

# **33 Pantheon Road**

## **Chandlers Ford, Hampshire**

### **Full Bat Survey**

**May 2023**



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## **SUMMARY**

*A planning application is being submitted to Eastleigh Borough Council to extend and alter an existing residential property at 33 Pantheon Road, Chandlers Ford, Hampshire.*

*In order to determine potential ecological impacts of the proposals a full bat survey was completed at the property by 4Woods Ecology Ltd, during March/May 2023.*

*The survey involved a search of the loft space and building exterior, as well as the garage. The findings indicate that the property has low potential suitability for bat roosts and therefore a single dusk bat emergence survey was completed (in accordance with published bat survey guidelines). No evidence of any bat roosts has been found.*

*It is therefore considered unlikely that bats will be affected by the proposed building work. Based on current findings and assessment, an EPS 'bat' license and mitigation measures are therefore not considered necessary to allow the proposed building work to proceed in accordance with current UK legislation. However, contractors must be made fully aware that in the unlikely event any bats are incidentally discovered, work must stop immediately and further advice obtained from an ecologist.*

*Ecological enhancement measures should be included in the proposals, in accordance with current policy. It is therefore proposed that a bird box will be installed on the rear/western elevation, while a small bat box will be installed at the top of the wall on the front/eastern elevation.*

# 33 Pantheon Road Chandlers Ford, Hampshire

## Full Bat Survey

### 1.0 Introduction

#### **1.1 Background**

Planning consent is being sought to allow development of a two-storey extension to the rear (western) side of an existing dwelling at no. 33 Pantheon Rd, Chandlers Ford, Hampshire (SU448 214) (**Map 1**). The proposals involve:

- Removal of the existing conservatory to the rear;
- Removal of the existing single detached garage;
- Two-storey rear extension, extending partly along the northern side;
- Conversion of the loft, with installation of new Velux windows on the roof.

In order to provide information regarding potential ecological impacts of the proposals a bat survey was considered necessary.

4Woods Ecology Ltd was subsequently commissioned by the property owner to undertake a full bat survey of the property, to assess whether the proposals were likely to affect bats.

#### **1.2 Legislation & Policy**

##### **1.2.1 Legislation relating to Bats**

In summary, all native bat species in the UK are fully protected from harm/disturbance, and their roost sites (including access points) are protected from damage, via:

- The Wildlife & Countryside Act, 1981 (as amended) (through inclusion on Schedule 5); and
- The Conservation of Habitats and Species Regulations 2017 (as amended). (aka '*The Habitats Regulations*')

Further details of the legislative protection afforded to bats are provided at **Appendix I**.

### 1.2.2 Biodiversity Action Plans / Species of Principal Importance

Following UK devolution, the UK Post-2010 Biodiversity Framework was set up in 2012, and succeeds the previous UK BAP. This sets out the aims and activities required to achieve identified targets to halt the decline in biodiversity across the various countries that make up the UK.

Lists of Priority species and habitats were devised for the purposes of the previous UK BAP, which were identified as most threatened in the UK and required action plans to aid their recovery. These lists remain an important reference source and have been used to revise the statutory lists of priorities for England and the other countries of the UK, to allow for a country-level approach rather than UK-wide as before.

The Countryside & Rights of Way (CROW) Act, 2000 requires that Government departments have regard to the purpose of conserving biological diversity in accordance with the Biodiversity Convention 1992 and to promote the action required to further the conservation of species published on Biodiversity Action Plans (BAPs).

Further, The Natural Environment and Rural Communities (NERC) Act (2006) places a duty upon public bodies in England and Wales (including Local Planning Authorities) to have regard to the purposes of conserving biodiversity in exercising their functions. A list of 'habitats and species of principal importance for the conservation of biodiversity in England' was drawn up, as required by the NERC Act, to help guide decision-makers in this respect. The list includes all the habitats and species listed in the UK Biodiversity Action Plan as requiring action, with the addition of Hen Harrier.

Bat species of principal importance or priority species (as revised in 2012 for England) include Soprano Pipistrelle bat, Brown Long-eared Bat, Barbastelle, Bechstein's bat and Noctule.

