

Houlker Farm, Read
Interim Bat Survey Report



HABITAT WORKS

May 2025



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Interim Bat Survey Report

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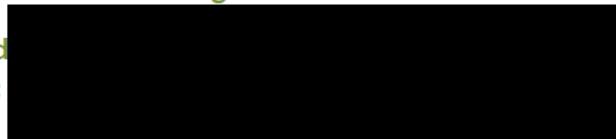
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Executive Summary

Habitat Works Limited (Habitat Works) was commissioned in January 2025 by JWPC Limited to undertake further bat surveys of Houlker Farm, Whins Lane, Read, hereafter referred to as 'the Site'.

The Site contains a barn in the centre of the farm, with proposals for the conversion of the barn into a living space.

The recommendation for further bat surveys was made by Ecology Services Ltd following their Preliminary Roost Assessment (PRA) of the Site, detailed within the report '*Whins Lane, Read – Preliminary Roost Assessment (Bats) Survey Report*' dated October 2024. The PRA found that the barn had 'Moderate' roosting potential in addition to 'Low to Moderate' hibernation potential (Collins, 2023; Ecology Services Ltd, 2024).

Given the findings of the hibernation surveys undertaken of the Barn in 2025, it is considered that hibernating bats are likely absent from the Barn. The Barn is subject to variability in climatic conditions due to the openness of much of its structure, which reduces the likelihood of the building from supporting hibernating bats.

As the Barn 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). The first of these two surveys has been undertaken and found no evidence of roosting bats in the Barn. If the second survey also find no evidence of roosting bats in the Barn, it is considered that the Barn is likely absent of roosting bats.

In the event that a bat roost(s) is identified during the scheduled second survey of the Barn, 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.

In the event that bat roosts are encountered during the remaining survey(s) of the Barn, a mitigation licence will be required from Natural England legally facilitate the works. If required, the licence application will include a bat mitigation strategy designed to maintain the Favourable Conservation Status of the identified roosts and ensure there is no net loss of roosting provision on Site. The method statement will detail measures to minimise disturbance and avoid death or injury to bats during the construction of the proposals.

Irrespective of the results of the additional survey(s), it is recommended that as compensation for the loss of potential summer roosting and winter hibernating features across the Site, bat boxes or bat access roof tiles should be incorporated into the Barn as part of the development proposals. The model of boxes used should be suitable for crevice dwelling bat species, such as the Schwegler 1WI or 1WQ Summer and Winter Bat Boxes, which offer year-round suitability for roosting bats. The bat boxes should be placed as high as possible above the ground on the Barn, facing southern aspects to maximise chances of occupation.

1. Introduction

1.1 *Background*

- 1.1.1 Habitat Works Limited (Habitat Works) was commissioned in January 2025 by JWPC Limited to undertake further bat surveys of Houlker Farm, Whins Lane, Read (central Ordnance Survey National Grid Reference (OS NGR) SD 76607 35032), hereafter referred to as 'the Site' and as displayed in Figure 1.
- 1.1.2 The Site contains a barn in the centre of the farm, with proposals for the conversion of the barn into a living space.
- 1.1.3 The recommendation for further bat surveys was made by Ecology Services Ltd following their Preliminary Roost Assessment (PRA) of the Site, detailed within the report '*Whins Lane, Read – Preliminary Roost Assessment (Bats) Survey Report*' dated October 2024. The PRA found that the barn had 'Moderate' roosting potential in addition to 'Low to Moderate' hibernation potential (Collins, 2023; Ecology Services Ltd, 2024).
- 1.1.4 This report details the findings of the further bat surveys, comprising hibernation surveys and emergence surveys undertaken throughout 2025. 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.
- 1.1.5 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 *Hibernation Surveys*

- 2.1.1 A total of three hibernation inspections were undertaken monthly between January and March 2025 by Senior Ecologist and licenced bat surveyor Joe Travis BSc (Hons) MSc ACIEEM (Bat Level 2 Survey Class Licence CL18 Ref: 2024-11983-CL18-BAT) in line with industry good practice guidance (Collins, 2023). The surveys were undertaken on 24th January 2025, 7th February 2025 and 4th March 2025.
- 2.1.2 Structures within the Site were subject to a external and internal search for hibernating bats, assisted by the use of a high-powered torch, endoscope and ladders. The survey required the inspection of all cracks and crevices present within the Barn, as no void features are present within the Barn.

