

Jarvis, Steyning, West Sussex

Bat Survey and
Assessment

Mr Sutherland

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Contents

1. Summary	4
2. Introduction	6
3. Methods	7
4. Results and interpretation.....	11
5. Assessment.....	16
6. Recommendations.....	18
Appendix A Figures	20
Appendix B Screenshots from the Night Vision Aids (NVAs)	21
Appendix C DNA Analysis of Bat Droppings.....	25

FIGURE 1	LOCATION OF THE PROPERTY
FIGURE 2	RESULTS OF THE EXTERNAL BUILDING INSPECTION
FIGURE 3	RESULTS OF THE INTERNAL BUILDING INSPECTION
FIGURE 4	RESULTS OF SURVEY VISITS 1 AND 2
FIGURE 5	PHOTOGRAPHS

1. Summary

- 1.1.1** Mr Sutherland intends to apply for planning and listed building consent to alter and maintain his Grade II listed property in Steyning, West Sussex. The proposed development comprises the alteration and extension of an existing single-storey extension present along the northern elevation of the property, the replacement of broken clay roof and ridge tiles and repointing of Horsham stone tiles throughout the roof of the property, the removal of hanging tiles above the garage door, the temporary removal of hanging tiles on the southern elevation of the property and replacement of the wall membrane, the replacement of windows on all elevations, internal redecoration and the reinstatement of a driveway.
- 1.1.2** Lizard Landscape Design and Ecology (LLDE) conducted a Preliminary Ecological Appraisal (PEA) of the property in September 2025 to support the planning and listed building applications¹, and assessed the property as having high potential to support roosting bats.
- 1.1.3** Babec Ecological Consultants were commissioned in July 2025 to undertake a Preliminary Bat Roost Assessment (PBRA) of the property. The brief was subsequently extended to include three emergence surveys of the property, the purchase and interpretation of bat roost records and the provision of a report detailing the findings.
- 1.1.4** The aim of the bat surveys was to determine the presence or likely absence of bat roosts within the property and, if present, to characterise the species of bat and type of roosts present. The objective was to provide appropriate recommendations for avoidance and mitigation measures to minimise the impact of the proposed development on roosting bats, and allow the works to proceed in accordance with the relevant legislation and planning policy relating to roosting bats.
- 1.1.5** All surveys were undertaken by appropriately licensed and experienced ecologists between July and September 2025, following good practice guidelines². No significant limitations were recorded.
- 1.1.6** The results of the surveys indicate the presence of a historic brown long-eared bat day roost and a serotine day roost within Roof void 1 (Roost 1 and 2, respectively), a common pipistrelle or soprano pipistrelle day roost behind hanging tiles (Roost 3) and a common pipistrelle day roost behind hanging tiles (Roost 4), both on the southeast gable end of the property. All four roosts are considered to be of site value only³.
- 1.1.7** All species of bat and their roosts are strictly protected by legislation, including the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Development affecting bats is also subject to a licensing procedure administered by Natural England.
- 1.1.8** The proposed development works are not considered likely to directly affect Roosts 1, 2, 3 or 4, and as such it should not be necessary to obtain a Natural England protected species licence for the proposed works. However, there is still limited potential for bats using Roost 2 to be harmed or disturbed and/or the roost to be damaged/destroyed if suitable access points to Roof void 1 are blocked off during the proposed works. Furthermore, bats using Roosts 3 or 4 could be disturbed if scaffolding obstructs access to these roosts or if hanging tiles need to be removed during the replacement of the window.

1 Lizard Landscape Design and Ecology (2025). *Preliminary Ecological Appraisal*, Jarvis, Jarvis Lane, Steyning. Dated 10 October 2025.

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

3 Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. Chartered Institute of Ecology and Environmental Management, Ampfield.

1.1.9 Appropriate avoidance measures have been provided in Section 6 of this report, which include:

- Removing confirmed and suitable roosting features, replacing damaged roof/ridge tiles and repointing Horsham stone tiles, outside of the bat hibernation period (1 December to 28 February).
- Erecting scaffolding at the southeast corner of the property in a way that does not obstruct the entrance to Roosts 3 or 4, or the flight lines of bats using these roosts.
- Providing a toolbox talk to contractors prior to work commencing.
- A licensed bat worker supervising the replacement of damaged roof/ridge tiles, and the repointing under Horsham stone tiles, ensuring existing access gaps to Roof void 1 are reinstated/retained.
- A licensed bat worker to supervise the removal of hanging tiles on the southern elevation of the property and if required, the removal of hanging tiles at the southeast gable end of the property during the replacement of the first-floor window to avoid disturbing bats using Roosts 3 and 4.
- The use of hessian-backed bituminous Type 1F felt (or a membrane that has a snagging propensity certificate) to line the altered roofs of the extension and the wall at the southern elevation of the property.
- If bats are found during the proposed works, works should cease immediately, and the licensed bat worker should be consulted on how to proceed. It should be noted that this may include obtaining a protected species licence from Natural England.

1.1.10 The avoidance measures set out above and in Section 6 should be closely followed to safeguard roosting bats. These measures minimise the risk of damaging/destroying their roosts or harming/disturbing bats, so that the proposed development may proceed in accordance with the relevant legislation and policy regarding roosting bats.

1.1.11 **It is recommended that the above avoidance measures are approved by Horsham District Council prior to their implementation. It should be noted that carrying out the works other than in accordance with the avoidance measures in Section 6 could result in an offence being committed.**

1.1.12 Central and local government policy encourages the incorporation of ecological enhancements into development proposals. The installation of at least two bat boxes on a suitable tree within the curtilage of the property would enhance the value of the property for bats.

2. Introduction

2.1 Development, planning and ecology background

2.1.1 Mr Sutherland proposes to alter and maintain his Grade II listed cottage known as Jarvis, which is hereafter referred to as 'the property'.

2.1.2 The proposals include:

- the removal of a chimney stack, alteration of the roof pitch and construction of a new flat roof abutment to an existing single-storey extension along the northern elevation of the property,
- the replacement of broken clay roof and ridge tiles and repointing of Horsham stone tiles throughout the roof of the property,
- the removal of hanging tiles above the garage door,
- the temporary removal of hanging tiles on the southern elevation of the property to install a membrane lining the wall,
- the replacement of windows on all elevations,
- a suite of internal alterations to layout and decoration, and
- the reinstatement of a driveway.

2.1.3 An outbuilding and shed adjacent to the property are not proposed to be altered. The proposals listed above are hereafter referred to as 'the proposed development'.

2.1.4 It is understood that Mr Sutherland is in the process of preparing applications for planning and listed building consent for the proposed development for submission to Horsham District Council.

2.1.5 The property is located along Jarvis Lane, in the town of Steyning in West Sussex (What3Words:///aboard.manly.piles), see Figure 1 in Appendix A.

