Preliminary Bat Roost Assessment

Site: 13, Leys Close, Wiswell, Lancashire

6th December 2021

CLIENT:

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Summary

This report presents the results of a daylight potential bat roost assessment (PRA) undertaken on December 3rd 2021, at 13 Leys Close, Wiswell. The work has been commissioned in connection with a proposed planning application to add an extension to the property.
The scope of the survey has primarily considered roosting and hibernating bats, breeding birds and barn owls.

The survey outcome has identified that there is negligible potential hibernation and roosting habitat on site for bats, and no further surveys are recommended. The site is not suitable for use by barn owls, but the surrounding habitat provides nesting and foraging habitat for birds.

Recommendations - This is work you will need to commission to obtain planning permission or comply with legislation for other consent.

Recommendations: Bats
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.
Recommendations: Birds
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 vegetation 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. In addition any new hedge planting in the landscaping following the work should include native berry producing species, and the recommended enhancements implemented once the construction work is complete.

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 Mr James Ainsworth to carry out a Potential Bat Roost Survey (PRA) of the dwelling at 13 Leys Close Wiswell on the 3rd December 2021.

Hereafter within this report, the land encompassed by the red-line boundary of the survey map (appendix 1) is termed '**the Site**'.

1.2 Context

The survey is in support of planning application no. 3/2021/1169, and was deemed necessary due to the nature of the proposed works and location of the site. In addition, the presence or absence of Barn owl 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
- An enquiry to East Lancs Bat group to determine the local bat records.
- 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 if 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 and a summary of relevant legislation can be found in Appendix 4.

The assessment is informed by the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

2.0 Methodology

2.1 Desk Study methodology

Prior to attending the Site, 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.
- Local bat care group for knowledge on known local roosts.

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 and for signs of bat activity.

For any surveyed buildings:

A 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, 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 *Tyto alba*.

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) 2016). 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 characterisation 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.

- The survey was carried out outside the main activity season for bats (Mid-May to September being deemed the main activity season) and the conclusions drawn are based on the range of evidence available at the time of 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 74926 37548.

3.1.1 Designated sites

The Site itself is not within any designated areas, but is within the Impact Risk Zone of Light Clough Site of Specific Scientific Interest (SSSI), and 350m East of the Forest of Bowland AONB boundary. The development will not impact the SSSI.

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 below:
The site is in a rural location on a development of similar properties at the eastern edge of the village of Wiswell. The Site backs on to an area of deciduous woodland, which is in turn connected by the hedges and small woodland and scrub at the base of Wiswell Moor and the surrounding farmland. The nearby becks and brooks with associated deciduous woodland at Light Clough to the east, and ancient deciduous woodland at Spring Wood to the southwest offer good foraging habitat for bats in the immediate landscape, with good quality habitat linking the site along the stream banks and hedgerows. The wider rural landscape of pasture and meadows with hedges, and small areas of deciduous woodland could also be used for roosting, foraging and commuting by bats.

3.1.3 Historical records

A search of the magic database shows one granted European Protected Species Mitigation Licences (EPSMLs) within a 2km radius of the survey site. This licence was to destroy the resting place of common pipistrelle *pipistrellus pipistrellus*.

Local bat care group records also show the presence of both common and soprano pipistrelle species and records of *Myotis* bat species within the 2km buffer zone of The Site. This confirms the presence of these bats within the survey area but does not exclude the presence of other bat species.