2.2 *Automated Static Monitoring Surveys*

- 2.2.1 As the Site displayed 'Low to Moderate' suitability for hibernating bats, the hibernation surveys were accompanied by the monthly deployment of four static bat detectors: an Anabat Chorus detector with an omnidirectional microphone, in accord with good practice guidance (Collins, 2023). The static bat detectors were placed in four locations within the Barn, with the microphone facing outwards i.e. into the Barn, so as to record bat activity from within the proximity of their location (Figure 2).
- 2.2.2 Static bat detectors were deployed and left in-situ over a minimum of 14 consecutive nights. Static bat detectors were set to record echolocation calls continuously during this time period.

2.3 *Static Data Analysis*

- 2.3.1 Analysis of sound files collected during the NBW surveys and static monitoring survey period was undertaken using Kaleidoscope Pro software with bat calls determined to species level or genus, where appropriate (Russ, 2021). The Auto ID feature of the Kaleidoscope Pro software was utilised in the first stage of analysis. The Auto ID was then verified manually, with the following parameters used for the number of files checked:
- All bat Auto ID: 100% of total files checked
 - No ID files: 10% of total files checked
 - Noise files: 10% of total files checked
- 2.3.2 The files selected for the manual check was formed by random number generators to remove potential bias from the selection.

2.4 *Nocturnal Bat Surveys*

- 2.4.1 As the Barn is considered to be 'Moderate' suitability for roosting bats, a total of two of emergence surveys are required to confirm the presence/likely absence of roosting bats from the Barn in line with good practice guidance (Collins, 2023). One of these surveys has been undertaken, with the other scheduled for May/June 2025, in line with good practice guidelines. The surveys were/are scheduled to be led by a licensed ecologist and assisted by experienced bat surveyors positioned to ensure coverage of all aspects of the building which displayed suitability for roosting bats.
- 2.4.2 Surveyors used/will use a combination of visual assessment and detection using industry-standard recordable ultrasonic bat detectors and night vision aids (NVAs), comprising infrared NightFox cameras utilising inbuilt and supplementary infrared lighting as required. Surveyors recorded/will record the species and number of bats using any roost features within the buildings (where present) and also recorded incidental bat activity observed in the locality during the survey period. The dusk emergence surveys

commenced/will commence 15 minutes prior to sunset and finished/will finish 1.5 hours after sunset. The surveys were/will be conducted during a period where the weather conditions were predominantly dry, with relatively low winds and temperatures in excess of 10°C.

- 2.4.3 The nocturnal surveys were/will be digitally recorded to allow bat echolocation calls to be analysed using Kaleidoscope sound analysis software, with species identification confirmed with reference to bat call parameters presented in '*British Bat Calls: A Guide to Species Identification*' (Russ, 2021) as required. Video recordings were/will be also taken to give greater confidence in the results of the surveys, allowing the option to view the footage post survey to review key moments or any events flagged by the surveyor during the survey. Darkest point photographs of the NVAs are provided within Appendix 1 as per good practice guidance.
- 2.4.4 Survey details are shown in Table 1 below, with surveyor locations and bat activity findings illustrated in Figures 3.1 – 3.2.

Table 1 – Nocturnal Bat Survey Details

Date/Time	Surveyors	Air Temp (°C)	General Conditions	Detector Type
07.05.2025 20:36 – 22:21 hrs Sunset: 20:51 hrs	JT, CB, EC, WK	Start: 11 End: 10	Dry, 40% cloud cover, very light breeze (Beaufort Scale (BS): 2)	Echo Meter Touch 2 Pro
May/June 2025 21:29 – 23:14 hrs Sunset: 21:44 hrs	JT, CB, WK, AS	Start: TBC End: TBC	TBC	Echo Meter Touch 2 Pro

*Surveyors (Licenced bat surveyors in bold): JT – Joe Travis ACIEEM (Bat Licence Ref. 2024-11983-CL18-BAT); CB – Chris Birkinshaw; EC – Ellie Collier; WK – Wojciech Kaim; AS – Alice Shaw.