2.1.6 Lizard Landscape Design and Ecology (LLDE) conducted a Preliminary Ecological Appraisal (PEA) of the property in September 2025 to support the applications for planning and listed building consent⁴. The property was assessed as having high potential to support roosting bats and three mature trees within the woodland along the western boundary of the garden were assessed as PRF-I.

2.2 The brief and objectives

2.2.1 Babec Ecological Consultants were commissioned in July 2025 to undertake a Preliminary Bat Roost Assessment (PBRA) of the property. The brief was subsequently extended to include three emergence surveys of the property, the purchase and interpretation of bat roost records and the provision of a report detailing the findings.

2.2.2 The aim of the surveys was to determine the presence or likely absence of bat roosts within the property and, if present, to characterise the species of bat and type of roosts present. The objective was to provide appropriate recommendations for avoidance and mitigation measures to minimise the impact of the proposed development on roosting bats, and allow the works to proceed in accordance with the relevant legislation and planning policy relating to roosting bats.

⁴ Lizard Landscape Design and Ecology (2025). *Preliminary Ecological Appraisal, Jarvis, Jarvis Lane, Steyning*. Dated 10 October 2025.

3. Methods

3.1 Personnel

- 3.1.1** The Preliminary Bat Roost Assessment (PBRA) was undertaken by Tim Buckland BSc MSc MCIEEM. The emergence surveys, assessment of Night Vision Aid (NVA) video footage and bat call analysis from attended and unattended survey locations were undertaken by Tim with assistance from Jack Hughes BSc and John Burnham BSc. Tim holds a Natural England level 2 class licence for bats (registration number 2025-85127-CL18-BAT), is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and has over 15 years' professional experience in conducting surveys and assessment for bats. Jack is a qualifying member of CIEEM and has two years' professional experience surveying for bats. John has seven years' experience surveying for bats.
- 3.1.2** This report has been written by Jack and has been reviewed by both Tim Buckland and Jon Bannon BSc MSc MCIEEM. Tim and Jon both have over 15 years' experience of undertaking these types of assessment.

3.2 Desk study

- 3.2.1** In the first instance, aerial photographs were examined to assist in understanding the local context of the property, in particular, to identify its connectivity with the surrounding habitat.
- 3.2.2** The Multi-Agency Geographical Information for the Countryside (MAGIC)⁵ interactive map was used to search for Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs) designated for bat species within a 5km radius of the property. In addition, records of granted protected species licences for bats within the last ten years were searched within a 2km radius of the property.
- 3.2.3** Records of bat roosts within a 2km radius of the property were obtained from Sussex Biodiversity Records Centre⁶.

3.3 Building inspection

- 3.3.1** An internal and external inspection of the property, outbuilding and shed was undertaken on 11 July 2025 to look for bats or secondary evidence of bats, and to record the presence of potential roosting features (PRFs) and potential access points for bats. The property, outbuilding and shed were then assessed and placed into a category (negligible, low, moderate, or high) for their level of potential to support roosting bats. The building inspection was undertaken in accordance with good practice guidelines⁷.

3.4 Emergence surveys

- 3.4.1** Three emergence surveys were undertaken of the property following the methods set out in the Bat Conservation Trust's good practice guidelines⁸.

5 MAGIC (2025). *Map and Geographic Information Centre Interactive Map Tool*. <http://magic.gov.uk>. Accessed 20 October 2025.

6 Sussex Biodiversity Records Centre (2025). *Land at Jarvis, Jarvis Lane, Steyning + 2km radius*. SxBRC/25/429. Dated 1 September 2025.

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

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

- 3.4.2** During each survey visit, emergence surveys were conducted from six separate survey locations, which were carefully chosen to ensure the best possible view of PRFs and access points on the property.
- 3.4.3** Emergence surveys were conducted from each survey location by either a surveyor with a night vision aid (NVA) paired with a full-spectrum Batlogger detector (attended NVA), or an unattended NVA paired with a full-spectrum Batlogger detector (unattended NVA), as detailed in Table 1. NVAs comprised a Canon XA series video camera equipped with one or more infrared lamps and torches. An example of the equipment used during emergence surveys is provided in Photo 1, below.
- 3.4.4** All emergence surveys commenced 15 minutes before sunset and ended 90 minutes after sunset.



Photo 1. (1) Canon XA series video camera, (2) 7" high-definition screen attached to NVA (used at attended survey locations only), (3) Infrared floodlamp, (4) Batlogger-M, (5) Thermometer

Emergence surveys from attended NVAs

- 3.4.5** At attended NVAs, surveyors watched PRFs directly from the start of the survey until ambient light levels were too low for PRFs to be clearly visible, which was approximately 20 minutes after sunset. Surveyors then watched PRFs using a 7" high-definition screen attached to their NVA for the remainder of the survey. Surveyors captured a NVA screenshot at the start and end of each emergence survey (i.e., at the lightest and darkest point of the survey), which are presented in Appendix B.
- 3.4.6** Video footage was recorded for the full extent of each survey, and recorded footage was reviewed following the survey when considered appropriate, such as if the surveyor left an attended NVA, if a

bat roost was recorded or if the surveyor suspected the possible presence of a roost. All bat echolocation calls were analysed using Elekon BatExplorer software.

Emergence surveys from unattended NVAs

- 3.4.7** At unattended NVAs, Batloggers and NVAs were set to record for the full duration of the survey. A NVA screenshot was also taken at the start and end of each emergence survey (i.e., at the lightest and darkest point of the survey), which are presented in Appendix B.
- 3.4.8** Recorded video footage was then reviewed in full by a surveyor on a desktop or laptop computer at up to 1.5x speed. All bat echolocation calls were analysed using Elekon BatExplorer software.

Dates of surveys and weather conditions

- 3.4.9** Weather conditions during each survey visit were recorded, including rain, wind strength, cloud cover, and maximum and minimum temperatures. The dates of the emergence surveys, survey methodology, personnel, and weather conditions recorded during the emergence surveys are provided in Table 1.

3.5 Limitations of survey methods

- 3.5.1** Species data collated during the desk study is mainly derived from records submitted by consultants, members of the public and ad-hoc surveys undertaken by volunteers. Therefore, it should not be taken as a definitive list of the protected species that may occur in the local area.
- 3.5.2** The emergence surveys were undertaken in optimal or suitable weather conditions between July and September, which are suitable months for conducting this type of survey and incorporate the bat maternity period⁹.
- 3.5.3** Sections of roof tiles on the southern and south-western elevations of the property and some hanging tiles on the southern elevation of the property were not visible during the emergence surveys. This is not considered to be a significant limitation as no bats were recorded flying from either of these areas of roof or hanging tiles at survey locations four and five during the emergence surveys.
- 3.5.4** It should be noted that whilst every effort has been made to provide a comprehensive assessment of the use of the property by roosting bats, no investigation can ensure the complete characterisation and prediction of the natural environment. The results of the surveys will become less reliable as time progresses. As a general rule, the results of the surveys should not be relied upon after 18 months from the date of the last emergence survey.

