



Full Bat Roost Assessment

Weaversden, Storrington

Report for Darren Blackman

Reference: SE26-321b

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Control Sheet

Project Information	
Project No.	SE26-321b
Client	Darren Blackman
Site	Weaversden, Storrington
Survey Type	Full Bat Roost Assessment
Survey Dates	9 March 2026: Daytime Bat Walkover 6 May 2026: Dusk Bat Emergence Survey (B1 & B2 1/2) 27 May 2026: Dusk Bat Emergence Survey (B1 & B2 2/2)
Document History	
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Non-Technical Summary	
Purpose of Report	The purpose of this Full Bat Roost Assessment is to: • Determine the presence or likely absence of legally protected Bat Features within the Zone of Influence of the Proposed Development; • Determine the ecological significance of any Bat Features identified; • Identify any impacts the Proposed Development would have on Bat Features present; and, • Advise of any required avoidance, mitigation, compensation, and/or enhancement measures.
Methods used in Assessment	A Daytime Bat Walkover was carried out at Weaversden on 09 March 2026. Dusk bat emergence surveys targeting Weaversden (B1) and the Annex (B2) were carried out on 06 and 27 May 2026. The findings of the surveys were supported by a desk study which included a data search from the local bat records centre and a review of relevant online resources.
Ecological Features	The Preliminary Bat Roost Assessment identified several potentially suitable bat roosting features on the exterior of Weaversden (B1) and the Annex (B2), and the buildings were assessed as having moderate bat roost suitability. No bats were recorded emerging from Weaversden (B1) or the Annex (B2) during the dusk bat emergence surveys and bat roosts were therefore assessed as Likely Absent from Weaversden (B1) and the Annex (B2). Recorded bat activity indicates the habitats within the Application Site have conservation significance at the Site Level.
Potential Impacts of Proposals	Bat roosts are Likely Absent from Weaversden (B1) and the Annex (B2) and the Zone of Influence of the Proposed Development; therefore, no impacts to bats or their roosts are anticipated to occur as a result of the Proposed Development. Because of the Application Site's location in high quality bat habitats, and the existing low levels of ambient light within it, the future installation of Artificial Lighting at Night could cause post-development impacts to nearby roosting, commuting, and foraging bats.
Mitigation and Compensation Measures	In the unlikely event that bats or bat droppings are encountered during the works then the bat(s) must be placed back where found and left alone, all works must stop, and a licensed bat ecologist must immediately be called to site. Measures including restrictions on the use of artificial lighting at night, if proposed at a later date, will be required to avoid and mitigate for adverse impacts to bats post development.
Ecological Enhancements	It is recommended that two bat features be installed on Weaversden (B1) or within the Application Site, to support local bat populations.

1 INTRODUCTION

Background to the Project

Instruction

- 1.1 Simlaw Ecology was commissioned by Darren Blackman in March 2026 to carry out a Full Bat Roost Assessment of Weaversden (B1) and the Annex (B2), Hampers Lane, Storrington, RH20 3JB.

Survey Area

- 1.2 Weaversden (B1) was a detached dwelling with separate Annex (B2) building set within its own grounds (hereafter referred to as 'the Application Site').
- 1.3 The Application Site ([Error! Reference source not found.](#)) was bound by residential dwellings and their private gardens in all directions t ([Error! Reference source not found.](#)).
- 1.4 The Application Site covered an area of ~950 square meters (sqm) and was approximately centred on Ordnance Survey (OS) National Grid Reference TQ 10978 14257.

Development Proposals

- 1.5 In accordance with client communications¹ the development proposals (hereafter referred to as the 'Proposed Development') are understood to comprise:
- Re-roofing of Weaversden (B1);
 - Extensions to the east and south elevations and a small single room extension to the north elevation of Weaversden (B1);
 - Repairs to the roof of the Annex (B2); and,
 - Associated site maintenance and landscaping including removal of the small artificial pond.
- 1.6 The Proposed Development will not result in the loss of any other habitats within the Application Site.

¹ Darren Blackman (2026.03.29) *Pers. Comm.*

Defining the Zone of Influence

- 1.7 The distance from the Proposed Development at which bats could be subject to significant effects has been evaluated within this assessment, and this area is referred to as the Zone of Influence (Zoi) of the Proposed Development.
- 1.8 Based on the details of the Proposed Development provided by the Client, it is understood that the proposed works will only affect Weaversden (B1), the Annex (B2) and immediately surrounding hardstanding and amenity gardens.
- 1.9 The potential impact vectors for bats will therefore include, and are likely limited to:
- Disturbance from noise, dust, and increased human activity to any bats roosting within the buildings within the Application Site, during the construction phase of the Proposed Development;
 - Direct impacts to bats and their roosts caused by alteration of the buildings within the Application Site;
 - Damage to any roosts located within the Application Site caused by spatial avoidance or reduced foraging times caused by the installation of additional artificial external lighting (if proposed);
 - Damage to foraging habitats caused by comprehensive relandscaping works; and,
 - Damage to retained habitats within and immediately adjacent to the Application Site caused by the installation of additional artificial external lighting (if proposed).
- 1.10 The Zoi for the Proposed Development was therefore considered to be no further than the Application Site boundary and the immediately adjacent habitats.

Purpose of the Assessment

- 1.11 The purpose of the Full Bat Roost Assessment was to:
- (a) Use the development plans to Determine the Zoi of the Proposed Development.
 - (b) Assess the potential for legally protected bat features (i.e. bat roosts, critical commuting routes, and/or important foraging resources) to be present;
 - (c) Determine the presence or likely absence of legally protected bat features;
 - (d) Determine the ecological significance of any legally protected bat features;

- (e) Identify any impacts the Proposed Development would have on any legally protected bat features;
- (f) Advise on the requirement for any avoidance, mitigation, compensation, and/or enhancement measures; and,
- (g) If required, to provide a Bat Mitigation Strategy demonstrating how the Proposed Development can be achieved without adversely impacting the favourable conservation status of any bat species present, within their natural ranges.

