



*ecological consultants*

## **BAT DUSK EMERGENCE SURVEY**

139 Norcot Road, Reading  
Report Reference: BG17.226.1  
**August 2017**



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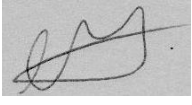


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# 1 Summary

- 1.1 Brindle and Green Ltd were commissioned by Mr Dene Mann to undertake a bat dusk emergence survey at 139 Norcot Road, Reading. The survey was undertaken on 16<sup>th</sup> August 2017.
- 1.2 This report is to be read in conjunction with the Preliminary Ecological Appraisal (Report ref: BG17.226), which was completed in July 2017 by Brindle and Green. The report concluded that the building on site offered potential roosting features with low suitability and a further dusk emergence survey was recommended to confirm presence / absence of a bat roost.
- 1.3 The site is the subject of a full application for the extension of the existing residential property. The proposed development involves the creation of a two-storey extension on the southeast elevation. The planned development extends the footprint of the building on both the northeast and southeast elevations, encompassing areas of hardstanding. The current site access arrangements will remain unchanged via the southern boundary. Design proposals for the site are presented in Appendix 5 of this report.
- 1.4 The building was subjected to a single dusk emergence survey on 16<sup>th</sup> August 2017. The survey revealed no 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 extension.
- 1.5 Bat activity within the application site was considered to be low, with a limited number of passing bats recorded across the site. Species included both soprano pipistrelle (*Pipistrellus pygmaeus*) and noctule (*Nyctalus noctula*). The majority of the activity was recorded to the southeast and northeast of the site.
- 1.6 All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat.

- 1.7 The following recommendation is provided to ensure the client works within the law and that any impacts to protected species are minimised:
- 1.7.1 Bats are highly mobile and can change roost sites throughout the year and from season to season. If the development of the site 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 building on site.

## 2 Introduction

- 2.1 Brindle and Green Ltd were commissioned by Mr Dene Mann to undertake a bat dusk emergence survey at 139 Norcot Road, Reading (Grid reference SU 67574 73804) to confirm presence / likely absence of this protected species within suitable features on the building.
- 2.2 The application site consists of a semi-detached residential building. The building is of brick construction, with a pitched tiled roof and comprises two storeys, with an enclosed loft space accessible by ladder. The residential garden to the northeast of the building was bordered to the north, east and west by hedgerows dominated by privet (*Ligustrum* sp.), ivy (*Hedera helix*) and cherry laurel (*Prunus laurocerasus*), in close proximity to the footprint of the proposed extension. Several crab apple trees (*Malus sylvestris*) were present within the managed amenity grassland. The garden to the southwest of the building was dominated by paved hardstanding and lacked any vegetation.
- 2.3 The site is the subject of a full application for the extension of the existing residential property. The proposed development involves the creation of a two-storey extension on the southeast elevation. The planned development extends the footprint of the building on both the northeast and southeast elevations, encompassing areas of hardstanding. The current site access arrangements will remain unchanged via the southwest boundary. Design proposals for the site are presented in Appendix 5 of this report.
- 2.4 The building was gauged to offer low suitability to support roosting bats during a Preliminary Ecological Appraisal of the site undertaken in July 2017. Recommendations of report BG17.226 stated:

*“No evidence to suggest that roosting bats have used the building, either historically or at present, was noted during the assessment. The roof void of the building was unlined, offering potential access into the roof void. Plywood boarding had been installed over the rafters creating an enclosed area between the roof tiles and the loft space. Potential access points were recorded on the building during the external assessment including lifted roof*

*tiles, gaps between the soffits and the external walls and holes in the external walls on the eastern elevation.”*

- 2.5 The purpose of the survey was to establish whether bats were roosting within the building and to provide details on solutions for mitigation if required.
- 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