⁹ Collins (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*. The Bat Conservation Trust, London.

Table 1. Date of emergence surveys, survey methodology, personnel, and weather conditions.

Visit No	Date	Survey location	Survey method and personnel	Temp (°C)		Cloud cover* (Start-End)	Rain	Wind** (Start-End)	Overall suitability for survey
				Min	Max				
1	17/07/2025	1	Attended location (John Burnham)	19.1	20.1	2-1	None	0-0	Optimal
		2	Attended location (Tim Buckland)						
		3	Unattended location						
		4	Unattended location						
		5	Unattended location						
		6	Unattended location						
2	14/08/2025	1	Attended location (Tim Buckland)	17.2	18.6	1-1	None	0-0	Optimal
		2	Attended location (Jack Hughes)						
		3	Unattended location						
		4	Unattended location						
		5	Unattended location						
		6	Unattended location						
3	04/09/2025	1	Attended location (Tim Buckland)	14.8	16.7	2-1	Light shower between 20:30 – 20:35	1-2	Suitable
		2	Attended location (Jack Hughes)						
		3	Unattended location						
		4	Unattended location						
		5	Unattended location						
		6	Unattended location						

*Measured in Oktas.

**Measured on the Beaufort scale

4. Results and interpretation

4.1 Desk study

- 4.1.1** The property is located along Jarvis Lane, in the town of Steyning in West Sussex. A large garden is present at the rear of the property, which comprises modified grassland and broadleaved woodland along the western boundary. The property is bordered by residential properties with amenity gardens.
- 4.1.2** No Sites of Special Scientific Interest or Special Areas of Conservation designated for bats were identified within 5km of the property¹⁰.
- 4.1.3** No Natural England granted protected species licences for bats were identified within 2km of the property in the last ten years¹¹.
- 4.1.4** Sussex Biodiversity Record Centre hold one bat roost record within Jarvis, comprising ten mixed-age brown long-eared bat droppings within the roof void recorded during a building inspection in 2009, confirming the property as a brown long-eared bat roost (Roost 1). They also hold four records of bat roosts within 2km of the property within the last ten years¹², as shown in Table 2.

Table 2. Bat roost records within 2km of the property¹³.

Species	Detail	Year	Location	Approx. distance to property (km)
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	One bat was recorded during a Natural England roost visit (unspecified roost)	2015	Mimmack Close, Steyning	0.64
	One bat emerged from the house during an emergence survey (unspecified roost)	2018	Maudlin Cottage, Steyning	0.89
Brown long-eared bat (<i>Plecotus auritus</i>)	Bat droppings were recorded in the loft during a building inspection (unspecified roost)	2017		
Serotine (<i>Eptesicus serotinus</i>)	Old bat droppings were recorded in the loft during a building inspection (unspecified roost)			

4.2 Building inspection

- 4.2.1** The results of the building inspection are provided below and are shown on Figures 2 and 3 in Appendix A. Photographs of the property are shown in Figure 5 in Appendix A.

¹⁰ MAGIC (2025). *Map and Geographic Information Centre Interactive Map Tool*. <http://magic.gov.uk>. Accessed 20 October 2025.

¹¹ MAGIC (2025). *Map and Geographic Information Centre Interactive Map Tool*. <http://magic.gov.uk>. Accessed 20 October 2025.

¹² Sussex Biodiversity Records Centre (2025). *Land at Jarvis, Jarvis Lane, Steyning + 2km radius*. SxBRC/25/429. Dated 1 September 2025.

¹³ Sussex Biodiversity Records Centre (2025). *Land at Jarvis, Jarvis Lane, Steyning + 2km radius*. SxBRC/25/429. Dated 1 September 2025.

The property

- 4.2.2** The property comprises a Grade II listed two-storey cottage built in the 1500s, with a newer extension located along the northern elevation. The extension comprises living areas, a room in roof and a garage. The pitched roofs on the western and southern elevations of the property are clad with Horsham stone tiles with slate tiles beneath, and the northern and eastern elevations are clad with clay tiles. The pitched roofs on the extension and garage are clad with clay tiles and solar panels cover the southern elevation of the garage roof. The roofs are lined with bitumen felt / wooden sarking. Small areas of flat roofs are present on the eastern elevation of the property and extension. It is understood that the pitched roofs of the property were replaced approximately 20 years ago. Hanging tiles are present above the garage door and on the southern and western elevations of the property. Four roof voids are located above the property/extension, which are described below.
- 4.2.3** Roof void 1 is above the property and measures approximately 16m (l) x 5m (w) x 2.5m (h). The ceiling joists are lined with fibreglass insulation and are partially boarded. Thirteen mixed-aged bat droppings were recorded on the floor of the void below the ridge. Droppings collected were confirmed by DNA analysis to comprise serotine droppings (Roost 2, see Appendix C).
- 4.2.4** Roof void 2 is located above the northeast corner of the property and measures approximately 5m (l) x 1m (w) x 0.3m (h). No bats or evidence of bats was recorded.
- 4.2.5** Roof void 3 is located above the western side of the extension and measures approximately 9m (l) x 2m (w) x 0.5m (h). The void is uncluttered and the ceiling joists are insulated with fibreglass insulation and are partially boarded. No bats or evidence of bats was recorded.
- 4.2.6** Roof void 4 is located above the extension at the northern end and measures approximately 1.5m (l) x 2m (w) x 0.5m (h). The ceiling joists are insulated with fibreglass insulation and are not boarded. No bats or evidence of bats was recorded.
- 4.2.7** No bats were recorded within any of the roof voids; however, several potential roosting features (PRFs) and access points for bats were recorded on the property, including gaps under clay roof and ridge tiles, gaps between Horsham stone tiles, and gaps under hanging tiles.
- 4.2.8** Overall, the property was confirmed as a serotine day roost (Roost 2) and was assessed as having high potential to support further day and/or transitional roosts, maternity roosts, and low potential to support hibernation roosts, night roosts or feeding perches.

Outbuilding

- 4.2.9** A small brick outbuilding is located to the east of the property, which has a pitched roof clad with slate tiles and is lined with bitumen felt.
- 4.2.10** No bats, evidence of bats, or potential roosting features for bats were recorded within the outbuilding during the building inspection. As such, the outbuilding was assessed as having negligible potential to support roosting bats.

Shed

- 4.2.11** A small prefabricated timber shed is present adjacent to the north-western corner of the property.
- 4.2.12** No bats, evidence of bats, or potential roosting features for bats were recorded within the shed during the building inspection. As such, the shed was assessed as having negligible potential to support roosting bats.

