

Report Title	Proposed Residential Development, Lane End, Penley, Wrexham – Daytime Inspection & Assessment in Relation to Bats
Client	Greenspace Architects Ltd
Date	March 2014

this report was produced by

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 Marches Ecology was commissioned by Greenspace Architects Ltd to undertake a daytime inspection and assessment in relation to bats of a single building (referred to as 'Building 2'¹) which is proposed for demolition as part of a proposed residential development at Lane End, Penley, Wrexham, LL13 OLN (approximate OS Grid Ref: SJ 418 397). A planning application is to be submitted to Wrexham County Borough Council (WCBC) for the proposed development.
- 1.1.2 The inspection has been undertaken further to review of the following report:
- Solum Environmental (2014). *Land at Lane End, Penley, Wrexham – Ecological Scoping Report*. Prepared on behalf of Cass Associates.
- 1.1.3 Solum Environmental (2014) detailed that: a '*full internal and external building assessment of Building 2 and emergence survey(s)* [should be undertaken] *if required*'. This report outlines the results of the daytime inspection (full internal and external building assessment) undertaken on 18th March 2014. This report will be submitted to WCBC as supporting information to the planning application.

1.2 Legislation and Policy

- 1.2.1 This sub-section provides a brief summary of key relevant legislation. It should not be considered a comprehensive review and is not meant to be so. It is provided here for information only and is not intended to replace specialised legal advice. It does not replace the text of the legislation, but summarises the salient points.
- 1.2.2 All species of British bat are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. They are also listed as European Protected Species on *Schedule 2* of *The Conservation of Habitats and Species Regulations 2010* which gives them full protection under *Regulation 40(1)*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CROW Act).
- 1.2.3 Under the above legislation it is an offence to intentionally or recklessly:
- kill, injure or take an individual of such a species;
 - possess any part of such species either alive or dead;
 - damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
 - disturb such a species whilst using any place of shelter or protection; or
 - sell or attempt to sell any such species.
- 1.2.4 Several species of bat are included as Priority Species in the UK Biodiversity Action Plan (UK BAP) and also as species of principal importance for the conservation of biological diversity in England under *Section 41* of the *Natural Environment and Rural Communities*

¹ The location of this building is indicated as 'B2' on *Figure 5.1* of Solum Environmental (2014).

Act 2006 (NERC Act 2006). Several species of bat are identified as a priority species or species of conservation concern within the Wrexham Biodiversity Action Plan (WCBC 2003).

- 1.2.5 All species of British bat are also protected under *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended). This protection relates specifically to trapping and direct pursuit of the species.

1.3 Structure of this Report

- 1.3.1 The remainder of this report is structured as follows:

Section 2 describes the methodology;
Section 3 describes the results;
Section 4 presents the conclusions; and
Section 5 outlines ecological issues.

A further section gives references.

2 METHODOLOGY

2.1 Daytime Inspection

- 2.1.1 The optimum time to investigate buildings for evidence of a bat roost is May – August; however that is not to say they cannot be inspected and assessed outside of that time. The aim of the bat inspection was to initially ascertain if Building 2 is of value to bats; if the building was found to be suitable for bats, if signs of use were located or if the survey was inconclusive then more detailed surveys would be recommended by way of nocturnal surveys during the breeding season of bats (May – August). If bats were subsequently found during those detailed surveys and may be affected by the proposals then a Natural Resources Wales (NRW) 'development' licence would be required to proceed.
- 2.1.2 The daytime survey was conducted on the 18th March 2014 by Mr J I Thomson (of The Tyrer Partnership), an experienced ecologist and an accredited agent on an NRW bat licence (Mr S Irwin: 51880: OTH: CSAB: 2014). The inspection was carried out from surveyor experience and following methodologies adapted from published guidance (e.g. IEEM 2005 and Hundt 2012).
- 2.1.3 Building 2 was inspected for potential places that may be of value to bats and if evidence of use was present. All accessible areas within the building were investigated for evidence of bat use that mainly includes droppings or prey items. A loft space is present and was therefore investigated for the presence and/ or evidence of roosting bats. The building does not feature an upper floor and therefore internal walls on the ground floor were searched for signs of use. The exterior elevations were investigated from ground floor level, with the aid of close focussing binoculars, for places that are frequently used by bats as roosts or as access into roost chambers.
- 2.1.4 Survey methodology takes into consideration the following factors:
- Knowledge of bat species relevant to the site location and geographical distribution.
 - Nature of the immediate and surrounding habitat in relation to foraging opportunities.
 - Condition of the building.
 - Presence/ absence of a loft space.
 - Presence/ absence of roost potential and (if present) value of roost potential.
- 2.1.5 During the survey the surrounding habitat was assessed in relation to bats as very often roost selection is closely correlated with the surrounding habitat.

