



**Protected Species Survey for  
Bats and Nesting Birds  
and Nocturnal Bat Survey Report**

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Methods used to prepare this report, including those carried out in the field followed The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

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# 1 INTRODUCTION

- 1.1 Cotswold Environmental Ltd was instructed to carry out a Protected Species Survey for bats and nesting birds, as well as subsequent nocturnal bat survey effort, at Magpie Farm, Enstoen Road, Chipping Norton, Oxfordshire OX7 5TS. The site is located at approximate National Grid Reference (NGR): SP 36937 28634.
- 1.2 Development proposals are described as the build of a two-storey pitched roof extension to the rear elevation of the residential dwelling (See Fig 2. Site Map). A planning application will be submitted to West Oxfordshire District Council in due course.
- 1.3 This report provides survey data based on field visits carried out in September 2022 and June and July 2023. The purpose of the daytime survey was to assess the buildings for their suitability to support protected species and to ascertain evidence of any protected species, most notably bats and nesting birds. The field visit results provide information to determine the potential ecological impact the proposed development may have on protected species, and to inform the level of further survey effort and mitigation required to comply with relevant nature conservation policies and legislation. The evaluation and findings in this report can be used by West Oxfordshire District Council in their view of the planning application. Survey results should be considered valid for a period of 12-18 months subject to consultation with the Local Planning Authority and/or Natural England.
- 1.4 The National Planning Policy Framework (NPPF) (July 2021) sets out the government planning policies for England and how they should be applied. Chapter 15: Conserving and Enhancing the Natural Environment, is of particular relevance to this report as it relates to ecology and biodiversity. The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.
- 1.5 Magpie Farm is located between the villages of Heythrop and Little Tew, approximately 5.7 km north-east of Chipping Norton town centre. The site location is shown in Fig. 1: Site Location Map.
- 1.6 Two buildings – The main residential dwelling and a detached stable block, located on the grounds of Magpie Farm, were surveyed during the assessment. The survey boundary is shown in Fig. 2: Site Map.

## Survey Objectives

- To determine suitability for protected species

- Ascertain evidence of protected species.
- Determine the potential ecological impact the proposed development will have on protected species
- Inform the level of further survey effort that is required.

## 2 METHODOLOGY

### Desk Study

- 2.1 A records search was undertaken using desktop resources including the Multi-Agency Geographic Information for the Countryside<sup>1</sup> (MAGIC) resource. MAGIC was used to search for records of designated sites, habitats and granted European Protected Species Licenses (EPSLs) within a 2km radius. Google Earth<sup>2</sup> was also used to study the nearby landscape.

### Preliminary Bat Roost Assessment

- 2.2 Ecological consultant Jason Skinner (NE Class 2 Bat Survey licence 2020-50774-CLS-CLS) carried out the protected species survey on Thursday 8<sup>th</sup> September 2022.
- 2.3 Survey effort was completed in line with official assessment guidelines<sup>3</sup> and largely followed that recommended by the Chartered Institute for Ecology and Environmental Management (CIEEM)<sup>4</sup> and British Standard Code of Practice<sup>5</sup>. The assessment followed the standard methodology. The site was searched using visual encounter survey techniques. Potential bat movement corridors and movement barriers were assessed and noted. During the site visit, where possible, all areas of the building were internally and externally examined for evidence of bats. The building survey included an internal and external assessment using a powerful torch and endoscope where required.
- 2.4 Internally, the buildings were assessed using a powerful torch beam to scan the walls and flat surfaces for droppings and other signs of bat activity. Feeding remains such as moth and butterfly wing concentrations were also surveyed for. All holes and crevices considered by the surveyor as likely to be used as a bat roost were examined to ascertain presence or absence of bats.

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<sup>1</sup> Multi-Agency Geographical Information for the Countryside (MAGIC). Crown Copyright and database rights [2015]. Ordnance Survey 100022861. Available at: <http://www.magic.gov.uk/>

<sup>2</sup> [https://www.google.co.uk/intl/en\\_uk/earth/](https://www.google.co.uk/intl/en_uk/earth/)

<sup>3</sup> Collins J (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn. Bat Conservation Trust, London.

<sup>4</sup> CIEEM (2015) Guidelines for Ecological Report Writing. CIEEM, Winchester.

<sup>5</sup> British Standards Institution (2013) BS 42020:2013. Biodiversity – Code of practice for planning and development. British Standards Institution, London.

- 2.5 Externally, visual ground inspections of all elevations were undertaken using binoculars and a telephoto lens where required. Photographs were taken to capture likely features of ecological value to bats and birds i.e. missing tiles, damaged or missing mortar, exposed gable ends, gaps within soffit board, rotten timber and other potential entry points. Other external aspects of the buildings were surveyed, including windows, windowsills, external doors and the ground within close proximity of the structure was thoroughly inspected for bat droppings and feeding remains.

**Table 1: Guidelines summary for assessing potential bat roost suitability**

Suitability	Description of building, tree or structure
Negligible	Negligible habitat features on site likely to be used by roosting bats
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, potential roost sites not suitable for larger numbers or regular use (i.e. maternity or hibernation).
Moderate	A structure or tree with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.
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.
Confirmed roost	Evidence of bats or use by bats found.