- 3.1 139 Norcot Road was subjected to a single bat dusk emergence survey, carried out on 16<sup>th</sup> August 2017, to confidently assess presence or likely absence of bats within the roosting features of the building identified in the preliminary ecological appraisal.
- 3.2 The bat survey was 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 two hours following sunset.
- 3.3 During the 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 onto 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**  
The survey was carried out by Sam Browne BSc (Hons.), Ecologist. Natural England Bat Licence registration number: (2016-22186-CLS-CLS); Zoe Grunnell BSc (Hons), Ecologist and John Harvey BSc (Hons), Assistant Ecologist. The survey was overseen by Chris Needham MSc. MCIEEM (NE Bat Licence: 2015-10292-CLS-CLS).
- 3.6 **Survey Conditions**  
The survey was 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

The application site can be found at: Grid Ref. SU 67574 73804, to the east of the residential area of Tilehurst, Reading. The site is set within residential development, supporting a network of gardens and mature trees. Residential development borders the site to the north, east and west, while Norcot Road lies directly to the south.

4.1.1 The wider environment is dominated by the urban conurbation associated with the town of Reading, the centre of which lies to the east. Arable and pastoral land extends northwards approximately 1.2km north of the site. While, further expanses of arable and pastoral land supporting patches of broadleaf woodland lie approximately 1.6km west of the site. A linear area of broadleaf woodland associated with McIlroy Park lies approximately 400m to the northeast, while Churchend Copse and Curtis Wood border Calcot Park Golf Course approximately 1.3km southwest. The River Thames flows west to east approximately 1.1km to the northeast.

4.1.2 The A329 runs approximately 950 metres northeast of the site and the A4 lies approximately 1.7km to the south, both of which provide a barrier to the dispersal of terrestrial species. However, despite being surrounded by residential development, a network of gardens and mature treelines provide connectivity to the surrounding environment.



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

Red line boundary depicts the application site at 139 Norcot Road, Reading.

#### 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

## 5 Results

- 5.1 A summary of bat activity during the survey is provided below. For the full raw data set please consult Appendix 4, Table 1. Figure 2 below depicts surveyor locations during the survey and the primary commuting and foraging areas recorded during the survey.