### 1.2.3 Planning Policy

#### National Planning Policy

The Government's planning policies for England, including how the Natural Environment should be considered, are contained within the National Planning Policy Framework (NPPF), as revised most recently in July 2021 ([www.gov.uk/guidance/national-planning-policy-framework](http://www.gov.uk/guidance/national-planning-policy-framework)).

Underpinning the entirety of the NPPF is a clear presumption in favour of sustainable development.

The guidance encourages the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value.

Local planning authorities are also instructed to apply the following principles when determining a planning application:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

- b) ...opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

The Government's Planning Practice Guidance contains up to date (last updated 2021) guidance on implementing the requirements of the NPPF ([www.gov.uk/guidance/natural-environment](http://www.gov.uk/guidance/natural-environment)). The guidance states that planning authorities need to consider the potential impacts of development on protected and priority species. Natural England's standing advice on protected species provides the LPA with advice on dealing with protected species issues. The guidance states that an ecological survey will be necessary in advance of a planning application if the type and location of development could have a significant impact on biodiversity and existing information is lacking or inadequate. Even where an EIA is not needed, the guidance indicates that an ecological survey might still be appropriate, for example, where protected species may be present or where biodiverse habitats may be lost. LPAs should require ecological surveys only where clearly justified.

The ODPM Circular 06/2005 contains further administrative guidance on the application of the law relating to planning and nature conservation in England, and should be read in conjunction with the NPPF and PPG. The Circular advises that the *'presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*

It is also stated in the Circular that it is *'essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted'*. However, it is also noted that *'developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development'*.

### **Local Plan Policy**

The following policies are contained within the current Adopted Eastleigh Borough Local Plan 2016-2036 (adopted April 2022)

#### ***Policy DM11,***

#### ***Nature conservation - General Approach***

1. *The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:*

- a. protect, conserve and enhance all:*

- i. international, national and local nature conservation designations; and*
- ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links, watercourses, wetland complexes, woodland trees, and trees and hedgerows important to biodiversity and local character; and facilitate their adaptation to climate change wherever possible;*

- b. assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);*

*c. seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and*

*d. contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9).*

***Priority habitats, protected and priority species and the local ecological network***

*5. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on priority habitats, protected or priority species, or on the local ecological network unless it can be demonstrated that:*

- a. there are no alternative solutions;*
- b. the adverse effects are unavoidable;*
- c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;*
- d. there is an overall biodiversity net gain; and*
- e. if there are any residual adverse effects, the benefits of the development clearly outweigh the adverse effects on priority habitats, priority and protected species, and the local ecological network.*

***Surveys***

*8. Development will not be permitted unless it can be demonstrated that:*

- a. there have been thorough habitat and species surveys;*
- b. the great crested newt strategic survey and strategy have been considered in all developments within 500m of a great crested newt pond; and*
- c. the strategic bat trapping survey has been considered in all developments within the locality of a woodland or connected habitat networks.*

## **2.0 Methodology**

### **2.1 Desk study**

An OS map and aerial photograph of the local area were examined to assess presence of potential bat foraging/commuting habitat in the surrounding area, in order to aid overall assessment of the potential suitability for bat roosts.

The governmental website, [www.magic.defra.org.uk](http://www.magic.defra.org.uk) was searched for any information relating to previous EPS bat licenses granted for development projects within 1km of the application site.

The Eastleigh Strategic Bat Trapping Survey (Davidson-Watts, 2017) was reviewed to establish whether the proposals would have any impact on bat foraging areas identified by that survey.

In light of the survey findings and assessed potential for impact, further species records were not requested.

### **2.2 Bat Survey**

#### **2.2.1 Preliminary (Phase 1) Bat Survey/Assessment**

A daytime bat survey/assessment of the property was completed by Su Forster BSc PGDip MCIEEM (Natural England Bat class licence WML-CL18, level 2, Reg. no. 2015-13744-CLS-CLS) during 23 March 2023.

The loft space of the house and garage interior were fully searched for any evidence to indicate use by bats. This was completed using strong torchlight.

In addition, the exteriors of the house and garage were assessed for potential bat roost sites and access gaps, and any signs to indicate their use by bats. This was completed at ground level, using binoculars and strong torchlight.

