

www.arbtech.co.uk

Bat Emergence Survey

Summary of Recommendations

If bats, evidence of their activity and suitable locations for roosting bats, are all absent from the site, then no further visits are normally required (Hundt 2012).

Taking into consideration the desk study, initial assessment bat survey and site survey findings, this report concludes that it is not possible to adequately manage or exclude the risk of harm to bats without the need for a European Protected Species Licence (EPSL).

Therefore, in order to provide adequate support for this planning application, mitigation and compensation compliant to industry best practice, such as are set out in the Bat Conservation Trust publication, Bat Surveys—Good Practice Guidelines (Hundt 2012) and the Bat Mitigation Guidelines (Mitchell-Jones 2004) will be required.

A specification for bat mitigation and compensation that is appropriate to the scale and scope of the proposed development can be found in the ‘Conclusions’ and ‘Recommendations’ sections of this report.

The Company and Contact Information

Established in 2005, Arbtech Consulting Limited provides arboricultural and ecological consultancy services in respect to planning and development, throughout the UK.

Tel 0800 072 5596

@ email@arbtech.co.uk

Web www.arbtech.co.uk

The Surveyor

The surveyor and principal author of this report is Jo Gregory BA (Hons), MSc GradIEM.

Surveyors

James Porter, Surveyor.

Simon Parker, Surveyor.

Bat Licence Number(s)

England: 20122461.

Wales: 39248.

Scotland: 13660.

The Client

The client is Barba Beatus Ltd.

The Site of Proposed Development

The client is preparing a planning application to convert a former public house to a residential dwelling at Green Dragon, Salop Road, Wrexham LL13 7AF.

The Survey Brief

The client has commissioned Arbtech to undertake a bat emergence survey; referring to a method of ecological assessment outlined in the Bat Conservation Trust publication Bat Surveys—Good Practice Guidelines authored by L. Hundt, 2012.

These guidelines state that the aim of the bat survey is to observe and catalogue *“informing and identifying the type and extent of work needed (if any)”* (Hundt 2012).

Data Searches

The author’s preparation of this report has been assisted by a search of the National Biodiversity Network Gateway.

No other data searches or desk study has been undertaken.

Date of the Survey

10 and 17 May 2013.

Seasonality

This type of assessment can be conducted during the period May to September inclusive, with the optimal season for surveying maternity colonies limited to mid-May to August inclusive (Hundt, 2012).

Informative

Table 1: Summary of Pertinent Legislation and Planning Policy Relevant to the Protection of Bats in the UK

This table is adapted from Table 2.1 and Section 2.5 of the Bat Surveys—Good Practice Guidelines (Hundt, 2012).

Location of Roost	Transposing EC Habitats Directive	Other Relevant Legislation	Planning Policy
England	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	National Planning Policy Framework (“NPPF”).
Wales	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	Technical Advice Note (“TAN”) 5.
Scotland	Conservation (Natural Habitat & c.) Regulations 1994 as amended.	Wildlife and Countryside Act 1981 as amended. The Nature conservation (Scotland) Act 2004.	National Planning Policy Guidance (“NPPG”) 14 and Planning Advice Note (“PAN”) 60.

Cumulatively, this legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat, unless acquired legally.
- Sell, barter or exchange bats, or any part of a bat.

A bat roost is defined by Hundt (2012) as “the resting place of a bat”. Generally however, the word roost is interpreted to mean “any structure or place, which any wild bat uses for shelter or protection.”

The Survey Methodology

In order to fully assess the potential value of bat habitat at the site, the survey observes widely accepted, industry best practice standards set out in the Bat Conservation Trust publication *Bat Surveys—Good Practice Guidelines* (Hundt 2012).

These guidelines state that the aim of the bat emergence survey – also called a nocturnal survey or an activity survey – is to observe and catalogue “the bat activity in a given area” (Hundt 2012), and to make recommendations for further survey work as appropriate.

The survey includes for the observation of all elevations of all buildings, structures (and trees) referred to in the Survey Results section of this report.

