

# *Bat Roost Characterisation and Mitigation Report*

Of

Land to the rear of the 5 Bells, 63 Bures Road,  
Great Cornard, Suffolk, CO10 0HU

Carried out for:

DCP Developments

**Prepared by:**

**Abrehart Ecology**

The Barn, Bridge Farm,  
Friday Street, Brandeston,  
Woodbridge, Suffolk,  
IP13 7BP

Tel: 01728 684362 - 07798 941555

e-mail: toby@abrehartecology.com

Website: abrehartecology.com

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Prepared by	AJK
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## **Executive Summary**

Abrehart Ecology was commissioned by DPC Developments, to conduct a bat survey as part of a Protected Species Assessment of a site at the land to the rear of the former 5 Bells pub, Great Cornard, Suffolk (hereafter referred to as the Site).

Due to the potential roost features identified during the initial Preliminary Roost Assessment, a bat survey was required to inform assessment of the potential impact of the proposals on them, and the degree of mitigation required to offset any impacts to roosting bats.

During the 2023 survey period the Site was found to have very low levels of bat activity, with foraging and commuting by only one species. This activity was restricted to commuting high over the Site.

No bats were seen to emerge from the outbuildings and no bats were seen to use internal areas when infra-red camera footage was checked.

Therefore, there are no further constraints with regards to roosting bats within this building.

## 1 Introduction and background

### 1.1 Author

1.1.1 This report was written by Alister Killingsworth BSc (Hons) MSc ACIEEM Natural England bat class licence WML-CL17. Alister has carried out bat surveys and performed analysis for the past ten years. He has held a Level 1 licence for the past five years.

### 1.2 Purpose and brief

1.2.1 A bat emergence survey of the disused outbuildings to the rear of the former 5 Bells pub, Great Cornard, was undertaken on behalf of DPC Developments (central grid reference TL 88365 40296; Fig. 1; hereafter referred to as the Site).

1.2.2 The surveys were required to form an assessment of the ecological impacts that works on the Site may have on bat populations in the area.

### 1.3 Description of Site and Local Area

1.3.1 The Site is approximately 72m<sup>2</sup>, comprising of two outbuilding structures from the former pub – which is subject to a separate planning application. The northernmost building was an open cart lodge used for material storage and the southernmost an open shed also used for storing building materials. The land adjacent was an active construction site and the building was regularly accessed and disturbed as part of ongoing works.

1.3.2 To the south, north, and east of the Site were residential dwellings and associated gardens. To the west was Bures Road (B1508), beyond which was a railway line. The wider landscape beyond the housing consists largely of residential and industrial areas of Sudbury (and associated conurbations), agricultural land, riparian corridors, and public open space (see Figure 1).

### 1.4 The proposed development

1.4.1 The survey was required to inform a planning application at the Site; to include the conversion of the existing structure into a single residential dwelling and associated infrastructure.

## 2 Legislative Context and Planning Policy

2.1.1 All bat species and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended) (WCA) and the Conservation of Habitats and Species Regulations 2010 (as amended). Under this legislation it is an offence to intentionally or recklessly:

- Capture, injure or kill a bat;
- Disturb a bat;
- Destroy or obstruct access to a bat roost.

2.1.2 The National Planning Policy Framework (NPPF) 2021 places responsibility on Local Planning Authorities (LPAs) to aim to conserve and enhance biodiversity in and around developments. Section 40 of the NERC Act requires every public body to “have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Biodiversity, as covered by the Section 40 duty, is not confined to habitats and species of principal importance but refers to all species and habitats. However, the expectation is that public bodies would refer to the Section 41 list (of species and habitats) through compliance with the Section 40 duty.

