



**Holly House Annex, Penhow
NP26 3AE**

Bat and Nesting Bird Survey

August 2026

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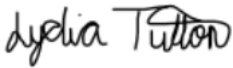
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DOCUMENT CONTROL

Holly House Annex, Penhow Bat and Nesting Bird Survey Report				
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Summary

Brief and Site Location	This report presents the findings of a bat and nesting bird survey of an annex at Holly House, Penhow, Caldicot, NP26 3AE. The assessment aimed to determine the presence of bats and nesting birds, evaluate the building's suitability to support these species, and provide recommendations to ensure compliance with bat and nesting bird legislation.
Proposed Works	The proposed development involves the demolition of the existing single-storey annex and the construction of a replacement two-storey side extension on the eastern elevation of the main property.
Survey Methodology	The survey comprised the following: • A preliminary bat roost assessment of the annex, searching for signs of bats and nesting birds; and • One dusk emergence survey of the annex.
Results of Preliminary Bat Roost Inspection	No evidence of bats (e.g. droppings, staining, feeding remains or characteristic odour) was recorded during the internal and external inspection. The annex is within a moderate quality area for foraging and commuting bats.
Results of the Dusk Emergence Survey	No bats were recorded emerging from or re-entering the annex during the dusk emergence survey.
Evidence of Nesting Birds	No evidence of past or current nesting by birds was noted either within or on the annex's exterior.
Predicted Impacts of Development on Bats and Nesting Birds	Based on the conclusion that bats are not currently using the annex as a roost site, no negative impacts on bats by the development are anticipated. If the scope of work increase to include the main house, further survey effort will be required to determine any potential impact on bats. Based on the conclusion that birds are not currently using the annex as a nest stie, no negative impacts on nesting birds by the development are anticipated.
Licensing Requirements for Bats	None required based on current scope of works.
Recommendations and Precautionary Measures	Detailed recommendations are given in Section 6 of this report and include the following: • Precautionary measures for bats, including what to do if bats are found during works; • Ecological enhancement for bats; and • Precautionary and enhancement measures for birds.

1. Introduction

1.1. Site Location and Purpose of Report

This report presents the findings of a bat and nesting bird survey undertaken of the annex associated with Holly House, Penhow, Caldicot, NP26 3AE (OS Grid Reference: ST 40684 92517)¹. The survey was commissioned to inform a planning application, identify the potential for bats and nesting birds to be present and to identify any ecological constraints relevant to planning and subsequent design.

The survey was restricted to the single-storey annex. No preliminary roost assessment or dusk emergence survey of the main house was undertaken.

The house lies within the administrative area of Newport City Council, the Local Planning Authority (LPA).

1.2. Site Description

The site is located approximately 0.7 km north of the village of Parc-Seymour and 7 km north-east of the town of Caerleon, measured to the centre of each settlement. The site comprises of a small cluster of rural buildings set within a valley, with access tracks, gardens, woodlands and agricultural fields surrounding the site. To the north, the site is bordered by a large block of woodland, which provides strong habitat connectivity into the wider landscape. To the east, south and west, the site is surrounded by a mosaic of pasture, hedgerows, tree lines, small woodland blocks and wooded valley features forming a well-connected rural landscape.

The site boundary and immediate landscape context are shown on Plans 1 and 2.

1.3. Proposed Works

At the time of writing, a planning application has not yet been submitted.

The proposed development is restricted to the annex and involves the demolition of the existing single-storey annex and the construction of a replacement two-storey side extension to the side of Holly House. There is potential for these works to impact features of the building that may support roosting bats and nesting birds, particularly through alterations to the roof structure. No works to the main house will be undertaken.

Existing and proposed plans can be found in Drawings 1 and 2.

1.4. Legislation and Planning Policy Context

1.4.1. Bats

All British bat species and their roosts are legally protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended by the 2019

¹ Latitude and Longitude: 51.628322, -2.8583282 / what3words: continued.tissue.mats

EU Exit Regulations). It is an offence, amongst other things, to deliberately or recklessly kill, injure or capture a bat, to damage or destroy a bat roost, or to disturb bats in a roost or place of shelter or protection. Bat roosts are protected whether or not bats are present at the time.

Where development works would affect roosting bats or their roosts, a licence from Natural Resources Wales (NRW) may be required. Further detail is provided in Appendix 1.

1.4.2. Nesting Birds

All wild birds, their nests, and eggs are protected under the Wildlife and Countryside Act 1981 (as amended) while nests are being built or are in use. It is an offence to intentionally take, damage or destroy an active nest.

1.4.3. Planning Policy Wales and the Environment (Wales) Act 2016

Planning Policy Wales (Edition 12, 2024) and *Technical Advice Note 5: Nature Conservation and Planning (2009)* require biodiversity and ecological considerations to be taken into account in the planning process. Section 6 of the *Environment (Wales) Act 2016* places a duty on public authorities to seek to maintain and enhance biodiversity and, in so doing, promote ecosystem resilience. Section 7 of the same Act identifies species and habitats of principal importance for maintaining and enhancing biodiversity in Wales. The findings and recommendations of this report are intended to support compliance with those legislative and planning policy requirements in relation to bats and nesting birds.

1.5. Survey Scope

The survey comprised the following:

- A preliminary bat roost assessment of the annex, which included a survey for nesting birds; and
- One dusk emergence survey of the annex.

The survey extent was restricted to the annex; no assessment of the main building, the surrounding garden or other structures was undertaken.

1.6. Reporting

This report has been prepared to support a planning application, demonstrate compliance with national and local policy requirements relating to biodiversity protection and enhancement and determine if a bat development licence is required. This report aims to:

- Describe the survey methods used;
- Present the survey findings, including identified potential roost features and any evidence of bats or nesting birds; and
- Provide recommendations in accordance with relevant legislation and planning policy, including licensing, mitigation, compensation and enhancement measures.

2. Methods

2.1. Desk Study

A desk study was undertaken to identify statutory designated sites, relevant habitat features, and publicly available information on bat roosts and activity within the local area to provide ecological context for the field survey.

Maps and aerial imagery of the site and surrounding landscape were reviewed to identify existing habitat features and land use. A 10 km search radius was applied for sites designated for bats, reflecting typical consultation zones for SACs associated with bat populations, while a 2 km radius was applied for all other statutory designated sites to identify potential ecological connectivity.

A review of Newport City Council's online planning portal was undertaken to identify recent nearby applications (within the same postcode area and over the last ten years) that were supported by bat survey data, to provide local context on bat activity and roost distribution. The ten-year period is considered proportionate given the small-scale nature of works.

2.2. Field Study

2.2.1. Daytime Internal and External Inspection

A systematic daytime internal and external inspection of the annex was undertaken by Jack Martin² and Tom Barlow^{3/4} on 4th June 2026, in accordance with the methodology for Preliminary Roost Assessments set out in Section 5.2 of *Bat Surveys for Professional Ecologists* (Collins, 2023, 4th edition). Survey equipment included a high-powered Clulite torch, Ridgid Micro CA-300 endoscope⁵, binoculars, and a ladder to enable inspection of concealed and elevated features. Attic insulation was moved to determine if older droppings were present beneath the insulation. The survey was undertaken in fair weather conditions.

2.2.2. Assessment of Bat Roosting Suitability

The building's potential to support roosting bats was assessed in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2023, 4th edition) (see Appendix 2), using standard categories (negligible, low, moderate and high). The assessment considered the number, type and quality of potential roost features (PRFs), including their depth, shelter, thermal stability and darkness, together with the suitability of surrounding habitats for foraging and commuting.

² Jack graduated with a BSc Zoology and a MSc Wetland Science and Conservation and is currently acting as a Consultant Ecologist for Acer Ecology. Jack is listed as an accredited agent on Paul Hudson's bat licence (S094527/2).

³ Tom is a student at the University of West England studying Wildlife and Conservation Science. He is currently undertaking an internship at Acer Ecology and assisting on dusk emergence surveys.

⁴ Tom followed the guidance given in Section 1.22 of the *Bat Surveys for Professional Ecologists* (Collins, 2016) and Section 1.4 of the *Bat Workers' Manual* (3rd ed.) (2004) which state that an unlicensed surveyor is obliged to withdraw from a building when evidence of a roost is identified to avoid unlicensed disturbance.

