



BAT ROOST ASSESSMENT

13 WAVERLEY AVENUE, NETLEY ABBEY, SOUTHAMPTON, SO31 5AR.

FINAL REPORT

August 2023

Report conditions

<i>Report title</i>	Bat Roost Assessment – 13 Waverley Avenue, Netley Abbey	
<i>Client</i>	Mr & Mrs Steaggles	
<i>Report status</i>	Final	
<i>Survey date</i>	27 th March 2023	
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<i>Reviewed by</i>	Izabel Phillips	<i>Date</i> 13/04/2023
<i>Updated by</i>	Izabel Phillips	<i>Date</i> 07/08/2023

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Executive Summary

- This bat roost assessment report has been prepared in order to support a planning application for the proposed loft conversion and construction of a single-storey extension to the existing dwelling following the removal of the existing conservatory, at 13 Waverley Avenue, Netley Abbey.
- The proposed work comprises the removal of the conservatory to be replaced with a single-storey extension on a similar footprint and a loft conversion.
- A preliminary roost assessment survey was undertaken on the 27th March 2023.
- The preliminary roost assessment confirmed the presence of high suitability roosting features on the house, including gaps under the lead flashing surrounding a chimney, gaps at the eaves and lifted tiles. Evidence of activity was recorded in the form of approximately forty long-eared bat type droppings in one concentrated area and also scattered throughout the building's roof void. The features and evidence recorded are associated with the roof of the house and Stage 2 of the proposed works.
- No features or evidence were identified in proximity of the conservatory and in relation to Stage 1 of the proposed works.
- In order to confirm the presence/absence of further roosting bats, characterise 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 undertaken for the roof of the house. The recommended survey effort for structures with high roost suitability is three presence/absence surveys.
- Three presence/absence surveys comprising dusk emergence and dawn re-entry surveys were carried out during May and July 2023.
- The surveys have confirmed that the house supports the brown long-eared bat roost only and that the roost in question is a transitional roost. No further bat roosts were recorded during the surveys.
- The proposed loft conversion of the house will result in the destruction of the identified brown long-eared bat transitional roost. As such, a European Protected Species Mitigation (EPSM) licence will be required to enable the development to proceed lawfully under a derogation from the Habitat Regulations 2017. The site falls within the remit of the Bat Mitigation Class Licence.
- A mitigation strategy has been designed that would ensure the maintenance of the favourable conservation status of bats. In summary, this comprises the provision of replacement roost opportunities which are proportionate to the scale of impact and the removal of roost features by hand, under the supervision of a licenced bat worker to ensure that individual bats are not killed or injured.

- 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.
- Information regarding the length of time the findings of this report are valid for can be found in section 5.1.

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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 conservatory at 13 Waverley Avenue, Netley Abbey (central grid reference: SU 46355 08422).

1.2 Description of proposal

The current proposal is for the demolition of the existing conservatory and construction of a single-storey replacement extension on a similar footprint, a loft conversion involving the removal of an unsupported chimney stack and the installation of a dormer window and roof lights, and refenestration.

1.3 Report context

GM Architects have prepared a planning application on behalf of Mr and Mrs Steaggles (the Applicants) for the proposed works to the house at 13 Waverley Avenue, Netley Abbey. Phillips Ecology have been instructed by the Applicants to undertake an ecological assessment to support the application, which has been submitted to Eastleigh Borough Council.

1.4 Survey area

The survey area comprised the existing house and its immediate surrounds.

1.5 Limitations

No limitations were encountered during the course 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 Sarah Perryman of Phillips Ecology.

2.1.2 Survey area

The survey area comprised the roof of the house and the conservatory at 13 Waverley Avenue. 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 27th March 2023.

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 structure 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 interior of the building was inspected 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, 90% cloud cover, no breeze and 8°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 building 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 and Re-entry Survey Methodology

2.2.1 Surveyor/s

The surveys were led by Katy Goddard, Connor Hill and Richard Codlin and supported by suitably experienced bat surveyors Peter Clark, Frankie Hart and Tommy Saunders.

