



BAT ROOST ASSESSMENT

14 SOUTHERN ROAD, WEST END, SOUTHAMPTON, SO30 3ER

FINAL REPORT

June 2023

Report conditions

<i>Report title</i>	Bat Roost Assessment – 14 Southern Road, West End	
<i>Client</i>	Mark and Rhoda Peckham	
<i>Report status</i>	Final	
<i>Survey date</i>	7 th December 2022 and May 2023	
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Executive Summary

- This bat roost assessment report has been prepared in order to support a planning application for the proposed extensions and roof replacement on the existing house, and demolition of the existing garage followed by construction of a replacement garage at 14 Southern Road, West End, Southampton.
- A preliminary roost assessment survey was undertaken on the 7th December 2022.
- The preliminary roost assessment confirmed the presence of moderate suitability roosting features on the roofs of the house, and low suitability roosting features on the garage. There was no evidence of bat activity recorded within accessible internal spaces.
- In order to confirm the presence/absence of further roosting bats, characterise any bat roosts, assess the extent that they may be affected by the proposed works and develop a proportionate and appropriate mitigation strategy, further survey work in accordance with Natural England standing advice and the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) was required. The recommended survey effort for structures with moderate roost suitability is two presence/absence surveys and low roost suitability is one presence/absence survey.
- Two presence/absence surveys comprising dusk emergence surveys were undertaken during May 2023.
- No bats were recorded roosting on site during the surveys.
- As such, there is considered to be no reasonable likelihood that bats will be present and affected by the proposed works.
- No further survey work is required.
- Provided the recommendations set out in section 5 are followed, the planning authority can be confident that the development would accord with relevant planning policy, legislation and caselaw.

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1. Introduction

1.1 Report purpose

This report presents the findings of the bat roost assessment undertaken of the house and garage at 14 Southern Road, West End, Southampton (central grid reference: SU 47008 14070).

1.2 Description of proposal

The current proposals are for two-storey extensions to the north-western and south-western elevations of the existing house as well as a replacement roof, and the demolition of the existing garage and a construction of a replacement garage.

1.3 Report context

N & J Design Ltd have prepared a planning application on behalf of Mark and Rhoda Peckham (the Applicants) for proposed works at 14 Southern Road, West End, Southampton. Phillips Ecology have been instructed by the Applicants to undertake an ecological assessment to support this application, which has been submitted to the Eastleigh Borough Council.

1.4 Survey area

The survey area comprised house, garage, and their immediate surrounds.

1.5 Limitations

No limitations were encountered throughout the duration of the survey.

1.6 Relevant documents

The relevant proposal plan used to inform this assessment is presented in Appendix 1.

2. Survey Methodology

2.1 Preliminary Bat Roost Assessment Methodology

2.1.1 Surveyor/s

The survey was carried out by Katy Goddard and Connor Hill of Phillips Ecology.

2.1.2 Survey area

The survey area comprised the house, garage and their immediate surrounds which will be modified by the proposed works. The survey area extended to all areas of the property that will be modified by the proposed works in such a way that bats or their roosts could be impacted (directly or indirectly). Therefore, the survey included the entirety of the structures.

2.1.3 Survey date

The survey was carried out during the daytime on the 7th December 2022.

2.1.4 Survey description

The survey did not depart from the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) which states that "A preliminary roost inspection survey is a detailed inspection of the exterior and interior of a structure to look for features that bats could use for entry/exit and roosting and to search for signs of bats".

The external features of the structures which will be modified by the proposed works in such a way that bats or their roosts could be impacted (directly or indirectly) if present, were systematically inspected in detail to compile information on potential and actual bat access points and roosting places such as lifted or broken roof materials, loose brickwork and open eaves. This included a thorough search for evidence of bat activity such as bat droppings, urine splashes and fur staining.

The interiors of the buildings were inspected, where possible, in order to identify potential or actual access points and roosting places and to record any evidence of bat activity or bats themselves.