### 3 Previous Survey Results and Background

- 3.1.1 The data search returned nine records of bats in the area, some of which could potentially roost within the Site (these are detailed with Appendix II – Data Search). The species recorded were common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*), noctule (*Nyctalus noctule*), Leisler's (*Nyctalus leisleri*), Natterer's (*Myotis nattereri*), Daubenton's (*Myotis daubentonii*), serotine (*Eptesicus serotinus*), and barbastelle (*Barbastella barbastellus*). Records were scattered throughout the southern extent of Sudbury and across Little Cornard and Great Cornard. The nearest records were from adjacent residential gardens and the nearby railway line corridor.
- 3.1.2 Many of the records were of hibernating bats and of breeding/maternity colonies.
- 3.1.3 Habitats beyond the Site boundary appeared to be of excellent quality for commuting and foraging bats. OS maps and aerial imagery indicated a railway corridor (with associated tree lines) and the River Stour riparian corridor to the west of Bures Road. A search for habitat types on MAGIC Maps revealed this corridor contains open water, floodplain grazing marsh, lowland meadows, deciduous woodland, and woodpasture and parkland – all excellent quality habitats for foraging bats.
- 3.1.4 A search for granted Natural England EPS Licences for works concerning bat species identified a single project within 2km of the Site (from 2016). This was approximately 1.8km to the north-west and was for brown long-eared and soprano pipistrelle.

### 3.2 Previous surveys

#### Preliminary roost assessment (PEA) – January 2023

- 3.2.1 A preliminary roost assessment and desk study was undertaken by Abrehart Ecology Ltd on the 31<sup>st</sup> of January 2023 (Abrehart Ecology Ltd., 2023).
- 3.2.2 Both buildings were open, making internal areas very cold and draughty and regularly disturbed as part of ongoing construction within adjacent habitats. Although the rough beams offered potential feeding perches for brown long-eared bats, any potential roost features (such as crevices) were exposed to inclement weather conditions. Neither contained evidence of, or were considered to have potential for, roosts of significant conservation interest, such as maternity colonies or hibernation roosts.
- 3.2.3 Overall, it was considered that both structures have low bat roost potential.