⁵ This work was undertaken with Jack acting as an accredited agent under the licence of Paul Hudson (NE Licence No: 2018-36707-CLS-CLS).

2.2.3. Nesting Bird Survey

A visual inspection was undertaken to identify signs of nesting birds. This included searches for active nests and indicators of past nesting activity such as droppings, singing males, birds carrying nesting materials or food, faecal sacs, and calling chicks.

All accessible ledges, eaves, cavities, attic voids, and external fixtures were inspected for evidence of current or historic nesting activity, including intact nests, nesting materials, or accumulations of bird droppings. Both surveyors are suitably experienced and competent in identifying evidence of nesting birds in accordance with standard ecological practice.

2.2.4. Dusk Emergence Survey

Two surveyors undertook the dusk emergence survey on June 22nd, 2026. Surveyor details can be found in Appendix 5.

Surveys were undertaken following the methodology detailed in Section 7.2 of the Bat Survey Guidelines (Collins, 2023). The surveyors were all equipped with Elekon Batlogger M bat detectors. Each surveyor was also equipped with a Nightfox Red infrared camera. Screenshots of one of the cameras at the darkest point of the survey is provided in Appendix 6 to illustrate the field of view.

A dusk emergence survey of the whole building was not undertaken as works are restricted to the annex. The whole of the annex was kept in view of the surveyors at all times. If the scope of works changes and works are proposed to the house, additional survey effort will be required to determine any potential impacts on bats.

2.2.5. Limitations

Survey Timings

Ecological surveys provide a snapshot in time, and species use of a site may vary seasonally or annually. This means that absence of evidence at the time of survey does not confirm long-term absence.

Detectability

Small numbers of crevice-dwelling bats may occupy features without leaving visible evidence. Consequently, the assessment is based on observable features and professional judgement, not definitive proof of absence.

Local Environmental Records Centre Data Search

Given the small-scale, low-impact nature of the proposed works, the absence of land-take or disruption of linear habitat features, and the limited potential for off-site effects, a Local Environmental Records Centre (LERC) data request was not undertaken, in line with CIEEM's *Guidelines for Accessing and Using Biodiversity Data* (2023) guidance on proportionate use of biodiversity data. While LERC data can offer

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useful contextual information, its omission is not considered to affect the robustness of the PRA or its conclusions.

3. Baseline Ecological Conditions

3.1. Desk Study

The desk study identified statutory designated sites, key habitat features, and contextual information relevant to bats within the local area.

3.1.2 Known Bat Roosts from Nearby Planning Applications

The local planning portal search⁶ detailed one planning application which has submitted ecology survey reports. The following roosts were recorded:

Table 1: Bat Roosts Reported in Planning Applications within NP26 3AE

Planning Reference Number	Approx. Distance from Site	Species Affected	Roost type	Year
24/0563	0.5 km	Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>)	Not specified	2025

The presence of a soprano pipistrelle record approximately 0.5 km from the site indicates that the local landscape supports roosting opportunities for bats, with nearby woodland, hedgerows and watercourses providing suitable commuting and foraging habitat.

This search was limited to planning records at NP26 3AE and does not represent all roosts within the area.

3.1.3 Protected Sites

Designated sites were reviewed within 2 km and 10 km of the site to identify any statutory habitats of relevance to bats and to consider potential ecological connectivity at both local and wider landscape scales.

The location of protected sites are shown on Plans 3 and 4.

Statutory Sites Notified for Bats Within 10 km

The table below details the sites designated for bats within 10km of the site.

Table 2: Statutory Sites Designated for Bats Within 10 km

Site Name	Description	Distance and Direction from Development Site	Functional Linkage to Site
Mwyngloddfa Mynydd-bach SSSI ⁷	This site is of special interest for its hibernaculum of the lesser horseshoe bat	7.9 km to the east.	The SSSI is designated for lesser horseshoe bats, which may use woodland, hedgerows and other linear features for commuting and

⁶ <https://www.newport.gov.uk/planning/planning-permission/planning-applications>

⁷ https://naturalresources.wales/media/664943/SSSI_1483_Citation_EN0017cd7.pdf

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	(<i>Rhinolophus hipposideros</i>). The bats are found mainly from 14m to 20m from the entrance with smaller numbers scattered along the length of the adit and at the furthest end. Up to 75 lesser horseshoe bats have been recorded using the roost. The site is used throughout the year by smaller numbers of adult and immature lesser horseshoe bats.		foraging. However, given the site is approximately 7.9 km west of the SSSI, a direct functional linkage is considered unlikely.
Wye Valley Lesser Horseshoe Bat Site SSSI ⁸	This site consists of four separate summer bat roosts, the Penallt Old Church, The Priory at Llandogo, Itton Court Stud and Tregeiriog Farm. Collectively, they form part of the most important population centre for the species in the UK. During the summer it is possible to see large numbers of lesser horseshoe bats coming and going from the roosts at dusk and dawn.	9km to the east.	The SSSI is designated for important lesser horseshoe bat summer roosts. Although the wider landscape contains suitable commuting and foraging habitat, the development site is approximately 9 km west of the SSSI, so a direct functional linkage is considered unlikely.

Other Protected Sites Within 2 km

Table 3: Statutory Sites Within 2km

Site Name	Description	Distance and Direction from Development Site	Information on Bats Within the Citation
Parc Seymour Woods SSSI ⁹	This area of coppiced sessile oak <i>Quercus petraea</i> woodland, overlying Upper Old Red Sandstone and Quartz Conglomerate rocks, is the last major relict of the formerly extensive ancient woodland of Wentwood Forest.	0.2 km south-east	There is no mention of bats in any of the SSSI citations, however, the site is likely to be used by several bat species for foraging, commuting and roosting.

⁸ https://naturalresources.wales/media/656976/SSSI_1004_Citation_EN001d31c.pdf

⁹ https://naturalresources.wales/media/659974/SSSI_1124_Citation_EN001734b.pdf

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Ancient Woodland Sites

Ancient woodland sites contribute to the local ecological network and may support bat foraging and commuting activity at a landscape scale.

The following table shows the ancient woodland sites within 2 km of the site:

Table 4: Ancient Woodland Sites Within 2 km

Ancient Woodland Site	
Ancient Semi-Natural Woodland (ASNW) ¹⁰	45 ASNW parcels within 2 km of site
Restored Ancient Woodland Sites (RAWS) ¹¹	Seven RAWS parcels within 2 km of site.
Plantations on Ancient Woodland Sites (PAWS) ¹²	18 PAWS within 2 km of site.
Ancient Woodland Sites of Unknown Category ¹³	18 within 2 km of site.
Nearest Area of Ancient Woodland	An unnamed area of ASNW 0.02 km to the north-west of the site.
Ancient Woodland Context	Several parcels of ancient and semi-natural woodland occur within 2km of the site, including Parc Seymour Woods. These habitats contribute to a high-quality ecological network supporting foraging and commuting opportunities for bats and other wildlife. The nearest restored ancient woodland site (RAWS) lies 0.02 km to the north-west of the site.

Protected Sites Summary

Given the small, localised scale of the proposed works and the distance from statutory sites designated for bat interest, no likely significant effects on nearby SSSI/SAC bat populations are anticipated. However, the site lies within a landscape containing a high density of ancient woodland, including. These woodland habitats contribute to a high-quality local ecological network and increase the suitability of the surrounding landscape for foraging and commuting bats.

3.2. Field Study

3.2.1. Lighting

The site falls within an "IPL Zone E1: Natural" dark lighting zone, with dark lighting as defined by *Bats and Artificial Lighting in the UK*. Guidance Note (GN08/23) (Institute of Lighting Professionals and Bat

¹⁰ Ancient Semi-Natural Woodland (ASNW) – broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years.

¹¹ Restored Ancient Woodland Sites (RAWS) – woodlands which are predominately broadleaved now and are believed to have been continually wooded for over 400 years. These woodlands will have gone through a phase when canopy cover was more than 50% non-native conifer tree species and now have a canopy cover of more than 50 percent broadleaf.

¹² Plantation on Ancient Woodland Sites (PAWS) – sites which are believed to have been continuously wooded for over 400 years and currently have a canopy cover of more than 50 percent non-native conifer tree species.