## Nocturnal Bat Surveys

- 2.6 Three dusk nocturnal bat surveys were carried during June and July 2023 following recommendations from the preliminary survey. Survey effort was carried out by ecologists Tom Charlton MSc MRSB (NE class 2 bat survey licence number 2018-34622-CLS-CLS), Jason Skinner (NE Class 2 Bat Survey licence 2020-50774-CLS-CLS), Kayleigh Stewart, Samantha Stephens, David Howard, and Gavin Stewart.
- 2.7 Nocturnal bat survey effort was completed in line with official assessment guidelines<sup>6</sup> as well as interim guidance notes issued by the Bat Conservation Trust in May 2022<sup>7</sup>.
- 2.8 During the surveys, surveyors took up separate static positions 15 minutes prior to and at least 1.5 hours after sunset (see Site Map: Fig. 2). Visual observations of bats were noted, and bat species were identified using bat detectors. The information recorded included weather, timings, whether bats

<sup>6</sup> Collins J (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn. Bat Conservation Trust, London.

<sup>7</sup> Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys Bat Conservation Trust, May 2022 [Online] [Accessed 1<sup>st</sup> June 2022] <https://cdn.bats.org.uk/uploads/pdf/Interim-guidance-note-on-NVAs-May-2022-FINAL.pdf?v=1653399882>

emerged or re-entered the building, direction of travel, species and activity e.g. foraging, commuting. Equipment used during the nocturnal surveys included Echo Meter Touch II recorders coupled to Apple tablets and heterodyne bat detectors.

- 2.9 Five infrared camera systems (SANNCE and Sony FDR-AX53 4K models) coupled with infrared lighting (Night Fox XB5 and XC5 models 850 – 940 nm) were used to strengthen the survey data.
- 2.10 Recorded bat calls were analysed using Kaleidoscope 5.1.9i where required.
- 2.11 Temperatures were recorded onsite using an Elitech RC-51 Temperature Logger.

## Inspection for Birds

- 2.12 The survey also included an internal and external inspection of the surveyed building for evidence of common nesting birds as well as notable and protected species. Inside the building, artificial light was used to search for birds, dead birds, dead chicks, nesting material and eggs.
- 2.13 All accessible elements of the surveyed building containing nesting potential were checked to see if the development would have any adverse effects on nesting birds. The active nests of all wild birds are protected under the Wildlife & Countryside Act 1981 (as amended). An active nest is one that is being built, containing eggs or chicks, or on which fledged chicks are still dependent. Birds within Schedule 1, such as barn owl, are also protected from disturbance during the nesting period.
- 2.14 The presence of notable and protected bird species and any signs indicative of their past and present use was taken into consideration during the inspection of the building. Likely perches and nesting locations were checked, and all ledges and cavities were examined for nesting debris where accessible.

## Limitations

- Bat droppings deposited in or around the exterior degrade quickly due to weather. The presence of bats or their roost must not be disregarded in the absence of droppings.
- Many bat species in the UK are crevice-dwelling bats and as such, are difficult to find during PRAs.
- Local biological records were not obtained.
- For Health & Safety purposes ladders were not used to gain close views of the external roof structure. All external aspects of the building were assessed from ground level.

## 3 RESULTS

### Desk Study

#### Designated Sites

- 3.1 According to the MAGIC database, one statutory designated site exists within a 2km radius of the site boundary. Little Tew Meadows SSSI (Site of Special Scientific Interest) is a site of biological interest located 361 m to the south-east. No non-statutory sites exist within the same radius.

#### Local Habitats

- 3.2 Magpie Farm is located within a rural setting and located within its own grounds, which includes rows of mature trees, newly planted woodland, managed lawns and grazed grassland bordered by mature hedgerows. The property is surrounded by farm land which is largely devoid of development. Grazing pasture, opens out to arable fields with mature hedgerows that are well connected to areas of copse woodland and local waterbodies. Several blocks of deciduous woodland surround the site within a 2 km radius, most notably, a 3.0 hectare block located 630 m to the north-west. In addition, six areas of ancient and semi-natural and ancient replanted woodland surround the property within a 2 km radius. Further notable habitats within the same radius include a substantial area of Woodpasture and Parkland (BAP Priority Habitat) located to the south-west at Heythrop and small watercourses, such as the River Dorn (which runs through the grounds of the property, 26 m to the north of the residential dwelling) and its associated floodplain grazing marsh. Further areas of notable grassland include two parcels of lowland meadow to the east and good quality semi-improved grassland to the north-east.

#### Granted European Protected Species Licences (EPSLs) within a 2km Radius

- 3.3 According to the Magic website, one EPS licence for bats has been granted within a 2km radius of the survey site. This was granted at a site located 1.3 km to the east in 2017 for brown long-eared *Plecotus auritus* bats.



## Preliminary Bat Roost Assessment Results

### Building Assessment

- 3.4 Magpie Farm comprises a residential dwelling, a detached L-shaped barn and a detached stable block. The PRA and all subsequent information pertain to the residential dwelling (referred to within this report as B1) and the stable block (referred to within this report as B2) see Fig. 2: Site Map.