Figure 1. Application Site Boundary

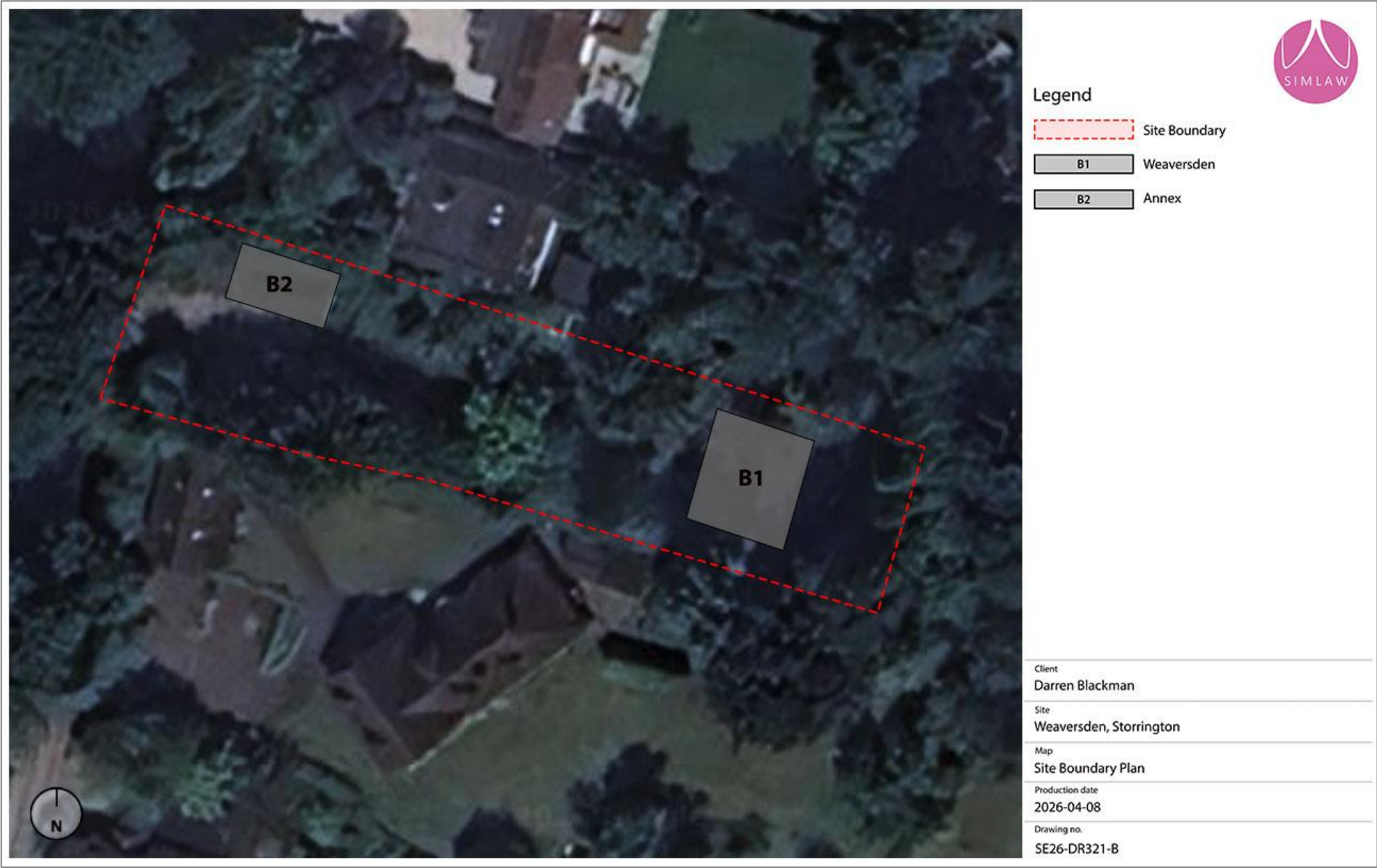
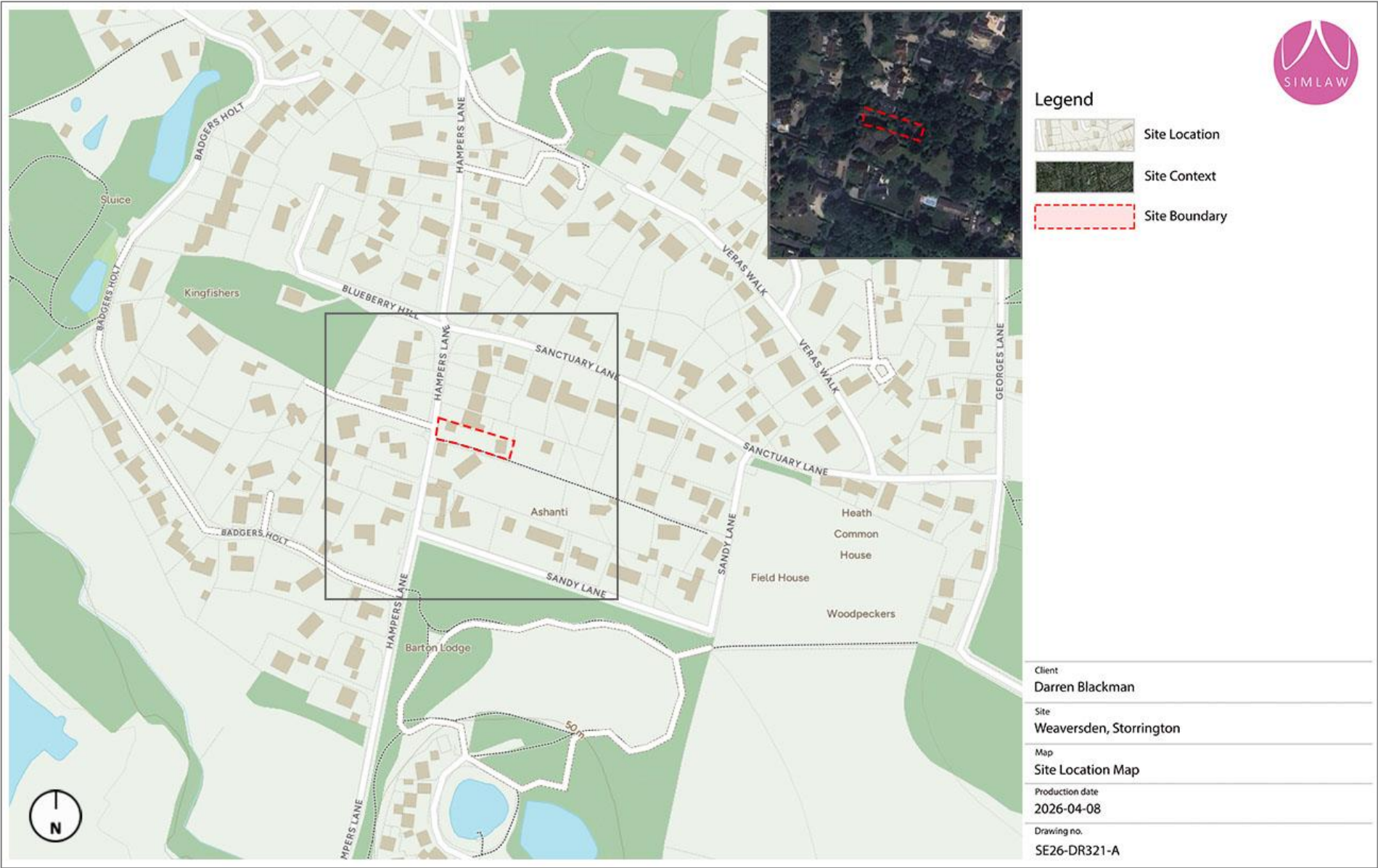


Figure 2. Site Location and Context



2 METHODOLOGY

Full Bat Roost Assessment

Desk Study

2.1 The desk study comprised:

- A review of historical data relating to the ecology of the Application Site;
- A review of relevant records from the local biological records centre; and,
- A comprehensive review of available online resources.

Historical Data

2.2 The Horsham District Council Planning Application Search tool² was used to look for relevant ecological information submitted with previous planning applications on, or adjacent to, the Application Site, including ecology reports and consultation responses from statutory consultees and the Local Planning Authority.

Data Search

2.3 Sussex Biodiversity Records Centre (SxBRC)³ was commissioned to provide records of bats from within a two-kilometre (km) radius of the Application Site.

2.4 The data was received on 17 March 2026 and all records from the past 20 years are provided within this report.

Online Resources

2.5 Online resources were used to identify any statutory designated nature conservation sites with bats as a primary reason for their designation within a 10 km radius of the Application Site.

2.6 Online resources were also used to identify the presence of habitats in the surrounding area that would be suitable to support roosting, commuting, and foraging bats and this information was used to assess the likelihood of bats finding and utilising suitable bat features within the Zol of the Proposed Development.

² <https://public-access.horsham.gov.uk/public-access/>

³ <https://sxbr.org.uk/services/dataRequests.php>

2.7 The following resources were consulted:

- **Multi-Agency Geographic Information for the Countryside (MAGIC)**⁴ to identify statutory designated sites, Priority Habitats and Ancient Woodlands;
- **Google Earth Pro**⁵ and online Ordnance Survey Mapping⁶ to identify features in the surrounding landscape that may encourage bats into, and or through, the Application Site (such as lines of mature trees, hedgerows or nearby water bodies).

2.8 The geographical area for obtaining bat desk study data was determined using Good Practice Guidelines^{7,8}, and was informed by professional judgement. The study areas used for data collection varied depending on the potential impacts of the Proposed Development on bat features within the ZOI of the Proposed Development; including reference to any known bat Core Sustenance Zones (CSZ)⁹ within which the Application Site was located.

2.9 The data search areas are detailed in **Error! Reference source not found.** below.

Table 1. Data Search Areas

Data Type	Search area – distance from the Application Site boundary
Statutory Sites of Nature Conservation designated for Bats	10 km
Bat Commuting and Foraging Habitats (including Priority Habitats and Ancient Woodland)	1 km
Bat Roost Sites and flight records	2 km
Natural England Mitigation Licences	2 km

⁴ <http://www.magic.defra.gov.uk>

⁵ All aerial imagery used within this report courtesy of Google Inc.

⁶ <https://osmaps.ordnancesurvey.co.uk/osmaps>

⁷ Institute of Ecology and Environmental Management (2017) Guidelines for Preliminary Ecological Appraisal. 2nd Edition.

⁸ Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th Edn).

⁹ The area surrounding a maternity roost within which habitat availability and quality exerts a significant influence on the ecological functionality and, therefore, conservation status of the colony using the roost.

Daytime Bat Walkover (DBW)

External and Internal Building Inspection

- 2.10 All buildings within the Application Site were inspected for bats or evidence indicating the presence of a bat roost, such as: droppings, feeding remains or fur oil staining around access/egress points to a potential bat roosting feature.
- 2.11 Features that would be suitable to support roosting bats (e.g., hanging tiles, gaps into soffit boxes and slipped or broken roof tiles, etc.) were searched for on the exterior of each building and structure.
- 2.12 All internal areas that would be suitable to support bats (e.g., roof voids) were inspected, with particular attention being paid to the floors, walls, roofing timbers, ledges and stored items, where bat droppings might have accumulated.
- 2.13 Where required, a ladder¹⁰, high-powered spotlight¹¹, hand torch¹² and video endoscope¹³ were used to inspect areas of buildings that would otherwise have been inaccessible.
- 2.14 Consideration was given to the species of bat, and type of roost (summer, transitory, maternity, feeding perch, hibernation), that might be associated with any features or habitats identified.

DNA Identification of Physical Evidence of Bats

- 2.15 Any physical evidence of bats (e.g. guano, dead bats, or bat fur) recorded during the DBW that could not be conclusively identified to species level from visual examination was submitted for DNA identification.
- 2.16 To avoid contamination, any such physical evidence was collected, handled, and distributed in accordance with the biological science laboratories guide to Bat Dropping Sample Collection¹⁴.

¹⁰ Little Giant Revolution (4.3 m) folding ladder

¹¹ LED Lenser X21R

¹² Klarus A1 High-Performance Tactical Flashlight

¹³ Bosch GIC 120 C Professional Cordless Inspection Camera

¹⁴ <https://www.surescreenscientifics.com/blog/bat-dropping-sample-collection-guide/>

Bat Roost Characterisation

Dusk Bat Emergence Surveys

- 2.17 The Bat Roost Characterisation was informed by the findings of the following dusk bat emergence surveys:

Table 2. Dusk Bat Emergence Survey Details (Timing, Target Structure(s), Equipment and Conditions)

Date of survey	Survey Timing	Structure reference/ location	Weather Conditions	Equipment used (bat detector and logging equipment)
2026-05-06	Sunset: 20:31 Start: 20:16 End: 22:01	Weaversden (B1); Annex (B2)	Temp: 11-10 °C Cloud: 100% Wind: Beaufort 0 Rain: None	Bat Detectors: Echo Meter Touch 2 Pro Titley Scientific Chorus Song Meter 4
2026-05-27	Sunset: 21:01 Start: 20:46 End: 22:31	Weaversden (B1); Annex (B2)	Temp: 22-19 °C Cloud: 100% haze Wind: Beaufort 1 Rain: None	Interface: Apple iPad Mini A17 Pro Echo Meter Application (Version 3.0.2) Sound Analysis: Kaleidoscope Pro (Version 5.7.0) Thermal Imaging: Pulsar Helion 2 XP50 Pro (1x) Guide TrackIR Pro 19 (1x) Pixfra Arc A613 (1x)

- 2.18 The dusk bat emergence surveys involved observation of Weaversden (B1) and the Annex (B2) for bats emerging from potential bat roosting features identified during the external and internal building inspection.
- 2.19 Four / five survey vantage points were used during each of the dusk bat emergence surveys.
- 2.20 The surveyors and survey equipment were arranged so that all sides of each building could be observed during each of the surveys.