2.5 Assumptions and Limitations

- 2.5.1 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 May 2026, an update assessment should be undertaken.
- 2.5.2 The detection range of a bat detector can be affected by atmospheric factors (including ambient temperature, relative humidity and air pressure), habitat factors (as a result of sound absorption and bat/habitat interactions) and the bat species being recorded. Bats with high frequency, quiet or directional calls, such as brown long-eared bats *Plecotus auritus*, may sometimes only be recorded at distances less than 5 metres (m), whereas bats with low frequency and loud calls such as noctule *Nyctalus noctula*, may be detected from over 100 m away. This creates an element of bias within the data between bat species and their apparent level of activity on or near the Site.
- 2.5.3 Identification of bat calls to species level is not always possible, as calls may be faint, of poor quality or contain sound elements (including echoes or ambient noise) which distort the recording. Additionally, it is frequently difficult to differentiate calls of different bat species within the same genus due to overlapping bat call parameters. In particular, there is considerable overlap between the echolocation calls of species within the *Myotis* genus. In the instance where the AutoID states a species that has not been confidently identified, these have just been classified within the results as *Myotis* sp..

3. Findings and Evaluation

3.1 Site Description

- 3.1.1 The Site is located off Whins Lane in the northern extents of Read, Ribble Valley and comprises an existing farm complex. The location of the Site is provided within Figure 1.
- 3.1.2 The Barn comprises a two storey, stone build building with a pitched and gable ended roof. The building is in a state of disrepair, with cracks and crevices present throughout both the internal and external walls of the building, in particular areas where stonework is missing. Additionally, the slate tiled roof is heavily warped in places, with large crevices between the rows of tiles present where the roof is bowing.
- 3.1.3 The Site is immediately bounded by pastoral land, with occasional blocks of woodland in the wider area. Much of the pastoral land is separated by mature hedgerows, with individual trees also present within the fields themselves away from hedgerows.

3.2 Hibernation Surveys

- 3.2.1 The three hibernation surveys undertaken between January and March 2025 found no evidence of hibernating bats.
- 3.2.2 The Barn contains a wide range of cracks and crevices that may be of suitability to roosting and hibernating bats. These were checked thoroughly on each of the three surveys, however no evidence of roosting bats were present within the features.
- 3.2.3 These features included large cracks and crevices in both the internal and external stonework of the building, in addition to crevices in the stonework above the heads of some of the doorways. Additional suitable crevices were present in the floorspace of the hay lofts within the barn.
- 3.2.4 Due to the age of the building, there is significant influence on the climate of the interior of the Barn from the weather, with the number of gaps in the stonework and tiles meaning that the Barn is not capable of sustaining the stable temperatures and humidity that hibernating bats tend to prefer. This fluctuation in climatic conditions would likely render much of the features within the barn unsuitable for hibernating bats, which would be limited to the deeper crevices present in occasional sections of the building.

3.3 Automated Static Monitoring Surveys

- 3.3.1 The three periods of automated static bat detector monitoring undertaken between January and March 2025 found no evidence of hibernating bats.
- 3.3.2 Bat detectors were placed in four locations within the Barn. These locations are displayed in Figure 2 and comprise: Location 1 – Above door between Main Barn and Western Room; Location 2 – Northeastern Room; Location 3 – Southwestern Room; Location 4 – Main Barn (Hay Loft).
- 3.3.3 No bat calls were recorded on any of the four detectors deployed throughout each of the three monitoring periods. Each detector recorded series of noise files, indicating that the detectors were working throughout each survey period, however no hibernating bats were recorded.

3.4 Nocturnal Bat Surveys

Survey 1 – 7th May 2025

- 3.4.1 No roosting bats were recorded within the Barn during the first survey (Figure 3.1).
- 3.4.2 The earliest bat recorded was a noctule at 21:11 hrs (14 minutes after sunset), this was recorded by two of

the surveyors however this was not observed by either surveyor. Common pipistrelle and noctule were recorded throughout the survey. The individuals observed in flight were most regularly seen foraging around courtyard areas of the farmyard, however not associated with the Barn itself. The final bat was recorded at 22:09 hrs (78 minutes after sunset) pertaining to a noctule which was not seen by the surveyors.