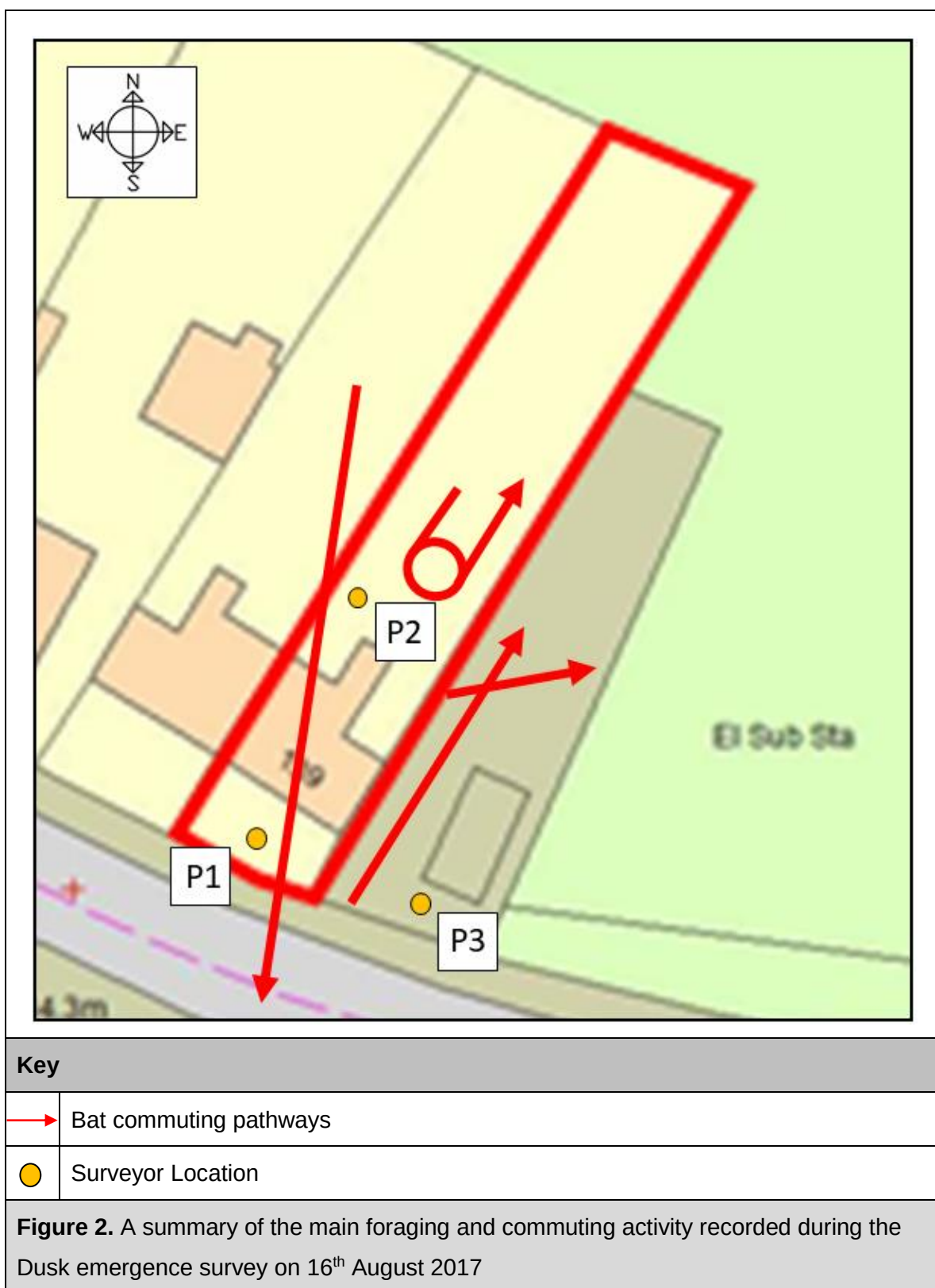
5.2 **Bat dusk emergence survey – 16<sup>th</sup> August 2017**

|                |                   |                                                         |
|----------------|-------------------|---------------------------------------------------------|
| Date:          | <b>16/08/2017</b> | Number of Surveyors: <b>3 (P1, P2, P3)</b>              |
| Sunset time:   | <b>20.25</b>      | Start Temp: <b>16.2°C</b> ...Start Humidity: <b>60%</b> |
| Survey start:  | <b>20:10</b>      | Cloud Cover: <b>6/8</b>                                 |
| Survey finish: | <b>21.55</b>      | Wind: <b>BF1</b>                                        |

- 5.2.1 Survey effort was focused on determining whether bats were emerging from the building and assessing how bats were using the area within the site boundary.
- 5.2.2 Two species of bat were recorded with soprano pipistrelle (*Pipistrellus pygmaeus*) being the dominant species recorded during the dusk survey. Records of commuting and foraging noctule bat (*Nyctalus noctula*) were also made during the survey.
- 5.2.3 Infrequent activity, in the form of both foraging and commuting of soprano pipistrelles and noctule was recorded during the survey, with the areas of focus being the area along the southeast elevation of the building and the residential garden, to the northeast of the building. The first record was taken at 20.46 when both P1 and P3 observed a noctule flying north to south over the building. P1 recorded a further noctule pass, without visual observation, at 21.20. At 20.48 P2 recorded a soprano pipistrelle foraging briefly over the residential garden to the northeast of the building. At 20.51 P3 recorded a single soprano passing west to east away from the building and towards trees bordering the site to the east. A further soprano pipistrelle pass was recorded by P3, at 21.10, when one individual flew northeast along the south-eastern

elevation of the building. Both P1 and P2 then recorded a soprano pipistrelle, without visual observation at 21.14. Full data sets are available in Appendix 4 and Figure 2 indicates the area of commuting and foraging activity.

