Billingbear Lodge, Wokingham

Bat Emergence Survey

On Behalf of:
All Brick and Stone Limited

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4 Acre Ecology Limited

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1. Executive Summary

1.1 Billingbear Lodge is a detached house and outbuilding set in its own garden, located to the north of the Wokingham, in the Vale of the White Horse District of the county of Berkshire. (Central Grid Reference SU 82417173).

1.2 There are plans to extend the property and replace the existing single-storey extension with a two-storey extension, requiring some internal and external modifications and replacement of the existing single-storey outbuilding. Therefore, a preliminary roost assessment survey was required to inform the planning decision.

1.3 This was carried out by AA Environmental Limited, with a recommendation for three emergence surveys on the house and outbuilding.

1.4 The emergence surveys were carried out during the peak of the activity season, on 17th July, 7th and 28th August. A peak of three Common Pipistrelles and two Brown Long-eared emerged from the house during these surveys, but none emerged from the outbuilding.

1.5 This confirms the presence of minor Common Pipistrelle and Brown Long-eared day roost in the main building, which will be damaged or destroyed by the proposals.

1.6 The outbuilding had no bats emerging from it, confirming likely absence of roosting bats, according to best practice, therefore, its demolition and replacement is not constrained by bats.

1.7 The works to the main house will be carried out under a protected species licence for bats, achieved through a site registration under a Bat Mitigation Class Licence, including a working method statement for bats and a mitigation package, including retention of the Brown Long-eared roost and bat slates in the proposed roof extension.

2. Introduction

Background

2.1 Billingbear Lodge is a detached house with brick walls and a pitched roof clad in clay roof tiles. It is located 1.7km north of Wokingham in a rural setting in the Hurst parish of the unitary authority of Wokingham , which lies within the county of Berkshire (Central Grid Reference SU 82417173).

2.2 There are plans to extend the property and replace the existing single-storey extension with a two-storey extension and replace the existing single-storey outbuilding. Therefore, a Preliminary Roost Assessment was carried out by AA Environmental Limited to inform the planning decision.

2.3 No evidence of roosting bats was found in the outbuilding, although full access was not gained, but Brown Long-eared bat droppings were found in both its roof spaces. Therefore, three bat emergence surveys were required to prove likely absence from the outbuilding, to classify the roost in the main house and determine if there were other species of bats roosting in it.

2.4 Lee Goodwin commissioned 4 Acre Ecology Limited on the 12th July 2025 to undertake a set of bat emergence surveys of the buildings to allow this report to be written.

Aims and Objectives

2.5 The aim of the survey was to determine the presence or absence of roosting bats within the outbuilding, to classify the roosts in the house and to support a protected species licence application. The objective is to support a successful planning application, whilst maintaining the conservation status of bats within the local area.

About the Author

2.6 Mark Satinet has been working in the field of Wildlife Conservation and Ecology since 1992. 13 years at the Wildlife Trusts working on wider countryside habitat and species projects provided a good background in habitat surveys, species identification, habitat management advice to landowners and dealing with the public and media. He became the County Mammal Recorder for Wiltshire in 2000 and set up the Wiltshire Mammal Group in 2005. He is also a voluntary Bat Warden for Natural England and has been an active member of the Wiltshire Bat Group since 2001.

2.7 Since 2005 he has been a consultant ecologist, first as a senior ecologist at a multi-disciplinary company for a year and then the principal ecologist running the ecology team in a specialised ecological firm for a further four years. He is a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist. He now owns and runs his own company, 4 Acre Ecology Limited.

2.8 He holds disturbance licences for bats, Great Crested Newts, Dormice, Barn Owls and Shrews and has held development licences for Great Crested Newts, bats, Badgers and Dormice, as well as holding a Bat Mitigation Class Licence and Great Crested Newt Low Impact Class Licence.

