13491 Haverstock Hill

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Nocturnal Emergence Bat Survey Middlemarch Environmental

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HAVERSTOCK HILL, CAMDEN
GREATER LONDON

NOCTURNAL EMERGENCE BAT SURVEY

A Report to: CBRE Ltd

Report No: RT-MME-122272

Date: May 2016

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

Report Version	Date	Completed by:	Checked by:	Approved by:
Final	25/05/2016	Sophie Moy GradCIEEM (Ecological Project Officer)	Paul Roebuck MCIEEM (Principal Ecological Consultant), Colin Bundy MCIEEM (Associate Director)	Dr Philip Fermor MCIEEM CEnv (Managing Director)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of 12 months from the date of survey. If works have not commenced by this date, an updated site visit should carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

NON-TECHNICAL SUMMARY

In May 2016 CBRE Ltd commissioned Middlemarch Environmental Ltd to undertake a Nocturnal Emergence Bat Survey at Haverstock Hill, Camden in Greater London. This survey is required to inform a planning application associated with the redevelopment of the site.

During the Preliminary Roost Assessment it was deemed that Building 1 at Haverstock Hill had low potential for roosting bats. Bat Surveys: Good Practice Guidelines, published by the Bat Conservation Trust (Collins, 2016), recommends for buildings with low bat roosting potential that at a minimum one survey (consisting of a nocturnal emergence survey or a dawn re-entry survey) should be undertaken during the bat activity season to determine the presence/absence of roosting bats within the building.

Therefore, a single Nocturnal Emergence Bat Survey was recommended. This report details the results of the survey undertaken on the 17th May 2016.

Limited bat activity was recorded during the survey from common pipistrelle bats (along the site boundary within the vegetation and trees to the north-west of the site and flying through the site). No bats were recorded emerging from the building.

Following the results of the nocturnal emergence survey the following recommendations have been made:

R1 Building 1

Building 1 has been subject to a nocturnal emergence bat survey in line with Bat Surveys: Good Practice Guidelines, published by the Bat Conservation Trust (Collins, 2016) and no bat roosts were identified. The survey data obtained for the site is valid for 12 months from the survey date. If development works to the surveyed building have not commenced within this timeframe it will be essential to update the survey effort to establish if bats have colonised the building in the interim. Updated roost assessments can be undertaken at any time of year. Updated surveys requiring nocturnal or dawn assessment will need to adhere to the BCT Guidance with the surveys undertaken between April and September inclusive.

In the unlikely event that a bat is found during site works all works in that area must immediately cease and a suitably qualified ecologist should be contacted.

R2 Lighting of Boundary Features

The site is used as a commuting and foraging site for bats within the local area. Therefore, the design of the proposed development should take into account the need to preserve the permeability of the site for bats and other wildlife. Habitat fragmentation may be minimised through the provision of unlit areas in particular avoiding any light splay onto the vegetation and trees along the north-west boundary of the site.

CONTENTS

1. INTRODUCTION

1.1 PROJECT BACKGROUND

In May 2016 CBRE Ltd commissioned Middlemarch Environmental Ltd to undertake a Nocturnal Emergence Bat Survey at Haverstock Hill, Camden in Greater London. This survey is required to inform a planning application associated with the redevelopment of the site.

Middlemarch Environmental Ltd has previously carried out the following surveys for CBRE Ltd at Haverstock Hill, Camden in Greater London:

- BREEAM New Construction 2014 Ecological Assessment (Report RT-MME-122009-01); and,
- Preliminary Roost Assessment (Report RT-MME-122009-02).

During the assessment of Building 1 at Haverstock Hill a number of low value features of potential interest to roosting bats were identified. These include:

- Missing and lifted roof tiles;
- Lifted lead flashing;
- Cracks or holes in brickwork; and,
- Open and broken windows.

A detailed external and internal review of all of the building was undertaken on site, including the features described above, and no evidence of bats was recorded. However, the roof space could not be examined thoroughly and due to the height of the structure many of the features could not be inspected for evidence of bats.

