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Stoney Brook Farm, Eastergate Lane, Walberton, Arundel, West Sussex, BN18 0BA

Bat Survey Report

Prepared for: Artisan Planning & Property Services

August 2024

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Details of document preparation and issue:

Version no.	Prepared by	Reviewed by	Issue date	Issue status
0.1	Charlie Dwight CEcol, MCIEEM	Dr Rowenna Baker	07/07/2024	1st draft for client comment
0.2	Charlie Dwight CEcol, MCIEEM	Dr Rowenna Baker	12/08/2024	Final Issue

EXECUTIVE SUMMARY

Charlotte Dwight Ecology was commissioned to undertake a bat Preliminary Roost Assessment (PRA) at Stoney Brook Farm, located in the village of Walberton in West Sussex.

The owner currently runs a commercial joinery business from the farm, and planning consent from Arun District Council is required to permit construction of a new commercial workshop, to replace an existing workshop, and a second application will be submitted to permit regularisation of a former barn for use as a residential dwelling. A third application for residential dwelling(s) is to be made at the northern end of the site.

A Preliminary Ecological Appraisal (PEA) was conducted (Charlotte Dwight Ecology, 2024) at the site in April 2024. Biological records (including bats) were assessed. Evidence (two old droppings) of bats, considered attributed to pipistrelle species. were recorded on an internal wall (entrance staircase) within building (B1). Ingress and egress for bats were considered likely to be via an open doorway and/or via small gaps located between the door lintel and timber vertical cladding. Old evidence (guano) of birds was also visible on the walls and the metal structural supports. To assess the status of the roost and to ensure full legal compliance afforded to roosting bats under the Conservation of Habitats and Species Regulations (2019) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), three bat dusk emergence surveys were carried out between May – July 2024, to assess the status of the roost, and to inform potential development licensing requirements.

The results of the bat emergence surveys are presented within this report. In summary the pertinent findings were as follows:

- No bats emerged from any potential roost features (PRFs) on B1 during the surveys.
- Bat activity at the site was very low overall within close proximity to existing built structures.
- Four species of bats were recorded foraging close the northern and eastern site boundaries and included: Soprano Pipistrelle *Pipistrellus pygmeaus, Myotis spp* and one Noctule *Nyctalus noctule* was observed commuting north – south, high above the site during the first survey.
- A Little Owl was observed throughout the second survey moving between a mature weeping willow and oak trees located along the northern and eastern site boundaries.

It is considered likely an individual opportunistic Soprano or Common Pipistrelle bat has used B1, as an occasional roost. Age of the droppings suggest the roost has been used at least once within the last twelve months. Likely absence of roosting bats cannot be concluded where evidence (droppings) has previously been recorded. The site is recommended to be registered with Natural England (and by a Registered Consultant), under the Bat Mitigation Class Licence (BMCL), to ensure modification of B1 is conducted in accordance with the legislative framework. No evidence of

and no further action in relation to these buildings and roosting bats are required.

1. INTRODUCTION

1.1 Background

Charlotte Dwight Ecology was commissioned by Artisan Planning and Property Services, hereafter referred to as the client, to undertake a Bat Survey comprising three dusk bat emergence surveys at Stoney Brook Farm, Eastergate Lane, Walberton, Arundel, West Sussex, BN18 0BA (hereafter referred to as the site).

Ecological baseline for the site is presented within the former PEA report (Charlotte Dwight Ecology, 2024), which should be read in conjunction with this report.

The data presented within this report pertains to bats and is valid for 12 months, taken from the date of the first field survey.

1.2 Site Location and Context

The site is located within landownership curtailment of Stoney Brook Farm, Eastergate Lane, Walberton, Arundel, West Sussex, BN18 0BA. The site is centred upon Ordnance Survey (OS) grid reference: SU 96048 05993 and what3words (w3w) locator: whirlwind.lengthen.wants.

1.3 Proposed Development & Planning Status

Three separate developments are proposed at the site. All three will require planning consent from Arun District Council (ADC). Detailed design was not available at the time of the PEA, however recommendations in this report have been provided based upon the following outline designs:

- Erection of a new re-cycled single storey commercial structure (kitchen joinery workshop) to be in an area of modified grassland, in the south-west corner of the site.
- Erection of a new residential dwelling(s), with improved access and associated car parking, to be in an area of poor condition modified grassland in the north-east corner of the site.
- Regularisation of an existing residential dwelling (B1), in part of a converted agricultural barn.