3. Methodology

Desk Study

3.1 The findings from the original technical note were used as a base for this report.

Field Survey

3.2 Following best practice guidelines (BCT, 2023) three dusk emergence surveys were required to determine likely absence from the outbuilding, and to classify the roost(s) present in the main building.

3.3 For dusk surveys the surveyors arrive half an hour before sunset and continue to survey for up to two hours after sunset, to allow for late emerging bat species.

3.4 As the main building has a slightly complex roof structure, three surveyors were used to cover all aspects of the main building and its roof, with two covering the outbuilding.

3.5 Surveyors were equipped with an Echo Meter Touch connected to an iPad for later analysis of any unidentified bat species. They were also equipped with Cannon XA60 infra-red cameras and IR lights and/or PixFra Arc Series Thermal imaging cameras to aid observations as light levels dropped. Surveyors had standardised recording forms, a map of the site and building, pencils, a weather writer and head-torch with replacement batteries.

3.6 Any registrations of bats on the detectors and/or direct observations of bats or their behaviour were noted with the time on the recording forms and a location of this on the map. As emergence from the roost was a priority, surveyors did not always see passing bats out of their line of vision and would therefore mark where they were standing when the registration occurred. Most bats were identified by the surveyors by sound and sonograms through experience, but the recordings allowed verification and identification of unknown bats where required.

3.7 The survey data was summarised into the number of passes by each species, the location of exit/entrance points in the building and the type of behaviour (e.g. foraging or emerging). Where direct observations of bats emerging/re-entering were made, these are depicted on a plan.

4. Legislation and Planning Policy

4.1 There are a number of tiers of legislation protecting wildlife in England and Wales. The highest tier is for those species protected by European Legislation, such as the Dormouse, Great Crested Newt, Otter and all species of bat. These are known as European Protected Species (EPS), which gain their protection from the Conservation of Habitats and Species Regulations (Habitat Regulations) 2017, whereby under section 43 it is an offence to;

- deliberately capture, injure or kill an EPS
- deliberately disturb or take/destroy the eggs of an EPS
- damage or destroy a breeding site or resting place of an EPS

4.2 They are also protected under the Wildlife and Countryside Act (WCA) 1981 and amendments, including the Countryside and Rights of Way Act (CRoW) 2000. Under the WCA it is an offence to:

- intentionally or recklessly kill, injure or take from the wild or possess all or any part of a bat;
- intentionally or recklessly damage or destroy any structure or place which a bat uses for shelter or protection, or disturb a bat while it is occupying such a place; or
- obstruct access to any structure or place which a bat uses for shelter or protection.

4.3 The Natural Environment and Rural Communities Act 2006 (NERC) made provision about bodies concerned with the natural environment and rural communities and in connection with wildlife, sites of special scientific interest, National Parks and the Broads. Section 41 established a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. This is known as the UK Biodiversity Action Plan (BAP) list.

4.4 The National Planning Policy Framework (NPPF) updated in 2023 states that Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and

other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

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

4.5 To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
b) Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

5. Results

Desk Study

5.1 There are no statutory ecological designated sites located on, adjacent to or within 2 km of the site. The nearest statutory designated site is Holt Copse and Joel park Local Nature Reserve (LNR), located approximately 2.92 km to the south-west of the site. There are no Habitats of Principal Importance located on or directly adjacent to the site, with the site situated within Network Enhancement Zone 23. The nearest HPI is Priority Habitat Inventory Deciduous Woodland, also noted in the National Forest Inventory as Broadleaved Woodland, and Ancient Woodland – Beech Wood, located approximately 20m to the west of the site, on the opposite side of the road.

5.2 According to the Multi-agency website, a single bat licence has been granted within the 1 km study area, which was for the destruction of a resting place and a breeding site for common pipistrelle and brown long-eared bats (reference: 2015-8658-EPS-MIT and 2015-8658-EPS-MIT-1), located approximately 0.98 km to the west of the site.