2.1.5 Survey equipment

Survey equipment comprised:

- High-powered torch
- Ladders
- Camera
- Binoculars

2.1.6 Weather conditions

Weather during the survey can be described as: dry, 10% cloud cover, still and 5°C. The weather conditions did not hinder the ecologist's ability to carry out the survey effectively.

2.1.7 Assessment methodology

The suitability of the buildings for supporting bat roosts will be assessed against the guidelines within Table 1 which have been adapted from the BCT Good Practice Guidelines.

Table 1 Suitability assessment guidelines

Suitability	Description of Roosting Habitats
<i>Negligible</i>	Structure has no reasonable likelihood of supporting roosting bats i.e. no suitable roosting features present.
<i>Low</i>	A structure which could be used opportunistically by individual bats i.e. one or more potential roost sites which do not provide sufficient space, shelter, protection, appropriate conditions (e.g. temperature, light, humidity) and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.
<i>Moderate</i>	A structure which could be used by bats but is not likely to support a roost of high conservation status (e.g. maternity roost). This structure would support features which exhibit suitable size, shelter, protection, conditions and surrounding habitat for roosting bats.
<i>High</i>	A structure which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time.

2.2 Emergence Survey Methodology

2.2.1 Surveyor/s

The surveys were led by Richard Codlin a Level 2 (CL18) licenced bat surveyor and Connor Hill and supported by suitably experienced bat surveyors Ellie Gallop and Tommy Saunders.

2.2.2 Survey area

The survey area comprised all elevations of the house and the north-eastern elevation of the garage. This enabled survey coverage of all suitable access/egress and roosting features which were recorded during the preliminary bat roost assessment and will be affected by the proposal.

2.2.3 Survey date

The date and timings of the emergence and re-entry surveys are presented in Table 2. The emergence surveys commenced 15 minutes prior to sunset and continued for at least 1.5 hours.

Table 2 survey dates and timings

Survey type	Date	Start	Finish	Sunset/sunrise
<i>Emergence</i>	04/05/2023	20:16	22:01	20:31
<i>Re-entry</i>	22/05/2023	03:38	05:23	05:08

2.2.4 *Survey description*

The emergence and re-entry surveys were undertaken in accordance Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Two surveyors were positioned in order to provide sufficient coverage of all potential access/egress points when stationary. All emergences, re-entries and general activity were recorded during the course of each survey. Recordings were later analysed using Sonobat bat call analysis software to confirm species identification.

2.2.5 *Survey limitations*

No limitations were encountered during the course of the surveys.

2.2.6 *Survey equipment*

Survey equipment comprised:

- Wildlife Acoustics EMT 2 Pro
- Pettersson D240X and Edirol
- Elekon Batlogger M detector.
- Canon camera and IR illuminators

2.2.7 *Weather conditions*

Weather conditions during the surveys are provided in Table 3:

Table 3 emergence and re-entry weather conditions

Survey	Date	Precipitation		Temperature		Wind		Cloud Cover	
		<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>
<i>Emergence</i>	04/05/2023	Nil	Nil	14.0°C	10.0°C	Bf 0	Bf 0	100%	70%
<i>Re-entry</i>	22/05/2023	Nil	Nil	11.0°C	10.0°C	Bf 0	Bf 0	100%	100%

3. Survey results

3.1 Preliminary Bat Roost Assessment

3.1.1 Building description relevant to bats and their roosts

The application site supports two structures: the house and garage.

The house

The house comprises a brick-built two-storey structure which rises to a pitched and hipped design roof clad with machine cut clay roof, ridge and hip tiles (Figure 1). The house is oriented southwest to northeast. A bay window is present on the south-eastern elevation and a wooden framed porch extends from the south-western elevation, both are clad with clay roof and hip tiles (Figure 2). The roof extends beyond the wall plate and the eaves are enclosed with wooden underboards and fascia boards which closely adjoin to uPVC guttering. A brick-built chimney extends from the south-western roof face and is surrounded by lead flashing at the base. A lean-to roof extends from the north-eastern elevation of the house and adjoins to the south-western elevation of the garage (Figure 3). The windows and doors are set in metal frames with wooden sills and are tight fitting to the surrounding brickwork. The south-eastern elevation supports a *Wisteria* sp. plant.

