



ecological consultants

PROTECTED SPECIES REPORT: Bat Presence and Absence Surveys

Phoenix Cottage, Long Barn Road, Sevenoaks
Weald, Kent

Report Reference: BG21.245.1

October 2021



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1 Summary

- 1.1 Brindle and Green were commissioned by Emma Gregson on behalf of Willow Town and Country Planning Ltd. to undertake three bat dusk emergence surveys at Phoenix Cottage, Sevenoaks Weald. These surveys were undertaken in July and September 2021.
- 1.2 A Preliminary Roost Assessment was undertaken in July 2021 by Brindle and Green Ltd (BG21.245), which concluded that Building 1 offered potential roosting features with a 'High' suitability and three further bat emergence /re-entry surveys were recommended to confirm presence / absence of bat roosts. Report BG21.245 should be reviewed in conjunction with this report.
- 1.3 The building is the subject of a planning application for a two-story extension facilitated by the demolition of the lean-to located on the south-western elevation of Phoenix Cottage. Design proposals for the site have not yet been submitted.
- 1.4 Building 1 was subjected to two dusk emergence surveys during July and September 2021 and one dawn re-entry survey in September 2021. Bat activity within the application site was considered to be moderate, with activity pertaining to frequent commuting passes of common species in Kent including common (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared (*Plecotus auritus*). Occasional passes of *myotis* sp. and noctule (*Nyctalus noctula*) was also noted. Foraging activity was restricted to the vegetative features to the south-eastern boundary, at the end of the garden, and the adjoining vegetation.
- 1.5 The survey did not reveal any evidence of bats roosting within the building. As a result, this report does not set out recommendations relating to mitigation or the need for an EPS development licence prior to the buildings redevelopment.
- 1.6 The following recommendations are provided to ensure the client works within the law and that any impacts to protected species are minimised.
 - Bats are highly mobile and can change roost sites throughout the year and from season to season. If the development does not begin within twelve months of

this initial survey it will be necessary to conduct a re-survey to determine if bats are roosting within the buildings on site.

- Should any evidence of roosting bats be uncovered during construction works then works should cease and the advice of an ecologist sought.
- Post construction enhancements should include an integrated bat box as described within Chapter 7.

2 Introduction

- 2.1 Brindle and Green were commissioned by Emma Gregson on behalf of Willow Town and Country Planning Ltd. to undertake two bat dusk emergence surveys and a single dawn re-entry survey at Phoenix Cottage, Sevenoaks Weald, Sevenoaks, Grid Ref.: TQ 52659 50837.
- 2.2 The purpose of this survey was to establish whether bats were roosting within the potential features on the lean-to identified during the Preliminary Ecological Appraisal (BG21.245, July 2021) and to provide details on solutions for mitigation if required.
- 2.3 The site was located within a row of detached cottages along a residential street to the southwest of the village of Sevenoaks Weald. The site was well connected to the surrounding environment by a network of mature gardens, green spaces and allotments supporting linear features including hedgerows, fences and mature tree lines providing connectivity to the wider environment of agricultural land and woodland. The site is positioned approximately 3km south of Sevenoaks, Kent.
- 2.4 The building is the subject of a planning application for a two-story extension facilitated by demolition of the lean-to located on the south-western elevation of Phoenix Cottage, the remaining sections of the building are to remain undisturbed. Design proposals for the site have not yet been submitted.
- 2.5 The legislation relevant to bats within the United Kingdom is summarised within Appendix 2 and Appendix 3.
- 2.6 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle & Green Limited. The survey is based on information provided by our client, the development proposals, and the results of our survey of the site. This report pertains to this information only.