Signs that might indicate the presence of a bat roost could include:

- Bat droppings – e.g. in the loft, on walls, tiles, windows, on the ground/floor below a potential access point etc;
- Dark staining at well-used roost sites or exit points;
- Urine streaking beneath a roost exit point/roost site;
- Scratch marks or worn surfaces at bat roost sites or exit points.
- Feeding remains (e.g. moth wings)

The site and surrounding areas were also generally assessed for their likely value to foraging bats to aid in the overall assessment.

An overall assessment of the potential suitability of the property for bat roosts, based on Table 4.1 of the published Bat Conservation Trust bat survey guidelines (Collins 2016), was completed, using the following suitability levels: High, Moderate, Low, Negligible (see **Appendix II**). The assigned level is then used to determine the extent of any further surveys

considered necessary, based on minimum survey effort detailed in the guidelines.

### 2.2.2 Further Dusk Bat Emergence Survey

Based on overall assessment of the potential suitability of the property for bat roosts (i.e. 'Low'), and in accordance with published bat survey guidelines (Collins, 2016), a single evening bat emergence survey was completed to monitor the building for any bat roosts that could be affected by the proposed building work. This was completed by Peter Edwards BSc (Natural England bat class license WML-CL18, level 2. Reg. no. 2015-14405-CLS-CLS) of 4Woods Ecology Ltd, during 22 May 2023.

The rear side of the building (i.e. the affected area of the building and where the few potential bat access gaps exist) was continually monitored for any emerging bats, from 15 minutes before sunset, continuing for at least 1.75 hours.

The survey was completed using heterodyne/frequency-division and heterodyne/time-expansion bat detectors (Bat Box Duet and Echo Meter Touch 2 Pro in recording mode) as an aid to detect active bats and identify species. Recordings of bat echolocation were made to allow for analysis using specialist computer software, to assist with species identification.

An infra-red camera (supplemented by additional x6 infra-red torches) was also employed to ensure no bat emergences were missed, as follows:

- Sony AX53 Camcorder (IR recording mode).

The camera was set up to view the entire rear side of the main roof and side of the garage.

The footage obtained via the infra-red video equipment was later reviewed by Peter Edwards, manually on a computer screen in the office, for any bat activity/emergences. The video was reviewed on a 17" screen, using SMPlayer software to playback at 1-2x speed (and slow speed, frame by frame, if any possible bats were observed). Any bat activity noted on the footage was compared with bat recordings on detectors and any observations made by the surveyor at that time during the survey.

A still image obtained from the infra-red recording, taken at the darkest period of each survey, are provided at **Appendix III** (as required by current guidance, BCT 2022).

Any foraging or commuting bats detected during the survey period were also noted.

Weather conditions were favourable during the survey being clear, dry and still (Beaufort 0-1), with temperatures at 17C (start) to 16C (end).

### 2.2.3 Limitations of Bat Survey

Since bats may regularly move between different roost sites (particularly to satisfy their varying requirements at different times of the year), a bat survey

often concentrates on searching for evidence to indicate that a potential roost site is used by bats at any time of the year. While such evidence (e.g. droppings) may be found within the building interior (e.g. loft space), any evidence left on external surfaces of a building may be quickly removed through weathering. This means that bats using any hidden crevices, such as beneath tiles, are likely to be missed during a daytime survey/assessment.

Dusk or dawn bat surveys are valuable to allow confirmation of the presence of any hidden bat roosts or to determine status of any bat roosts and numbers/species of bats present. However, such surveys can only provide information regarding use of a site by bats at that particular time, since bats are highly mobile and will often move between different roost sites during the year.

### **3.0 Results of Survey**

#### **3.1 Desk Study**

The property is located within a large residential estate of medium to high density development with small to moderate-sized gardens and scattered trees. In addition, street lighting is present to the front of the property and along the nearby motorway. The immediate developed surroundings therefore appear to provide relatively poor potential foraging habitat for bats.

However, a line of mature trees exists beyond the houses on the opposite side of the road (to the east), extending along the motorway. In addition, within 50m to the north is a large area of open space (school fields), with woodland and some tree lines around its margins. These areas may provide potential foraging habitat for bats in fairly close proximity to the application site.

