

Internal /External Bat Survey

30 Barton Road,

Market Bosworth



Client

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1.0. Introduction

A residential bungalow building constructed in the 1960's, was subject to a pre-determinative bat survey at 30 Barton Road, Market Bosworth, CV13 0LQ. This constitutes a survey in relation to the potential for presence of bat and bird species and roost sites, in relation to a planning proposal, for demolition of the building, refer to planning application for full details. The brief of the survey was as follows;

- An External/Internal evaluation of the buildings for utilization signs by bat and bird species.
- To determine whether any buildings and trees within the site had potential for use by bats for roosting or as a place of shelter, with consequent implication for development work with respect to Schedule 5 of the *Wildlife and Countryside Act 1981 and the conservation (Natural Habitats &c.) Regulations (and subsequent amendments)*.
- To determine the presence of any roosts within the site.
- To determine any use of the buildings concerned by bird species
- To make an overall assessment of the value of the site as foraging, feeding and commuting areas.
- To make recommendations for the development work to take place including any mitigation/compensation required.

1.1. Background

Bats and the Law

Prior to August 2007, all bat species in the UK were fully protected under the *Wildlife and Countryside Act 1981* (as amended) through an inclusion in Schedule 5. The amendment of the *Conservation (Natural Habitats) Regulations 1994*, in August 2007 now is the regulatory protection mechanism. In addition there are obligations within the *Conservation of Species and Habitat Regulations (2010)*, revised 2017 and *National Planning Policy Framework (2019)* which replaced the former *Planning Policy Statement 9 (PPS 9)*.

In England, Scotland, Wales and Ireland all bat species are fully protected by the Conservation (Natural Habitats, &c.) Regulations, which defines 'European protected species of animals' (EPS). This gives protection to bats and their roosts.

The Regulations have slightly different amendments in the different countries.

Under the regulations it is an offence to-

- a) Deliberately or recklessly to capture, injure, or kill a EPS.
- b) Deliberately or recklessly –
 - i. To harass a wild animal or group of wild animals of a EPS.
 - ii. To disturb while it is occupying a place of shelter (roosts).
 - iii. To disturb while it is rearing its young or caring for its young.
 - iv. To obstruct access to a breeding site or resting place, or otherwise deny the animal use of that site or resting place.
 - v. To disturb a EPS in a manner that is, or circumstances which are likely to significantly affect the local distribution or abundance of the species.
 - vi. To disturb a EPS in a manner that is, or circumstances which are likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for young.

In this interpretation, a bat roost is “any structure or place which any bat uses for shelter or protection”. As bats tend to reuse the same roosts, legal opinion is that the roost is protected whether or not the bats are present at the time.

Planning and Development

All British bat species and their roosts are protected under the Wildlife and Countryside Act 1981, through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2.

The Act and Regulations include provisions making it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats.
- Damage, destroy or obstruct access to a roost.

Local Planning Authorities consult the Government's guidance notes, National Planning Policy Framework (2019) and the Conservation of Species Habitat Regulations (2010), updated 2017 in England, and equivalents in Scotland and Wales, before making a planning decision where there may be protected species on a site. The presence of a protected species should be a material consideration when considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat. If bats use the site, appropriate Statutory Nature Conservation Organization (English Nature, Scottish Natural Heritage or the Countryside Council for Wales) must be consulted before any work is carried out. Where necessary, a bat expert should visit and assess the site.

If planning permission is being sought from the local authority, any observations of bats should be reported to them and they can be reminded of their obligations within the National Planning Policy Framework (2021). The presence of bats will rarely prevent the general approval of a development, although it may be possible to incorporate mitigation to maintain habitats for bats.

Developers need to be aware that:

- Assessment of current use, likely effects and mitigation or habitat enhancement should be incorporated into development proposals at an early stage.
- Where changes in land use could affect bats, the implications to bats should be considered and advice sought.
- When considering planning applications, authorities are required to take account of protected species, including all bats, and their habitats.

