# Preliminary Roost Assessment

## Briefing Note Report

Orchard Farm, Bedingfield Road, Bedingfield, IP23 7LQ

Mr and Mrs Newman, Orchard Farm, Bedingfield Rd, Bedingfield, IP23 7LQ

April 2023

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Report prepared by Dr J. Huckle for Huckle Ecology Ltd

Declaration: The information and advice which we have prepared and presented it true and has been developed in accordance with the Chartered Institute of Ecology and Environmental Management Code of Professional Conduct. We confirm that any opinions expressed are our own and my true and bona fide opinions.

**Digital Signature:**

Dr Jon Huckle CEnv MCIEEM MSc BSc (Hons)

# Executive Summary


- Huckle Ecology was commissioned in April 2023 by Mr and Mrs Newman to undertake a Preliminary Roost Assessment of an existing dwelling at Orchard Farm, Bedingfield. The PRA has been requested to inform a planning application for a proposed extension of the bungalow with regard to the potential effects on bats.
- A desk study and PRA survey were undertaken in April 2023. The desk study has confirmed that there are no designated sites, or areas of priority habitats, within close proximity to the site that would present material considerations for the planning decision maker.
- The PRA survey included an external and internal inspection of the property to identify the presence of signs of bats and the potential suitability of the structure to support bat roosting habitat. The survey recorded no evidence of bats within the building and concluded that the building provided negligible potential habitat for roosting bats and the site provides a small area of low value foraging or commuting habitat for bats.
- Mitigation and enhancement measures have been recommended that demonstrate good practice and will deliver a net gain for biodiversity in proportion to the scale and character of the proposed development. These measures include a wildlife friendly strategy and the erection of bat boxes and bird nest boxes.


# 1 Introduction

## Terms of Reference

1.1 Huckle Ecology was commissioned by Mr and Mrs Newman (the applicant) to undertake a Preliminary Roost Assessment of a proposed extension of Orchard Farm, Bedingfield.

1.2 The proposed extension is to enlarge a previous extension that was partially completed in 2022; the proposed extension will involve the removal of the lower tiles (approx. 7-8 tiles from the bottom) from the roof of one elevation of the existing single storey dwelling. The extension will comprise a shallow sheet metal roof that will tie into the existing slate tiles roof above. In addition, 2x no Velux light tunnels will be installed to provide natural lighting to the existing kitchen area.

1.3 The Site location is presented below in Figure 1, with the proposed section of the roof that will be affected by the works shown in Photo 1 (as provided by the applicant). The proposed extension works are illustrated in Figure 2a-2c below.