- 5.2.4 A low level of bat activity was recorded during the survey, and no bats were observed emerging from the building.



## 6 Evaluation

- 6.1 All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2010 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.
- 6.2 The dusk emergence survey did not reveal any evidence of bats roosting within the building. During the survey, soprano pipistrelles were recorded on an infrequent basis and noctule bats were recorded on two occasions, both species were foraging and commuting. As a result, roosting bats are not considered a constraint to the development and this report does not set out recommendations relating to mitigation or the need for an EPS development licence prior to the building's extension.

## 7 Recommendations

- 7.1 Design proposals for the development involve the creation of a two-storey extension on the southeast elevation. The planned development extends the footprint of the building on both the northeast and southeast elevations, encompassing areas of hardstanding. The current site access arrangements will remain unchanged via the southwest boundary. The dusk emergence bat activity survey did not reveal any evidence of bats roosting within the building. A Natural England bat 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 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 tree on site.
- 7.1.2 In the unlikely event that bats are found during development works to the building on site, work should cease while the advice of Natural England or a suitably qualified bat ecologist is sought.
- 7.2 It is recommended that low level outdoor lighting is incorporated into the overall design of the project. The residential garden to the northeast of the building was bordered to the north, east and west by hedgerows dominated by privet (*Ligustrum* sp.), ivy (*Hedera helix*) and cherry laurel (*Prunus laurocerasus*) and several crab apple trees (*Malus sylvestris*) were present within the managed amenity grassland. Design plans (Appendix 5) show that these vegetative features are to be retained. The extent of disturbance should be minimised in these areas where possible, by employing a sensitive lighting scheme during construction works, and ensuring that artificial security lighting is not installed along the vegetated boundaries of the gardens surrounding the residential development.

# Appendices

## 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*. 6<sup>th</sup> ed. Oxford University Press.

Butterfly Conservation trust (2014) Nectar Plants,  
[http://mothscount.org/text/64/nectar\\_plants.html](http://mothscount.org/text/64/nectar_plants.html)

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2<sup>nd</sup> edition, Bat Conservation Trust.

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

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

## 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 2010
- Department for Communities and Local Government. National Planning Policy Framework. March 2012
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC
- National Parks and Access to the Countryside Act 1949
- The Protection of Badgers Act 1992
- Land Drainage Act 1991
- The Countryside and Rights of Way Act 2000
- The Natural Environment and Rural Communities Act 2006
- The United Kingdom Biodiversity Action Plan 2006
- Hedgerow Regulations 1997
- Town and Country Planning Act 1990
- 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 Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994.

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 (Natural Habitats &c.) Regulations 1994*, 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. Raw data

**Table 1. Dusk Emergence Survey – 16<sup>th</sup> August 2017**

| Time  | Species             | Surveyor | Activity                                                                        |
|-------|---------------------|----------|---------------------------------------------------------------------------------|
| 20.46 | Noctule             | P3       | Flew S/SW very high in the sky over the house                                   |
| 20.46 | Noctule             | P1       | Heard not seen                                                                  |
| 20.48 | Soprano pipistrelle | P2       | Foraging v briefly in garden                                                    |
| 20.51 | Soprano pipistrelle | P3       | Flew E towards trees away from house                                            |
| 21.09 | Soprano pipistrelle | P2       | Heard not seen                                                                  |
| 21.10 | Soprano pipistrelle | P3       | Flew NE, past SE elevation approx 3m from ground                                |
| 21.13 | Soprano pipistrelle | P1       | Very faint echo wasn't detected – screenshot of sonogram taken – Heard not seen |
| 21.14 | Soprano pipistrelle | P2       | Heard not seen                                                                  |
| 21.20 | Noctule             | P1       | Heard not seen                                                                  |