- 3.4.3 A single common pipistrelle was seen associated with the building immediately southeast of the Barn and is considered a potential roost record. The surveyor was positioned in front of this building and recorded a single common pipistrelle flying out of the large open outbuilding. However, as the surveyor nor camera were focused on this separate building, it cannot be confirmed whether the individual emerged from the building, or briefly entered and exited the building from off-Site locations.

Survey 2 – May/June 2025

The second survey of the Barn is scheduled for the May/June 2025.

4. Impact Assessment and Enhancements

4.1 Proposals

4.1.1 Proposals for the Site comprise the renovation of the Barn into liveable spaces.

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 *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule and soprano pipistrelle *Pipistrellus pygmaeus* bats are included as priority species under Section 41 of the NERC Act 2006.

4.3 Assessment

- 4.3.1 Given the findings of the hibernation surveys undertaken of the Barn in 2025, it is considered that hibernating bats are likely absent from the Barn. The Barn is subject to variability in climatic conditions due to the openness of much of its structure, which reduces the likelihood of the building from supporting hibernating bats.
- 4.3.2 As the Barn 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). The first of these two surveys has been undertaken and found no evidence of roosting bats in the Barn. If the second survey also find no evidence of roosting bats in the Barn, it is considered that the Barn is likely absent of roosting bats.
- 4.3.3 In the event that a bat roost(s) is identified during the scheduled second survey of the Barn, 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.
- 4.3.4 In the event that bat roosts are encountered during the remaining survey(s) of the Barn, a mitigation licence will be required from Natural England legally facilitate the works. There are three licencing option as available through Natural England, dependant on the type of potential roosts encountered, some may not be applicable. These options include:
- European Protected Species Licence (EPSL) mitigation licence;
 - Bat Mitigation Class Licence (BMCL); and
 - Earned Recognition (ER)
- 4.3.5 If required, the licence application will include a bat mitigation strategy designed to maintain the Favourable Conservation Status of the identified roosts and ensure there is no net loss of roosting provision on Site. The method statement will detail measures to minimise disturbance and avoid death or injury to

bats during the construction of the proposals. These measures will be informed by the bat licence but will likely include:

- Timing the works appropriately to ensure the least impact upon bats, namely undertaking the works outside of the bat maternity period (May to August inclusive);
- Pre licensable works inspection/nocturnal survey as appropriate;
- Supervision of certain works in confirmed and potential bat roost locations by a licensed bat ecologist who is named or accredited to act under the bat licence for the Site;
- All contractors working on the project to be briefed on the presence of bats and appropriate working practices by the named ecologist or an accredited agent through a pre-works toolbox talk;
- Temporary bat roosting provision, such as bat boxes erected on retained trees on Site, for the relocation of any bats encountered during the supervised works;
- No breathable roof membrane to be used on the buildings, only bituminous 1F felt; and,
- Long term mitigation to be installed to ensure continuous roost provision for bats. The type of mitigation required would be informed with reference to the '*UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*' (Reason, P.F. and Wray, S, 2023), but likely include the reinstatement of a similar crevice features post-development and the inclusion of bat access tiles.

4.3.6 Irrespective of the results of the additional survey(s), it is recommended that as compensation for the loss of potential summer roosting and winter hibernating features across the Site, bat boxes or bat access roof tiles should be incorporated into the Barn as part of the development proposals. The model of boxes used should be suitable for crevice dwelling bat species, such as the Schwegler 1WI or 1WQ Summer and Winter Bat Boxes, which offer year-round suitability for roosting bats. The bat boxes should be placed as high as possible above the ground on the Barn, facing southern aspects to maximise chances of occupation.