**Figure 1 Site Location Plan**

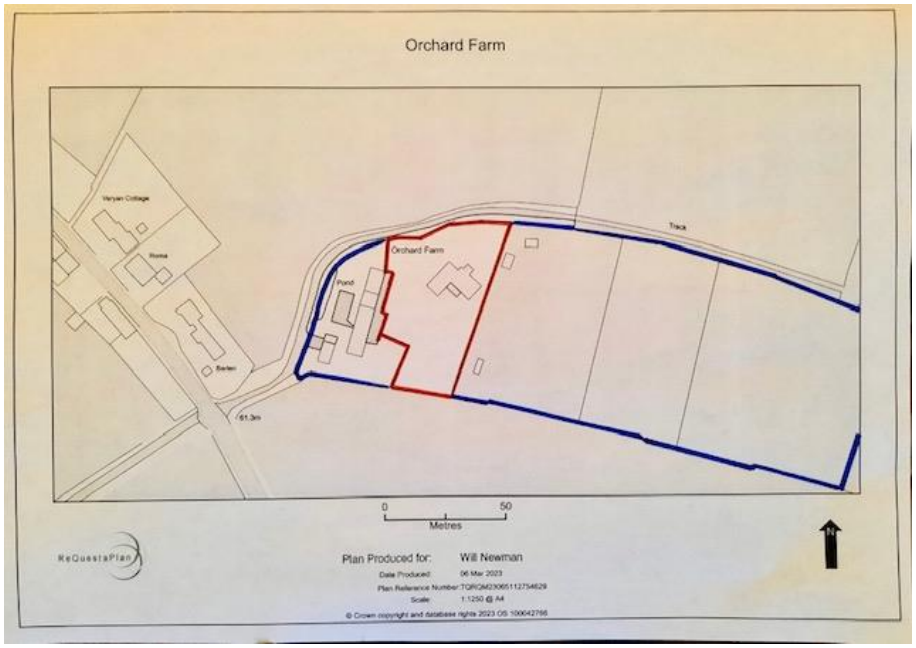
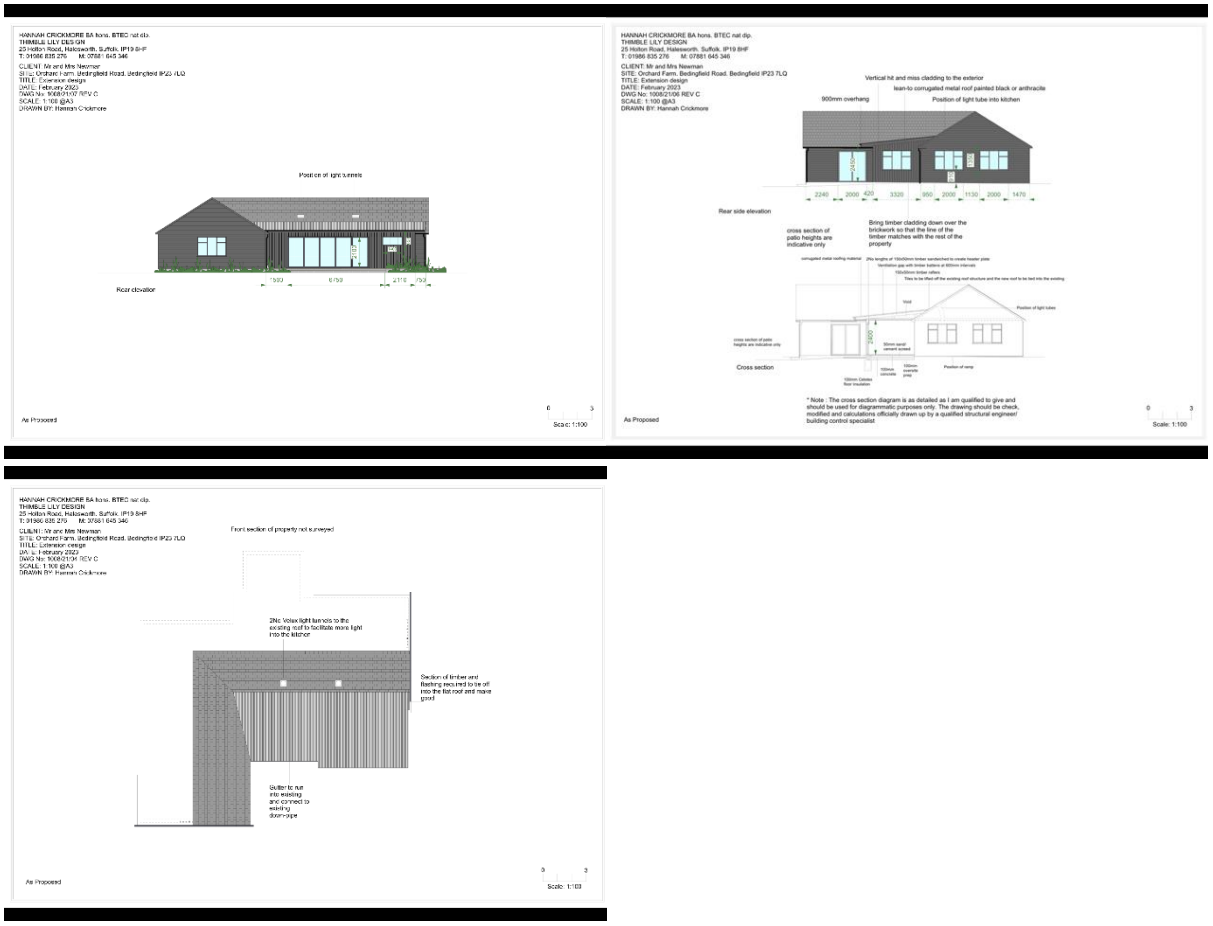