Taking into account the structures characteristics and the different features of Building 1, and the immediate surrounding habitat which is set within a highly urbanised environment, it was deemed that Building 1 at Haverstock Hill has low potential for roosting bats. Bat Surveys: Good Practice Guidelines, published by the Bat Conservation Trust (Collins, 2016), recommends for buildings with low bat roosting potential that at a minimum one survey (consisting of a nocturnal emergence survey or a dawn re-entry survey) should be undertaken during the bat activity season to determine the presence/absence of roosting bats within the building.

Therefore, a single Nocturnal Emergence Bat Survey was recommended. This report details the results of the survey undertaken on the 17th May 2016.

All UK bat species are European protected species and they are capable of being material considerations in the planning process. A summary of the legislation protecting bats is included within Appendix 1. This section also provides some brief information on the ecology of British bat species.

1.2 SITE DESCRIPTION AND CONTEXT

The site under consideration is a broadly rectangular shaped parcel of land measuring approximately 0.2 hectares in size. The site is centred at Ordnance Survey Grid Reference TQ 28152 84418 and is adjacent to Chalk Farm underground station.

The site is located in an urban location with Haverstock School located to the north of the site, residential buildings to the west and south of the site and commercial shops and Chalk Farm underground station to the west of the site. The site is currently occupied by a vacant car storage facility, which has some ancillary office and retail.

The site was dominated by the existing buildings and associated hardstanding forming the car park to the south-west of the site and along the western aspect of the building to Haverstock Hill (A502) and Adelaide Road. Alongside the hard standing and the existing building were small areas of scattered scrub.

The wider landscape surrounding the development site is largely urbanised for commercial and residential purposes. However, the development site is located approximately 500m north-east from Primrose Hill Park and approximately 1000m north-east of Regents Park. The Grand Union Canal is located 770m south of the development site.

2. METHODOLOGY

2.1 DESK STUDY

The desk study included a search for statutory nature conservation sites designated for bats within a 10 km radius of the site.

2.2 FIELD SURVEYS

2.2.1 Overview of Nocturnal Emergence Survey

Building 1 was classed as having low potential to support roosting bats as limited features of interest to bats were identified during the daytime survey. In line with The Bat Conservation Trust (2016) guidance a nocturnal emergence survey was carried out.

2.2.2 Nocturnal Emergence Bat Survey

The survey commenced 20 minutes prior to sunset and continued until 120 minutes after sunset. The nocturnal emergence survey was conducted using electronic bat detectors (Petterson Ultrasound Detector D240 x and Bat Box Duet with associated recording devices) to facilitate the detection of bats and to aid in the determination of species of bat using the site. Subsequent computer analysis of recordings allowed all species of bat using the site to be identified.

3. DESK STUDY

3.1 STATUTORY NATURE CONSERVATION SITES

The site is not located within 10 km of any statutory nature conservation sites designated for the presence of bats.

4. SURVEY RESULTS

4.1 NOCTURNAL EMERGENCE SURVEY

The nocturnal emergence survey was undertaken on 17th May 2016 by Sophie Moy (Ecological Project Officer), Rita Smoldareva (Assistant Ecologist) and Will Rees (Assistant Ecologist). The weather conditions recorded at the time of the survey are detailed in Table 4.1.

Parameter	Conditions	
	Start	Finish
Temperature (°C)	14ºC	12ºC
Cloud Cover (%)	50%	50%
Precipitation	0	0
Wind Speed (Beaufort)	F3	F2

Table 4.1: Weather Conditions During the Nocturnal Emergence Survey

The nocturnal emergence survey commenced 20 minutes prior to sunset and continued until 120 minutes after sunset. Sunset was at 20:49 hrs (BBC Weather Centre Data for London). The results of the survey including the location of surveyors and building surveyed are included on Drawing C122272-01 in Chapter 7.

One species of bat, Common pipistrelle *Pipistrellus pipistrellus* were recorded during the survey.

Common pipistrelle
The first common pipistrelle bat was detected at 21:06 (17 minutes after sunset), but was not seen by the surveyor as it was off site to the north-west. A second bat was detected at 21.08 commuting from the car parking area towards Adelaide Road. Between 21.10 and 21.20 there were constant calls recorded by the surveyor within the parking area, but no bats were visually observed. At 21.22 a single bat was recorded flying from the direction of the vegetation towards the building. The last bat was recorded at 21.45 commuting around the building and foraging close to the vegetation from north-east to the south-west of the site.