Bat feeding habitats can be some distance from their roost sites, therefore, bats seen in flight may roost nearby or some miles away. Bats use a range of sites for roosting, including buildings and trees. Signs of roosts, which are visible from the outside, include bats emerging from the roost (timing varies from before sunset to up to about an hour after) and bat droppings on surfaces near emergence points.

1.2. Site Location

30 Barton road, Market Bosworth, Nuneaton CV13 0LQ.

All parts of the site and buildings were available for access. The site is shown below.



(c) Google maps 2023.

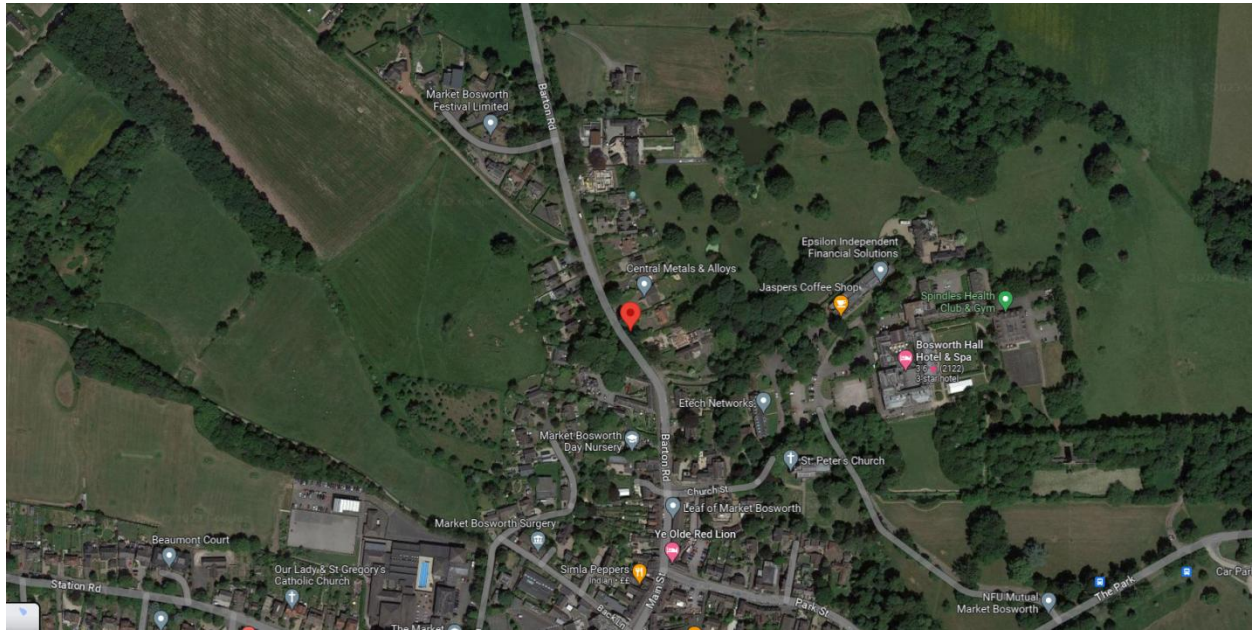


1.3. General Site Description and Status

The site comprises a 1960's bungalow, constructed of brick with a pitched clay tile roof. The building has a dry filled cavity wall, and it has UPVC clad soffits, windows and doors. There is a single storey rear extension, also constructed of brick with a pitched clay tile roof with a glass linkway. There is an enclosed loft space and the roof is lined with bitumen felt. To the side is an open carport.

