

Bat Presence / Absence Survey
Buildings
At
3-5 Craven Road, Reading, RG1 5LF



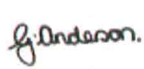
Address	3-5 Craven Road, Reading, RG1 5LF		
Client	McCarthy and Stone Retirement Lifestyles Ltd	Ecologist	Philip May
Our Ref	E2107151217	Director	Robert Sharpe
Report Date	21 October 2015	Quality Checked	Victoria Telford
Scope of Report	Bat Absence / Presence Survey – Buildings Only		

Environmental Services

Arboriculture • Ecology • Landscape Architecture • Environmental Groundworks • Vegetation Management



t 0330 380 1036 f 0330 3801038
planning@innovation-environmental.co.uk
www.innovationpropertyuk.com/environmental

Version	Date	Author	Checked	Approved
1	21/10/2015	P May 	G Anderson 	V Telford 

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The opinions and information contained within this report were gathered using due skill, care and diligence. The report complies with the Biodiversity Code of Practice for Planning and Development (BS42020:2013) and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Executive Summary

A thorough survey, both external and using ultrasonic detection equipment with data analysis, was made of the buildings scheduled for demolition by experienced ecologists.

The external building inspection identified a number of possible ingress/egress points for bats, these observations were used to guide the ultrasonic surveys at dawn and dusk.

During the survey undertaken on 19th August 2015 full access internally was gained and a thorough internal examination of the buildings was made. This has confirmed that the main properties of No. 3 and No. 5 are deemed to have a moderate bat roost potential (MBRP) and the single storey temporary buildings at the rear of the site have a Negligible Bat Roost Potential (NBRP).

A series of dusk surveys and a single dawn survey were undertaken, focusing on No. 3 and No. 5, to record the bat activity across the site. The survey results revealed low levels of foraging and commuting behaviour by common Pipistrelle bats, and on the dawn survey a single Pipistrelle bat was seen entering the front gable of No. 3 Craven road. At no time during the surveys were bats observed entering or leaving any of the other buildings on site.

All recordings and subsequent screenshots (Appendix 3) were taken from the Anabat placed around the site.

Based on the findings of the survey the following recommendations have been made:

1. A European Protected Species licence will be required from Natural England once full planning permission has been granted, due to the loss of a roost within the front gable of No. 3 by the proposed works. The licence should be prepared at a time when a detailed schedule of works is available to ensure that all works that will have a potential impact on bats are covered under the licence and appropriate mitigation measures are specified. A method statement will be prepared as part of the licence application and all works to the roof and loft spaces (and in the vicinity of these areas) will need to be supervised by a suitably qualified ecologist.
2. Included in the EPS licence there will also be provision to reduce the impact of the development by providing alternative roost sites within the new development.
3. Bat and bird boxes are required within the new development design wherever possible, located on or integrated into the buildings. In this instance, 6 x Bat boxes will be included within the new development design on buildings and wherever possible, on retained trees. Boxes must be situated between 4m and

6m above ground level, with entrances facing North, South-east and South-west to allow for use all year round. Assistance will be engaged from an ecologist in the design and location of bird/bat boxes. A suitable planting scheme is also required, including native and species beneficial to wildlife with native trees and shrubs used to landscape areas surrounding all buildings.

4. A suitable lighting scheme will be incorporated to prevent light pollution into the garden areas after dark with suitable PIR timers only activated by large moving objects (NOT BATS).

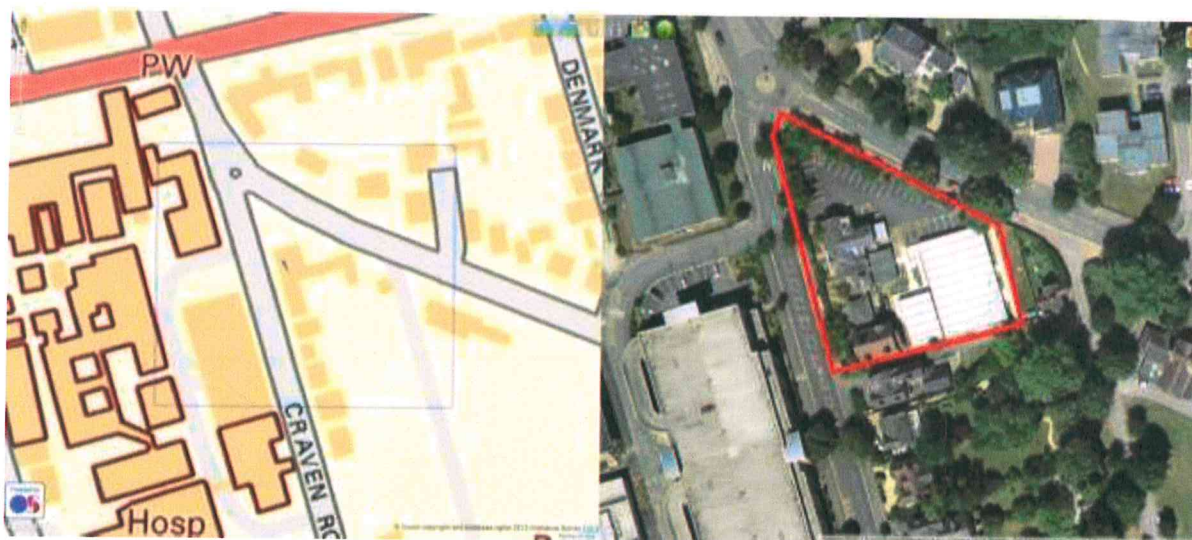
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1.0 Introduction