2.2.2 Survey area

The survey area comprised all elevations of the house. 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 dates

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

Table 2 survey dates and timings

Survey type	Date	Start	Finish	Sunset/sunrise
<i>Emergence</i>	29/05/2023	20:45	22:36	21:06
<i>Re-entry</i>	17/07/2023	03:56	05:51	05:26
<i>Emergence</i>	31/07/2023	20:38	22:23	20:53

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). Three 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
- Sony FDR-AX53 (nightshot mode)
- Infrared 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>	29/05/2023	Nil	Nil	14.0°C	12.0°C	Bf 3	Bf 2	15%	10%
<i>Re-entry</i>	17/07/2023	Nil	Nil	14.0°C	14.0°C	Bf 0	Bf 0	40%	10%
<i>Emergence</i>	31/07/2023	Nil	Nil	17.0°C	16.0°C	Bf 2	Bf 2	100%	80%

3. Survey results

3.1 Preliminary Bat Roost Assessment

3.1.1 *Building description relevant to bats and their roosts*

The house comprises a two-storey brick-built semi-detached structure which rises to a pitched, half-hipped and gable end design roof, which is clad with concrete interlocking roof and ridge tiles (Figure 1). The rear area is under a mono-pitched roof against the ridge parapet. The house is oriented south-west to north-east; the half-hipped section comprises the westernmost section of the house, with the gable end extending north-east from the rear. The roof extends beyond the wall plate and the eaves are enclosed with uPVC soffit boxes on the front elevation, and a mix of uPVC and wooden fascia boards and barge boards on the rear and side elevations (Figure 2). The eaves are formed from the ends of rafters just beyond the wall plate. The front section of roof supports two brick-built chimneys with lead flashing, one each extending from the south-western and north-eastern roof faces. A ground floor hipped porch and bay window are present to the front with windows set in wooden or uPVC frames. To the rear, the two-storey section creates a gable end with the neighboring property with a raised roof line composed of brick and concrete. The easternmost ridge supports one chimney stack which is unsupported and to be removed (Figure 3). A wooden framed conservatory set on a brick plinth with glass roofing sheets extends from the south-eastern elevation of the house (see Figure 3). Lead flashing covers the joins between the conservatory and the house.

Internally, the house comprises a single roof void. The void floor is insulated with fibreglass insulation and the roof is lined with heavy-duty bitumen felt (Figure 4). The void is not boarded and supports moderate cobwebbing throughout as well as an abandoned wasp nest.



Figure 1 – south-western elevation of house



Figure 2 – south-eastern elevation of the house



Figure 3 – north-eastern elevation, also showing the conservatory at side elevation.



Figure 4 – internal view of the roof void, facing south-west.

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

Table 4 – The recorded features and activity

Suitability	Evidence
Exterior The following suitable access/egress and roosting features were recorded externally during the survey: - Missing mortar under front ridge tile. (Figure 5). - Lifted roof tiles, including behind front chimney. - Lifted flashing around easternmost chimney. - Missing mortar in brickwork. - Gaps between soffits and brickwork (Figure 6).	The following evidence of activity was recorded externally during the survey: - Possible fur staining at the entrance to a gap between the soffit boxes and brickwork on the south-eastern elevation.
Interior The following suitable access/egress and roosting features were recorded internally during the survey: - Light visible at the eaves, indicating potential gaps. - Gaps in brickwork, mainly around chimney breast. - Exposed beams and loose lining.	The following evidence of activity was recorded internally during the survey: - Approximately 40 long-eared bat type droppings under front left hip (Figure 7).



Figure 5 – missing mortar under front ridge tile.



Figure 6 – lifted soffits at back corner section.



Figure 7 – concentration of long-eared bat type droppings under the front hip in the south-west corner in the roof void.

3.1.2 Site grounds

The immediate surrounds of the building comprise hard-standing, a non-native hedgerow, mature garden, greenhouse and garden shed. Beyond this, the landscape is characterised by two pockets of broadleaved woodland within 130 meters and 250 meters, scattered trees and further residential properties and gardens. In this context, the habitats within the footprint of the proposal are considered to be 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 Surveys

3.2.1 Visit 1 - 29th May 2023 – Emergence Survey

During the course of the emergence survey carried out on the 29th May 2023, no bats were recorded emerging from the house. The first recorded bat comprised a soprano pipistrelle *Pipistrellus pygmaeus* bat which commuted west to east over the property at 21:23. The next recorded bat was a common pipistrelle *Pipistrellus pipistrellus* bat which foraged off site at 22:08. No further activity was recorded during the course of the survey.

3.2.2 *Visit 2 – 17th July 2023 – Re-entry Survey*

During the course of the re-entry survey carried out on the 17th July 2023, no bats were recorded re-entering the house. The first recorded bat comprised a common pipistrelle which was recorded foraging past the northern elevation of the adjacent property at 04:41. At 04:45 a single common pipistrelle bat was recorded commuting towards the dormer window of the adjacent property. No further activity was recorded during the course of the survey.

3.2.3 *Visit 3 – 31st July 2023 – Emergence Survey*

During the course of the emergence survey carried out on the 31st July 2023, no bats were recorded emerging from the house. The first recorded bat comprised a common pipistrelle which was recorded off site at 20:59. At 21:19, a common pipistrelle commuted past the south-eastern elevation of the house. At 21:22 and 21:25 a single common pipistrelle bat was recorded foraging off site. No further activity was recorded during the course of the survey.