3 Methodology

- 3.1 Building 1 (Phoenix Cottage) was subjected to two bat dusk emergence surveys (20/07/2021 and 23/09/2021), and one bat dawn re-entry survey (08/09/2021), to confidently assess presence or likely absence of bats within the roosting features identified by Brindle and Green Ltd during July 2021.
- 3.2 Due to the current proposals involving solely the demolition of the south-western lean-to, the survey efforts were focused on determining the presence of bats within and adjacent to the southwest aspect of Building 1 (the lean-to and immediate surrounding features), establishing the location of access / egress points on this aspect. The areas of the building to the north-east and west were not included within the survey effort, given they are not anticipated to be affected by works. Assessments of how bats were using the surrounding habitats area adjacent to the survey location were also undertaken.
- 3.3 Bat surveys were conducted according to methodologies outlined within Natural England's Bat Mitigation Guidelines (Mitchell-Jones, 2004) and the Bat Conservation Trust Good Practice Guidelines (Colins, 2016). The dusk surveys began 15 minutes before sunset and lasted for 2 hours following sunset and the dawn survey began 1.5 hours before sunrise and ended 15 after sunrise. Where methodology has deviated from good practice, it has been recorded and justified within the limitations section of the report.
- 3.4 On each survey, surveyors operated an Echo Meter Touch detector connected to an iPad. Where possible, species were identified using information from visual and audio cues, all sonograms were recorded on to the iPad and were analysed using Analook software to confirm species identification.
- 3.5 All bat passes, including time and species, were recorded on to field maps, noting direction of flight and emergence. Where possible, the number of individuals observed and behaviour of the bat was also recorded, including foraging, commuting and social calling behaviours.

3.6 Surveyors

Surveys carried out by Tom Hough MSc, QualCIEEM, Natural England Bat Licence Class 1 (2020-50050-CLS-CLS), Consultant Ecologist, Victoria Halford BSc, Consultant Ecologist, Phoebe Collier BSc, Graduate Ecologist and Amy Dennett BSc, QualCIEEM, Graduate Ecologist. These surveys were overseen by Lucinda Sweet PhD, MCIEEM, Natural England Bat Licence Class 2 (2019-39122-CLS-CLS), Principal Ecologist.

3.7 Survey Conditions

The surveys were undertaken in weather conditions considered conducive to bat activity. The weather conditions for each survey are summarised within Section 5: Results.

3.8 Limitations

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The protected and notable species assessment provides a preliminary view of the likelihood of these species occurring on site, based upon the suitability of the habitats and known distribution of the species in the local area.

3.9 Report Lifespan

Given the transient nature of the subject we would consider the survey results contained to be accurate for up to 12 months.

4 Site Context

4.1 Site Description

The application site can be found at TQ 52659 50837, where the site was located within a row of detached cottages along a residential street to the southwest of the village of Sevenoaks Weald, Kent. The site was well connected to the surrounding environment by a network of mature gardens, green spaces and allotments supporting linear features including hedgerows, fences and mature tree lines providing connectivity to the wider environment of agricultural land and woodland. The site is positioned approximately 3km south of Sevenoaks, Kent.

4.2 Zone of influence

The zone of Influence is used to describe the geographic extent of potential impacts of a proposed development in relation to the target species, in this case bats. Due to the scale and nature of the proposals, it is not considered that the impacts of the proposed works would extend beyond the scheme footprint and its immediate surroundings.



Figure 1. OS Map of the project site and surrounding area.

The red line boundary depicts the application site. The Bat surveys pertained to Building 1 – B1. The area of impact / survey focus, the southwest of B1 is shown blue.

5 Results

5.1 A summary of bat activity per survey is provided in the tables below. Raw data sheets are available upon request from the head office. A diagrammatic representation of the bat activity recorded during surveys can be seen within Figure 2.

5.2 Due to the current proposals involving solely the demolition of the southwest lean-to, the survey efforts were focused on determining the presence of bats within and adjacent to the southwest aspect of Building 1 (the lean-to and surrounding area), establishing the location of access / egress points on this aspect. Assessments of how bats were using the area adjacent to the survey building were also undertaken.

5.3 Bat Dusk Emergence Survey – 20/07/2021

Sunset time: 21:03	Cloud Cover: 2/8	Wind speed: BF0
Start time: 20:48	Start temp: 21°C	Start humidity: 77%
Finish time: 22:33	Finish temp: 20°C	Finish humidity: 67%

