

Bat Survey Report

Llys Llewelyn

Garth, Wrexham, Wales

Client: JMP Developments

September 2025

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Quality Assurance

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Summary

A bat survey was commissioned in June by JMP Developments on behalf of client Mr & Mrs Clifton of Llys Llewelyn, Blackwood Road, Garth, Wreham, Wales.

The survey was commissioned to support a proposed planning application for demolition of buildings on site and construction of a new residential property. The purpose of the survey is to determine if a bat roost is present in association with the dwelling (B1) and Coal-Shed (B2) and if present, to ensure bat roosts are not affected by the proposals.

Following completion of the surveys, no evidence to suggest the presence of bat roosts was identified in association with the building. Only limited activity was recorded throughout the survey. Building 2 (Coal-shed) has limited potential for hibernating bats. As such it is recommended that a pre-works check is undertaken by a suitably licenced ecologist where demolition of this building takes place during the winter months.

In view of the results of the survey and absence of any evidence of a bat roost, no further survey or mitigation is recommended at this stage, however, should at any stage of works a bat roost be found or suspected, then works should cease and an ecologist should be consulted.

Though none is anticipated at this stage, any proposed lighting scheme associated with the site should be designed to ensure that it is sensitive to the presence of wildlife, including bats foraging and commuting through the site. This would include low-level lighting or similar solutions to prevent artificial light levels from deterring bats from the site (please see Bats and Artificial Lighting at Night' ILP Guidance Note (2023) for further information).

It is recommended that bat boxes are installed in suitably mature trees within the wider site boundary to compensate for loss of potential roost features and to further enhance the site for bats in the long term.

To this end, it is recommended that 5 x Harlech Woodstone Bat boxes are installed in suitably mature trees within the wider site boundary as part of the development proposals. See appendix for details. Where it is possible to integrate boxes into the new building, Habibat 001 boxes should be considered and these can be faced to suit most natural finishes on new buildings.

In view of the above, where the above recommendations are followed, it is considered the appropriate level of assessment will have been completed (as per Collins, 2023), and the conservation status of the bats will not be adversely affected by the proposed works.

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1. INTRODUCTION

A bat survey was commissioned in June by JMP Developments on behalf of client Mr & Mrs Clifton of Llys Llewelyn, Blackwood Road, Garth, Wrexham, Wales.

The survey was commissioned to support a proposed planning application for demolition of buildings on site and construction of a new residential property. The purpose of the survey is to determine if a bat roost is present in association with the dwelling (B1) and Coal-Shed (B2) and if present, to ensure bat roosts are not affected by the proposals.

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1.1. Site Description

The site is a single storey residential dwelling and associated outbuildings and grounds located in Garth, Llangollen, Wales (Grid Reference: SJ 25049 43069). The dwelling house is accompanied by three small outbuildings including an outdoor toilet, a small coal-store and a workshop/shed. The site is location on a hillside overlooking the Dee Valley to the south in a rural location. The site is surrounded by grazing pasture, blocks of conifer plantation and areas of upland heathland in the wider context.



Figure 1. Site and surrounding landscape character (Site area in red)

1.2. Proposed Works

The proposals for the site include demolition of the existing buildings and construction of a new single dwelling with associated garage/workshop, access and gardens.

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1.3. Personnel & Quality Assurance

Rob Nicholson BSc (Hons) MCIEEM is a Natural Resources Wales Bat licensed ecologist with over 17 years' relevant experience as an ecologist and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Rob has been 'named ecologist' on numerous European Protected Species Licences (EPSL) for bats for a range of species and roost types in both Wales and England.

Commented [AW5]: I've tweaked to reflect this is a Wales app but just check if anything else needs changing/adding.

The emergence survey was led by Rob Nicholson with assistance from Mark Cookson, an experienced bat surveyor.

All field work and assessment was undertaken in accordance with current best practice guidelines (Collins, 2023).

2. LEGAL STATUS

Bats

In Wales, all British bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

Commented [AW6]: I have checked to make sure this is all relevant to Wales but just double check if anything is wrong/missing!

These pieces of legislation combine to give substantial protection to bats and their roost sites, making it an offence to:

- *Deliberately or intentionally kill, injure or take a bat;*
- *Damage, destroy or intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not);*
- *Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.*

3. METHODOLOGY

3.1.1. Desk Study

To inform the survey, a desk study was conducted using available ecological information relating to bats for the area surrounding the site.

Online resources, including Multi-Agency Geographic Information Centre (MAGIC), were consulted in relation to the presence of sites and habitats of importance for bats in the wider context.