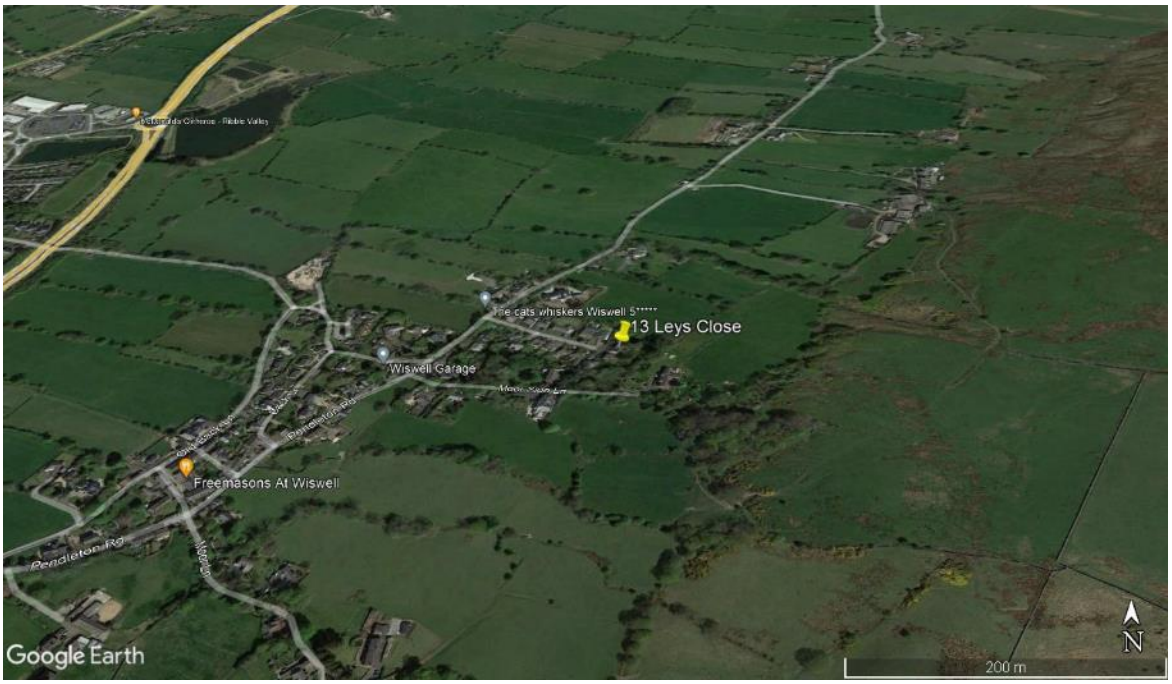


Fig.1 Aerial view showing the landscape around the Site

3.2 Field Survey Results

The survey was undertaken on 3/12/2021 by Carol Edmondson (Natural England bat licence number: **2015-12195** CLS-CLS), an MSc qualified ecologist with 9 years' experience in specific bat habitat surveying.

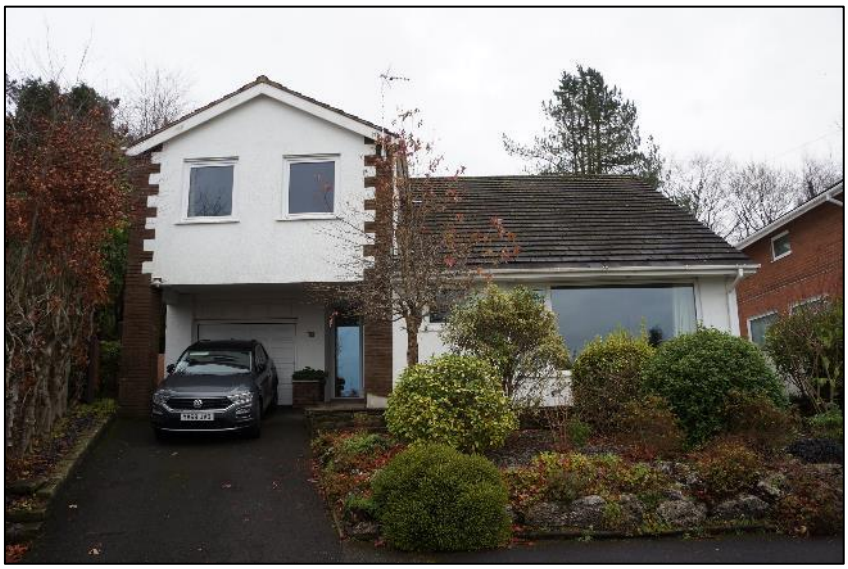
The survey was carried out using a high-powered torch, binoculars and endoscope where necessary.

There is one survey building on the site which is 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: 3/12/2021	
Temperature	4°C
Cloud Cover	80%
Wind	4 km/h
Rain	0

3.2.1 Site Feature descriptions and photos

Building Description The survey building is a residential dwelling of standard brick build with cavity walls. The majority of the wall finish is painted render and are in a sound condition with no cracks or missing mortar offering roosting opportunity. This two-storey building is in an "L" shaped layout with an overhanging dorma style elevation over the front entrance, cutting into a cat-slide roof pitch from the rear (east). All windows and doors are uPVC, close fitting and in a good state of repair, with no gaps or cracks.	 Photo 1: West elevation of 13 Leys Close, uPVC windows and doors, overhanging "dorma" over entrance.

