

Dusk Survey Results

August 2026

Outbuildings at Buck Road

Holt

Wrexham

LL13 9TF

National Grid Reference: SJ 3782 5348



Outbuildings at Buck Road, Holt, Wrexham, LL13 9TF
Dusk Survey Results in Relation to Bats

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Revision	Date	Amendment
1.1	13/08/2026	Amendment to foraging mitigation

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Executive Summary

As part of an ongoing planning application with Wrexham County Borough Council at the Outbuildings at Buck Road, Holt (termed 'the site'), Tyrer Ecological Consultants carried out an Inspection & Assessment in relation to Bats, Breeding Birds & GCN in March 2023, which was subsequently updated in December 2023.

Based on the findings of the Preliminary Roost Assessment, the barn (B1) is duly categorised as pertaining to '**Moderate**' bat roost suitability, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023). The storage building (B2) to the north-west is duly categorised as pertaining to '**Low**' bat roost suitability.

Greenscape Environmental were commissioned to undertake the recommended further bat surveys in 2023. A day roost of common pipistrelle (*Pipistrellus pipistrellus*) being used by one bat, and a day roost of soprano pipistrelle (*Pipistrellus pygmaeus*) being used by two bats, were recorded at B1. Following a significant delay in the completion of these surveys and the determination of the application, the need to update the bat surveys to allow the local planning authority to determine the application was identified. Tyrer Ecological Consultants Ltd were therefore recommissioned to undertake the recommended further bat surveys.

Bats

Based on the results gathered during the 2026 dusk surveys which supersede the 2023 survey results, the building is ascertained to be host to a day roost for the following species: common pipistrelle (eight individuals), soprano pipistrelle (two individuals), whiskered / Brandt's bat (two individuals), and brown long-eared bat (one individual).

A European Protected Species (EPS) licence will be required from Natural Resources Wales (NRW) for the proposed development to legally proceed.

*A Mitigation Scheme to inform the licence application, and to demonstrate to the Local Authority that the favourable conservation status of the species identified can be maintained, has been provided in **Section 6.0** of this report.*

Based on an assessment of the roosts present at the site, in accordance with NRW GPG3, the site is considered a higher risk case in that it meets the following criterion:

- Any proposal involving roost sites for 3 or more different bat species.

Incidental Observations

Two species of bird, swallow and starling, were confirmed as nesting in B2. A tawny owl was also recorded roosting in B1, though no evidence of nesting was recorded.

*Recommendations in relation to harm avoidance and mitigation nesting opportunities have been provided in **Section 5.0** of this report.*

Survey Validity

Bat emergence / re-entry surveys are typically **valid for a period of 12 – 18 months**; Natural Resources Wales will typically accept survey data from within the last two years to support a planning or licence application submission, however this is at the discretion of the Local Planning Authority and / or Natural Resources Wales. Should your planning application not achieve consent, or a licence application (where required) not be applied for within this time period, updated surveys may be required.

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Outbuildings at Buck Road, Holt, Wrexham, LL13 9TF Dusk Survey Results in Relation to Bats

1.0 Background & Introduction

- 1.1 As part of an ongoing planning application (P/2023/0547¹) with Wrexham County Borough Council at the Outbuildings at Buck Road, Holt (termed 'the site'), Tyrer Ecological Consultants carried out an Inspection & Assessment in relation to Bats, Breeding Birds & GCN in March 2023, which was subsequently updated in December 2023 (**Appendix I**).
- 1.2 The survey was commissioned by Blueprint Architectural Services; proposals are understood to involve the conversion of an existing outbuilding to create offices, to include the creation of car parking spaces, drainage, and partial resurfacing. See **Figure 1.1** for a Proposed Site & Location Plan.

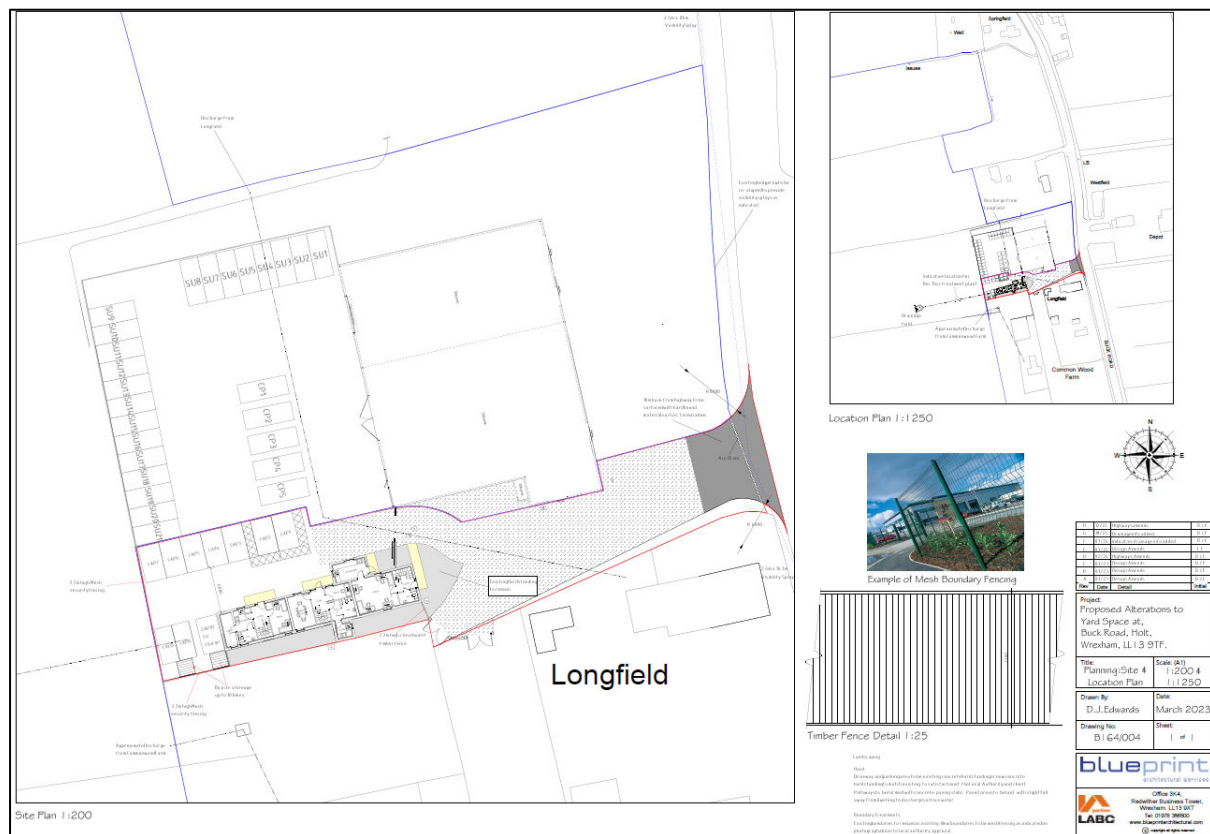


Figure 1.1 – Proposed Site & Location Plan (B16/004 Rev. H) © Blueprint Architectural Services

- 1.3 Included within the Inspection was a Preliminary Roost Assessment (PRA) of any built structures and trees on site in relation to bats. Based on the findings of the PRA, the barn (B1) is duly categorised as pertaining to **'Moderate'** bat roost suitability, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) (see **Figure 1.2** overleaf for a BCT guidance extract). The storage building (B2) to the north-west is duly categorised as pertaining to **'Low'** bat roost suitability.

¹See:

https://register.wrexham.gov.uk/pr/s/detail/a0IJ7000000TuwelAC?c_r=Arcus_BE_Public_Register&language=en_GB

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey ^a (structures).	Two separate dusk emergence survey visits ^b .	Three separate dusk emergence survey visits ^b .
No further surveys required (trees).		

Figure 1.2 – BCT extract on 'Low' and 'Moderate' suitability survey implications

- 1.4 Greenscape Environmental were commissioned to undertake the recommended further bat surveys (**Appendix II**). The two dusk emergence and one dawn re-entry survey were carried out in May & June 2023, in line with BCT guidance. A day roost of common pipistrelle (*Pipistrellus pipistrellus*) being used by one bat, and a day roost of soprano pipistrelle (*Pipistrellus pygmaeus*) being used by two bats, were recorded at B1. The recommendation for a derogation licence from Natural Resources Wales to allow the works to B1 to legally proceed was made.
- 1.5 Following a significant delay in the completion of these surveys and the determination of the application, the need to update the bat surveys to allow the local planning authority to determine the application was identified. Tyrer Ecological Consultants Ltd were therefore recommissioned to undertake the recommended further bat surveys; the two dusk emergence surveys were carried out in June 2026, in accordance with BCT guidance. In addition, a pre-dusk updated inspection of the buildings was undertaken, to assess for any significant changes in their structure, suitability for, or evidence of bats since the original 2023 surveys.
- 1.6 The surveys aimed to identify the presence or reasonably conclude the absence of bats within the buildings. The results, conclusions and recommendations following the survey, including any mitigation to inform a European Protected Species (EPS) licence application to Natural Resources Wales (NRW), where necessary, will be supplied within this report.
- 1.7 This report should be read, understood and presented to the local authority as an additional document to **Appendix I – II** (see Contents page).