#### **Building 1 (B1) – Residential dwelling**

- 3.5 The surveyed building is a stone-built dwelling, comprised of a two storey wing and an adjoining L-shaped single storey wing. The structure features pitched roofs with gable end walls and a wooden soffit box at the eaves. All roofs are clad with traditional Cotswold tile-stones. The building includes a single loft void within the pitched roof of the two storey wing (see Fig 2: Site Map).
- 3.6 Externally, the stone walls were in excellent condition with no damage or missing mortar however, due to their natural irregular shape, gaps were noted under the Cotswold tile-stones which are present on every roof aspect. In addition, a single vented ridge tile is located midway along the ridge and a four traditional stone wall vents are located on the upper part of the north-west and south-east elevations, providing features that could be exploited by crevice dwelling species of bats. All doors and windows were closed and tightly fitted at the time of the survey.
- 3.7 Internally, the roof of the L-shaped single storey wing is open to the apex, serving as a vaulted ceiling above the kitchen. However, one loft void is present within the roof structure of the two storey wing. This is accessed via a traditional ceiling loft hatch located within a bedroom on the first floor. The roof is underlined with a modern breathable roof membrane which covers the timber roof structure. **A full internal inspection of the roof space revealed a roost for brown long-eared bats with a maximum count of 13 live specimens** on the day of the assessment. The bats were observed roosting together in a tight group, situated between an overlap of the roof membrane.

#### **Building 2 (B2) – Stable block**

- 3.8 B2 is a stone-built, L-shaped stable block, located to the north-east of B1. The single storey structure features a pitched roof which is clad in Cotswold tile-stones. The building is currently in use and has no enclosed roof spaces.
- 3.9 External features noted during the assessment of B2 include gaps under the traditional Cotswold tile-stones, nine vented ridge tiles and stable doors which may be left partially open.

- 3.10 An internal inspection of the building revealed a roof which is open to the apex with a modern breathable roof membrane and exposed timber rafters and purlins. **No evidence of bats was found within B2 during the assessment.**

**Table 2: Weather conditions during the preliminary roost assessment**

Date	Start	Finish	Temp °C	Wind	Cloud	Rain	Notes
8/09/2022	10:45	12:30	18	Calm	82 %	Dry	N/A

## Nocturnal Bat Survey Results

### Survey One - B1 and B2

- 3.11 During the first nocturnal survey, completed on the 15th of June 2023, four species of bat was recorded - common pipistrelle *Pipistrellus pipistrellus*, brown long-eared *Plecotus auritus*, and noctule *Nyctalus noctula*. Activity was dominated by regular commuting passes by common pipistrelle and noctule; the first call was recorded was made at 21:50 h and the final call at 22:55 h. Continuous foraging by low numbers of the common pipistrelle was observed until approximately 22:40 h, after which this became infrequent as they dispersed into the wider environment. Regular commuting noctule were recorded throughout the survey, and a single non-visual recording of brown long-eared pass was made at 22:16 h.
- 3.12 Overall, bat activity levels were considered to be moderate, and **at no point were any bats observed emerging from or re-entering the surveyed building.**

### Survey Two – B1 - B2

- 3.13 During the second nocturnal survey, completed on the 29th of June 2023, low numbers of two species of bat were recorded - common pipistrelle, and noctule. Activity started at 22:02 h, comprising continuous commuting passes and foraging by common pipistrelle over grounds surrounding the surveyed buildings, notably to the west of survey building B1. This activity was recorded throughout the survey, with the final call recorded at 22:48h. Furthermore, low numbers of commuting noctule were recorded between 22.09 h – 22:46 h. No other bat species were recorded, and activity levels were not considered to be significant.
- 3.14 **Notably, at no point were any bats observed emerging from or re-entering the surveyed building.**

### Survey Three – B1 - B2

- 3.15 During the third nocturnal survey, completed on the 13th of July 2023, four species of bat were recorded - common pipistrelle, soprano pipistrelle *P.pygaemus*, noctule, and brown long-eared. Activity started

at 21:32 h, comprising regular commuting passes and foraging by common pipistrelle at both the eastern and western elevations of survey building B1. This activity continued throughout the survey, with the final call recorded at 22:51h. During the same period, infrequent noctule passes were recorded. Two non-visual commuting passes by brown long-eared bat were recorded at 21:41 h and 22:48 h, and one soprano pipistrelle recorded at 22:25 h. No other bat species were recorded, and overall activity levels were considered moderate, notably due to continuous pipistrelle activity. **At no point were any bats observed emerging from or re-entering the surveyed building.**

#### Other observations

- 3.16 Prior to the commencement of the third nocturnal survey on 13<sup>th</sup> July 2023, an inspection of the loft element of survey building B1, during which 11 adult brown long-eared bat and two pups were observed.

**TABLE 3: WEATHER CONDITIONS DURING NOCTURNAL BAT ACTIVITY SURVEYS**

Date	Start	Finish	Sunrise/ Sunset	Temp °C	Wind	Cloud	Rain	Notes
15/06/23	21:10	23:30	21:27	20	Still	10%	Dry	n/a
29/06/23	21:10	23:30	21:29	16	Still	20%	Dry	n/a
13/07/23	21:00	23:15	21:21	13	Light breeze	70%	Dry	n/a

## Bird Inspection Results

### **B1**

- 3.17 Approximately eight house martin *Delichon urbicum* nests are located under the eaves of the residential dwelling. These include a small number of artificial nests. Approximately four active nests were observed during the assessment.

### **B2**

- 3.18 A sparrow terrace is located on the north-west facing gable end of the stable block. Internally, multiple barn swallow *Hirundo rustica* nests were discovered within the stables, although these did not appear to be in use on the day of the assessment.