1.4 Scope of the report

This report provides the following ecological baseline information:

- Biodiversity records for bats, using data provided by the Sussex Biological Records Centre (SxBRC), obtained during the PEA (Charlotte Dwight Ecology, 2024)

- A daytime bat walkover assessment, to assess the potential of buildings and trees present at the site in terms of the suitability to

support roosting bats. Habitats within the site were also assessed in terms of their suitability to provide suitable foraging and commuting opportunities for bats.

- A Preliminary Roost Assessment comprising an internal and external inspection of all built structures at the site which will be subject to impacts.

- Three dusk bat emergence surveys, focused upon building B1.

This report has been produced with reference to current good practice guidelines issued by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2019 and 2021) and guidelines contained in the British Standards – Code of Practice for Biodiversity and Development BS42020:2013 (British Standards Institute (BSI), 2013).

1.5 Bat Legislation

All species of UK bats are afforded full legal protection under the following conservation legislation, and includes:

- The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (commonly referred to as the Habitats Regs, 2019). European legislation provide protection for habitats and species listed under the regulations.
- Wildlife and Countryside Act 1981 (as amended), provides full legal protection for roosting bats in the UK under the act.

In summary the legislation makes it an offence to conduct activities which results in any of the following offences:

- Destroy, damage, or modify any place a bat use for shelter;
- Obstruct ingress and egress points used by bats;
- Disturb roosting bats;
- Take, injure, or kill bats

Where a development proposes to undertake activities which will result in an offence under the acts, a derogation licence is required to permit an otherwise illegal act/s. Licences in England, are issued by Natural England, and subject to satisfactory survey information, appropriate mitigation, and ecological enhancements where required.

2. METHODLOGY

2.1 Personnel

The bat surveys were led by Charlie Dwight, a Chartered Principal Ecologist (CEcol), and full member of the Institute of Ecology and Environmental Management (MCIEEM). Charlie has over 20 **years' ecological consultancy** experience, Charlie holds Natural England survey licences for the following species: Bat Mitigation Class Licence (RC145), Bat Class Licence Level 2 (11425-CLS-CLS).

Charlie was assisted during the survey by Dr Rowenna Baker, (PhD), a principal ecologist with over 20' years ecological consultancy experience, **and Bob Antonini, a Principal ecologist with over 20 years' bat survey** experience.

2.2 Desk Study

Biological records for bats within 10-kilometre radius of the site were assessed during the PEA, and the data was provided by the Sussex Biodiversity Records Centre (SxBRC). In accordance with current bat survey guidelines (Collins, 2023), the search radius for biological records for bats was assessed for a 10km radius from the site to assess potential effects upon Core Sustenance Zones (CSZs) and Special Areas of Conservation (SACs), designated for bats. The results were initially presented within the PEA (Charlie Dwight Ecology, 2024); however, these results have been reproduced within this report to provide context for the status of bats recorded at the site.

An online search using the Multi Geographical Agency for the Countryside (MAGIC) for Natural England protected species mitigation licences for bats, was conducted to assess the likely presence of roosting bats, on or near to the site.

2.3 Daytime Bat Walkover Assessment and Preliminary Roost Assessment

A Daytime Bat Walkover (DBW) and Preliminary Roost Assessment (PRA) was initially conducted on the 2 April 2024, by a licensed bat ecologist (11425-CLS-CLS). Habitats present at the site were assessed for their potential to support roosting, foraging and commuting bats.

Three built structures were subject to an internal and external inspection to assess their suitability for use by roosting bats. The assessment was conducted in accordance with current guidelines (Collins, 2023). Suitable features increasing the potential for presence of roosting bats included:

- Suitable gaps to provide ingress and egress opportunities.
- Crevices, gaps, splits, and holes providing access to suitable roosting features, and often associated with the roofing features (tiles, chimney flashing), roof void, underground cellars, gable apex, cavity wall,

soffits, bargeboards, hanging tiles, cladding, brickwork mortar, windows, doors, guttering and down-pipes.
- Splits and cavities within tree trunks and branches, loose bark, ivy vines and artificial nest boxes (including bat, bird, and dormouse nest boxes).

Habitats within the site were also assessed in terms of their suitability for commuting, foraging and swarming bats (refer Table 1)

Table 1: Bat Potential Assessment

Guidance for assessing the potential development site potential for bats, based upon the presence of habitat features within the landscape (extract taken from Table 4.1, Collins, 2023).