The roof is laid with standard cement tiles which are in a reasonable state of repair, showing no gaps, cracked or slipped tiles, and a reasonable covering of moss.

The ridge tiles and mortar are in a good state of repair with no visible gaps.

All roofline soffits and fascias are in uPVC and close fitting, and although the more shaded sections have algae growth, are well maintained with no gaps or cracks.

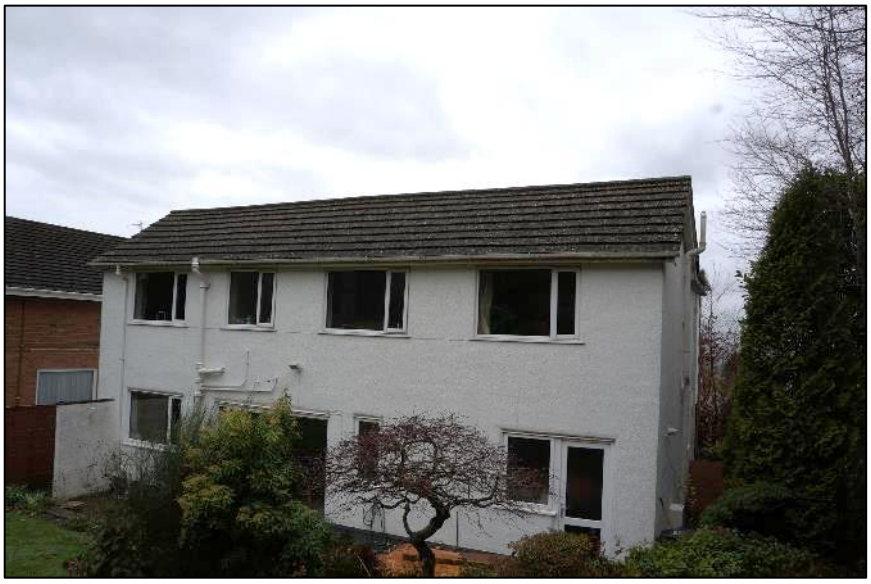


Photo 2: Rear (east) elevation, with the roof ridge running north-south.