A data request to the Local Records Centre (Cofnod) made on 11th June 2025.

A Preliminary Bat Roost Assessment (PRA) was completed as part of a wide ecological assessment of the site (Preliminary Ecological Appraisal) in June 2025 (SRN Consulting September, 2025). This survey was informed by the above PRA.

3.1.2. Bat Emergence Surveys

Commented [AW7]: Was there an unmanned camera? Can see 3 cameras but only 2 surveyors - do you have standard wording for this?

One dusk emergence survey was undertaken on 15th July 2025 covering the dwelling (in line with current Bat Survey Guidelines for buildings assessed to be of 'low potential' for supporting bat roosts).

The dusk surveys commenced 15 minutes before sunset and continued for 1.5hrs after sunset.

During the survey, two surveyors and an additional unmanned night vision aide camera with full spectrum detectors were strategically positioned, focusing on the potential roosting features to ensure observations could be made of any bats leaving or entering the dwelling.

All observed bat passes were recorded; noting the time, the location and, where possible, the direction of flight, species and behaviour of the bat (i.e.; commuting, foraging, social calling).

After completion of each survey session, digital recordings of bat echolocation taken during the survey were analysed using Anabat Insight sonogram analysis software for recordings taken using Anabat Scout full spectrum detectors. Infra-red night vision aides (Nightfox Whisker) and supplementary infra-red lighting (Nightfox Arc) were also used to aid surveyors in visual observation of bats and footage reviewed post-survey.

During the surveys, the following details were noted as appropriate:

- Weather and temperature;
- Time bat detected/observed;
- Frequency at which the bat was detected;

- Location within the survey area;
- Whether bats emerged from/re-entered a potential roost location;
- Direction of flight;
- Number of bats observed; and
- Whether the bats appeared to be foraging or commuting.

Temperature, wind speed and cloud cover were recorded at the beginning and end of the survey, along with any significant weather changes during the survey.

4. CONSTRAINTS

The survey does not cover every month of the active and hibernation seasons. No other constraints to the emergence survey were experienced.

5. RESULTS

5.1. Desk Study

According to the Natural England online mapping resource MAGIC there are no statutory designated sites for which bats are a qualifying feature within 5km of the site.

There are no records of bats within 1 km of the site the past 10 years. The most recent records were two records of Common Pipistrelle from 1995 and one record of a bat (species unconfirmed) from 1995. Each of these records was remote from the site.

The PRA (SRN Consulting, 2025) assessed the bungalow (B1) and Coal-shed (B2) to be of 'low potential' for supporting bat roosts including as a hibernation site. The two other outbuildings on site were assessed to be of 'negligible potential' for supporting bat roosts (Collins, 2023).

5.2. Field Survey

5.2.1. Emergence Survey Results

The emergence survey was conducted with the aim of recording any bat activity associated with the dwelling (B1) and associated Coal Shed (B2) in order to identify and characterise any bat roost(s), if present.

The survey was undertaken under suitable weather conditions with temperatures of 15°C.

A plan indicating the locations of the surveyors and cameras in relation to the building is provided in Appendix 1, still shots from night-vision-aide cameras is provided and sample sonograms of recorded bat passes during the survey are provided in Appendix 3.

Dusk Emergence Survey – 15th July 2025

The emergence survey commenced at 21.14hrs, sunset was at 21.31hrs and the survey ended at 23.01hrs. The survey lasted 1 hours 45 minutes in total and was uninterrupted.

The first bat recorded was a distant Noctule (*Nyctalus noctule*) at 21:43hrs. A Noctule pass was also recorded at 21:46hrs.

Common Pipistrelle (*Pipistrellus pipistrellus*) were recorded passing the site at 21:53hrs and 21:56hrs, not in relation to the building.

A further Noctule pass was recorded at 21:58hrs.

From 22:06hrs to 22:16hrs small numbers of Common Pipistrelle were observed foraging over the site.

At 22:13hrs a Noctule pass was recorded.

Soprano Pipistrelle (*Pipistrellus pygmaeus*) passes were recorded at 22:17hrs and 22:20hrs.

Onsite foraging of small numbers of Common Pipistrelle and Soprano Pipistrelle commenced at 22:23hrs until 22:54hrs.

No other bat activity was observed. The survey ended at 23:01hrs.

5.3. Roosts and Habitat

Following completion of the dusk emergence survey, no evidence to suggest the presence of bat roosts was identified in association with the dwelling (B1) and outbuilding (B2 - Coal Shed). Building 2 (Coal-shed) has limited potential for hibernating bats.

Only limited activity was recorded throughout the survey.

