Preliminary Bat Roost Assessment & breeding birds survey

Site: Avenue Farmhouse, Hurst Green

29th May 2024

CLIENT:

AW+A Architects on behalf of
Mr D Chippendale

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Summary

This report presents the results of a daylight preliminary bat roost assessment (PRA) undertaken on 28th May 2024, at Avenue Farmhouse, Hurst Green, Lancashire. The work has been commissioned in connection with a proposed planning application.
The scope of the survey has primarily considered roosting and hibernating bats, breeding birds and barn owls.

The survey has identified that there is **negligible** roosting habitat for bats in the building surveyed, and therefore no further surveys are recommended. No evidence of nesting birds was found in the structure to be renovated, but the surrounding garden has good quality habitat for birds and therefore some mitigation will be required for habitat loss.

Further surveys and recommendations:

Bats
No further surveys, are required. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted to seek further advice. Should work be required on the roof or other areas of the existing building further survey will be required. Enhancements as recommended at 4.2
Birds
Any building or tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and scrub to be removed should be undertaken by a suitably qualified ecologist, immediately prior to clearance. All active nests will need to be retained until the young have fledged. Clearing the Site outside this timeframe avoids delays and further costs.

For full justification of these recommendations, please go straight to section 4.0 Conclusions, Impacts and Recommendations. Otherwise, the full report starts below.

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1.0 Introduction and Context

1.1 Background

Carol Edmondson of Ark Ecology was commissioned by Andrew Wolstenholme on behalf of his client to carry out a Preliminary Bat Roost Survey (PRA) at Avenue Farmhouse, Hurst Green, Lancashire in May 2024.

The survey building was a two-storey detached residential dwelling, with a small lean-to shippen, the subject of the planning application, and is outlined at appendix 1 and fig.2.

From this point forward, the land encompassed by the red-line boundary of the survey map (appendix 1) is termed '**the Site**'.

1.2 Context

A bat survey has been deemed necessary to support a planning application due to the nature of the proposed building and location of the Site. In addition, the presence or absence of barn owl *Tyto alba* and nesting birds has been taken into consideration, along with other local wildlife.

1.3 Scope of the report

This report provides a description of all features suitable for roosting bats and evaluates those features in the context of the Site and wider environment. It further documents any physical evidence collected or recorded during the Site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve planning or other statutory consent, and to comply with current wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the Site. Due to the transient nature of bats, this report is not able to definitively ascertain the absence of bats, rather the absence of *evidence* of use by bats either prior to or at the time of the survey.

To achieve this, the following steps have been taken:

- A desk study has been carried out, including information from local wildlife groups & MAGiC website
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing where appropriate.

A survey plan is presented in Appendix 1, the proposed Project Plan is included in Appendix 2 (where available), desk study results are provided in the Appendix 3.

The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2023).

2.0 Methodology

2.1 Desk Study methodology

Desk and internet-based resources were used to obtain background information about known bat habitat and occurrences in an approx. 2km surrounding radius.

The resources used for the desk study were as follows:

- Google Earth Pro (http://earth.google.co.uk) for aerial photographs
- Multi-Agency Geographic Information for the Countryside (MAGIC) collaborative database website (http://magic.defra.gov.uk/MagicMap.aspx), for information on statutory designations.

2.2 Site Survey methodology

All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable for signs of bat activity by non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made where possible, including areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope & torch. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

2.3 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2023). The features that dictate the likelihood of roosting bats are summarised in Table 1 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g., mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g., broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g., river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

2.5 Limitations – evaluation of the methodology

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete description of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study.

- There were no limitations to the survey.

3.0 Results and Evaluation

3.1 Desk Study Results

- The desk study includes a 2km buffer zone surrounding the Site.
- The Site is located at National Grid Reference SD 68271 38417

3.1.1 Designated sites & Priority habitats

Designated sites:

- The site lies within the Forest of Bowland National Landscape.
- There are no further designated sites within the 2km study area.

Priority habitats:

- Ancient and Semi-Natural Woodland, Wood Pasture & Parkland & deciduous woodland within the study area, the latter adjacent to the west and Wood Pasture to the east.

3.1.2 Landscape

A review of the designated sites, aerial photographs (Figure 1), the Magic database (App. 3) and OS maps has been carried out. The Site and its surrounding landscapes' relevance to bat habitat is described as being located to the north of the village of Hurst Green on the edge of the grounds of Stonyhurst college, adjacent to deciduous woodland and Dean brook connecting the site through the surrounding farmland to the woodland pockets in the wider landscape. These features along with the wider rural landscape of pasture and meadows with hedges, and small areas of deciduous woodland form good quality commuting and foraging habitat for bats.

Figure 1: Aerial photo of site, showing surrounding landscape structure.

3.1.3 Historical records

A search of the magic database returned one granted European Protected Species Mitigation Licence (EPSMLs) records for the destruction of a resting place for common pipistrelle bats within a 2km radius of the survey site.

There are known breeding (maternity) roosts in the village and the college itself for both common & soprano pipistrelle species, brown long-eared bat and myotis species (East Lancs Bat Care, May 2024)

3.2 Field Survey Results

The survey was undertaken on 28th May 2024 by Carol Edmondson (Natural England bat licence number: **2015-12195** CLS-CLS), an MSc qualified ecologist with 12 years' experience in bat and ecology surveys, and local bat group volunteer.

The survey was carried out using a high-powered torch, binoculars and endoscope where necessary. The proposals include for the demolition of a small annex on the south gable of the building. The entire exterior of the dwelling was surveyed for potential bat roosting features, to ensure no disturbance will be caused to bats by the proposed works.