5. References

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

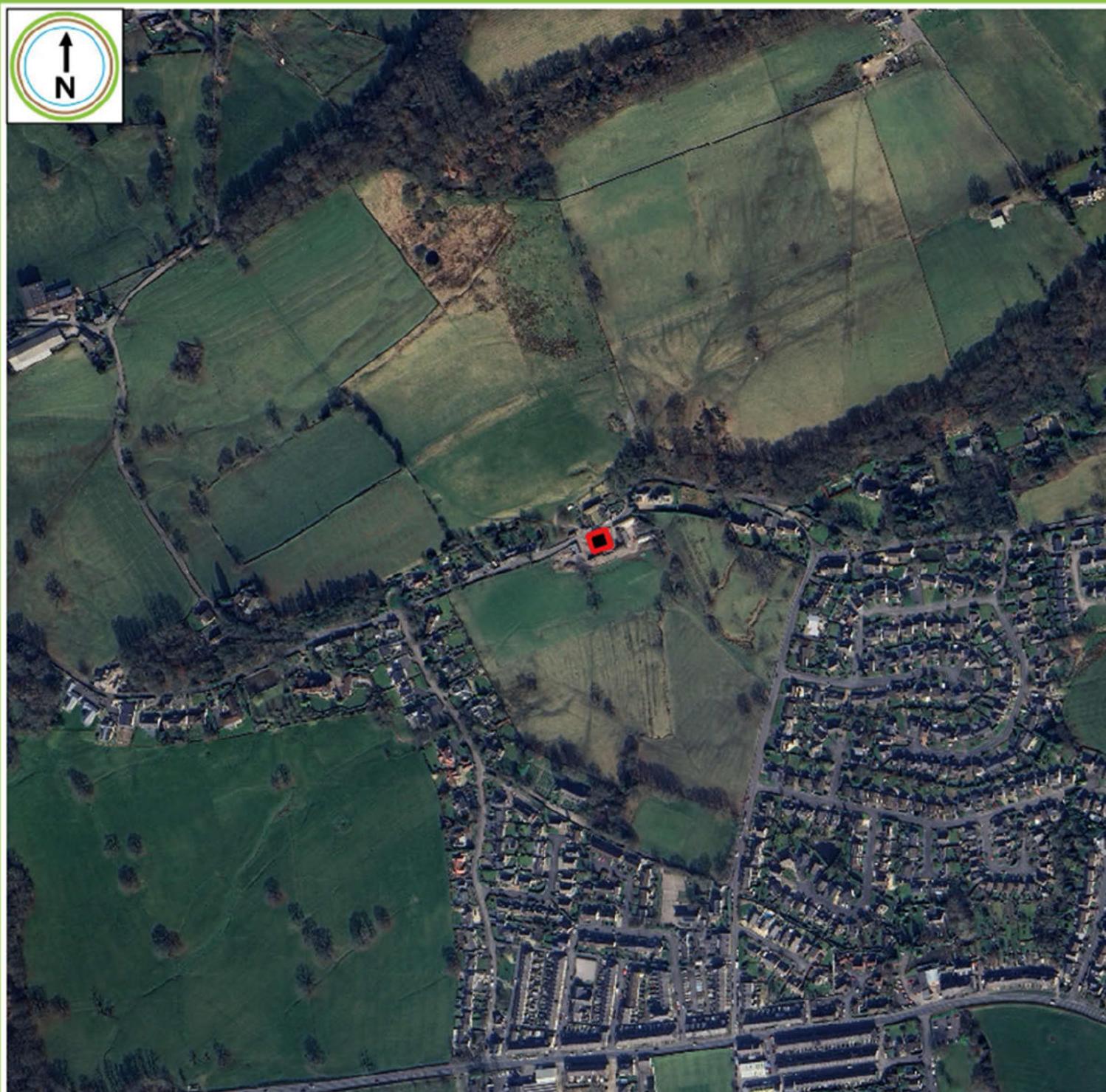
Ecology Services Ltd (2024) '*Whine Lane, Read – Preliminary Roost Assessment (Bats) Survey Report*'.

Reason, P.F. and Wray, S. (2023). '*UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*'. Version 1.1. Chartered Institute of Ecology and Environmental Management, Ampfield.

Russ, J. (2021). '*Bat Calls of Britain and Europe: A Guide to Species Identification*'. Pelagic Publishing, London.

ISBN 9781784272258.