4.3 Emergence surveys

- 4.3.1 A single bat emerged from behind a hanging tile on the southeast gable end of the property at 32 minutes after sunset during survey visit 1 (Roost 3). No echolocation call was recorded during the emergence but from the early emergence time, the size and flight pattern of the bat it is considered likely to be a common pipistrelle or soprano pipistrelle.
- 4.3.2 A single common pipistrelle emerged from behind a hanging tile on the southeast gable end of the property at 14 minutes after sunset during survey visit 2 (Roost 4).
- 4.3.3 No bats were recorded to emerge from the property during survey visit 3.
- 4.3.4 A moderate level of bat activity was recorded at the property during the emergence surveys, with the highest levels being from commuting and foraging common pipistrelle and noctule. Activity was recorded from commuting soprano pipistrelle, long-eared bats (*Plecotus spp.*), serotine (*Eptesicus serotinus*), and myotis bats (*Myotis spp.*).
- 4.3.5 The results of the emergence surveys are illustrated in Figure 4 in Appendix A.

4.4 Interpretation of bat roosts

- 4.4.1 Our interpretation of roosts recorded during the bat surveys is provided in Table 3.

Table 3. Interpretation of recorded bat roosts.

Bat species	Roost number and description	Roosting location	Egress/ access points	Roost value*	Interpretation of species, roost type and numbers of bats
Brown long-eared bat	Roost 1 Sussex Biodiversity Record Centre hold a record of ten mixed-age brown long-eared bat droppings within a roof void of the property during a building inspection in 2009.	The precise roosting location is unknown but it is considered likely to be within Roof void 1 on bitumen felt/wooden sarking, along the ridge beam and rafters.	No brown long-eared bats were recorded to emerge during the surveys. It is considered likely that gaps under clay roof tiles or Horsham stone tiles provide access for bats through the bitumen felt/between wooden sarking and into the roof void.	Site	As no brown long-eared bat droppings were identified in the roof voids of the property during the building inspection and that no bats were recorded to emerge during the suite of emergence surveys, the results of the surveys indicate the presence of a historic brown long-eared bat day roost.
Serotine	Roost 2 Thirteen mixed-aged serotine droppings were recorded on the floor of Roof void 1 below the ridge (confirmed by DNA analysis).	The precise roosting location is unknown, but is considered most likely to be crevices around chimney stacks, between clay roof/ Horsham stone tiles and bitumen felt/wooden sarking or along the ridge beam.	No serotine bats were recorded to emerge during the surveys. It is considered likely that gaps under clay roof tiles or Horsham stone tiles provide access for bats through the bitumen felt/between wooden sarking and into the roof void.	Site	The results of the surveys indicate the presence of a serotine day roost used on an infrequent basis by low numbers (likely ≤ 3) of serotine bats. As the first emergence survey was undertaken during the bat maternity period, there is a likely absence of maternity roosts of this species. However, the presence of a hibernation roost cannot be ruled out.
Common or soprano pipistrelle	Roost 3 A single common/soprano pipistrelle emerged from behind a hanging tile on the southeast gable end of the property at 32	Gaps between hanging tiles on the southeast gable end of the property. Common pipistrelles and soprano pipistrelles are highly	Gaps under hanging tiles.	Site	The results of the surveys indicate the presence of a common pipistrelle or soprano pipistrelle day roost used on an occasional basis by low numbers (likely ≤ 3) of bats. As the first emergence survey was undertaken during the bat maternity period, there is a likely absence of maternity

Bat species	Roost number and description	Roosting location	Egress/ access points	Roost value*	Interpretation of species, roost type and numbers of bats
	minutes after sunset on 17 July 2025.	mobile species that are considered likely to make use of suitable gaps present throughout the property.			roosts of common and soprano pipistrelle. However, the presence of a hibernation roost cannot be ruled out.
Common pipistrelle	Roost 4 A single common pipistrelle emerged from behind a hanging tile on the southeast corner of the property at 14 minutes after sunset on 14 August 2025.	Gaps between hanging tiles on the southeast corner of the property. Common pipistrelles are highly mobile species that are considered likely to make use of suitable gaps present throughout the property.	Gaps under hanging tiles.	Site	The results of the surveys indicate the presence of a common pipistrelle day roost used on an occasional basis by low numbers (likely ≤ 3) of common pipistrelles. As the first emergence survey was undertaken during the bat maternity period, there is a likely absence of maternity roosts of this species. However, the presence of a hibernation roost cannot be ruled out.

* Roost value: in accordance with Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

5. Assessment

5.1 Roosting bats

5.1.1 All species of bat and their roosts are strictly protected by the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Taken together, these make it an offence to:

- Deliberately capture, injure, kill or disturb a bat.
- Deliberately disturb a bat in such a way as to be likely to:
 - Impair its ability to survive, or reproduce, or to rear or nurture its young.
 - Impair its ability to hibernate or migrate.
 - Affect significantly the local distribution or abundance of the species to which they belong.
- Damage or destroy a breeding site or resting place of a bat.
- Disturb a roosting bat or obstruct access to a roost or place of shelter.

5.1.2 Development affecting bats and their roosts is also subject to a licensing procedure administered by Natural England.

5.1.3 In addition to the legislation above, the National Planning Policy Framework¹⁴ states that “*“if significant harm to biodiversity resulting from a development cannot be avoided..., adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused...”*”.

5.1.4 Soprano pipistrelle and brown long-eared bat are listed as Species of Principal Importance (SPI) under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, which places a duty on Horsham District Council to have regard for these species when determining a planning application.

5.1.5 While a historic brown long-eared bat day roost (Roost 1) and three day roosts used by low numbers of bats, comprising serotine (Roost 2), common pipistrelle or soprano pipistrelle (Roost 3), and common pipistrelle (Roost 4) are present within the property, the proposed development works are not considered likely to directly affect roosting bats for the following reasons:

- Roost 1 is historic, so is unlikely to be in current use by brown long-eared bats.
- The proposed works are unlikely to affect serotine bats (Roost 2) if the access gaps to Roof void 1 are maintained.
- Works to the section of hanging tiles on the southeast gable end of the property are limited to the replacement of a first-floor window, which is unlikely to directly affect common/soprano pipistrelles (Roost 3) or common pipistrelles (Roost 4).
- No bats were recorded to emerge from any roof tiles on the property.
- No bats or evidence of bats was recorded within Roof void 3 and Roof void 4, where alterations are planned to the extension roofs.

5.1.6 However, there is still limited potential for bats using Roost 2 to be harmed/disturbed and for Roost 2 to be damaged/destroyed if access points to Roof void 1 are blocked off during the

¹⁴ Ministry of Housing, Communities & Local Government (2024). *National Planning Policy Framework*.

replacement of damaged roof tiles and the repointing of Horsham stone tiles. Furthermore, bats using Roosts 3 and 4 could be disturbed if scaffolding obstructs access to the area of hanging tiles on the southeast corner of the property or if hanging tiles need to be removed during the replacement of the window. Although no bats were recorded to emerge from hanging tiles along the southern elevation of the property, given their proximity to the hanging tiles used by common/soprano pipistrelles (Roosts 3 and 4) and the poor visibility of these tiles during the emergence surveys, bats could be disturbed during their removal. Therefore, while it is not considered that the proposed development works should require a Natural England protected species licence for bats, the precautionary avoidance measures outlined in Section 6 should be closely followed to ensure that an offence is not committed and the proposed development works proceed in accordance with the above legislation and policy regarding roosting bats.