2.0 Bats – Legislation & Policy

2.1 All British bats and their **roosts are afforded full protection under the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations (2017) (as amended). When dealing with cases where an EPS (all UK bats) may be affected, a planning authority is a competent authority within the meaning of Regulation 7 of the Regulations, and therefore has a statutory duty, as the local authority, to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Uses of Buildings by Bats

- a) Summer breeding roost, and day/occasional roost (May – August)
- b) Hibernation roost (October – March)
- c) Transitional or temporary roost (other months)

2.3 Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance; climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

*** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to “a breeding site or resting place of such an animal” and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.*

2.4 Up to eleven bat species have been regularly recorded within Wrecsam / Wrexham to date, many of which use built structures, notably occupied residential buildings, for roosting. The most frequently encountered bat species is the common pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Wrexham is reflected throughout the UK.

Policy

2.5 The Environment (Wales) Act 2016 (“the Act”) requires local planning authorities to have regard to area statements in the development of Local Development Plans. The Act also introduced an enhanced biodiversity and resilience of ecosystems duty (the “Section 6 Duty”). This duty applies to all public authorities in the exercise of their functions in relation to Wales, helping to maximise contributions towards the well-being goals. The Nature Recovery Action Plan supports this legislative requirement by seeking to reverse biodiversity decline, tackle the underlying causes of biodiversity loss, embed nature in decision-making, and increase ecosystem resilience through specific objectives for habitats and species.

2.6 Part 1 of the Act promotes the sustainable management of natural resources. Section 6 states:

“A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.”

2.7 Section 7 of the Act places a duty on Welsh Ministers to publish, review, and revise lists of habitats and species in Wales that are considered to be of key significance for sustaining and improving biodiversity. Welsh Ministers must also take all reasonable steps to maintain and enhance the habitats and species on these lists, and encourage others to do the same. Section 7, together with the former UK Biodiversity Action Plan (UKBAP), provides the statutory basis for identifying habitats and species of principal importance for conservation in Wales. Equivalent lists for England are published under Section 41 (s.41) of the Natural Environment and Rural Communities (NERC) Act 2006.

2.8 Planning Policy Wales (PPW) 12th Edition (2024) sets out the land-use planning policies of the Welsh Government. It is supported by a series of Technical Advice Notes (TANs), Minerals Technical Advice Notes (MTANs), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales.

2.9 PPW (12th Edition, 2024) states:

“The presence of a species protected under European or UK legislation, or under Section 7 of the Environment (Wales) Act 2016 is a material consideration when a planning authority is considering a development proposal which, if carried out, would be likely to result in disturbance or harm to the species or its habitat and to ensure that the range and population of the species is sustained. Planning authorities should advise anyone submitting a planning application that they must conform with any statutory species protection provisions affecting the site, and potentially the surrounding area, concerned. An ecological survey to confirm whether a protected species is present and an assessment of the likely impact of the development on a protected species may be required in order to inform the development management process. It is considered best practice that screening to determine the presence of protected species should be carried out by a competent ecologist on the basis of data provided by the relevant Local Environmental Record Centre.”

2.10 PPW and the National Development Framework (published as *Future Wales – the National Plan 2040*) set out how the planning system at national, regional, and local levels can help deliver these requirements through Strategic Development Plans (SDPs) and Local Development Plans (LDPs).

2.11 PPW also requires developments to achieve a Net Benefit for Biodiversity (NBB):

“Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species (not including non native invasive species), locally or nationally and must work alongside nature and it must provide a net benefit for biodiversity and improve, or enable the improvement, of the resilience of ecosystems. A net benefit for biodiversity is the concept that development should leave biodiversity and the resilience of ecosystems in a significantly better state than before, through securing immediate and longterm, measurable and demonstrable benefit, primarily on or immediately adjacent to- the site. The stepwise approach outlined below is the means of demonstrating the steps which have been taken towards securing a net benefit for biodiversity. In doing so, planning authorities must also take account of and promote the resilience of ecosystems, in particular- the following attributes, known as the DECCA Framework:

- diversity between and within ecosystems;*
- the extent or scale of ecosystems;*
- the condition of ecosystems including their structure and functioning;*
- the connections between and within ecosystems; and*
- adaptability of ecosystems including their ability to adapt to, resist and recover from a range of pressures likely to be placed on them through climate change for example.*

2.12 PPW further highlights the importance of Green Infrastructure (GI) at both local and landscape scales:

“The Environment (Wales) Act 2016, provides a context for the delivery of multi-functional green infrastructure. Its protection and provision can make a significant contribution to the sustainable management of natural resources, and in particular to protecting, maintaining and

enhancing biodiversity and the resilience of ecosystems in terms of the diversity within and connections between ecosystems and the extent and condition of these ecosystems, so that they are better able to resist, recover from and adapt to pressures. This means that the development of green infrastructure is an important way for local authorities to deliver their Section 6 duty.”

- 2.13 There are several plans, strategies and national, sub-regional and local policy statements which provide a framework for development in the Plan area. The Planning and Compulsory Purchase Act (2004) makes it a requirement for local planning authorities in Wales to prepare a Local Development Plan (LDP) for their areas.
- 2.14 Cyngor Bwrdeistref Sirol Wrecsam / Wrexham County Borough Council prepared a Local Development Plan 2013-2028 which was formally adopted in December 2023 and superseded any previous development plans for the area. The Local Plan 2013-2028 was, however, withdrawn in May 2025, and so the previous Wrexham Unitary Development Plan 1996-2011 remains in effect.
- 2.15 Policies PS11, GDP1h, and EC6 of the Wrexham Unitary Development Plan 1996-2011² mirror these statements within PPW 2024 and go on to state the following (see **Table 2.1**):

Table 2.1 – Relevant policies

Title	Summary
Policy EC6 – Biodiversity Conservation	Development either within or close to sites of biodiversity interest will only be permitted where it can be clearly demonstrated that the need for the development outweighs the need to safeguard the intrinsic nature conservation value of the site. Where such development is permitted, damage should be kept to a minimum, and compensatory measures should be provided. Measures to improve the biodiversity value of sites and enhance their natural conservation interest and landscape quality including the establishment of local nature reserves, will be supported.
Policy GDP1 (h) – Development Objectives	All new development will safeguard sites and areas of nature conservation and wildlife interest, and to provide new habitats where there is an unavoidable loss of existing habitats and areas of wildlife interest.
Policy PS11 - Biodiversity	Encouragement will be given to proposals which improve the biodiversity value of sites and to the establishment of local nature reserves where the nature conservation and landscape interest of the land will be protected and enhanced.

² See: <https://www.wrexham.gov.uk/service/development-plans-and-other-planning-policy/unitary-development-plan-1996-2011>

3.0 Survey Methods

- 3.1 Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) edition states:

“The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”

- 3.2 Relative to the above the survey protocol has been determined using the collective and long-standing experience of Tyrer Ecological Consultants Ltd and knowledge of the specific nature of the site.

Survey Protocol

- 3.3 The surveys took place in June 2026, thus within the highly active and social breeding season, when maternity roosts have formed and mothers are suckling their young.

- 3.4 In accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023), it is specified that:

“The bat active period is generally considered to be between April and October inclusive”, though the period of **May – August** is the optimal most productive period that NRW accept bat surveys and grant EPS licences in relation to bats.

- 3.5 Typically only surveys within this period are accepted by licensing authorities, as the results of these surveys are used to inform an EPS licence application or a non-licensable Precautionary Working Method Statement (PWMS).

Pre-dusk Inspection

- 3.6 A pre-dusk inspection of the buildings was undertaken immediately prior to the first updated dusk survey by Miss. H. McGlynn (see **Table 3.1** overleaf for credentials) and broadly followed the methodology described in **Appendix I**.

Dusk Surveys

- 3.7 Where bats are roosting, they are likely to be detected by the ecologists who are trained in the use of bat detector hardware and call analysis software, and specifically how to detect bats and to correctly identify / disseminate bat calls.

- 3.8 When considering survey protocol, the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality as well as any visual limitations at the survey site.

- 3.9 Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023), it is specified that:

“Roost re-entry visits prior to dawn are no longer routinely recommended for presence/absence surveys due to the risk of bats returning early and being missed ... As return times appear to be far more variable (Andrews & Pearson, 2022).”