5.3.1 Table 1. Summary of bat activity on dusk emergence survey 20/07/2021

Time	Activity
21:03-21:30	No bat activity observed.
21:30-21:45	Between 21:31-21:34 CP foraging passes were frequently HNS.
21:45-22:00	At 21:53 a CP was recorded commuting form SE to SW. At 21:56 a CP was recorded commuting SW to NE. At 21:58 a CP was foraging up and down Long Barn Lane calling occasionally.
22:00-22:15	No bat activity observed however a CP was HNS at 22:06.
22:15-22:33	No bat activity observed however a SERO was HNS at 22:19. A CP was HNS at 22:20 and 22:30. A NOC was HNS at 22:25 and 22:30.
Key: CP – Common pipistrelle SERO – Serotine NOC – Noctule HNS-heard not seen	

5.3.2 Activity was low during the survey with infrequent passes from common pipistrelle a species frequently recorded in the local area. Limited foraging activity was recorded during the survey. Only 3 common pipistrelle bats were

recorded passing near to the building. A single heard not seen pass of serotine and noctule was recorded in the last 15 minutes of the survey.

5.4 Bat Dawn Re-entry Survey – 08/09/2021

Sunrise time: 06:23	Cloud Cover: 0/8	Wind speed: BF1
Start time: 04:53	Start temp: 20°C	Start humidity: 66%
Finish time: 06:38	Finish temp: 16°C	Finish humidity: 83%

5.4.1 Table 2. Summary of bat activity on dawn re-entry survey 08/09/2021

Time	Activity
04:53-05:15	At 05:00 BLE and CP were HNS. At 05:07 an unidentified MYO was HNS. At 05:08 a CP was HNS emitting social calls. At 05:09 a CP was recorded commuting above the building. At 05:11 a CP was HNS emitting social calls and feeding buzz. At 05:13 a BLE was HNS.
05:15-05:30	At 05:17 a CP was HNS emitting social calls and feeding buzz. At 05:19 a CP was recorded commuting NW. At 05:22 a SP was HNS. At 05:24 and 05:25 a CP was HNS. At 05:28 a CP was recorded circling over the rear of the building.
05:30-05:45	At 05:30 x2 CP was seen foraging flying around the rear of the building. At 05:33 a CP was recorded emitting social calls above the garden to the SW of the building. At 05:34 and 05:36 a CP was recorded commuting SE. At 05:37 a CP was recorded commuting along the road, circling to feed.
05:45-06:38	No bat activity observed.
Key: CP – Common pipistrelle SP – Soprano pipistrelle MYO – <i>Myotis</i> sp. BLE – Brown long-eared HNS – heard not seen	

5.4.2 Activity was low during the survey with passes from three locally frequent species: common and soprano pipistrelle and brown long-eared bats. Foraging activity including social calls and a feeding from common pipistrelle was

recorded to the west of the building. Towards the southeast of the building, at the end of the garden common pipistrelles were recorded foraging. A single soprano pipistrelle and a single *Myotis* sp. bat was recorded.