5.3 The site is located off Maidenhead Road in Wokingham, centred at National Grid Reference: SU 824717 and covers approximately 0.30 of a hectare. The site is bordered by Maidenhead Road to the south, The Straight Mile to the west, development (buildings and garden areas) to the north and east with farmland to the north-east.

5.4 The site comprised the residential property and outbuilding with associated hardstanding and garden areas. The building was a detached two-storey residential dwelling of masonry construction with a pitched tiled roof with two chimneys and timber soffits and fascias. At the rear there was a masonry constructed single-storey extension with a pitched tiled roof with timber soffits and fascias as well as a flat roof section connecting to the main house.

5.5 The single-storey outbuilding was of masonry construction with a pitched pan-tiled roof and timber cladding at each gable end. Wooden soffits and fascias were recorded.

5.6 Internally, there was a single attic space recorded in the main building, which appeared to have been recently relined and insulated with mineral wool. The attic space in the single-storey extension was lined with a bitumen-based membrane and insulated.

5.7 Internal access into the outbuilding was restricted, with the roof void/roof space not fully accessed during the survey.

5.8 During the internal inspection of the property, an accumulation of mixed-age brown long-eared type droppings was recorded in the main roof space. During the internal inspection of the single-storey extension, some scattered brown long-eared type droppings were recorded within the roof space.

5.9 No droppings were recorded within the areas of the outbuilding that were accessible but it is important to note full access was not possible.

Field Survey

First Dusk Emergence Survey

5.10 The survey was conducted on 17th July 2025, a dry warm night with a temperature of 24ºC, dropping to 22ºC by the end, with a light wind and 90% cloud cover. Sunset was 21:11.

5.11 The survey began at 20:56 and ended at 22:41. Three bats emerged from the main building, but none from the outbuilding.

5.12 The first bat observed at 21:13 was a Common Pipistrelle emerging from the northern gable of the main house. At 21:18 a Common Pipistrelle emerged from southern gable end, with a third emerging from the apex of the roof to the east of the chimney at 21:30. The evening was dominated by Common Pipistrelles foraging around the garden to the south of the main building and west of the outbuilding.

5.13 There were a total of 355 registrations of bats by the five surveyors during the 90 minutes of the survey after sunset. This equates to 0.79 registrations per minute per surveyor, indicating a moderate level of bat activity.

5.14 Common Pipistrelle made up 88.7% of registrations, Soprano Pipistrelle 0.8%, Noctule 6.8%, Brown Long-eared 1.4% and Serotine 2.3%

Second Dusk Emergence Survey

5.1 The survey was conducted on the 7th August 2025, a dry, warm evening with a temperature of 19ºC, dropping to 18ºC by the end, with a light wind. Cloud cover was 100% and sunset was at 20:40.

5.2 The survey began at 20:25 and ended at 22:10. Nine bats emerged from the main building, but none from the outbuilding.

5.3 The first bat observed was a Common Pipistrelle at 20:51, emerging from the apex of the building and flying north. At 21:03 two Brown Long-eared emerged from the eaves on the northern side of the main house. From 21:03 to 21:06 five Common Pipistrelle emerged from the norther gable and at 21:11 a Brown Log-eared emerged from the eaves on the northern side of the main house. The activity was dominated by Common Pipistrelles foraging in the garden to the south of the main building and along the road.

5.4 There were a total of 211 registrations by the 5 surveyors during the 90 minutes of the survey after sunset. This equates to 0.47 registrations per minute, per surveyor, indicating a low level of activity.

5.5 Common Pipistrelle made up 75.2% of the registrations, Soprano Pipistrelle 3.2%, Noctule 12.8%, Brown Long-eared 5.0%, Serotine 0.5%, Daubenton's 2.8% and Myotis spp. 0.5%.