Internally, the building supports a single roof void which is lined with heavy-duty bitumen felt. The void supports fibreglass insulation, including up to the eaves, and the floor is boarded (Figure 4). There is heavy cobwebbing present throughout the void.



Figure 1 – south-eastern and south-western elevations of the house



Figure 2 – south-western and north-western elevations of house with wooden framed porch



Figure 3 – lean-to roof on north-eastern elevation



Figure 4 – roof void with boarded floor

An account of suitable access/egress features and recorded evidence of bat activity is given in table 2.

Table 4 – Recorded features and activity for the house

Suitability	Evidence
Exterior The following suitable access/egress and roosting features were recorded externally during the survey: - Lifted roof tiles on the main roof, bay window and porch (Figure 5). - Missing mortar under hip and ridge tiles (Figure 6). - Gaps in chimney brickwork.	No evidence of roosting activity was recorded externally during the survey.
Interior No suitable access/egress and roosting features were recorded internally during the survey.	No evidence of roosting activity was recorded internally during the survey.



Figure 5 – lifted hip tiles on porch



Figure 6 – missing mortar under ridge and hip tiles on main roof

The garage

The garage comprises a brick-built structure which rises to a pitched and hipped design roof clad with machine cut clay roof, ridge and hip tiles (Figure 7). The garage is oriented southeast to northwest. A flat roof extension clad with polycarbonate sheets, protrudes from the south-eastern elevation (Figure 8). The roof extends beyond the wall plate and the eaves are enclosed with wooden underboards and fascia boards which closely adjoin to uPVC guttering. A set of wooden double doors are present on the south-eastern elevation and a single wooden door is located on the north-western elevation. The windows and doors are set in metal and wooden frames and are tight fitting to the surrounding brickwork.

Internally, the garage does not support a roof void. The roof is lined with heavy-duty bitumen felt (Figure 9). The space is predominantly used for storage with heavy cobwebbing throughout.



Figure 7 – south-eastern and south-western elevations of the garage with double doors



Figure 8 – north-west and north-eastern elevations of the garage with extension



Figure 9 – internal view of the garage roof

An account of suitable access/egress features and recorded evidence of bat activity is given in table 3.

Table 3 – Recorded features and activity for the garage

<i>Suitability</i>	<i>Evidence</i>
<i>Exterior</i>	The following suitable access/egress and roosting features were recorded externally during the survey: - Lifted roof tiles (Figure 10) No evidence of roosting activity was recorded externally during the survey.
<i>Interior</i>	No suitable access/egress and roosting features were recorded internally during the survey. No evidence of roosting activity was recorded internally during the survey.



Figure 10 – lifted roof tiles on north-eastern roof face

3.1.2 *Site grounds description relevant to bats*

The immediate surrounds of the buildings comprise hard-standing, managed lawns, mature trees, ornamental planting and hedgerows. Beyond this, West End is characterised by residential dwellings with associated gardens, Telegraph Woods to the southeast and services. In this context, the habitats within the footprint of the proposal are considered suitable for foraging and commuting bats and given their location within a landscape which is also suitable for commuting and foraging bats, it is likely that bats will commute and forage through the site.

3.2 **Emergence and Re-entry Surveys**

3.3.1 *Visit 1 - 4th May 2023 – Emergence Survey*

During the course of the emergence survey carried out on the 4th May 2023, no bats were recorded emerging from the house or garage. The first recorded bat comprised a common pipistrelle *Pipistrellus pipistrellus* which was recorded foraging off site at 20:30. At 20:38, a common pipistrelle was recorded as it commuted from north to south over the house. A single common pipistrelle foraged south to north around the house at 20:51. Following this, several recordings of common pipistrelle bats foraging off site were noted at 21:25, 21:47 and 21:50. The last recorded bat comprised a common pipistrelle which foraged north to south past the house at 21:59.