5.1.7 Should the scope of the development works change, then a licensed bat worker should be consulted to determine if the new proposal are likely to directly or indirectly affect Roosts 2, 3, or 4.

5.1.8 As set out in Section 4.2, the property has low potential to support hibernating bats. Bat hibernation surveys of buildings with low potential to support hibernation roosts are generally not required if precautionary avoidance measures can be employed¹⁵. As such, precautionary avoidance measures for hibernating bats are set out in Section 6 of this report. Providing these measures are followed, then the proposed development works should be compliant with the relevant legislation and policy relating to hibernating bats.

5.2 Ecological enhancements

5.2.1 Central government and local policy also encourage the incorporation of ecological enhancements into development proposals. For example, Paragraph 193d of the National Planning Policy Framework (2024) states that ‘... *opportunities to improve biodiversity in and around developments should be integrated as part of their design...*’. A recommendation for a suitable ecological enhancement in accordance with this policy has also been provided in Section 6 of this report.

¹⁵ Collins (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*. The Bat Conservation Trust, London.

6. Recommendations

6.1 Avoidance measures for roosting bats

- 6.1.1** To safeguard serotines using Roost 2, and common/soprano pipistrelle bats using Roosts 3, and 4 at the property and minimise the risk of roost damage/destruction and any harm or disturbance, the following avoidance measures will be adhered to:

Timing of the proposed works

- 6.1.2** As a precautionary measure, roosting features (clay roof/ridge/hanging tiles and Horsham stone tiles) will only be removed, replaced, or have the pointing repaired outside of the bat hibernation period, which is generally taken to be between 1 December and 28 February, when bats are most vulnerable to harm and disturbance. In addition, roosting features will only be removed in suitable weather conditions (no heavy rain or high winds) and once overnight temperatures have been above 8°C for at least four consecutive nights.

Erection of the scaffolding

- 6.1.3** A licensed bat worker will be consulted on the erection of any scaffolding to ensure that the entrance to Roosts 3 and 4, and the flight lines of bats using these roosts are not obstructed.

Toolbox talk

- 6.1.4** All contractors involved in the proposed development works will be given a toolbox talk by a licensed bat worker prior to these works commencing. The toolbox talk will include a discussion of the presence of bat roosts, the location of roosts, the protection afforded to bats and their roosts, what to do if a bat is found, and a suitable working approach.

Proposed works

- 6.1.5** A licensed bat worker will supervise the careful removal of any damaged clay roof tiles and the repointing of Horsham stone tiles.
- 6.1.6** The licensed bat worker will check suitable access points for bats immediately before roof tiles are removed or mortar gaps are filled. Any features providing suitable access into Roof void 1 will be reinstated/retained when replacing roof tiles or during the repointing of Horsham stone tiles, to ensure that access to Roost 2 is not obstructed. To achieve this, replacement clay roof tiles should be lifted by approximately 25mm or a gap measuring at least 25mm in width should be incorporated in the pointing beneath Horsham stone tiles. All access points will be created under the supervision of a licensed bat worker.
- 6.1.7** A licensed bat worker will supervise the careful removal of hanging tiles along the southern elevation of the property, and if required, the removal of any hanging tiles during the replacement of the first-floor window on the southeast gable end of the property in case bats from Roosts 3 or 4 are disturbed.
- 6.1.8** In the unlikely event that any bats are encountered at this stage, works should cease immediately, and the licensed bat worker should be consulted on how to proceed. It should be noted that this may include obtaining a protected species licence from Natural England.
- 6.1.9** Noise should be kept to a minimum within the immediate vicinity of the bat roosts.
- 6.1.10** New external lighting will be kept to a minimum. Where lighting is required, it must be located below roof level and point away from any reinstated access points for bats.

- 6.1.11** If required, the use of non-bitumen coated membranes (formerly known as breathable roofing membranes) to line any of the roofs/walls will need to be avoided, as bats can get tangled in these and die. In the first instance, wooden boarding or hessian-backed bituminous Type 1F felt, that is a non-woven short fibre construction, should be used. Where this is not possible, then only a material that has passed Natural England's 'snagging propensity test' may be used.
- 6.1.12** If required, only approved timber treatment products suitable for use in or near bat roosts may be used to treat roof timbers. A list of approved products can be found on the gov.uk website¹⁶.
- 6.1.13** **It is recommended that the above avoidance measures are approved by Horsham District Council prior to their implementation. Carrying out the works other than in accordance with the above avoidance measures could result in an offence being committed.**

6.2 Ecological enhancements

- 6.2.1** Installing at least two bat boxes on a suitable tree within the curtilage of the property would enhance the value of the property for bats. The bat boxes should be installed at least 3m above the ground, with the entrance free from obstruction and not be illuminated by external lighting.

¹⁶ <https://www.gov.uk/government/publications/bat-roosts-insecticides-and-timber-treatments/timber-treatment-products-suitable-for-use-in-or-near-bat-roosts>.