¹³ Ancient Woodland Site of Unknown Category (AWSU) – woodlands which may be ASNW, RAWS or PAWS. These areas are predominantly in transition and existing tree cover is described as 'shrubs', 'young trees', 'felled' or 'ground prepared for planting'.

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Conservation Trust, 2023). The house and annex are situated outside of the village, close to a large rural area where only very limited artificial lighting is present, increasing its suitability for foraging and commuting bats, including light-averse species¹⁴.

3.2.2. Ecological Context

The habitats surrounding the proposed development include extensive broadleaved woodland, wooded hedgerows, tree lines and pasture fields. A small stream is present approximately 0.04 km west of the site, with the River Usk approximately 2.4 km to the west and Wentwood Reservoir approximately 2.3 km to the east. These habitats form a well-connected network of woodland edge, hedgerows and watercourses, providing commuting and foraging opportunities for bats between the site and the wider landscape. Consequently, the site provides moderate-quality bat foraging and commuting habitat.

Building Description and Associated Bat Roosting Potential

The table below summarises the key features of the house and annex.

Table 5: Key Features of the Annex and Associated Bat Roost Potential

Feature	Description and Condition	Ecological Interpretation	Bat Roost Suitability
Building Type	The annex is a single storey building attached to a larger two storey main building. The walls are constructed of painted masonry on the north and east sides, with large timber framed windows on the south side (Photos 1, 2 and 5).	The annex is generally well maintained, although minor gaps are present at roof, and flashing. Its attachment to the larger building creates several junction features that may provide small crevice opportunities.	Low
Roof (External)	The annex has a shallow roof, including corrugated plastic roof panels and tiled/slate roof sections. The roof appears largely intact, with no obvious missing or significantly displaced roof coverings visible. Moss growth is present on some tiled areas on the northern elevation (Photos 5, 6 and 7).	The roof itself appears mostly well sealed, limiting roosting opportunities. Minor gaps at roof edges or where the annex joins the main building could provide limited crevice potential for individual bats.	Low
Lead Flashing	Lead flashing is present where the annex roof abuts the wall of the larger building. A small gap is visible at this junction (Photo 9).	Gaps beneath flashing can provide sheltered crevices suitable for individual crevice-roosting bats, particularly where dry and undisturbed.	Low
Soffits, Fascias and Bargeboards	Fascias and guttering are present along the annex roof edges. These appear generally well fitted.	Small gaps around fascia, soffit and guttering junctions may	Low

¹⁴ Lighting can impact on bats' roosting sites, commuting routes and foraging areas.

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		provide limited access to enclosed crevice spaces.	
Vents	Small vents are visible on the wall of the eastern elevation (Photo 1) and on the roof of the north elevation (Photo 5).	These vents appear well maintained and does not appear to provide an obvious access point.	Low
External Walls and Render	The walls are constructed of painted masonry on the north and east sides, with large timber framed windows on the south side (Photos 1, 2 and 5).	The walls provide very limited opportunities for access.	Low
Windows and Doors	Windows and doors are largely timber-framed, including the glazed single-storey extension. Frames generally appear intact, with no obvious large gaps visible (Photos 1 and 2).	The windows and doors are well sealed and offer limited opportunity for access.	Low
Roof Void	The first void is roughly 1 m high, 1 m wide by 4 m long. The timbers are modern and well fitted (Photo 6) with only a small gap of light visible (Photo 7). The second void is smaller at roughly 1 m high, 1 m wide and 1 m long. The timbers are again modern and well fitted, without any gaps.	The roof voids are modern, small and generally well-sealed, with limited crevice opportunities. The small gap of light visible may act as limited access.	Low
Roof Lining	The roof is lined with bitumen felt (Photo 8).	Bitumen felt can offer suitable surfaces for bats to cling, however with limited access to the roof, in this case it may be unlikely.	Low
Roof Construction	The roof has a simple modern timber construction, comprising of well-fitted timbers, attached to the larger building. Sections of the roof is tiled, while one section consists entirely of plastic corrugated material acting as a skylight (Photos 3, 4 and 5).	The roof construction is simple and leaves limited roosting potential.	Low
Insulation	Some fibreglass insulation is present in the roof void. (Photo 8).	The insulation reduces access to the roof void, acting as a barrier from the eaves.	Low
External Lighting	There is one light (photo 1) attached to the eastern wall.	The external light may reduce the suitability for roosting bats that are light sensitive.	Low

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Photos Showing the Annex and its Features

Photo 1: Eastern Elevation



Photo 2: Southern Elevation



Photo 3: Southern Elevation Roof



Photo 4: Southern Elevation Roof



Photo 5: Northern Elevation Roof



Photo 6: Internal View Looking To Main Building



Photo 7: Internal View Gaps Of Light In Attic

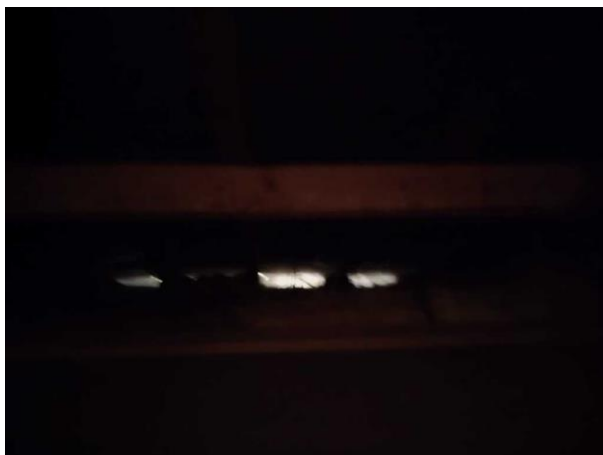


Photo 8: Internal View Of Roof And Insulation



Photo 9: Lead Flashing on Southern Elevation



3.2.3. Potential Bat Access Points and Bat Roosting Locations

Potential Access Points for Bats

There is limited potential for bats to gain entry into the interior. Although the annex is predominantly well-sealed (Photo 6) and the roof void is insulated with fibreglass which blocks access through the eaves (Photo 10), small gaps of light visible from the interior suggest there are a handful of small access points from the building's exterior into the void (Photo 7).

Potential Roosting Features for Bats

The following potential roost features were recorded:

- PRF 1 – Minor gaps present in the fascia, roof tiles and flashing of the annex (Photos 10 and 11).
- PRF 2 – Junction features present at the attachment of the annex to the larger building that may provide crevice opportunities (Photo 12); and
- PRF 3 – Small gaps present around the guttering (Photo 4).

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Photos Showing Potential Roost Sites

Photo 10: Gap beneath the fascia.



Photo 11: Lifted roof tiles.

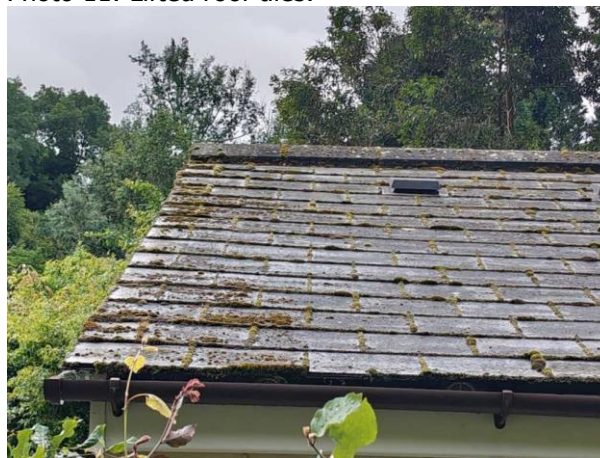


Photo 12: Junction features at the attachment point between the house and the annex.



Photo 13: Gaps around the gutter.