3.3 **Other protected species**

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

4. Discussion and Assessment of Impacts

4.1 Bat roost assessment

The preliminary roost assessment confirmed that the house supports high roost suitability i.e. a structure which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time. The features and evidence recorded were all associated with the eaves and roof of the house, and therefore Stage 2 of the works.

On the basis that the house, from eaves upwards, supports high suitability for roosting bats, there was considered to be a reasonable likelihood that bats would be present and affected by the proposed Stage 2 works which will impact the features detailed in Table 2.

The phase 2 surveys have confirmed that the house supports a brown long-eared bat transitional roost (confirmed during the preliminary roost assessment) and no further roosts (no bats were recorded emerging or re-entering during the activity surveys).

The bat mitigation guidelines identify that summer (non-maternity) roosts used by individuals / small numbers of more widespread species such as the species recorded within the house are of low conservation status.

The application site supports a small number of common pipistrelle and soprano pipistrelle foraging bats and commuting brown long-eared bats leaving or returning to roost. Increasing lighting could impact this behaviour which would indirectly impact roosts.

The Stage 1 conservatory and extension works are not expected to have a direct impact on the potential roosts due to the distance from the eaves of the house.

4.2 Assessment of impacts

The brown long-eared bat transitional roost will be lost to the proposed loft conversion works. This work would potentially cause the killing, injury or disturbance to any bats present within the roost when the works are undertaken.

The assessment of the roost characteristics, the nature of the development and the conservation status of the roost that will be impacted by the proposed development has informed a strategy to avoid, mitigate and compensate for the identified impacts.

The application site is considered to support commuting bats leaving or returning to roost and a small number of foraging bats which utilise the site as a compartment of their wider foraging resource. Increasing lighting could impact this behaviour which would indirectly impact roosts.

4.3 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.

It is important that planning decisions are informed by current ecological survey data. Due to this, there is a limited time frame that phase 1 and phase 2 surveys are valid before becoming outdated. This time frame can vary depending on any changes in project circumstances or plans but it is generally considered that phase 1 ecological surveys are valid for a period of 18 months (CIEEM, 2019). Projects that take place over periods longer than 18 months might be required to carry out further ecological surveys to ensure planning authorities have the necessary up-to-date information to make well informed, evidence-based decisions.

5.1.1 Bats

In order to provide robust confirmation of the status of bat roosts at the site and the extent that they may be affected by the proposed works as required by Circular 06/2005, further survey work in accordance with Natural England standing advice and the BCT Good Practice Guidelines was required for the house. This same survey work will be used to inform the third test of the Habitat Regulations and licence application.

In accordance with these guidelines, further survey effort took the form of dusk emergence and dawn re-entry presence/absence surveys undertaken during the bat active season.

The proposal will not result in the loss of any adjacent habitat. Therefore, further survey work is considered unnecessary for understanding impacts on foraging and commuting bats beyond the presence/absence surveys undertaken, subject to precautionary avoidance measures including a sensitive lighting scheme. No further surveys are considered necessary for Stage 1 of the works.

5.2 Mitigation strategy

5.2.1 Licensing

As this work will result in the destruction of the identified bat roost, an EPSM licence will need to be obtained from Natural England before the proposed works commence. A licence can be applied for once consent has been obtained for the proposed works. Provided the development can pass the three 'derogation' tests discussed above Natural England will grant the relevant licence to allow the developer to legally carry out the work that would otherwise be illegal – i.e. to destroy a bat roost and disturb / take bats. The site falls within the remit of the Bat Mitigation Class Licence.

5.2.2 *Destructive search mitigation strategy*

- The destructive search will be carried out during the active season i.e. April to late-October. A toolbox talk will be given to contractors prior to the roof tile stripping works commencing. The toolbox talk will provide an introduction to the legal protection afforded to bats, the status of bats at the site including likely species and roosting locations, evidence to look out for and the protocol which will be followed if a roosting bat is identified. Appropriate signage will be provided and displayed on site to inform contractors of the required protocol when working where a bat roost has been recorded.
- The destructive search works will be led by a licensed bat worker, accompanied by construction contractors. There will be no disturbance of identified roost features without the supervision of a bat worker. This is because during the proposed tile stripping period bats, if present, bats may be very difficult to locate and easily be overlooked by contractors.
- Immediately prior to the tile stripping works commencing, inspections of the loft will be carried out by a licensed bat worker, using an endoscope where required, to check for the presence of roosting bats. Any bats encountered and accessible will immediately be transferred to a holding bag before being placed within the previously erected bat box within the site grounds.
- Following this, the roof tiles and roof membrane will be carefully removed by/under the supervision of the licensed bat worker using hand tools. The works will be carried out from a suitably erected scaffold or mobile elevated work platform.
- Any bats which are found during the destructive search works will be captured by the licenced bat worker with the use of thin gloves or a hand net. The bat will immediately be transferred to a holding bag before being placed within the previously erected bat box within the site grounds. Any injured bats will immediately be taken into care.
- Once the licensed bat worker is satisfied that the roosts have been safely removed, the contractors can complete the renovation works.
- If a bat is found during unsupervised works, all works will cease and the supervising bat worker will be contacted immediately.

