
**32 Linkway
Crowthorne**

Report for:
Mr & Mrs A Miller
26 St Peters Close
Burnham
Berkshire
SL1 7HT

INTRODUCTION

In accordance with your instructions, AA Environmental Limited (AAe) carried out a Preliminary Roost Assessment (PRA) of the above building on Thursday 23 January 2025. The purpose of the survey was to assess the presence or likely absence of bats utilising the building and provide appropriate mitigation measures, as necessary. A series of photographs has been attached for reference.

The proposals are for the construction of a small single-storey extension at the front of the property, requiring some internal and external modifications of the property and clearance of some limited vegetation. The vast majority of the existing attic/roof spaces will remain unaffected by the works and all of the established boundary vegetation is scheduled to be retained and protected during the works.

LEGISLATION

Currently there are 17 species of bat known to breed in the UK. All species and their roosts are protected under Regulation 41 of *The Conservation of Habitats and Species Regulations 2010 (as amended)*. As a signatory to the *Bonn Convention (Agreement on the Conservation of Bats in Europe)* the UK is also required to protect their habitats. This legislation makes it illegal to kill, injure, capture or disturb bats or to obstruct access to, damage or destroy bat roosts and protection from damage or disturbance of important feeding areas. Under the law, a roost is any structure or place used for shelter or protection.

METHODOLOGY

Baseline Data

As certain baseline data is now readily available on the internet, the Multi-agency website (www.magic.defra.gov.uk) was consulted to determine whether any part of the site or nearby habitats have been statutorily or otherwise designated and whether any European Protected Species Licences (EPSLs) for bats have been granted within 1 km of the site. In addition, a review of Google Earth's satellite imagery (http://www.google.co.uk/intl/en_uk/earth/index.html) was completed to determine past land uses of the site and surrounding land.

Walk-over Site Survey

A visual survey of the site was completed to record any evidence of bats or features that could provide potential roosting opportunities following the guidelines provided by the Bat Conservation Trust¹ and by an experienced and licensed ecologist². A thorough internal and external examination of the existing buildings were carried out, with any access points inspected for evidence of bats. All internal roof voids/spaces, where present, were accessed to check for any evidence of bats.

The surrounding habitat was also surveyed to identify any important features such as mature trees with suitable features for roosting bats and any established lines of vegetation that might provide important flightlines.

¹ Collins, J. (ed) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London.

² The lead surveyor was Alan Beaumont, BSc (Hons), MSc. MCIEEM.

Evidence of bats is usually detected by any one or more of the following signs:

- the presence of bat droppings, which tend to accumulate under established roost sites or at roost entrances;
- the accumulation of large numbers of moth wings, which have been discarded by feeding bats;
- areas of staining by urine or from fur rubbing; and
- the presence of bats themselves or their corpses.

The visual survey was facilitated by the use of binoculars, ladders, powerful torches (1M candlepower) and a Ridgid Micro CA-350 Inspection Camera endoscope.

In accordance with good practice, the site was checked for any evidence of other protected species or species of particular note.

RESULTS

Baseline Data

According to the Multi-agency website, there are no statutory ecological designated sites located directly on or adjacent to the site. The nearest site is Heathlake Local Nature Reserve (LNR), located approximately 0.79 km to the north of the site. The site is also located 1.55 km to the west of Broadmoor to Bagshot Woods and Heaths Site of Special Scientific Interest (SSSI), which forms part of Thames Basin Heaths Special Protection Area (SPA), and the site lies within the SSSI Impact Risk Zone³. There are no Habitats of Principal Importance (HPIs) located on or adjacent to the site. The nearest HPI is an area of Deciduous Woodland, also noted in the National Forest Inventory, located approximately 0.08 km to the north-west of the site.

According to the Multi-agency website, six bat licences have been granted within the 1 km study area. the nearest EPSL being for the destruction of a resting place for common pipistrelle (*Pipistrellus pipistrellus*) (reference: 2016-24162-EPS-MIT), located approximately 0.4 km to the south-east of the site.

Google Earth imagery shows that the site has remained largely unchanged since at least 1999 with the site dominated by the existing residential dwelling and associated hardstanding and garden area.