1.3.1. Immediate Surrounding Area and wider Landscape Context in Relation to Bats

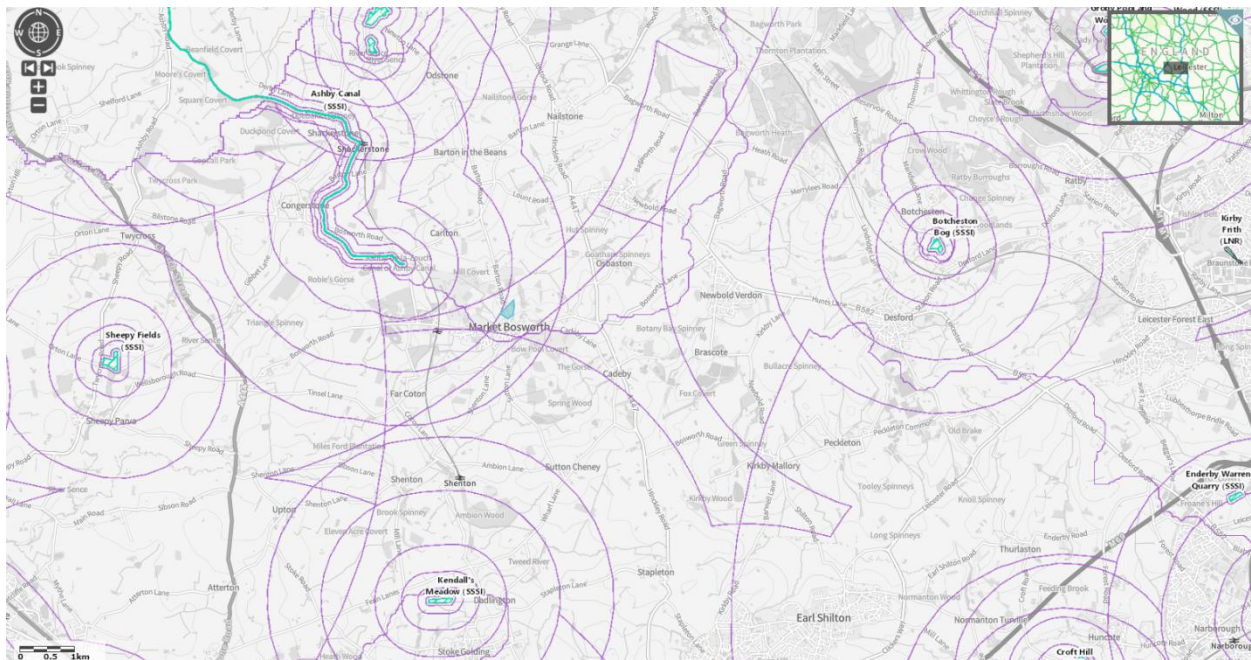
The site is located in a residential area on the northern outskirts of Market Bosworth. The character is of large detached houses with conjoined gardens. There are mature trees and open green-spaces within the vicinity of the site, with low intensity agricultural land surrounding the housing. The surrounding landscape represents good quality bat foraging and roosting habitats. See satellite image below.



(c) Google maps 2022.

Statutory Protected Nature Conservation Sites in Vicinity

These include Sites of Special Scientific Interest, National and Local Nature Reserves, Special Areas of Concern. The nearest statutory protected site is the Ashby Canal SSSI which lies 2km southwest of the site. A Natural England 'Magic' data search (shown below) reveals that the site lies within a Nitrate Sensitive Zone, these factors should be considered within any development on the site. See below:



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1.4. Bat Ecology (a Summary)

Where do bats build roosts?

Different species of bat prefer different places; some creep into tiny spaces, cracks and crevices. Only occasionally do they hang free or are easily visible.

Outside they may roost:

- Under weather boarding or hanging tiles
- Above soffits and behind fascia and barge boarding
- Between window frame and wall brickwork
- In gaps behind cladding tiles or wood
- Between underfelt and boards or tiles
- Inside cavity walls

Inside roof spaces they may roost

- Along the ridge beam
- Around the gable end
- Around the chimney breast

Looking for the evidence

Bats do not make nests or cause structural damage. The most obvious sign of their presence is droppings.