1.1 Background

This report details the results of a Bat Presence/Absence Survey of all buildings at 3-5 Craven Road, Reading, RG1 5LF. The survey was undertaken to determine whether bats were using these buildings as roosts and was carried out on behalf of McCarthy and Stone Retirement Lifestyles Ltd. The site is centred at Ordnance Survey Grid Reference SU 725 729.



OS. Licence No.100043218

1.2 Site Description

The site comprises permanent and prefabricated buildings currently used as a school with car parking and soft landscaping by way of ornamental shrubs, trees including some native deciduous species confined to the sites northern and western periphery. Some neglected landscaped areas contain self-seeded tree saplings and some ephemeral short perennial and tall ruderal which is very limited in its extent. The site is surrounded by two and a half metre brick walls or one metre high wrought iron and timber fencing some of which is covered in Ivy. The two main properties (No. 3 and No. 5) along the frontage of the site are converted and extended three storey Victorian properties with a series of multi-pitched red tile roofs. At the rear of the site is a large car parking area and a large series of portacabin buildings forming one large complex.

1.3 Scope of Survey and Limitations

We have been advised that the buildings on site and the surrounding hard landscaping will be demolished and stripped respectively to facilitate a later living apartment block with associated hard and soft landscaping. The scope of the report is to assess the presence/absence of bats and make

recommendations based upon the findings of the survey. Access to the internal spaces was limited due to the loft areas being sealed.

Bats are highly mobile in their nature and may only use buildings at certain times of the year that favour a particular part of their roosting, maternity and hibernating requirements.

2.0 Legislation

2.1 Planning and Biodiversity

Local Authorities have a requirement to consider biodiversity under the following European legislation:

- Natural Environment and Rural Communities (NERC) Act (2006);
- The Habitats Directive (EC directive 92/43/EEC);
- Environmental Impact Assessment (85/337/EEC as amended by directive 09/31/EC);
- Strategic Environmental Assessment (2001/42/EEC);
- The Environment Act (1995).

Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the England Biodiversity Priority (EBP) list, previously referred to as Local Biodiversity Action Plan (LBAP), of which there are 56 habitats and 943 species (Natural England, 2014). Seven bat species are EBP species; these are Barbastelle, Bechstein's, Brown Long-eared, Greater Horseshoe, Lesser Horseshoe, Noctule and Soprano Pipistrelle. The EBP list is used to guide planning authorities in implementing their duty under the NERC Act.

Local Authorities must also have regard for the following national planning policies:

- National Planning Policy Framework (NPPF) (DCLG, 2012);
- ODPM Circular 06/2005 (Defra Circular 01/2005);
- ODPM (March 2006) Planning for Biodiversity and Geological Conservation.

In addition, all bat species found in Reading are currently listed on Reading Local BAP.

2.2 **Bat Legislation**

All species of bat and their breeding sites or resting places (roosts) are protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not (*Natural England, 2015*).

A roost is protected whether or not bats are present and any activity or works affecting a roost, even when bats are absent, is likely to be subject to the relevant licence procedure with Natural England.

This legislation makes it is an offence either deliberately or recklessly to:

- possess or control any live or dead specimens;
- destroy, damage or obstruct access to any bat roost, or place used for shelter, protection or breeding;
- disturb a bat using such place ('disturbing' a bat can include simply entering its roost and as such the appropriate licence should be held prior to doing so).

Such offences are punishable with a maximum fine of £5,000 per incident or per bat, up to six months in prison, and forfeiture of items used to commit the offence, e.g. vehicles, plant, machinery.

