



BAT ROOST ASSESSMENT

39 VERDON AVENUE, HAMBLE-LE-RICE, SOUTHAMPTON, SO31 4HW

FINAL REPORT

July 2023

Report conditions

<i>Report title</i>	Bat Roost Assessment – 39 Verdon Avenue, Hamble-le-Rice	
<i>Client</i>	Lewis Crowley	
<i>Report status</i>	Final	
<i>Survey date</i>	13 th February 2023, 7 th June 2023 and 23 rd June 2023	
<i>Written by</i>	Connor Hill	<i>Date</i> 23/02/2023
<i>Reviewed by</i>	Izabel Phillips	<i>Date</i> 27/02/2023
<i>Updated by</i>	Izabel Phillips	<i>Date</i> 19/07/2023

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Executive Summary

- This bat roost assessment report has been prepared in order to support a planning application for the proposed construction of one single and one two-storey rear extension at 39 Verdon Avenue, Hamble-le-Rice.
- A preliminary roost assessment survey was undertaken on the 13th February 2023.
- The preliminary roost assessment confirmed the presence of moderate suitability roosting features on the house including gaps under the roof tiles and missing mortar under the ridge and hip tiles. No evidence of activity was recorded during the survey.
- In order to confirm the presence/absence of 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 required for the house. The recommended survey effort for structures with moderate roost suitability is two presence/absence surveys.
- Two presence/absence surveys comprising dusk emergence and re-entry surveys were undertaken during June 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.
- With the implementation of precautionary construction avoidance measures, impacts on designated sites and other protected species will be avoided.
- Information regarding the length of time the findings from this report are valid for can be found in section 13.
- 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 at 39 Verdon Avenue, Hamble-le-Rice (central grid reference: SU 47572 07294).

1.2 Description of proposal

The current proposal is for the construction of a single and two-storey double pitched and hipped rear extension and the addition of weatherboarding to the front elevation of the house.

1.3 Report context

Rosenthal Architectural have prepared a planning application on behalf of Lewis Crowley (the Applicant) for proposed works at 39 Verdon Avenue, Hamble-le-Rice. Phillips Ecology have been instructed by the Applicant to undertake an ecological assessment to support this application, which is to be submitted to Eastleigh Borough Council.

1.4 Survey area

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

1.5 Limitations

Due to the time of year the preliminary survey was conducted (winter), the probability of observing exterior evidence of bat activity was greatly reduced due to it being the hibernation period for bats and inclement weather conditions. In addition, prior to the preliminary survey, the interior of the property including the ceiling below the loft void had been stripped. This meant that it was not possible to complete a comprehensive inspection of the interior areas of the building for evidence of bat activity, however, any undisturbed areas were inspected. Despite these limitations it is still considered that a robust assessment of the building's suitability for supporting roosting bats has been undertaken.

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 Izabel Phillips and Connor Hill of Phillips Ecology.

2.1.2 Survey area

The survey area comprised the house at 39 Verdon Avenue, and its immediate surrounds which will be modified by the proposed extension and alteration works. The survey area extended to all areas of the house 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 structure.

2.1.3 Survey date

The survey was carried out during the daytime on the 13th February 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, 100% cloud cover, still and 10°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

<i>Suitability</i>	<i>Description of Roosting Habitats</i>
<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 Connor Hill and Richard Codlin a level 2 licenced bat surveyor (CL18) and supported by suitably experienced bat surveyors Ben Wilkie and Marcus Knight.

2.2.2 Survey area

The survey area comprised the north-eastern and south-western 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 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 whilst the re-entry surveys commenced at least 1.5 hours before sunrise and continued for at least 15 minutes after sunrise.

Table 2 survey dates and timings

Survey type	Date	Start	Finish	Sunset/sunrise
Emergence	07/06/2023	21:00	22:45	21:15
Re-entry	23/06/2023	03:22	05:07	04:52

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
- Infrared NV camera

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	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish
Emergence	07/06/2023	Nil	Nil	20.0°C	19.0°C	BF 0	BF 0	0%	0%
Re-entry	23/06/2023	Nil	Nil	15.0°C	15.0°C	BF 0	BF 0	0%	0%

3. Survey results

3.1 Preliminary Bat Roost Assessment

3.1.1 Building description relevant to bats and their roosts

The building comprises a two-storey brick-built and rendered semi-detached house which rises to a pitched and hipped roof design clad with clay roof, ridge and hip tiles (Figure 1). The building is oriented north-east to south-west. The easternmost end of the north-eastern elevation extends beyond the wall plate and features a small catslide roof. A single-storey mono-pitched conservatory and brick-built extension protrude from the south-western elevation of the main house (Figure 2). The conservatory is clad with polycarbonate sheets and the extension with clay roof tiles. The roof of the house extends beyond the wall plates and the eaves are enclosed with uPVC fascia and underboards with uPVC guttering closely adjoining the eaves. Two brick-built chimney stacks are present and surrounded by lead flashing at their respective bases. All windows and doors are set in either wooden or uPVC frames and all are tight fitting to surrounding brickwork.