- 3.10 In this case, the bat roost potential that exists at the Outbuildings at Buck Road presents no problems for dusk observations; if a building is complex, or observations were restricted, or species that are difficult to detect at dusk are suspected then dawn surveys would be conducted where appropriate. At the site there are no visual constraints and to date there is no evidence to suggest the presence of such species.
- 3.11 Survey protocol should not be determined by parties who are 1) not familiar with the site 2) do not have a sufficient level or experience in relation to the undertaking of dusk / dawn bat surveys.
- 3.12 The number of surveys and surveyors was adequate relative to the roost potential that was identified on attendance of the site, i.e. '**Moderate**', and requiring four surveyors to accurately monitor potential roost features (PRFs) across the structure, and '**Low**' for B2, requiring a single surveyor. Surveyor credentials are provided in **Table 3.1** below:

Table 3.1 – Surveyor credentials

Surveyor(s)	Experience	Surveyor Credentials
Miss. H. McGlynn Qualifying CIEEM	2 years	- Consultant Ecologist with a range of training and experience - BSc (Hons) in Ecology and Conservation and MSc in Conservation Management (a CIEEM accredited course), - Accredited agent on the Natural Resources Wales Bat Licence (S093795-1) of Mrs. K. Wilding.
Miss. J. Collins	3 years	- Junior Ecologist, with a range of training and experience, - BSc in Wildlife Conservation and MSc in Wildlife Conservation and Drone Applications, - Accredited agent on the Natural Resources Wales Bat Licence (S093795-1) of Mrs. K. Wilding.
Dr. R. King MCIEEM	15+ years	Highly experienced seasonal consultant with extensive experience of undertaking professional bat surveys.
Dr. H. Taylor-Boyd	8 years	An experienced seasonal consultant with extensive experience of undertaking professional bat surveys.
Mr. D. Boyd	8 years	An experienced seasonal consultant with extensive experience of undertaking professional bat surveys.
Ms. R. Donnelly	3 years	A seasonal consultant with experience of undertaking professional bat surveys.
Miss. L. Wilde	2 years	A seasonal consultant with experience of undertaking professional bat surveys.
Mr. B. Steele	1 year	- A seasonal consultant with experience of undertaking professional bat surveys, - BSc (Hons) Plant Science.

- 3.13 Surveyors were strategically positioned so that all elevations with bat roost potential could be observed without limitation. The surveyors were aided by full spectrum electronic bat detectors including the Anabat Scout, Elekon Batlogger M & M2, Echometer EM2 Pro, Peersonic RPA3, or equivalent detectors which enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed the next day using, Anabat Insight, Kaleidoscope, BatExplorer, Sonobat or equivalent computer software to verify field observations.

- 3.14 Where deemed necessary and appropriate by the attending ecologist(s), elevations were also surveyed via the use of Night Vision Aids (NVA), with deployment undertaken in line with relevant guidance documents, including Bat emergence surveys with night vision aids: A technical guide for professional ecologists (BCT, 2026) and Thermal Imaging: Bat Survey Guidelines (Fawcett Williams, 2021). See **Figures 3.1 – 3.2** below for NVA deployment examples.



Figure 3.1 – NVA image of B1, from dusk survey 1, as viewed from the north-west



Figure 3.2 – NVA image of B1, from dusk survey 2, as viewed from the north-east

- 3.15 Devices such as near infrared (NIR) imaging cameras (Panasonic HC-VXF990, Canon XA35, Canon XA70, Nightfox Whisker & Nova Night Vision Binoculars) were utilised in combination with NIR lighting apparatus (for example Nightfox Arc, Nightfox XB5, or additional spot lights & floodlights). Thermal imaging equipment (such as the Thermal Master DV2) was also deployed by the survey team when necessary, in combination with the NIR systems as described.
- 3.16 In accordance with the Good Practice Guidelines, NVA recordings were subject to review as soon as possible following completion of the survey, typically the following day, to identify emergences / flight lines and species / abundance.

Survey Limitations

- 3.17 Limited internal access was possible to both B1 and B2 during the pre-dusk inspection: B1 was accessible at ground level, though the second floor was not accessed due to safety concerns in relation to the integrity of the floor; and only a small porch at B2 was accessible, though this was host to an active bird nest which would have been disturbed should the surveyor have access it.
- 3.18 Following the completion of the further surveys, having carefully considered the results and conclusions derived from all surveys to date, no significant constraints were experienced that might hinder the gathering of ecological data on which to base sound conclusions and recommendations.

4.0 Results

Pre-dusk inspection

- 4.1 During the inspection of the ground floor of B1 (see **Figure 4.1 – 4.2** below), it was found to be cluttered with piled timbers and other stored materials. No bat droppings, or other evidence of bats, were found anywhere though no check of the upper floor could be undertaken. Externally B1 was found to host numerous PRFs as in the original 2023 survey, with missing and damaged slates, gaps in the mortar, and open barn windows that would provide free access to any internal roosting opportunities. A historic swallow (*Hirundo rustica*) nest was identified within B1.



Figure 4.1 – Character of the southern elevation of B1



Figure 4.2 – Internal character of B1

- 4.2 B2 was found to be in broadly the same condition as during 2023 (see **Figure 4.3** below), though an additional damaged breezeblock, providing potential access into the wall cavity, was noted on the eastern wall of the single accessible garage area; the previously identified PRF was unchanged. Abundant faecal splashing was noted across the floor of the accessible area, though no bat droppings or other evidence of bats was found.



Figure 4.3 –Character of B2

Dusk Surveys

- 4.3 Two dusk emergence surveys were undertaken at B1 during June 2026 by four surveyors at any one time, with one dusk emergence survey undertaken at B2 during June 2026 by one surveyor. **Table 4.1** shows survey timings and weather conditions, whilst **Tables 4.2 – 4.3** alongside **Figures 4.4 – 4.9** document the results of the surveys.

Table 4.1 – Survey date, times and weather conditions

Times of Survey	Date	Weather Conditions
Dusk survey 1 2109 – 2259	02/06/2026	Sunset: 2129: Dry, Light breeze (2/12 Beaufort), 80% cloud cover Start temp: 16°C End temp: 14°C
Dusk survey 2 2122 – 2312	23/06/2026	Sunset: 2142: Dry, Calm (0/12 Beaufort), 10% cloud cover Start temp: 25°C End temp: 20°C

Table 4.2 – Dusk survey results

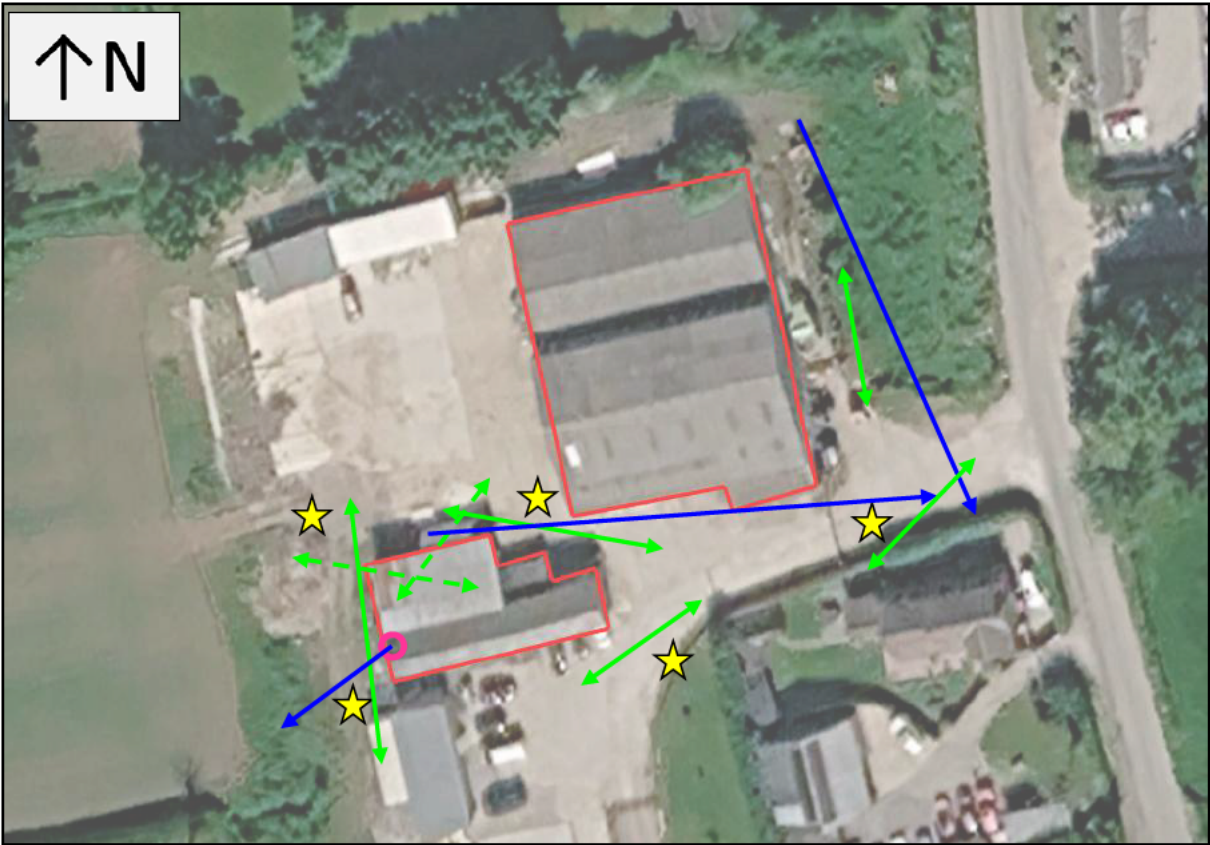
Survey Dates	Time	Activity
02/06/2026	2109 – 2259	Summary: Emergence of a single soprano pipistrelle and a single common pipistrelle bat from the large hole in the roof at the western end of the northern elevation of B1. EP1 2153 hrs: a soprano pipistrelle (SP) emerged from a large hole in the roof on the western end of the northern elevation of B1, followed shortly by a common pipistrelle (CP). EP1 2153 – 2243 hrs: a CP and an SP were recorded foraging around the north-east corner of B1 in the area between B1 and B2, and in the lean-to on the northern aspect of B1. 2155 hrs: a CP commuted east between B1 and B2. 2157 – 2259 hrs: a CP foraged frequently to the north-east of B1, in and out of the open-sided lean-to on the northern elevation. 2206 hrs: a CP commuted south along the eastern elevation of B2. 2206 – 2225 hrs: an SP and a CP frequently foraged around the western elevation of B1. 2210 – 2259 hrs: a single CP and a single SP foraged frequently around the south-eastern corner of B1. 2219 – 2259 hrs: a CP and up to two SP frequently foraged to the east and south-east of B2. 2228 – 2232 hrs: two CP chased in front of the lean-to on the north-western aspect of B1. 2230 hrs: a brown long-eared bat (BLE) was recorded but not observed around the south-eastern aspect of B1. General activity comprised of frequent foraging by up to two soprano pipistrelles and one common pipistrelle at a time, along with a single recording of a brown long-eared bat.
23/06/2026	2122 – 2312	Summary: Emergence of a total of eight common pipistrelles, two soprano pipistrelles, two whiskered / Brandt's bats, and one brown long-eared bat from B1, from EP1 – EP5. 2202 hrs: a noctule (Noc) was recorded commuting but not observed. 2205 hrs: a CP emerged from the open doorway at the centre of the southern aspect of B1. EP2 2216 – 2228 hrs: a CP and an SP were recorded but not observed continuously foraging within B1. 2222 hrs: a CP emerged from a large hole in the roof on the western end of the northern elevation of B1. EP1