Site Description (Photographs 1-4)

The site is located off Linkway in Crowthorne, centred at National Grid Reference: SU 829642 and covers approximately 0.11 of a hectare. The site is bordered by Linkway to the north and a residential dwelling and associated garden area to all other sides.

The site comprised the property and attached garage set within well-maintained garden areas. The residential dwelling was a chalet style bungalow, of masonry construction with a pitched engineered tiled roof. Plastic soffits/fascias were present, which were all well-sealed. The gable end of the roof was timber clad, which was in good condition and well-sealed. There were two dormer windows on the roof, one at the front and one on the rear. The dormer window at the front was timber clad (well-sealed vertical tongue-in-groove) with a flat bitumen felt roof. The dormer window at the rear was very small with timber clad sides and a flat bitumen felt roof. There was a single chimney on the roof of the property. Internally, the majority of the roof space had been converted into accommodation, with the remaining roof space including an attic and some restricted eave spaces. There was also a restricted roof void/space above the single-storey side extension. All of the roof spaces/voids were lined with bitumen-based felt and insulated with mineral wool. The single-storey side extension, which included the attached double garage had a flat bitumen-based felt at the rear.

³ The proposals are for a small extension and therefore there will be no increase in number of residents as a result of the scheme and will have no impact on the SPA.

Bats

No evidence of bats was recorded during the external inspection of the property. The roof tiles and timber cladding were in good condition and well-aligned with no obvious gaps recorded. During the internal inspection of the property, all of the roof spaces/voids were fully accessed and not complex allowing a thorough inspection to be completed. A scattering of brown long-eared (*Plecotus auritus*) bat droppings⁴ were recorded within the roof spaces/voids, indicating a day roost used by individual bats only. **N.B. the vast majority of the existing attic space/roof voids will remain unaffected by the works (extent of the works are shown on the attached photosheet).**

The site itself, comprising a well-maintained residential plot of restricted size, provides only limited foraging opportunities for bats. There were no established trees recorded within the vicinity of the works and none of the garden area or surrounding vegetation will be affected. Therefore, any flight-lines currently utilised by bats will be retained.

Other Wildlife

Apart from a few common species of birds, either recorded on the site or flying overhead, no other species of any note were recorded.

CONCLUSIONS AND RECOMMENDATIONS

The proposals are for the construction of a small single-storey extension at the front of the property, requiring some internal and external modifications of the property and clearance of some limited vegetation. The vast majority of the existing attic/roof spaces will remain unaffected by the works and all of the established boundary vegetation is scheduled to be retained and protected during the works.

The site is of overall low ecological value, with the species recorded described as common or abundant and are found in similar places across much of Britain, with the attic space/roof voids within the property confirmed to be used by brown long-eared bats (considered to be a day roost).

Although there are considered to be no over-riding ecological constraints to the proposals, a series of site controls along with some generic mitigation measures, as detailed below, will be implemented to reduce any impact the development proposals may have on bats and local wildlife. There is also an opportunity to implement some enhancement measures to increase the nature conservation value of the site in the long term in accordance with Government guidance as set out in National Planning Policy Framework (NPPF) 2024⁵.

The roof spaces used by brown long-eared bats will remain unaffected by the works and can be fully protected with roosting opportunities maintained. The works will only affect small sections of the property and the risk of encountering bats is considered to be low. However, as bats have been confirmed roosting in the property, albeit away from the works, it is recommended as a precaution that key works are completed under the direct supervision of a licensed bat worker and completed under the following soft strip protocol:

- all site operatives will be given a toolbox talk on the possibility of encountering bats and the legal protection they and their roosts are afforded (copy attached has been attached at Appendix B for reference);
- no contractors will be permitted to access any roof spaces used by bats which will also be retained and protected;
- Works will be completed during the least sensitive time for bats (either between March-April and/or September-November).

⁴ Confirmed by DNA Analysis, copy of the report attached at Appendix A for reference.

⁵ Ministry of Housing, Communities & Local Government (2024). *National Planning Policy Framework*. London.