Third Dusk Emergence Survey

5.6 The survey was conducted on 28th August 2025, a dry, warm night with a temperature of 22ºC at the start, dropping to 19ºC by the end with no wind and a cloud cover of 20%, increasing to 100% by 20:30. Sunset was at 19:58.

5.7 The survey began at 19:43 and ended at 21:28. Four Common Pipistrelles emerged from the main building, two after two had re-entered, but none emerged from the outbuilding.

5.8 The first bat observed was at 19:59, a Common Pipistrelle that emerged from the northern gable. At 20:09 a Common Pipistrelle emerged from the western eaves of the northern gable. At 20:22 a Common Pipistrelle re-entered the main house in the northern eaves, before re-emerging 18 seconds later and returning west. Another Common Pipistrelle did the same thing at 20:23, but flew away east. The main activity was from Common Pipistrelles foraging in the garden to the south of the main house and along the road, with a few passes by other commuting species.

5.9 There were a total of 722 registrations of bats by the five surveyors during the 90 minutes of the dusk emergence survey after sunset. This equates to 1.60 registrations per minute per surveyor, indicating a high level of bat activity.

5.10 Common Pipistrelles made up 94.9% of the registrations, Soprano Pipistrelle 2.8%, Noctule 1.0%, Brown Long-eared 0.5%, Serotine 0.3%, Nathusius Pipistrelle 0.3%, Daubenton's 0.1% and Myotis spp. 0.1%.

6. Discussion

6.1 There are no sites designated for bats within 5km of the site. There have only been a single mitigation licences issued for bats within 2km of the site. This is far enough away to be un-associated with the site.

6.2 The low number of records is likely to be as a result of a lack of recording in this area and there is likely to be a better species number and population of bats in the area than these records indicate.

6.3 The wider landscape is dominated by large arable fields, but with large woodland strips along the roads and between the fields in a matrix of the area, particularly Beech Wood to the west of the site on the far side of the road. This provides rich and diverse habitats suitable for a wide range of bat species and they are connected to the site by ecological corridors. There are potential roost sites within other buildings in the area and in trees the adjacent woodland.

6.4 The emergence surveys were carried out in good conditions, spaced out over the peak summer period (July to August), as recommended by current best practice, to get a good spread of surveys across the season.

6.5 Three Common Pipistrelle emerged from the main building on the first survey visit, six on the second visit and two on the third, with Common Pipistrelle twice re-entering the main building and soon after re-emerging, confirming the presence of two minor day-time roosts of this commonly occurring species, one beneath roof tiles and the other beneath barge boards at the northern gable.

6.6 Three Brown Long-eared emerged during the second survey from the northern eaves of the main building, where the Common Pipistrelles re-entered and re-emerged during the third survey. This, combined with the droppings found internally, also confirms the presence of a minor day roost of this species.

6.7 No bats emerged from the outbuilding on any of the surveys, therefore roosting bats are confirmed as likely absent from the outbuilding, and are not a constraint to its demolition and replacement.

6.8 Bat activity on each survey was greatest in the garden to the south of the house and along the road south of this.

6.9 To carry out the proposed works to the main building legally, a protected species licence is required. In this case the site can be registered under a Bat Mitigation Class Licence. No mitigation is required by the guidelines, but it is good practice to install a bat box or bat slate for each of up to three such roosts on any one site to be lost.

6.10 In addition, as roosting bats are present the ‘three tests’ required for a European Protected Licence must be satisfied. These are;

- That the work is for imperative reasons of overriding public interest
- There is no satisfactory alternative
- There is no detrimental effect to the population of bats at a favourable conservation status within their natural range.

6.11 In this case the first is covered by the planning permission, when it is given, allowing the building to be extended to conform with modern family life-styles and therefore maintaining the housing stock as required under local and national planning policy.

6.12 For the second test, as the site is a single set of building in their own grounds, there is limited land available and no practical alternative to extending the current building. To site a suitable building elsewhere would be to use green field sites, which goes against local and national planning policy (NPPF, 2021).