## 4 INTERPRETATION AND RECOMMENDATIONS

- 4.1 A daytime assessment was commissioned with a view to assess two buildings within the grounds of Magpie Farm for their potential to support protected species, notably roosting bats and nesting birds.

The survey boundary is shown in Figure 2: Site Map. Work proposals include the extension of the rear south-east facing elevation of the residential dwelling and the possible demolition of the stable block.

- 4.2 As part of the desk study, online resource MAGIC was checked for granted EPS licences and statutory and non-statutory designated sites. Results from the online desk study showed that one EPSL for bats has been granted within a 2km radius. Furthermore, one statutory designated site occurs within the same radius. The proposals are considered small-scale, and therefore, provided that the surrounding habitats are not subjected to the inappropriate use of nocturnal lighting, no impacts to nearby habitats beyond the site boundary are anticipated as a result of the development proposals.
- 4.3 The site is located within a rural location, surrounded by gardens, mature trees and grazing pasture with nearby linear features including hedgerows and rows of mature trees that would provide connectivity to surrounding areas of woodland. Hedgerows bordering the surrounding agricultural land will undoubtedly offer value, connecting to the surrounding blocks of woodland which will likely support a diversity of wildlife, including bat populations of various species.

### **Building Assessment**

- 4.4 Multiple Potential Roosting Features (PRFs) were noted on and within buildings B1 and B2 during the assessment and included a single loft void and areas which could be exploited by both crevice and void dwelling/perch feeding species which can access the exposed roof timbers or the underlining of the interiors.

#### **B1**

- 4.5 A maximum count of thirteen brown long-eared bats was discovered roosting within the loft void of the residential dwelling during the daytime assessment in August 2022. These were gathered in a group, between the overlap of the modern breathable roof membrane that lines the roof. No daylight was observed penetrating the roof space as the underlining covers all of the roof area, including the timber roof structure. It is considered that the bats are entering the roof via one of the multiple gaps present under the Cotswold tile-stones or through the vented ridge tile.
- 4.6 Taking the above into consideration, **B1 was considered to be a confirmed roost**. Therefore, it was recommended that prior to any works commencing, **three nocturnal surveys should be undertaken** to gather further information, undertaken during the months of June and July 2023 with a view of obtaining maximum counts of bats.

#### **B2**

- 4.7 During the daytime inspection, no bats or evidence of their presence was noted. However, multiple PRFs were discovered that offer value to both crevice dwelling and void dwelling/perch feeding species

of bat. These included the Cotswold tile-stones, vented ridge tiles and the exposed timbers of the internal roof structure. Subsequently, due to the number of PRFs outlined above and the proximity to the confirmed brown long-eared roost in B1, **B2 was considered to hold high roosting potential.** Therefore, it was recommended that prior to any works commencing, **three nocturnal surveys should be undertaken on the building** to ascertain presence/absence of bats.

#### Nocturnal Bat Surveys

- 4.8 During the nocturnal survey effort, five bat species were recorded utilising the wider environment for commuting and foraging, with activity dominated by *Pipistrellus* sp. within habitats surrounding the surveyed buildings. Results indicate that local bat populations of various species exploit surrounding habitats; however, activity levels overall were considered low throughout the survey effort.
- 4.9 Due to the discovery of a brown long-eared bat roost during the PRA undertaken in September 2022, nocturnal survey effort was extended for a period of up to 30 minutes beyond the guidance of 1.5 hours after sunset to account for the late emergence often seen with this species, though no emergence/re-entry was observed during the three nocturnal surveys upon B1. However, observations from an internal inspection in July 2023, during which 11 adult brown long-eared bat and 2 pups were observed, **provide sufficient evidence of continued use of the building as a roosting site by bats, and characterisation as a maternity roost due to the presence of young.** The lack of emergence during the nocturnal survey effort can likely be attributed to the presence of pups; females will frequently show limited activity and emerge only for short periods during this time whilst they nurse.
- 4.10 No emergence/re-entry was bats was observed during the nocturnal bat survey effort upon survey building B2. As such, roosting by bats can be reasonably discounted within this structure and **no further survey effort is recommended.**

#### Conclusion

- 4.11 As the proposed development will lead to the loss of a maternity roost for brown long eared bat, a European Protected Species Licence (EPSL) will be required from Natural England in order for the development to lawfully proceed. Natural England expect three tests to be satisfied before a EPSL can be issued. These tests are as follows:
- There is no satisfactory alternative.
  - The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

- The action authorised preserved public health or public safety or other imperative reasons of overriding public interest including those of the social or economic nature and beneficial consequences of primary importance for the environment.

4.12 Regarding the derogation test '*The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*', the following consideration has been given:

-A mitigation strategy will be designed in such a way to provide future roosting provisions specifically for these species, and to promote enhancements for other bat species in the area.

4.13 No works are to be carried out until a European Protected Species (EPS) licence has been issued by Natural England. A robust mitigation and compensation strategy and subsequent EPS licence application coupled with supporting method statement and relevant maps must be prepared and agreed to prior to the commencement of works.

### **Roost Characterisation**

4.14 Results of the survey effort show that the main loft element of survey building B1 is utilised as a maternity roost by a maximum count of thirteen brown long-eared bat. No other bat species were observed roosting within the building. Under the current proposals, the roost is to be lost as part of the proposed and as such a European Protected Species Licence will be required from Natural England for works to proceed lawfully.