5.4. The Value of the Site for Bats

In view of the results of the assessment the building it is considered that no bat roosts are present in association with the building currently. Building 2 (Coal-shed) has limited potential for hibernating bats.

Over the course of survey, bat activity (other than roosting) has been recorded within and adjacent to the site, including small amounts of Noctule, Common Pipistrelle and Soprano Pipistrelle bats commuting through and foraging within the site. There are also other areas of suitable habitat and roosting opportunities in the wider context. As such, the site is considered to be of 'low value' for bats in the local context (Mitchell-Jones, 2004).

6. IMPACTS

The proposed development consists of the demolition of the buildings on site and construction of a single new residential property

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In view of the absence of any evidence of the presence of bat roosts identified via surveys completed in July 2025, the scale of impact upon the conservation status of the species in relation to the proposed works is 'negligible'.

7. ADVICE AND RECOMMENDATIONS

It is advised that bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

It is advised that it is illegal to deliberately/intentionally or recklessly: kill, injure or take a bat; damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not); and disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

7.1. Further Survey & Mitigation Measures

Building 2 (Coal-shed) has limited potential for hibernating bats. As such it is recommended that a pre-works check is undertaken by a suitably licenced ecologist where demolition of this building takes place during the winter months.

In view of the results of the survey and absence of any evidence of a bat roost, no further survey or mitigation is recommended at this stage (beyond the above), however, should at any stage of works a bat roost be found or suspected, then works should cease and an ecologist should be consulted.

Any proposed lighting scheme associated with the site must be designed to ensure that it is sensitive to the presence of wildlife, including bats foraging and commuting through the site. This would include low-level lighting or similar solutions to prevent artificial light levels from deterring bats from the site. Light emitted from within the building must also be considered and kept to an absolute minimum (please see Bats and Artificial Lighting at Night' ILP Guidance Note (2023) for further information).

It is recommended that bat boxes are installed in suitably mature trees within the wider site boundary to compensate for loss of potential roost features and to further enhance the site for bats in the long term.

To this end, it is recommended that 5 x Harlech Woodstone Bat boxes are installed in suitably mature trees within the wider site boundary as pat of the development proposals.

See appendix for details. Where it is possible to integrate boxes into the new building, Habibat 001 boxes should be considered and these can be faced to suit most natural finishes on new buildings.

8. CONCLUSIONS

In view of the above, where the above recommendations are followed, it is considered the appropriate level of assessment will have been completed (as per Collins, 2023), and the conservation status of the bats will not be adversely affected by the proposed works.

9. REFERENCES

Commented [AW9]: Add PEA PRA Report reference

Bat Conservation Trust website: http://www.bats.org.uk/

Collins (2023). *Bat Surveys for Professional Ecologists - Good Practice Guidelines*, 4th edition. Bat Conservation Trust.

ILP (2023) Bats and Artificial Lighting at Night' ILP Guidance Note GN08/23

Multi-Agency Geographic Information Centre: http://magic.defra.gov.uk/

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1. Chartered Institute of Ecology and Environmental Management, Ampfield.

SRN Consulting (2025) Preliminary Ecological Appraisal and Green Infrastructure Statement: Llys Llewelyn, Garth, Wrexham, Wales.

APPENDIX 1 – SURVEYOR LOCATIONS

Commented [AW10]: Not too clear from photos but taken a stab and assumed there was a remote camera



