

HABITAT WORKS

178 Marsh Lane, Shepley

Preliminary Bat Roost Assessment

15th November 2024

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Executive Summary

Habitat Works Limited (Habitat Works) was commissioned in November 2024 by WHp Architecture to undertake a Preliminary Bat Roost Assessment (PBRA) of a residential property at 178 Marsh Lane, Shepley, West Yorkshire (central Ordnance Survey National Grid Reference (OS NGR) SE 18455 09097), hereafter referred to as 'the Site' and as displayed in Figure 1.

The PBRA was required to inform proposals for the reroof and extension of the property, as part of larger works being undertaken at the Site.

Current proposals include reroof and extension of the House, while it is proposed that the Outhouse may be demolished. Given that both Outhouse A and Outhouse B are considered to be of 'Negligible' suitability for roosting bats, it is not considered that further survey is required to facilitate the proposals as per good practice guidelines (Collins, 2023).

The House, however, is considered to offer 'Moderate' suitability for roosting bats, and as such, in line with good practice guidance, further surveys are required to confirm presence/likely absence of roosting bats ahead of the proposed demolition (Collins, 2023). These surveys should be undertaken as dusk emergence surveys and should be undertaken within the core bat survey period (May to August inclusive).

As the House is considered to be of 'Moderate' suitability for roosting bats, a total of two nocturnal surveys will be required to confirm presence/likely absence of roosting bats, with the surveys separated by a minimum of three weeks, in line with good practice guidelines (Collins, 2023). It is recommended that at least one of the surveys for the House should be undertaken within the core maternity period of June to mid-July.

A sufficient number of surveyors will be required on each nocturnal survey to ensure full coverage of the PRFs on the given target building. Surveyors should be equipped with full spectrum bat detectors and infra-red video cameras and record the species and number of bats using any roosts on the Site as well as recording incidental bat activity observed during the survey period. Surveyors should be in place at least 15 minutes prior to sunset for a minimum of 1.5 hours after sunset. The surveys should be conducted during periods when weather conditions are dry, with relatively low winds and temperatures in excess of approximately 10°C.

Where bat roosts are identified, a sufficient number of surveys will need to be undertaken in order to fully characterise the roosts present; the number of surveys detailed above are the minimum number required to confidently determine presence/likely absence only.

As compensation for the loss of PRFs across the Site, it is recommended that integrated bat boxes or bat access roof tiles should be incorporated into the House as part of the proposals. The model of boxes used should be suitable for crevice dwelling bat species, such as the Schwegler 1FR Bat Tube. The bat boxes should be placed as high as possible on the House, facing southern aspects to maximise chances of occupation.

Given the nature of the proposals it is anticipated that most habitats of value to foraging and commuting bats will be retained with new infrastructure being constructed in the locations of existing infrastructure and, as such, it is not considered necessary to undertake a full suite of bat activity surveys and static monitoring in this regard. It is anticipated that the nocturnal surveys detailed above will provide a robust understanding of the species present on the Site and information obtained from these surveys can be used to develop appropriate mitigation strategies.

1. Introduction

1.1 *Background*

- 1.1.1 Habitat Works Limited (Habitat Works) was commissioned in November 2024 by WHp Architecture to undertake a Preliminary Bat Roost Assessment (PBRA) of a residential property at 178 Marsh Lane, Shepley, West Yorkshire (central Ordnance Survey National Grid Reference (OS NGR) SE 18455 09097), hereafter referred to as 'the Site' and as displayed in Figure 1.
- 1.1.2 The PBRA was required to inform proposals for the reroof and extension of the property, as part of larger works being undertaken at the Site.
- 1.1.3 This report details the findings of a PBRA, comprising a data consultation undertaken and PBRA survey undertaken by Habitat Works in November 2024. Methodologies employed during the surveys are described along with the survey findings, evaluation, assessment and recommendations for any further survey work and/or mitigation/enhancement as required.
- 1.1.4 Recommendations are made in terms of impacts of the proposed development through habitat losses/potential gains on the Site post-development and the retention and protection of key ecological features.

