PENNINE ecological

Chartered Institute of Ecology and Environmental Management
Arboricultural Association Professional Member

- *Protected species survey & licensing*
- *Habitat survey*
- *Habitat creation & management*
- *Arboricultural survey & impact assessment*
- *Invasive species survey & control*
- *Management plans*

www.pennineecological.co.uk

PENNINE ecological

Bolton Offices:

[redacted]

Glossop Office:

[redacted]

Client: Sally Anne Procter **Date: 30th July 2024**

CC: Darren Trippier (Architectural Services (NW) Ltd)

Dear Sally and Darren,

Re: Preliminary Roost Assessment: 8 Belmont Court, Longridge, PR3 3TG

PENNINE ecological have been commissioned to undertake Preliminary Roost Assessment (PRA) at the above site. The purpose of this study is to address any potential issues in relation to bats resulting from the proposal to extend the building.

Impacts in relation to the proposal are considered to be confined to bats and birds which may be utilising the dwelling. As such a PRA and bird suitability assessment was undertaken on the 23rd July 2024. The sites national grid reference is SD 60772 37391 and the location is shown below;

Figure 1.1: Aerial Image of 8 Belmont Court, Longridge

1. Desk Top Study:

A desk top consultation study with Lancashire Environment Record Network (LERN) was not undertaken for this study. However, searches for statutory sites and bat licence records were undertaken as follows;

Statutory and Non-Statutory Designated Sites:

Details of statutory sites were sought from the Natural England web site search:

http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx

There are no statutorily designated wildlife sites within 2km radii of the site. The Natural England (NE) Impact Risk Zone tool was also reviewed and consultation with NE would not be required for this type of development.

There are no known non-statutory designated sites within 500m radii of the site.

European Protected Species Mitigation Licences:

Details of European Protected Species Mitigation Licences (EPSML) for bats was sought from the Natural England web site search:

http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx

There are no EPSML in relation to bats within 500m radii of the site.

2. Bat Ecology and Legislation:

Bats are comprehensively protected by European legislation.

All British bats and their roosts[1] are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty as the local authority to have due regard to the provisions of the Regulations in the exercise of its functions.

Section 15, Paragraph 186 of the National Policy Planning Framework (as revised in December 2023) states:

186. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

[1] The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to "*a breeding site or resting place of such an animal*" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Use of Buildings by Bats:

a) Summer breeding roost.

b) Hibernation.

c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

Up to ten bat species have been regularly recorded in Lancashire, most of which use built structures. The most frequently encountered species is the Pipistrelle bat; its abundant status in Lancashire is reflected throughout the UK.

3. Survey Methodology

A daytime survey was conducted on the 23rd July 2024. The building was inspected externally for evidence of bats and potential places / points of internal access that may be of value to bats. Close focusing binoculars were used to identify places that are frequently used by bats as roosts or as access into roost chambers.

An internal inspection of the building was also undertaken to understand the roof structure and to search for any evidence of bat use (e.g. droppings or feeding remains).

A search for evidence of current / historic use of the building by birds was also undertaken simultaneously.

During the survey the surrounding habitat was evaluated in relation to bats as very often roost selection is closely correlated with the surrounding habitat.

The daytime survey was conducted by Mr. Patrick Leatham, who is an experienced ecologist and full member of CIEEM. Patrick is an accredited agent on Mr Stuart Macpherson's Natural England Class 2 bat licence (2021-10079-CL18-BAT).

The PRA was undertaken in accordance with the methodology outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Collins, J. Bat Conservation Trust (2023).

Constraints:

There was limited room in the rear garden, so a full assessment of the Northeast elevation was not possible as the associated land behind was all private and access was not possible. A thorough evaluation on the current available satellite imagery was used for the Northeast elevation.

There were no constraints associated with the rest of the building both internal and externally.

4. Bat Survey Results

Preliminary Roost Assessment

The site includes a semidetached dwelling with plans to add an extension to the Northwest elevation.

The building is rendered, however the internal inspection identified a breeze block construction. The roof consists of concrete tiles. All of the elevations have wooden soffits around the roof edge.

