isolated, i.e., not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, protection, conditions and surrounding habitat.	Continuous, high quality habitat that is a well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses ad grazed parkland. Site is close to and connected to known roosts.

2.4 Personnel

The survey was undertaken by Natalie Boote consultant ecologist at enims Ltd. Natalie holds a Level 2 Bat Licence and is experienced in bat ecology and field survey techniques.

3 Survey Results

3.1 Desk Study

Results from MAGIC Maps identified granted mitigation licences:

- 2014 – Unknown - Common pipistrelle - 0.8km southwest of the site.
- 2014 - Destruction of resting place - brown long eared bats and common pipistrelle bats - ~0.9km northwest of the site.
- 2018 - Damage of the breeding and resting site and destruction of resting site - serotine, noctule, soprano pipistrelle, common pipistrelle and brown long-eared bat - ~0.9 km south of the site.

NBN returned results for common pipistrelle, soprano pipistrelle, and serotine present within the last 10 years, within a 5km radius of the site.

3.2 Site Survey

3.2.1 Building 1

The residential dwelling at Penn Farm is constructed from red brick, with cladding of hanging tiles and weatherboarding with clay roof tiles (Photographs 1-3, Appendix B). Overall, the building is in good condition, although several tiles were raised on the roof and small areas of mortar missing from the ridge and hip lines provided potential access to bats. Further potential roosting features and access points were identified under raised lead flashing and broken hanging tiles.

The roof void inspection was of the void in the southern roof space of the dwelling. This extends to the north and west of the attic room with the dormer window and is interconnected but not linked through to other roof spaces of the dwelling. The roof void inspected had fibreglass insulation on the floor (Photograph 4, Appendix 2). The majority of the roof was lined with Bitumen Felt, apart from a small section to the southwest of the loft space, which was lined with timber (Photograph 5, Appendix 2). Approximately 150 relatively fresh bat droppings were identified in this area (Photograph 5, Appendix B) with a further 50 (approx.) smaller bat droppings a few feet north from these.

The building has evidence of bats present within the roof void and further high potential for roosting bats under roof tiles, hanging tiles, ridge tiles, hip tiles and under raised lead flashing.

Further roof voids are present but were not inspected. Should proposals change, further voids may need an inspection.

Confirmed Roost and High Potential for roosting bats.

4 Assessment and Recommendations

4.1 Discussion

It is concluded that the residential dwelling has a **confirmed bat roost** as well as **high potential** to support additional active bat roosts, as evidence of bat activity, and further roosting features were present. Should proposals change and impact other roofs or roof voids of the building, these will need to be inspected for evidence of bats.

4.2 Potential Impacts of Proposed Works

There is high potential for bats to be killed or injured and roosts lost or destroyed as a result of the works associated with the current plans.

There is high potential for foraging and commuting bats on site. Insensitive lighting may disrupt bat activity such as foraging or commuting.

4.3 Further Survey Requirements

The residential dwelling has potential roost features which may be accessed by bats. The dwelling will need two dusk emergence and one dawn re-entry survey, at least two weeks apart between May and September (inclusive) with two of these being before August. Results from surveys will provide the relevant information needed when applying for a European Protected Species Licence for bats. A licence will be needed before works can take place.

Should proposals change and impact other roofs or roof voids of the building, these will need to be inspected for evidence of bats.

4.4 Mitigation Requirements

Further surveys are required due to the **high potential** for adverse impacts to bats from the proposed works. The further surveys will clarify the bat species and numbers/roost type(s) present within the confirmed roost and will also determine the presence or likely absence of additional bat roosts on site. Further surveys will consist of two dusk emergence and one dawn re-entry survey between May and September, at least two of which must be conducted before August, as this is the peak activity season for maternity roosts.

4.5 Information on European Protected Species Mitigation Licences

As the building is a confirmed bat roost, a European Protected Species Mitigation Licence from Natural England will be required, and as such, it is important to provide information on the procedure this entails.

The licence will be required before any work to the buildings can commence and a licence can only be approved by Natural England after planning permission has been granted by the Local Planning Authority for the proposed development. A comprehensive mitigation and compensation package will be necessary to demonstrate to the local planning authority and Natural England that bats will be protected in the short, medium, and long term at this site.

It is important to recognise that in the UK all bat species and their roosts are legally protected, by both domestic and European legislation. In England and Wales, the relevant legislation is the Wildlife and Countryside Act (1981) (as amended); the Countryside and

Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and the Conservation of Habitats and Species Regulations 2017 (as amended).

This means that a criminal offence will be committed if someone:

- Deliberately captures, injures or kills a bat
- Intentionally or recklessly disturbs a bat in its roost or deliberately disturbs a group of bats
- Damages or destroys a bat roosting place (even if bats are not occupying the roost at the time)
- Possesses or advertises/sell/exchanges a bat (dead or alive) or any part of a bat
- Intentionally or recklessly obstructs access to a bat roost.

It is not anticipated that the above offences will apply to this project when a full mitigation and/or compensation programme is implemented, but it is important to recognise that in this case, work can only proceed once the necessary licence is in place. In determining whether or not to grant a licence, Natural England must apply the requirements of Regulation 535 of the Conservation of Habitats and Species Regulations 2017 (as amended) which are:

1) “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”.
2) “the appropriate authority shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”.
3) “the appropriate authority shall not grant a licence unless they are 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.”

A mitigation methods statement and reasoned statement accompanying the licence application will need to provide the information necessary to allow Natural England to assess these conditions. The application approval process by Natural England takes a minimum of 30 days to complete and is chargeable by Natural England.