Potential Suitability	Roosting Habitats (Trees and Built structures)	Potential Flight-paths and Foraging Habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year.	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year.
Negligible	No obvious habitat features on site likely to be used by roosting bats, however, a small amount of uncertainty remains, as bats can use small and unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats, however, a small element of uncertainty remains, to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual opportunistic bats at any time of the year. These potential roost sites do not provide enough space, shelter, protection or appropriate conditions and the suitability of the surrounding habitat to be used on a regular basis or by large numbers of bats. Unlikely to be used for maternity or a classic hibernation site but could be used by individual hibernating bats.	Habitat that could be used by small numbers of bats as flight-paths (i.e. gappy hedgerow or stream) but isolated and not well connected to the surrounding landscape by other habitat. Suitable but isolated habitat that could be used by small numbers of foraging bats i.e. lone tree (not in a parkland situation) or patch of scrub.
Moderate	A structure with one or more potential roost sites, which could be used by bats due to their size, shelter, protection, conditions, and surrounding	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats

	habitat and unlikely to support roost(s) of high conservation status (i.e. maternity or hibernation) and irrespective of species conservation status which can only be established after presence is confirmed.	for flight-paths such as lines of trees, scrub or linked to back gardens. Habitat that is well connected to the wider landscape that is likely to be used by foraging bats for foraging such as trees, scrub, grassland, or water.
High	A structure that with one or more potential roost sites, which are obviously suitable for large numbers of bats on a regular basis and longer periods of time due to size, shelter, protection conditions and surrounding habitat. These structures have the potential to support high conservation status roosts e.g. maternity or classic/cool hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths (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 by foraging bats such as broadleaved woodland, tree-lined watercourses, and grazed parkland. Site is close to known roosts.

2.4 Bats: Preliminary Roost Assessment (PRA)

A systematic search for evidence of roosting bats comprised an internal and external inspection of all built structures, high powered torches, an endoscope, and binoculars. The inspection was conducted on 2 April 2024, by a licensed bat ecologist (Natural England Class Licence Level 2) and an assistant.

Three bat emergence surveys were conducted and focused upon potential roost features (PRFs) located on B1. The surveys were conducted by one licensed and an experienced ecologist, who were equipped with Elekon Batloggers (M2) bat detectors, Cannon Infrared cameras, and high-powered torches, and were conducted in suitable weather conditions between May – July 2024, with at least three weeks between each survey.

2.5 Limitations

Every effort has been made to provide a comprehensive and robust assessment of the site. However, the following limitations remained during the assessment:

- Records provided by the SxBRC only provide a snapshot of the species recorded, therefore, likely absence cannot be assumed where lack of record(s) is returned for a particular species.
- The rear of B1 was located immediately adjacent to the western boundary, and it was not possible to see all aspects of the elevation due to limited space between the structure and boundary trees.
- The bat survey only provides a snapshot of bat activity recorded at the site at the time of the survey.
- Bats are highly mobile and can take up occupancy at a site after an ecological baseline assessment has been completed.
- Habitats and bat activity are mapped using GIS, whilst this is largely accurate, small variations in the size of individual habitat parcels can occur, and boundaries are indicative, and based upon shapefiles provided by the client.

The survey was conducted at an appropriate time of the year, and by licensed and experienced ecologists and the results are considered to provide an accurate summary of bat activity recorded at the site during the surveys.

3. RESULTS

3.1 Desk Study

A search using MAGIC indicated no European Protected Species licences (EPSM) for bats have been issued for the site. The nearest EPSM licence record was over 2km south of the site.

Bat records provided by the SxBRC returned a total of 3,203 records within a 10km radius of the site. The records included all UK species (except lesser horseshoe *Rhinolophus hipposideros* bats), plus a recent migrant species: **Kuhl's** pipistrelle *Pipistrellus kuhlii* bat. No records for bats were returned for the site itself.

The following species of bats were recorded within a 2km radius of the site included:

- Greater Horseshoe *Rhinolophus ferrumequinum*
- Barbastelle* *Barbastella barbastellus*
- **Bechstein's*** *Myotis bechsteinii*
- Serotine *Eptesicus serotinus*
- Alcathoe *Myotis alcathoe*
- Daubenton *Myotis daubentonii*
- Whiskered *Myotis mystacinus*
- **Brandt's** *Myotis brandtii*

* These species may be functionally linked to Singleton and Cocking Tunnels bat SAC (UK0030337), located at Ordnance Survey grid reference SU872 144, and outside the 10km study area. The SAC (JNCC) is designated for species referred to as Article 4 of the Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and the area is considered to support a significant presence of Western Barbastelle (1308) **and Bechstein's** (1323) bats.