Internally, the house does not support a roof void. The house is stripped, with the wooden beams and underside of the heavy-duty bitumen felt lining exposed (Figures 3 & 4). All rooms remain open with direct continuous access throughout.



Figure 1 – north-eastern elevation of the house



Figure 2 – rear conservatory and brick-built extension



Figure 3 – open interior with exposed bitumen lining



Figure 4 – direct continuous access between all interior rooms

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

Table 4 – The house recorded features and activity

	<i>Suitability</i>	<i>Evidence</i>
<i>Exterior</i>	The following suitable access/egress and roosting features were recorded externally during the survey: - Gaps under the roof tiles (Figure 5). - Lifted lead flashing surrounding the main chimneys. - Missing mortar under ridge and hip tiles (Figure 6).	No evidence of roosting activity was recorded externally during the survey.
<i>Interior</i>	The following suitable access/egress and roosting features were recorded internally during the survey: - Tears in the bitumen lining	No evidence of roosting activity was recorded internally during the survey. Upon closer inspection the tears in the lining were shallow and did not expose the underside of the roof tiles.



Figure 5 – gaps under roof tiles and under lead flashing



Figure 6 – missing mortar under hip tiles

3.1.2 Site grounds

The immediate surrounds of the building comprise hardstanding, managed lawn and ornamental planting. Beyond this, Hamble-le-Rice comprises a mosaic of residential properties with associated gardens, parkland, commercial development and services. To the north of the property the landscape is characterised by a large area of grassland with mature trees and hedgerows. In this context, the habitats within the footprint of the proposal are considered unexceptional for foraging and commuting bats, however, given

their location within a landscape which is 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**

3.2.1 *Visit 1 - 07th June 2023 – Dusk Emergence Survey*

During the course of the emergence survey carried out on the 07th June 2023, no bats were recorded emerging from the house. The first recorded bat comprised a common pipistrelle *Pipistrellus pygmaeus* which was recorded foraging off site at 22:01. At 22:14, a common pipistrelle commuted from west to east along Verdon Avenue. Following this a single common pipistrelle was recorded foraging off site at 22:15 and 22:25. No further activity was recorded during the course of the survey.

3.2.2 *Visit 2 – 23rd June 2023 – Dawn Re-entry Survey*

During the course of the re-entry survey carried out on the 23rd June 2023, no bats were recorded re-entering the house. The first recorded bat comprised a common pipistrelle which commuted from north to south past the eastern elevation of the house at 03:23. Following this, a single common pipistrelle bat was recorded foraging between the rear garden and neighbouring gardens at 03:29, 03:38, 04:01, 04:13, 04:20 and 04:26. The only other species recorded during the survey was a bat of the genus *Myotis* which briefly passed through the site at 03:45.

3.3 **Other protected species**

During the course of the surveys, no evidence of breeding birds was recorded. However, the house is considered to support nesting opportunities.

4. Discussion and Assessment of Impacts

4.1 Bat roost assessment and potential impacts

The preliminary roost assessment confirmed that the house supports moderate roost suitability i.e. 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 assessment was based on the nature of the identified potential access and roost features on the house.

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

However, no bats were recorded emerging from the building during the emergence and re-entry surveys carried out during June 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 and *Myotis* 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)l)
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 longer periods 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 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 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.

5.1.2 *Breeding birds*

Subject to the precautionary mitigation measures set out in Section 5.2.2, no further surveys are considered necessary.

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 extension 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).

5.2.2 *Breeding birds*

Care should be taken that the development does not disturb breeding birds. The bird nesting season is taken to be March to August inclusive. Any removal of suitable nest habitat will either need to be undertaken outside of this period or else checked to ensure that no nesting birds are present. If occupied nests are present then the nest must not be removed and works around the nest can only recommence once the nest becomes unoccupied of its own accord.

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 which are proportionate to the scale of the development include:

- The provision of new bat roosting opportunities, in the form of one bat box. This should be installed on the house as high as possible, at least 3m above ground. An integral Ibstock Bat Box B Brick Slip Front or similar would be appropriate. The bat box is an integral bat box with a brick-effect panel leaving just the access slot visible following installation.
- The provision of bird nesting opportunities in the form of two swift boxes installed at two-storey eave level on the existing or proposed extension elevations.