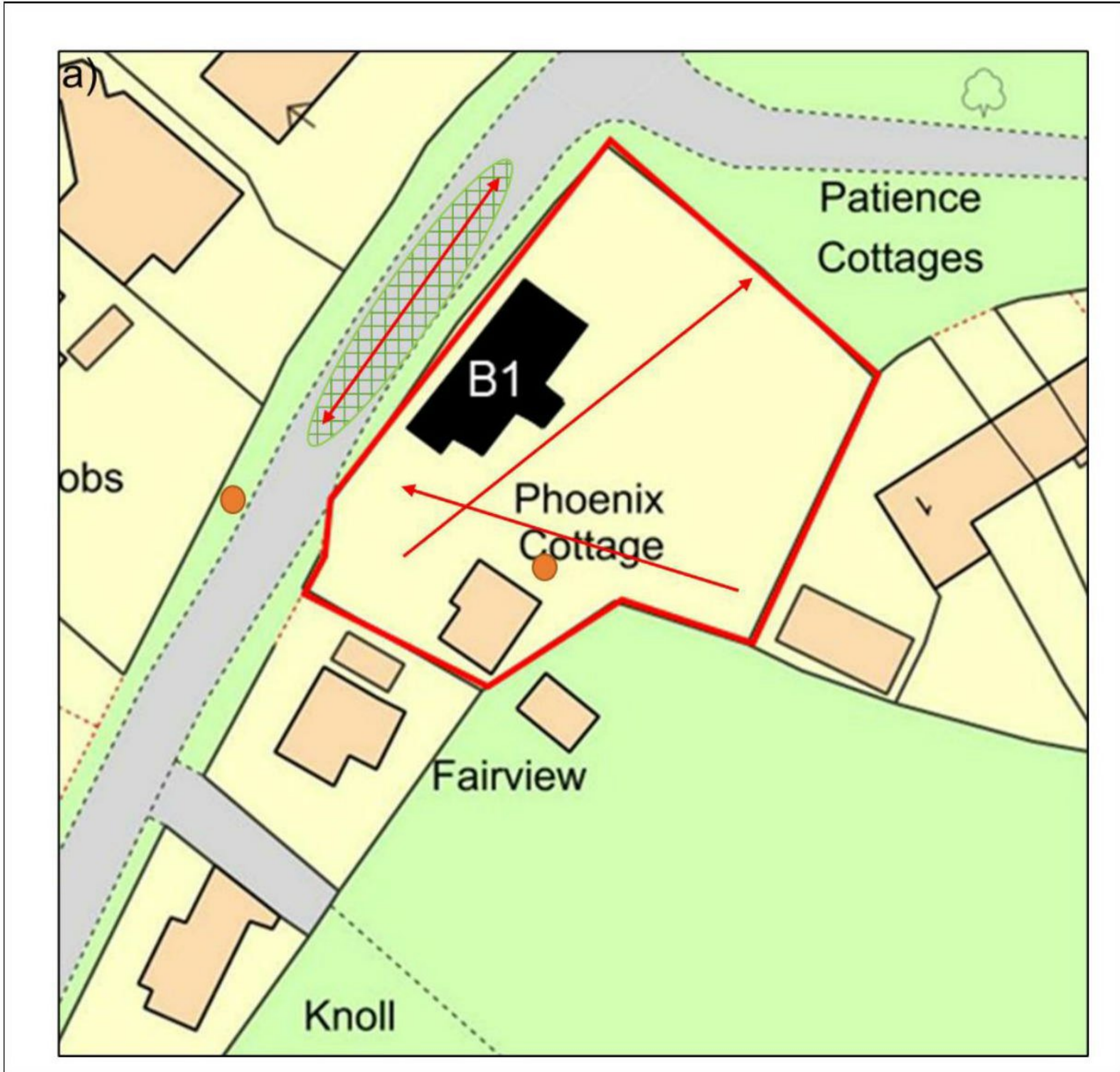
5.5 Bat Dusk Emergence Survey – 23/09/2021