- prior to the works, the relevant areas of the property will be carefully re-checked by the licensed bat worker/accredited agent for any roosting bats or evidence of bats. Once the property has been checked with no evidence of bats recorded then the appointed contractor, where required, will remove the restricted areas of tiles under the direct supervision of the licensed bat worker/accredited agent. All tiles will be lifted and removed by hand, lifting them clear with two hands rather than lifting the front and rolling the tile backwards which may crush any bats beneath; and
- tiles will also be checked underneath before being stacked or discarded as bats sometimes cling to the undersides of tiles.

After this initial soft-strip the rest of the works can continue. In the unlikely event that any evidence of bats is encountered, works will cease immediately and Natural England contacted so that appropriate advice can be provided (**N.B. a European Protected Species Licence may then be required to permit the works to continue**).

It should be noted that all species of wild bird and their nests are protected under the *Wildlife and Countryside Act 1981 (as amended)*. Although no current or old bird nesting material was recorded during the survey with very limited areas of potential nesting habitat to the removed/affected, a check should be carried out prior to any works to ensure there are no active nests present.

In order to protect the established vegetation to be retained, suitable fencing may be required at certain locations to reduce the possibility of any damage that could be caused during the works. To minimise accidental damage, any overhanging branches should be pruned back to suitable live growth points. All works should be undertaken by a suitably qualified and experienced specialist contractor and should conform to current industry best practice, i.e. BS 3998: 2010 '*Tree Work - Recommendations*'. The retention and protection of the established vegetation will help to maintain existing commuting/foraging routes currently utilised by wildlife.

Although the works are restricted with limited opportunities to implement any enhancement measures, a series of wildlife boxes (such as bat and bird boxes) could be installed onto the site to provide enhanced roosting and nesting opportunities. Any boxes installed should be positioned in accordance with good practice.

The effects of lighting on plants and animals are difficult to assess, but it is thought that lighting can adversely affect invertebrates, birds and bats. As the site already experiences some lighting from on-site sources there should be no change in current light levels from the proposed works.

As proportionate mitigation is available and deliverable, along with a range of enhancement measures to ensure that there would be no adverse impact on bats and local wildlife that are using the site, there are no over-riding ecological constraints to the proposals that would preclude planning permission being granted subject to an appropriately worded condition. I trust this is of interest to you and provides the Local Planning Authority with enough information to determine the application but let me know if further clarification is required.

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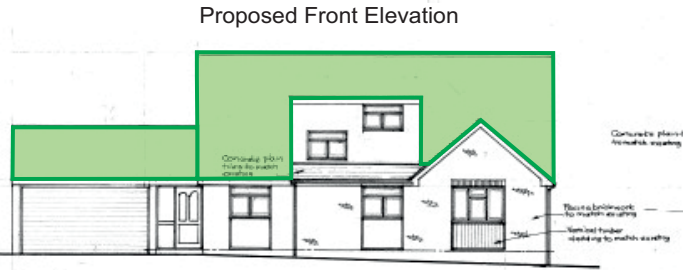
Photograph Record Sheet



Photograph 1: Showing the front of the property and the location of the proposed extension (red shaded section).



Photograph 2: Showing the well-sealed roof tiles and soffits/fascias.



Retained/protected roof, including attic spaces and eaves



Photograph 3: Showing the main attic space within the property, which will remain unaffected by the works.



Photograph 4: Showing the scattering of brown long-eared bat droppings recorded within the attic space above the single-storey extension, which will remain unaffected by the works.

Rev.	Details	Drawn Chkd.	Date
PROJECT			
32 Linkway Crowthorne			
TITLE			
Photograph Record Sheet			
 AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: 01235 536042 F: 01235 523849 info@aae-ltd.co.uk www.aae-ltd.co.uk			
Scale	Date 11.03.25	Drng No.	Rev.
NTS	Drawn NAB	Chkd. ARB	253044/01

Appendix A
Biological Report (DNA Analysis)

Folio No: 54-2025
Purchase Order: 253044-EC1
Contact: AA Environmental Ltd
Issue Date: 20.02.2025
Received Date: 13.02.2025

Biological Report

Technical Report



SureScreen Scientifics

Biological Sample Analysis

Summary

Most biological materials (tissue, feces, hair, blood, etc.) contain small amounts of DNA from the organism of which it originated. Using molecular methods such as PCR (polymerase chain reaction) and DNA sequencing, SureScreen Scientifics are able to analyze an unknown sample to determine which species the sample originates from our methods are optimized for the detection of species including bats (over 92% of bat species worldwide can be identified including all 18 UK bat species), mammals; bees, wasps & hornets; birds; fish; plants (from roots, leaves, stem and even dried wood) and many more species.