3.3.2 *Visit 2 – 22nd May 2023 – Re-entry Survey*

During the course of the re-entry survey carried out on the 22nd May 2023, no bats were recorded re-entering the house or garage. The first recorded bat comprised a common pipistrelle which was recorded foraging off site at 03:54. A single common pipistrelle bat was then recorded foraging over the roof of the house at 03:57 and 03:59. At 04:26 and 04:38, a common pipistrelle was recorded foraging within the neighbours garden, before commuting through the site at 04:39. At 04:42, two common pipistrelle bats were recorded commuting north-east to south-west to the north of the house and garage. These were the last recorded bats during the survey.

3.3 **Other protected species**

During the survey, no evidence of breeding birds or other protected species were recorded.

4. Discussion and Assessment of Impacts

4.1 Bat roost assessment and potential impacts

A summary of the preliminary assessment of roost suitability for the buildings on site in view of the criteria set out in Table 1 is given in Table 4 below.

Table 4 – Summary assessment of suitability

Building reference	Assessment of suitability	Suitability category
House	The roofs and chimney of the house, including the roofs of the bay window and porch, support a number of suitable external access/egress and roosting features.	Roofs: moderate
	The external elevations and internal habitable space of the house do not support any roosting suitability for bats.	Elevations and internal habitable space: negligible
Garage	Some suitable roosting features were recorded. No evidence of roosting activity was recorded.	Low

While the house roof void itself does not support roosting suitability due to a lack of access, the condition of the void impacts the condition of the potential roosts on the roof, therefore the void is included within the moderate suitability category. Regarding the garage, as there is no roof void, any alterations to the structure could impact the potential roosts on the roof, therefore the entire structure is included within the low suitability category.

On the basis that the roofs of the house were considered to support moderate suitability for roosting bats and the garage support was considered to support low suitability for roosting bats, there was considered to be a reasonable likelihood that bats would be present and affected by the proposed works which will impact the features detailed in Table 2 and 3.

However, no bats were recorded emerging from the house or garage during the emergence and re-entry surveys carried out during May 2023.

As such, there is considered to be no reasonable likelihood that bats will be present and affected by the proposed works.

The application site supports a small number of foraging and commuting common pipistrelle bats. Increasing lighting could impact this behaviour which would indirectly impact roosts.

4.2 Relevant legislation and policy

Circular 06/2005 identifies that applicants should not be required to provide information on protected species unless there is a reasonable likelihood that they will be present and affected by the proposed development. The site is considered to support habitats with suitability and potential for protected species and these may be affected by the proposed development. Therefore, the proposal triggers 'reasonable likelihood' under the Circular.

The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (commonly referred to as the Habitats Regulations) may apply should protected species be confirmed on site.

In the case that a European protected species is found to be present and impacted by the proposal, the local planning authority will be required to engage with the Habitat Regulations. Permission will be granted unless:

- a) the development is likely to result in a breach of the Habitat Regulations, and
- b) is unlikely to be granted an EPS licence from Natural England to allow the development to proceed under a derogation from the law (under licence).

When considering whether Natural England would not be unlikely to grant a licence for the identified impact, the local planning authority must consider the three tests which are set out in the Habitat Regulations:

1. the consented operation must be for 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'; (Regulation 53(2)(e))
2. there must be 'no satisfactory alternative' (Regulation 53(9)(a)); and
3. the action authorised 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range' (Regulation 53(9)(b)).

Case-law (Morge vs. Hampshire County Council) has clarified that planning authorities are able to grant permission for developments that would cause a breach of the Regulations is likely (i.e. in the case of this proposal, destruction of a bat roost), provided that sufficient information is provided to give the planning authority assurance that the relevant EPSM licence is not unlikely to be granted - i.e. planning authorities also have a duty to assess planning applications against these tests.