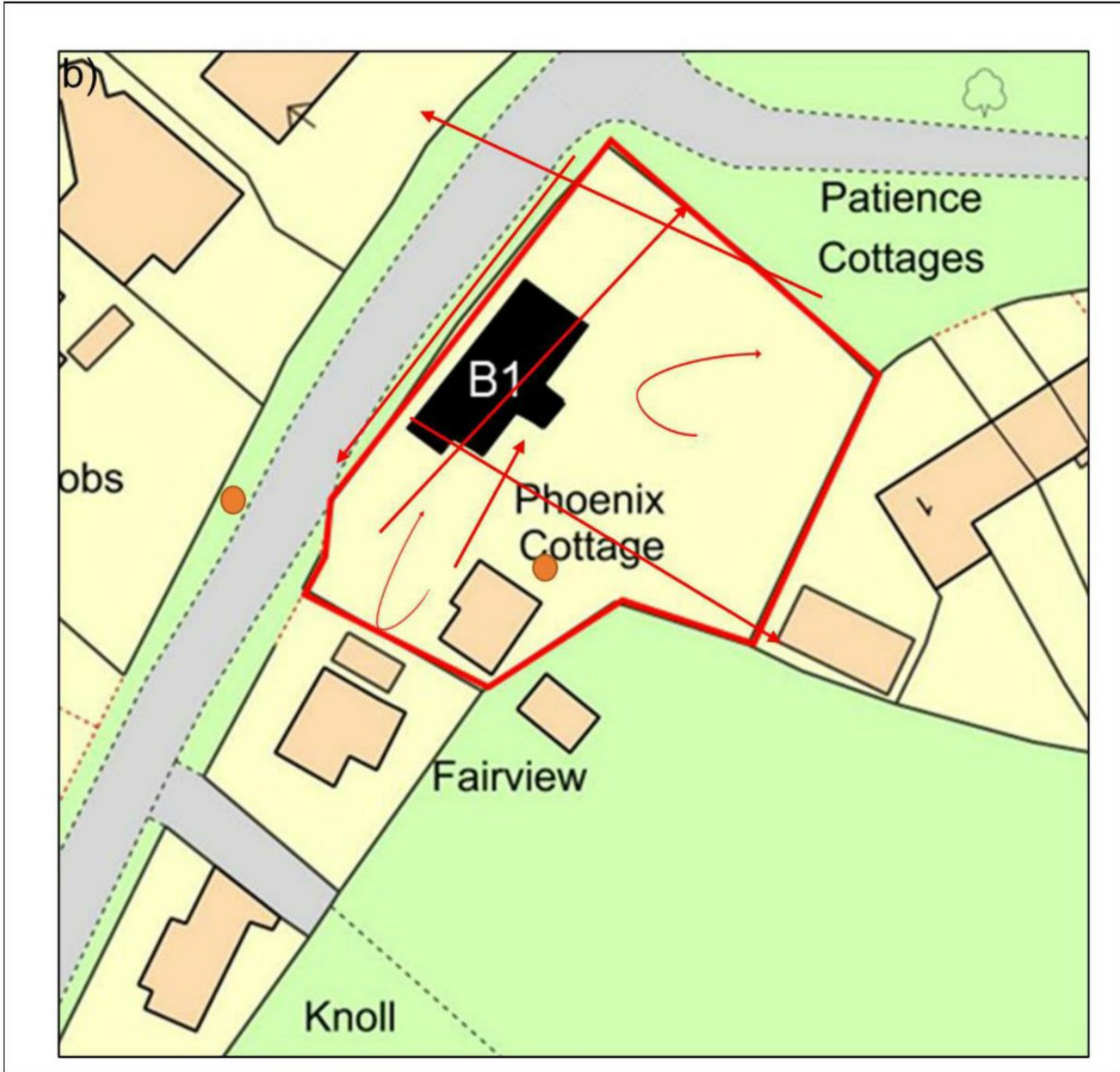
Sunset time: 18:56	Cloud Cover: 0/8	Wind speed: BF0
Start time: 18:41	Start temp: 19°C	Start humidity: 78%
Finish time: 20:26	Finish temp: 17°C	Finish humidity: 87%