### **Licence and Mitigation**

4.1 No works are to be carried out until a European Protected Species licence for bats has been issued by Natural England, following successful planning approval. Currently, issuing times for licences by Natural England are typically between 30-60 days.

4.2 The mitigation set out in this report is to ensure the safeguarding of brown long-eared bat and to additionally promote net gain at the site, in line with the current National Planning Policy Framework (NPPF) (July 2021):

4.3 In the absence of appropriate mitigation, brown long-eared bat may be disturbed, injured or killed during the development process. These acts would also lead to a breach of current legislation. As such, upon receipt of relevant planning or other development-related consent(s), a bat mitigation licence should be

applied for and granted by Natural England ahead of any works commencing. A method statement should be designed by the ecologist in association the licence application which will include details of appropriate mitigation and compensation enhancements for the species and roost type present. Outline mitigation and compensation enhancements directly associated with the roost itself are as follows:

- 4.4 In accordance with The Bat Mitigation Guidelines 2004, works will not be undertaken during the maternity season, between May – September, avoiding the maternity period. This will also be subject to a pre-works commencement check of the loft by a bat licenced ecologist to ensure the absence of bats prior to between the months of October-April.
- 4.5 Prior to any impacts to the roof structure of B1, three Schwegler 1FF (or similar) bat boxes will be installed on mature trees within the grounds of the property. Bat boxes must be installed no less than 4m from ground level and must not face in a northerly direction. The bat boxes will provide provisional roosting space for any bats that are found during the licensed supervision (i.e. roof strip). They will also provide suitable roosting habitat for other bats in the area.
- 4.6 Once the bat mitigation licence has been granted by Natural England and immediately ahead of works commencing, a licenced bat ecologist should undertake a further inspection of the loft voids to search for evidence of bats. Consideration should be made with regard to amending the licence if additional species or roost types are discovered that are not listed on the licence. Following this inspection, all contractors working on the proposed development must be briefed on the legal protection afforded to bats and their places of shelter and on how to proceed if a bat is discovered during the course of the work via a toolbox talk undertaken by a suitably experienced and qualified ecologist.
- 4.7 The supervising ecologist bat worker will continue the watching brief until the building is declared free of bats. Any bats found during this period will be safely removed by the ecologist and placed in the bat box. If in the unlikely event a bat is discovered after the ecologist is no longer supervising, works must halt immediately and the appointed ecologist responsible for the licensed works will be contacted for advice. If you are not able to reach the ecologist, then contact The Bat Conservation Trust: 0845 1300 228. Never handle bats for legal and Health & Safety purposes.

#### **Compensation Enhancements**

- 4.8 Following the completion of works, the bat boxes will be left in-situ to enhance the site for local bat populations. Maintenance of bat box comprises replacement, should they become damaged or fall down e.g. during storms. This should only be undertaken under the supervision of a bat licenced ecologist.
- 4.9 Where there is any requirement for additional roof underlining to be used within the loft elements, breathable membranes such as Tyvec **must not be used** in conjunction with the work proposals due

to posing a risk to bats due to entanglement. Only traditional Type 1F bitumen roofing felt can be used. Additionally, any replacement timbers should be untreated to prevent any form of toxic impacts to bats.

- 4.10 Once completed, a final inspection of the bat roost will be completed by an appropriately licensed and experienced bat consultant. If required, a compliance letter can be provided to West Oxfordshire District Council at their request.

### **Brown Long-eared Bat**

- 4.11 The original loft void will be lost as part of the proposed works. To compensate for the loss of the BLE roost, a bat loft will be incorporated into the new proposed development scheme which will provide roosting and pre-emergence flight space for brown long-eared bat. Following bat mitigation guidelines for this species, the loft will be a minimum of 4 m in length and the height from ridge to floor will be at least 2 m<sup>8</sup>.

- 3 x access points will be created along the ridge. They should be evenly spaced along the ridge and ideally at 2 m intervals. They will be achieved by leaving out the bedding mortar or by overlapping ridge tiles to form a natural gap (access holes will be created on either side of each ridge tile to invite bats from either side of the roof pitch). The gaps will then provide access directly into the loft void. Ridge access holes will be 250mm X 25mm. Holes will be made in the felt behind ridge openings (same size as ridge access points) so that bats can pass through into the void space.
- If the bat loft leads into any additional loft space, a partitioning wall will be created using timber. This is to ensure the bat loft remains private and undisturbed. Furthermore, the bat loft should not be used for storage and should not be entered by anyone without a bat Natural England bat licence.
- No new lighting will be installed that would shine directly towards the roost access points.
- No lighting will be used in the new bat loft. No ceiling lights that allow spill into the loft will be fitted below. No additional night-time security lighting that could shine on the mitigation features should be fitted to the outside of the building.
- Type 1 (BS 747) bitumen felt will only be used. **NO OTHER MEMBRANE SUCH AS MODERN BREATHABLE TYPES ARE SUITABLE FOR USE IN A BAT ROOST.** The timbers inside the

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<sup>8</sup> Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.



building will not be treated by any chemical-based substances that might cause harm to bats and the timbers should be left rough-sawn

- No climbing plants will be allowed to grow up the side as they may eventually block roost access.