Data obtained from [www.magic.defra.gov.uk](http://www.magic.defra.gov.uk) indicates that the following EPS 'bat' licenses have been granted for work that affects bat roosts, within 1km of the application site:

- 2016 licensed granted, 640m to the north, affecting resting places of Common Pipistrelle & Soprano Pipistrelle;
- 2012 license granted, 791m to the north-east, affecting breeding and/or resting places of Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared Bat and Natterer's Bat. Located at Allbrook (area with high quality bat foraging habitat);
- 2017 license granted, 908m to the north-east, affecting resting places of Common Pipistrelle, Soprano Pipistrelle and Brown Long-eared Bat. Located in Otterbourne (areas of higher quality bat foraging habitat);
- 2021 license granted, 985m to the west, affecting resting place of Soprano Pipistrelle.

## 3.2 Results of Bat Survey

### 3.2.1 Description of Building / Assessment of Bat Roost Potential

The property is a two-storey, detached brick dwelling, built in the 1970s. A small garden is present to the rear, with a detached flat-roofed garage.

#### Main House

The modern two-storey, detached house has brick cavity walls which are in good condition. Over part of the front wall is an area of plain hanging tiles, which are all tightly-fitting, with no gaps.

Windows and doors have uPVC frames, with no gaps.

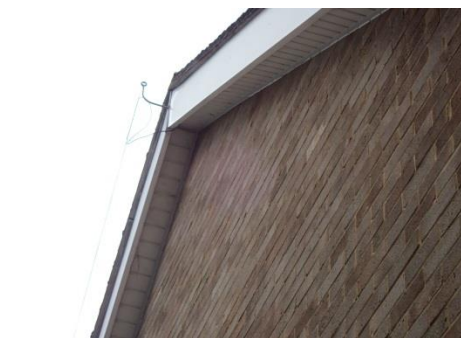
The pitched roof has a covering of plain concrete tiles. Roof tiles are tightly-fitting with additional moss between tiles blocking any possible gap that could be present. To the rear possible gaps exist around the chimney together with x3 small gaps between tiles towards the lower northern edge, only. Ridge tiles and tiling at the roof verges are all well sealed. uPVC soffits exist at the eaves and gables, which were found to be well sealed.



*Rear side of house – tightly-fitting  
Roof tiles, with the odd small gap*



*Tightly-fitting uPVC soffits on all sides*



*Side gable with tightly-fitting soffits &  
Sealed roof verge*



*Front elevation with small area of  
tightly-fitting hanging tiles*

A separate loft space exists over the house, measuring around 2.5m tall. It is uncluttered (i.e. a cut-roof structure) but is well used for storage. Bitumen underfelt exists beneath the roof tiling, with very occasional holes only. Significant quantities of cobwebs were noted along the ridge and at the

gables. Expanding foam is present around the top of the brick chimney, blocking any possible gaps.

#### **Garage**

The detached single brick garage has a flat felt roof. The interior is well used for storage. A timber ceiling is present, with no gaps around the edges. No potential access gaps were noted around the exterior except for gaps behind the fascia board which could be closely examined by torch.

### **3.2.2 Evidence of Bat Roosts**

No evidence of bats was found within the loft space of the house.

No evidence of bats was found within the garage interior.

No evidence of bats was found on the exterior of the house or garage.

### **3.2.3 Results of Dusk Bat Emergence Survey**

No bats were observed emerging from the property or garage, or flying from the property, throughout the dusk bat emergence survey (either by the surveyor on site, or on recorded IR camera footage).

Bats were occasionally observed flying past the rear side of the property, foraging over the combined garden areas of the neighbourhood. Bat species recorded during the survey included:

- Common Pipistrelle – representing the vast majority of bat activity.
- Soprano Pipistrelle
- Noctule \*
- Leislars (one pass recorded)\*
- Serotine\*

(\* likely flying high over the general locality. Not observed within the survey area)

## **4.0 Discussion**

### **4.1 Interpretation of Findings**

The findings indicate that the property has low potential suitability for bat roosts due to the presence of a very few minor gaps, which could possibly be accessed by bats, located in a built up area with poor quality foraging habitat in the immediate surroundings.