2.21 Where recorded, bat activity was categorised as ‘Emergence’, ‘Commuting’, ‘Foraging’ and ‘Song-flight’¹⁵.

2.22 Screenshots of the echolocation of each bat species recorded within the Application Site are provided in [Appendix 1: Bats Recorded within the Application Site](#).

Thermal Imaging Methodology

2.23 One Pulsar Helion 2 XP50 Pro, one Guide Track IR Pro 19 and one Pixfra ARC A613 were deployed as Night Vision Methods (NVM) or Night Vision Aids (NVA), in the place of, or in support of, an ecologist, during each of the dusk bat emergence surveys. The specification of each NVM are provided in [Appendix 2: Thermal Imaging Device Specification](#).

2.24 The NVMs were positioned so that the field of view matched, at least, what would otherwise have been visible to an ecologist. The field of view of each NVM from the darkest point in each survey is provided in [Appendix 3: Thermal Imaging Device Fields of View](#).

2.25 Thermal imaging video was recorded on the NVM/As and was later analysed using VLC Media Player. Only bat emergences or re-entries to the buildings were noted during post survey analysis.

2.26 The NVMs were deployed together with Titley Scientific Chorus or Song Meter 4 detectors, which enabled identification of any bats, to species level, from their echolocation calls. All bat sound analysis was carried out using Kaleidoscope Viewer (Version 5.7.0).

Survey Timing and Methodology

2.27 The dusk bat emergence surveys were carried out in suitable temperature and weather conditions during the optimal survey period for bats (May – August, inclusive). The surveys began 15 minutes before sunset and continued until at least 1.5 hours after sunset.

Guidelines and Informatives

2.28 All survey methods were in accordance with the following guidelines and informatives:

- **Survey Methodology:** All bat surveys were designed and implemented in accordance with the Bat Survey Good Practice Guidelines⁸.

¹⁵ During which male bats emit high volumes of social calls to denote territory and attract females.

- **Bat Sound Analysis:** Analysis and identification of bat species from acoustic data was guided by the latest information^{16,17}.
- **Thermal Imaging Bat Surveys:** Thermal video observation was carried out in accordance with the Thermal Imaging Bat Survey Guidelines¹⁸, and corresponding sections of the Bat Survey Good Practice Guidelines⁸.
- **Valuation:** The valuation of bat roosts, commuting routes, and foraging areas was carried out in accordance with the Bat Mitigation Guidelines¹⁹.
- **Bat Mitigation and Compensation:** Any required bat mitigation and compensation measures were designed in accordance with the Bat Mitigation Guidelines¹⁹, and the guidance on bats and artificial lighting at night²⁰.

Bat Sound Analysis and Interpretation

Identification and Interpretation of Bat Sound

- 2.29 Identification of bats to species level from acoustic recordings was carried out using Kaleidoscope Viewer for Mac (Version 5.7.0). Raw data files were batch analysed to create a results document, and this was used to navigate the sound files, and to manually identify the bat calls within them.
- 2.30 'Tidy Data' management and filing protocols were followed in accordance with the Bat Survey Good Practice Guidelines⁸.
- 2.31 Identification of *Myotis* genus bats to species level was not attempted unless a roost of this genus was present.

Defining a 'Bat Pass'

- 2.32 Bat activity within this report is referenced in terms of number of 'bat passes' recorded during each sampling period. The Echo Meter Touch and Titley Chorus bat detectors trigger each time bat echolocation is detected by the microphone and, once triggered, the detector will record the

¹⁶ Russ, J. (2012) *British Bat Calls: A Guide to Species Identification*. Pelagic Publishing, Exeter

¹⁷ Middleton, N. Froud, A. and French, K. (2016) *Social Calls of the Bats of Britain and Ireland*. Pelagic Publishing, Exeter.

¹⁸ Fawcett Williams (2019) *Thermal Imaging: Bat Survey Guidelines*

¹⁹ 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.

²⁰ Institute of Lighting Professionals and the Bat Conservation Trust (2023) *Bats and Artificial Lighting at Night*. Guidance Note GN08/23. Institute of Lighting Professionals, Rugby.

echolocation for a minimum of three seconds to a maximum of 15 seconds, before creating a new file. Each triggered recording file is then regarded as one 'bat pass' within this report.

- 2.33 Each file may contain one or several bats; therefore, the number of 'bat passes' does not equate to the number of bats within audible range of the detector. It does, however, provide data on the duration of bat activity within audible range of the detector, during the survey.

Analysis of Results

Bat Suitability Evaluation Criteria

- 2.34 The suitability of the Application Site to support legally protected bat features was evaluated using the criteria set out in [Table 3. Criteria for Assessing Potential Bat Roost Suitability](#), below, together with the professional judgement of the lead surveyor.

Table 3. Criteria for Assessing Potential Bat Roost Suitability

	Roosting Habitat	Commuting and Foraging Habitats
Negligible suitability	Buildings, structures and trees with negligible suitability for bats, such as: tightly sealed buildings with no architectural features with potential to support roosting bats; structures containing no accessible crevices or voids; and, trees with no suitable potential bat roosting features.	Habitats with negligible potential to support commuting or foraging bats, such as: urban habitats comprising over 60% built structures and hard standing that are lit by artificial lighting and isolated from any living features in the landscape by surrounding unfavourable habitats.
Low suitability	A building or structure with one or more potential roost sites that could be used by individual bats, opportunistically. No habitats with sufficient space, shelter or protection; or, with little suitable surrounding habitat, to support larger numbers of bats regularly (i.e. unsuitable for maternity or hibernation roosts). A tree of sufficient size and age to contain Potential bat roosting features, but with none seen from the ground, or, features seen with only very limited potential to support bats.	Habitats that could be used by small numbers of commuting bats such as intermittent hedgerows or a stream with limited marginal vegetation, but isolated, i.e. poorly connected to suitable habitats in the wider landscape by barriers to the dispersal of bats. Suitable but isolated habitat that could be used by low numbers of foraging bats, such as a lone tree (not in a parkland situation) or an area of scrub or grassland within an otherwise urban environment.
Moderate suitability	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type, not species conservation value).	Continuous habitat, that is strongly connected with other suitable habitats in the wider landscape, that could be used by bats for commuting, such as: hedgerows, lines of mature trees or adjacent residential gardens. Habitat that is connected to the wider landscape that could be used by bats for

	Roosting Habitat	Commuting and Foraging Habitats
		foraging such as trees, scrub, grassland or water.
High suitability	A structure or tree with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat (i.e. habitats that would be suitable to support maternity or hibernation roost sites).	Continuous, high-quality habitats that is homogenous with other suitable habitats in the wider landscape; and, which is likely to be used regularly by commuting bats, such as: well-vegetated watercourses which link to tracts of woodland or large bodies of water, mature hedgerows with trees, tree belts between woodlands and woodland edge habitat. Habitats as described above, which are likely to be used regularly by large numbers of foraging bats, such as: broadleaved woodland, tree-lined watercourses and wood pasture and parkland. The habitat/Site could be close to, and is strongly connected to, known roosts.

Impact Vectors

2.35 Potential impacts likely to arise because of the Proposed Development are identified within this report. Typical impact vectors considered within this assessment, and their likely effects, include, but are not limited to:

- **Direct Impacts:** Killing, injury, and/or disturbance of bats, and damage or destruction of roosts or other bat habitats (i.e. those used to forage or commute) during the works.
- **Indirect Impacts:** Noise, dust, vibration, increased human activity, fragmentation and isolation via destruction of commuting habitats, reduction of foraging habitats.

Impact Assessment Parameters

2.36 In accordance with the guidelines for ecological impact assessment²¹, and those provided within the bat survey good practice guidelines, the following parameters have been considered when assessing the different impacts of the project on bats and their habitats:

- **Effect:** Whether the impact is positive or negative;

¹² CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal – 3rd Edition*. Chartered Institute of Ecology and Environmental Management, Winchester

- **Significance:** The significance of the impact on a geographical scale (see Geographical Context, below);
- **Duration:** Whether the impact is short term (<1-5years), medium term (5-20 years) or long-term/permanent (>20 years);
- **Timing:** The timing of the impact (before, during or after the development)

2.37 The importance of any bat roost or habitat within the Application Site was evaluated within a geographical context based on the population and conservation status of the bat species²² and published guidance on evaluating bat roosts in ecological impact assessment¹⁹. The following geographical frames of reference were used, and/or adapted to suit the circumstances of the Application Site:

- Within the Application Site
- Local
- Regional
- National
- International

Bat Roost Classifications

2.38 The type and extent of any bat roosts present within the Application Site was determined based on the findings of the surveys and was categorised as per the classifications in [Table 4. Bat Roost Classifications](#), below.