5. Recommendations

5.1 Requirement for further surveys

Where there is a reasonable likelihood that a protected species will be present and impacted by the proposed development, planning authorities require further surveys to properly assess development proposals against relevant planning policy. An assessment into the requirement for further surveys is presented below, however in summary, all further surveys considered necessary have been undertaken.

5.1.1 Bats

In order to provide robust confirmation on the presence and status of bat roosts and the extent that they may be affected by the proposed development as required by Circular 06/2005, further survey work in accordance with Natural England's standing advice and the BCT Good Practice Guidelines was required.

In accordance with these guidelines, further survey effort took the form of two presence/absence surveys undertaken during the bat active season. No further surveys in respect of roosting bats are considered necessary.

The affected areas of habitat surrounding the property are not of significant value as a foraging or commuting resource. Therefore, further survey is considered unnecessary for understanding impacts on foraging and commuting bats beyond the presence/absence surveys, subject to the proposed sensitive lighting scheme set out below.

5.2 Mitigation strategy

5.2.1 Bats

In order to limit any effects on foraging and commuting bats, external lighting should be limited to only that which is absolutely necessary for safety purposes, both during the construction phase and once the proposals are complete. The following lighting measures are required:

- Construction works between March and October should be undertaken during daylight hours only to avoid disturbance to bats that may forage and commute through or near the site.
- Lighting to the completed house and garage should be as low brightness as possible, kept at a low level and directed away from all structures and boundaries. Lighting on sensors should not be so sensitive that foraging bats trigger them.

All lighting must follow the Bat Conservation Trusts and Institute of Lighting Professionals guidance on bats and artificial lighting (BCT, 2018).

5.3 Enhancements

The delivery of biodiversity enhancement on development sites is promoted by the National Planning Policy Framework (NPPF), Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006.

Where opportunities exist it is best practice to provide enhancement features which encourage greater biodiversity within development sites in accordance with the NPPF and the Local Planning Authority's responsibilities under the NERC Act.

Opportunities for enhancement which are proportionate to the scale of the development include:

- The provision of new bat roosting opportunities, in the form of two bat boxes within the site. These should be installed as high as possible, at least 3m above ground, in a sheltered position on the completed dwelling.
- the provision of new bird nesting opportunities in the form of two swift boxes within the site. These should be installed on a northern elevation of the completed dwelling, provided it is well shaded, and at least 5m above ground.