3.0 **Survey Methodology**

3.1 **Desk Study**

A desk study was undertaken to locate all known bat records within a 1km radius of the site using data requested from the Berkshire and South Buckinghamshire Bat Group.

3.2 **Weather Conditions and Timing**

To comply with current national Best Practice Guidelines (Hundt, 2012) bat activity surveys should be carried out in dry weather as bats may not leave their roost site if it is raining heavily, making any survey results suspect. Bat activity surveys should be carried out between May and September and winter hibernation surveys between October and April. The months can vary a little, depending on seasonal and geographic variations.

3.3 Personnel

During the survey effort a total of 4 surveyors were used; all surveyors have been appropriately trained and have had at least three full seasons bat surveying experience. All surveys were supervised by the Senior Ecologist who holds a full Natural England Bat Licence and has had vast experience in bat surveying and mitigation.

Personnel used on all surveys are as follows:

Jonathan Jones (Assistant Ecologist): Over 5 years' experience in bat surveying using both heterodyne and Anabat survey equipment.

Phillip May (Ecologist) (NE Bat Licence CLS002178): Over 20 years' experience as an ecologist and over 15 years work with various bat species and studies into migration over water.

Paul Hiscocks (Senior Ecologist) (NE Bat Licence 2015-10145-CLS-CLS): Over 10 years' experience with bats, extensive experience in surveying all types of habitat for bats and mitigation including numerous mitigation licences held for exclusion and roost destruction.

Victoria Telford (Graduate Ecologist): 4 years' experience in bat surveying using both heterodyne and Anabat survey equipment.

3.4 Internal / External Building Inspections

A walkover survey of the site and detailed visual inspection of the exterior and interior of the buildings was undertaken to evaluate bat roost potential of the buildings and to locate suitable ingress / egress points that bats could use to fly into the buildings and use areas within to roost. The external inspections were carried out from ground level using a Clulite CB2 1,000,000 candle power torch, Bushnell Nature view Close Focusing 10x42 Roof Prism Binoculars, and a Sony Cyber-Shot 14.1 Mega Pixel camera and where appropriate a Rigid Seesnake Micro Inspection Camera Mk II CA-100 was used to examine inaccessible cavities and a Flir i5 Lightweight Thermal Imaging Camera to check for heat sources (roosting bats).

The internal inspections were carried out using a Clulite CB2 1,000,000 candle power torch, Rigid Seesnake Micro Inspection Camera Mk II CA-100 where necessary, to examine inaccessible cavities, a Sony Cyber-Shot 14.1 Mega Pixel camera for photographs and a Flir i5 Lightweight Thermal Imaging Camera to check for heat sources (Roosting Bats). The following features were the main focal points of the surveys:

- Bats and or bat corpses;
- Droppings, staining and remains of feeding debris;
- Externally: access points such as displaced/missing tiles and ridge tiles, holes in walls, windows or woodwork; and

- Internally: potential roosting points such as cracks and crevices in the structural layout.

3.5 Dusk Surveys (Emergence Survey)

The object of dusk surveys was to detect active bat use of the site and possible exit from buildings at points identified during the daytime inspection; this involved:

- being at the site 15 minutes before sunset and approximately 2 hours after;
- using heterodyne, frequency division and time expansion detectors; additionally, recordings were made using four passive Anabat SD2 detectors left on continuous recording; and
- standing at different vantage points around the buildings (no more than 50m separation), using the bat detectors and attempting to see bats emerging from buildings.

3.6 Dawn Surveys (Re-Entry Survey)

The object of dawn surveys was to detect bats returning to possible roost sites from their night of foraging. Bats tend to swarm around their roost entrance for a period of time before going into the roost, which helps in identifying roost locations; this involved:

- being at the site 1 ½ hours before sunrise;
- use of bat detectors as (3.4 above); and
- observation for swarming bats around the buildings.

