83 Meltham Road, Huddersfield

Bat and Bird Survey Report

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1. Summary

1.1.1 A bat survey of 83 Meltham Road, Huddersfield was commissioned by the client, Kashif Raheel, on 10th December 2024.

1.1.2 The survey was undertaken to inform proposals to demolish the existing dwelling, which is subject to subsidence, in order to clear land for the construction of a new dwelling.

1.1.3 No evidence of bat roosting was recorded during the visual inspection of the dwelling, with this structure considered to display a negligible level of suitability for use by roosting bats.

1.1.4 No signs of bird nesting were recorded from the dwelling, although it was considered possible that nesting birds may use this structure.

1.1.5 No further bat survey effort is necessary, providing works commence within 18 months of the survey date. If works are to commence after this date, then Middleton Bell Ecology should be contacted to determine the requirement for update survey.

1.1.6 Works should proceed with caution and vigilance for unexpected bat presence, as single bats can roost almost anywhere. If bats are subsequently discovered, work should cease, and further advice sought without delay.

1.1.7 If demolition and/or vegetation clearance works are to commence during the main bird nesting period (March to August inclusive), then they should be preceded by a nesting bird check, to be undertaken by an ecologist.

1.1.8 Recommendations have been provided in relation to bat and bird enhancement features, to be incorporated within the new building.

2. Introduction

2.1.1 A bat survey of 83 Meltham Road, Huddersfield was commissioned by the client, Kashif Raheel on 10th December 2024.

2.1.2 The survey was undertaken to inform proposals to demolish the existing dwelling, which is subject to subsidence, in order to clear land for the construction of a new dwelling.

2.1.3 83 Meltham Road was located to the southwest of the road, within a line of four houses bordered by woodland and located c. 2.2 km southwest of Huddersfield town centre.

3. Habitat Assessment

3.1.1 The surveyed building was located adjacent to a belt of woodland which extended along the valley of the River Holme. Further woodland was also present on the opposite side of Meltham Road (Figure 1, Plate 1). Consequently, it was considered that extensive and well connected high-quality bat foraging habitat was located adjacent to the site.

3.1.2 An above average abundance of bats of a varied range of species was expected to use the local area.

Table 1. Location and habitat table

Name and address: 83 Meltham Road, Huddersfield,			
OS Grid Ref. SE 13042 14611		Altitude. 95 m	
Local Planning Authority: Kirklees Council			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings	✔	✔	Bordering dwellings
River		✔	River Holme c. 20 m southeast of site.
Standing water			Former mill pond c. 590 m northeast of site.
Bridges tunnels and culverts			Associated with River Holme and including the Lockwood Viaduct, located 240 m east of site.
Trees		✔	Broadleaved woodland within valley of River Holme adjacent to site.
Woodland			
Grassland		✔	Lawn associated with neighbouring dwelling.

Figure 1. Site location, as indicated by red circle

Plate 1. Setting of surveyed dwelling (see red outline) relative to woodland and River Holme

3.2 Aims

3.2.1 The survey was conducted to help determine the following:

- The presence/absence of roosting bats.
- Bat roosting areas and access/egress points into the structure.
- The level of bat roost potential associated with the structure.
- The number and species of bat roosting within the structure.
- Record any evidence of bird nesting in the surveyed building.
- Identify further survey work or mitigation requirements.

4. Methodology

4.1 Data Consultation

4.1.1 No data was requested from either West Yorkshire Bat Group or West Yorkshire Ecology, given the negligible level of bat roost suitability associated with the surveyed dwelling.

4.1.2 A search of the Multi-Agency Geographical Information for the Countryside website was undertaken to identify historic European Protected Species licences obtained for locations within 2 km of the site.

4.1.3 **Field Survey**

Preliminary Roost Assessment

4.1.4 A preliminary roost assessment of site buildings was undertaken on 8th January 2025 by Robert Bell (MCIEEM; Bat Survey Class license WML-A34-Level 4, 2016-25236-CLS-CLS).