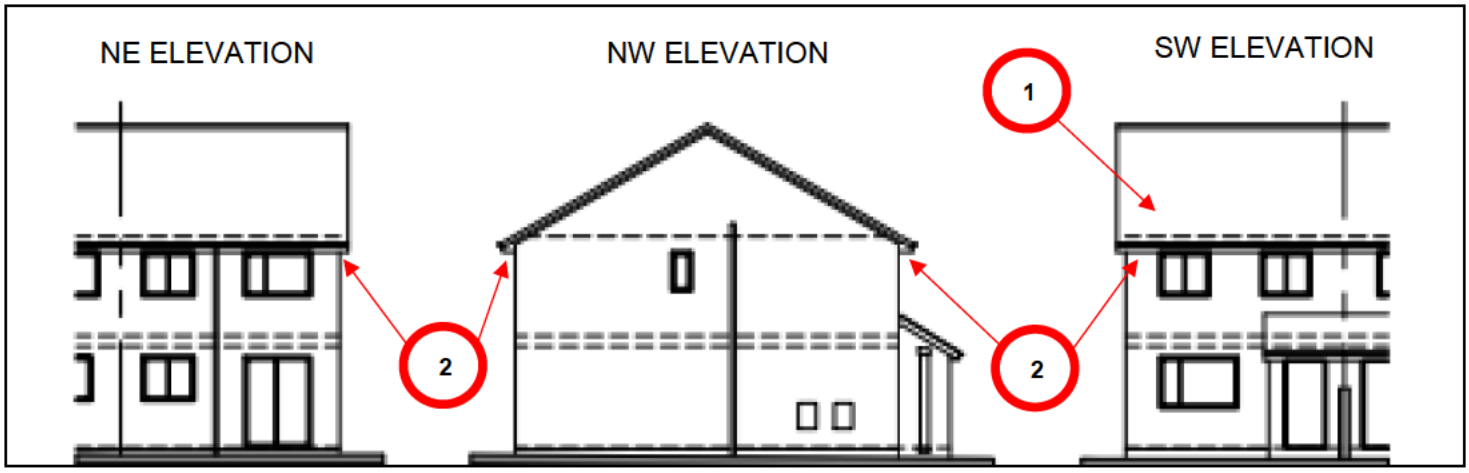
The loft space consisted of timber frames and rafters with roofing felt underneath the concrete tiles. There was light entering the loft space through missing soffit vents on the southwest elevation. No evidence of bats (e.g. droppings) within the lofts.

Generally, the building is in fair condition. However a number of cavities were identified that could be suitable for use by bats (refer to Table 4.1 and Figure 4.1 below).

Table 4.1: Potential Roost Features

PRF ref	PRF description	PRF suitability
1	Missing concrete tile on southwest elevation of building towards bottom left corner of the roof. Whilst the cavity is large enough for bats to enter, the damage to the roof is susceptible to letting in rain making it unfavourable. Additionally, the homeowner informed the surveyor that this part of the roof had blown off during a recent storm and has since been repaired. The feature was assessed as being unsuitable for bats but is no longer present.	Negligible
2	Holes in the wooden soffits at the northern and western corners of the building. These appear water damaged and sub-optimal for use by bats. Additionally, the northern corner of the building was occupied by nesting birds and further reduces the suitability of the feature for use by bats.	Negligible

Figure 4.1: Potential Roost Feature Locations



The building is considered to have '**Negligible**' bat roost potential.

Habitat Assessment

The building is in a semi-rural location on the eastern edge of Longridge. To the east of the site there is a dominance of agricultural landscape, with hedgerows, trees and ponds. The immediate surrounds comprise vegetated gardens and other dwellings with associated roads and street lighting.

The habitat associated with the site and surrounding area is considered to be of moderate suitability.

5. Breeding Birds

No evidence of nesting birds was recorded during the survey. However, the homeowner informed the surveyor that birds are currently nesting in the damaged soffit on the north east corner of the building (Photograph 5 below).