Observations are both internal (where possible) and external, making use of torches, ladders, endoscopes, mirrors, binoculars and cameras where appropriate to do so.

More specifically, Hundt (2012) state the aims of the survey are;

- To determine presence/absence of species i.e. the species present in a given area.
- To determine the intensity of bat activity both spatially and temporally i.e. to help estimate bat populations.
- To determine the type of activity, most usually foraging (e.g. by feeding buzzes), commuting (e.g. by high directional pass rates) and mating (e.g. by mating social calls).
- To find roosts by tracking back bat flight paths or observing dawn flight activity at roosts.
- To find or record the emergence of bats from a building or built structure.

If bats, evidence of their recent activity or the emergence of bats from a roost are found during our survey, this report will make recommendations for further survey work and or design mitigation, where this is consistent with the Hundt (2012) and Mitchell-Jones (2004) publications, and considered appropriate by the surveyor in the context of the proposed development.

Previous Survey

The site was the subject of an initial assessment bat survey by Arbtech Consulting Ltd, prior to the bat emergence survey. This survey found suitable roosting features in the form of several holes in the roof as a result of recent vandalism and the theft of lead flashing and copper from the roof structure. Large gaps present along the wall tops on the south eastern side of the roof structure and daylight was visible. Gaps were also visible below the overhanging wooden soffits providing access to the wall tops - particularly on the south eastern side of the building which correlates with the daylight visible within the loft space. A ridge tile was missing which was visible on the northeast/southwest elevations. Gaps were also visible between the remaining ridge tiles. Gaps were visible between the slates adjacent to the chimneys on the southeast and northeast elevations. A large section of guttering was missing on the northwest elevation exposing overhanging tiles providing access beneath the tiles. A large section of barge board was missing on the northwest elevation revealing overhanging tiles providing access beneath the tiles on this section also. Gaps were also present within the lead flashing and tiles of the single storey side section on the northwest elevation. Vertical hanging tiles were present on the northwest elevation above the side entrance and gaps were visible.

Table 2: Initial Assessment Bat Survey Summary

Roost	Habitat Value	Are bat emergence surveys required?
Building B1	Moderate	Yes. 2x Dusk surveys. May to September inclusive. 2 x surveyors.

Dates of the Bat Emergence Survey

Table 3: Survey Dates, Times and Weather Records

Date	Survey	Time: from/to	Weather: Start	Weather: Finish
10/05/2013	Dusk	20:25 - 23:00	Temp: 10 °C Humidity: 30% Cloudy: 60% Wind: 2/8	Temp: 6 °C Humidity: 40% Cloudy: 60% Wind: 2/8

			Rain: None	Rain: None
17/05/2013	Dusk	20:30 - 23:10	Temp: 9 °C Humidity: 30% Cloudy: 80% Wind: 2/8 Rain: None	Temp: 5 °C Humidity: 40% Cloudy: 80% Wind: 2/8 Rain: None

Extents of the Desk Study

Table 4: Buildings and or trees referred to by number and in accordance with the sketch plan at Appendix 1.

Desk Study Records	The NBN Gateway search revealed that within the Ordnance Survey 10 km grid square (SJ34) SJ336497 where the site is situated the following bat species have been recorded: NBN: <i>Species from the NBN data search cannot be published without the owner's permission.</i> <i>The NBN has been checked for records and no protected species have been recorded from the site.</i>
Local Environment	The site is surrounded by housing and supermarkets in the immediate vicinity. Woodland is located approx. 672m away to the northwest (Parciau Bellevue Park), approx. 328m to the north (within the grounds of St Giles Church in Wales), approx. 613m to the east and approx. 824m to the south. Open water cannot be located with 1km of the site however a large lake is situated within Erddig Country Park approx. 1262m to the south. Fields are located approx. 1739m to the east, approx. 971m to the southeast, approx. 1210m to the south and approx. 1343m to the southwest of the site. Hedgerows and tree-lined roads are located immediately adjacent to the site offering commuting routes to and from the woodland and other foraging areas. The site comprises of a single building (B1). A two-storey brick built former public house (The Green Dragon) with a slate tiled pitched roof with smaller hipped sections and decorative ridge tiles. A large spire is present on the south east corner of the building. Decorative overhanging wooden soffits are present on the northeast, northwest, and southeast elevations and around the base of the spire. Wooden barge boards are present on the southwest elevation.