- Bat droppings consist largely of insect remains and crumble easily between your fingers to a powder of semi-shiny fragments.
- Rodent droppings are smooth and plastic, quickly becoming hard. They cannot be crumbled.
- Bat droppings do not present any known health hazards.
- Droppings may not always be readily visible in a loft.
- Large accumulations may reflect use over a number of years rather than large numbers of bats at any one time.

When do bats use buildings?

Bats use buildings at any time, but are most often found in houses between May and August.

- Mother bats have only one baby a year, suckling it for several weeks. The mothers gather in maternity roosts to have their young in summer, and this is the time they are most likely to be seen using buildings.
- The bats move away when the young can fly and feed themselves, and have usually left by September.
- Immature individuals, adult males and non-breeding females will occupy a variety of roosts, individually or in small groups, at any time of year.
- Disturbance or the use of chemicals at maternity roosts in houses can have a major impact on bat populations gathered from a wide area.
- Bats do roost in houses in winter, usually individually, but are difficult to see.

Which bats use buildings?

All UK species have been recorded in houses, but some very rarely. Pipistrelles and Long-eared bats are the species most usually found.

Pipistrelle bats

There are three different species of Pipistrelle; the common Pipistrelle, Soprano Pipistrelle and the rarer Nathusius' Pipistrelle. They sometimes use houses as maternity roosts, choosing confined spaces. These are usually on the outside of buildings, such as under the soffits or behind barge boards or hanging tiles, where the bats can rarely be seen.

Brown long-eared bats

This species mostly prefers older houses with large roof spaces. Small clusters may be seen at junctions of roof timbers or under the ridge. It is the bat most frequently seen inside lofts, small numbers may stay longer than the other species.

See plans below, it is understood to involve demolition and construction of new residential premises. Refer to Planning Application for full details and see plans below:

AS EXISTING - 30 Barton Road, Market Bosworth, CV13 0LQ



PROPOSED:



1.6 Bat Species Records

In relation to bat species the following were recorded from freely available web-based data (and in places, the authors own records) presented here with the approximate distances of the nearest record. In addition, a number of Ecological survey reports within the area have been interrogated for protected species records. All records are post-2020 unless otherwise stated.

Species (Latin Name)	Common Name	Approximate distance of nearest record from the survey site (km)
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Within 1 km
<i>Plecotus auritus</i>	Brown long-eared bat	Within 1 km
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	Within 1 km
<i>Myotis daubentonii</i>	Daubenton's Bat	Within 1 km
<i>Nyctalus noctula</i>	Noctule Bat	Within 1 km