There were two survey buildings on the site, illustrated in the map in Appendix 1. The environmental variables recorded at the time of the survey are shown in Table 2.

Table 2: Environmental variables during the survey

Date: 28/05/2024	
Temperature	12°C
Cloud Cover	90%
Wind	2 km/h
Rain	Light drizzle

3.2.1 Site Feature descriptions and photos

Building Description The main survey building (B1) is a detached former farmhouse with mature gardens, within a woodland setting. Traditional stone built, with dual pitched blue slate roof. The lean-to shippen is a low gradient single pitch roof of blue slate. An additional building (B2) is a former car port/wood shed with corrugated roof sheets, and sides.	 Photo 1: Overview of the site.
Potential roosting features: The main farmhouse building was in a reasonable state of repair with no gaps to the wall or cracks that could be used by bats for roosting. The fascia and barge boards were all close fitting, with no suitable roosting features. The roof slates were all close fitting with no gaps or slipped tiles. The ridge tiles were well sealed with no access gaps visible.	 Photo 2: Northeast elevation of the house.

The timber window frames are well weathered, but all glass was intact, and frames close fitting. The gable end eaves were well sealed and in good order with no gaps or cracks.	 Photo 3: Southeast gable end showing eaves, roof tiles and ridge in good order.
Overall, there were no gaps or crevices that could be used by bats for roosting in the main building.	 Photo 4: Southwest elevation showing timber framed windows.

Single storey lean-to shippen: The low pitched single storey lean-to on the northwest elevation had some missing mortar to the rear elevation, but on examination by endoscope did not provide deep enough crevices suitable for any bat species. A couple of roof tiles had slipped, but again were not forming suitable gaps for use by bats and taken into account with the shallow gradient of the roof, were not considered suitable bat roosting features.	 Photo 5: low-angled single pitched roof on the northwest gable end lean-to..
Internally: There was an accessible roof space off the landing to approx. 50% length of the building to the south east gable end. There were no signs that bats had used this space for roosting or feeding i.e no droppings, urine stains or feeding remains. The ceiling was underdrawn and plastered, with the occasional hole.	 Photo 6: Main dwelling showing traditional stone slates and timber facias with potential for bat roosting.

Carport (B2)

Located just inside the entrance and off the driveway was a timber framed car port, clad in corrugated plastic and metal sheets. This has become overgrown with ivy, and although there were no suitable roosting spaces for bats, the ivy could be used by small birds as a nesting place.

Photo 7: Timber framed carport, clad in plastic and aluminium corrugated sheets and overgrown with ivy.

Evidence of bats

There was no evidence of bats historically or currently using this building as roosting habitat i.e. no droppings, urine stains or grease smudge marks either internally or externally.

Breeding birds and other incidental observations

The garden provides good quality nesting habitat for birds in the surrounding hedges and shrubs, and mature trees on-site.

Photo 8: Hedgerow and shrubs providing good bird nesting habitat in the garden of Avenue Farmhouse.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

Bats and their roosts are protected under the Wildlife and Countryside Act and Conservation Regulations; see Appendix 3 for a summary of legislation protecting bats in the UK. Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

4.2 Evaluation

Taking the desk-based assessment and site survey results into account, the following value for roosting bats has been placed on The Site.

Table 3: Evaluation Summary for presence of bats

Survey assessment conclusions	There is suitable bat foraging habitat in the proximity of this site, and records within the 2km study area. However, taking into account the lack of potential roosting features as described above, the surveyor considers that the building has a **negligible** likelihood of supporting roosting bats.
Foreseen impacts	There is a negligible risk that bats could be injured or killed during the building process.
Recommendations	No further surveys. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted to seek further advice.
Enhancements *The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99*	The installation of a bat box on the building when finished will provide additional roosting habitat for bats in the area e.g. Local supplier: • Greenwoods Ecohabitats • https://www.greenwoodsecohabitats.co.uk/bats • Kent Bat Box (timber). Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance. • Cavity bat boxes are also a good option in new construction for example available from: https://www.nhbs.com/ib-vl-05-vivara-pro-build-in-woodstone-batbox?bkfno=252213

Table 4: Evaluation Summary for presence of breeding birds

Survey assessment conclusions	The site surroundings include suitable habitat for nesting birds, but none within the impacted building.
Foreseen impacts	Active nests could be destroyed during building/vegetation removal. Any works which affect The Site could have an impact on nesting birds.
Recommendations	Any building/tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and scrub to be removed should be undertaken by a suitably qualified ecologist, immediately prior to clearance. All active nests will need to be retained until the young have fledged. Clearing the Site outside this timeframe avoids delays and further costs.
Enhancements *The Local Planning Authority has a duty to ask for enhancements under the NPPF and circular 06/2005: Biodiversity and Geological Conservation. Para.99*	Install a minimum of 2 bird boxes on site, on an existing tree or building e.g. • Good quality timber nesting box with hole protection • Schwegler 1B nest box • Schwegler 2H Robin box Regular nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. House martin/swallow/swift boxes should be placed under the eaves with clear entrance/exit paths, ideally on the west elevation.

5.0 References

- Andrews H and Gardener M 2016, *Bat Tree Habitat Key – Database Report 2016.* Bridgewater:AEcol.
- Andrews H *et al.* 2016. *Bat Tree Habitat Key,* 3rd edn. Bridgewater: AEcol
- Bat Conservation Trust: http://www.bats.org.uk/
- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 4th edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth Pro (2024)
- Magic database (2024) http://www.magic.gov.uk/MagicMap.aspx
- Mitchell-Jones, A.J. (2023). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan

Appendix 2: Proposed Site Plan

Not yet available

Appendix 3: Desk Study Information

MAGIC

2km Desk study area