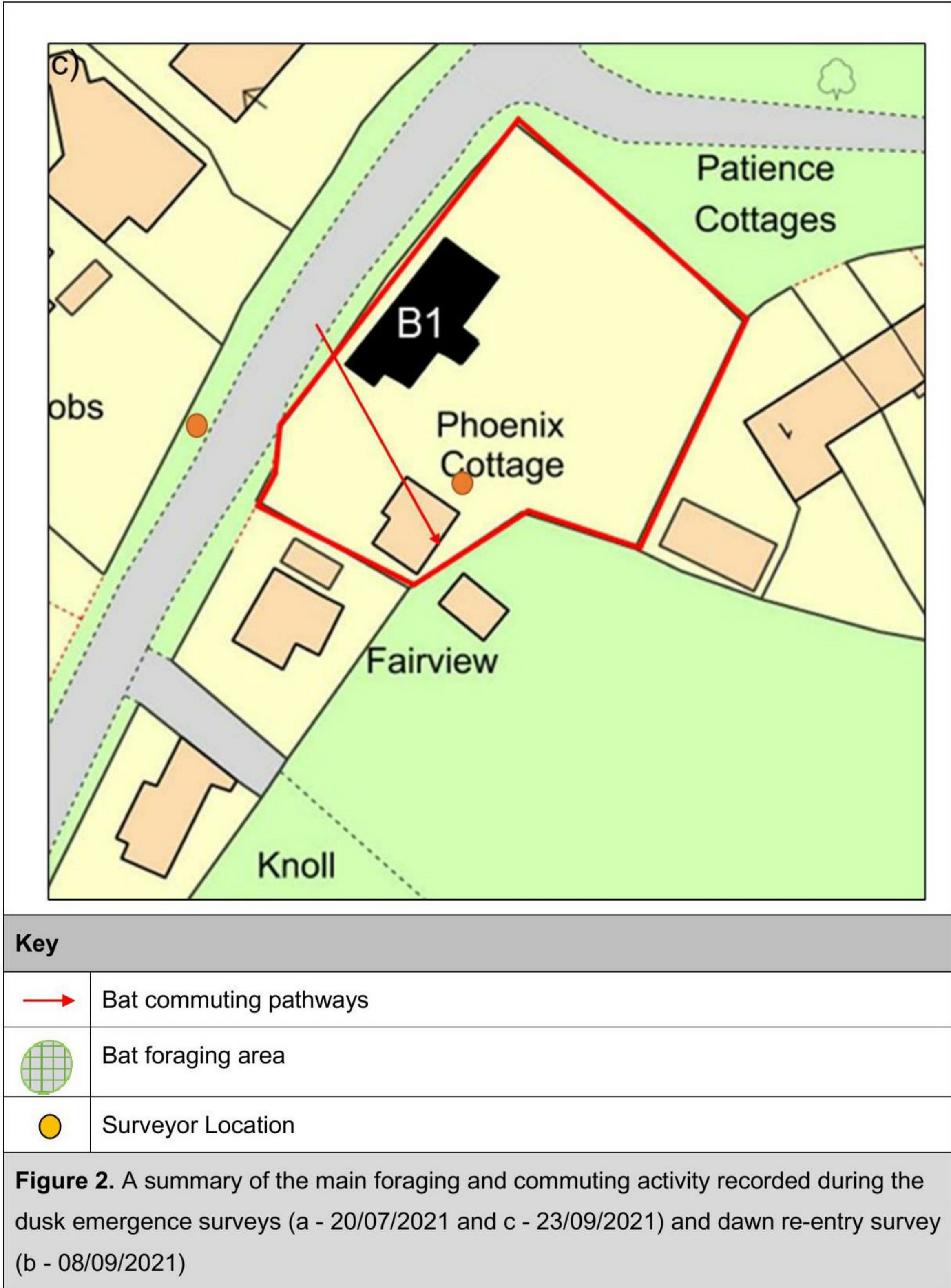
5.5.1 Table 3. Summary of bat activity on dusk emergence survey 23/09/2021

Time	Activity
18:41-19:15	No bat activity observed.
19:15-19:30	At 19:23 a NOC was HNS.
19:30-20:00	Between 19:31 and 19:54 BLE calls were HNS for 6 instances. Between 19:35 and 19:54 CP calls were HNS for 7 instances. At 20:39 a CP was seen commuting over the building travelling S. At 19:43 a NOC was HNS.
20:00-20:26	Between 20:01 and 20:13 CP calls were HNS for 7 instances. Between 20:05 and 20:17 BLE calls were HNS for 3 instances. At 20:10 a NOC was HNS. At 20:11 an unidentified MYO was HNS.
Key: CP – Common pipistrelle MYO – <i>Myotis</i> sp. BLE – Brown Long-eared NOC – Noctule HNS – heard not seen	

5.5.2 Activity was low during the survey with infrequent passes from two locally frequent species: common pipistrelle and brown long-eared. Two noctule passes were recorded, and one unidentified *Myotis* sp. was recorded but not seen. One common pipistrelle was seen commuting over the building travelling south.







6 Evaluation

- 6.1 The surveys did not reveal any evidence of bats roosting within the southwest lean-to of Building 1 (Phoenix Cottage). As a result, this report does not set out recommendations relating to mitigation or the need for an EPS development licence prior to the onset of the proposed redevelopment works.
- 6.2 Bat activity was considered to be moderate pertaining to a peak count of 15 common pipistrelle, 1 soprano pipistrelle, 9 brown long-eared, 2 noctule, 1 *myotis* sp. and 1 serotine commuting passes through the application site. Foraging activity was recorded within boundary vegetation to the southeast, and within adjoining habitats, as such post construction lighting should be a consideration to prevent disturbance to existing commuting lines used by the local bat population.
- 6.3 Of the bat species recorded it is considered that common pipistrelle, brown long-eared are common in the county. Noctule bats are regarded as native to Kent, although, generally uncommon, but more numerous in well - wooded areas and serotine are thought to be widespread but both these species declining in the county (Kent Bat Group, 2021). Phoenix Cottage has been assessed to hold site value for roosting bats (Wray *et al*, 2010), as no individuals were found roosting, although suitable features were recorded on site.