**Photo 1 Section of Roof to be removed in the construction of the proposed extension (roof tiles to be removed indicated by red hatching)**

**Figure 2a-c Proposed Elevation Drawings (Rear and Side Elevations), and Proposed Plan**



### Aim of Report

1.4 This report provides the findings of a Preliminary Roost Assessment Survey to assess the potential suitability of the building for bats, whether the proposed development would result in adverse effects on bats, and to determine the need for further bat activity surveys in the event that the structure supports potential roost features that could be used by bats.

1.5 This report does not constitute a more comprehensive Ecological Impact Assessment (EcIA) but is considered a proportionate approach where proposed works affect an existing building only and no significant excavations are required.

# 2 Methodology

### Desk Study

2.1 A desk study was undertaken to review existing information regarding designated sites, habitats or species that benefit from statutory protection and/or are of nature conservation concern.

2.2 The scope of the desk study was to identify features of ecological value that could potentially be affected by the proposed development; for this reason, the scope of the area around the Site to be included

within the desk study search has been set at a distance of 1 km which is sufficient to provide an indication of the nature conservation interest in the surrounding area and are considered appropriate for the size of the Site and the nature of the proposed development.

2.3 Due to the very small scale of the site, a full data search of records held by Suffolk Biodiversity Information Service (SBIS) was not considered proportionate. Information on statutory sites was obtained from the UK Government internet site MAGIC (http://www.magic.gov.uk/).

## Bat Preliminary Roost Assessment

2.4 The Bat PRA was undertaken on 4th April 2023, and included an external and internal inspection of the Stable block building and trees included within the proposed development Site.

2.5 The PRA survey was undertaken by Dr Jon Huckle, an experienced professional ecologist with over 25 years of postgraduate experience and over 18 years operating as an ecological consultant. He has undertaken numerous bat surveys, including building inspections, bat activity transects, emergence and return roost surveys and has managed ecological input to numerous ecology chapters of Environmental Statements. He has provided evidence as an expert witness on bat ecology at several planning inquiries.

2.6 The preliminary roost assessment comprised a detailed inspection of the exterior and interior of the building to look for features that bats could use for entry/exit and to search for signs of bats, in accordance with methodological guidance produced by the Bat Conservation Trust (Collins, 2016). The objective of the survey was to determine the actual or potential presence of bats, to identify potential emergence points to focus on during emergence surveys, and to confirm the scope of further surveys that would be required to accompany the planning application, in line with best practice guidance on bat surveys (Collins, 2016).

2.7 For each building or tree, the PRA assigns a category to each structure according to its potential for supporting bat roosts using the criteria detailed in the BCT survey guidelines (Collins, 2016) and summarised in Table 1 below.

**Table 1 Guidelines for assessing the potential suitability of proposed development sites for bats, taken from Collins 2016.**

| Suitability | Description of roosting habitats | Description of commuting and foraging habitat |
|---|---|---|
| Negligible | Negligible habitat features onsite likely to be used by roosting bats. | Negligible habitat features on- site likely to be used by commuting or foraging bats. |
| Low | A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions 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 or hibernation.)<br>A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential. | Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.<br>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 or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, | Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub |

| Suitability | Description of roosting habitats | Description of commuting and foraging habitat |
|---|---|---|
| | conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed). | or linked back gardens. |
| High | A structure or tree 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 and surrounding habitat. | Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.<br>Site is close to and connected to known roosts. |

# 3 Survey Results

## Desk Study

3.1 No Statutory Designated Sites (Site of Special Scientific Interest, European Sites, Local Nature Reserves etc) are located within 1km of the application site. The closest SSSI is Mickfield Meadow SSSI, located 5.7km south west of the application site at its closest point.

3.2 No non-statutory designated sites were identified within 1km of the application site; the nearest County Wildlife Site is Southolt Churchyard, located approx. 1.7km north west of the Site and there are no areas identified on the Priority Habitat Inventory within 1km of the Site.