The additional dusk bat emergence survey completed at the property confirms a likely absence of any bat roosts at the property. However, small numbers of bats occur in the local area and therefore future presence of bats at the property cannot be ruled out entirely (as is the case for almost any building). It is unlikely that the proposed extension will affect bat foraging activity over the local neighbourhood.

The application site is distant from the important bat foraging areas identified in the Eastleigh Strategic Bat Trapping Survey (IDW Ecology Ltd, 2017).

### **4.2 Impact Assessment**

Based on current findings, it is considered unlikely that bats would be affected by the proposed building work.

### **4.3 Legal Considerations**

In summary, bats are legally protected from disturbance/harm and their roost sites (including access points) are legally protected from damage (**Appendix I**). If the proposed work is reasonably likely to result in such impacts (i.e. result in an offence), a licence can be obtained from Natural England (subject to certain conditions) to allow the proposed work to proceed lawfully.

Based on present findings and assessment of the potential for impact, a license is **not** considered necessary to allow the proposed building work to proceed.

However, note that it is rarely possible to rule out future presence of bats entirely at any building. Consequently, the contractors should be made aware that in the unlikely event any bats are incidentally discovered, work must stop immediately and further advice obtained from an ecologist, to ensure compliance with the legislation.

### **4.4 Recommendations**

#### **4.4.1 Mitigation**

In light of the survey findings and impact assessment, no bat mitigation measures are considered necessary. In the unlikely event that any bats are incidentally discovered, work should stop immediately and further advice obtained from an ecologist.

#### **4.4.2 Ecological Enhancement**

Opportunities for providing some form of ecological enhancement should be proposed, in accordance with planning policy. The following enhancement is therefore proposed, appropriate to the scale of the proposals and small site:

- Installation of a general bird box on the rear/western elevation of the house;
- Installation of a small bat box on the front/eastern elevation of the property.

## **5.0 Conclusions**

A bat survey/assessment of no. 33 Pantheon Road (completed March 2023) indicates that the property has a *low potential suitability for bat roosts* to occur, and as such a single dusk bat emergence survey was completed (in accordance with bat survey guidelines – Collins, 2016). The full survey results indicate that it is unlikely any bat roosts occur at the property and therefore bats are unlikely to be affected by the proposed building work.

As a result, an EPS license is not considered necessary to allow the proposed building work to be completed and bat mitigation measures are not considered necessary. However, given the limitations of the survey, contractors should be made fully aware of the need to stop work if any bats are incidentally discovered, and advice obtained from the ecologist.

In accordance with current planning policy, ecological enhancement measures will be included within the proposals appropriate to the scale of proposed development and the small site. This will include installation of:

- a general bird nest box on the rear elevation; and
- a small bat box on the front of the property (located at the top of the wall, away from windows and avoiding locations above doorways).

## **6.0 References**

Bat Conservation Trust (BCT) (2022). *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys* (BCT, May 2022). [Interim-guidance-note-on-NVAs-May-2022-FINAL.pdf \(bats.org.uk\)](https://bats.org.uk/interim-guidance-note-on-nv-as-may-2022-final.pdf)

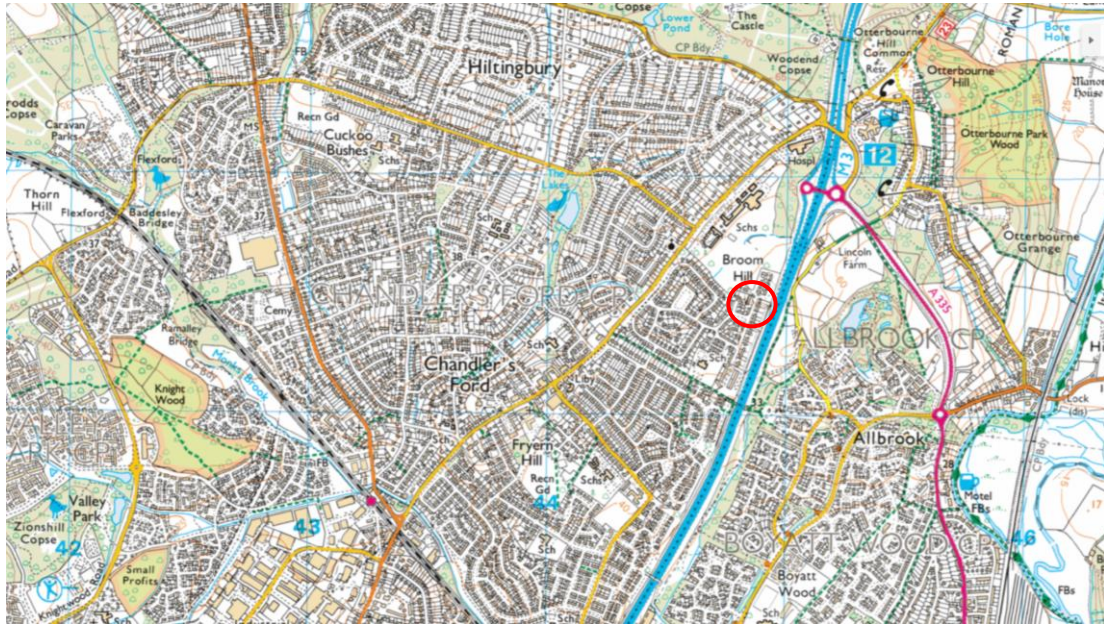
Collins, J (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