The majority of the activity was recorded alongside the vegetation located on the north-west boundary of the site. No bats were recorded emerging from or returning to the building.

No other species of bat were detected or observed during this survey. Analysis of the sound recordings did not identify any further species of bat.

5. DISCUSSION AND CONCLUSIONS

5.1 DISCUSSION

5.1.1 Summary of Previous Surveys

The Preliminary Roost Assessment undertaken in April 2016 included an assessment of the proposed development site. The site is dominated by buildings and hardstanding which are mainly poor for bats although insect prey may be present in low numbers, particularly towards the boundary of the site to the north-west where trees are located immediately outside the perimeter. More suitable habitat for foraging and commuting bats is located to the north and west towards large houses and gardens and parks. There is some connectivity to these areas although this will be limited somewhat by high levels of street lighting. Overall, the potential for bats being present foraging and commuting within the site boundary was determined as low. The building at Haverstock Hill was determined as having low bat roosting potential.

5.1.2 Summary of Bat Activity Surveys

Nocturnal Survey
One bat species was recorded during the nocturnal survey; common pipistrelle. Foraging and commuting activity for this species were detected within the vegetation/trees along the north-west boundary of the site. No bats emerged from the surveyed building.

5.2 CONCLUSIONS

Following the suite of survey work undertaken on site it can be confirmed that the buildings do not contain a bat roost.

6. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

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7. DRAWINGS

Drawing C122272-01 – Nocturnal Emergence Survey

C122272-01

Legend

- Surveyor location
- Common pipistrelle commuting
- Building surveyed
- Site boundary

N

Project	Haverstock Hill, Camden, Greater London
Drawing	Nocturnal Bat Emergence Survey 17/05/2016
Client	CBRE Ltd
Drawing Number: C122272-01	Revision: 00
Scale @ A4: 1:500	Date: May 2016
Approved By: SM	Drawn By: CD

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APPENDIX 1

LEGISLATION

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2010, as amended (Habitats Regulations 2010, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2010 (as amended), states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2010 (as amended) for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*.

At least eight species of bat are known to breed in Greater London, all of which are listed on the London local BAP: Noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, Whsikered *Myotis mystacinus,* Brandt's *Myotis brandtii*, Natterer's *Myotis natererii,* Daubenton's *Myotis daubentoni*, Serotine *Eptesicus serotinus*, Leisler's *Nyctalus leisleri*, common pipistrelle *Pipistellus pipistrellus* and nathusius pipistrelle *Pipistrellus nathusiusii*.

The reader should refer to the original legislation for the definitive interpretation.

ECOLOGY

At present, 18 species of bats are known to live within the United Kingdom, of which 17 species are confirmed as breeding. All UK bat species are classed as insectivorous, feeding on a variety of invertebrates including midges, mosquitoes, lacewings, moths, beetles and small spiders.

Bats will roost within a variety of different roosting locations, included houses, farm buildings, churches, bridges, walls, trees, culverts, caves and tunnels. At different times of the year the bats roosting requirements alter and they can have different roosting locations for maternity roosts, mating roosts and hibernation roosts. Certain bat species will also change roosts throughout the bat activity season with the bat colony using the site to roost for a few days, abandoning the roost and then returning a few days or weeks later. This change can be for a variety of reasons including climatic conditions and prey availability. Bats are known live for several years and if the climatic conditions are unfavourable at a particular roost, they may abandon it for a number of years, before returning when conditions change. Due to the matriarchal nature of bat colonies, the locations of these roosts can be passed down through the generations.

Bats usually start to come out of hibernation in March and early April (weather dependent), when they start to forage and replenish the body weight lost during the hibernation period. The female bats then start to congregate together in maternity roosts prior to giving birth and a single baby is born in June or July. The female then works hard to feed her young so that they can become independent and of a sufficient weight to survive the winter before the weather gets too cold and invertebrate activity reduces. Males generally live solitary lives, or in small groups with other males, although in some species the males can be found living with the females all year. The mating season begins in the autumn. During the winter bats hibernate in safe locations which provide relatively constant conditions, although they may venture outside to forage on warmer winter nights.