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Survey Dates	Time	Activity
		2227 hrs: an SP emerged from a large hole in the roof on the western end of the northern elevation of B1. EP1 2227 – 2236 hrs: an SP and a CP repeatedly re-entered B1 via the western, ground-floor open door before re-emerging, with both finally re-entering at 2236. EP3 2228 hrs: a CP emerged from beneath the open-sided lean-to on the north-western corner of B1 and foraged beneath the lean-to and around the courtyard to the north of the building. EP4 2229 – 2233 hrs: three CP emerged from the central, first-floor window on the southern elevation of B1, with the third bat re-entering shortly after. EP5 2230 – 2231 hrs: a CP emerged from beneath the open-sided lean-to on the north-western corner of B1 and foraged beneath the lean-to and around the courtyard to the north of the building. EP4 2235 hrs: two whiskered / Brandt's (WAB) bats emerged from beneath the open-sided lean-to on the north-western corner of B1. EP4 2236 hrs: an SP emerged from the central, first-floor window on the southern elevation of B1. EP5 2236 – 2257 hrs: up to two CP and one SP foraged frequently around the western elevation of B1. 2240 hrs: a CP emerged from the central, first-floor window on the southern elevation of B1. EP5 2246 hrs: a BLE emerged from beneath the open-sided lean-to on the north-western corner of B1. EP4 2248 – 2305 hrs: a Noc was occasionally recorded but not observed. 2251 hrs: an SP emerged from the central, first-floor window on the southern elevation of B1. EP5. 2253 hrs: a CP emerged from the central, first-floor window on the southern elevation of B1. EP5. 2254 – 2255 hrs: a WAB was recorded but not observed. General activity comprised of constant foraging and commuting activity by up to eight common pipistrelles, with occasional activity by two whiskered / Brandt's bats, one noctule and one brown long-eared bat.

Incidental Observations

- 4.4 A tawny owl (*Strix aluco*) emerged from a large gap in the roof of B1, at the western end of the northern elevation, and perched briefly on the gable before flying north out of the site.
- 4.5 A swallow flew in and out of the observed entrance to B2 on the south-eastern elevation. Starlings (*Sturnus vulgaris*) were observed nesting within B2.



Dusk Survey 1 – 02/06/2026

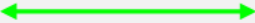
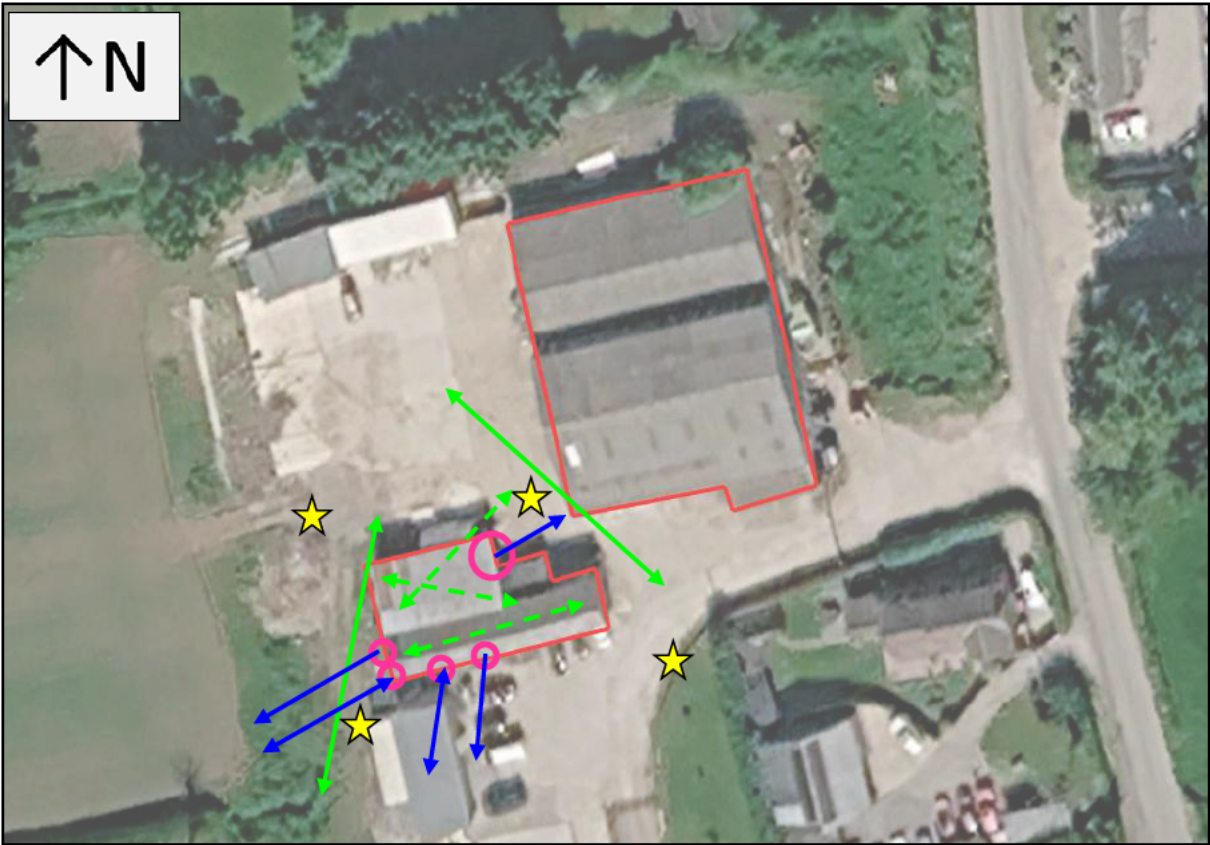
Key			
	Surveyed structure		Foraging activity ³
	Surveyor positions		Commuting activity
	Directional compass		Emergence point

Figure 4.4 – Visual Aid – Dusk survey results with Key

³ A hashed line has been used to represent bats foraging within a structure



Dusk Survey 2 – 23/06/2026

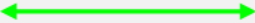
Key			
	Surveyed structure		Foraging activity
	Surveyor positions		Commuting activity
	Directional compass		Emergence point