Table 4. Bat Roost Classifications

Roost Classification	Roost Description
Day Roost	A place where individual bats, or small groups of males, rest or shelter in the day, but are rarely found by night in the summer.
Night Roost	A place where bats rest or shelter during the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.

²² Mathews, F., Kubasiewicz, L. M., Gurnell, M., Harrower, C. A., McDonald, R. A., Shore, R. F. (2018) *A Review of the Population and Conservation Status of British Mammals*. A Report by the Mammal Society under contract to Natural England, Natural Resources Wales, and Scottish Natural Heritage. Natural England, Peterborough. ISBN 978-1-78354-469-1.

Roost Classification	Roost Description
Feeding Roost	A place where individual bats or a few individuals feed during the night but are rarely present by day.
Transitional / Occasional Roost	Used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
Swarming Site	Where large numbers of males and females gather during late summer to autumn.
Mating Site	Where mating takes place from late summer and can continue throughout winter.
Maternity Roost	Where female bats give birth and raise their young to independence.
Hibernation Roost	Where bats may be found individually or together during winter. They have a constant, cool temperature and high humidity.
Satellite Roost	An alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

- 2.39 An assessment of the species of bat, and type of roost (summer, transitory, maternity, feeding perch, hibernation), that might be associated with any PRF identified was made using good practice guidelines and professional judgement.

Surveyor Information

Full Bat Roost Assessment

- 2.40 All surveys were carried out by suitably qualified, licensed, trained, and experienced ecological surveyors.
- 2.41 All survey leads met the requirements set out in the Chartered Institute of Ecology and Environmental Management's (CIEEM) Competency Framework; and, where appropriate, held a suitable bat survey licence for the methods used, or were acting as an accredited agent on one.
- 2.42 All surveyors were either members or Qualifying Members of CIEEM.

Limitations

Interpretation of Desk Study Data

Data Search

- 2.43 Records of bats and bat roosts returned by the data search are limited by the availability of records to the local records holder and so may not account for all species potentially present within the Application Site or locally.

Full Bat Roost Assessment

Acoustic Identification of Mouse-eared Bats

- 2.44 Acoustic identification of mouse-eared *Myotis* spp. bats to species level can be problematic because of the similarity in their calls¹⁶. This genus of bats have therefore been categorised as 'mouse-eared' bat within this report. If unlawful impacts to mouse-eared bats / roosts are anticipated, then DNA bat dropping analysis or capture by hand or static hand is used to identify the bats.

Nocturnal Survey Coverage

- 2.45 The north elevation of Weaversden (B1) was not directly observed during the dusk bat emergence survey on 6 May 2026, due to obstructive boundary vegetation. During this survey, the presence or likely absence of bats emerging from the north elevation was achieved by corroboration of observations made by the surveyor in the southeast and the NVM in the west. Additional surveyors and thermal coverage were then deployed for the dusk bat emergence survey carried out on 27 May 2026. The limited coverage on 6 May 2026 is therefore not considered to have significantly affected the assessment.

Survey Validity

Full Bat Roost Assessment (12 Months)

- 2.46 Owing to the highly mobile nature of bats, and the inherent unpredictability of their roosting habits, this assessment will be valid for a maximum of 12 months from the date of the final survey (i.e., until May 2027), in accordance with published guidance²³. Beyond this period, new bat roosts may have established within the suitable roosting features within the building.

²³ CIEEM (2019) *Guidance Note on the Lifespan of Ecological Reports and Surveys*. Chartered Institute of Ecology and Environmental Management, Winchester.

2.47 **There were not considered to be any further limitations to the methodology described above.**

3 RESULTS

Desk Study

Historical Data

Horsham District Council

- 3.1 The Horsham District Council planning application search tool returned no records of previous planning applications containing relevant ecological information at the Application Site within the last five years.

Table 5. Records of previous planning applications

Planning Application Reference	Date and Decision	Submitted Ecological Information
N/A	N/A	N/A

Data Search

Sussex Biodiversity Records Centre

- 3.2 The Surrey Biodiversity Information Centre (SBIC) provided the following records of bats from within a 2 km radius²⁴ of the Application Site, within the last 20 years²⁵.

Table 6. Bat Records Returned by the Data Search (in order of abundance)

Species	No.	Date range of all Records	Location and Date of Nearest Roost	Roosting habitat of species
Common pipistrelle <i>Pipistrellus pipistrellus</i>	35	2006 - 2025	1.2 km west in 2016	Crevices in buildings , trees and other structures
Serotine <i>Eptesicus serotinus</i>	20	2006 - 2025	265 m northeast in 2012	Crevices, mostly in buildings but occasionally in trees

²⁴ SBIC provide records of bats over a 4 x 1km² grid, centred on the Site, which provides bat records from within at least a 2 km radius of the site.

²⁵ SxBRC (17.03.2026) Ecological data search for land at Weaver's Den, Hampers Lane, Storrington (SxBRC/25/947).

Species	No.	Date range of all Records	Location and Date of Nearest Roost	Roosting habitat of species
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	19	2006 - 2025	890 m northwest in 2014	Crevices in buildings , trees and other structures
Long-eared bat <i>Plecotus sp.</i>	12	2006 - 2020	260 m northeast in 2012	Voids in buildings , trees, bridges, caves and other structures
Noctule <i>Nyctalus noctula</i>	11	2006 - 2025	1.2 km west in 2016	Crevices and voids in trees only
Brown long-eared bat <i>Plecotus auritus</i>	10	2008 - 2024	1.2 km southeast in 2009	Voids in buildings , trees, caves and other structures
Natterer's bat <i>Myotis nattereri</i>	9	2006 - 2023	1.8 km northwest in 2010	Crevices in buildings , trees, bridges and other structures
Daubenton's bat <i>Myotis daubentonii</i>	8	2006 - 2023	2 km south in 2023	Crevices, mostly in trees, bridges and other structures
Western barbastelle bat <i>Barbastella barbastellus</i>	6	2010 - 2017	1.3 km northwest in 2015	Crevices, mostly in trees and barns but occasionally in buildings and other structures
Vesper family bat <i>Vespertilionidae sp.</i>	5	2009 - 2018	1.2 km southeast in 2009	Crevices in buildings , trees, bridges, caves and other structures
Whiskered group bat <i>M. Mystacinus, Brandtii, Alcahoie</i>	5	2010 - 2025	N/A	Crevices, mostly in trees and barns but occasionally in buildings and other structures
Mouse-eared genus bat <i>Myotis sp.</i>	2	2015 - 2024	N/A	Crevices in buildings , trees, bridges, caves and other structures
Nathusius pipistrelle <i>Pipistrelle nathusii</i>	2	2019 - 2025	N/A	Crevices in buildings , trees, bridges and other structures
Whiskered bat <i>Myotis mystacinus</i>	2	2019 - 2020	N/A	Crevices in buildings , trees, caves and other structures
Leisler's bat <i>N.leislerii</i>	1	2006	N/A	Crevices in buildings , trees, caves and other structures

Species	No.	Date range of all Records	Location and Date of Nearest Roost	Roosting habitat of species
Pipistrelle bat <i>Pipistrellus sp.</i>	1	2006	230 m northeast in 2006	Crevices in buildings , trees, bridges and other structures

- 3.3 The data search returned 148 records of bats within the search area between 2006 and 2025, comprised of 11 bat species (brown long-eared bat, common pipistrelle, Daubenton's bat, Leisler's bat, Nathusius' pipistrelle, Natterer's bat, noctule, serotine, soprano pipistrelle, western barbastelle, and whiskered bat). Genus level records were also recorded for long-eared (*Plecotus* spp.), mouse-eared (*Myotis* spp.) and pipistrelle (*Pipistrellus* spp.) genera bats, and family level records were recorded for Vesper bats (*Vespertilionidae* spp.).
- 3.4 The nearest roosts were of pipistrelle species located 230 m southwest of the Application Site in 2006.

Online Resources

- 3.5 Records of Statutory Nature Conservation Sites for bats, Priority Habitats, Ancient Woodlands, Ancient and Veteran Trees; and, granted European Protected Species Mitigation bat licenses are provided in [Table 7. Habitats with potential value to bats within the data search areas](#), overleaf.