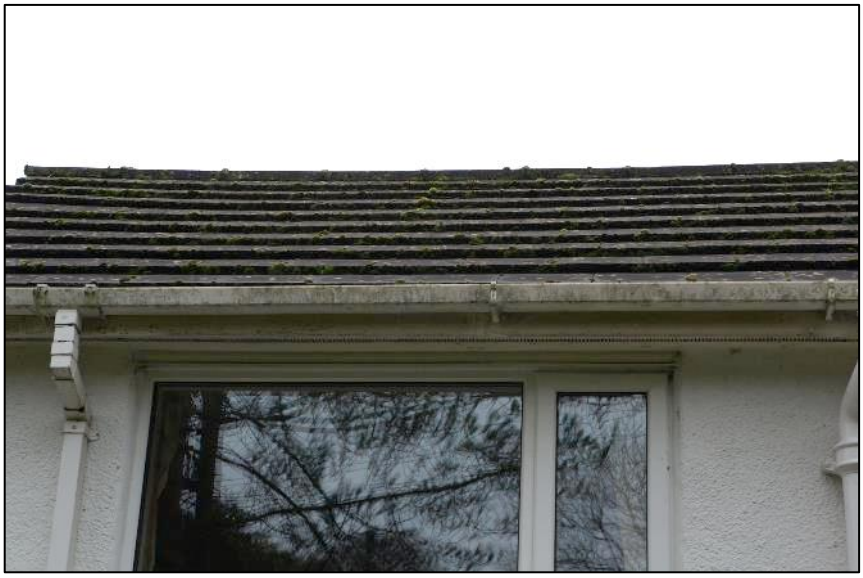
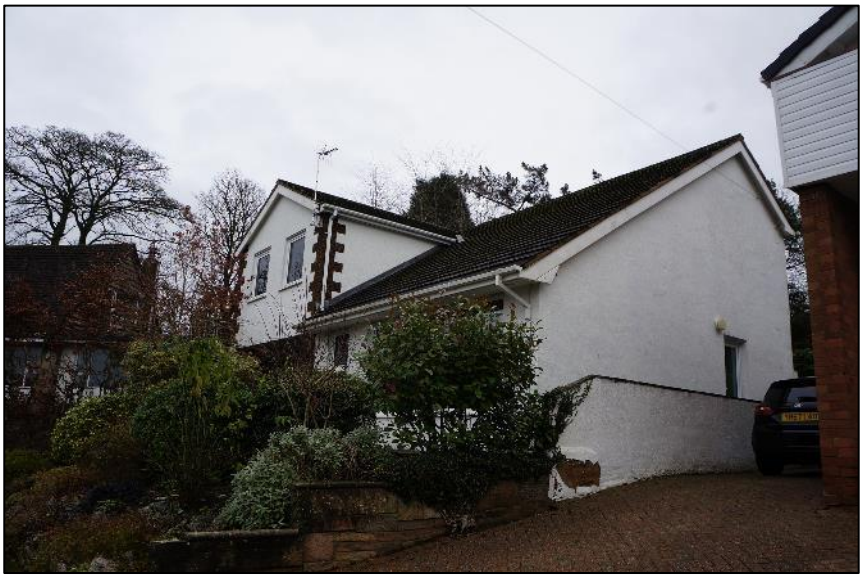
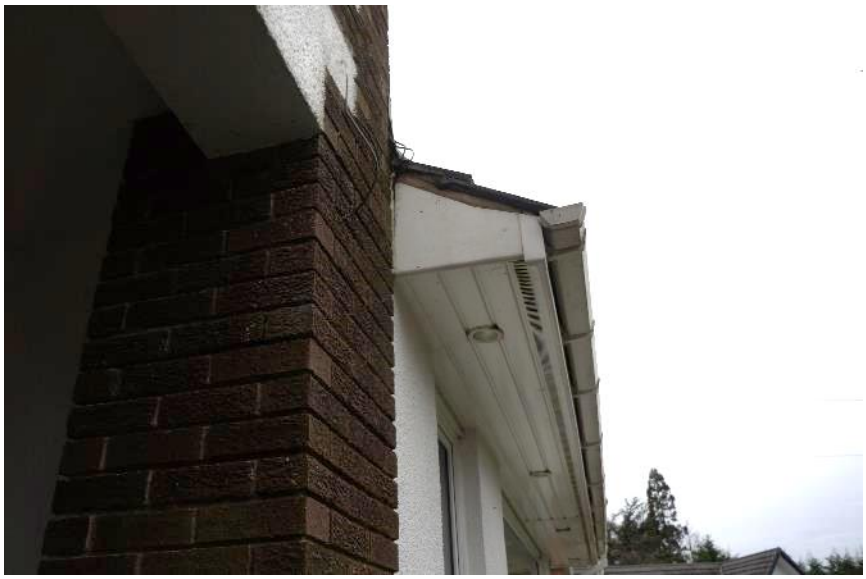


Photo 3: Close-up of roof and roofline materials.

Leadwork around the dorma is in a good state of repair and close fitting.	 Photo 4: South and west elevations showing roof layout.
	 Photo 5: uPVC soffits and guttering on front (west) elevation..

Interior.

There is a loft space running north - south the full length of the building. The roof is lined with a breathable membrane, which is in an excellent state of repair, no daylight visible at the wall caps.

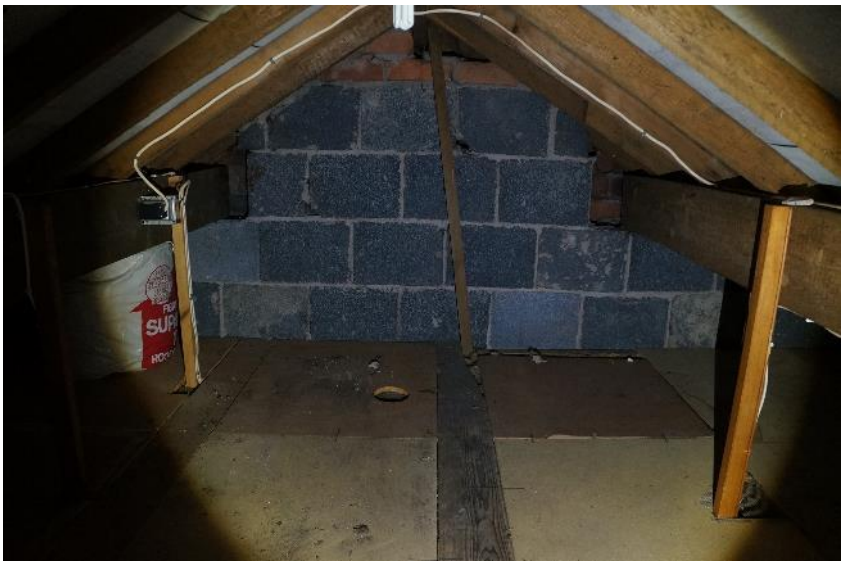


Photo 6: Internal view of roof structure in the loft space.