Figure 4.5 – Visual Aid – Dusk survey results with Key

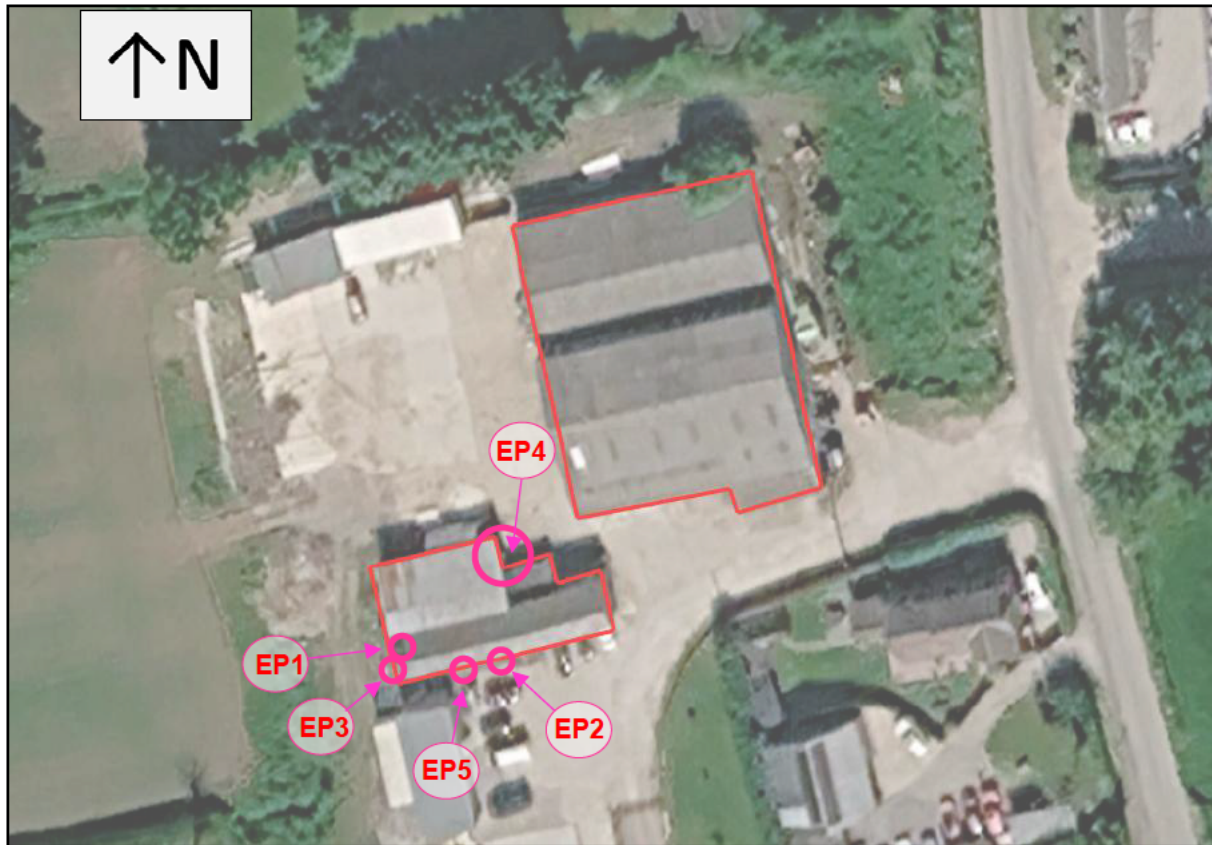


Figure 4.6 – Location of emergence points © Google Earth Pro 2026



Figure 4.7 – Location of Emergence Point 1 on the western end of the northern elevation of B1, from which one common pipistrelle and one soprano pipistrelle emerged during dusk surveys 1 and 2, and from which a tawny owl also emerged on dusk survey 1 (EP1), and of Emergence Point 3 into which one soprano pipistrelle and one common pipistrelle re-entered and re-emerged during dusk survey 2 (EP3)



Figure 4.8 – Location of Emergence Point 2 at the open, ground-floor door on the southern elevation of B1 from which a single CP emerged during dusk survey 2 (**EP2**), and of Emergence Point 5 at the central, first-floor window on the southern elevation of B1 from which five common pipistrelle and two soprano pipistrelle emerged during dusk survey 2 (**EP5**)



Figure 4.9 – Location of Emergence Point 4 on the northern aspect of B1 beneath the lean-to at the western end, from which a total of two common pipistrelles, two whiskered / Brandt's bats, and one brown long-eared bat emerged during dusk survey 2 (**EP5**)

5.0 Conclusions & Recommendations

- 5.1 Based on the results gathered during the dusk surveys, B1 is ascertained to be host to day roosts of eight common pipistrelles, two soprano pipistrelles, two whiskered (*Myotis mystacinus*) / Brandt's (*Myotis brandtii*) bats⁴, and one brown long-eared bat (*Plecotus auritus*). These results should be considered to supersede the 2023 survey results which identified a day roost of one common pipistrelle and a day roost of two soprano pipistrelles, utilising emergence points 5 and 2 respectively. B1 was also identified as an important foraging resource for the four species recorded roosting at the site. No emergence of any bat species was recorded at B2.

N.B. *Frequent re-entry and re-emergence was recorded at several emergence points during the second dusk survey. It has therefore been assumed that any bats recorded re-entering and not re-emerging from one emergence point were likely to be the same bats emerging elsewhere on the building at a later time, given the relatively free movement possible around the building as described in Appendix I.*

- 5.2 Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) describes a day roost as the following:

Day roost: *“A place where individual bats, or small groups, rest or shelter in the day during the summer.”*

- 5.3 For clarity, the roost categorisations, locations and access points for each roost have been provided in **Table 5.1** below, alongside the site status assessment and the conservation significance⁵ of the roost:

Table 5.1 – Roost locations and access points at Outbuildings at Buck Road

Structure Reference	Species	Count	Roost Location	Access Points	Site Status Assessment	Conservation Significance
B1	Common pipistrelle	8	Crevice within structure	EP1 – 5	Day	Site
B1	Soprano pipistrelle	2	Crevice within structure	EP1 - EP3, EP5	Day	Site
B1	Whiskered / Brandt's bat	2	Crevice within structure	EP4	Day	Site
B1	Brown long-eared bat	1	Crevice within structure	EP4	Day	Site

⁴ During assessment of the bat call recordings taken during the dusk emergence surveys, it was not possible to conclusively attribute calls to either whiskered or Brandt's bats, two very similar species which were only taxonomically separated in 1970. Since then, a further species of bat, the Alcahio (*Myotis alcahio*), has been confirmed as a separate species, evidencing the cryptic nature of these bats.

⁵ As extracted from Reason, P.F. & Wray, S. 2025. *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.2.* Chartered Institute of Ecology and Environmental Management, Ampfield

Outbuildings at Buck Road, Holt, Wrexham, LL13 9TF Dusk Survey Results in Relation to Bats

- 5.4 Proposals are understood to involve the conversion of an existing outbuilding to create offices, to include the creation of car parking spaces, drainage, and partial resurfacing. The building will be divided into three, with each section host to a lobby, meeting room, kitchenette and water closet on the ground floor, with a staircase leading up to an office space. Based upon the proposed floor plans, the roof of the first-floor will be vaulted with new skylight windows put in, though a small void will remain on the northern and southern elevations where the ceiling height would be too low to be functional. See **Figure 5.1** overleaf for the location of the emergence points of the roosts in reference to the proposed site plan.

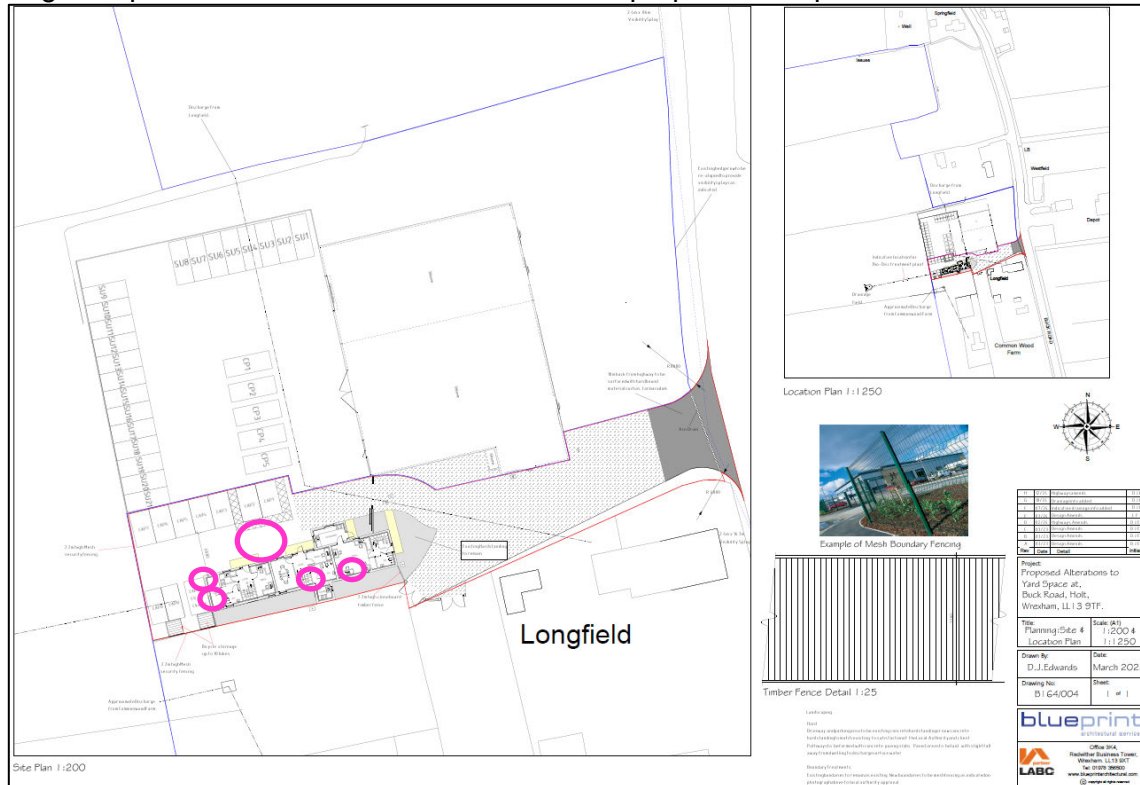


Figure 5.1 – Approximate location of identified emergence points over the Proposed Site & Location Plan (B16/004 Rev. H) adapted © Blueprint Architectural Services