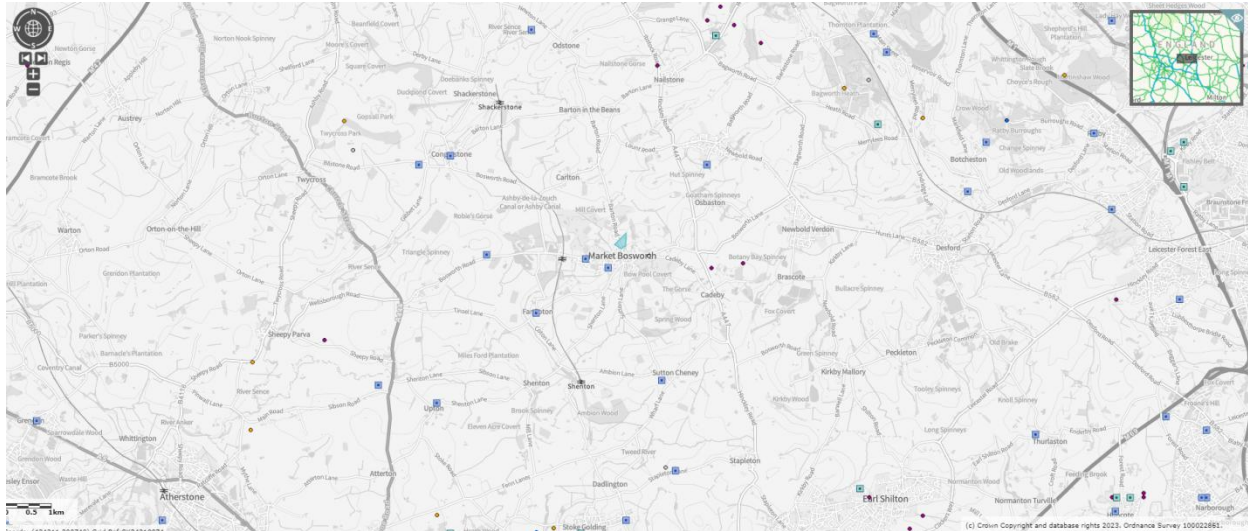
Other Species of Interest

Species (Latin Name)	Common Name	Approximate distance of nearest record from the survey site (km)
<i>Triturus cristatus</i>	Great Crest Newt	Within 1 km
<i>Anguis fragilis</i>	Slow-worm	Within 1 km
<i>Natrix helvetica</i>	Grass Snake	Within 1 km
<i>Bufo bufo</i>	Common Toad	Within 1 km
<i>Lissotriton vulgaris</i>	Smooth Newt	Within 1 km
<i>Rana temporaria</i>	Common Frog	Within 1 km

<i>Meles meles</i>	Badger	Within 1 km
<i>Lutra lutra</i>	Otter	Within 1 km
<i>Lepus europaeus</i>	Brown hare	Within 1 km

European Protected Species Licence Applications

Data on European Protected Species Licenses granted in the local area, reveals that licenses have been issued within 1 km of the site for one species of bat.



There are five species of bat recorded within 1 km of the site. Great Crested Newts are recorded within 1km.

Interpretation of available biological data.

There are no designated sites on or directly adjacent to the site. The development is unlikely to impact on those at further distances.

In terms of protected species, five European protected bat species are found within 1 km of the site. Great Crested Newts are also found within 1 km. The majority of the reptile and amphibian records in the vicinity of the site are associated with Market Bosworth Country Park.

2.0. Methodology

The survey consisted of two elements:

- A day-time visual external assessment of the buildings and their potential in relation to use by bats as roosts.
- A day-time visual internal assessment of the buildings and their potential in relation to use by bats as roosts

2.1. Personnel

The survey was conducted by Dr Louise Sutherland MIALE and Dr. Stefan Bodnar MCIEEM, an experienced ecologist with over 15 years experience of bat surveys.

2.2. Visual External Assessment

The external building inspection (from the ground using binoculars) focused particularly on roof areas, soffits, areas of wall with cracks and apertures, window surrounds and the overall structure of the buildings including any features such as crevices or cavities that may be suitable for bats to roost in. Evidence of roosting such as droppings or staining around entrances was also recorded. Where appropriate gaps and cavities were checked using an endoscope. The date of site visit was 4th July 2023.

Methods of survey used have been based on those outlined in Joint Nature Conservation Committee's Bat Workers Manual (Mitchell-Jones & McLeish, 2004), The Good Survey Guidelines, BCT (2016), and English Nature's Bat Mitigation Guidelines (Mitchell-Jones, 2004).

2.3. Visual Internal Assessment

The internal roof space of the building concerned was inspected using ladders to gain access to the loft space. The interior spaces present within the building, that bats might access were fully surveyed, and suitable features checked with an endoscope. The date of site visit was 4th July 2023.

3.0. Results

3.1. External and Internal Visual Assessment

The assessment was carried out using the guidance provided within the publication: **Bat Surveys for Professional Ecologists (3rd Edition), BCT (2016)**, which states:

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 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	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 ^a 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 ^b). 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. ^c	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. 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.
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 ^a 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).	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. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
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 ^a and surrounding habitat.	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. 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. Site is close to and connected to known roosts.

^a For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

^b 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.