Davidson-Watts, I (2017). *Strategic Eastleigh Site: Bat Trapping & Radio-tracking Baseline Report and Evaluation, August 2017*. Survey report produced on behalf of The HighWood Group and Drew Smith Group. WYG Environment Planning Transport Ltd. Unpubl.

Mitchell-Jones (2004). *Bat Mitigation Guidelines*. English Nature. Peterborough.

### 33 Pantheon Road, Chandlers Ford, Hampshire

#### Map 1 – site location



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## **Appendix I**

### **LEGISLATION RELATING TO BATS**

All native species of bat in the UK are afforded full legal protection via:

- The Wildlife & Countryside Act, 1981 (as amended) (through inclusion on Schedule 5);
- The Conservation of Habitats and Species Regulations 2017 (as amended).

In summary, these legislative instruments make it an offence, with certain exceptions, to carry out the following:

- Damage/destroy a bat roost (breeding site or resting place);
- Deliberately kill, injure or capture bats;
- Deliberately disturb bats (whether in a roost or not);
- Intentionally or recklessly disturb bats while they are occupying a bat roost.
- Intentionally or recklessly obstruct bat access to a roost site.

A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to reuse the same roost sites, legal opinion is that a bat roost is protected whether or not the bats are present at the time.

Under The Conservation of Habitats and Species Regulations 2017, with respect to the *deliberate disturbance* offence, the legislation states that in particular this would be any disturbance which is likely –

- a) to impair their ability -
  - (i) to survive, to breed or reproduce, or to rear/nurture their young; or
  - (ii) to hibernate or migrate; or
- (b) to affect significantly the local distribution or abundance of that species.

The Wildlife & Countryside Act, 1981 (as amended) retains defences in law, in particular where *'the act was an incidental result of a lawful operation and could not reasonably have been avoided'*.

Also, under this legislation it is a defence to a charge of disturbing a Schedule 5 species if the action took place within a dwelling-house. This defence cannot be relied on, except in the living-area of a dwelling-house, unless Natural England have been notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and, if so, the method to be used

*(For full details and exact wording of the legislation refer to: The Habitats and Species Regulations 2017(as amended) and The Wildlife & Countryside Act 1981(as amended)).*

### ***Licences for development-related Activities***

Where a lawful operation (e.g. development work which has full planning permission) is required to be carried out but which is likely to result in an offence under the Habitats Regulations 2017 (as amended), a licence may be obtained from Natural England to allow the operation to proceed. However, in accordance with the requirements of the Regulations, a licence can only be issued where the following requirements are satisfied:

- The proposal is necessary *'to preserve 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'*;
- *'There is no satisfactory alternative'*;
- The proposals *'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'*.

Full planning permission is required to apply for a licence (where such a consent is necessary for the work to be carried out). In addition, a method statement which details the survey results, methodology of work to be undertaken, mitigation and compensation measures, must be submitted to Natural England with the licence application.

For those situations where a low impact is predicted, an application can be made to use the Bat Mitigation Class Licence (BLICL), subject to meeting the required criteria.