Appendix A | Figures

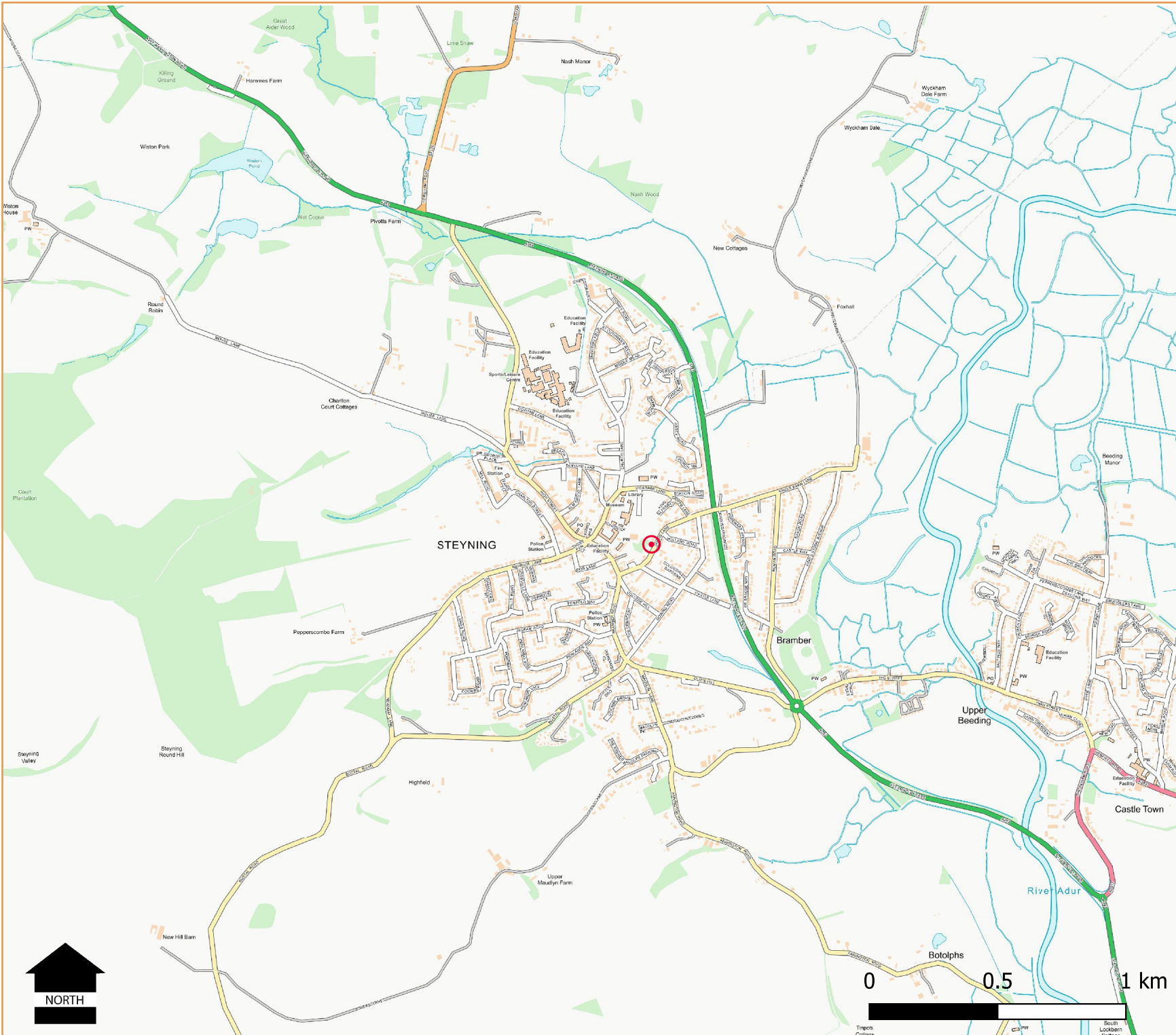


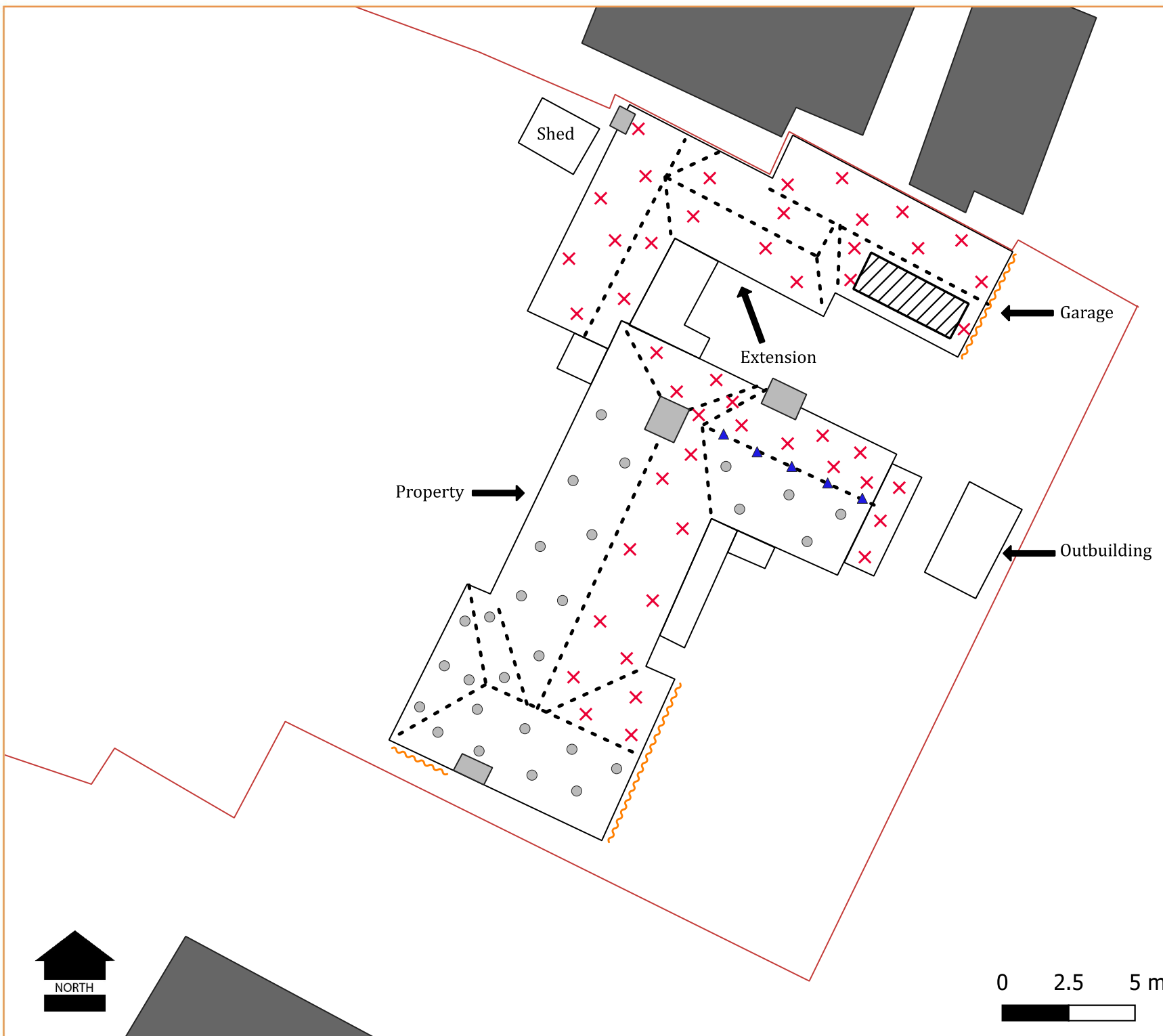
Figure 1.
Location of the property

Legend
● Property location

Date of survey	N/A	
Date of issue	28 November 2025	
Job reference	SLD101	
Drawn by	JH	Checked by TB/JB
Status	Final	

Figure 2.

Results of the external building inspection



Date of survey 11 July 2025

Date of issue 28 November 2025

Job reference SLD101

Drawn by JH

Checked by TB/JB

Status Final

babec Ltd
Ecological Consultants



Photograph 1. Photograph of Roof void 1 taken from the southwest corner.