3.3 Due to the small extent of the proposed works and the very limited nature of the proposed development, it is considered certain that there would be no direct or indirect adverse effects on any statutory or non-statutory designated sites, or areas of Priority Habitat.

## Bat Preliminary Roost Assessment

3.4 All bat species in England and Wales, and their resting and breeding places (roosts), are afforded protection under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence for anyone to intentionally or recklessly kill or injure a bat or disturb a roosting bat. It is also an offence to damage, destroy or obstruct

### Preliminary Roost Assessment – 4th April 2023

3.5 The building inspection was undertaken in April 2023 to provide an evaluation of the current potential suitability of the buildings to support bat roosting habitat. The proposed extension will involve the removal of the lower rows of tiles from the southwest elevation of the building only.

3.6 The survey was undertaken in bright, clear conditions although there had been overnight rain in the preceding three days; these were optimal conditions for a building inspection although rain can wash

some recent signs of bats off exposed surfaces. The survey was undertaken in April, which is at the start of active season for bats when bats have generally come out of hibernation and active, feeding on most nights when temperatures are suitable; in cold conditions bats may become torpid again (cool and inactive) or may move between several roosts.

3.7 The building inspection was able to access the external elevations of the section of the building to be affected by the proposed development as well as internally view the interior walls and loft spaces present; there were no significant limitations to the building inspection.

***External Inspection***

3.8 The residential building comprised a single storey bungalow of relatively recent construction that appeared to have been renovated and updated within the last five years. The roof was composed of flat, slate tiles with tightly fitting ridge tiles with intact mortar. The fascia and soffit boards were timber with PVC guttering along the front of the roof to be extended.

3.9 The walls were clad in timber weatherboards, which were in excellent condition and of relatively recent origin with no warped boards or apparent cavities. The south west elevation of the bungalow included a 4-panel bi-fold glazed door with a boarded section left unglazed.

3.10 Externally there were no obvious cavities or other bat Potential Roost Features (PRFs) associated with the roof, walls, or boarded sections of the building.

***Internal Inspection***

3.11 The interior of the loft space was freely accessible and inspected using a torch and close focusing binoculars where necessary (to view sections along the edge of the roof with restricted headspace).

3.12 Internally, the loft space had been recently re-roofed and insulated throughout. The roof tiles were supported by sawn timber beams and support with a Non-Bitumen Coated Roofing Membrane (NBCRM), and the floor of the loft space was boarded and insulated with Foam Rigid Insultation boards.

3.13 A fibreboard partition panel wall was present between two sections of the loft space, presumable separating the older part of the bungalow from a more modern extension.

3.14 All insulation boards, and timber supports were inspected for the signs of bats including the presence of live or dead bats, bat droppings and urine staining, or evidence of feeding.

3.15 No signs of bats were found in any section of the loft space.

***Foraging and Commuting Habitat***

3.16 The adjacent garden provides Low value foraging and commuting habitat (Collins, 2016), with areas of amenity grassland and paved areas with hedgerows and individual trees along the site boundary providing limited foraging opportunities and commuting flightlines.

***Conclusion of Bat PRA***

3.17 The external and internal inspection concluded that there were no habitat features onsite likely to be used by roosting bats and that the building provided **Negligible** suitability as bat roosting habitat.

*Evidence of Breeding Birds*

3.18 No birds' nests were identified on the exterior of the building or within the interior of the loft space of the building.

## Site Photographs

**Photo 2 View from south of SW elevation showing area of extension**

**Photo 3 View from south west showing SW facing gable wall and existing bifold doors**

**Photo 4 View of SW elevation and area of extension**

**Photo 5 View of paved patio where extension will be sited.**

**Photo 6 Close up of fascia boards and timber westehr boards – good condition**

**Photo 7 View along SW elevation**

**Photo 8 Interior View of loft space in area of extension**

**Photo 9 Interior View of loft space in area of extension**

| Photo 10 Interior View of loft space in area of extension | Photo 11 Interior View of loft space in area of extension. |
|---|---|
|  |  |

# 4 Conclusions and Recommendations

4.1 The proposed application comprises an extension to an existing dwelling that will involve alteration of a recently renovated section of a bungalow.