4.6 Ecological Enhancements

Ecological Enhancements are required by the Local Planning Authority to ensure any development benefits biodiversity. Examples include:

- Installation of insect hotels to provide habitat for insects
- Installation of bat and bird boxes on trees and outbuildings

Biodiversity Net Gain

Biodiversity Net Gain is a developmental approach aiming to leave biodiversity in a better state than how it was found. It encourages developers to take appropriate ecological measures, in attempt to prevent biodiversity loss through development, and restore ecological networks. Biodiversity enhancements should be incorporated into developmental plans from an early stage, as advised by the ecologists. Examples include:

- Planting/gapping up hedgerows with native species such as hawthorn *(Crataegus monogyna)*, blackthorn (*Prunus spinosa)*, hazel (*Corylus avellana)*,

rowan (*Sorbus aucuparia)*, crab apple (*Malus sylvestris)* and dogwood (*Cornus sanguinea)*.

- Creation of a wildlife pond.
- Leaving areas of grassland un-mowed to provide habitat for wildlife.
- Planting a variety of native species-rich flowers/shrubs recommended for pollinators throughout the seasons.
- Planting of native flowers/shrubs to support local biodiversity action plan species, such as food plants for butterflies/moths and caterpillars.

4.7 Data Constraints

The data is valid for 12 months from the date of the PRA report. There were no factors such as unfavourable weather conditions which detracted from the gathering of data.

5 Conclusion

The residential dwelling has evidence of bats within the loft space, as well as further features suitable for bat roosts. It is, therefore, a confirmed bat roost and has high suitability for additional roosting bats. Further surveys are required to determine which species of bats are using the site and building and to determine the character of the roost identified during the PRA. These surveys are to be carried out between May and September, with two of these before August. The surveys will involve two dusk emergence surveys and one dawn re-entry survey.

The on site habitat has high potential for commuting and foraging bats. Lighting should be carefully considered during and after construction so as to avoid disruption to bats.

A European Protected Species Mitigation Licence for bats will need to be granted by Natural England before any works commence to the dwelling.

6 References

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd ed.). Bat Conservation Trust, London.

Mitchell-Jones, A. J.(2004). *Natural England Bat Mitigation Guidelines*. English Nature. Peterborough.

Multi-Agency Geographic Information for the Countryside (MAGIC). www.magic.gov.uk Accessed 18.05.22.

National Biodiversity Network Atlas. www.nbnatlas.org. Accessed 18.05.22

New Forest National Park Authority. (2016). *New Forest National Park Local Plan 2016-2036.* Adopted 2019.

Appendix A: Aerial Photographs of Site (QGIS 2022).

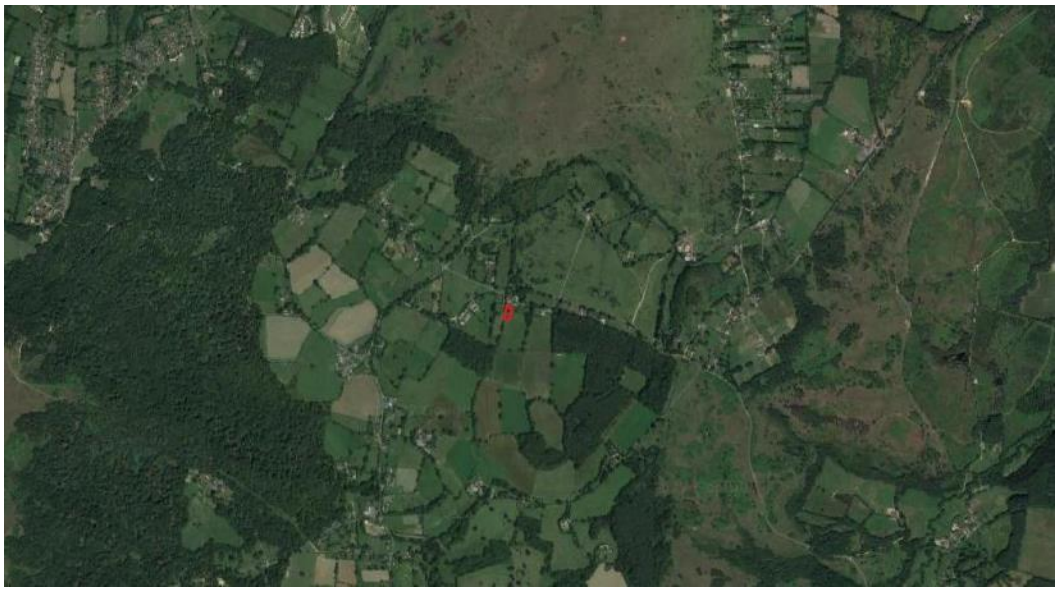

Figure 1. Far view of site location (red square) shown in relation to surrounding area of New Forest.

Figure 2. Near view of site location (red line) shown in relation to surrounding habitat.

Appendix B: Site Photographs

Photograph 1.
South aspect of residential dwelling showing single dormer window of attic room

Photograph 2.
West aspect of residential dwelling with gaps under hanging tiles, next to chimney, into the roof space

Photograph 3.
Southeast of the dwelling

Photograph 4.
Loft space north of attic room

Photograph 5.
Loft space west of attic room where roof space will be converted

Photograph 6.
Bat droppings found in loft space west of attic room

Photograph 7.

Current attic room with single dormer, facing west towards proposed conversion of roof space

Photograph 8.

Current attic room with single dormer facing east towards proposed velux window