- 5.5 Based upon Natural Resources Wales guidance⁶, the proposed works represent a “Higher risk case” as per the qualifying criteria for a higher risk case, with the bolded sections applicable to the application site:
- Maternity roosts of any bat species regardless of the size of the roost.
 - Hibernation roosts of any species.
 - Any proposal involving greater horseshoe bat, lesser horseshoe bat, barbastelle bat, Bechstein’s bat, grey long-eared bat, Leisler’s bat, serotine bat and Nathusius’ pipistrelle bat.
 - **Any proposal involving roost sites for 3 or more different bat species.**
 - Any mating or swarming site considered to be important on the basis of the submitted bat report.
- 5.6 Based on the above, impacts to multiple protected species will need to be addressed from both a conservation and legal perspective, along with the application of appropriate mitigation before any works can take place. An EPS licence from NRW will be required to legally impact upon places that are actively used for breeding, rest or shelter (roost) by bats, **however, before a licence can be applied for all planning issues need to be resolved.**

⁶ See: <https://cdn.naturalresources.wales/5436/gpg-3-nrw-approach-to-bats-and-planning-english.pdf>

- 5.7 In order that the LPA can implement its obligations under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), appropriate and proportionate mitigation will need to accompany the planning application which will demonstrate that the “*favourable conservation*” of the species concerned can be maintained.
- 5.8 Additionally, it should be noted that installation of new lighting as part of a development scheme that exceeds current levels may have a negative impact upon foraging / commuting bats confirmed as present in the vicinity, particularly if increased light spillage occurs in areas currently valued and relatively free from illumination. There are several measures that can be used to offset impacts upon bats, where lighting is unavoidable; these include, however are not limited to: the light source used and luminaire design, and accessories to direct light at its intended target. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site. The reader is referred to the Bat Conservation Trust's 'Bats and Artificial Lighting at Night' guidelines (August 2023) for further information.

Incidental Observations

- 5.9 Two species of bird were confirmed as nesting at the application site in B2, swallow and starling. The starling is afforded 'Red' status on the Birds of Conservation Concern list, as a bird of the highest conservation concern in the UK, and is also listed as a priority species in Wales under Section 7 of the Environment (Wales) Act 2016. As B2 is not to be affected by the application to which this report has been prepared, no further recommendations are necessary; however, the applicant should be aware of the presence of nesting birds in this building and could consider the incorporation of nesting provisions for both species into works at the site⁷⁸. The reader should also be aware that B2 is the subject of a separate, granted planning application involving its refurbishment as a warehouse with hard and soft landscaping (P/2023/0548). See **Figure 5.2** below for nesting provisions.

NB: *All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected from destruction, damage and disturbance under the Wildlife & Countryside Act 1981 (as amended). It is a punishable offence to interfere in any way with an active nest.*



Figure 5.2 – Left: the starling nest box should be erected on a wall or tree at a height of 3m or higher, on a northerly elevation, and right: the swallow cup should be sited in a partially enclosed, covered area on a roof beam or similar timber.

⁷ See: <https://www.nhbs.com/vivara-pro-woodstone-starling-nest-box>

⁸ See: <https://www.nhbs.com/woodstone-swallow-nest-bowl>

- 5.10 Whilst nesting was not confirmed, a tawny owl was observed roosting in B1; tawny owls are afforded 'Amber' status on the Birds of Conservation Concern list, as a bird of some conservation concern in the UK. Tawny owls are not afforded any special protections beyond those outlined above in relation to protection of nesting birds; however, given the unknown usage of the building by this species, a precautionary approach is recommended. Any destructive works to B1 should therefore be carried out outside of the breeding bird season, typically March – August inclusive. For works within the breeding bird season, any areas that can support nesting birds should be checked by a professional Ecologist for nesting birds within 48 hours or less prior to works commencing.

Point 3.24 of the British Standards Publication 42020:2013 defines a professional ecologist as: *"a person who has, through relevant education, training or experience, gained recognised qualifications and expertise in the field of ecology and environmental management."*

- 5.11 Where / if active nests are / have been located by the Ecologist, then any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, this can be aided, for example, via implementation of appropriate buffer zone(s) around the nest site (typically 5 – 10 metres, depending upon the works) in which no disturbance is permitted until the nest is no longer in use. This would have to be coordinated through the expert judgement of the professional ecologist and species pending.
- 5.12 In addition, given the Amber-listed status of tawny owls, it is recommended that a tawny owl nest box⁹ be erected on a suitable tree in the wider ownership of the applicant, to mitigate for roosting opportunities being lost (**Figure 5.3**).



Figure 5.3 – The tawny owl nest box should be attached to a sturdy trunk or bough using straps or screws, at a height 3m or higher. The entrance should be faced away from prevailing winds, and with a clear flight path to the entrance.

⁹ See: <https://www.nhbs.com/tawny-owl-nest-box>

6.0 Mitigation

- 6.1 From the evidence gained during the surveys, the use of the site is considered to be of '**Site**' level significance for common pipistrelles, soprano pipistrelles, whiskered / Brandt's bats and brown long-eared bats and their current conservation status (as according to current EPS mitigation licencing applications); the proposed mitigation is proportionate to that use. However, if at any time that assessment is revised to a higher level, then the mitigation will also be accordingly revised.
- 6.2 The following procedures and mitigation recommendations are designed to allow the Local Planning Authority (LPA), in association with their ecological advisors, to determine a Planning Application where an EPS has been identified and will be affected by the work for which the Planning Application seeks consent.
- 6.3 In addition, LPAs, in accordance with the obligations placed upon them by way of their duties under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), have to take into consideration the presence of a European Protected species (EPS) before determination of an application where it / they have been identified.
- 6.4 The LPA will consider the mitigation in relation to the potential success of a Natural Resources Wales licence application and if, in their opinion, the mitigation is considered as being appropriate, or if it is over and above what is required; if they determine that the mitigation is appropriate, then **a Planning Condition should be attached**, stating that works should be carried out in accordance with the recommendations within this bat report. In addition, **it is imperative that the necessity for a licence is included in the Notes to Applicant** section at the end of the decision notice. If the LPA consider that the mitigation is over what is necessary but require "enhancement" as part of their Local Biodiversity / Green Infrastructure Planning Policies, this should be included in the terms of Consent. The acting bat ecologist, in this case, deems the proposed new roost creation as appropriate and not over and above what is required.
- 6.5 Notwithstanding that Planning Consent is granted, or equally if the work is undertaken outside of the planning system, whereby projects that do not require planning consent may affect bats or their roost (including disturbance), it does not absolve the applicant, site owner, developer or any other party involved with the work from ensuring that an application is made for a European Protected Species Licence to legally undertake work that will affect bat(s) or their roost(s). If work is undertaken without a licence and bat(s) or their roost(s) is/are affected, then a breach of current wildlife legislation will occur, for which penalties are severe.
- 6.6 Under Regulation 53(1) and 56(3)(a) of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), a licence is required prior to disturbing bats or destroying / damaging or obstructing any place that is used by bats as a resting place or breeding site. The licence is issued by the EPS Licensing Team of Natural Resources Wales.

Summary of Mitigation

- 6.7 With B1 set to be converted and renovated for office use, it is acknowledged that the presence of multiple roosting bats needs to be addressed from both a legal and conservation perspective. For the purposes of this report, **it is considered that all of the roosts will be subject to destruction**; as such, there is a necessity to consider alternative solutions.
- 6.8 The mitigation proposals outlined in this report are seen to form the most productive way forward that will retain long term roosting opportunities for bats and minimise disturbance whilst also enabling the applicant to undertake the proposed works.