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

The site comprises a 1960's bungalow, constructed of brick with a pitched clay tile roof. The building has a dry filled cavity wall, and it has UPVC clad soffits, windows and doors. There is a single storey rear extension, also constructed of brick with a pitched clay tile roof with a glass rear linkway. There is an enclosed loft space and the roof is lined with bitumen felt. To the side is an open carport.

The building is well maintained and in good condition. There are no missing roof tiles or gaps in the soffits, doors, windows or walls which bats could use for access.

The loft space was examined. It is insulated and partially boarded, the loft is lined with bitumen felt. There are no signs of bats or birds using it, no droppings, scratching or staining.

Overall Assessment:

After inspection no signs of bats, birds or other mammals were found. After inspection the buildings were categorised as negligible access potential and negligible bat roost potential. No further bat surveys are recommended.

However, any on-site external lighting should be carefully chosen to ensure it is low lux, cowled (directed downwards to prevent light splay), and used on timers or motion sensors to minimize the impact on local bat populations.

See images Appendix 1

3.2 Birds

There are no signs of birds on or in the building.

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4.0. Conclusions

- The survey determined that the building has negligible bat access potential, and negligible roost opportunities for bats.
- No further bat surveys are recommended.
- There are no signs of birds on or in the building.

5.0. Mitigation/Compensation

In relation to the National Planning Framework (2021) there is not likely to be requirement for Mitigation/ Compensation measures for loss of bird or bat roost opportunity. However, as a basic biodiversity enhancement, a minimum of one hole nesting bird box and one bat box are recommended to be incorporated into the structure of the new building itself, or if this is not possible, wooden boxes should be located on the outside of the building post development.

Guidelines for locating Bird boxes;

- Do place the nest box facing north, north-east.
- Do leave a clear flight path in and out of the nest box.
- Do locate near a tree or shrub in which the parent can land and check the coast is clear before entering the nest box.
- Do leave an active nest box alone and keep noise and disturbance to a minimum.
- Do keep putting bird food and fresh water out for the busy parents.
- Don't expose the nest box to direct midday or afternoon sunshine.
- Don't point the hole or open side of the nest box to westerly winds.
- Don't add pegs or perches on the front of nest boxes which can be used by predators.

General species guidelines;

Species	Height	Requirements
Blackbirds	1-2 m from ground	Good front and side visibility & quiet spot
Robins	1m from ground	Like deep undergrowth or low hollows in trees and therefore like a nest box low to the ground, with a fully open front.
Starlings	Under the eaves of houses	Require holes about 45mm diameter.
House Sparrows	Under the eaves of houses.	Are communal nesters, preferring to make nests close to one another. Require holes about 32-34mm diameter. You can also purchase nest boxes for sparrows
Great tits	Height of 4-6 m.	Nest box with a hole 28-32mm diameter
Blue tits	Between 2-4 m high.	nest box with a hole about 25-26mm diameter

Guidelines for locating Bat boxes;

- Bat boxes should be put as high as possible to try and avoid predation from cats on the ground or nearby structures, between 12 to 20 feet above ground.
- On buildings, boxes should be placed as close to the eaves as possible.
- Bats use dark tree lines or hedgerows for navigation, so putting boxes near these features could help bats find the box.
- Bat houses should be mounted facing either East or South.
- Bat houses should be mounted in an area that gets 6-8 hours of direct sunlight.

Procedures for emergencies: Protected species

Note 1: If bats are discovered at any time during processes involved with the development, work should cease immediately and the advice of a licensed ecologist sought.

6.0. References

Bats in Roofs. A guide for surveyors. English Nature, Peterborough, Mitchell-Jones, A.J. (2004).

Bat Mitigation Guidelines. English Nature, Peterborough, Mitchell-Jones, A.J.& Mcleish, A.P. (Eds)(2004).

Bat workers Manual, 3rd Edn. Joint Nature Conservation committee, Peterborough.

Bat Survey guidelines (2016), Bat Conservation Trust

APPENDIX 1: SITE IMAGES