Table 7. Habitats with potential value to bats within the data search areas

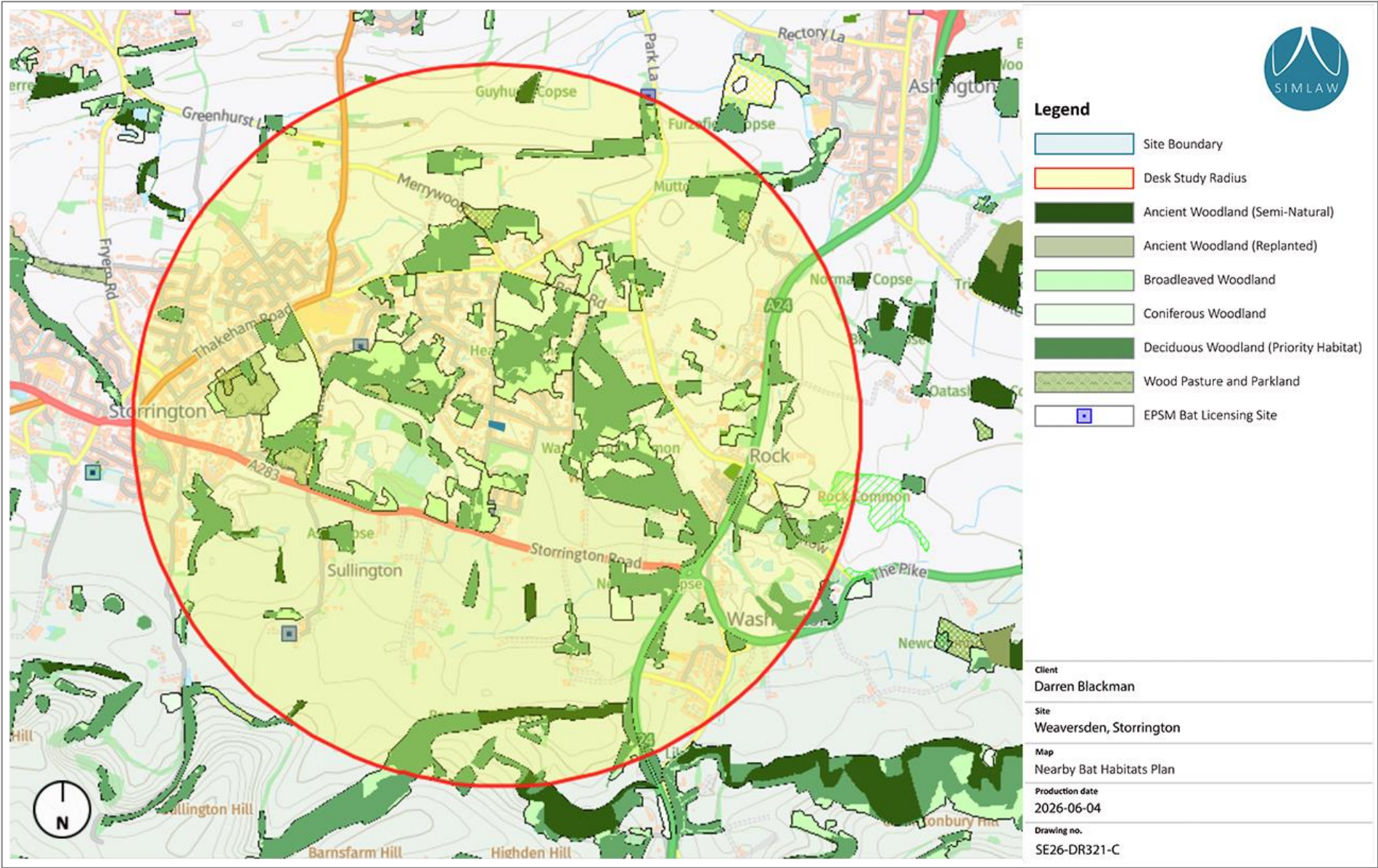
Site Name	Designation / Mitigation Licence Number	Habitats with potential to support bats / bat species present	Location in relation to Application Site ²⁶
Statutory Conservation Sites for Bats within 10 km			
N/A	N/A	N/A	N/A
Priority Habitats and Ancient Woodlands within 1 km			
1 Unit	Ancient Woodland	Ancient and Semi-Natural Woodland	890 m south
49 Units	Priority Habitat	Deciduous Woodland	90 m northwest to 1km northeast
2 units	Priority Habitat	Woodpasture and parkland	280 m west to 1km west
1 Unit	Priority Habitat	Traditional Orchard	765 m east
1 Unit	Priority Habitat	Lowland Heathland	555 m southeast
1 Unit	Priority Habitat	Lowland Dry Acid Grassland	510 m east
Granted European Protected Species Mitigation Bat Licenses within 2 km (<5 years old)			
None	N/A	N/A	N/A

¹ **Red** = adjacent to the Application Site or connected to it by continuous/homogeneous bat habitats. **Amber** = separate from the Application Site but connected by fragmented bat habitats. **Green** = distant from the Application Site, isolated by a lack of connecting habitats or barriers to the dispersal of bats.

Bat Habitats Nearby and in the Wider Landscape

- 3.6 The grounds of the Application Site comprised of Weaversden (B1) and Annex (B2) with hardstanding driveway in the west. The buildings were surrounded by grassland and planted gardens that were recently managed. The Application Site was bound by neighbouring residential properties and their associated gardens.
- 3.7 The area was unlit by artificial, external light, as were the surrounding habitats. The Application Site and immediate surroundings therefore contained habitats with moderate suitability to support commuting and foraging bats.
- 3.8 The Application Site was in a semi-rural setting between Storrington and Rock. The immediate surroundings were populated by residential dwellings with woodland tracts and arable and pasture fields in the wider landscape ([Figure 3. Bat Habitats Nearby and in the Wider Landscape](#)).
- 3.9 The surrounding habitats were of high suitability to support roosting, commuting, and foraging bats and there were not considered to be any significant barriers to the dispersal of bats, including light-averse bat species, from the surrounding habitats into the Application Site.

Figure 3. Bat Habitats Nearby and in the Wider Landscape



Daytime Bat Walkover

External and Internal Building Inspection

- 3.10 A description of the buildings within the Application Site, together with details of any bats, evidence of bats or features with potential to support roosting bats recorded during the Daytime Bat Walkover, are provided in [Table 8. Daytime Bat Walkover Results](#) overleaf.

Table 8. Daytime Bat Walkover Results

Weaversden (B1): External Inspection

General Structure

A detached bungalow with pitched gable roof.

Roof, eaves and gables

The roof was pitched with Dutch gables present on the north and south aspects. The roof was covered with flat clay field tiles and a chimney was present in the centre of the west roof aspect. The eaves were covered with timber soffit box.

Walls, windows and doors

Walls were red brickwork with the south elevation covered in render. Windows were aluminium and doors were timber and set directly into the brickwork.

Bats, Evidence of bats and Potential Bat Roosting Features (PRF)

No bats or evidence of bats were recorded during the external inspection, however, the following features with potential to support roosting bats were recorded:

- Gaps beneath lifted or broken tiles on all aspects of the roof;
- Gaps beneath lifted hip tiles on all Dutch gable hips;
- Gaps beneath lifted ridge tiles;
- Gaps around base of chimney;
- Gap into soffit box on northeast corner;
- Gap into soffit box at the centre of the east elevation;
- Gap into soffit box at southwest corner; and,
- Gaps into soffit box on the west elevation.



Weaversden (B1): Internal Inspection

Internal Structure

Weaversden (B1) roof structure was converted to habitable space with eaves storage coombs spaces along the east and west elevations.

Eaves storage spaces were fully boarded, and the roof was covered and sealed with plasterboard. The coombes spaces were partially boarded with the roof covered with plasterboard. The chimney stack was present within the coombes space on the west elevation.

Bats, Evidence of bats and Potential Bat Roosting Features (PRF)

No bats or evidence of bats was recorded during the internal inspection, however, the following features with potential to support roosting bats were recorded:

- Access into spaces where plasterboard doesn't meet around chimney and pipe; and,
- Broken and damaged plasterboard providing access for bats into northeast coombes space.



Weaversden (B1): Preliminary Assessment

The exterior of Weaversden (B1) contained multiple features that would be suitable to support roosting bats, including gaps providing access to the eaves, the roof voids and beneath the roof tiles that could support individual bats, however, no evidence of bats was recorded. Weaversden (B1) was therefore assessed as having moderate suitability to support roosting bats overall.

Assessment: *Moderate Bat Roost Suitability*

Annex (B2): External and Internal Inspection

General Structure

A single-storey annex building with converted roof space within pitched roof.

Roof, eaves and gables

The roof was pitched and covered with clay field tiles. The roof structure was vaulted with habitable space and no roof void was present. Dutch gables were present on the east and west elevations and the eaves were open.

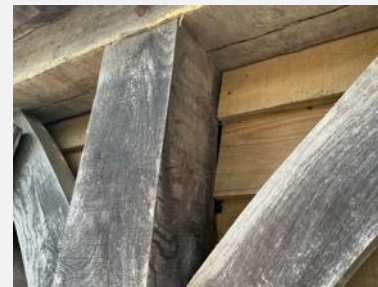
Walls, windows and doors

Walls were covered with timber cladding on all elevations and windows and doors were timber throughout.

Bats, Evidence of bats and Potential Bat Roosting Features (PRF)

No bats or evidence of bats were recorded during the inspection, however, the following features with potential to support roosting bats were recorded:

- Gaps beneath ridge tiles;
- Gaps beneath lifted or broken field tiles;
- A low number of gaps beneath cladding on west and east gable ends; and,
- Gaps beneath knee braces on the south elevation.