3.2.4. Dusk Emergence Survey

The results of the dusk emergence survey are summarised below and in Plan 5:

Table 6: Summary of Conditions During Dusk Emergence Survey

Date	22/062026
Sunset Time	21:32
Start Time	21:17
Finish Time	23:02
Sunset Temperature (°C)	25
Rain	None
Wind (Beaufort scale)	1
Cloud Cover (Oktas)	7

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Table 7: Summary of Dusk Emergence Survey Results

Emergences	No bats emerged from or interacted closely with the annex.
Important Commuting and Foraging Routes	Soprano and common pipistrelles were recorded foraging over the hedgerow to the north of the annex and in the car park to east. Lesser horseshoe bats were recorded flying over the northern pitch of the roof of the annex from west to east. Myotis bats were recorded on site. No particular <i>Myotis</i> sp.¹⁵ flightlines were observed and it is assumed that they were foraging in the vegetation behind the surveyors to the north and south-east.
Bat Activity	A moderate level of bat activity with soprano pipistrelle, common pipistrelle and noctule calls recorded throughout the survey. <i>Myotis</i> sp. calls were recorded at both the north and south-east of the annex at 21:58-21:59, 22:26, 21:49-21:53 and 23:01. Lesser horseshoe calls were recorded to the north of the annex, with a total of six calls recorded at 22:10, 22:16, 22:17, 22:46 and 22:56. There is no evidence to suggest that lesser horseshoe bats emerged or interacted closely with the annex.
Additional Observations	Security lights were present on the annex, but were not on during the survey.

3.2.5. Nesting Bird Survey

No evidence of current or recent nesting by birds was recorded within or on the exterior of the annex.

¹⁵ Differentiation between *Myotis* species (especially when flying within confined spaces) is often problematic and not always possible. This is because of the use of frequency modulated calls (FM) which have highly overlapping features, making it difficult to distinguish between species.

4. Evaluation

4.1. Summary of Fieldwork

The preliminary roost assessment and dusk emergence surveys found no evidence of bats roosting within the annex.

4.2. Suitability of Summer Roosts

The annex was assessed during the initial preliminary roost assessment as having low suitability for use by crevice-dwelling and roof-void-dwelling bats, and negligible suitability for use by direct-access species (*Rhinolophus* sp.). This assessment was used to determine the number of dusk emergence surveys required (see Appendix 3).

4.3. Winter and Transitional Roost Potential

'Classic' Hibernation Potential

No classic hibernation sites (e.g. cellars, basements or voids maintaining stable conditions with high humidity and a temperature of less than 10 °C in winter) are present.

'Non-classic' Hibernation Potential

The annex has low suitability for hibernated bats, as a small number of isolated crevice features are present which may theoretically provide limited opportunities for 'non-classic' hibernation. The roof void is well sealed with limited opportunities for external access and fibre-glass insulation effectively blocking entry. Externally, the building is generally well sealed but small crevices and gaps in the joins and fascia, while sub-optimal, could support occasional or transient hibernation by individual bats. Given the limited availability and suitability of these features, the likelihood of encountering hibernating bats during the works is considered very low.

4.4. Interpretation of Nesting Bird Survey

No evidence of current or historic nesting by birds was observed during the preliminary roost assessment or dusk emergence survey.

All wild birds, nests, and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended); therefore, works should avoid the main breeding season (March–August inclusive).

5. Impact Assessment

5.1. Potential Impact of Development on Bats

Since bats are unlikely to be roosting within the annex, no direct impacts on bats by the development are anticipated. Precautionary and enhancement measures for bats are detailed in Section 6.

If the scope of works increase and work is proposed to the main house (including the removal of bargeboards and / or the removal of ridge or roof tiles) then further survey effort will be required to determine the potential impact of this work on bats.

Long-term Impacts: Lighting

Lesser horseshoe bats were recorded commuting over the building during the dusk emergence survey. Although no lesser horseshoe roost was identified within the building, this species is active within the local landscape and is likely to utilise the surrounding habitats for commuting and foraging.

Lesser horseshoe bats are recognised as one of the most light-averse bat species in the UK and have been shown to avoid artificially illuminated commuting routes, woodland edges and foraging habitats. Consequently, any increase in external lighting associated with the development has the potential to adversely affect bat movement through the site by reducing habitat connectivity and altering the suitability of nearby commuting and foraging areas.

Particular care should therefore be taken to ensure that the on-site dark commuting corridors are maintained and external lighting does not illuminate the retained woodland edge habitats, mature trees, vegetation corridors or the proposed bat mitigation features. Lighting should be designed to maintain dark corridors around the site boundary and to ensure that bat access points, mitigation features and adjacent vegetation remain unlit. Subject to implementation of the sensitive lighting strategy detailed in Section 6, significant adverse effects on commuting and foraging bats are not anticipated.

5.2. Potential Impact of Development on Birds

Since birds are unlikely to be using the annex as a nest site, no direct impacts on birds by the development are anticipated. Precautionary and enhancement measures for birds are detailed Section 6.

6. Required Actions

The following recommendations are provided to ensure compliance with wildlife legislation, including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended), and to support biodiversity enhancement in accordance with Planning Policy Wales (2024) and Section 6 of the Environment (Wales) Act 2016.

6.1. Licensing Requirements for Bats

A protected species licence is not required as the survey indicates the likely absence of roosting bats from the annex.

If the scope of works increases to include the main house (including the removal of the gable end bargeboard and/or roof and ridge tiles), further survey effort will be required and a protected species licence may be needed.

6.2. Precautionary Measures for Bats

No evidence of any use by roosting bats was recorded within the annex and it is therefore highly unlikely that bats or their roosts will be affected by the current scope of works. No precautionary timing conditions on works are required. However, it is not possible to rule out bat use entirely. The following recommendations are made to minimise risks to bats and birds:

- It will be clearly understood, and contractors made aware, that in the event of any bats being found, the contractor must halt works (if bats are encountered, the bat will be carefully covered over again). Appropriate advice will be obtained from a suitably qualified bat consultant or Natural Resources Wales and, if necessary, a bat development licence obtained before work can resume;
- Contractors will check for the possible presence of bats on the undersides of roofing tiles, fascias, soffits and bargeboards etc. as they are lifted off. This is especially important at the outset of the works, since once the works have started, the disturbance is likely to drive any bats which are present away voluntarily;
- Contractors will be made aware that no works to the main house will be undertaken, including the removal of the eastern gable end bargeboard or any ridge or roof tiles to facilitate the new development. If during the course of works it becomes evident that works to the main house are required, advice will be sought from a qualified ecologist; and
- The services of an appropriately qualified and licensed ecological consultant will be available on an 'on-call' basis at all stages of the works to deal with any unexpected encounters with bats or nesting birds. Contact details of such will be held on site. Acer Ecology Ltd. could be retained to provide this support.

6.2.1. Sensitive Lighting Strategy

Due to lesser horseshoes being recorded flying over the annex, lighting during both construction and post-development stages, will be of a 'bat-friendly' specification and kept to the minimum level which meets the needs of security and health and safety. Examples of acceptable and discouraged lighting are provided in Appendix 7.

Lighting will be installed at low-level only (i.e. no higher than eaves level and lower than 2.4 m) and directed downward (i.e. below the horizontal plane with no upward tilt). Front and side hoods/shields or cowls will be installed to prevent upwards and horizontal light spill^o. Lighting will not be located in the vicinity of, or shine towards, the bat access points or possible/actual commuting routes and flight lines, so that a 'dark corridor' is maintained and disturbance to roosting bats is avoided/minimised.

Any security lights used will operate off a passive infrared (PIR) motion sensor sensitive to large objects only, to avoid constant triggers by bat passes and with timers set on a short duration (i.e. a maximum 'on' time of one minute) to reduce the amount of 'lit time'. The bulbs in the lights will ideally be low intensity (i.e. circa 11 watts), and either warm light (<2700Kelvin) LED bulbs, compact fluorescent light sources fitted with appropriate UV filters or low-pressure sodium bulbs. The bulbs should feature peak wavelengths higher than 550nm. White lighting sources including mercury or metal halide, CPO and CDO (ceramic discharge metal-halide) bulbs which have a significant effect on bats will be avoided.

Ideally, internal lights installed in proximity to windows will be recessed (as opposed to pendant fittings) to reduce glare and light spill. Lights should be installed above the window head height where possible and luminaires should be set back further into the room.