4.1.5 The following activities were carried out during the surveys in compliance with relevant Bat Survey Guidelines (Collins, 2023):

- A brief inspection and assessment of the site and habitats present to within 300 m.
- An extensive examination of all parts of the building both inside and out to record structural features and condition and to record features that may be suitable for roosting bats. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to walls, floors or other surfaces, or insect remains below beams, among a number of other factors. All signs indicative of a bat roost presence including live or dead bats, droppings, feeding remains, scratch marks and staining were recorded.
- An assessment of the building's bat roost potential (negligible, low, moderate, high or confirmed roost).

4.1.6 In addition, any signs of nesting bird usage of the building were recorded.

4.1.7 The following equipment was used or at hand during the survey:

- Clulight
- Binoculars
- Endoscope
- Ladders
- Camera
- Drone

4.2 Survey Limitations

4.2.1 Snow cover was present on the day of survey. A check was made with the client the day prior to the survey, which confirmed the main pitched roof was clear of snow. As a result, all relevant parts of the building could be observed on the agreed survey date and consequently the bat roost suitability of the building could be robustly assessed.

5. Results

5.1 Data Consultation

5.1.1 No bat records were requested from, or supplied by, either West Yorkshire Bat Group or West Yorkshire Ecology.

5.1.2 One bat European Protected Species mitigation licence has been issued for a location within 2 km of the site. This licence was issued in 2014 to permit destruction of a common pipistrelle *Pipistrellus pipistrellus* resting place, located c. 980 m northwest of the site.

5.2 Field Survey

Preliminary Roost Assessment

5.2.1 No signs of bat presence were recorded from the surveyed dwelling. The dwelling was considered to display a negligible level of suitability to support roosting bats.

5.2.2 No signs of bird nesting were recorded from the building.

Description

5.2.3 The surveyed dwelling comprised a rendered dormer bungalow with cavity walls (Plates 2-4). The main section of the dwelling has a dual-pitched concrete-tile covered roof, with a flat-roofed dormer in the northeast roof pitch and a porch extension on the southwest elevation. A substantial flat roofed extension, incorporating a garage, was present on the southeast elevation. The pitched roof had a dry ridge and dry verge, with wood cladding present on both gables. It was reported by the client that the pitched roof had been replaced/re-roofed c. 3 years prior to the inspection.

5.2.4 Until recently uPVC soffits were present on all elevations of the property, however, to enable an in-depth study into subsidence, many of the soffit boards had been removed approximately nine months prior to this inspection. The dwelling had uPVC framed double-glazed windows, with uPVC guttering. Solar panels, mounted on metal frames, were present on the flat roofed extension, with floodlights mounted on the southeast elevation of this extension.

External inspection

5.2.5 The removal of many of the soffit boards had exposed gaps onto wall tops across the building (Plate 5). These were all inspected using a torch and/or endoscope with no evidence of bat presence recorded. Whilst these gaps on wall tops could potentially be used by bats, it was noted that they had only fairly recently been exposed. Given the lack of evidence of current or historic bat use, it was considered possible to be confident they had not been used by roosting bats prior to the survey being undertaken.

5.2.6 On the southeast gable, a single section of the dry verge was lifted away from the barge board, however, this feature was also accessed for direct inspection (Plate 6).

5.2.7 Inspection of the dry ridge showed the ridge roll was tightly adhered to the roof tiles (Plate 7), suggesting a lack of bat roosting suitability associated with this feature.

Internal inspection

5.2.8 An internal inspection confirmed that a vaulted ceiling was present in the roof space, with this area used as bedrooms. A very small (<0.5 m high) inaccessible void was likely to be present at the top of the roof, however, due to its size and the lack of potential bat access points on the outside of the dwelling, it was considered highly unlikely this void would be used by bats.