4.2 A desk study has confirmed that there are no designated sites, or areas of priority habitats, within close proximity to the site that would present material considerations for the planning decision maker.

4.3 The proposed development is not considered likely to result in potential effects on bats; the building was considered to provide negligible potential habitat for roosting bats and the site provides a small area of low value foraging or commuting habitat for bats.

4.4 It is not considered that the proposed extension will significantly affect local bat populations, as there is an abundance of alternative foraging sites within the surrounding area that would remain unaffected. Any lighting of the proposed dwelling could result in disturbance to potential bat habitat, although the buildings are sufficiently far from any potential roost habitats in nearby buildings or trees, such that this is likely to affect potential foraging areas only.

4.5 Regardless of the non-significant nature of the potential impacts on bats outlined above, measures designed to minimise the potential effects of the scheme on bats and provide potential habitat enhancements for local bat populations are outlined below.

***Mitigation of Potential Effects on Bats***

- Avoidance of any adverse effects of artificial lighting by implementing a Wildlife Friendly Lighting Strategy (See below) that will ensure that hedgerows and trees retained or planted around the site boundaries are not illuminated, with downward, directional lighting pointing away from these features, and with illumination of the existing boundary features avoided.

*Wildlife Sensitive Lighting Strategy*

4.6 The strategy is recommended to demonstrate measures that avoid lighting impacts on roosting or foraging bats, but which does not compromise safety requirements. The following measures are recommended to be implemented:

- Lighting levels should be minimised as far as practically possible to ensure that lighting needs are met but without unnecessarily increasing ambient light levels.

- Warm white lighting (3000K bulb) should be used in preference to bulbs with a blue or ultraviolet component which can attract insects and potentially lead to a reduction in prey availability for light sensitive bat species.
- Lighting should be fitted within motion sensors with timers to avoid unnecessary lighting of areas when not in use.
- Trees and hedges along the site boundaries will not be illuminated.
- Lights should be downward facing and installed at low levels where possible – this avoids upward light spill. The use of cowls and hoods should be used where possible to direct lighting to areas where needed.

***Biodiversity enhancements Benefiting Local Bat and Bird Populations***

4.7 The following biodiversity enhancements are recommended to deliver a net gain for biodiversity in proportion to the scale and character of the proposed development:

- Erection of two bat boxes to provide potential roosting habitat in semi-mature trees retained within the existing land holding. The bat boxes should be of standard woodcrete construction such as the 'Schwegler 2F' or equivalent to maximise the durability of the bat boxes while minimising maintenance requirements. It is recommended that at least two boxes are installed, facing different directions (e.g., east, south and west) to provide a greater diversity of roosting opportunities.
- Erection of two bird nest boxes, mounted on suitable trees within the applicants' garden; the boxes should either have a small 28mm or 32mm hole or open fronted for species such as European robin. The boxes should be of woodcrete construction to maximise their durability, for example the Schwegler 1B Nest box[1] or equivalent[2].

4.8 Incorporation of these measures is considered to provide appropriate mitigation measures for any potential adverse effects associated with the proposed development and would also provide significant enhancements to biodiversity across the development site. With the successful implementation of these measures it is considered certain that there would be no likely significant adverse effects on local bat populations and the increase in bat roosting habitat will result in a proportionate gain for biodiversity,

4.9 In accordance with Charter Institute of Ecology and Environmental Management (CIEEM) guidance on the Life Span of Ecological Surveys and Reports (CIEEM, April 2019), it is advised that baseline survey results remain valid for approx. 12-18 months subject to their being no major change in the management of the site or the likelihood of ecological important species moving in to the site.

# 5 References

CIEEM. (April 2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys.* Winchester: CIEEM.

Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).* London: The Bat Conservation Trust.

[1] 1B Schwegler Nest Box | NHBS Practical Conservation Equipment
[2] Vivara Pro Seville 32mm WoodStone Nest Box | NHBS Practical Conservation Equipment