2.2 Survey Constraints

- 2.2.1 The survey was conducted outside of the breeding season of bats (although they are nearing the end of their hibernation period), which is not the optimum time to investigate buildings for evidence of use. During this time the presence of bat droppings on external elevations (which may have been deposited during the summer months) also tends to be more unlikely due to the effects of wind and rain. Despite this a full appraisal and inspection of the building was achievable. It is considered that there were no significant survey constraints that would prevent the gathering of information on which to base conclusions and recommendations.

3 RESULTS

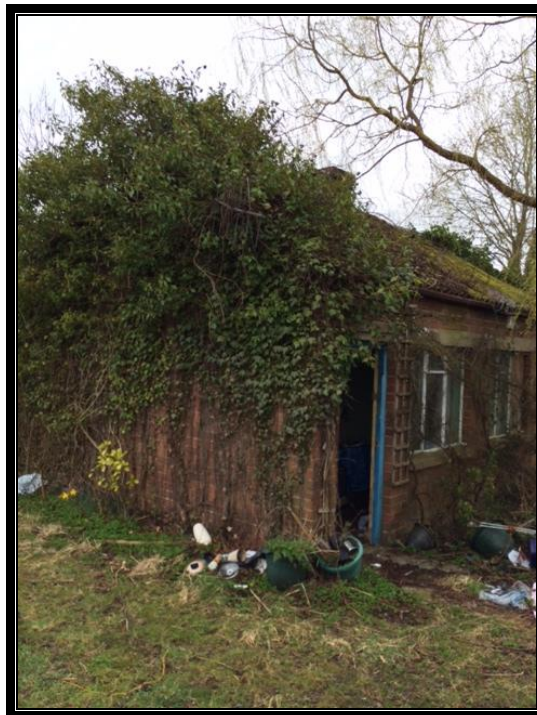
3.1 Daytime Inspection

Introduction

- 3.1.1 Lane End is situated within Penley, this being a small rural community located approximately 13.5 km southeast of Wrexham. Building 2 lies amongst a small plot, which features two additional structures and is immediately adjacent to open country.
- 3.1.2 The immediate habitat and surrounding landscape encompasses a relatively high diversity of semi-natural features, which exhibit clear ecological connectivity, and therefore can be considered as being of potential value to bats. Notable features include woodland (e.g. Penley Wood and Nantclimbers Wood), brooks, ponds, and hedgerows with trees.

Building 2

- 3.1.3 Building 2 comprises a former dwelling; it is a small single storey detached structure with approximate dimensions of 8 m long and 4 m wide. It is of solid brick construction with a corrugated sheet covered pitched roof. It appears to have been redundant from its original purpose for a number of years. During this time it appears to have been the subject of vandalism and internal water damage, which reflects its derelict and deteriorating condition.



General photo of Building 2.

- 3.1.4 A loft void was located during the internal inspection. This has approximate dimensions of 4 m long, 4 m wide, and 0.75 m at its highest point. Potential for loft dwelling bats (e.g. Brown Long-eared Bat (*Plecotus auritus*)) is considered to be absent (as this is a species that favours a large loft space that allows unrestricted free flight with consistent thermal

temperature). No evidence of this species was observed within the building. In addition it was noted that although the immediate habitat is found to be suitable for other bats species, it is generally considered to be not as productive for the specific foraging requirements of Brown Long-eared Bats.



Building 2; loft void.

- 3.1.5 While investigating the loft void it was observed that underfelt is absent. This will significantly decrease roost potential in this area for crevice dwelling species, such as the Pipistrelle (*Pipistrellus* sp.). Despite the absence of underfelt, insulation boards are present beneath the roof covering; provided that external access is available bats can be found roosting between such materials. However a substantial amount of general debris was observed escaping from behind the boards onto the internal walls, which would suggest that the conditions underneath the corrugated sheet are not entirely favourable for crevice dwelling bats. No evidence of Pipistrelle, or other crevice dwelling species, was located during the internal inspection.
- 3.1.6 During the external inspection typical places for access that are favoured by crevice dwelling bats and points of ingress for accessing the building, were found to be absent. Typical external structural facets (which crevice dwelling species often favour) such as soffit boxes, hanging tiles, fascia, and barge bards were also absent. Bats will use such features providing viable ingress is available between external elevations and structural elements. During the internal/ external inspection no signs of bat use were noted in the form of urine spots/ marks or droppings. Although Ivy (*Hedera helix*) covers a significant area of the buildings external surface area, this feature is not considered to possess a mature and/ or dense enough structure to provide refuge for roosting bats.

4 CONCLUIONS AND ECOLOGICAL ISSUES

4.1 Conclusions

- 4.1.1 No bats or evidence of use by bats was located during the inspection. It can be therefore be concluded that Building 2 has not been used by loft dwelling or crevice dwelling bat species. Furthermore Building 2 is not considered to offer potential for these bat species.

4.2 Ecological Issues

- 4.2.1 Based on the results of the survey the proposed demolition of Building 2 will not result in the loss of bat roost potential; additional surveys will not be required. No further recommendations are applicable in relation to the building prior to its demolition.

5 REFERENCES

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