6.3. Enhancement Measures for Bats

One Schwegler 1FR bat tube (see Appendix 8) or similar will be incorporated in an exterior wall of the new extension. The bat tube will be recessed into the walls and lying flush with the surrounding wall. It can then be rendered but with care taken to ensure that the entrance slot is left exposed or painted with breathable paint if required. The tube will be positioned at least 0.5m below the eave or gable apex to prevent predation by domestic cats. It is also recommended that where practical, the tube is not positioned above windows or doors. Bat tubes in general should be installed in an unlit location close to connective features to allow bats undisrupted dispersal to local foraging habitat.

6.4. Precautionary Measures for Birds

No birds were seen nesting on the annex and therefore it is highly unlikely that birds will be affected by the works. If any active nests are found during works, these will be protected and a buffer of approximately 5m will be placed around the nest until the nesting is complete and the young have fledged.

6.5. Enhancement Measures for Birds

Bird nesting opportunities on and adjacent to the site will be enhanced by the installation of one standard hole nest box and one open fronted nest box (see Appendix 9) on the masonry of the building. They will be at least 3 m above ground level and ideally orientated so that they face north or east.

6.6. Longevity of Report

In line with *CIEEM (2019)* guidance, if works do not commence within 12–18 months of this report, an updated inspection should be undertaken to confirm that site conditions and bat use remain unchanged.

7. References

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Collins, J (ed) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*. The Bat Conservation Trust, London. Available at https://cdn.bats.org.uk/uploads/images/Resources/Bat-Survey-Guidelines-4th-edition-AMENDED-27.03.24.pdf?v=1711530275&gl=1*ghv03e*ga*MjA2MjI2MTEwNi4xNzUwMjIyOTQ2*ga_G28378TB9V*czE3NTE1NjQ1ODUKbzMkZzAkDE3NTE1NjQ1ODUKajYwJGwwJGgw

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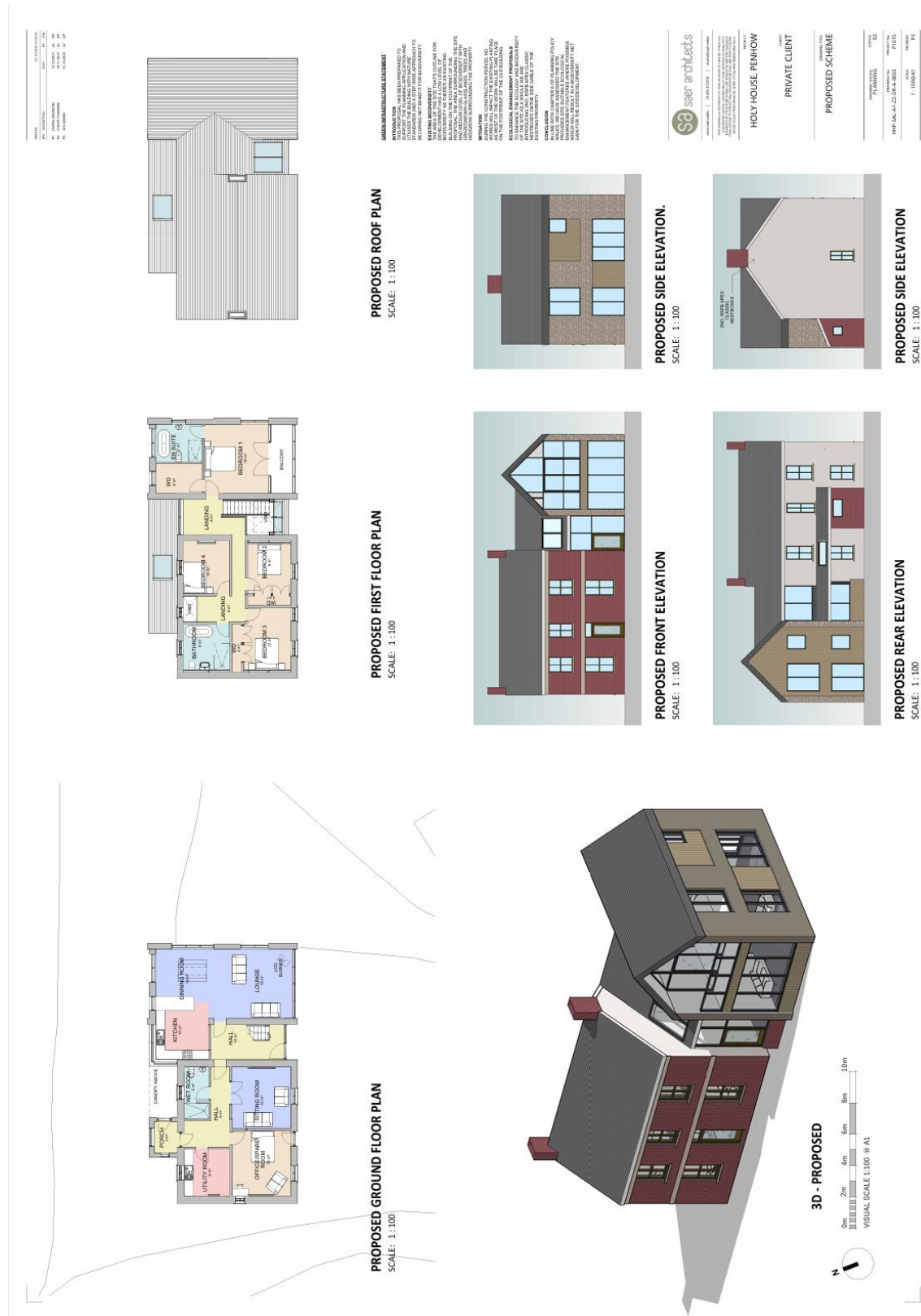
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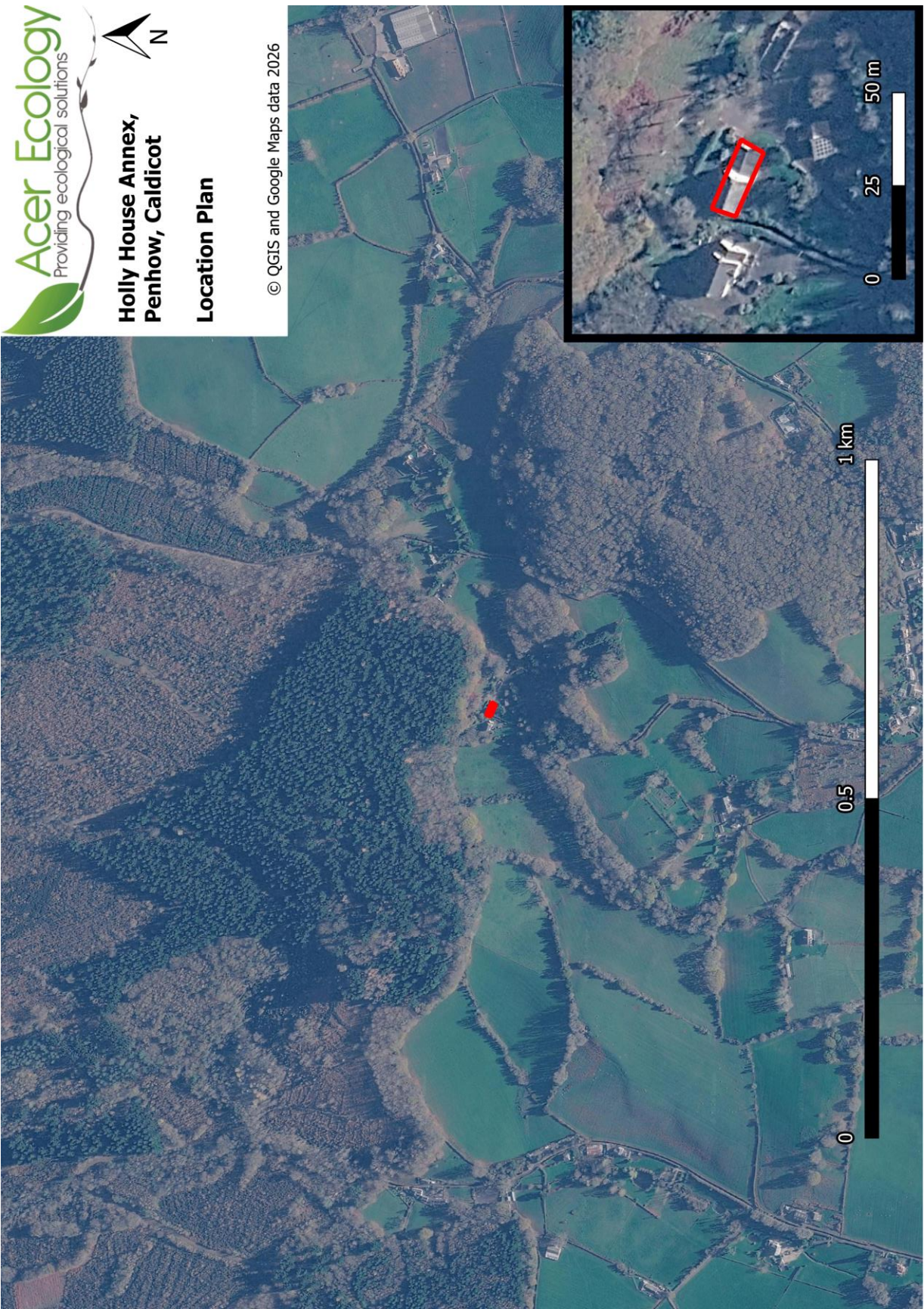
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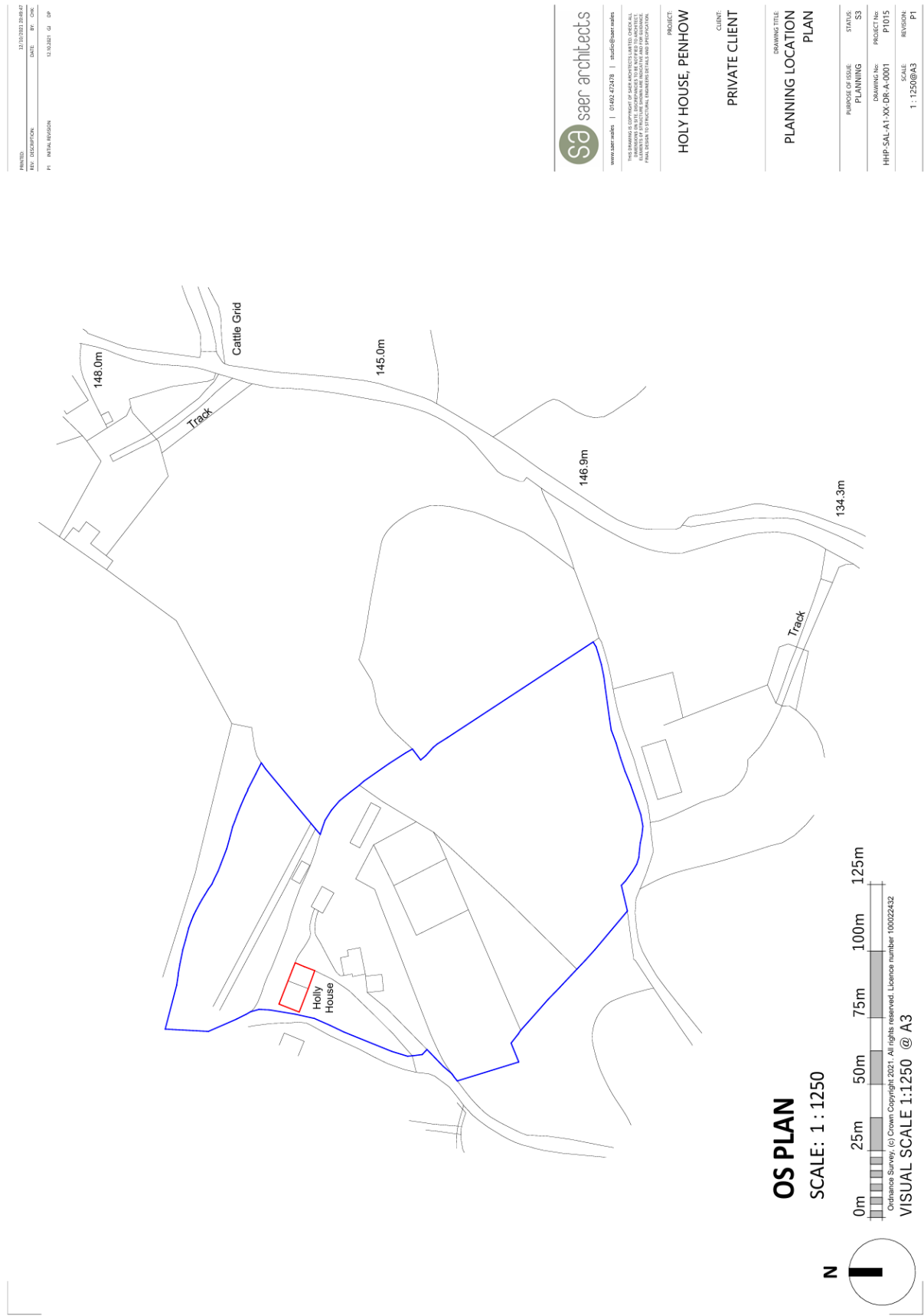
Drawing 2: Proposed Development