- 6.9 Commuting routes are generally located along the eastern and western borders of the site, where taller vegetation such as tree lines and hedgerows, or flowing waterbodies such as the ditch to the west, coincide with an absence of illumination. The eastern site boundary along Buck Road will be subject to soft landscaping as part of granted application P/2023/0548¹⁰, which will include newly seeded grassland and / or shrub planting, along with the planting of three native field maple (*Acer campestre*) trees. The existing hedgerow will be re-aligned, but not removed. Based on the retention of this hedgerow and the planting of the new trees, the works are considered to entail a net neutral impact on the commuting routes to the boundaries of the site.
- 6.10 Similarly, there will be no significant loss of vegetative features of value to foraging bats; though the currently overgrown area at the eastern boundary will be generally cleared to allow for reseeded, the retention of the hedgerow and the addition of new native trees will result in no negative impact to foraging. However, the building B1 itself was identified as an important foraging resource, with open-sided lean-to sections and the main brick-built barn being utilised throughout the survey for foraging by up to four bat species. This resource will be lost in full to facilitate the development, and no retention will be possible without making the proposed development unviable. The wider landscape is host to a variety of other foraging resources, including other farm buildings, stands of woodland, and lakes / reservoirs, with connectivity provided via the hedgerows intersecting the fields surrounding the site.
- 6.11 Due to the size of the site, there is limited scope to mitigate for the loss of covered foraging habitat, such as that which is present in B1 currently, providing a dark, somewhat enclosed space which acts as an insect-trap and provides early-evening foraging opportunities. To provide some similar opportunities for foraging bats, it is therefore recommended that the proposed new bicycle storage areas in the south-west of the site be created so as to replicate some of the foraging habitat being lost. This could be achieved by creating covered storage areas, enclosed on three sides, and with a height up approximately 2.5m; these spaces would therefore be darker and more sheltered in comparison to external areas and may act as a trap for flying invertebrates. These storage areas would be unlit, with any nearby lighting facing away from the entrance and towards the ground to prevent light spill. The biodiversity value of these structures could be increased through the inclusion of a green, sedum roof, which is low maintenance relative to other green roofs but still provides some value to invertebrates. The bicycle storage areas would also provide an opportunity for the integration of swallow nesting cups, to ensure continued nesting provision. See **Figure 6.1** below for indicative examples of covered storage areas which could provide continuing foraging opportunities for bats at the application site.



Figure 6.1 – Left: covered bicycle storage area, and right: example of a building with sedum roof.

¹⁰ See:

https://register.wrexham.gov.uk/pr/s/detail/a0IJ7000000TuwdIAC?c_r=Arcus BE Public Register&language=en_GB&tabset-ff68f=3

- 6.12 In addition to the above, it is recommended that a bat-friendly lighting plan is produced for the site, which should include measures to avoid illumination of key commuting routes on the boundaries of the site, as well as foraging areas and priority habitats off-site. In addition, no lighting should be directed at roost provision as specified below.
- 6.13 This lighting plan should be produced by a suitably qualified lighting specialist and should be checked by a licenced bat ecologist against this dusk report to ensure that roost provision and key commuting / foraging areas are not subject to intense lighting. Implementation of the above mitigative measures will ensure that only a very minor net negative impact to foraging habitat will occur.
- 6.14 To ensure that bats are not left without a roost while works take place that could displace bats from their roost at the building, four tree-mounted receptor roosts will need to be installed at the site. The tree-mounted bat boxes should be a Schwegler 2F¹¹ (or suitable equivalent – to be agreed with the express consent of the ecologist). These will be installed on individual trees, such as those at the northern, wider site ownership boundary or within the field boundaries to the west, in direct line of favourable foraging habitat and commuting features. Receptor roosts serve as a receiver unit if bats must be captured and translocated to them by the licenced ecologist during the works schedule. The receptor roosts should be installed and be in place prior to any deconstruction works and be within a reasonable distance and line of sight of the existing roost(s). The bat boxes will be retained post works to serve as a permanent roost provision following the works (see **Figure 6.2** below).

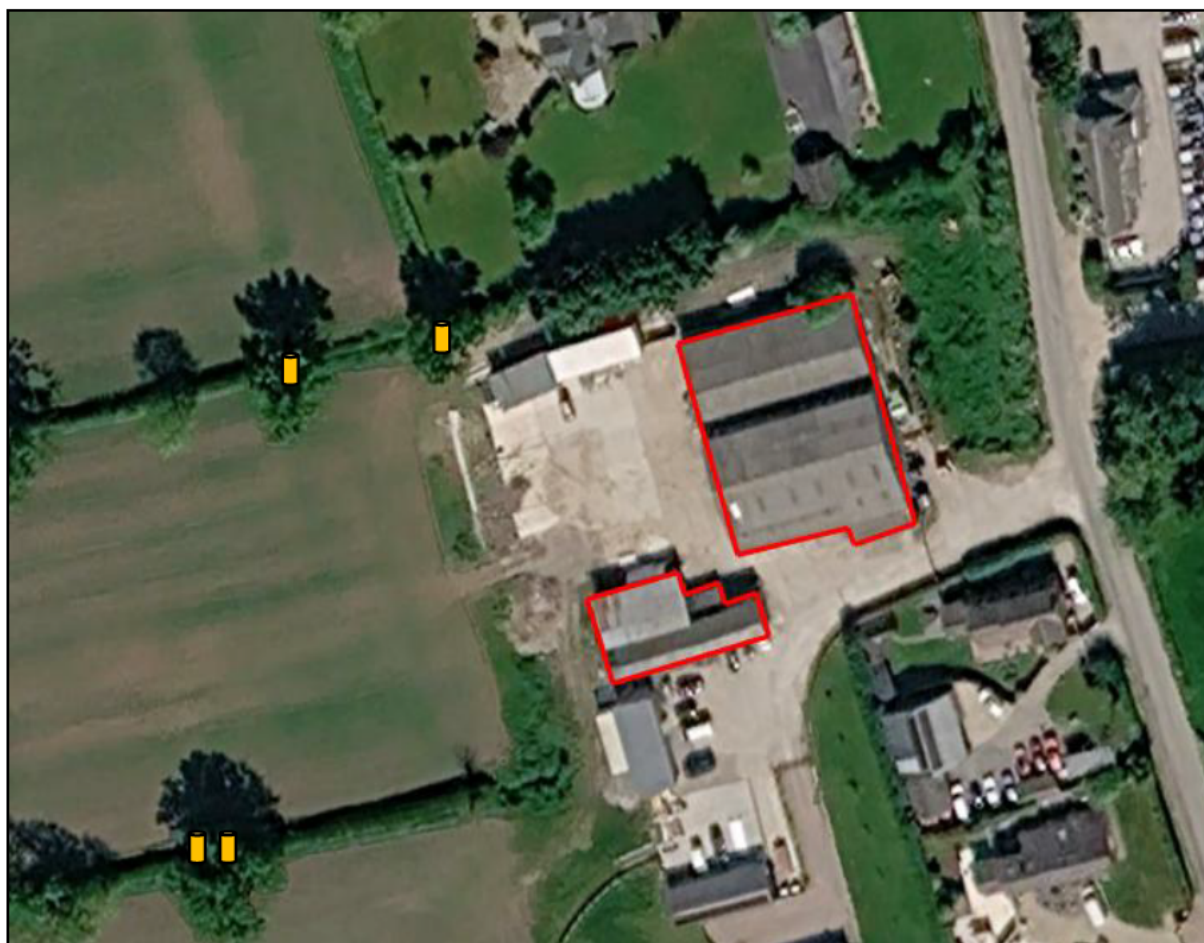


Figure 6.2 – Indicative, proposed locations of receptor roosts [] © Google Earth Pro 2026