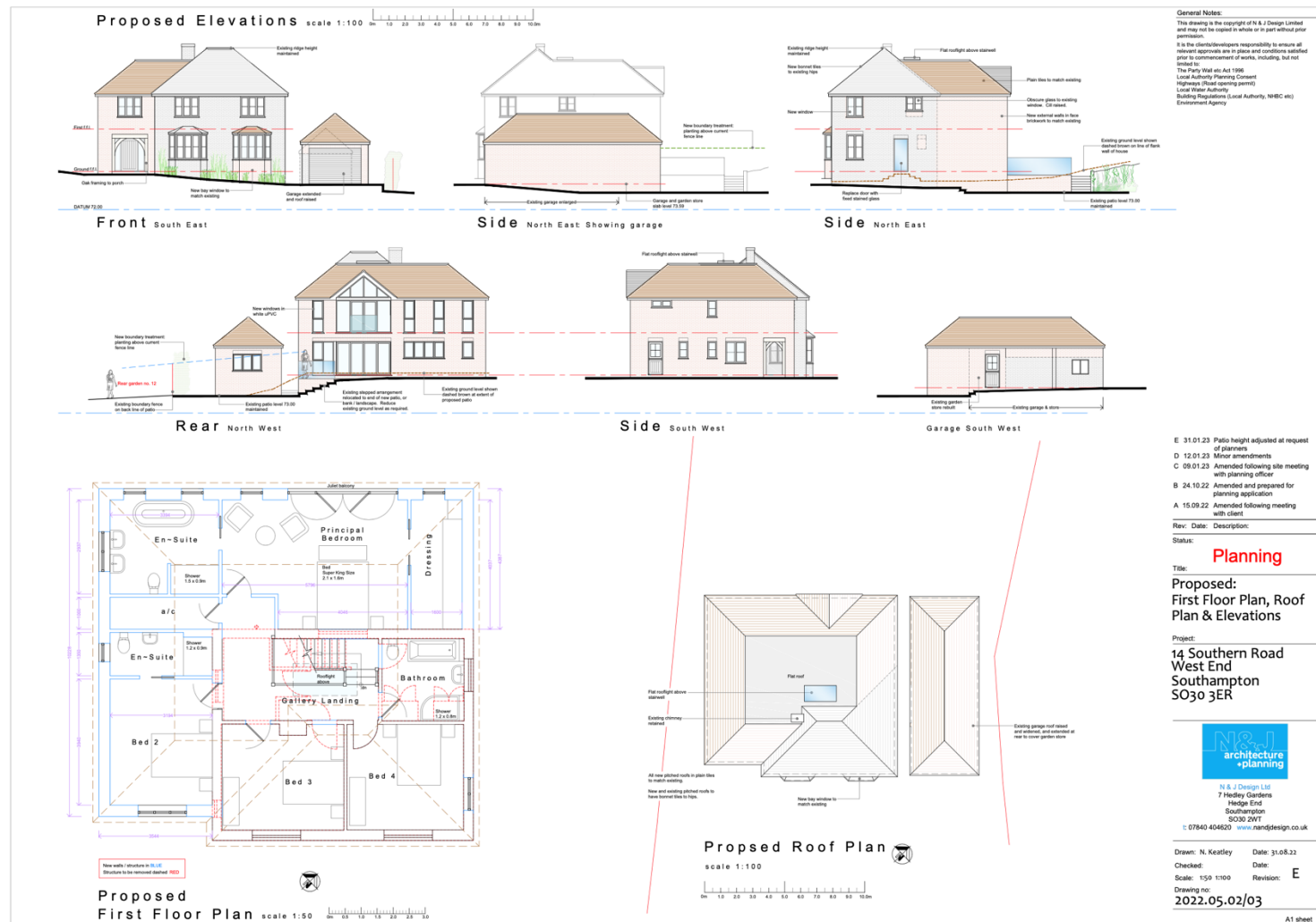
6. Conclusion

The preliminary roost assessment confirmed that the garage supports low suitability for roosting bats and the roofs of the house support moderate suitability. Therefore, further survey effort was recommended to confirm the presence/absence of roosts, characterise any bat roost/s, assess the extent bats may be affected by the proposed works and devise an appropriate mitigation strategy to support the proposed works and address any breaches in the legislation. In accordance with Natural England standing advice and BCT Good Practice Guidelines, two and one presence/absence surveys for the house and garage were undertaken during May 2023, respectively. These have confirmed that the house and garage do not support roosting bats. As such, no mitigation is considered necessary. Opportunities for ecological enhancement in the form of bat and bird boxes have been suggested for the site.

7. References

- **Altringham J D, 2003**, British Bats, Collins New Naturalist
- **Bat Conservation Trust, 2016**, BCT Bat Survey Guidelines Third edition
- **Bat Conservation Trust, 2018**, Guidance Note 08/18, Bats and artificial lighting in the UK, Bats and the Built Environment Series. BCT, London.
- **Chartered Institute of Ecology and Environmental Management, 2017**, *Guidelines for Preliminary Ecological Appraisal*. CIEEM, Winchester
- **ILP and BCT, 2018** *Bats and Artificial Lighting in the UK: Guidance Note 08/18*. ILP, Warwickshire.
- **MHCLG, 2018**. *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government; London.
- **Mitchell Jones AJ, 2004**, *Bat Mitigation guidelines*, English Nature
- **Mitchell Jones AJ and McLeish A P, The Bat Workers Manual**, JNCC
- **Natural Environment and Rural Communities Act 2006**, Ch 3, s. 40
- **Natural England, 2011** Frequently asked wildlife questions: Bats. Natural England

Appendix 1 – Proposal plan





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