Plate 2. Western corner of surveyed dwelling

Plate 3. Surveyed dwelling, viewed from south

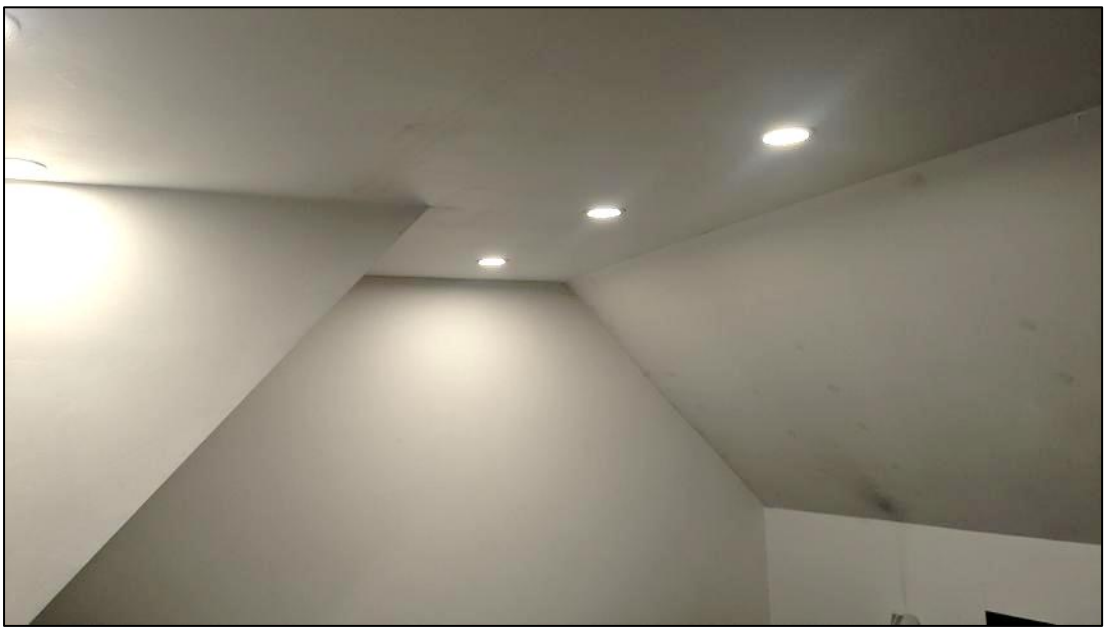
Plate 4. Northern corner of dwelling

Plate 5. Example of exposed section of wall top as a result of removed soffit panel

Plate 6. Red circle shows section of dry ridge lifted from barge board

Plate 7. View under dry ridge

Plate 8. Vaulted bedroom ceiling within roof space of dwelling



6. Assessment

6.1 Summary and Evaluation of Findings

6.1.1 No evidence of bat roosting was recorded during the visual inspection of the dwelling, with this structure considered to display a negligible level of suitability for use by roosting bats.

6.1.2 The removal of many of the soffit boards had exposed gaps onto wall tops across the building, some of which were suitable for use by roosting bats in the future. These areas were however subject to direct inspection, with no signs of bats recorded. In addition, these features had only fairly recently been exposed as a result of soffit removal. It is also noted that the accepted bat survey guidance (Collins, 2023) states that '*if all areas (including voids, cracks and crevices) of a structure have been inspected and no evidence found (and it is considered unlikely to have been removed by weather or cleaning or be hidden), then further surveys are not appropriate*'. Consequently, no further bat survey of these features was considered necessary.

6.1.3 No signs of bird nesting were recorded from the dwelling, although it was considered possible that nesting birds may use this structure.

6.2 Legislation and Policy Guidance

Bats

6.2.1 Bats receive protection under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019and the Wildlife and Countryside Act 1981 (as amended).

6.2.2 It is an offence to:

- Deliberately capture (or take), injure or kill a bat.
- Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection or obstruct access to any such place.
- Damage or destroy the breeding or resting place (roost) of a bat.
- Possess a bat (live or dead), or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.
- Sell (or offer for sale) or exchange bats (dead or alive), or parts of parts.

6.2.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992, requires member states to develop national strategies and to undertake a range of actions aimed at maintaining or restoring biodiversity. The UK Biodiversity Strategy was produced in response to the Convention.