3.2 DBW & PRA

Habitat Suitability Assessment

The site is located within a rural location and bound to the north by Eastergate Lane and residential dwellings, to the south, and by farmland (pasture) to the east and west.

Artificial lighting at the site is limited to low level spotlights (<0.5m in height) and two security lights, operated by motion sensors.

The site itself is dominated intensively managed (mown short) modified grassland with 45 (small <6mm trunk diameter) scattered trees, three mature (>600mm diameter) trees, three species poor, poor condition, non-native ornamental hedgerows, an unsealed surface (gravel track and car parking), three built structures, and five shipping containers (storage). Collectively the **habitats**

present at the site were considered to provide **Low suitability** for **forging and commuting bats**.

Eastergate Lane was devoid of artificial lighting and comprises a species poor hedgerow with a mature oak tree. The lack of light along the lane provides excellent opportunities for **commuting and foraging bats**.

3.3 DBW and PRA

Three former agricultural buildings, and five shipping containers were present at the site. The structures were subject to internal and external inspections, to assess their suitability as habitats for roosting bats (refer Table 2).

B1: A former agricultural barn, partly converted into residential dwellings. Constructed of brick and external (vertical) timber weatherboarding, with a corrugated metal roof (refer Appendix A Photograph 2, and Appendix B, B1).

Narrow gaps (approx. 200m length x 150mm depth), and devoid of cobwebs were located beneath external vertical timber weatherboard, on the eastern elevation of B1 (refer Appendix A Photographs 7 and 8). No evidence of bat rub marks or droppings were visible around the PRFs.

An open doorway led into a stairwell (refer Appendix A Photograph 3), which led up onto the first floor which comprised an enclosed, unconverted loft, which was currently used for storage purposes.

Evidence (two old bat droppings) attributed to Pipistrelle species of bats was recorded upon the northern façade of an internal wall within the stairwell (refer Appendix A Photographs 4, 5, 6). Access for bats was considered via an open doorway.

B1 was considered likely used by low numbers of **Pipistrelle species of bats** (**<3 individuals**), and as an **occasional roost** (refer Appendix A Photographs 9, 10 and Appendix B, B1). B1 may be subject to internal alterations, which may potentially affect the roof void and stairwell.

B2: An existing carpentry workshop, comprising a curved single storey structure, constructed of breeze block with a sealed curved roof constructed of black bituminous roofing. Minor gaps with dense cobwebs, were located under the felt on the south-east corner of the structure.

The structure was largely devoid of roof voids, cavity walls or any suitable PRFs internally and externally except for a single gap, located upon the south-east façade of the structure, suggests this PRF has unlikely been used by roosting bats.

No evidence of roosting bats (live dead bats, rub marks, scratch marks) were recorded within B2, and no impacts upon this structure are proposed (refer Appendix A, Photograph 9 and Appendix B, B2). B2 was assessed as **Low Potential** for roosting bats.

B3: A single storey building (ancillary), constructed of brick, with a roller shutter door, and a slightly pitched corrugated metal pitched roof. Devoid of an internal roof void, cavity walls or PRFs.

No evidence of roosting bats (live dead bats, rub marks, scratch marks) were recorded within B3, and no impacts upon these this structure are proposed (refer Appendix A, Photograph 10 and Appendix B, B3 (FID012). B3 was assessed as **Low potential** for roosting bats.

Five shipping containers: were located between B1 and B2, constructed of metal and devoid of any PRFs for bats. The shipping containers were assessed as **Negligible** potential for roosting bats.

Refer Table 2, bat PRA results summary.

Table 2: Bat PRA Results

Potential Suitability	Use	Potential for Roosting Bats	Evidence of Bats
B1	Part Residential, former barn	**Confirmed Roost**	2 x old droppings (<12 months old) (pipistrelle spp)
B2	Carpentry Workshop	**Low**	No
B3	Ancillary	**Low**	No
Shipping Containers x 5	Storage	**Negligible**	No

3.4 Bat Emergence Surveys

Three bat dusk emergence surveys were conducted in accordance with Collins (2023). Dates and climatic conditions during the surveys are presented within Table 3 and a summary of the pertinent findings are summarised below.