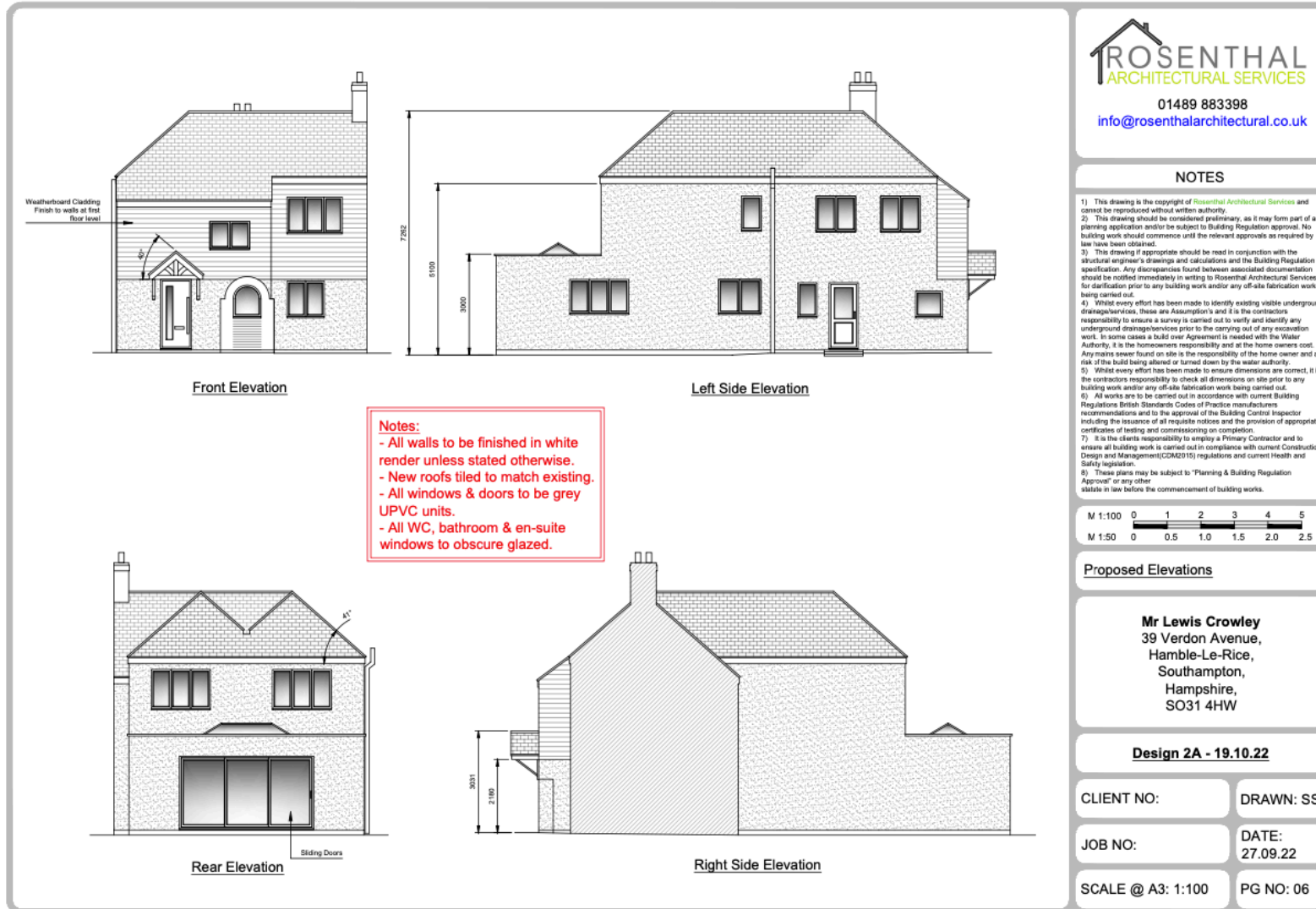
6. Conclusion

The preliminary roost assessment confirmed that the house supports moderate suitability for roosting bats. 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 alterations. In accordance with Natural England standing advice and BCT Good Practice Guidelines, two presence/absence surveys for the house were undertaken during June 2023. These have confirmed that the house does not support roosting bats. As such, no mitigation is considered necessary. Opportunities for ecological enhancement have been suggested for the site.

7. References

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- **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 plans for house





07760 208562

info@phillipsecology.co.uk

www.phillipsecology.co.uk

Hampshire office:
Clifton Cottage
Bucks Head Hill
Meonstoke
Hampshire
SO323NA