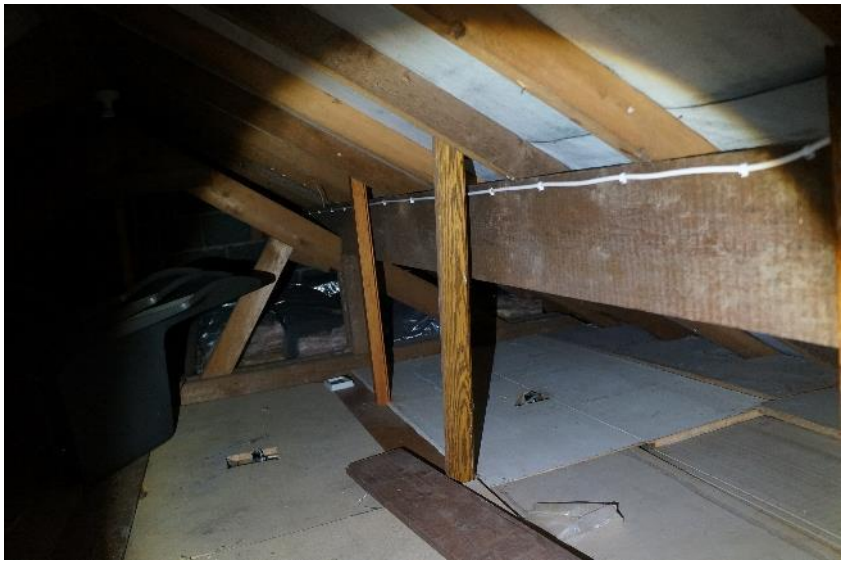
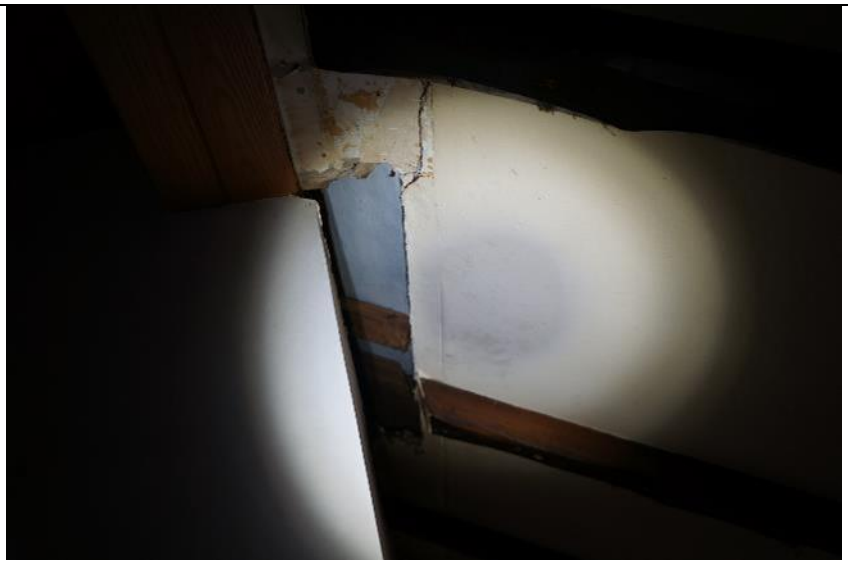


Photo 7: Internal view of the loft space showing roof lining and timber beams.

Internally the west elevation is vaulted with some of the internal wall covering exposing the breathable membrane roof liner behind. Internally all surfaces were inspected for bat droppings, urine or fur-grease marks.	 Photo 8: Internal view of roof structure in the vaulted ceiling on the west elevation.

Evidence of bats

There was no evidence of bats historically or currently using this building as roosting habitat (although exterior droppings would be destroyed by recent heavy rain).

Breeding birds and other incidental observations

There was no evidence of nesting birds within the property, however the shrubs and trees in the garden and close neighbours provide nesting habitat for birds.