### **Outline Nocturnal Lighting Measures**

4.12 The insensitive use of external lighting within the proposed development scheme could have a negative impact upon bats using the site for foraging and commuting activity.

4.13 As suitable bat habitat occurs within the nearby surrounding environment, a low-level lighting scheme should be implemented during and after construction to avoid indirect disturbance to bats and other nocturnal animal species that may exploit local habitats. Measures must be taken to ensure nocturnal animals are safeguarded from inappropriate use of light and noise throughout the hours of night during the construction period, as well as to protect important commuting corridors for bats. Any external lighting installed as part of the development must be used in accordance with Guidance Note 8: Bats and Artificial Lighting<sup>9</sup>.

4.14 Sensitive lighting strategy measures during the construction period are as follows:

- Works must not be carried out after dusk and must not commence until after dawn.
- Generators and machinery that emit significant noise levels must not be left to run after dusk.
- LED lighting sources must be used, which generally have a narrower and more directional beam.
- Light spill must be controlled and if lighting is required at night, hooded shields must be fitted to prevent spill onto nearby habitats that are likely to support wildlife, including nearby trees and hedgerows.
- Lighting must not be directed towards any bat or bird compensation features.

4.15 In addition to the above, when selecting appropriate external lighting, the following specifications should be taken into consideration:

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<sup>9</sup> <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

- Any external lighting incorporated into the proposed development should be LED luminaires due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats<sup>10</sup>.
- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used<sup>11</sup>

## Birds

4.16 Multiple house martin and barn swallow nests were discovered during the inspections of buildings B1 and B2. In addition, a sparrow terrace is located on a gable end wall of B2. Although not all nests were currently in use, if at any point nesting birds are discovered utilising the structures during the construction/demolition phase of the development, without appropriate mitigation, these may be directly impacted by the development proposals. Impacts to nesting birds can be avoided by timing works outside the bird nesting season which generally runs between February-August, or by ensuring a site visit is carried out by a suitably qualified ecologist ahead of works commencing. In the event that any nesting birds or suspected nesting activity is discovered prior to works commencing, works must cease and Cotswold Environmental Ltd contacted for further advice.

### **Biodiversity Enhancement**

The NPPF (2021) outlines obligations of Local Planning Authorities to promote Biodiversity Net Gain where possible. Furthermore, in July 2020 West Oxfordshire District Council approved an Ecological Emergency Plan - a local plan to ensure nature recovery is a strategic priority for all planning and new development<sup>12</sup>. There are various options available with regards to biodiversity enhancement on site:

### **Bats**

An option to increase biodiversity relating to bats on site would be to affix one or more bat boxes to nearby mature trees within the site boundary, ideally using either Schwegler 1FF boxes (or similar) or Schwegler 2F boxes (or similar). Alternatively, bat boxes can be installed at the apex of a gable wall, but they can also be placed along other elevations at eaves level or below the fascia and / or soffits. They may also be pole-mounted in a garden. Bat boxes should be positioned no lower than 4m above ground level and they should not face in a northerly direction.

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<sup>10</sup> Stone, E.L. (2013) *Bats and lighting: Overview of current evidence and mitigation*

<sup>11</sup> Bat Conservation Trust & Institute of Lighting Professionals (ILP) 2018. *Guidance Note 8: Bats and artificial lighting in the UK*. Bats and the Built Environment Series.

<sup>12</sup> CDC (2020) *Cotswold District Council Ecological Emergency Action Plan* <https://www.cotswold.gov.uk/environment/climate-action/cotswold-climate-and-ecological-emergencies/> [Online] [Accessed 30<sup>th</sup> June 2023]

Where possible, trees onsite should be retained to support commuting and foraging bats.

### Nesting Birds

To compensate for the loss of suitable nesting habitat onsite through vegetation clearance, it is recommended that four external bird nest boxes (Schwegler 1B or similar) are installed onsite. For maximum success, our recommendations are as follows:

- Bird boxes must be positioned away from the building's main access doors where disturbance would be likely.
- Following British Ornithology Trust guidelines, bird boxes must be positioned no lower than 2m from ground level and preferably above 3 m to prevent possible predation.
- The proposed placement of the bird nest boxes must allow for a clear flight path, without obstruction to the nest box entrance. It is recommended that they are installed in a south-westerly facing direction to offer protection from prevailing winds and rain and should ideally be slightly tilted in a downwards position to offer further weather protection.

## APPENDIX A: LEGISLATION SUMMARY

### **National Planning Policy Framework July 2021**

The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2021) states: Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;

b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and

c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 172), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.

#### **Wildlife & Countryside Act 1981 (as amended)**

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection

of wildlife. Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (see below), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. Signal Crayfish and American Mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and *Rhododendron ponticum*) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity. There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonably avoided, or actions within the living areas of a dwelling house.

### **Licensing**

Certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example, scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

### **Conservation of Habitats and Species Regulations 2017 (as amended)**

The Conservation of Habitats and Species Regulations 2017 (as amended) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994. These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites - e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and
- adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application. There is no defence that an act was the incidental and unavoidable result of a lawful activity.

It is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

## Bats

In England and Wales, bats and their roosts are protected under the Conservation of Species and Habitats Regulations 2017 (as amended), and the Wildlife & Countryside Act 1981 (as amended). Taken together, this legislation makes it an offence to:

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of the animals to survive, breed, or nurture their young or likely to significantly affect the local distribution or abundance of the species whether in a roost or not
- Damage or destroy the breeding or resting place of a bat
- Possess a bat (alive 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 (alive or dead) or parts of bats

A roost is defined as being 'any structure or place that is used for shelter or protection', and since bats regularly move roost site throughout the year, a roost retains such designation whether or not bats are present at the time.

