



ecological consultants

PROTECTED SPECIES REPORT: Bat Presence and Absence Surveys

Appleby, 3 Greenhill Road, Otford, Kent

Report Reference: BG21.258.1

September 2021



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1 Summary

- 1.1 Brindle and Green were commissioned by Mr Ian West to undertake a bat dusk emergence survey at Appleby, 3 Greenhill Road, Otford, Kent.
- 1.2 A Preliminary Ecological Appraisal (PEA) was undertaken in August 2021 by Brindle and Green Ltd (BG21.258), which concluded that Building 1 offered potential roosting features with a low suitability and a further emergence survey was recommended to confirm presence / absence of bat roosts. Report BG21.258 should be reviewed in conjunction with this report.
- 1.3 The site is the subject of an outline planning application for site clearance and demolition of the existing dwelling (Building 1) to facilitate the development of two detached residential dwellings. Design proposals for the site are presented in Appendix 4 of this report.
- 1.4 Building 1 was subjected to a single dusk emergence survey during August 2021. Bat activity within the application site was low, with activity pertaining to less than 10 commuting passes of both common and soprano pipistrelle, *Myotis sp.* and noctule (*Nyctalus noctula*).
- 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 & Green were commissioned by Mr Ian West to undertake a bat dusk emergence survey at a detached residential property known as Appleby (Building 1), 3 Greenhill Road, Otford, Kent Grid Ref.: TQ 53023 59991
- 2.2 The purpose of this survey was to establish whether bats were roosting within the potential features identified during the Preliminary Ecological Appraisal (BG21.258, August 2021) and to provide details on solutions for mitigation if required.
- 2.3 The project area is approximately 0.24 ha and comprises a residential dwelling, amenity grassland, ornamental shrub and scattered trees. Building 1 is a single-storey red-brick bungalow with a concrete tiled, hipped roof. The building supported gaps under lifted tiles and lifted lead flashing around the chimney which were considered suitable to provide roosting features for crevice dwelling bat species. Building 2 is a wooden shed, deemed to offer negligible suitability for roosting bats and therefore was not subjected to further surveys (BG21.258).
- 2.4 The site is located within a residential street to the east of the A225, to the north-west of Otford village. The site is bordered primarily by residential development supporting large, vegetated gardens with mature scattered trees and hedgerows providing connectivity to the wider landscape, dominated by extensive arable and pasture with woodland.
- 2.5 The site is the subject of a planning application for site clearance and demolition of the existing dwelling (Building 1) to facilitate the development of two detached residential dwellings. Design proposals for the site are presented in Appendix 4 of this report.
- 2.6 The legislation relevant to bats within the United Kingdom is summarised within Appendix 2 and Appendix 3.
- 2.7 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 was subjected to a single bat dusk emergence survey (24/08/2021), to confidently assess presence or likely absence of bats within the roosting features identified by Brindle and Green Ltd during August 2021.
- 3.2 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 survey began 15 minutes before sunset and lasted for 1.5 hours following sunset. Where methodology has deviated from good practice, it has been recorded and justified within the limitations section of the report.
- 3.3 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.
- 3.4 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.
- 3.5 **Surveyors**
Surveys carried out by Tom Hough MSc, QualCIEEM, Natural England Bat Licence Class 1 (2020-50050-CLS-CLS), Consultant Ecologist. Adrian Cox BSc (Hons) QualCIEEM, Natural England Bat Licence Class 2 Bats (2019-43340-CLS-CLS), Consultant Ecologist; Liz Oldring and Katie Jones, trained seasonal ecologists.
- 3.6 **Survey Conditions**
The surveys were undertaken in weather conditions considered conducive to bat activity. The weather conditions for the survey are summarised within Section 5: Results.

3.7 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.