6.13 The final test is to maintain the conservation status of bats in the area. With minor roosts of Common Pipistrelles and Brown Long-eared confirmed as present, the mitigation set out in the recommendations section will maintain the current conservation status of bats in the local area, while the supervised strip of the roof will ensure no individual bats come to harm.

7. Further Surveys, Recommendations and Enhancements

Further Surveys

7.1 No further surveys are required at this time, but no more than three months prior to the site registration the building will be subject to a walkover survey. If work has not started before summer 2026, then a further emergence survey will be required, as surveys from the current season are stipulated as part of the Bat Mitigation Class Licence.

Recommendations

Bat Working Method Statement

7.2 Ideally the building works will be started in September to October inclusive, when bats are still active, or in April, to avoid the maternity period, when bats are most vulnerable and most likely to be present and allow the continued use of the roost by bats during the main activity season. However, as only minor roosts are present, works could be carried out any time, as there is no maternity or hibernation roosts present.

7.3 One Schwegler 2FN and one Schwegler 1FF bat boxes will be erected in retained trees in the rear garden before work begins, as temporary roost sites during works.

7.4 Before works commence the Class Licenced Ecologist will inspect the internal roof spaces as a final check for roosting bats, removing any found by hand and placing them in the bat boxes.

7.5 A tool-box talk will be carried out by a licenced bat ecologist to inform the contractors of the method statement, the protection afforded bats, how to recognise bats and what course of action they will need to follow if a bat is found during the construction.

7.6 The ecologist will oversee the initial removal of tiles and other bat features, such as ridge tiles and soffits. All tiles will be lifted from the roof, not slid off, to avoid injury to bats if they are present beneath and other features removed carefully by hand after inspection by the licenced bat ecologist.

7.7 If, in the unlikely event that a bat is encountered, it will be taken by hand by the ecologist, who is very experienced in handling bats. The bat will be stored in a cotton bag to keep it calm and secure and moved into one of the newly erected bat boxes.

7.8 The works are to extend the single storey extension upwards, losing the current single-storey roof space and tying the new roof space in with the main roof space which is then to be retained. These will be maintained as cold roof spaces, with a cut structure, having a ridge board, and not a truss structure, to allow bats to fly freely within it.

7.9 The new roof will have 1F bitumen felt lining, or a breather that has passed a high propensity test, such as BatSafe.

7.10 A bat slate will be fitted into either side of the new roof, towards the ridge, with a slot cut in the liner beneath these to allow access into the roof space for Brown Long-eared bats.

Lighting

7.11 There will be no night working with no lighting of any scaffolding at night.

7.12 There will be no direct lighting of any trees or hedgerow on or adjacent to the site.

7.13 There will be no direct lighting of any of the access points to the bat boxes. Any outdoor lighting will be;

- Less than 1 lux light level
- Led luminaries with warm white spectrum <2700 Kelvin (To Avoid Blue / UV Elements)
- Luminaires should have a peak wavelength of 550mn to avoid the component of light most disturbing to bats.
- Bollard or low-level downward directional luminaries are used and mounted on the horizontal with no upward tilt.
- Any security lighting should not exceed 75w in power, the light should be motion activated with short timers (1 Minute), angled downwards as sharp as possible to light up the immediate area only.

7.14 Clearance of trees and shrubs will be undertaken outside the nesting season, which runs from March to August. If this is not possible an ecologist will check the trees or shrubs to be removed for active bird nests. If these are found no clearance work will be carried out until an ecologist has confirmed that the birds have fledge and the nest(s) can be removed.