## Birds

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

## APPENDIX B: MAPS

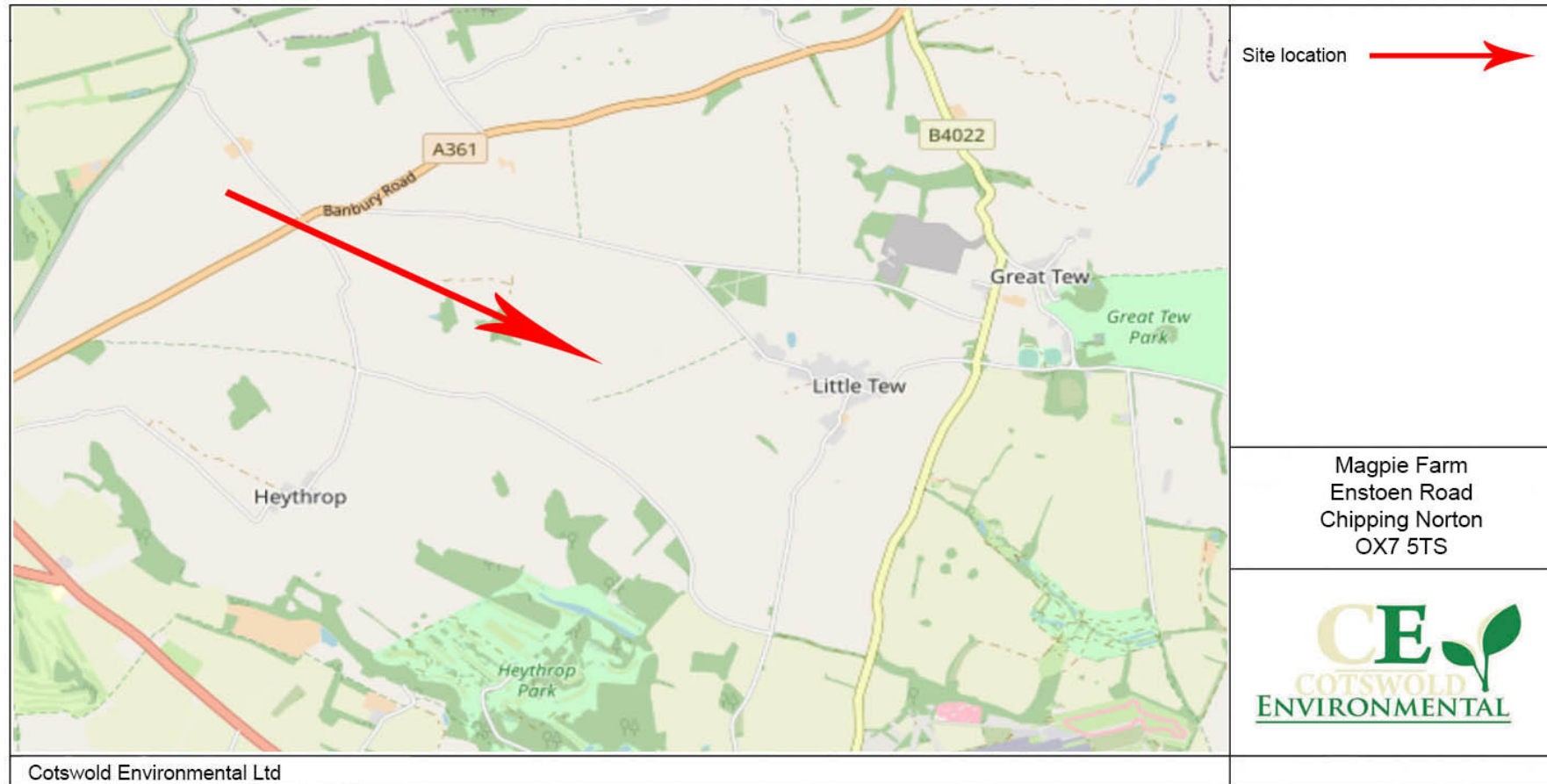


Figure 1: Site location map

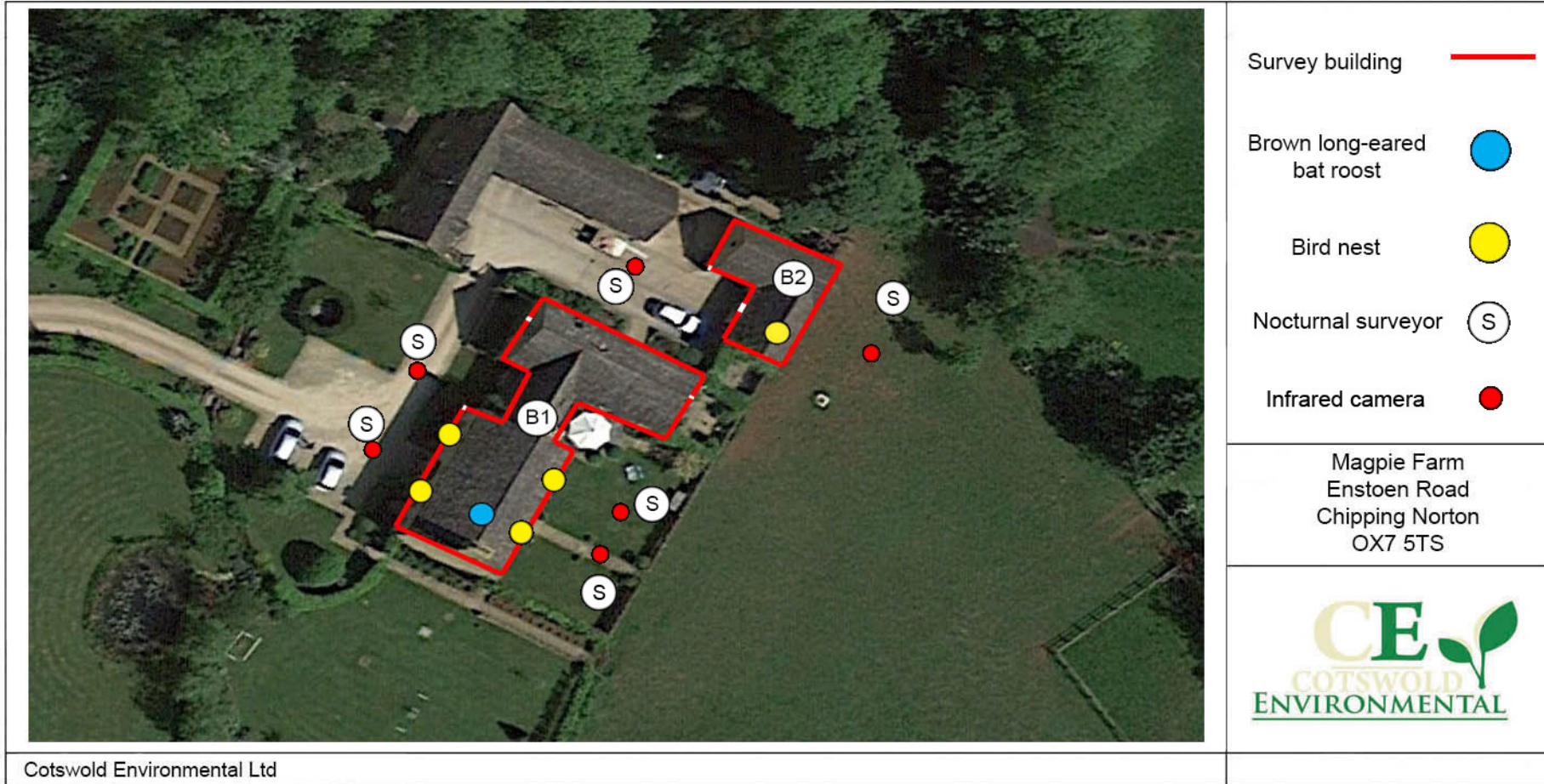


Figure 2: Site Map



## APPENDIX C: SITE IMAGES



**Photo 1: B1 - Rear SE facing elevation of two storey wing.**



**Photo 2: B1 - Front NW facing elevation**



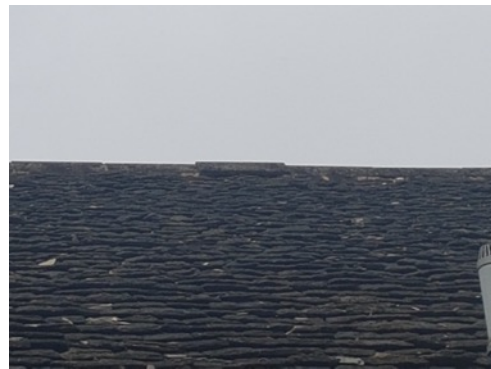
**Photo 3: B1 - Rear elevations of single storey wing.**



**Photo 4: B1 - SE facing gable end wall of single storey wing**



**Photo 5: B1 - House martin nest**



**Photo 6: B1 - Vented ridge tile located midway along pitched roof of two storey wing.**



**Photo 7: B1 - Vaulted ceiling above kitchen within single storey wing**



**Photo 8: B1 - Loft void**



**Photo 9: BLE - Roosting in overlap of MBRM within loft void of B1. September 2023**



**Photo 10: B1 - Concentration of bat droppings on floor of loft**



**Photo 11: B2 - Stable block, viewed from the east**



**Photo 12: B2 - SE facing elevation**



**Photo 13: B2 - SW facing gable end**



**Photo 14: B2 - Sparrow terrace on NW facing gable end wall**



**Photo 15: B2 - Viewed from NW**



**Photo 16: B2 - Vented ridge tile**



**Photo 17: B2 - Swallow nests above ridge beam**



**Photo 18: Surrounding grazing pasture.**



Photo 19: Example infrared camera view – B1



Photo 20: Example infrared camera view – B1



Photo 21: Example infrared camera view – B1



Photo 22: Example infrared camera view – B1



Photo 23: Example infrared camera view – B2



Photo 24: Example infrared camera view – B2



**Photo 25: A group and adult and juvenile BLE discovered within the loft element of B1 during July 2023**



**Photo 26: Two adult BLE roosting upon light fitting within loft element. B1, July 2023**



**Photo 27: Concentration of bat droppings upon loft floor of B1. July 2023**