3.8 Report Lifespan

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

4 Site Context

4.1 Site Description

- 4.1.1 The application site can be found at TQ 53023 59991, positioned within a residential street to the east of the A225, to the north-west of Otford village. The site comprises a single dwelling (Building 1), two outbuildings, comprising a shed and a greenhouse, and associated garden. The site is bordered primarily by residential development supporting large, vegetated gardens with mature scattered trees and hedgerows providing connectivity to the wider landscape. Beyond the A225 and Railway located approximately 160m west and to the north of the site respectively, the landscape is dominated by extensive arable and pastoral land with woodland recorded beyond residential development to the east and southeast (Rowdow wood and Great wood located approximately 1km and 1.3km east). The site is vegetatively connected to Otford to Shoreham Downs SSSI located 162m to the north-east via mature tree lines present to the north of the site.

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 small 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.

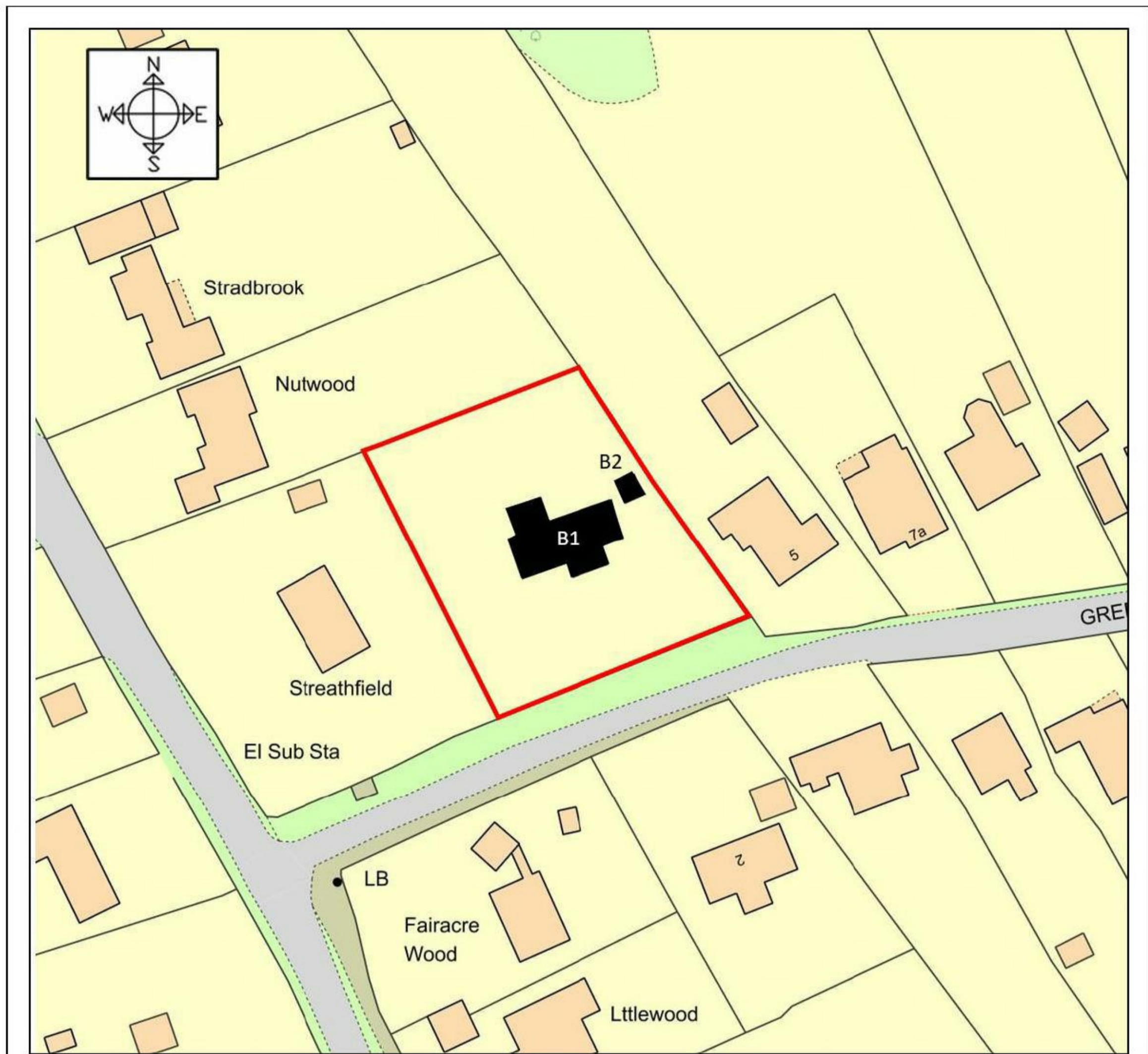


Figure 1. OS Map of the project site and surrounding area.

The red line boundary depicts the application site. The Bat surveys pertained to Building 1 – B1.

5 Results

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

5.2 Bat Dusk Emergence Survey – 24/08/2021

Sunset time: 20:04	Cloud Cover: 0/8	Wind speed: BF1
Start time: 19:50	Start temp: 17°C	Start humidity: 69%
Finish time: 21:34	Finish temp: 15°C	Finish humidity: 77%

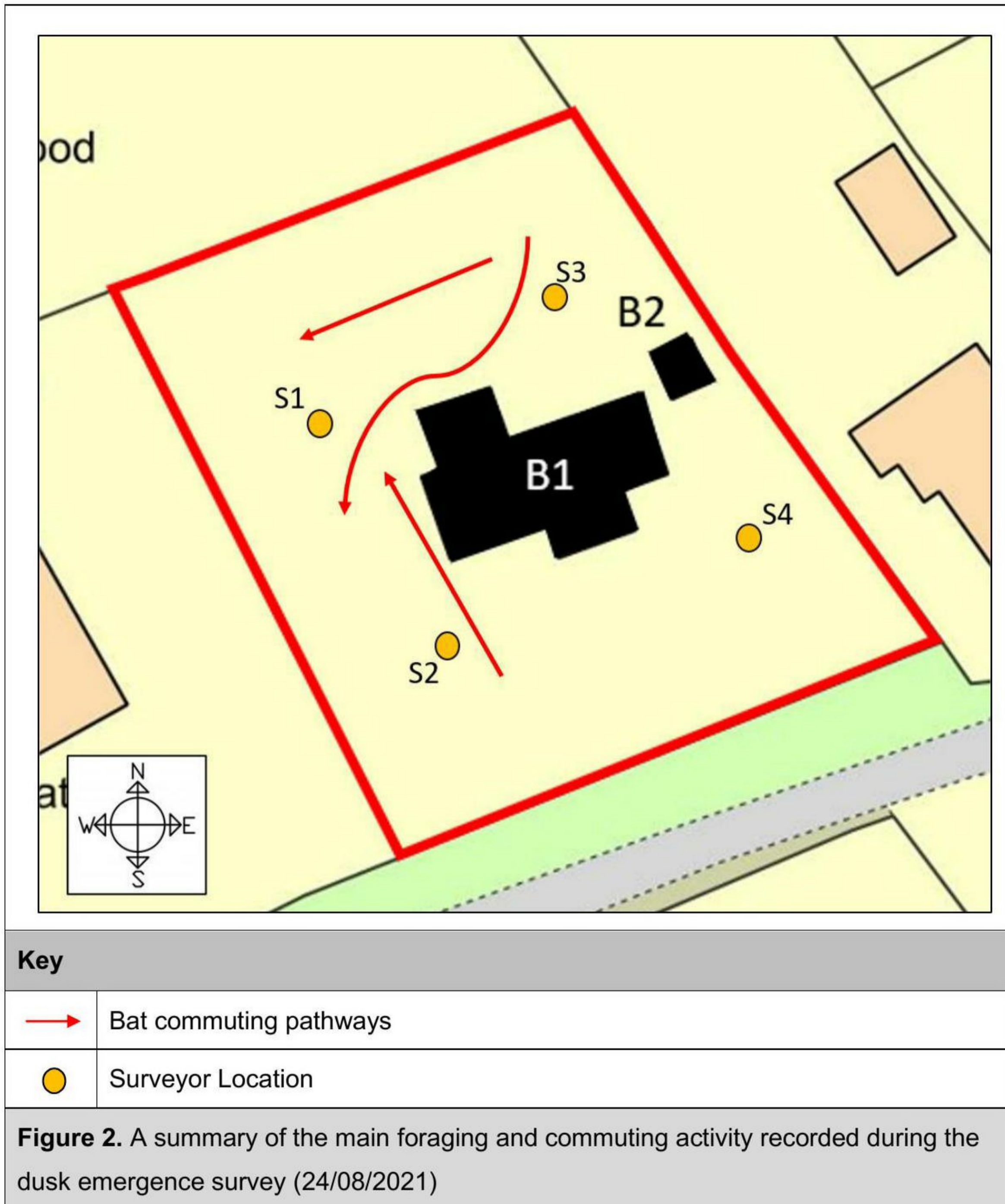
5.2.1 Survey effort was focused on determining the presence of bats within Building 1 and establishing the location of access / egress points. Assessments of how bats were using the area adjacent to the survey building were also undertaken.