Results

Lab ID	Site Name	OS Reference	Sample Type	Species Name	Match(%)
B4413	253044-EV		Bat Dropping	Brown long-eared bat (Plecotus auritus)	100.00
Genetic Sequence TCCTATCATAATCGGGAGGCTTCGGGAACTGATTGGTGCCCACTAATAATTGGAGCCCCTGATATAGCTTTTCCCC GAATAAATAACATAAGCTTCTGACTGCTTCCCCCATCTTTTCTACTACTTTTAGCTTCGTCTGCAGTAGAGGCTGG AGCAGGTACCGGTTGAACAGTCTATCCTCCTTTAGCGGGAAA					

Matters affecting result: none
Reported by: Consuela Sopronyi

Approved by: Lauryn Jewkes



Methodology

Once samples have arrived in the laboratory, the DNA is isolated using a commercial DNA extraction kit. Using PCR, DNA (if present within the sample) is amplified using universal molecular markers designed to amplify a short fragment of the DNA of the target species group (i.e. mammal, fish, arthropod, reptile, plant etc.). If amplification is successful, the resulting DNA sequence is revealed using a process known as Sanger Sequencing in order to obtain the genetic sequence of the mitochondrial gene within the sample. The sequence results are aligned against a library of known reference sequences using bioinformatics software, which enables us to determine which species the DNA sequence from the sample matches with, informing the species identity and sequence similarity (match %).

If the initial analysis is unsuccessful, the entire process is repeated up to two additional times with a fresh reserve sample (if available) in order to obtain a species identification. If no DNA is detected after three attempts, then we can be confident that any further analysis of the sample will likely also fail to result in species identification.

Interpretation of Results

- Sample Type:** The sample you send to us can come from a variety of sources. Fecal, dropping, urine, hair, blood, carcass (skin, flesh, bone), gamete, plant matter or unknown biological material all contain DNA that we can test for in order to identify the species of origin.
- Genetic Sequence:** The unique DNA sequence obtained from the sample.
- Match (%):** How closely matched the DNA sequence from your sample is to the sequences within our reference database. This can be interpreted as a score of result accuracy, with the maximum score of 100% indicating an exact match of the sample to the indicated species' reference sequence. Lower scores (80-99%) indicate some variation between the sample and reference sequence, likely due to natural variation between individual genetic sequences and/or systematic variations generated through the sequencing process. Scores below 80% similarity should be interpreted with care and can indicate part degraded or part contaminated samples.
- Inconclusive Result:**
- Degraded sample:**
DNA is degraded and we are unable to determine species identification due to degradation of sample DNA. This can happen either before sample collection (old samples, exposure to UV etc.) or after sample collection if stored for long periods before analysis or not handled correctly.
- Inhibited/contaminated sample:**
We are unable to determine species identity due to contamination or the suspected presence of large quantities of PCR inhibitors. Contamination sources can originate from other species which could have come into contact with the samples, or human contamination during sample collection.
- Alternative Result:** Sometimes, for targets such as bat dropping analysis, other mammalian species such as rodents are detected. We find this to be a common occurrence as some bat droppings can be similar in appearance to rodent droppings. Although sometimes unexpected, repeat analyses in these cases would likely return the same results.