2. Methodology

2.1 Data Consultation

- 2.1.1 Data consultation was undertaken by Habitat Works with the local records centre; West Yorkshire Ecology Service (WYES) and West Yorkshire Bat Group (WYBG) as part of the ecological appraisal process, to determine whether any records relating to bats had previously been recorded within 2 km of the Site.
- 2.1.2 The Multi-Agency Geographic Information for the Countryside (MAGIC) website (<http://www.magic.defra.gov.uk>) was also consulted by Habitat Works for information on the presence of European Protected Species (EPS) mitigation licences for bats within 2 km of the Site.
- 2.1.3 Information returned from MAGIC, WYES and WYBG with relevant assessments will be incorporated into the report as appropriate. All records will be reviewed, however particular interest will be placed on records within the past 10 years, with records prior to these considered historic.

2.2 Preliminary Bat Roost Assessment

- 2.2.1 A PBRA was undertaken 4th November 2024 by licenced bat surveyor Senior Ecologist Joe Travis BSc (Hons) MSc ACIEEM (Bat Level 2 Survey Class Licence CL18 Ref: 2024-11983-CL18-BAT) in line with industry good practice guidelines (Collins, 2023).
- 2.2.2 Buildings within the Site were subject to a ground-based external and internal assessment for their suitability to support roosting bats during the survey.
- 2.2.3 An individual structure may have several features of potential interest to roosting bats associated with it and it is not always possible to confirm usage of a feature by bats due to their transient nature. Consequently, it is customary when undertaking such surveys to assign each feature to a defined category of roosting potential as follows: negligible, low, moderate, high or confirmed (Collins, 2023).
- 2.2.4 Photographs are provided in Appendix 1.
- 2.2.5 The Site was also assessed for its suitability for foraging and commuting bats in accordance with good practice guidelines (Collins, 2023).

2.3 Assumptions and Limitations

- 2.3.1 In line with CIEEM guidance, this report is valid for a period of 12 months. In the event that works have not been commenced by November 2025, an update assessment should be undertaken.

3. Findings and Evaluation

3.1 Site Description

- 3.1.1 The Site is located southwest of Shepley, West Yorkshire and comprises a residential dwelling, in addition to associated gardens and outbuildings. The location of the Site is provided within Figure 1.
- 3.1.2 The Site is immediately bounded by pastoral farmland, with drystone walls and hedgerows present across much of the landscape. In the wider environment, the land is dominated by agricultural land, while pockets of woodland and watercourses are present within 2 km of the Site.

3.2 Data Consultation

- 3.2.1 WYES returned 37 records relating to bats within 2 km of the Site, of these, 10 relate to records of roosts. Eight of the roost records relate to common pipistrelle *Pipistrellus pipistrellus*, while the other two relate to unidentified bats. The closest roost record pertains to a common pipistrelle roost located 700 m east of the Site, recorded in 2011 and again in 2012.
- 3.2.2 Additional records pertain to bats in flight or grounded, and additional to common pipistrelle, records include brown long-eared bat *Plecotus auritus*, noctule *Nyctalus noctula* and whiskered bat *Myotis mystacinus*. The closest of these records pertains to a noctule observed in flight 400 m south of the Site in 2014.
- 3.2.3 WYBG returned nine records of bats within 2 km of the Site, all relating to roosts. Species recorded are limited to common pipistrelle, unidentified pipistrelle *Pipistrellus* Sp. and unidentified bats. The closest of these records pertains to an unidentified bat roost located 600 m southeast of the Site in 2011.
- 3.2.4 A single EPS licence relating to bats was identified using MAGIC within 2 km of the Site. The licence pertains to the destruction of a common pipistrelle resting place. The licence was active between 2011 and 2013 (EPSM2011-3782).
- 3.2.5 No details of designated sites in relation to bats were identified within 2 km of the Site either through WYES or MAGIC.