13 serotine bat droppings were scattered on the floor of Roof void 1 (Roost 2).

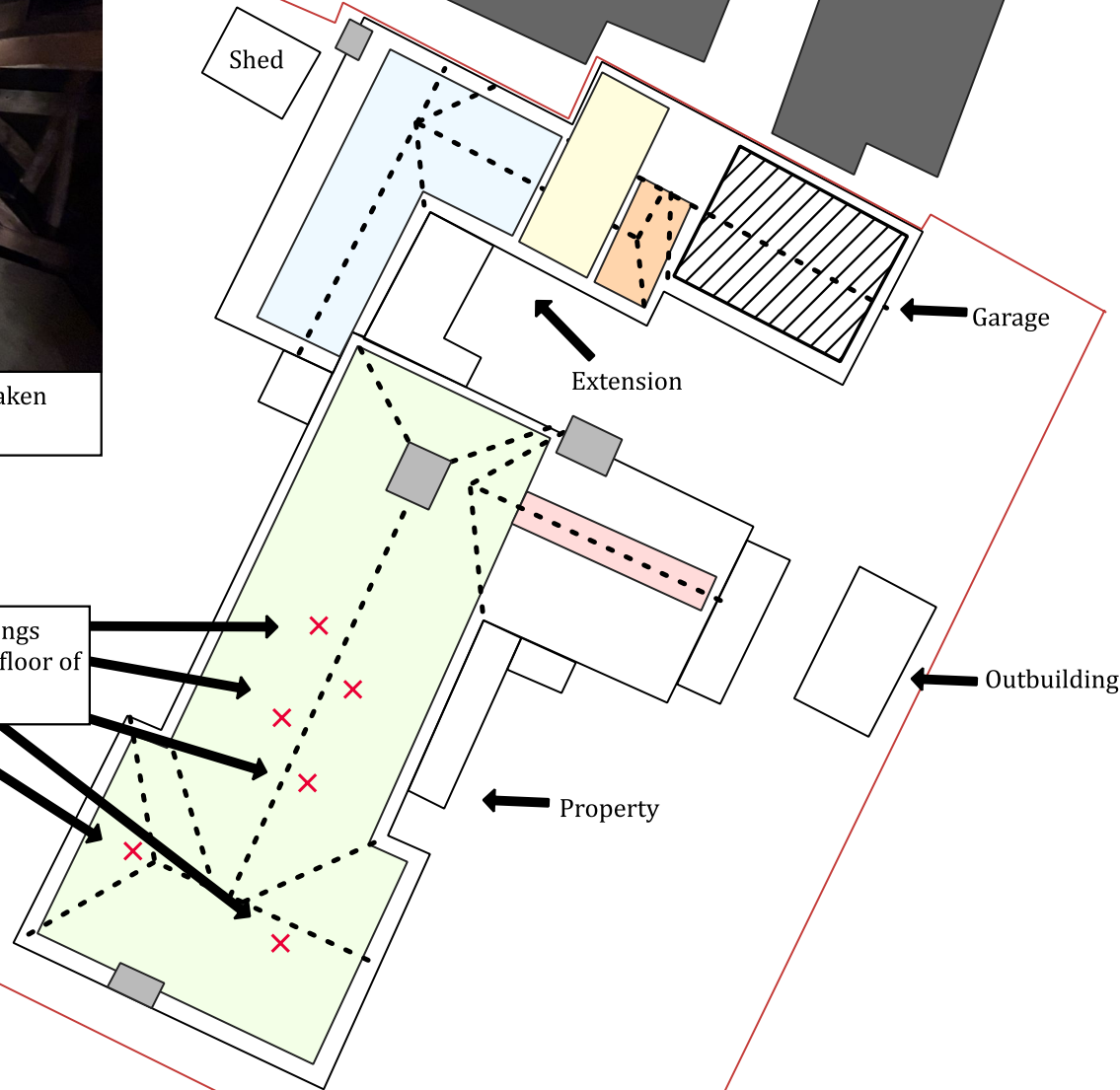


Figure 3.

Results of the internal building inspection

— Indicative property boundary

■ Neighbouring properties

■ Chimney

Results of the internal building inspection

✕ Bat droppings

■ Roof void 1

■ Roof void 2

■ Roof void 3

■ Roof void 4

▨ Garage (no access)

■ Room in roof

Date of survey 11 July 2025

Date of issue 28 November 2025

Job reference SLD101

Drawn by JH

Checked by TB/JB

Status Final

babec Ltd
Ecological Consultants

0 2.5 5 m





Photograph 1. Emergence of a common pipistrelle or soprano pipistrelle from behind a hanging tile on the southeast corner of the property at 32 minutes after sunset during survey visit 1 (Roost 3).



Photograph 2. Emergence of a common pipistrelle from behind a hanging tile on the southeast corner of the property at 14 minutes after sunset during survey visit 2 (Roost 4).