Figure 5.1: Extract taken from Collins, BCT (2023); Good Practice Guidelines (4th Edition) - Table 4.1

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible[a]	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[b] 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[c]).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated 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 a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[b] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is 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 flight-paths 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 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, shelter, protection, conditions[b] and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths 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 and grazed parkland. Site is close to and connected to known roosts.

a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al*., 2016 and Jansen *et al*., 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Photographs

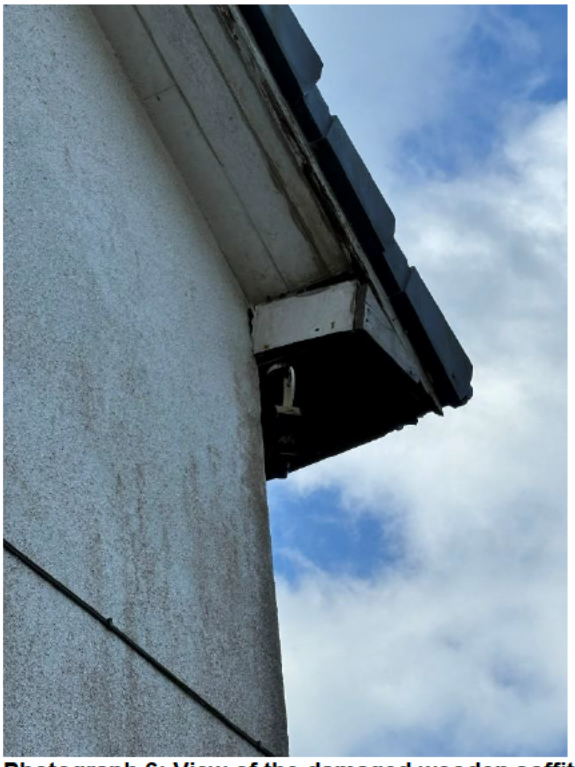
Photograph 1: Overview of the front elevation (southwest). Building in fair condition with missing roof tiles.

Photograph 3: Overview of the northwest elevation.

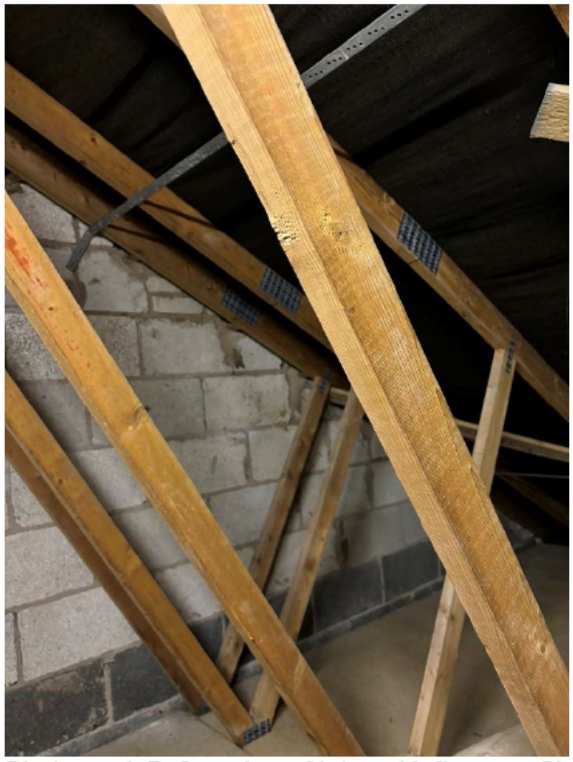
Photograph 2: Closer view of missing tile on southwest elevation. This has now been reinstated.

Photograph 4: Under view of northwest elevations wooden soffit, in good condition.

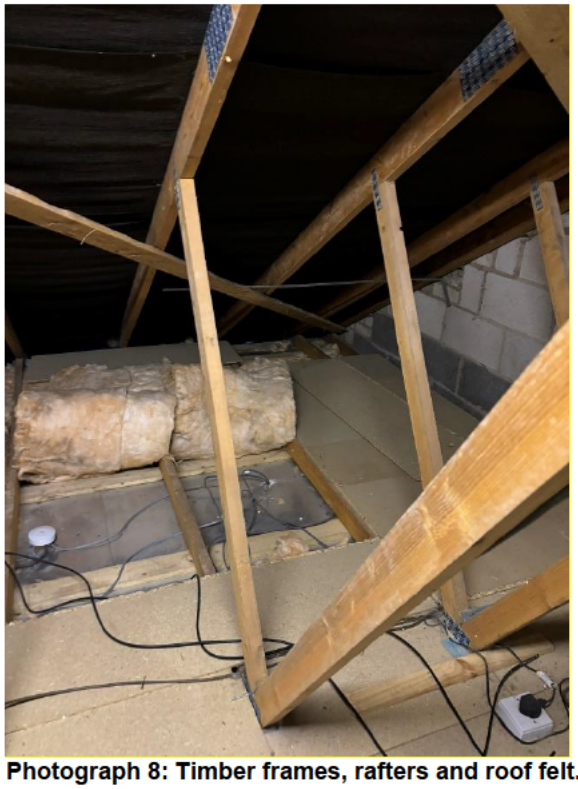
Photograph 5: View of the northeast (rear) elevation. Large hole in the wooden soffit board and visible damage further along soffit leading to northwest apex. Bird nesting.