3.7 Site Status Assessment

Based on the internal / external inspection and emergence survey results, structures with evidence of bats have been assessed to determine which of the following categories they fall into, if any (Hundt L 2012):

- **Night roost (March-November)** – used by bats as roosts other than traditional day roosts to rest in during the night. May be used by a single individual on occasion or regularly by an entire colony;
- **Day roost (March-November)** – used by bats during the day to rest in, often by males. Bats may regularly use a number of days roosts or the same site for several weeks;
- **Transitional roost (April-September/October)** – used by a few individuals or occasionally small groups of bats on waking from hibernation or in the period prior to hibernation;
- **Feeding roost (May-November)** – can be occupied by a single bat or a few individuals to an entire colony to feed, shelter from the weather or to rest temporarily;
- **Maternity roost (May-August)** – used by breeding females, where babies are born and raised to independence. Adult males rarely found here;
- **Satellite roost (May-August)** – used by a few individuals to small groups of breeding females as alternative roost sites in close proximity to maternity roosts;

- **Swarming sites (August-November)** – where large numbers of bats from several species gather, generally around caves and mines;
- **Mating roost (September-November)** – established by males of some species to display/call to females to mate;
- **Hibernation roost (October-March)** - where bats may be found during the winter. They vary greatly in terms of the number of individuals and diversity of species using them.

The roost assessment criteria in Appendix 4 were then used to ascertain the importance of any roosts present.

4.0 Results: Desk-based Assessment

Bat records within a 1km radius of the application site were obtained from the Berkshire and South Buckinghamshire Bat Group.

Species	Scientific Name	Grid Ref (SD)	Source	Date
Daubenton's bat	<i>Myotis daubentonii</i>	SU719739	BSBBG	2001
		SU721739 x3	BSBBG	2004 - 2011
		SU735725 x2	BSBBG	1986
		SU715733	BSBBG	2006
		SU7173	BSBBG	1991
Noctule	<i>Nyctalus noctula</i>	SU734719	BSBBG	2005
		SU730736	BSBBG	2007
		SU735725	BSBBG	1986
		SU7371 x2	BSBBG	2002
Brown Long-eared Bat	<i>Plecotus auritus</i>	SU735725 x2	BSBBG	1986
		SU735727	BSBBG	2012
Pipistrelle bat	<i>Pipistrellus sp.</i>	SU7273	BSBBG	2011
Common Pipistrelle bat	<i>Pipistrellus pipistrellus</i>	SU721739	BSBBG	2004
		SU732717	BSBBG	2005
		SU721739	BSBBG	2011
		SU730736	BSBBG	2007
		SU735725	BSBBG	1986
		SU7371	BSBBG	2002
		SU7273	BSBBG	2011
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	SU721739 x2	BSBBG	2004 - 2011
		SU730736	BSBBG	2007

Table 1: Bat Species Desktop Records

4.1 Review of Desk Based Assessment Data

There are a range of bat species recorded in the area; Common and Soprano Pipistrelle, Brown Long-eared Bats, Noctule and Daubenton's Bat. Some of these records are historical, recorded in 1986 and there are records as recent as 2012.

These records are mainly associated with two general areas; the first is along the River Thames approximately 0.6km north, and in the recreation grounds and residential areas along the river. The second area is approximately 0.7km south east, near the University of Reading recreation ground where there is a mixture of woodland and scrub habitat as well as a lake.

Aerial imagery shows there is good connectivity between the site and the Reading University recreation ground as there are tree lines creating commuting corridors linking the two areas.

5.0 Results: Survey

5.1 Weather Conditions

Survey times, temperatures and weather conditions are detailed below. At all times, weather conditions were conducive to bat survey work.

Date	19/08/2015	Sunset/ rise Time	Sunrise 05:55	Survey Type	Dawn Re-entry
				From/ To	04:25 05:55
	Temperature °C	Humidity %	Cloud Cover / Oktas	Wind Bft Scale	Precipitation Y/N
Start	14.2°C	89%	7	0 - 1	N
End	12.7°C	92%	6	0	N

Date	22/09/2015	Sunset/ rise Time	Sunset 19:01	Survey Type	Dusk emergence
				From/ To	18:45 20:30
	Temperature °C	Humidity %	Cloud Cover / Oktas	Wind Bft Scale	Precipitation Y/N
Start	16°C	91%	7	2	N
End	10.1°C	94%	1	2	N

Date	28/09/2015	Sunset/ rise Time	Sunset 18:49	Survey Type	Dusk emergence
				From/ To	18:15 20:20
	Temperature °C	Humidity %	Cloud Cover / Oktas	Wind Bft Scale	Precipitation Y/N
Start	15.4°C	76%	2	1	N
End	10.5°C	84%	0	0	N

5.2 External Inspection of the Buildings

An internal and external inspection of the buildings was undertaken to determine their Bat Roost Potential (BRP); this revealed a number of possible ingress/egress points for bats. The results of the Internal Bat Roost Potential Assessment of the buildings are included in Appendix 2, together with the Bat Roost Potential rating for each building.

The results of the external inspection were used to help focus survey effort during the dusk emergence/dawn re-entry surveys.