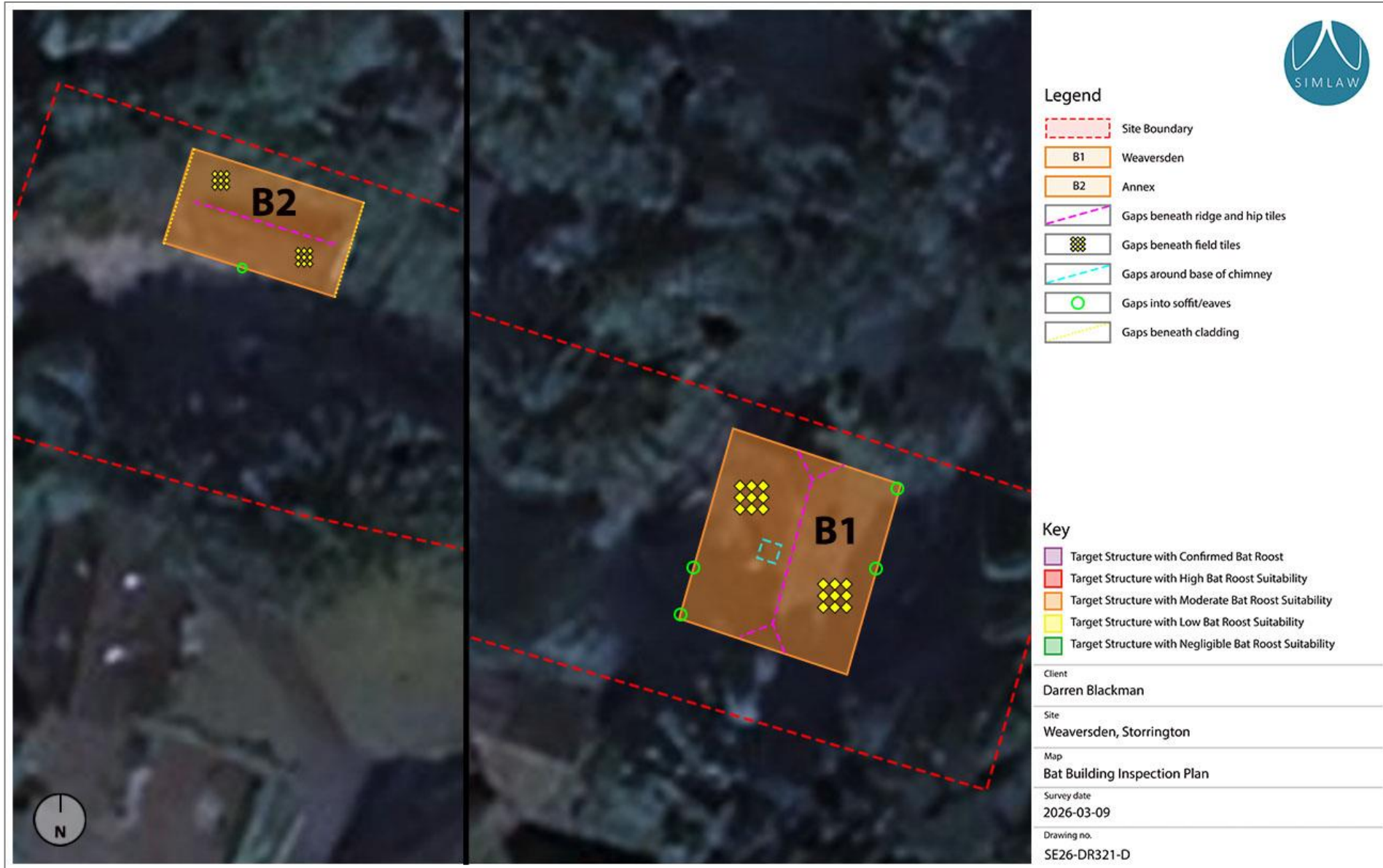


Annex (B2): Preliminary Assessment

The exterior of Annex (B2) contained multiple features that would be suitable to support roosting bats, including gaps providing access to beneath roof tiles and cladding that could support several bats; however, no evidence of bats was recorded and no roof void was present. The Annex (B2) was therefore assessed as having moderate suitability to support roosting bats overall.

Assessment: *Moderate Bat Roost Suitability*

Figure 4. Building Inspection Plan



Dusk Bat Emergence Survey Results

3.11 The following table(s) contains the results of all dusk bat emergence surveys carried out at the Application Site.

Table 9. Dusk Bat Emergence Survey Results: 06 May 2026

Survey timing	Structure(s) surveyed	Bat species and numbers	Roost type (if present)	Roost Location	Access point(s)
Sunset: 20:31 Start: 20:15 End: 22:01	Weaversden (B1) - 1/2 Annex (B2) - 1/2	None	N/A	N/A	N/A
NOTES / OBSERVATIONS No bats were recorded emerging from Weaversden (B1) or the Annex (B2) during the survey. Four bat species and one bat genera were heard in flight during the survey: brown long-eared bat, common pipistrelle, mouse-eared bats, serotine, and soprano pipistrelle. Brown long-eared bats were recorded once during the survey at 21:15, by the detector in the centre of the Application Site. Bats of this species were unobserved during the survey. Common pipistrelles were recorded 413 times during the survey, between 20:24 and 22:01. The first common pipistrelles were recorded five minutes before sunset, within the emergence period for this species, indicating common pipistrelles may roost nearby to the Application Site. Bats of this species were seen commuting southeast over the roof of Weaversden (B1) and east along the south elevation of the Annex (B2) as well as foraging over both buildings, around the gardens and around the tree canopies on the east boundary of the Application Site. Mouse-eared bats were recorded nine times between 21:08 and 21:54. One bat of this species was seen commuting south, through the east of the Application Site. Serotines were recorded 321 times during the survey between 21:07 and 22:01. Bats of this species were observed commuting south through the east of the Application Site and foraging over Weaversden (B1) and the garden in the east of the Application Site. Soprano pipistrelles were recorded 12 times during the survey between 20:56 and 21:55. Bats of this species were unobserved by the surveyors in the east and west of the Application Site. No further bat activity was recorded during the survey.					

Figure 5. Dusk Emergence Survey - Bat Emergence Plan (06 May 2025)



Table 10. Dusk Bat Emergence Survey Results: 27 May 2026

Survey timing	Structure(s) surveyed	Bat species and numbers	Roost type (if present)	Roost Location	Access point(s)
Sunset: 21:01 Start: 20:46 End: 22:31	Weaversden (B1) - 1/2 Annex (B2) - 1/2	None	N/A	N/A	N/A

NOTES / OBSERVATIONS

No bats were recorded emerging from Weaversden (B1) or the Annex (B2) during the survey.

Six bat species and one bat genus were heard in flight during the survey: brown long-eared bat, common pipistrelle, Leisler's bat, mouse-eared bats, serotine, and soprano pipistrelle, and western barbastelle.

Brown long-eared bats were recorded twice during the survey between 21:57 and 22:11. This species was recorded by detectors in the southeast and the centre of the Application Site but the bats were not seen.

Common pipistrelles were recorded 67 times during the survey, between 21:21 and 22:29. Bats of this species were seen foraging around the building and tree canopies in the east of the Application Site and commuting through the west of the Application Site.

Leisler's bats were recorded three times during the survey between 22:22 and 22:23. All bats of this species were recorded by the detector in the centre of the Application Site.

Myotis species bats were recorded 7 times during the survey between 21:50 and 22:23. A bat of this species was observed commuting east along the south elevation of the Annex (B2).

Serotines were recorded 504 times during the survey between 21:34 and 22:33. Bats of this species were seen commuting south into the east and west of Application Site and continuously foraging over the garden, tree canopies, and Weaversden (B1).

Soprano pipistrelles were recorded four times during the survey between 21:13 and 21:58. Bats of this species were recorded by detectors in all areas of the Application Site.

Western barbastelle were recorded once during the survey at 22:11 by the detector in the centre of the Application Site.

No further bat activity was recorded during the survey.

Figure 6. Dusk Emergence Survey - Bat Emergence Plan (27 May 2026)



4 ASSESSMENT AND EVALUATION

Discussion of Findings

Preliminary Bat Roost Assessment

- 4.1 The data search returned 148 records of bats within the search area between 2006 and 2025, confirming the presence of 11 bat species in the wider area.
- 4.2 The proximity of suitable bat commuting and foraging habitats, and the absence of any barriers to bat dispersal, increases the potential for bats to find and utilise suitable roosting features within Weaversden (B1) and the Annex (B2).
- 4.3 No bats or evidence of bats was recorded during the Daytime Bat Walkover; however, several potentially suitable bat roosting features (PRF) were recorded on the exterior of the building.
- 4.4 None of the recorded PRF appeared to provide suitable habitat to support a maternity roost of bats and no evidence of bats was recorded during the internal inspection.
- 4.5 The results of the Preliminary Bat Roost Assessment therefore confirmed that Weaversden (B1) and the Annex (B2) both had Moderate Bat Roost Suitability.

Full Bat Roost Assessment

Presence or Likely Absence Assessment

- 4.6 No bats were recorded emerging from Weaversden (B1) or the Annex (B2) during the dusk bat emergence surveys carried out on 6 and 27 May 2026. Bat roosts were therefore assessed as likely absent from Weaversden (B1) and the Annex (B2).

Bat Foraging and Commuting Habitats

- 4.7 Six bat species and one bat genus were recorded in flight within the grounds of the Application Site, or within audible range of the Application Site, during the dusk bat emergence surveys: brown long-eared bat, common pipistrelle, Leisler's bat, mouse-eared bats, serotine, soprano pipistrelle, and western barbastelle.
- 4.8 Single or low numbers of bats of these species, predominantly common pipistrelles and serotine, were recorded foraging throughout the Application Site. Occurrences of all other bat species in flight within the Application Site, including the less common Leisler's bat and western barbastelle, were infrequent and sporadic.

- 4.9 The bat activity recorded during the surveys indicates that the habitats found within the Application Site are an important resource for a low to moderate number of common and widespread bats and, therefore, have conservation significance at the geographical level of the Application Site only.
- 4.10 The Proposed Development comprises localised renovations and extensions within existing hardstanding with no removal of hedgerows anticipated. It is therefore unlikely that the Proposed Development would result in fragmentation of bat commuting routes or foraging resources.

Potential Impacts of the Proposed Development

Impacts to Bat Roosts

- 4.11 [Table 11. Potential Impacts of the Proposed Development](#), overleaf, provides a full description of the potential impacts of the Proposed Development on bats and their roosts, *without further surveys, mitigation or compensation measures*.