6.2.4 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, "to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity". It notes that "conserving biodiversity includes restoring or enhancing a population or habitat". Barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, brown long-eared *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule and soprano pipistrelle *Pipistrellus pygmaeus* bats are included as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. At a more local level there are

Local Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.

The National Planning Policy Framework for England was revised in 2024. This document states that plans should 'promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity'.

Birds

6.2.5 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.

6.3 Further Survey, Recommendations and Enhancements

6.3.1 No further bat survey is considered necessary, providing works commence within 18 months of the survey date. If works commence after this time, then Middleton Bell Ecology should be contacted to determine the requirement for update survey works to be undertaken.

6.3.2 Regardless of bat roost presence/absence, in accordance with the aims of the National Planning Policy Framework (2024), it is recommended that at least one new bat roosting feature be incorporated within the new dwelling. It is advised that an enclosed and integrated bat box, of a design such as either the PRO UK Build-in WoodStone Bat Box or Ibstock Enclosed Bat Box C (Plates 9-10) be installed, at wall top height on the south or west elevation. The box should be sited away from areas of light spill. For further information on appropriate bat roosting features please contact Middleton Bell Ecology.

Plates 9-10. Build-in bat roost products

6.3.1 The site was located close to high quality bat foraging habitat. Many bat species show a strong aversion to artificial light. Therefore, it is advised that new external lighting around the building is avoided so far as reasonably possible. Where lighting is necessary, then it is recommended that it is subject to passive infra-red sensor activation only, in order reduce the times of operation. New lighting should be designed

to avoid any illumination of the adjacent woodland. It is advised that any new lighting be low height, low output, directional and of a warm colour tone (ILP, 2023).

6.3.2 Over time bats will often get into new buildings, accessing roofing materials. Bats have been shown to regularly become entangled and die in the component filaments of standard modern woven roofing membranes (Appendix 1). There are however now a number of modern roofing membranes which have been shown to be relatively safe for bats. As a result, it is recommended that one of these 'bat safe' membranes should be used.

Birds

6.3.3 If demolition works are to commence during the main bird nesting period (March to August inclusive), then they should be preceded by a nesting bird check, to be undertaken by an ecologist.

6.3.4 In accordance with the aims of the National Planning Policy Framework, and to provide an enhancement for nesting birds, it is recommended that one integrated swift *Apus apus* box (i.e. S Brick (Plate 11) be installed within the new dwelling. This box should be fitted at wall top height and may be installed across any elevation. Studies have shown that swift boxes are used by other bird species that utilise buildings and consequently this measure will provide potential nesting space for house sparrows *Passer domesticus* and starlings *Sturnus vulgaris*, in addition to potentially providing future nest space for swift.

Plate 11. S Brick

6.4 Conclusions

6.4.1 No evidence of bat presence was recorded in association with the surveyed building during the visual inspection. It is considered that the survey work undertaken has demonstrated the probable absence of roosting bats from the building to be impacted by the proposed scheme.

6.4.2 No further survey effort is necessary, providing work commences within 18 months of the survey date. If works are to commence after this date, then Middleton Bell Ecology should be contacted to determine the requirement for update survey.

6.4.3 Works should proceed with caution and vigilance for unexpected bat presence, as single bats can roost almost anywhere. If bats are subsequently discovered, work should cease, and further advice sought without delay.

6.4.4 If demolition and/or vegetation clearance works are to commence during the main bird nesting period (March to August inclusive), then they should be preceded by a nesting bird check, to be undertaken by an ecologist.

6.4.5 Recommendations have been provided in relation to inclusion of new bat and swift nest/roost provision.

7. References

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust.

ILP (2023) Guidance Note 08/23: Bats and Artificial Lighting at Night. Institute of Lighting Professionals and Bat Conservation Trust.

Appendix 1. Bats and Roofing Membranes

Standard roof membranes can cause the death of significant numbers of bats. Traditional bitumen coated roofing felt is recommended where roosting bats are expected to be present.