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 building and bat roosts present in the 2km study area. However, taking into account the nature and condition of this building, 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 construction process due to the transient nature of bats.
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 minimum of 2 bat boxes on the building when finished will provide additional roosting habitat for bats e.g. • 1FF Schwegler Bat Box • 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 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

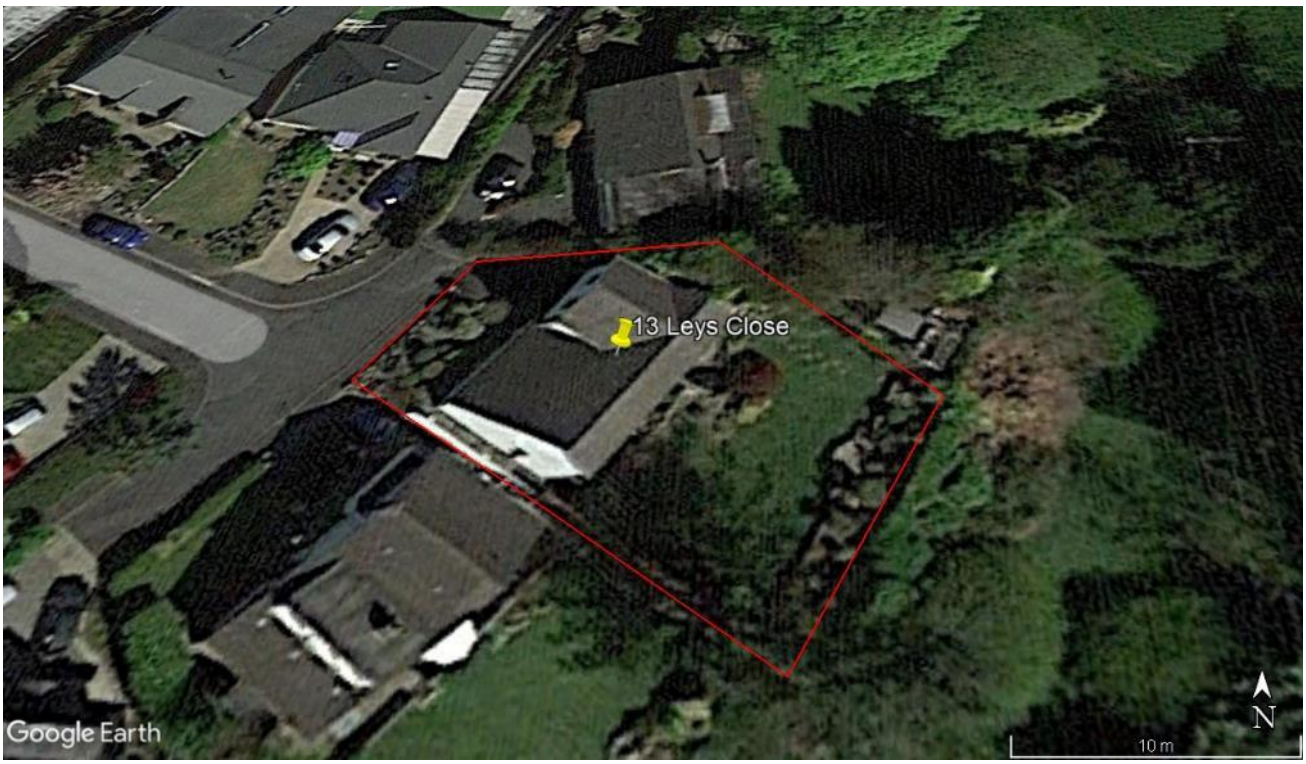
Survey assessment conclusions	The site includes suitable habitat for nesting birds.
Foreseen impacts	Active nests could be destroyed during vegetation removal. Any works which affect The Site could have an impact on nesting birds.
Recommendations	Any building/tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, **a close inspection of the trees/shrubs 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. In addition, any new hedge planting in the landscaping following completion could include native berry producing species to provide a further food source for local wildlife.
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 four bird boxes on buildings on site e.g. • WoodStone® range of nest cups, placed under the eaves on the west elevation • Schwegler 1SP Sparrow Terrace • Schwegler 1B nest boxes • Schwegler 2H Robin Boxes 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 boxes should be placed under the eaves with clear entrance/exit paths.

5.0 Bibliography

- 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.) (2016). Bat Surveys for Professional Ecologists —*Good Practice Guidelines*, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?