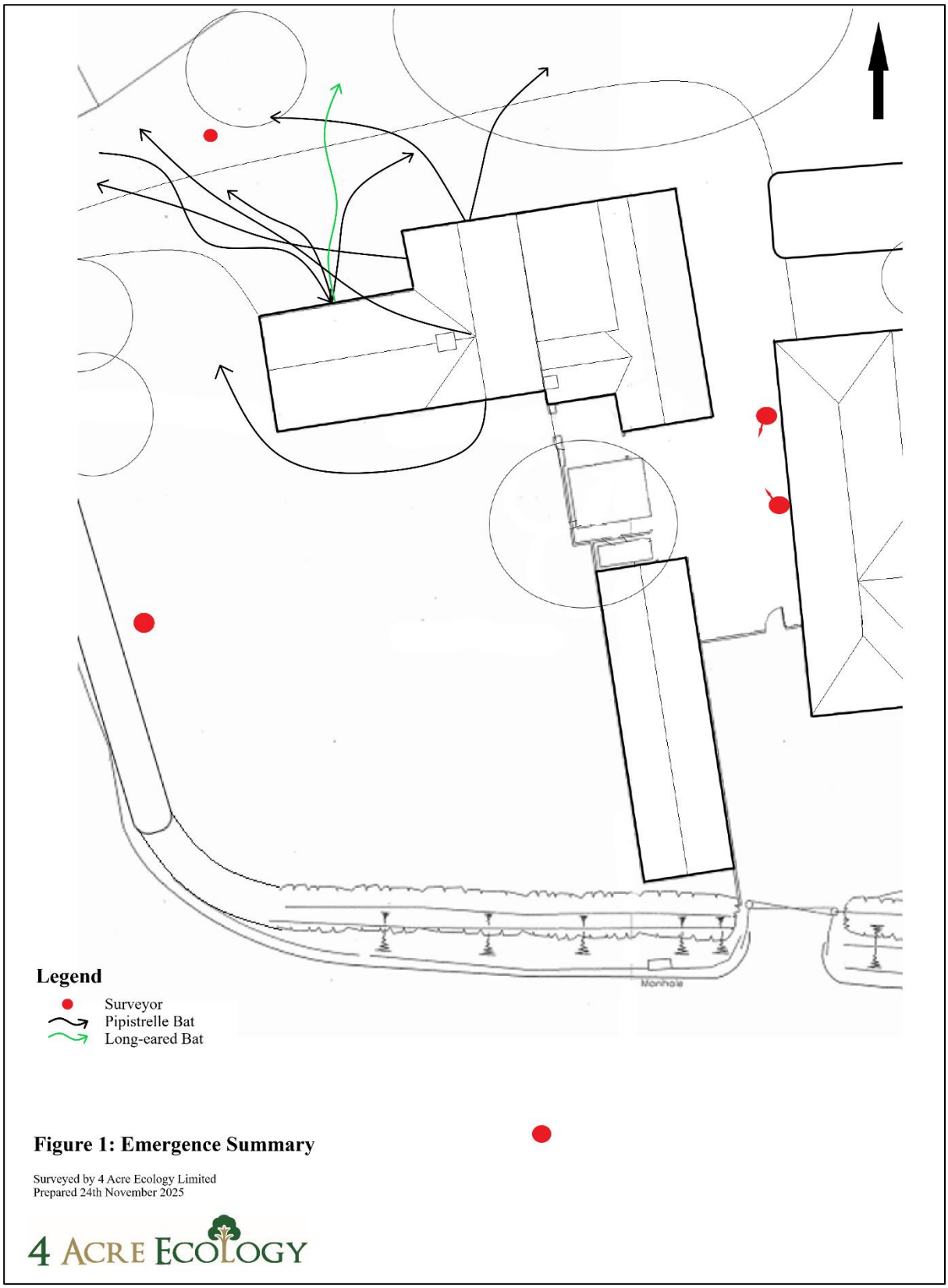
Enhancements

7.15 Any planting will include native species, especially night-flowering species to attract insects for bats to feed on.

7.16 The bat boxes will be retained as enhancements for roosting bats on the site in the long-term.

8. Figures

Figure 1: Emergence Summary



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