Table 3: Bat Emergence Survey Climatic Conditions

Date	Weather Conditions	Temperature	Sunset Time	Start/End Times
02/05/2024	Cool, light breeze, cloud cover 95%	14C	20.25	20:10 – 22:10
30/05/2024	Warm, dry, light breeze, cloud cover 25%	21c	21.05	20:50 – 22:50
01/07/2024	Cool, dry, cloud cover 95%	17c	21:17	21:00 – 23:00

May 2 2024

No bats emerged from any PRFs during the survey, and bat activity was very low overall. A total of four species of bats were recorded foraging or commuting and included:

- One Soprano pipistrelle observed foraging at the south-east gable end of B1 between 21:05 – 21:25.
- One Noctule bat was observed flying high (north – south) over the site at 21:41.
- Two Soprano pipistrelle bats were recorded foraging along Eastergate Lane at 21:36.
- One common pipistrelle bat was briefly recorded foraging over grassland adjacent to the northern site boundary 21:44
- One myotis spp was recorded briefly (heard not seen) near the eastern site boundary at 21:55.

May 30 2024

No bats were recorded emerging from any built strictures and bat activity at the site was very low overall with activity starting later into the survey suggesting these species of bats has commuted onto the site via Eastergate Lane. In summary the following species of bats were recorded at the site

- Two Soprano Pipistrelle bats recorded foraging near the northeast corner of B1 at 22:20 and 22:31 hours.
- A myotis bat was briefly heard (not seen) near the eastern site boundary at 22:28.
- A Little Owl was observed foraging in the grassland and flying between trees (mature oak (off-site) and weeping willows (on-site),

along the northern site boundary, and near Lombardy Poplar trees (off-site), located along eastern site boundary, throughput the survey.

Pers comms with one of the owners who resides at the site, confirmed the Little Owl is frequently seen within the site boundary.

July 1 2024

No bats emerged from any built structures at the site during the survey. Low numbers (3) of Common and Pipistrelle bats were observed foraging continuously near the south-east elevation of B1 between 21:48 – 22.07. A myotis species of bat was also recorded briefly at 22:24 at the same location. One Common Pipistrelle bat was also recorded foraging over grassland, located close to the northern site boundary.

A Little Owl was heard calling (by both surveyors) throughout the survey and was observed flying between trees along the eastern site boundary trees located to the west of the site (off-site). It is considered likely a Little Owl roost is in trees or built structures on or close to the site. No evidence of Little Owl was recorded in any built strictures on-site during the bat PRA.

4. POTENTIAL IMPACTS AND EVALUATION

The site is not located within the boundaries of any designated sites, or their associated impact risk zones (IRZs). Whilst records provided by the **SxBRC indicate low numbers of Barbastelle and Bechstein's** bats (designated features) have been recorded within a 10km radius of the site, potential adverse significant effects upon the integrity or functionality of Singleton and Cocking Tunnels Special Area of Conservation (SAC) are not considered likely, as habitats at the site are not suitable to support these species of bats for breeding, hibernation, forging or commuting and no evidence of these species were recorded during the bat activity surveys.

Alterations to the internal layout of B1 has the potential to result in the destruction and/or disturbance to low numbers of individual Pipistrelle species of bats. Due to the presence of two bat droppings recorded upon an internal wall within a stairwell within B1, it is considered likely attributed to an individual opportunistic Common or Soprano pipistrelle bat as an occasional day roost. B1 has been assessed and is considered to be a low significance day roost, used by a low number (<3), or an individual pipistrelle species of bat, and the roost is likely to be value at a **Site Level of importance**.

Two Weeping Willow and one Sycamore Maple **mature trees** are present on site, no impacts upon these trees are likely, and the trees are of value within the **zone of influence only**.

Bat activity across the site was low overall given the rural location and good connectivity to other suitable habitats within the wider landscape. The habitats at the site are intensively managed and hedgerows are dominated by a species poor cherry laurel, which provide limited foraging opportunities for bats. **Habitats present at the site** have been assessed in terms of their importance for **forging and commuting bats** and are considered to be of value within the **zone of influence only**.

All other habitats at the site including other **built structures, ornamental hedgerows, modified grassland, and young trees** provide low ecological value in their current condition and are of importance at a **Site Level.**

5. RECOMMENDATIONS & CONCLUSIONS

5.1 Recommendations

Regularisation of Existing Residential Dwelling (B1):

The following recommendations are provided for regularisation and alteration of an existing residential dwelling (B1):

- The presence of two old bat droppings within B1 indicate the likely presence of a low significance bat roost, used by an individual or low numbers of Soprano or Common Pipistrelle bats.
- If the stairwell is subject to any change, or a door is proposed to be fitted to enclose a currently open doorway (which likely provide access into the roost), a derogation licence, approved by Natural England will be required, prior to any works commencing and once full planning consent has been obtained.