MAGiC

### Site Location

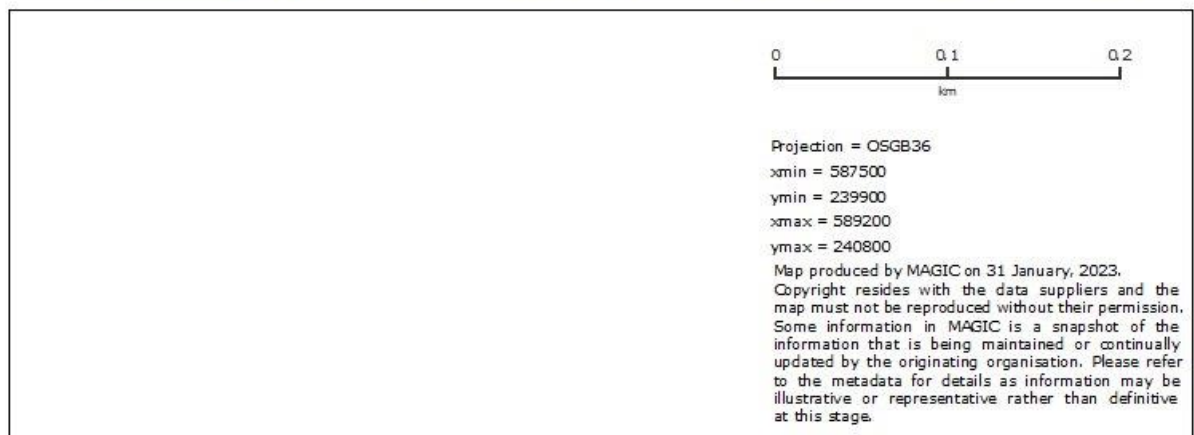
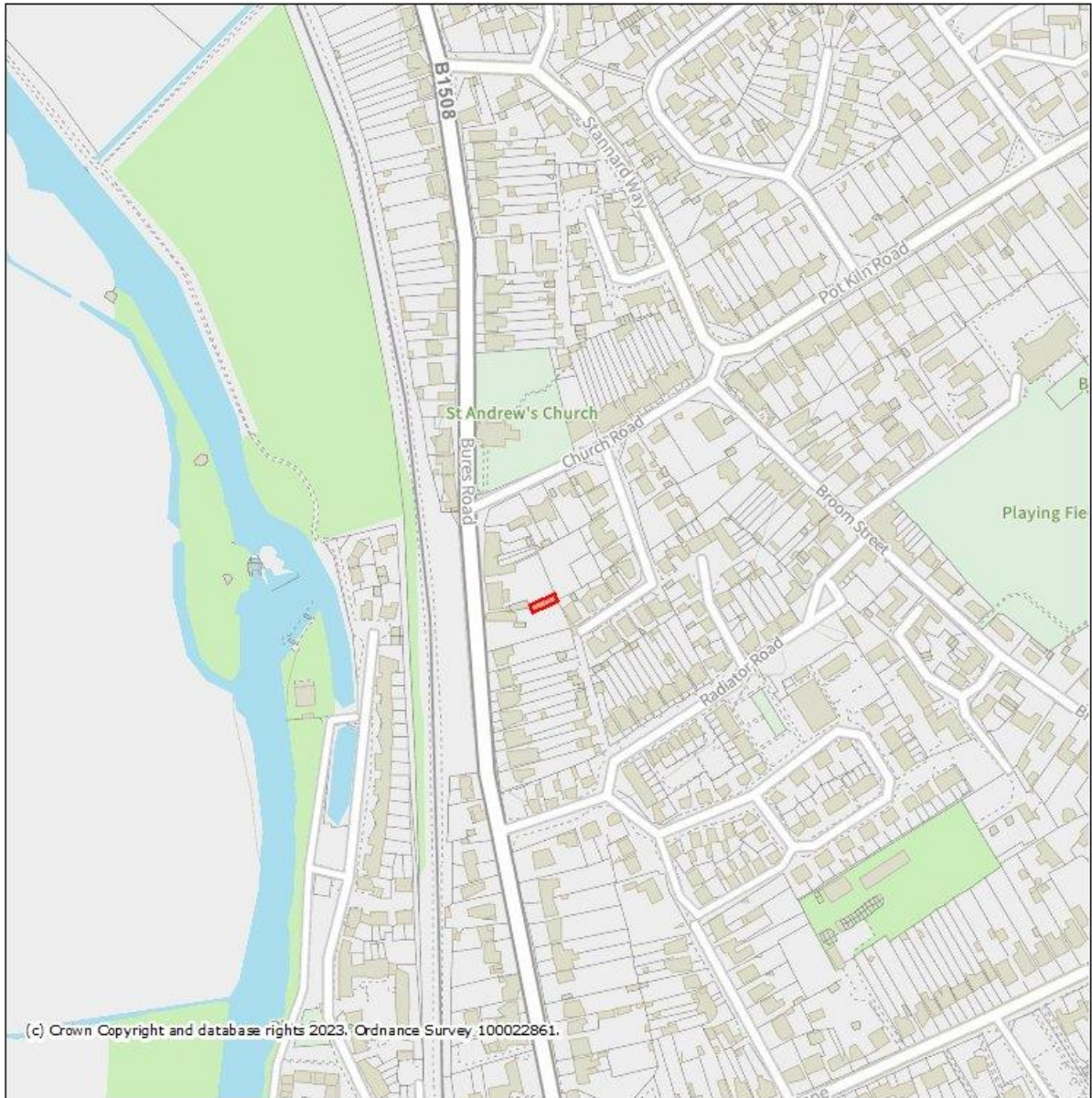


Figure 1. Site location.

## 4 Methods

### 4.1 Presence/Likely Absence and Roost Characterisation

#### Overview

- 4.1.1 The survey was carried out according to good practice guidelines (Collins, 2016).
- 4.1.2 The survey was undertaken by four experienced ecologists with the aid of infra-red (IR) cameras and static detectors based on the Interim Guidance Note on the use of night vision aids for bat emergence surveys (BCT, 2022).

#### Personnel

- 4.1.3 Surveyor details of each of the surveys are detailed in table 1 below.

**Table 1. Personnel Details**

Roost Characterisation Surveys	
Date	Surveyors Present
30.05.23	Alister Killingsworth, Thomas Jordan and Terry Stopher

#### Equipment

- 4.1.4 Two IR cameras (Canon XA60 with four high intensity infra-red LED lights) were used. The Site was also watched by three experienced ecologists to cover the entire survey area.