5.2.3 *Provision of new roosting sites*

One Schwegler 2F bat box or similar will be installed within the site. This will provide a temporary alternative roost site whilst the proposed extension and conversion works are undertaken and will be retained as enhancement post development.

The completed house will support roost features which replicate existing characteristics and are proportionate to the roost which will be lost. The roof will be constructed using similar materials. As such, by undertaking simple modifications it will be possible to replicate existing roost conditions. The proposed features will comprise:

- Modified ridge tiles - A roosting void beneath two ridge tiles will be created on the re-roofed property. Access to the void will be created by leaving a gap in the mortar line below the ridge tiles. A batten measuring at least 20mm high by 50mm long will be inserted into the wet mortar and removed in order to create a gap of sufficient size.
- Traditional roof membrane - modern breathable membranes can be extremely harmful to bats, causing them to become entangled and die, while the bats make the membrane ineffective as they damage it. Traditional bitumen membrane should be used instead. Natural England will refuse bat licence applications where modern breathable membranes are proposed. See <https://www.bats.org.uk/our-work/buildings-planning-and-development/non-bitumen-coated-roofing-membranes> for more information on the current research into this.

5.2.4 *Advisory notes:*

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 development should be as low brightness as possible, kept at a low level and directed away from all 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.

Options for enhancing biodiversity within the site post-development which are proportionate to the scale of the development include:

- The provision of new bat roosting opportunities in the form two bat boxes. These should be installed as high as possible, at least 3m above ground either on the house or mature trees within the wider site.
- The provision of bird nesting opportunities in the form of two swift boxes installed at least 5m above ground under the eaves of the house.

6. Conclusion

The preliminary roost assessment confirmed that the house supports high suitability for roosting bats. Therefore, further survey effort was recommended to confirm the presence/absence of further roosts, characterise any bat roost/s, assess the extent bats may be affected by the Stage 2 loft conversion works and devise an appropriate mitigation strategy to support the proposed redevelopment and address any breaches in the legislation. In accordance with Natural England standing advice and BCT Good Practice Guidelines, three presence/absence surveys for the house were undertaken during May and July 2023.

This survey work has confirmed that the house supports a brown long-eared bat transitional roost.

The proposals will result in the loss of the identified bat roost and as such a Natural England EPSM licence will be required in order for the proposed conversion works to proceed. A mitigation strategy has been designed that would provide alternative roosting opportunities within the proposal which are proportional to the scale of impact. The mitigation strategy also sets out recommended timings and methods.

No further surveys are considered necessary prior to the Stage 1 conservatory and extension works.

Opportunities for ecological enhancement 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

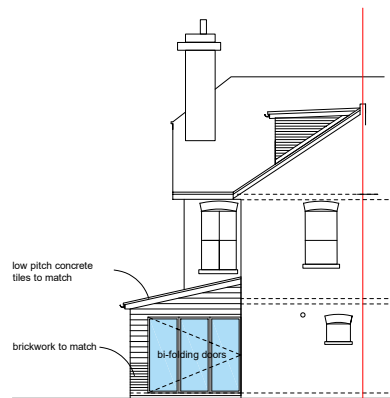
Appendix 1 – Proposal plan



Front Elevation



Side Elevation



Rear Elevation

General Specification

External Walls:
Brickwork to match existing.
Horizontal boarding as indicated on drawings.
Doors & Windows:
White Upvc windows & doors.
Doors to be level access to all new openings.
Roof:
Concrete interlocking to match existing.
Lead roof to new garret style dormer.
Gutters & Downpipes.
Black upvc gutters & downpipes.

scale 1:100

0 1 2 3 4 5 M

GM Architects		
Tel: +44 (0) 7825346084 Email: gregmann2008@yahoo.co.uk		
Client/Project Mr & Mrs Steaggles 13 Waverley Avenue, Netley		
Drawing Title Proposed Details 3		
Date 22.09.2022	Drawn By GM	Scale 1:100
Drawing Status PLANNING		
Drawing No. 06151 00.04		Rev -



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