Bat Licensing Procedure

The roost within B1, has been classified as an occasional day low significance roost, used by low numbers of common species of bats. The site therefore qualifies to the registered under the Bat Mitigation Class Licence (BMCL), formerly referred to as the bat low impact licence.

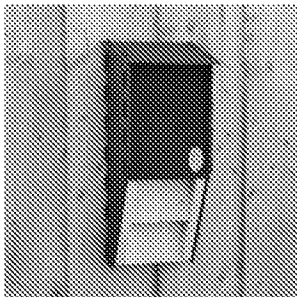
The Site must be registered by a Registered Consultant (bat ecologist BMCL licence holder), once full planning permission has been granted, with all conditions relating to bats fully discharged.

The data presented within this report is robust to inform a BMCL Site Registration in 2024. Where a planning application, and/or or a Site Registration extends into 2025, additional bat survey data will likely be required in 2025 to ensure the conditions at the site have not been subject to any change. Natural England typically require 10 working days to process a BMCL Site Registration and these potential time constraints should be considered when planning works activities.

Where it is necessary to modify, damage or destroy a roost used by bats, the Registered Consultant must be present whilst suitable roost features are dismantled by contractors (using hand tools only). If bats are encountered during dismantling, they will be captured by hand/or using a hand net by the Registered Consultant (licensed bat ecologist), placed into a suitable transport carrier, and released immediately in bat boxes provisioned on trees within the site boundaries.

No compensatory roost provision is required for pipistrelle bats under the BMCL. However, to provide an ecological enhancement and biodiversity net gain for roosting bats at the site, the provision of two bat roost boxes is recommended to be erected upon the following mature trees:

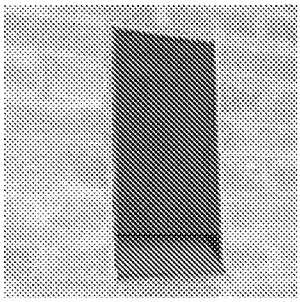
- Maple Sycamore (eastern site boundary)
- Weeping Willow (northern site boundary)



Bat box suitable for trees[1]

Construction of a new Single Residential Dwelling:

To provide further ecological enhancements for roosting bats at the site, two integrated bat roost cavity wall boxes are recommended to be provided on the east or western gable ends of a new proposed residential dwelling, and sited at 4m – 8m in height, to provide connectivity to suitable foraging and commuting habitats (existing trees and hedgerows).



Example of an integrated bat box[2]

[1] https://www.nestbox.co.uk/products/eco-kent-bat-bo

[2] https://www.nestbox.co.uk/products/integrated-eco-bat-box

Bats and Lighting

The use of new artificial lighting at the site should be avoided on B1 and minimised on the new dwelling. New external lighting is recommended to be fitted with Passive Inferred Radiance (PIR), so lights are only illuminated for the time required. New lighting should be sited away from any potential bat or bird roosting habitats or potential ingress and egress points (refer Bats and Lighting section below):

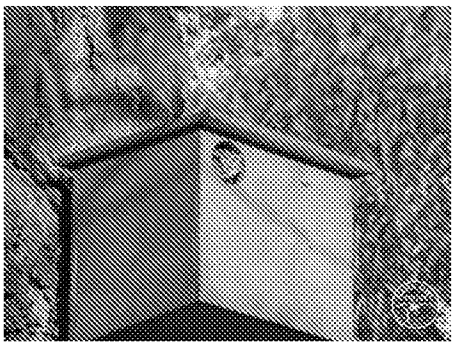
- The level of artificial lighting, including flood lighting, should be avoided, or kept to an absolute minimum and only for time required, and set to activate with passive inferred radiance (PIR)
- Where this does not conflict with health and safety and/or security requirements, the site should be kept dark during peak bat activity periods (0 to 1.5 hours after sunset and 1.5 hours before sunrise)
- Lighting required for security or safety reasons should use sensor-activated lamps of no greater than 2000 lumens (150 Watts)
- Lights using LED technology are the preferred option as these lights do not emit on the UV spectrum, are easily controlled in terms of direction/spill, and can be turned on and off instantly.
- Avoid the use of sodium or metal halide lamps as these gas lamps require a lengthy period in which to turn off and the diffuse nature of the light emitted makes light spillage a significant problem
- Permanent lighting installed should be directed to where it is needed to minimise light spillage. This can be achieved by limiting the height of the lighting columns and by using as steep a downward angle as possible, and/or should be fitted with a shield/hood/cowl that directs the light below the horizontal plane and restricts the lit area
- Use of artificial lighting should not illuminate any trees, hedgerows or features used by roosting, foraging or commuting bats.