5.2.2 Table 1. Summary of bat activity on dusk emergence survey 24/08/2021

Time	Activity
20:04-20:30	At 20:26 a SP was recorded commuting at northern elevation of B1 and headed west. At 20:27 a CP was recorded commuting at western elevation of B1 close to line of trees. Bat flew from south to north.
20:30-20:45	At 20:37 a CP was recorded commuting at western elevation of B1 close to line of trees. Bat flew from south to north. At 20:41 a CP was recorded commuting at northern elevation of B1 and headed west.
20:45-21:00	At 20:47 a Myotis was recorded commuting from northern elevation towards south along western elevation of B1. The same activity was recorded at 20.49.
21:00-21:15	At 21:01 and 21:13 a Noc was HNS
21:15-21:34	At 21:16 a Myotis was HNS At 21:19, 21:28 and 21:32 passes of CP were HNS At 21:21 a SP was HNS.
Key: CP – Common pipistrelle, SP – Soprano Pipistrelle, Noc – Noctule, Myotis- <i>Myotis sp.</i> HNS-heard not seen	

5.2.3 Activity was low during the survey with a total of 8 commuting passes from common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*), 2 passes from Myotis sp. and a single pass from a noctule (*Nyctalus noctula*). The majority of the activity recorded was associated with a

tree line present at the western elevation of Building 1. No emergences or re-entries were noted within Building 1 during the survey.



6 Evaluation

- 6.1 The dusk survey did not reveal any evidence of bats roosting within Building 1. 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 low pertaining to under 10 commuting passes through the application site, pertaining to common and soprano pipistrelle, *Myotis* sp. and noctule. 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 and soprano pipistrelle, and noctule are common in the county. *Myotis* sp. were also recorded, however, due to the low levels of activity from these species, pertaining to 2 commuting passes, it is not considered that there is any potential long-term risk or impacts to *Myotis* sp.
- 6.4 The site has been assessed to hold local 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 dusk emergence bat activity survey did not reveal any evidence of bats roosting within the building. 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:

7.1.1 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.

7.1.2 If the development of the site does not begin within twelve months of this initial survey it will be necessary to conduct an additional survey to determine if bats are roosting within the buildings on site.

7.2 The following enhancement recommendations should also be considered:

7.2.1 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.

7.2.2 An integrated bat box such as a Schwegler 1F Bat tube, or similar approved should be installed within the fabric of each proposed 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

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.

Appendix 4. Design Plans

