Kayleigh Davies BSc (Hons)
Graduate Ecologist
kayleighdavies@arbtech.co.uk
Arbtech Consulting Ltd
arbtech.co.uk

Bat Emergence and Re-Entry Surveys (BERS)

Survey site:

The Wheatsheaf Workshops, Rhosymedre, Cefn Mawr, Wrexham, LL14 3YE

Client:

Gurjit Mahal

Report date:

30th August 2024

Project:

This report is prepared to inform a planning application with the Wrexham County Borough Council for:

A change of use from workshops to residential flats.

This report is supplementary to the Preliminary Roost Assessment report completed by Arbtech Consulting Ltd (2024).

BERS survey methodology and legislation can be found in the Arbtech Supplement: **BERS Methodology and Legislation - 2024.**

This report is an addendum to and must be read in conjunction with the Preliminary Roost Assessment completed by Arbtech Consulting Limited (2024) for the same site address.

This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent.

All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

Executive Summary

Background

Number of buildings on site: two

Number of buildings requiring further surveys: two (B1 and B2).

Both buildings were classed as **low** during the Preliminary Roost Assessment (Arbtech, 2024).

BERS results

The surveys undertaken to date have concluded a likely absence of roosting bats. No bats were observed emerging from the building during the emergence survey. No evidence of bats was found during the preliminary assessment survey. Consequently, no impacts on bats or their roosts are foreseen. The flight paths where predominantly common pipistrelles were seen passing southwest along the street in front of the southeast elevation of B1, foraging along treelines behind surveyor 2, and heading north along the neighbouring gardens. Passes from common pipistrelles were heard by all surveyors.

The site surveys were designed and managed by Kayleigh Davies BSc (Hons), Accredited Agent on Natural England Bat Licence – details on request.

See surveyor locations in the **BERS plan in Appendix 1**

Limitations	The NVA (night vision aid) at position 1 had a corrupted SD card and therefore the video was unable to be retrieved and reviewed. This is not observed to be a significant limitation as very little bat activity was observed at this position and all other NVAs were reviewed that surrounded the building.						
Field Survey							
Dusk Emergence Survey 1							
Building B1 and B2							
Surveyor and position	**Surveyor 1 –** Madison Heath – 1 year bat surveying experience – observing the north and east elevation of B1 **Surveyor 2** – Margaret Warren – 1 year surveying experience – observing the south and west elevation of B1 **Lead Surveyor 3** – Kayleigh Davies – Accredited on Natural England Bat Licence – observing the north and west elevation of B2 **Surveyor 4** – Simon Elbrow – 1 year bat surveying experience – observing the south and east elevation of B2						
Weather (start/end)	Temperature (°C): 16 Relative humidity (%): 79 Cloud cover (%): 20 Wind (m/s): 8 Rain: None			Temperature (°C): 15 Relative humidity (%): 82 Cloud cover (%): 0 Wind (m/s): 8 Rain: None			
Equipment used	Echometer Touch x 4, Batbox Duet x 4, IR camera x 4, IR torches x4						
Results							
Date of survey	**Sunset Start - End**	**Species and numbers**	**Roost type**	**Structure reference**	**Roost location**	**Access points**	**Dimensions and explanation of roost location**
28/08/2024	Sunset 20:09 19:54 – 21:30	n/a	n/a	B1 & B2	n/a	n/a	n/a
Surveyor observations							

Surveyor 1	**No emergences or re-entries seen**. One common pipistrelle call was heard but not seen at 20:28. A common pipistrelle was observed passing northeast to southwest along the street in front of the eastern elevation at 20:40 and 21:01. No further activity was observed.	
IR position 1	*Data corruption of the SD Card*	*Image unavailable*
Surveyor 2	**No emergence or re-entries seen**. Common pipistrelle was heard but not seen at 20:23 and 20:36. A single common pipistrelle passed from the tree to the south of the position over the houses to the east at 20:53. At 21:03 a common pipistrelle returned over these houses and foraged nearby for 2 minutes before flying west to the trainline. No further activity was observed.	

IR position 2	IR reflected the position of surveyor 2 and confirmed no emergences or re-entries at this position.	
Surveyor 3	**No emergences or re-entries.** First bat observed at 20:55 by a common pipistrelle with a distant pass to the north of site along neighbouring gardens. Another common pipistrelle was heard not seen at 20:59. Final call of a common pipistrelle at 21:02 also heard not seen.	
IR position 3	IR reflected the position of surveyor 3 and confirmed no emergences or re-entries at this position.	

Surveyor 4	**No emergences or re-entries seen.** First call was at 20:51, a common pipistrelle heard not seen. The last call was a common pipistrelle at 21:16 also heard not seen.	
IR position 4	IR reflected the position of surveyor 4 and confirmed no emergences or re-entries at this position.	

Conclusions, Impacts and Recommendations	
Survey Results Summary	A likely absence of roosting bats is confirmed from B1 and B2. No bats were seen emerging from the building. Limited foraging and activity were observed on and around site. The activity was limited to nearby gardens and offsite trees.
Impact Assessment	Bats are very unlikely to be roosting within this building and as such, there are no anticipated to be any impacts on bat roosts resulting from the proposed development.

Recommendations	A precautionary working method will be implemented during and post-development. This will include the following measures: The potential roost features will be removed by hand prior to any mechanical demolition. In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice. <u>Bat lighting</u> A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Use narrow spectrum light sources to lower the range of species affected by the lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm/ neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set up to the shortest time duration to reduce the amount of time the lights are on.

	Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.
Enhancements	The installation of two bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be installed on the building once works have been completed, built into the fabric of the new building or on mature trees surrounding the site boundary. The bat boxes should not be installed on the leylandii trees on the southern treelined as the vegetation on the trees are typically too cluttered for bats to use this type of tree to roost. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat box will be a specification suitable for crevice dwelling species that were observed during the survey such as: • Beaumaris bat box • Vivara Pro bat box or a similar alternative brand. Alternatively, two bat boxes could be incorporated into the new dwelling using tubes such as e.g. • Habibat Bat Box • Vivara Pro Woodstone Bat Tubes or a similar alternative brand. Bat tubes should be inserted into the fabric of the building during construction, positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance and facing landscapes areas, away from artificial light.

Appendix 1: BERS plan



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Version control			
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Draft	0.1	Kayleigh Davies, BSc (Hons), MSc, Graduate Ecologist	05/09/2024
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