Little Owls

Breeding Bird Survey data suggests that Little Owl numbers are declining, with the UK population estimated to be down by 24 per cent between 1995 and 2008.

Little Owls have been confirmed present at the site, and use the grassland habitat for foraging (crickets, invertebrates, and small mammals), and trees located along the northern and eastern site boundaries for perching and roosting.

Little Owls are a cavity-nesting species, in the UK tree holes are by far the commonest natural site type. They will also readily take to man-made nestboxes (Barn Owl Conservation Trust).



Example of a Little Owl nest box (Barn Owl Conservation Trust)

To provide an ecological enhancement and biodiversity net gain for Little Owls, a Little Owl nest box is recommended to be erected onto a mature Maple Sycamore tree, at a height of 3-4 m. The box is recommended to be face south and be sited away form any low laying branches that may cause obstruction into the nest chamber. Branches are also recommended to be trimmed back annually to maximise the chance of Little Owls taking up residency and optimising breeding opportunities at the site.

5.2 Conclusions

The site does not fall within any designated sites, or their associated impact risk zones. Consequently, no significant adverse effects upon the integrity or functionality of the SAC designated for bats are likely to occur.

Bat surveys were conducted at the site during the bat activity season and focused upon three built, structures. Internal alterations are proposed within B1. No impacts upon B2, or B3 are proposed.

Evidence (droppings) attributed to Pipistrelle species of bats were recorded on an internal wall located within a stairwell within B1. Common and Soprano Pipistrelle bats were recorded foraging and commuting within close proximity to B1, however, no bats emerged from this structure during the surveys.

B1 is considered likely to be used by a low number (<3) of Soprano and Common Pipistrelle bats, as an occasional summer day roost. A licence will be required if the roost (gaps under a timber panel above the door within the stairwell of B1) is proposed to be altered, damaged, destroyed or bats disturbed whilst internation alterations are conducted. As the roost is defined as a low significance roost, they will likely qualify (subject to planning criteria and age of data met), to be Registered under a BMCL. No compensation, mitigation for Pipistrelle bats is required under the licence, however, the provision of bat roost boxes on trees and integrated bat boxes within a new residential dwelling are recommended, to ensure bats are retained at the site.

Ecological enhancements for Little Owl, a species currently in decline in the UK are also recommended.

6. REFERENCES

Barn Owl Conservation Trust Little Owl Nest Box Specification: https://www.barnowltrust.org.uk/barn-owl-nestbox/little-owl-nest-box/

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CIEEM (2021) Good Practice Guidance for Habitats and Species Version 3: https://cieem.net/wp-content/uploads/2021/05/Good-Practice-Guide-April-2021-v6.pdf

Collins, J. (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines. 4th edition*. The Bat Conservation Trust, London.

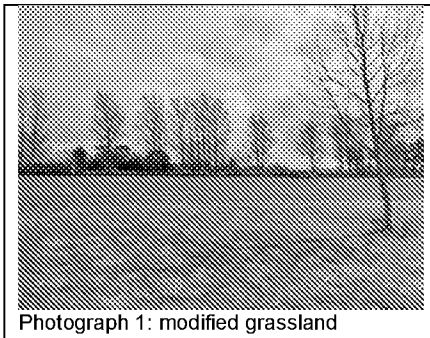
JNCC (online) *Singleton and Cocking Tunnels SAC*: https://sac.jncc.gov.uk/site/UK0030337

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019):https://www.legislation.gov.uk/uksi/2017/1012/contents/made

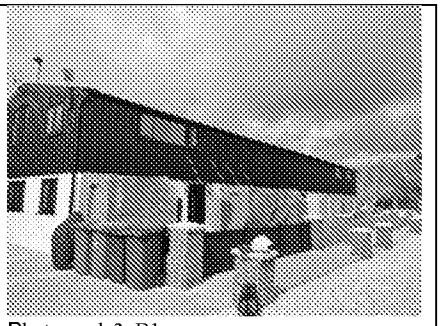
The Wildlife & Countryside Act (1981) (as amended): https://www.legislation.gov.uk/ukpga/1981/69