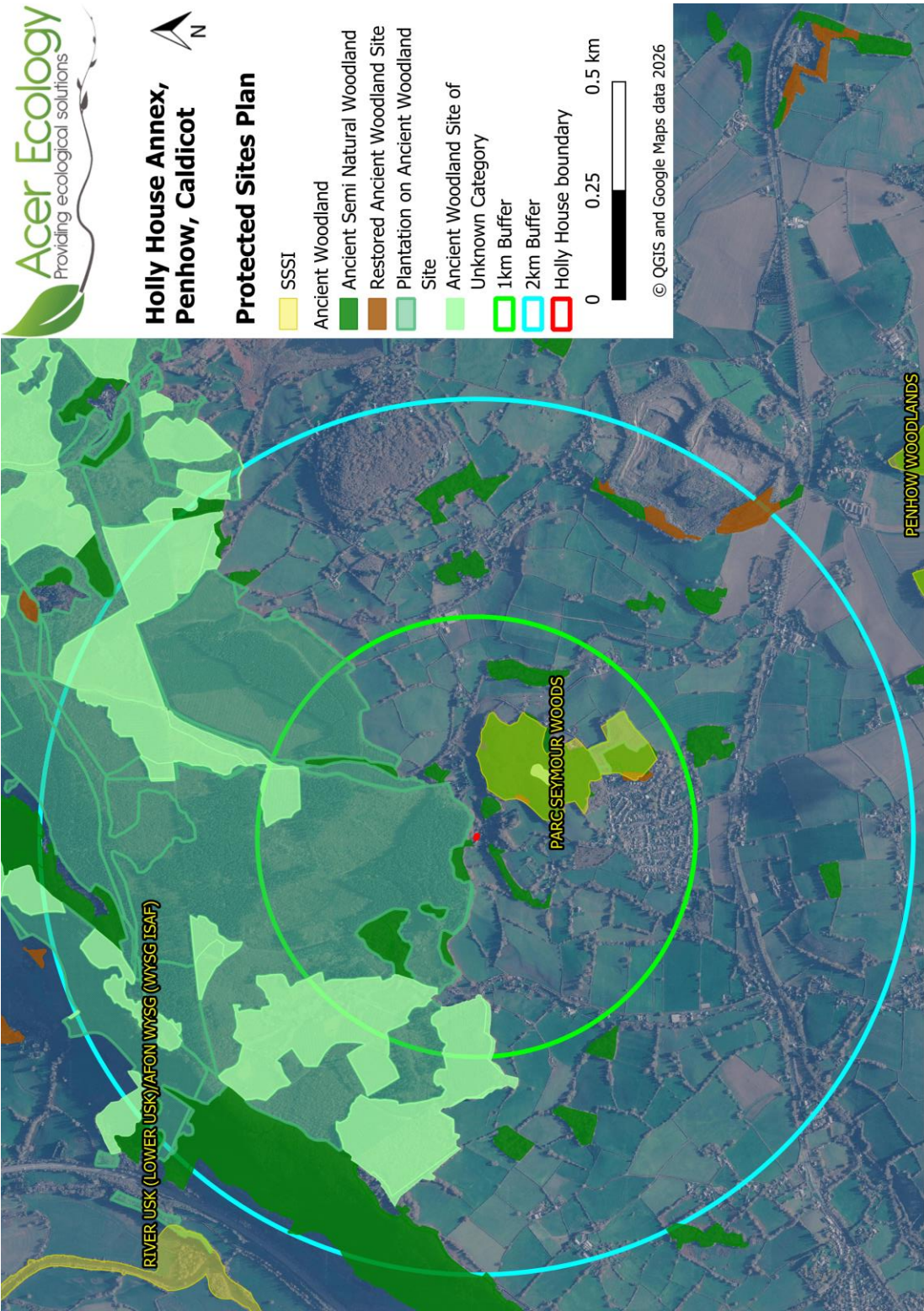
Plan 1: Location Plan



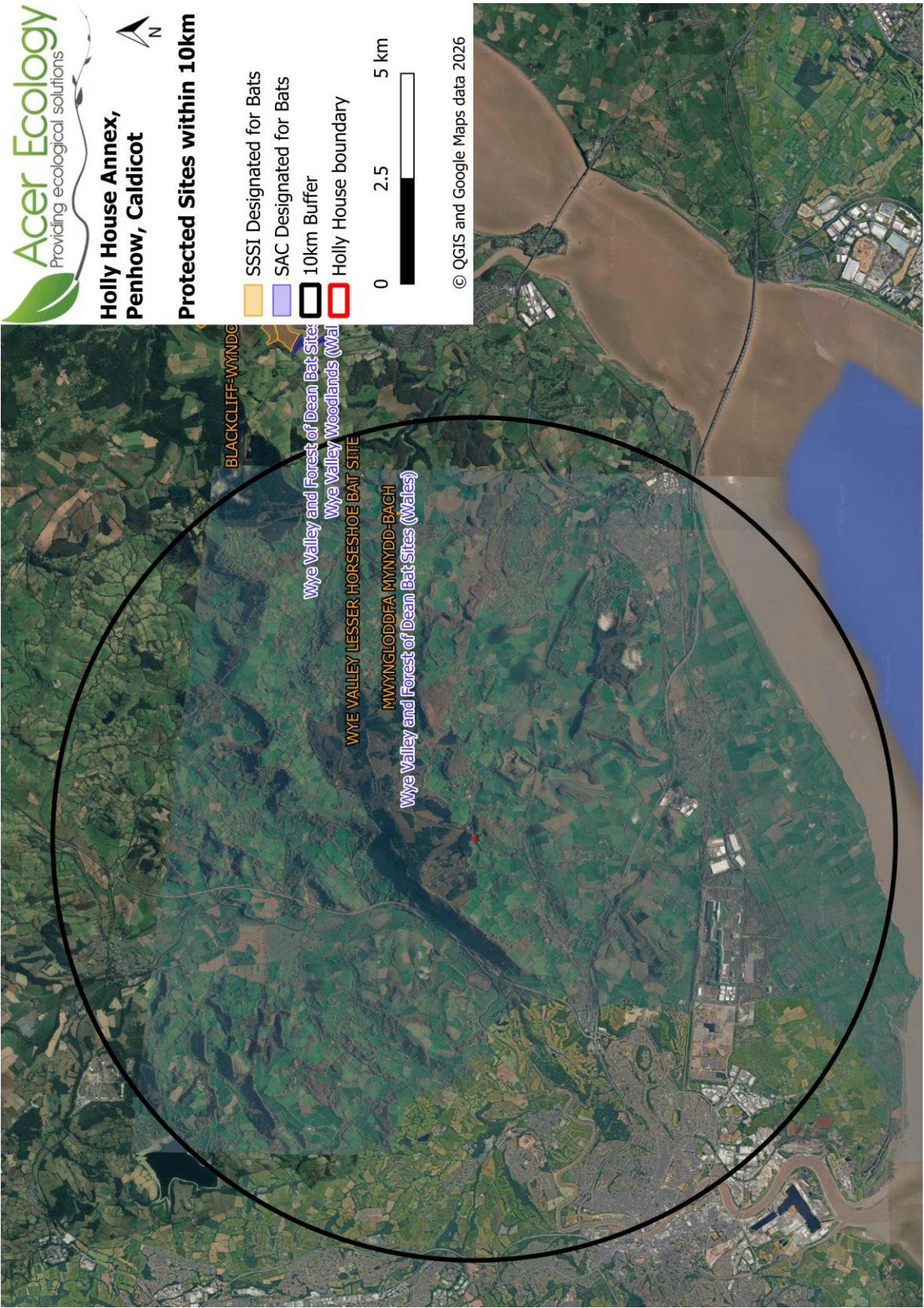
Plan 2: Location/Block Plan



Plan 3: Protected Sites Within 2 km



Plan 4: Protected Sites Within 10 km



Plan 5: Dusk Emergence Survey Results



Appendix 1: Bat Legislation Protecting Bats and Their Roosts

All British bat species, and any place used for shelter, protection, breeding, or resting¹⁶ (collectively known as roosts), are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017¹⁷ (as amended by EU Exit Regulations 2019¹⁸). Roosts are protected regardless of whether bats are present at the time of works.

Under this legislation, it is an offence to deliberately or recklessly:

- kill, injure, or capture a bat;
- disturb a bat;
- damage, destroy, or obstruct access to a bat roost (including those not currently occupied);
- possess or transport a bat or any part thereof unless lawfully acquired; or
- sell, barter or exchange bats or parts of bats.

Disturbance is defined as that which is likely to impair bats ability to:

- impair a bat's ability to survive, breed, rear young, hibernate, or migrate; or
- significantly affect the local distribution or abundance of the species.

Bat Licensing Requirements

If a bat roost is likely to be affected by development, NRW may issue licences under the Conservation of Habitats and Species Regulations to permit activities that would otherwise be unlawful. Licences for certain activities can be granted providing "three tests" are satisfied, that is:

1. Purpose Test: The activity is for reasons of overriding public interest — including those of a social or economic nature — or for the purpose of preserving public health or safety, or providing environmental benefits of primary importance;
2. No Alternative Test: There is no satisfactory alternative to the proposed activity; and
3. Favourable Conservation Status Test: The action will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status within its natural range.

Where planning permission is required, licences are normally issued after consent has been granted.

A licence application must be accompanied by a detailed method statement outlining the works to be undertaken under the licence. The statement should demonstrate how the risk of harm to bats will be minimised during construction and how bat conservation will be maintained post-development. It should include:

- proposed mitigation measures (e.g. replacement or compensatory roosts);
- the works schedule and timing;
- number, size, and locations of bat access points;
- materials to be used (e.g. roofing, lining, fascias, soffits, bargeboards);

¹⁶ <https://www.legislation.gov.uk/ukpga/1981/69>

¹⁷ <https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

¹⁸ <https://www.legislation.gov.uk/ukdsi/2019/9780111179512>

- lighting proposals;
- procedures if bats are discovered during works; and
- details of post-development monitoring.

The method statement must be supported by scaled plans and maps illustrating proposed mitigation features, often including cross-sections of access points and roosting areas. It should ensure that appropriate replacement or continued roosting opportunities are provided following completion of the works.

Planning Policy Wales

Section 6.4 Paragraph 6.4.5 of Planning Policy Wales Edition 12 (2023) that focuses on Biodiversity and Ecological Networks, Section 6 of The Environment (Wales) Act 2016¹⁹ that details the requirement for enhanced biodiversity and resilience of ecosystems, and TAN 5 all encourage developments in Wales to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally.

Section 7 of the Environment (Wales) Act 2016

Section 7 of the Environment (Wales) Act 2016 provides a list of the '*living organisms of principal importance for maintaining and enhancing biodiversity in relation to Wales*'. This includes seven bat species (soprano pipistrelle, barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auritus*), lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats (*Rhinolophus ferrumequinum*)).

Technical Advice Note 5: Nature Conservation and Planning (2009)

Technical Advice Note 5: Nature Conservation and Planning (2009) requires that the presence or absence of protected species, and the extent to which they may be affected by a proposed development, is established before planning permission is granted.