Figure 1. Site Location



Legend

 The Barn

0 100 200 300 400 m



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Figure 1
Site Location

Figure 2. Locations of Static Bat Detectors During Hibernation Monitoring



Legend

The Barn

Static Bat Detector Locations



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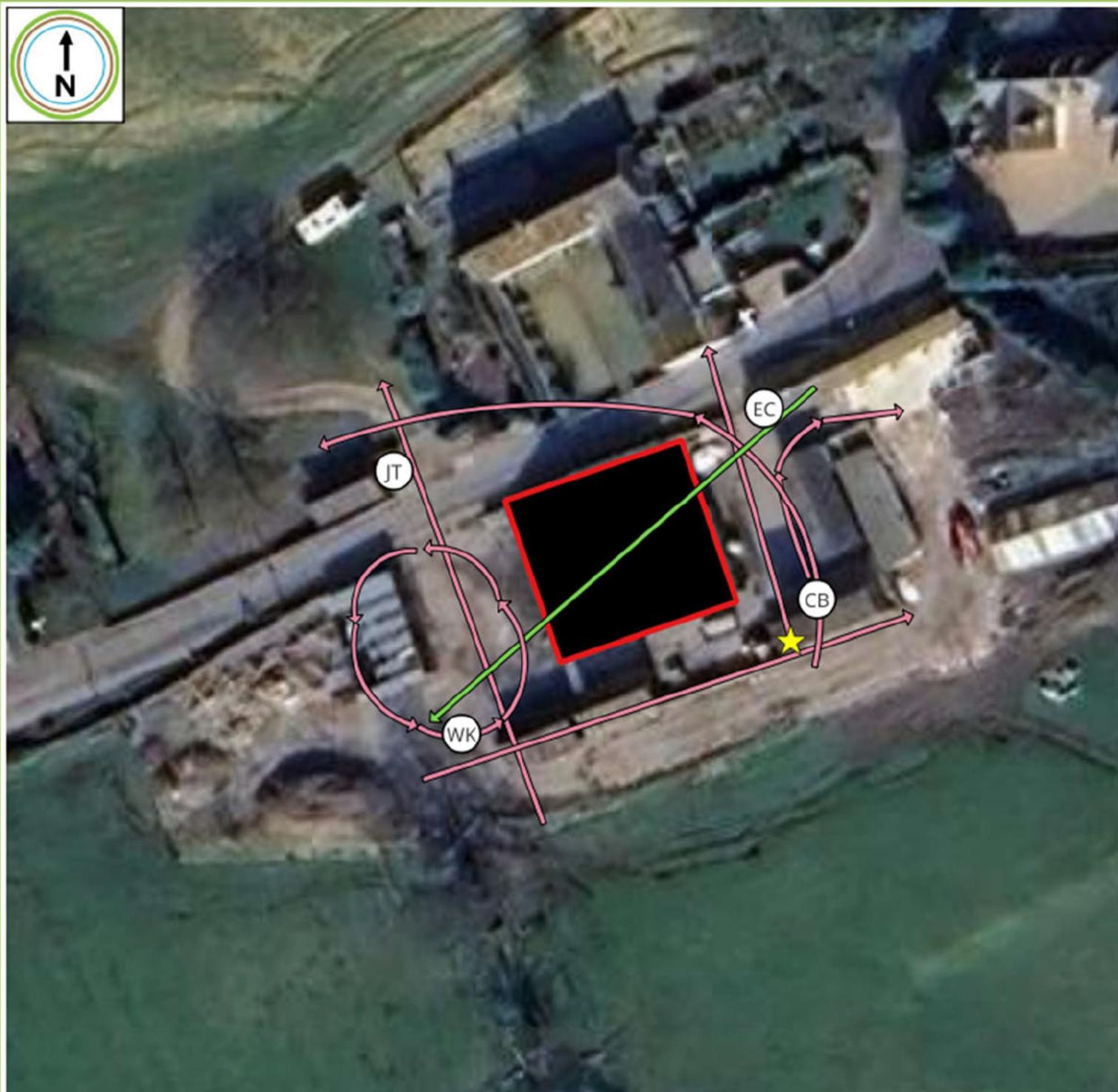
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Houlker Farm, Read

Figure 2

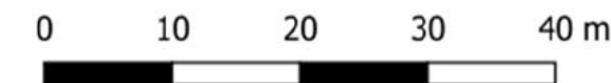
Locations of Static Bat Detectors During Hibernation Monitoring

Figure 3.1 – 3.2 Nocturnal Bat Survey Results



Legend

- The Barn
- Surveyor Locations
- Potential Roost Location
- Bat Flight Paths**
- Common pipistrelle
- Noctule



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Houlker Farm, Read

Figure 3.1
Nocturnal Bat Survey Results
Survey 1 - 7th May 2025

Appendix 1. Darkest Point Photographs of Night Vision Aids (NVAs)