3.3 Preliminary Bat Roost Assessment

Roosting Bats

- 3.3.1 The three buildings subject to the PBRA comprised 178 Marsh Lane ('the House'), and two outhouses. Building descriptions and assessment for their suitability to support roosting bats are detailed below.

The House

- 3.3.2 The House is a single storey, stone-built bungalow with a pitched slate roof. The roof contains a series of gable ends, with an additional section that is hipped. The ridges of the roof are constructed with clay ridge tiles. The House contains PVC window and door frames, in addition to a glass porch on the southeastern aspect. The House contains wooden soffit boxes beneath the eaves.
- 3.3.3 The roof void of the building has been converted, with the void within the main pitch having been removed to add height to the ceilings beneath, while the section within the hipped area of the roof has undergone a loft conversion, including the installation of VELUX windows. Some sections within this conversion have been kept as a void for storage, in which these areas are fitted with roofing felt. A swallow nesting cup was recorded on the eastern entrance of the building.

- 3.3.4 The slate tiles on the house are mostly in good condition, however there are some small areas of damaged/lifted tiles which create small crevices which are suitable Potential Roosting Features (PRFs) for bats. There are areas of missing mortar below the ridge tiles, again creating further PRFs for bats. The soffit boxes are damaged in some places, creating entry opportunities for bats into the soffit boxes and potentially into the small roof voids present around the edges of the roof.
- 3.3.5 Given the variety of PRFs, in addition to their presence on a variety of aspects of the building, it is considered that the building is of 'Moderate' suitability for roosting bats, in line with good practice guidelines (Collins, 2023).

Outhouse A

- 3.3.6 Outhouse A is single storey, breezeblock and timber constructed building supporting a corrugated metal sloping roof. The building contains some small, timber framed windows. No roof void is present, with the roof visible from the internal of the building, supported by timber frames.
- 3.3.7 The building offers no crevices across its construction that are suitable for roosting bats, and as such, supports no PRFs for local bats and consequently, the building is considered to offer 'Negligible' suitability for roosting bats (Collins, 2023).

Outhouse B

- 3.3.8 Outhouse B is as Outhouse A, only with a much smaller footprint and no windows present.
- 3.3.9 As with Outhouse A, the building offers no crevices across its construction that are suitable for roosting bats, and as such, no PRFs are present and consequently, the building is considered to offer 'Negligible' suitability for roosting bats (Collins, 2023).

3.3.10 *Summary*

- 3.3.11 In line with good practice guidance (Collins, 2023) given the absence of suitable PRFs, it is considered that both Outhouse A and Outhouse B are of 'Negligible' suitability for roosting bats. However, The House offers a range of PRFs suitable for roosting bats, and as such, is considered to be of 'Moderate' suitability for roosting bats (Collins, 2023).

Foraging and Commuting Bats

- 3.3.12 The Site offers some limited potential for foraging and commuting bats. The area surrounding the building has some mature vegetation which may offer foraging opportunities for roosting bats, however, given the limited size and scale of these habitats, in conjunction with the presence of habitats in greater size and quality in the local area, it is considered that the Site possesses 'Negligible' suitability for foraging and commuting bats (Collins 2023) and taken together Site habitats are of no more than site level importance to foraging and commuting bats.

4. Impact Assessment and Enhancements

4.1 Proposals

- 4.1.1 Proposals for the Site comprise the reroofing and extension of the house. It is anticipated that the outbuildings may be demolished as part of the proposals.