Table 11. Potential Impacts of the Proposed Development

Proposed Activity	Ecological Receptor	Description and Implications of Impacts	Scale of impact ²⁷
Impacts to Statutory Designated Sites			
N/A	N/A	N/A	N/A
Initial Impacts²⁸			
Re-roofing and extension of Weaversden (B1) and repairs to the Annex (B2)	Roosting bats	All Initial Impacts Bat roosts are Likely to be Absent from Weaversden (B1) and the Annex (B2), therefore, no initial impacts to bats or their roosts are anticipated to occur because of the Proposed Development.	N/A
Long-term Impacts²⁹			
Re-roofing and extension of Weaversden (B1) and repairs to the Annex (B2)	Roosting bats	All Long-term Impacts Bat roosts are Likely to be Absent from Weaversden (B1) and the Annex (B2), and from the ZoI of the Proposed Development; therefore, no Long-term impacts to bats or their roosts are anticipated because of the Proposed Development.	N/A

²⁷ Whether the impacts will affect individual bats only (Site Level), or whether they will affect the County, Regional, National or International population of the bat species concerned.

²⁸ The impact(s) of activities undertaken on site pre-development and during works (e.g., human presence, noise, vibration, dust, lighting and obstruction of access by scaffolding etc.)

²⁹ The impact(s) of any permanent roost modification, roost loss, fragmentation or isolation, including post-development interference impacts (e.g. additional external lighting).

Proposed Activity	Ecological Receptor	Description and Implications of Impacts	Scale of impact ²⁷
Installation of additional external artificial lighting (if proposed)	Commuting and Foraging bats	Spatial Avoidance Installation of additional external artificial lighting has potential to damage bat commuting and foraging habitats used by the six bat species and one bat genus recorded in flight in the vicinity of the Application Site during the nocturnal bat surveys. The Application Site is located in an unlit area with connectivity to woodlands in the wider landscape and is likely to function as a commuting corridor for bats. Long term damage to a bat commuting corridor and foraging resources for several common and widespread bat species would have conservation significance at the Site Level.	Site
Use of Breathable Roofing Membrane in the construction of the new building (if proposed)	Roosting bats	Entanglement of Bats Installation of modern and/or breathable roofing membrane that has not passed the snagging propensity test within the new extension has potential to cause the entanglement and the subsequent death of any bats that could find and utilise the building to roost later.	Unknown

Legal Implications

Protection of Bats and their Roosts

4.12 All species of bat found in Britain, and their roosts, receive protection under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). These legislative tools make it an offence for any person to:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb a bat while it is occupying a place of rest;
- Intentionally or recklessly destroy a breeding or resting place (roost) of a bat; and,
- Intentionally or recklessly obstruct access for bats to a roost or to otherwise significantly alter the structure of a roost so as to render it unsuitable to support roosting bats.

4.13 **Bat roosts are Likely to be Absent from the ZOI, therefore, there is negligible potential for the Proposed Development to result in unlawful impacts to bats or their roosts.**

Priority Bat Species

4.14 Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England (Priority Species). It is legally incumbent upon the Planning Authority to have regard to the conservation of Priority Habitats and Priority Species³⁰.

4.15 Priority Species of bat are: Bechstein's bat, brown long-eared bat, greater horseshoe, lesser horseshoe, noctule, soprano pipistrelle, and western barbastelle.

4.16 **Bat roosts of all species are Likely to be Absent from Weaversden (B1) and the Annex (B2); therefore, the Proposed Development will not adversely impact the favourable conservation status of any Priority Species of bat.**

³⁰ As defined in CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

Planning Policy Considerations

National

The National Planning Policy Framework (NPPF, December 2024)

- 4.17 The NPPF sets out the Government’s planning policies for England and how these are expected to be applied [Table 12. Relevant Sections of the NPPF \(December 2024\)](#), below, contains details of sections within the NPPF which relate to planning policies and decisions.

Table 12. Relevant Sections of the NPPF (December 2024)

Paragraph Number	Detail
180	“Planning policies and decisions should contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites or biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate. - g)
181	a) Plans should: take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; plan for the enhancement of natural capital at a catchment or landscape scale
185	“To protect and enhance biodiversity and geodiversity, plans should: b) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally

	designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and, a) Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”
186	“When determining planning applications, local planning authorities should apply the following principles: b) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; c) Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; d) Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and c) Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”
187	The following should be given the same protection as habitats sites: a) potential Special Protection Areas and possible Special Areas of Conservation; b) listed or proposed Ramsar sites; and c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.
188	The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

191	“Planning policies and decisions should also ensure that new development is appropriate for its location considering the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should: c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes, and nature conservation.”
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Local Planning Policy

Horsham District Local Plan 2023-2040 Regulation 19 (January 2024)

4.18 Strategic Policy 17: Green Infrastructure and Biodiversity

“Green Infrastructure

- 1. Development will be supported where it can demonstrate that it maintains and enhances the existing network of green infrastructure and contributes to the delivery of public open space, the Local Nature Recovery Strategy, Nature Recovery Network, natural capital, ecosystem services and / or biodiversity. Green Infrastructure should be integral to the design and layout of development, and new provision, including green linkages, should be provided taking into account Natural England’s green infrastructure guidance and the council’s green infrastructure strategy. Provision should seek to optimise public access to open space and nature via foot, bicycle, wheeling, and also horse as appropriate.*
- 2. Proposals that would result in any loss, degradation or harmful impacts to green infrastructure, or core areas of the Local Nature Recovery Strategy and Nature Recovery Network will be resisted unless it can be demonstrated that new opportunities will be provided that appropriately mitigates and / or compensates for the respective harm and ensures that the ecosystem services of the area are retained and enhanced. Development proposals will be expected to remove invasive species.*
- 3. Proposals will be expected to retain and enhance existing priority habitats and trees, and accord with the aims and objectives of the Green Infrastructure and Local Nature Recovery Strategies. Habitat enhancement including additional hedgerow and tree planting must take account of the local landscape and habitat context. It should seek to optimise biodiversity, ecological connectivity and function, and climate change resilience.*
- 4. Development likely to affect a watercourse and its associated corridor should seek to conserve and enhance its ecological, landscape and recreational value. This should include providing adequate natural buffer zones to the watercourse.*

5. *The Council will support appropriate new development which delivers at least 12% biodiversity net gain and:*
 - a. *Retains and enhances significant features of nature conservation value on development sites;*
 - b. *Makes a positive contribution to biodiversity and accords with the aims and objectives of the Green Infrastructure and Local Nature Recovery Strategies, through the creation of appropriate green spaces, that provide linkages between habitats to create local and regional ecological networks that enable the movement of wildlife through development sites; and / or*
 - c. *Following the principle of 'right habitat in the right place', significantly increases woodland or other habitats for the purpose of appropriately enhancing biodiversity, carbon sequestration, pollution control, and / or flood mitigation.*
6. *Relevant development proposals will be expected to deliver 12% biodiversity net gain and must submit Biodiversity Net Gain information to show how this will be achieved using the mandated Biodiversity Metric or the Small Sites Metric as appropriate and must abide by the metric trading rules. Submissions must make clear what will be provided to meet no net loss and what will deliver net gains. The net gain must be achieved through the delivery of appropriate on-site biodiversity net gain or, where this is not practicable, through off-site net gain within the District especially areas, as suitable to the habitats subject to gain, identified in the District's Green Infrastructure Strategy or the Local Nature Recovery Strategy, or as agreed by the Council. All such schemes, excluding any respective element using statutory biodiversity credits, must submit for approval by the Council a funded maintenance and management plan, including monitoring / reporting and appropriate enforcement processes, that secures the biodiversity net gains for at least 30 years.*
7. *All other development proposals must seek to demonstrate how measurable biodiversity net gains will be delivered.*

Protected Sites and Species

8. *Proposals must give appropriate consideration to protected and notable species. They will be expected to protect priority species and seek to aid their recovery, and must conserve, restore and enhance priority habitats, and should create and manage appropriate new habitats, taking into account pollination, where practicable.*

9. *Particular consideration will be given to the hierarchy of sites and habitats, including buffer areas, within the District, or functionally linked to, as follows:*
 - a. *Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites;*
 - b. *Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), Veteran Trees, Ancient Woodland and other irreplaceable habitats;*
 - c. *Local Wildlife Sites (LWS), Local Nature Reserves (LNRs) and any areas of priority habitats including traditional orchards, local geodiversity, Core Sites in the emerging NRN and other irreplaceable habitats not already identified in a & b above.*
10. *An appropriate buffer around woodland will be required, this will be at least 15m around Ancient Woodland or greater in accordance with good practice, and consideration should be given to the potential for protected species, such as bats, and impacts on hydrology. Around ancient and veteran trees a minimum buffer zone of at least 15 times larger than the diameter of the tree, or 5 metres from the edge of the tree's canopy whichever is the larger, will be required.*
11. *Where the felling of a tree is necessary, for example due to disease, replacement planting with a suitable tree species, age and location to retain and enhance the link with the wider network of habitats and Green Infrastructure, will be required.*
12. *Where development is anticipated to have a direct or indirect adverse impact on sites or features of importance to nature conservation, development will be refused unless it can be demonstrated that:*
 - a. *The mitigation hierarchy has been applied and the objectives of a site's designation, where applicable, and integrity of the area will not be undermined;*
 - b. *The reason for the development clearly outweighs the likely impact to notified features and / or the need to protect the value of the site; and*
 - c. *Appropriate mitigation and compensation measures will be provided alongside the delivery of measurable biodiversity net gain as relevant.*
13. *Any development with the potential to impact the Arun Valley SPA / SAC / Ramsar site, The Mens SAC and / or Ebernoe Common SAC will be subject to a Habitats Regulation Assessment to determine the need for an Appropriate Assessment. In addition,*

development will be required to be in accordance with the necessary mitigation measures for development set out in the Habitat Regulation Assessment of this Plan.”