¹¹ See: <https://www.wildcare.co.uk/bat-box-45.html>

Works to be undertaken by the Ecologist

- 6.15 **Licence Application:** A protected species licence from NRW will be applied for by a suitably qualified Ecologist, subsequently the 'Named Ecologist', in conjunction with the applicant, which will provide details of the measures undertaken to maintain the favourable conservation status of the bats present on site.
- 6.16 **Toolbox Talk:** Once a protected species licence is in place, at the pre-commencement stage the Named Ecologist (or accredited agent) is to undertake a site induction 'Toolbox talk' to the Licensee and all contractors on possible bat presence and discuss document features taken from the license, i.e. license, method statement, mitigation figures and work schedule to be kept on site for the duration of the work.
- 6.17 **Pre-commencement Check:** Prior to any work being undertaken the presence / absence of bats, as far as is possible, will be established by the Named Ecologist (or accredited agent) undertaking a thorough investigation of the areas at which bats have been observed using the site. This will involve a thorough inspection of these areas during dismantling using endoscopes and / or narrow-beam torch, as necessary, and will involve a soft strip at the local areas of interest, as necessary, which involves the careful lifting, inspecting and removal of components.
- 6.18 **Timing Implications:** Whilst no assessment on non-classic hibernation was carried out during the original PRA, as confirmed during the pre-dusk inspection the PRFs identified are unlikely to be suitable for hibernation purposes, and no seasonal restrictions will be applied. However, there is a low chance they could be utilised opportunistically by low numbers of pipistrelle bats, a species which frequently uses non-classic hibernation sites. It is therefore recommended that all works to the structure are undertaken in the following suitable weather conditions, to minimise the risk of harm for any torpid bats, subject to their presence:
- It is dry / calm,
 - Temperatures are no lower than 8°C for at least an hour or two from dusk on 3-4 consecutive nights.
- 6.19 **Ecological Clerk of Works:** The Named Ecologist (or their accredited agent) will supervise careful dismantling of all places of bat roost interest. In addition, at the Named Ecologist's discretion, wherever opportunities for bats exist in other areas of the building, supervised dismantling / inspections will extend to these areas with strategies for safely removing bat(s) applied.
- 6.20 **Exclusion:** Where crevices are extensive, or where it cannot be conclusively ascertained that bats are absent from a crevice, exclusion devices may be fitted for a period of 3 days and 3 nights, or longer, at the Named Ecologists discretion – this is where material is placed over the entrance area(s) of a roost allowing bats a means of escape whilst preventing them from re-accessing. This method will only be adopted if necessary, and exclusion fitted cavities will only be filled in following this process. **The fitting of exclusion devices will not be undertaken during November-March.**
- 6.21 **Capture:** Any bats located by the Named Ecologist (or accredited agent) will be removed, placed in a secure box with soft tissue and transferred into the receptor roosts that will have been previously erected as indicated above. If bats are in ill-health they will be taken into care by a previously nominated bat carer. **Only once it has been conclusively established by the Named Ecologist that bat(s) are absent can works continue to completion.** In the unlikely event that bats are found outside of supervision time, then as legal requirement and conditions of the licence, work will immediately cease, and the named Ecologist will be contacted for further advice; contractors must not touch, handle or in any way cause bats to move without ecological supervision.

Works undertaken by the contractor

- 6.22 Four day roosts, being utilised by four species, collectively with five identified access points were identified on site, which will be destroyed during the proposed works. As the existing building which is host to the roosts must be fully renovated and converted to facilitate the proposed development, retention or modification of the identified roost is not possible.
- 6.23 As such, it is considered that the most feasible and productive approach in terms of maintaining the favourable conservation status of the identified species roosting on site is to integrate novel roosting provision back into the northern and southern elevations of B1 at roof level. A detailed study of the planning drawings (specifically B164/003 (Proposed Floor Plans and Elevations) and B164/004 Rev. H (Proposed Site Plan) © Blueprint Architectural Services) indicates that the interior of B1 will be fully utilised for the proposed new offices, with the exception of a narrow void on the northern and southern elevations where the ceiling of the first-floor will be too low to serve a functional space.
- 6.24 Given the singular brown long-eared bat recorded at the site, it is considered that the provision of a true, replacement loft-space would be over-mitigation, and further would make the proposed development unviable. Instead, the most beneficial route to effectively mitigating lost roost opportunities is to provide a variety of new, crevice-based roosting opportunities, making use of the otherwise disused voids on the northern and southern elevations. Three mitigation roosts should be incorporated into each of the two elevations, creating a total of six new roosting opportunities. Through varying the design of these mitigation roosts, and locating them on opposite elevations and across the length of building, a variety in internal environmental conditions can be achieved to replicate the variety of roosting opportunities that are present in the existing building.
- 6.25 It is recommended that three of each of the two mitigation roost types below are created, with two of type A and one of type B on the northern elevation, and one of type A and two of type B on the southern elevation, in tandem with the proposed retention of the receptor roost:
- **Type A:** Custom bat boxes will be constructed of untreated plywood, with the minimum dimensions of 0.8m x 0.5m x 0.5m (width x depth x height). The boxes will roughly be triangular prisms to follow the shape of the retained voids at B1 and feature a slight slope to the base to encourage droppings and other accumulated dirt to self-clean. Each end of the box will be shut off with plywood to prevent movement into the wider void. The box will sit on the wall-plate and floor of the first floor of B1, and will have an entrance gap of 20mm at the roof verge / wall plate. If a fascia is to be placed over the wall-plate, it will be raised on untreated timber battens to extend the entrance to the base of the fascia.
 - **Type B:** The Type B boxes will follow the construction and installation methods as described for Type A; however, additional plywood panels will be attached, hanging vertically from the sloped top of the box, to create additional crevice opportunities. These panels should be spaced 20-30mm apart, and should be gently roughed with sandpaper to create a better gripping surface for roosting bats.
 - The construction of the custom boxes should prevent bats from accessing any other areas of the interior of the building, including both areas being utilised for office space, and areas where a non-bitumastic roof lining may have been used. Insulation should be placed between the outside of the boxes and the interior walls of the first-floor offices; this will both insulate against noise and reduce rapid temperature changes.
 - See **Figures 6.3 – 6.4** overleaf for the illustrative diagrams of the two mitigation boxes and their proposed location on site.

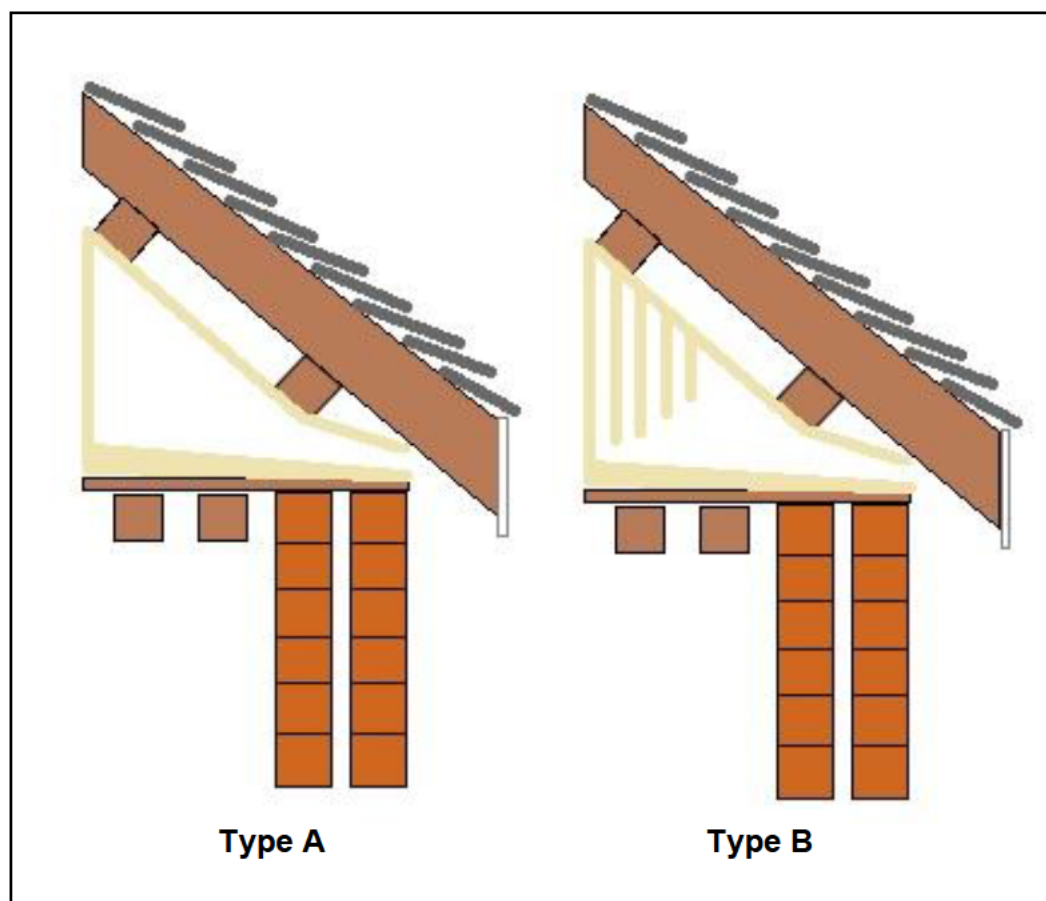


Figure 6.3 – Proposed design of Type A and Type B custom bat boxes



Figure 6.4 – Proposed locations of mitigation boxes Type A (Blue) and Type B (Green) over the Proposed Floor Plans and Elevations (B16/003) adapted © Blueprint Architectural Services

- 6.26 This mitigation proposed is subject to the approval of the NRW EPS team who may influence the terms of this mitigation; all proposed roost provisions outlined hereafter will be dedicated for bats and permanent.
- 6.27 Monitoring of the site for a period of two years minimum post-works will be carried out, in line with NRW guidance, as stated following current guidance (Bat Mitigation Guidelines).
- 6.28 Lighting must not be directed at or close to the roost areas nor will it affect nearby foraging places or flight lines. The lighting plan recommended above should take into account the proposed roosting mitigation, and all flight lines to and from these features should be unilluminated at key times.

7.0 References

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Appendix I: *Outbuildings at Buck Road – Inspection & Assessment in relation to Bats, Breeding Birds & GCN* (Tyrer Ecological Consultants Ltd, December 2023)

Appendix II: *Outbuildings off Buck Road – Phase 2 Surveys for Bats* (Greenscape
Environmental, July 2023)