4.2 Legislation

- 4.2.1 All species of bat occurring within the UK are included in Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Under regulation 41 bats are protected from deliberate capture, injury or killing, from deliberate disturbance and from deliberate damage or destruction of a breeding site or resting place (roost).
- 4.2.2 All UK bats are also included on Schedule 5 of the WCA 1981 (as amended). However, their protection is limited to certain offences. Under the 1981 Act (as amended) it is an offence to intentionally or recklessly disturb bats while they are occupying a structure or place used for shelter or protection, or to obstruct access to any such place.
- 4.2.3 Barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, brown long-eared bat, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule and soprano pipistrelle bats are included as priority species under Section 41 of the NERC Act 2006.

4.3 Assessment

- 4.3.1 Current proposals include reroof and extension of the House, while it is proposed that the Outhouse may be demolished. Given that both Outhouse A and Outhouse B are considered to be of 'Negligible' suitability for roosting bats, it is not considered that further survey is required to facilitate the proposals as per good practice guidelines (Collins, 2023).
- 4.3.2 The House however is considered to offer 'Moderate' suitability for roosting bats, and as such, in line with good practice guidance, further surveys are required to confirm presence/likely absence of roosting bats ahead of the proposed demolition (Collins, 2023). These surveys should be undertaken as dusk emergence surveys and should be undertaken within the core bat survey period (May to August inclusive).
- 4.3.3 As the House is considered to be of 'Moderate' suitability for roosting bats, a total of two nocturnal surveys will be required to confirm presence/likely absence of roosting bats, with the surveys separated by a minimum of three weeks, in line with good practice guidelines (Collins, 2023). It is recommended that at least one of the surveys for the House should be undertaken within the core maternity period of June to mid-July.
- 4.3.4 A sufficient number of surveyors will be required on each nocturnal survey to ensure full coverage of the PRFs on the given target building. Surveyors should be equipped with full spectrum bat detectors and infra-red video cameras and record the species and number of bats using any roosts on the Site as well as recording incidental bat activity observed during the survey period. Surveyors should be in place at least 15 minutes prior to sunset for a minimum of 1.5 hours after sunset. The surveys should be conducted during periods when weather conditions are dry, with relatively low winds and temperatures in excess of approximately 10°C.
- 4.3.5 Where bat roosts are identified, a sufficient number of surveys will need to be undertaken in order to fully characterise the roosts present; the number of surveys detailed above are the minimum number required

to confidently determine presence/likely absence only.

- 4.3.6 As compensation for the loss of PRFs across the Site, it is recommended that integrated bat boxes or bat access roof tiles should be incorporated into the House as part of the proposals. The model of boxes used should be suitable for crevice dwelling bat species, such as the Schwegler 1FR Bat Tube. The bat boxes should be placed as high as possible on the House, facing southern aspects to maximise chances of occupation.
- 4.3.7 Given the nature of the proposals it is anticipated that most habitats of value to foraging and commuting bats will be retained with new infrastructure being constructed in the locations of existing infrastructure and, as such, it is not considered necessary to undertake a full suite of bat activity surveys and static monitoring in this regard. It is anticipated that the nocturnal surveys detailed above will provide a robust understanding of the species present on the Site and information obtained from these surveys can be used to develop appropriate mitigation strategies.

5. References

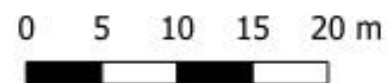
Collins, J. (2023) *'Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)'*. The Bat Conservation Trust, London.

Figure 1. Building Suitability Map



Legend

-  Site Boundary
- Building Suitability
 -  Moderate
 -  Negligible



HABITAT WORKS

WHp Architecture

178 Marsh Lane, Shepley

Figure 1
Building Suitability Map

Appendix 1. Site Photographs



Photograph 1. 178 Marsh Lane, Shepley



Photograph 2. Example of roof



Photograph 3. Example of damage to soffit box allowing access to the voids of the property



Photograph 4. Example of roof void conversion



Photograph 5. Example of small sections of roof voids not converted



Photograph 6. Remnants of swallow cup



Photograph 7. Outhouse A



Photograph 8. Outhouse B