### ***Bats which are Incidentally Discovered During Works***

Where a satisfactory survey has resulted in no evidence of bats being found so that a licence is not deemed necessary, and bats are then incidentally discovered during building work, it is essential that work stops immediately and further advice is obtained from an ecologist/bat worker. An assessment should then be completed to determine whether the work could proceed without committing an offence. A licence should be applied for if it is not possible to avoid committing an offence.

## Appendix II

**TABLE 4.1 OF BAT SURVEY GUIDELINES (COLLINS, 2016)**  
**Assessment of potential suitability of a site for bats**

| Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitability                                                                                                                                                                                                      | Description<br>Roosting habitats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Commuting and foraging habitats                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Negligible                                                                                                                                                                                                       | Negligible habitat features on site likely to be used by roosting bats.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Negligible habitat features on site likely to be used by commuting or foraging bats.                                                                                                                                                                                                                                                                                                                                                                                                      |
| Low                                                                                                                                                                                                              | <p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions<sup>a</sup> and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation<sup>b</sup>).</p> <p>A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.<sup>c</sup></p> | <p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>                                                                                                          |
| Moderate                                                                                                                                                                                                         | A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).                                                                                                                                                                      | <p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>                                                                                                                                                                                    |
| High                                                                                                                                                                                                             | A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions <sup>a</sup> and surrounding habitat.                                                                                                                                                                                                                                                                                                     | <p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p> |

<sup>a</sup> For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

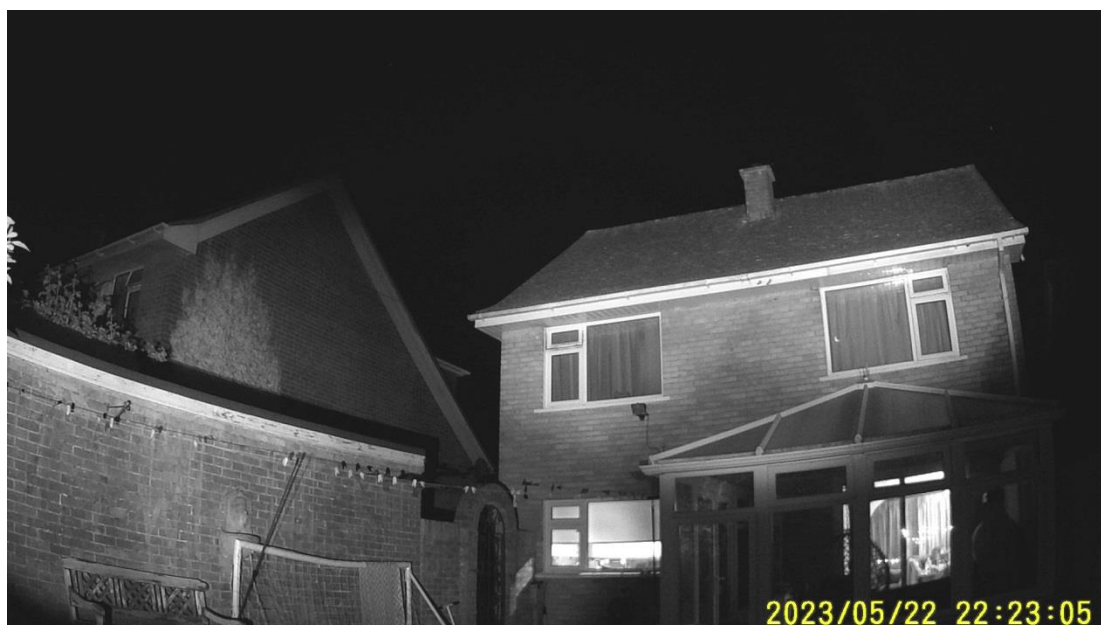
<sup>b</sup> Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.

<sup>c</sup> This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

### Appendix III

#### **STILL IMAGE OF IR CAMERA FOOTAGE DURING DUSK SURVEY**

*(taken during the darkest period of the survey,  
as required by BCT Interim Guidance 2022)*



**22/5/23** – Rear/Western elevation of House & southern elevation of garage: Sony AX53 Camcorder (IR recording mode), plus x6 Night Fox XB5 infra-red torches