¹⁹ <http://www.legislation.gov.uk/anaw/2016/3/contents>

Appendix 2: Guidelines for Assessing Potential Bat Roosting Suitability²⁰

Potential Suitability	Roosting Habitats in Structures
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels)
Negligible ²¹	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ²² and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ²³).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions (see footnote from low suitability) and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions (see footnote from low suitability) and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.
Confirmed Roost	Evidence of bats or use of bats found.

²⁰ Taken from Table 4.1 of the Bat Survey Guidelines (2023) 4th edition.

²¹ Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

²² For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

²³ Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Appendix 3: Guidelines for Determining Required Number of Dusk Surveys

Roost Suitability	Minimum Number of Dusk Surveys Required ²⁴
Negligible	None.
None.	None.
Low	One survey visit comprising of a dusk emergence survey ²⁵ between May and August for structures.
Moderate	Two separate dusk emergence survey visits ²⁶ . Surveys must occur between May and September ²⁷ , with at least one survey between May and August ²⁸ .
High	Three separate dusk emergence survey visits. Surveys must occur between May to September, with at least two surveys between May and August.

²⁴ Adapted from Tables 7.1 and 7.2 of the Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023).

²⁵ Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see para 5.2.44). In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

²⁶ Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least three weeks apart, preferably more.

²⁷ September surveys are both weather- and location-dependant. Conditions may become more unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season. September surveys are likely to miss maternity roosts due to dispersal before this time, but may still pick up mating roosts.

²⁸ Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; it is recommended that surveys are spaced at least three weeks apart, preferably more. Survey timings should consider the prevailing conditions in the year of survey, which will vary geographically. In years with a cold spring, the surveys should not be started in early May or all be completed in May. The surveys should maximise the possibility of detecting maternity roosts, which can switch roosts between pregnancy and lactation, and the optimum coverage includes the pre-parturition, post-parturition, and mating periods.

Appendix 4: Guidelines for Assessing Bat Habitat Suitability

Suitability	Commuting and Foraging Habitat
Negligible	Negligible habitat features on-site likely to be used by commuting and foraging bats.
Low	<u>Commuting Habitat</u> Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape. <u>Foraging Habitat</u> Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	<u>Commuting Habitat</u> Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub or linked back gardens. <u>Foraging Habitat</u> Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	<u>Commuting Habitat</u> Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. <u>Foraging Habitat</u> High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. <u>Proximity to Known Bat Roosts</u> The site is close to and connected to known roosts.

Appendix 5: Surveyor Experience for Dusk Emergence Survey

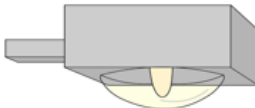
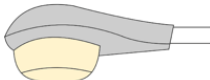
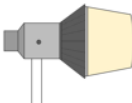
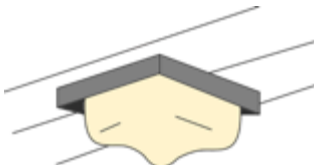
Jack Martin – Jack graduated with a BSc in Zoology and an MSc in Wetland Science and Conservation from Bangor University and is currently working as an Assistant Ecologist at Acer Ecology. Further details of his qualifications and experience can be found at <https://www.linkedin.com/in/jack-martin>

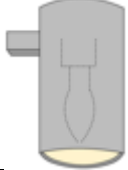
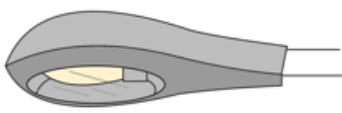
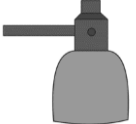
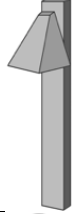
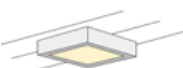
Tom Barlow – Tom is a student at the University of West England studying Wildlife Ecology and Conservation Science. He is currently undertaking an internship at Acer Ecology and assisting on dusk emergence surveys.

Appendix 6: Darkest Point of the Dusk Survey

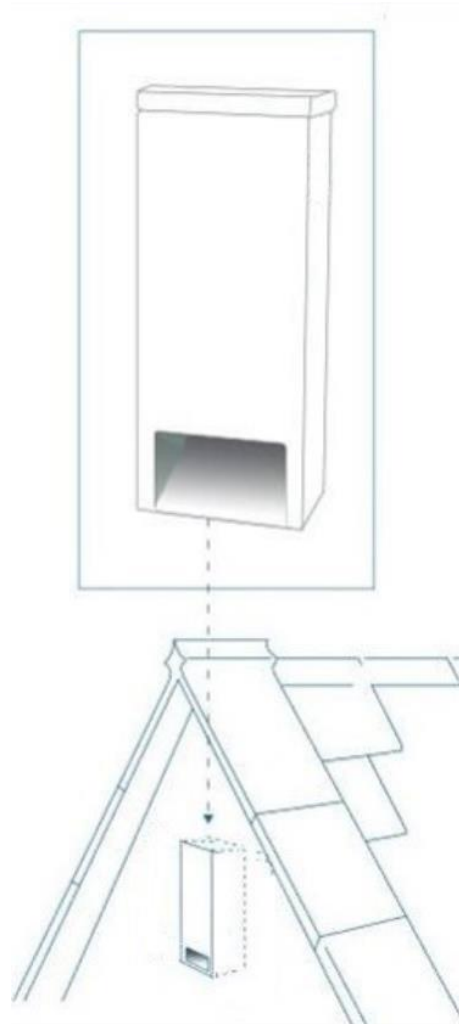


Appendix 7: Examples of Acceptable / Discouraged Lighting Options

Examples of Unacceptable / Discouraged Lighting Fixtures (Fixtures that produce glare and light trespass)	
Unshielded Floodlights or Poorly-shielded Floodlights	
Unshielded Wallpacks & Unshielded or Poorly-shielded Wall Mount Fixtures	
Drop-Lens & Sag-Lens Fixtures with exposed blub/refractor lens	
Unshielded Streetlight	
Unshielded Bollards	
Unshielded Barn Light	
Louvered 'Marine' style Fixtures	
Drop-Lens Canopy Fixtures	
Unshielded PAR Floodlights	

Examples of Acceptable Lighting Fixtures (Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night)	
Full Cutoff Fixtures	
Fully Shielded Wallpack & Wall mount Fixtures	
Fully Shielded Fixtures	
Full Cutoff Streetlight	
Fully Shielded Barn Light	
Fully Shielded Walkway Bollards	
Fully Shielded Decorative Fixtures	
Fully Shielded 'Period' Style Fixtures	
Flush Mounted or Side Shielded Under Canopy Fixtures	

Appendix 8: Schwegler 1F Bat Tube



Woodcrete Bat Tubes

These are a well-known brand that have a low visual impact on the development because they can be built into the exterior wall and then rendered or painted.

How Many to Install

Typically, one tube is recommended on sites where there are low numbers of bats and multiple groups of tubes are recommended on sites of high ecological significance.

Installation

The tubes should be built into the exterior wall of the building, typically at the gable apex. The tubes should be installed flush with the surrounding wall and can then be rendered or painted with breathable paint if required.

Schwegler 1FR and 2FR

These are two similar designs. The 1FR is designed to be used singularly (shown here) whereas the 2FR has transverse connecting holes that allow tubes to be collected together or lead into the cavity wall.

Specifications

Height	47.5cm
Width	20cm
Depth	12.5cm
Weight	9.8kg

Location

The tubes should be positioned at least 0.5m below the eave or gable apex to prevent predation by domestic cats. It is also recommended that where practical, the tubes are not positioned above windows or doors.

Appendix 9: Examples of Open and Closed Nest Boxes

Closed Fronted



This nest box is for installation on external walls of buildings (including sheds and garages) and is suitable for a range of bird species. With a 32mm hole it allows entry to species such as coal tit, blue tit, great tit, redstart, nuthatch, house sparrow, tree sparrow and other species.

The recommended height is between 1.5m and 5m above ground with a south-east to south-west orientation.

Cleaning after the breeding season (wait until October) is advised to provide a clean nest for the following year, or utilisation by non-migratory birds for winter roosting.

Open Fronted



These should never be hung on trees or bushes as this could allow small predators to access the interior and predate nesting birds.

This nest box should always be installed on the external walls of houses, barns, garden sheds etc. It is designed to be hung so that the entrance is to one side (90° angle to wall).

Correctly positioned it can attract species such as black redstart, pied wagtail, grey spotted flycatcher, and occasionally robins.