7 Recommendations

- 7.1 The bat activity surveys did not reveal any evidence of bats roosting within the southwest lean-to of Building 1 (Phoenix Cottage). An EPS development licence is not required in order to proceed with the development works. The following recommendations are set out to ensure the client works within the law and that any impacts to protected species are minimised:
- 7.2 Bats are highly mobile and can change roost sites throughout the year and from season to season. If bats are found on site after works have commenced all works must cease and the advice of a suitably qualified ecologist be sought.
- 7.3 If the development of the site does not begin within twelve months of this initial survey or if proposals require works to other sections of the building not outlined within this report, it will be necessary to conduct an additional survey to determine if bats are roosting within the buildings on site.
- 7.4 The following enhancement recommendations should also be considered:
- 7.5 During and post construction, a sensitive lighting scheme should be implemented to prevent disturbance to commuting and foraging bats in the local area. Lighting should be directed away from vegetative features to the eastern elevation, and light overspill of over 1lux should be avoided within these vegetated areas.
- 7.6 An integrated bat box such as a Habibat Bat Box, or similar approved should be installed within the fabric of the building during construction. This feature should be positioned on a southern elevation, over a height of 5 metres, ideally close to the eaves of the new build. The flight line to the box should be unobstructed by vegetation of other structures.

Appendix 1. General References

Bat Conservation Trust (2014) Artificial lighting and wildlife Interim Guidance: Recommendations to help minimise the impact artificial lighting. Bat Conservation Trust, London.

Bell, S. McGillivray, D. (2006) *Environmental Law*. 6th ed. Oxford University Press.

Butterfly Conservation trust (2014) Nectar Plants, http://mothscount.org/text/64/nectar_plants.html

Collins, J (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, (3rd edition), Bat Conservation Trust, London

Kentbatgroup.org.uk. 2021. *Kent Bat Group - Bats in Kent*. [online] Available at: <<http://www.kentbatgroup.org.uk/bats-in-kent/>> [Accessed 29 October 2021].

Mitchell-Jones A.J. *Bat Mitigation Guidelines* 2004. English Nature.

Mitchell-Jones A.J. McLeish, A.P. (2004) *Bat Workers Manual* (3rd Edition). Joint Nature Conservation Committee.

Wray S. Wells D. Long E. Mitchell-Jones T (2010) Valuing Bats in Ecological Impact Assessment. CIEEM In Practice December 2010.

Appendix 2. Legislation and Guidance Sources

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to. The articles of legislation are:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- Department for Communities and Local Government. National Planning Policy Framework. March 2012
- The Natural Environment and Rural Communities Act 2006
- The United Kingdom Biodiversity Action Plan 2006
- Local Biodiversity Action Plan (LBAP).

Appendix 3. Relevant Ecology and Legislation

(Please note that this is for information purposes only. Clients should seek further legal advice where necessary).

There are 17 species of bats that occur in Britain. Dramatic declines in population numbers initiated the introduction of European and UK legislative protection. British bats and their roosts are fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Additional protection is offered under The Conservation of Habitats and Species Regulations 2017 (as amended).

Buildings and structures which offer roosting potential to bats can be impacted by development and this can result in disturbance to potential roost sites. Bats occupy different roost sites during the year depending on species-specific summer roost and hibernation roost requirements. Bats usually re-use the same roosts, therefore the legal opinion is that the roost is protected whether or not the bats are present at the time.

In the case of development work, activities involving the capture, disturbance and/or relocation of bats are subject to a licence from Natural England. Such licences are only granted:

“For the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment, to allow people to carry out activities which would otherwise be illegal.”

Under The Conservation of Habitats and Species Regulations 2017 (as amended), licences can only be issued if Natural England are satisfied that:

- there is no satisfactory alternative; and
- the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

Undertaking work to a bat roost without following appropriate recommendations from Natural England and/or DEFRA could lead to prosecution resulting in imprisonment, fines and confiscation of vehicles/equipment used.