#### Equipment deployment and monitoring

- 4.1.5 The IR cameras were placed outside the barn to identify any bats prior to emergence and/ or light sampling (locations are provided in the Appendix), in conjunction with visual monitoring by experienced ecologists, who observed potential emergence features from external locations.
- 4.1.6 The cameras were periodically checked throughout the survey to ensure the cameras were operational.

#### Analysis of footage and static detectors

- 4.1.7 The infra-red camera footage was reviewed after the survey to record emergence or light sampling of any bats. If present, emergence would be cross-checked using the Anabat bat detector recordings to confirm species identification.

#### Bat call analysis

- 4.1.8 The sound recordings from the Anabat bat detectors were analysed in Kaleidoscope to record bat species and calling at time of emergence. This is cross-checked with IR footage providing an accurate species ID and emergence time.

## 5 Limitations and Caveats

- 5.1.1 There were no limitations to the emergence survey.

## **6 Survey Results**

- 6.1.1 A PRA, including a desk study was undertaken by Abrehart Ecology Ltd on the 31<sup>st</sup> of January 2023 (Abrehart Ecology Ltd., 2023).
- 6.1.2 The outbuildings were considered to have low bat roost potential and so one bat survey was recommended. The structures contained potential roost features and had ingress points.
- 6.1.3 One emergence survey was carried out on the 31<sup>st</sup> of May 2023, detailed within the Methods Section. **No bats were seen to emerge from the structure and camera footage showed that there were no bats using internal areas throughout the survey** – i.e., prior to emergence, foraging, or light sampling.
- 6.1.4 Only one bat species, noctule (*Nyctalus noctula*), was found to use the habitat or immediately adjacent habitats. These were commuting high over the Site.
- 6.1.5 Mitigation measures are discussed within the Conclusions.



## **7 Conclusion**

- 7.1.1 One bat species were seen and heard to use the habitats over the Site; however, none emerged from the structure itself.
- 7.1.2 There are no constraints to the project with regards to roosting bats and a Natural England licence is not required to commence works. Although foraging activity was very low within the Site boundary, care should be taken not to illuminate surrounding habitats that are potentially of greater importance for commuting or foraging bats – in particular the tree line opposite the Site entrance.
- 7.1.3 Enhancement features, such as bat boxes would increase roosting opportunities for bats within the Site boundary. Boxes suitable for pipistrelle species would be appropriate for this location. Boxes/features such as the 'Improved Crevice Bat Box' produced by the nestbox company, the Schwegler 2F bat box (general purpose), or the Eco Kent Bat Box could be erected on boundary trees or on external surfaces of the new dwellings. These boxes are available from NHBS and other ecological retailers.

## **8 References**

### **Literature**

Abrehart Ecology Ltd (2023). Preliminary Ecological Appraisal of the land at Land to the rear of 5 Bells, 63 Bures Road, Great Cornard, Suffolk, CO10 0HU; carried out for DCP Developments.

Dietz, C. & Kiefer, A. (2016) *Bats of Britain and Europe*, Bloomsbury Publishing, ISBN 978-1-4729-2202-1

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3<sup>rd</sup> ed). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

Michell-Jones, A.J. (2004) *Bat Mitigation Guidelines*, English Nature, ISBN 1 85716 781 3

## Appendix I – Site Maps – Surveyor & Camera Locations



## Appendix II – Survey Results

### Surveyor Results – 11/05/2023 Dusk Survey (Sunset 20:38)

Surveyor: AK			
Time	Species	# Bats	Activity
20:46	-	-	SURVEY START
21:23	<i>Nyctalus noctula</i>	1	Commuting – single pass over the site.
21:33	<i>Nyctalus noctula</i>	1	Commuting – single short pass.
21:35	<i>Nyctalus noctula</i>	1	Commuting – single pass over the site.
22:36	-	-	SURVEY END

Surveyor: TJ			
Time	Species	# Bats	Activity
20:46	-	-	SURVEY START
21:36	<i>Nyctalus noctula</i>	1	Commuting high over survey location
22:36			SURVEY END

Surveyor: TS			
Time	Species	# Bats	Activity
20:46	-	-	SURVEY START
21:36	<i>Nyctalus noctula</i>	1	Commuting over site.
22:36			SURVEY END