7. Appendices

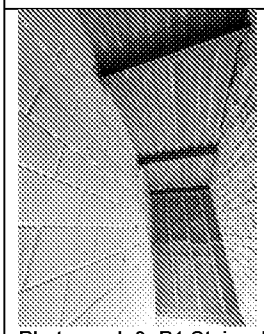
APPENDIX A: PHOTOGRAPHS



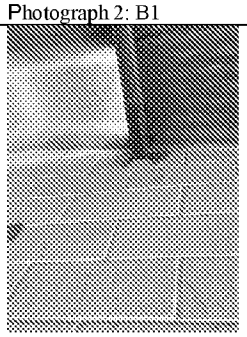
Photograph 1: modified grassland



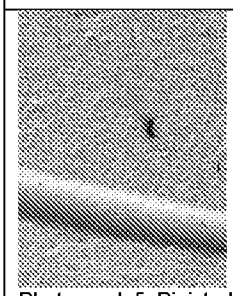
Photograph 2: B1



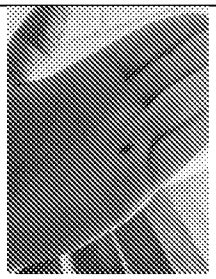
Photograph 3: B1 Stairwell



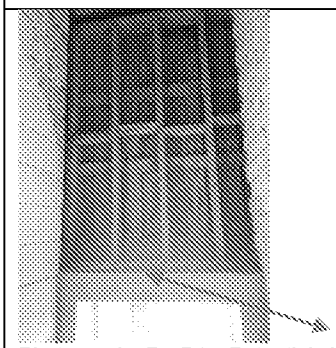
Photograph 4: B1 internal wall/potential bat roost location



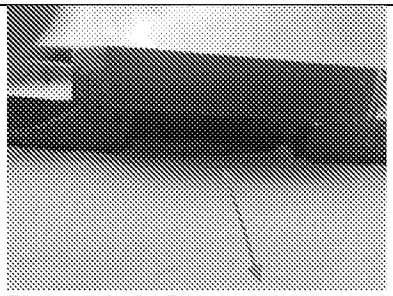
Photograph 5: Pipistrelle spp. bat dropping.



Photograph 6: Bat dropping < 12 months old



Photograph 7: B1: Potential bat roost location



Photograph 8: B1: potential bat access under weatherboarding

Photograph 9: B2

Photograph 10: B3

APPENDIX B BAT SURVEY MAP

Charlotte Wright Ecology
MAP TITLE
STONEY BROOK FARM
BAT SURVEY MAP
DATE
MAY - JULY 2024
LEGEND
LAND OWNERSHIP BOUNDARY
RED LINE BOUNDARY
SURVEYOR LOCATION
OCCASIONAL DAY ROOST (PIPISTRELLE SPP.)
BROWN LONG-EARED (FORAGING)
COMMON PIPISTRELLE (FORAGING)
SOPRANO PIPISTRELLE (FORAGING)
MYOTIS (FORAGING)
NATTERERS (COMMUTING)
LITTLE OWL (SIGHTING)
NOCTULE (COMMUTING)
B1
B2
B3
N
0
12.5
25 M

APPENDIX C: BAT SXBRC RECORDS

Table 4: SxBRC Bat Records 2km Radius of Site

Taxon	Name	International Designation	National Designation	Other Designation	Lat Rec
Bats					
3,203 records returned for a 10km radius of the site. All UK 18 species (except lesser horseshoe **Khul's** pipistrelle *Pipistrellus kuhlii* bat, were recorded within a 2km radius of the site include:					
Rhinolophus ferrumequinum	Greater Horseshoe	Hab Dir A4 Hab Reg Sch2	WCA Sch5		2021
Plecotus auritus	Brown Long Eared	Hab Dir A4	WCA Sch5		2021
Pipistrellus pygmaeus	Soprano pipistrelle	Hab Dir A4 Hab Reg Sch2	WCA Sch5		2022
Pipistrellus pipistrellus	Common pipistrelle		WCA Sch5		2021
Pipistrellus nathusii	Nathusius pipistrelle		WCA Sch5		2018

Myotis nattereri	**Natterer's**		WCA Sch5		2021
Myotis daubentonii	Daubenton		WCA Sch5		2021
Myotis bechsteinii	Bechstein	Hab Dir A4 Hab Reg Sch2	WCA Sch5		2021
Nyctalus noctula	Noctule		WCA Sch5		2021
Eptesicus serotinus	Serotine		WCA Sch5		2021