The problem

Non-bitumen coated membranes used below roof slates and tiles present a significant problem for bats. Over time, strands are pulled away from the surface of these materials as bats crawl over them. These fuzzy strands are very strong and can tangle and trap bats, sometimes causing the death of bats over multiple years[1].

One example we have encountered comprised a pipistrelle roost which formed in a building extension constructed in 2009. Over the course of just 13 years the roofing felt degraded to the extent that it trapped and killed more than 10 bats. Fortunately, the problem in this roost was identified and remedial work was undertaken to replace the roofing membrane in 2022.

Plate A2.1. Four dead pipistrelles tangled in breathable roofing felt

Although a new roof might be considered to lack potential bat access points, that is often not the case. Roofs covered with stone slates almost always have gaps large enough to be accessed by bats, this is often also the case where imitation stone slates are used. On older buildings the uneven roof timbers and/or building design also often results in gaps on wall tops and between slates. Even on new builds it is often possible for bats to access potential roosts via features such as dry verge capping. Some bats can access a space no wider than a biro pen, therefore it is not surprising that they can find their way into most buildings.

Safe roofing membranes (and membranes behind cladding)

The best roofing membrane option for areas where bat roosts are expected is traditional Type 1F bitumen coated hessian backed roofing felt. Bitumen coated roofing felts have been widely and safely used as a secondary weather barrier since approximately the 1950s/1960s. Wooden sarking has also been used for many decades and if appropriately treated, is safe for

[1] Wearing S. Essah E., Gunnel K. & Bonser R. (2013) Double jeopardy: the potential for problems when bats interact with breathable roofing membranes in the United Kingdom. Architecture and Environment

use in bat roosts, or where bats could be, present. Most commercially available products come pretreated but if required, a list of suitable timber treatment products are listed on the government website[2]. Wooden sarking also has the benefit of adding additional insulation and is usually breathable.

There are breathable membrane products which have passed a test known as the snagging propensity test. The test attempts to replicate the wear and tear which results from bats crawling over the membrane. At the time of writing (to our knowledge) two products have passed the test and are accepted for use in bat roosts by Natural England: SIGA Majcoat 200 SOB Diffusion and TLX BatSafe[3,4]. Although both have passed this test, it is unclear how they would fair over a long timeframe, and particularly within larger bat roosts. For this reason, we do not recommend that they are used for known bat roosts, and particularly for large (maternity roosts). However, they may provide a much needed option for roofs where future bat use cannot be ruled out, sarking boards are not an option, and a breathable solution is required.

Additional considerations

In recent years a fairly substantial proportion of the lofts we have surveyed which had existing breathable felt, were found to have been damaged by wasps (Plate A2.2). In these situations, the wasps appear to have chewed holes in the felt and formed nests in the holes. This doesn't appear to be a problem associated with the traditional bitumen coated roofing felt. Obviously, any holes within roofing felt would be likely to significantly reduce its functionality as a secondary weather barrier. Where bats or birds do come into contact with breathable roofing membranes, they can damage the membrane causing it to leak and they can also significantly reduce the breathability of the felt in that location.

Plate A2.2. Damage to a breathable roofing membrane adjacent to a wasp nest

Traditional bituminous Type 1F roofing felt is a non-breathable product and therefore ventilation is required. This can be achieved, even in buildings with vaulted ceilings, but requires some consideration during the design stage. Products to increase the ventilation within roofs where bituminous Type 1F felt has already been installed are also available but should not be considered as the primary ventilation option.

[2] Accessible at: https://www.gov.uk/government/publications/bat-roosts-insecticides-and-timber-treatments/timber-treatment-products-suitable-for-use-in-or-near-bat-roosts
[3] https://www.gov.uk/government/publications/bats-apply-for-a-mitigation-licence#full-publication-update-history:~:text=Use%20of%20safe%20roofing%20membranes
[4] TLX BatSafe requires all joints and cut edges to be taped in order to prevent the fraying of bare edges.