Photograph 6: View of the damaged wooden soffit on the west corner of the building. Wood appears water damaged.



Photograph 7: Overview of internal loft space. Cluttered with rafters. No evidence of bats recorded.



Photograph 8: Timber frames, rafters and roof felt. No evidence of bats identified.

6. Recommendations

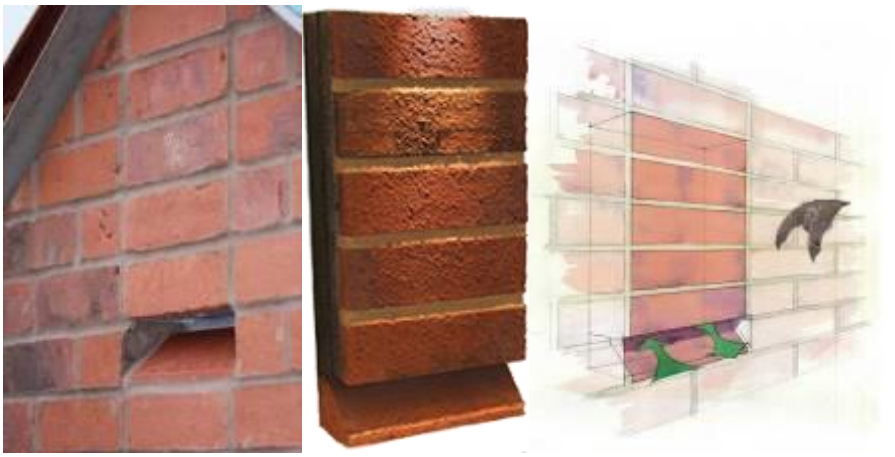
Bat Recommendations

There are no requirements for further surveys. The client is reminded that in the highly unlikely event that bats are encountered during the work, then all work must stop immediately, and the bat consultant must be contacted for further advice.

To demonstrate an overall biodiversity net gain from the application, it is recommended that bat provisions are incorporated into the design of the buildings. A number of example enhancement provisions are provided below:

Integrated bat box

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.

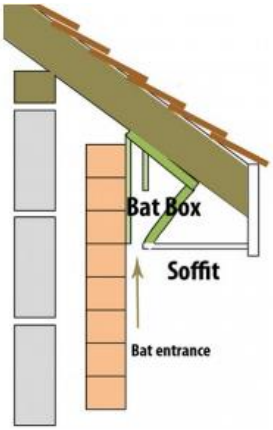


Externally fitted boxes

A large number of externally fitted box model for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.

Soffit access

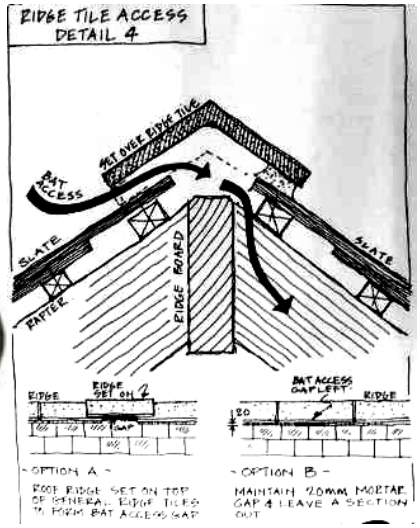
Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Ridge access

Where appropriate, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.

Ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.



Bird Recommendations

As an active bird nest has been identified in the north east soffit, no works can proceed until it is proven that the nest is no longer in use.

The removal of soffits and other confirmed / suitable nesting provisions should be undertaken between September-February inclusive to prevent impact on nesting birds.

If works are required between April-August inclusive, then checks for nesting birds by a suitably experienced ecologist should be undertaken.

If you require clarification on any issue, please contact me at the above address.

Yours faithfully

Patrick Leatham

Patrick Leatham BSc (Hons), MCIEEM