Survey Results

Table 5: Buildings and or trees referred to by number and in accordance with the sketch plan at Appendix 1 and photographs at Appendix 2.

Surveyors: James Porter Simon Parker				
Surveyor Initials	Suspected Roost Identified on sketch plan at Appendix 1	Dates and Times	Records of Significant Bat Activity	Roost Status: Emergence (Black) Activity (Amber) No Activity (Green)
		10/05/2013 Sunset 20:56		
JP	B1	20:25 - 21:26	No activity.	No Activity
JP	B1	21:27	Common pipistrelle (<i>Pipistrellus pipistrellus</i>) emerged from beneath the overhanging wooden soffit on the northwest elevation.	Emergence
JP	B1	21:28-23:00	No activity.	No Activity
SP	B1	20:25-23:00	No activity.	No Activity
		17/05/2013 Sunset 21:08		
JP	B1	20:30 - 23:10	No activity.	No Activity
SP	B1	20:30 - 23:10	No activity.	No Activity

Bat activity maps and surveyor locations are found at Appendix I.

Conclusions and Recommendations

Table 6: Buildings, Groups or Trees referred to by number and in accordance with the sketch plan at Appendix I.

Suspected roost Identified on sketch plan at Appendix 1	Was the roost confirmed?	Will the development affect the roost?	Roost significance Graded per Natural England Guidance	What recommendations and mitigation are appropriate?	Is a European Protected Species Licence necessary?
B1	Unconfirmed ☐ Further survey work required ☐ Confirmed ☒	Yes. The roost will be lost.	Low ☐ Moderate ☒ High ☐	Mitchel-Jones (2004) defines the conservation value of bat habitats and roosts and makes proposals for mitigation that are appropriate to: the species of bat(s); the population using the roost; and the roost's status e.g. maternity, pre-breeding summer roost, <i>hibernacula</i>, etc. We recommend: The roof (and eaves) are removed by hand under ecological supervision. Replacement roosting provision will be installed in the completed building, either bat access tiles or bat tubes. Bat boxes are installed on the retained sections of the buildings whilst the works are completed (works include roof repairs and extension to the southwest elevation). These should be a minimum of 3m above ground level and face south or southwesterly A mitigation method statement detailing the design and execution of bat mitigation, as well as any pre-cautionary measures e.g. ecological supervision, is submitted to Natural England as part of an EPS licence application.	Yes ☒ No ☐

Bibliography

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust ISBN-13: 9781872745985

http://www.bats.org.uk/publications_detail.php/1127/bat_surveys_good_practice_guidelines_2nd_edition

National Planning Policy Framework, 2012
<http://www.communities.gov.uk/publications/planningandbuilding/nppf>

Batbox (2011). The Batbox Duet: ultrasonic bat detectors [online]. Available at: <http://www.batbox.com/duet.html> [Accessed 01 January 2011].

Mitchell-Jones, A. J. (2004), Bat Mitigation Guidelines. English Nature.

Office of the Deputy Prime Minister (2005). Circular 06/2005: Biodiversity and Geological Conservation. Para.99

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/147570.pdf>

Document Production and Approval

Status	Issue	Surveyor	Date
Draft	1	J Gregory	24/05/2013
Final	2	J Gregory	28/05/2013