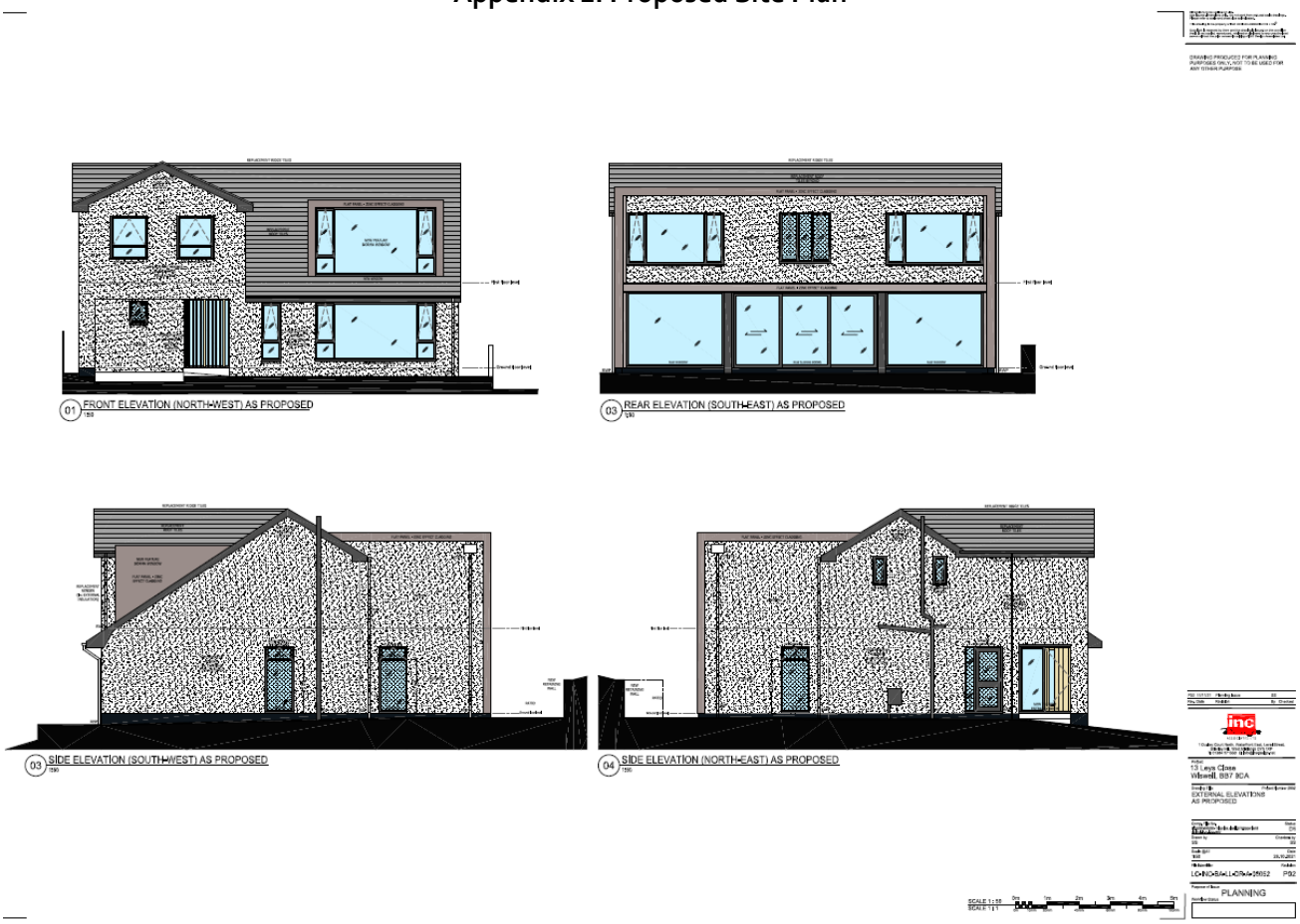
- Google Earth Pro (2021)
- Magic database (2021) http://www.magic.gov.uk/MagicMap.aspx
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan



Aerial view of 13 Leys Close Wiswell, property boundary shown in red *(Googe Earth, 2021).*

Appendix 2: Proposed Site Plan



Appendix 3: Desk Study Information

Appendix 4: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young

  (ii) to hibernate or migrate

  b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)

- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant statutory authority (e.g. Natural England) will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act

these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.