Folio No: 55-2025
Purchase Order: 253044-EC2
Contact: AA Environmental Ltd
Issue Date: 20.02.2025
Received Date: 13.02.2025

Biological Report

Technical Report



SureScreen Scientifics

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Results

Lab ID	Site Name	OS Reference	Sample Type	Species Name	Match(%)
B4414	253044-ATT		Bat Dropping	Brown long-eared bat (Plecotus auritus)	100.00
Genetic Sequence AGGCTTCGGGAACTGATTGGTGCCACTAATAATTGGAGCCCCTGATATAGCTTTTCCCGAATAAATAACATAAGC TTCTGACTGCTTCCCCCATCTTTTCTACTACTTTTAGCTTCGTCTGCAGTAGAGGCTGGAGCAGGTACCGGTTGAA CAGTCTATCCTCTTTAGCGGGAAACCTTGACACGCTGGAGAAC					

Matters affecting result: none
Reported by: Consuela Sopronyi

Approved by: Lauryn Jewkes



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If the initial analysis is unsuccessful, the entire process is repeated up to two additional times with a fresh reserve sample (if available) in order to obtain a species identification. If no DNA is detected after three attempts, then we can be confident that any further analysis of the sample will likely also fail to result in species identification.

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- Sample Type:** The sample you send to us can come from a variety of sources. Fecal, dropping, urine, hair, blood, carcass (skin, flesh, bone), gamete, plant matter or unknown biological material all contain DNA that we can test for in order to identify the species of origin.
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- Inconclusive Result:**
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DNA is degraded and we are unable to determine species identification due to degradation of sample DNA. This can happen either before sample collection (old samples, exposure to UV etc.) or after sample collection if stored for long periods before analysis or not handled correctly.
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We are unable to determine species identity due to contamination or the suspected presence of large quantities of PCR inhibitors. Contamination sources can originate from other species which could have come into contact with the samples, or human contamination during sample collection.
- Alternative Result:** Sometimes, for targets such as bat dropping analysis, other mammalian species such as rodents are detected. We find this to be a common occurrence as some bat droppings can be similar in appearance to rodent droppings. Although sometimes unexpected, repeat analyses in these cases would likely return the same results.



Appendix B

Toolbox Talk (Bats)

TOOLBOX TALK: BATS

Did you know?

- Bats are the world's only flying mammal.
- There are 17 species of bat known to be breeding in the UK, 6 of which are endangered or rare and 6 are classed as vulnerable.
- Bats can be found across the country in urban and rural locations.
- They are often sighted at dusk as they leave their roost, flying around hedgerows, woodland and waterbodies, feeding on insects.
- Throughout the year bats will often change their roost, depending upon the season.
- Usually a pregnant female will only have one baby a year, this makes colonies vulnerable to population decline.
- During the winter bats hibernate and may not wake up, even if disturbed. Therefore it's important not to work on sites with bats during these months.
- Bats may not use the same roost throughout the year, however they are legally protected with or without a bat occupying them.

Identification

- You may find bats in any number of places, they tend to prefer dark, quiet spots with good shelter, such as holes and cracks in trees, roofs and walls of buildings, under bridges, old tunnels and in caves.
- Signs of bat presence include discarded moth wings, staining around crevices and small mouse-like droppings which crumble easily.

Legislation

- All bats and their roosts are protected by UK and European Law. This makes it **illegal to kill, injure, capture or disturb bats** or obstruct access to, damage or destroy their roosts and protects important feeding areas from damage or disturbance.
- Under law, a roost is any structure or place used for shelter or protection.

Site Controls

- There is always a **risk** that bats, as they move between different roost sites and occupy new roosts, could be encountered during site works.
- **If any bats are encountered during works the following controls must be applied to avoid breaking the law:**
 1. If bats are discovered/suspected works must stop **immediately** with any bat left in-situ and AAe immediately contacted (contact details above).
 2. If any injured bats are found during the works AAe would care for them and where possible be released in the same location once recovered.
 3. During works staff must wear gloves in case of accidental contact with bats.
 4. Any roof tiles will be lifted straight up, rather than being rolled over, minimising the risk of harming bats which may be sheltering underneath.
 5. Areas must be fully checked for any bats or their evidence prior to filling any gaps and repointing any brickwork.
 6. Any lighting must be installed must avoid illuminating vegetation and or bat boxes/access points.

These controls have been put in place to protect all site operatives from breaking the law. You're not expected to be able to identify bats or their presence so remember, **if in doubt shout and contact the relevant person.**

Key Contacts

AA Environmental Ltd, Units 4-8 Cholswell Court, Shippon, Oxfordshire, OX13 6HX
Tel: 01235 536042



Brown long-eared bat.



Lesser horseshoe bat in rail tunnel.



Common pipistrelle bat.