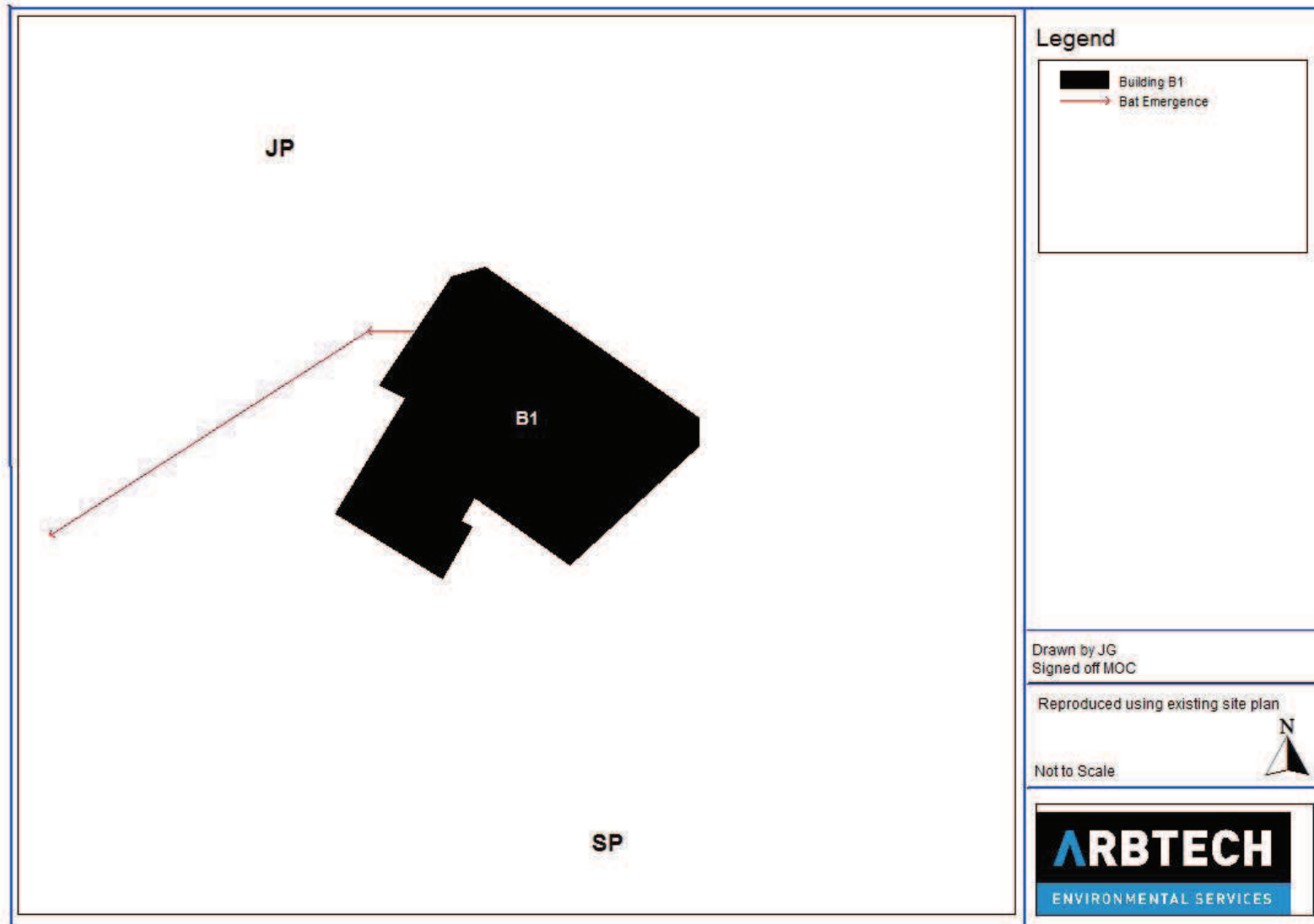
Limitations

Arbtech Consulting Ltd has prepared this report for the sole use of the above named Client or his agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The assessments made assume that the sites and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

Copyright

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Appendix 1 Plan



Appendix 2 Photos



Figure 1: Northwest elevation with bat emergence point circled.



Figure 2: Southwest elevation to be extended to create a new main entrance to the building.



Figure 3: Southeast elevation (also showing southwest corner to be extended).



Figure 4: Northeast elevation.