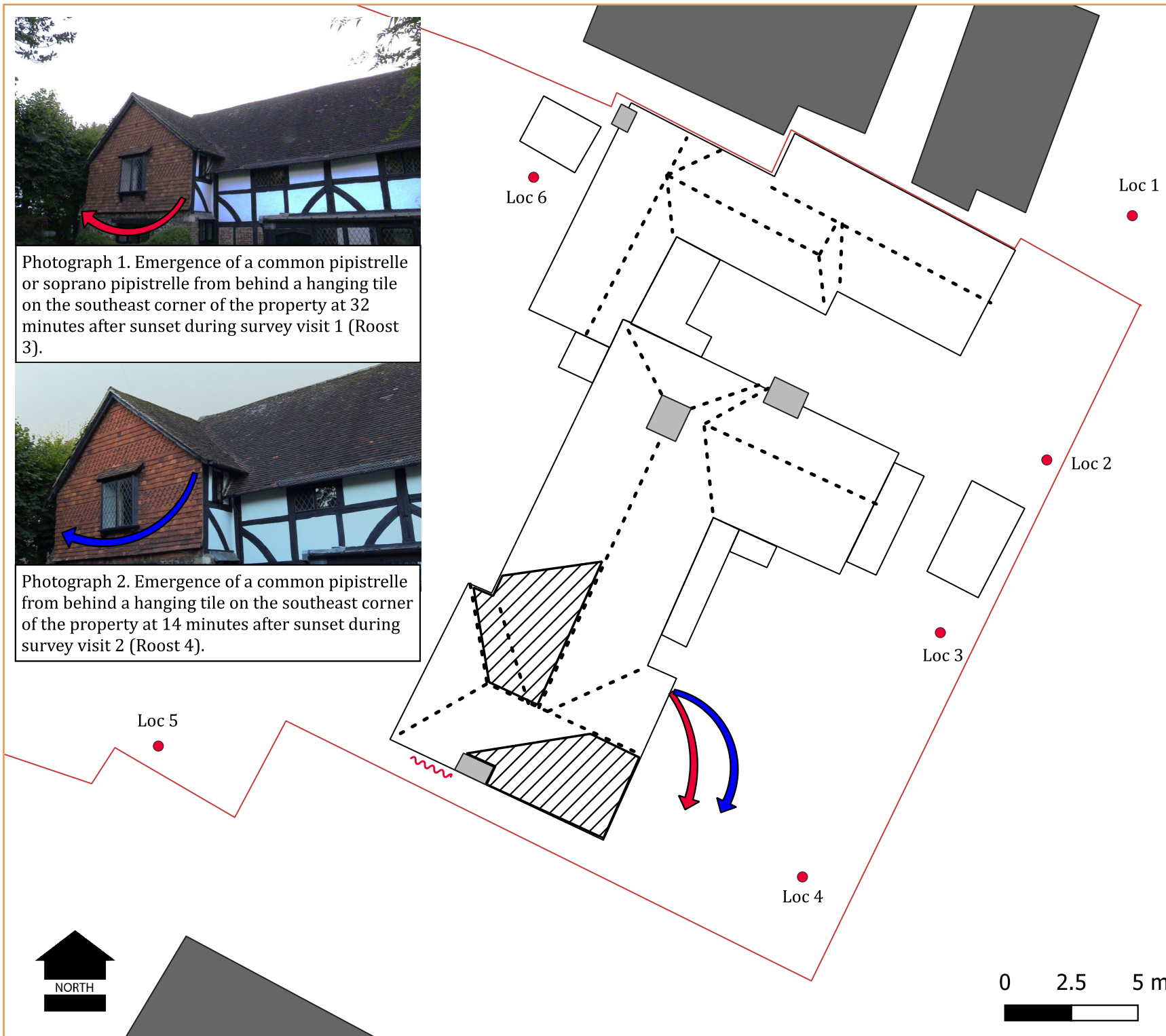


Figure 4.

Results of survey visits 1 and 2

Legend

— Indicative property boundary

■ Neighbouring properties

■ Chimney

● Survey locations

Results of the emergence surveys

→ Emergence of a common pipistrelle or soprano pipistrelle

→ Emergence of a common pipistrelle

▨ Section of roof tiles that were not visible during the surveys

~~~~~ Section of hanging tiles not visible during the surveys

Date of survey 17 July & 14 August 2025

Date of issue 28 November 2025

Job reference SLD101

Drawn by JH

Checked by TB/JB

Status Final

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Photograph 1. Western and southern elevations of the property.



Photograph 2. Eastern elevation of the property.



Photograph 3. Eastern elevation of the property, showing the extension and garage.



Photograph 4. Northern elevation of the garage.



Photograph 5. Northern and western elevations of the property.



Photograph 6. Western elevation of the outbuilding.

Figure 5.  
Photographs

|                |                  |                  |
|----------------|------------------|------------------|
| Date of survey | N/A              |                  |
| Date of issue  | 28 November 2025 |                  |
| Job reference  | SLD101           |                  |
| Drawn by       | JH               | Checked by TB/JB |
| Status         | Final            |                  |

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## Appendix B | Screenshots from the Night Vision Aids (NVAs)

**Table 1.** Screenshots taken from NVAs at each survey location during survey visits 1, 2 and 3.

| Surveyor location | Visit no. | Start of survey screenshot                                                          | End of survey screenshot                                                             |
|-------------------|-----------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1                 | 1         |    |    |
|                   | 2         |   |   |
|                   | 3         |  |  |
| 2                 | 1         |  |  |

| Surveyor location | Visit no. | Start of survey screenshot                                                          | End of survey screenshot                                                             |
|-------------------|-----------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                   | 2         |    |    |
|                   | 3         |    |    |
| 3                 | 1         |  |  |
|                   | 2         |  |  |
|                   | 3         |  |  |

| Surveyor location | Visit no. | Start of survey screenshot                                                          | End of survey screenshot                                                             |
|-------------------|-----------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 4                 | 1         |    |    |
|                   | 2         |    |    |
|                   | 3         |   |   |
| 5                 | 1         |  |  |
|                   | 2         |  |  |

| Surveyor location | Visit no. | Start of survey screenshot                                                          | End of survey screenshot                                                             |
|-------------------|-----------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                   | 3         |    |    |
| 6                 | 1         |    |    |
|                   | 2         |   |   |
|                   | 3         |  |  |

---

## Appendix C | DNA Analysis of Bat Droppings

## Laboratory Report

Order Number: EG-2660

### Order Details

---

#### *Client Information:*

**Name:** Tim Buckland

**Company:** Babec Ltd

**Email:** [REDACTED]

**Phone:** [REDACTED]

#### *Sample log:*

**Order Date:** 19/09/2025 11:55

**Date Sample Arrived at Lab:** 22/09/2025

**Results Date:** 23/09/2025

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**Ecotype Genetics Limited.**

Registered in England. **Company No:** 11328606. **VAT:** 295 2037 94

**Registered office:** Parkers Cornelius House, 178-180 Church Road, Hove, East Sussex, BN3 2DJ

**e:** [orders@ecotypegenetics.co.uk](mailto:orders@ecotypegenetics.co.uk) **t:** 01273704505 **w:** [ecotypegenetics.co.uk](http://ecotypegenetics.co.uk)

## Results

**Sample ID: EG-2660-1**

---

*Sample information:*

**Sample type:** Faecal

**Species group:** Bats

**Suspected species:** Brown long-eared

**Site Location:** BN44 3GL

**Comments:** Scattered droppings collected throughout roof void. Do not look fresh, but appear to be bat shape/shape/consistency so looking for confirmation.

*Laboratory information:*

**DNA Extraction Code:** EG-2025-2305

**Identification method:** qPCR

**Analysis Procedure Notes:**

All UK bat species tested for - only a single species detected in this sample.

**Laboratory Comments:**

None

*Species Identified:*

**Species 1:** Eptesicus serotinus (Serotine bat)

**qPCR Ct Value:** 22

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## ***What do my results mean?***

**DNA extraction code:** This identifies the DNA extraction sample within our laboratory so that it can be revisited if necessary. We keep these extractions for a minimum of 6 months.

**ID method: qPCR** - These results are obtained using species-specific qPCR (a.k.a real-time PCR) tests. A positive result indicates the presence of DNA from the species reported.

**ID method:** DNA sequencing - where qPCR fails or is not possible, standard DNA sequencing will be performed. Sequences are then matched against the BLAST database.

**Ct value:** This is a relative measurement of the amount of species DNA in the sample, derived from the qPCR data. The lower the value, the more DNA present in the reaction. This is for laboratory reference only.

**% match** - this value is the percentage match of sequences derived from DNA sequencing compared to the database. Due to differences in DNA sequence between individuals within a species this match may not always be exactly 100%.

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