YELLOW - SURVEYOR POSITIONS

ORANGE - REMOTE CAMERA POSITION

APPENDIX 2 – INFRA-RED AND THERMAL CAMERA IMAGES







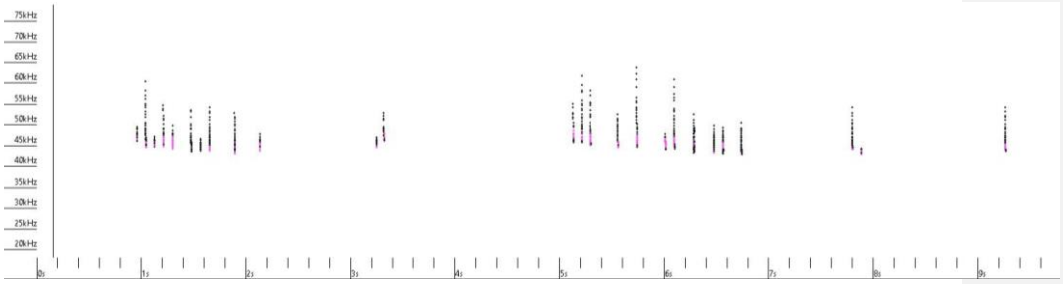




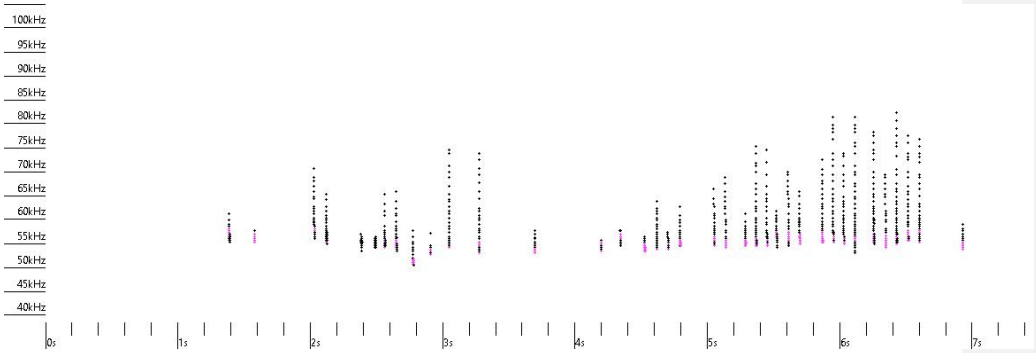


APPENDIX 3 – SAMPLE SONOGRAMS FROM SURVEYS

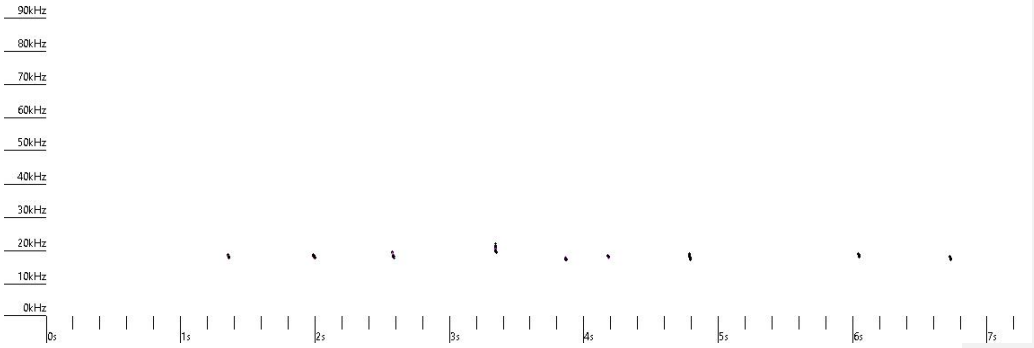
Common Pipistrelle



Soprano Pipistrelle



Noctule



APPENDIX 4 – PROPOSED BAT BOXES



- DIMENSIONS: 150 x 275 x 160; 110 x 190 x 110 (INNER)
- ENTRANCE: 20 x 80
- WEIGHT (KG): 4
- SITING:

Harlech Woodstone Bat box. The bat box can be placed on both a tree or a façade. Preferably choose a sunny spot but do not place the cabinet under or in artificial light and avoid placing where the rain can directly access the box. Ideally, two to three boxes should be erected facing in different directions to account for temperature changes from day to day. Hang the bat box with the supplied screws. In the back of the box, there is a "keyhole" where the mounted screw can be hooked. The pre-drilled hole in the landing board allows you to secure the bat box. Preferably hang several boxes together. When placing in bunkers, cellars, attics, and stables, place the boxes as high as possible against the façade or posts, they should be hung at a minimum height of 3 meters (approx 10ft).

Suitable for mounting on a tree or wall.

Hang the bat box with the supplied screws. In the back of the box there is a "keyhole" where the mounted screw can be hooked. The pre-drilled hole in the landing board allows you to secure the bat box.

Preferably hang several boxes together. When placing in bunkers, cellars, attics and stables, place the cabinets as high as possible against the façade or posts, they should be hung at a minimum height of 3 meters.



The Habibat 001 Bat Box is a large, solid box made of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated. A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, rendering the box unobtrusive and aesthetically pleasing. The Habibat box is suitable for species which are most commonly found roosting in buildings in the UK, such as Pipistrelle, Natterer's, Whiskered, and Brandt's bats. All boxes in the Habibat Bat Range, are available in the following finishes:

- Unfaced for use with Render or Cladding Systems
- Standard Smooth Red, Blue, Buff
- Bespoke, to suit the product you are using on site
- As a Bat Maternity Box

Coursed to suit existing brick or blockwork. This includes, English, Flemish, Stack or Stretcher. Speak to our Design Team to discuss which would be suitable to complete your build