5 RECOMMENDATIONS

Legislative Compliance

Unexpected Discovery of a Bat Roost

- 5.1 In the unlikely event that bats, or fresh bat droppings (see the figure below), are encountered during the works, then the bat(s) must be placed back where found and left alone, all works must stop, and a licensed bat ecologist must immediately be called to site.
- 5.2 If bats or evidence of bats is found during the works, then a legally protected bat roost is present, and any subsequent development activities could be considered a criminal offence.

Figure 7. Examples of Bats and Evidence of Bats



Bats: Bats are small animals that can easily go unnoticed during a roof strip. If disturbed, they can fly from beneath a tile but will more often stay still in the hope of not being seen. This leaves them vulnerable to being accidentally crushed.



Evidence of Bats: Bat droppings often build up in small clusters beneath roof or hanging tiles. They look like mouse droppings but are dry, and crumble when compressed.

- 5.3 Avoid directly handling bats unless absolutely necessary, i.e., to protect from harm or to enclose in a safe location. If handling is required, you must refer to guidance provided by the Bat Conservation Trust on how to safely handle and contain a bat, before doing so³¹.
- 5.4 When they arrive, the licensed bat ecologist will ensure the bat(s) are unharmed and will liaise with Natural England to agree a suitable and lawful way to proceed with the works. Some or all of the works may need to be postponed until a suitable and lawful way to proceed has been agreed with Natural England and this may involve waiting until an appropriate bat licence has been obtained.

Design precautions

External Lighting Restrictions

Avoiding and Mitigating the Impact of Artificial Lighting at Night

- 5.5 No proposals for additional Artificial Lighting at Night (ALAN) are included as part of the proposals for the project. However, ALAN can significantly damage bat habitats; directly through spatial avoidance and indirectly by fragmenting the landscape with uncrossable barriers to dispersal and severing commuting routes between roosts and foraging habitats³².
- 5.6 The Application Site is currently unlit; contains suitable bat foraging habitat; light-sensitive bat species were recorded during the nocturnal bat surveys; and, multiple records of light-sensitive bat species were returned by the data search. To maintain the suitability of the Application Site to support foraging bats, and to avoid any potentially adverse impacts of bat activity in the vicinity, it should therefore remain unlit by artificial external lights as far as possible.
- 5.7 Where ALAN is required, the impact of the installation on bats must be avoided and/or minimised by adhering to the following guidelines:
1. All light sources must have a **colour temperature of 2700K or lower**.
 2. All luminaires must be of **cut-off or full cut-off design** to prevent upward light-spill; or, alternatively, be shielded or installed so that upward light-spill is blocked by a building, landscape element, or garden feature (e.g. soffit, canopy, porch, shrub, shed, etc.).

³¹ <https://www.bats.org.uk/advice/help-ive-found-a-bat>

³² Institute of Lighting Professionals (2023) *Guidance Note 08/23 Bats and Artificial Lighting at Night*.

3. Security lighting must be **motion controlled**, with automatic switch-off after a **maximum of 10 minutes**. **Dedicated security floodlights are not permitted**; instead, porch, entrance, and parking area lighting must be fitted with motion sensors to provide security illumination.
 4. All internal **rooflights** must be fitted with blinds to prevent upward light escape.
 5. No individual luminaire may exceed an output of **600 lumens**.
 6. Marker lights for gateways or parking spaces must not exceed **100 lumens**.
 7. All lighting must be **directed and/or shielded to prevent light-spill** onto trees within or beyond the property boundary. Fixed-position luminaires are preferred; where adjustable luminaires are used, they must be fitted with a **locking mechanism** to secure the set position and prevent accidental repositioning.
 8. All luminaires must be **well-shielded** to control glare and prevent any direct view of the light source.
- 5.8 If the installation of ALAN cannot be avoided, the above measures would need to be implemented to incorporate lighting that is suitable for the ecological sensitivity of the Application Site and be designed by a suitably qualified and experienced lighting technician, in accordance with the good practice guidelines, and in response to the final, approved, designs.

Enhancement Measures

Provision of Bat Roosting Opportunities

Bat Boxes

- 5.9 The findings of the data search and the dusk bat emergence survey demonstrate that there are bats present in the habitats around Weaversden. The wider landscape contained habitats that would be suitable to support roosting, commuting and foraging bats; and, bats are a highly mobile species. Additional roosting niches created within the grounds of Weaversden therefore have high potential to be found and utilised by bats that are present in the area.
- 5.10 It is therefore recommended that two bat boxes or bat tiles be installed on Weaversden (B1) or within the Application Site, to support the local bat population.
- 5.11 The bat boxes detailed in the figure below would be suitable for installation within the Application Site.

Figure 8. Suitable Bat Boxes



Bat Box 1: Vivara Pro Beaumaris WoodStone Bat Box Midi

Bat Access Tile 1. Habibat Bat Access Tiles.

5.12 Correct placement of bat boxes is essential to their being found and used by bats, so the following guidelines should be used to maximise their chances of occupation.

5.13 Bat boxes should be installed:

- At least 3.5 m from ground level;
- Facing between southeast and southwest to ensure sufficient heat during daylight hours;
- Away from platforms such as branches or roofs that predators could use to access the box/bats;
- Away from any ALAN (e.g. street lamps or domestic spotlights);
- As straight / vertically as possible, and not swinging;
- Away from current or future encroaching vegetation such that the entrance is not blocked;
- With a clear drop zone of at least 1 m around the mouth of the box; and,
- In a location that there is no future risk of disturbance (direct or otherwise), e.g. safe from future development or remedial tree works / felling.

Survey Validity

Lifespan of this Report (12 Months)

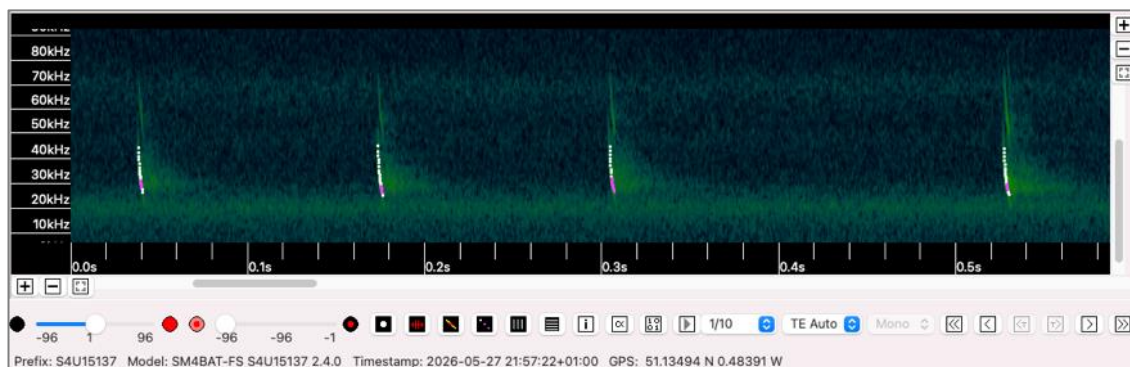
- 5.14 Owing to the highly mobile nature of bats, and the inherent unpredictability of their roosting habits, this assessment will be valid for a maximum of 12 months from the date of the final survey (i.e., until May 2027), in accordance with published guidance³³. Beyond this period, new bat roosts may have established within the suitable roosting features within the buildings and/or trees within the Application Site.

³³ CIEEM (2019) *Guidance Note on the Lifespan of Ecological Reports and Surveys*. Chartered Institute of Ecology and Environmental Management, Winchester.

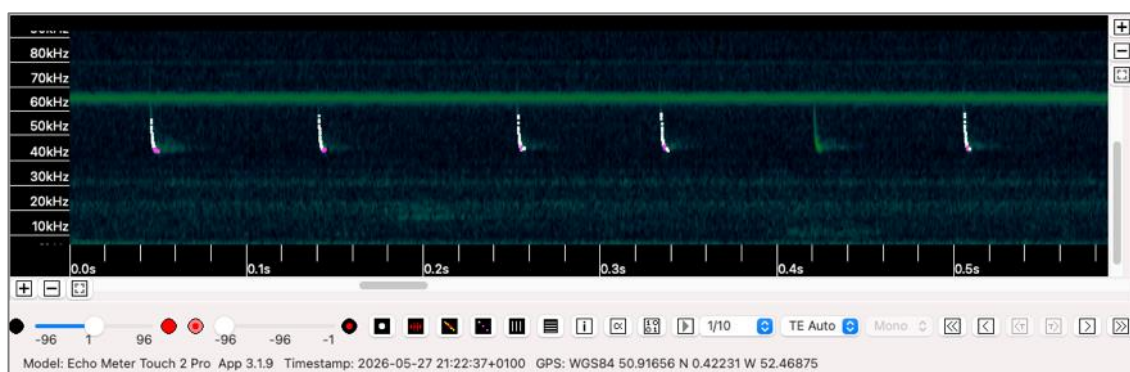
Appendix 1: Bats Recorded within the Application Site

Figure 9. Bat Species Sonogram Stills

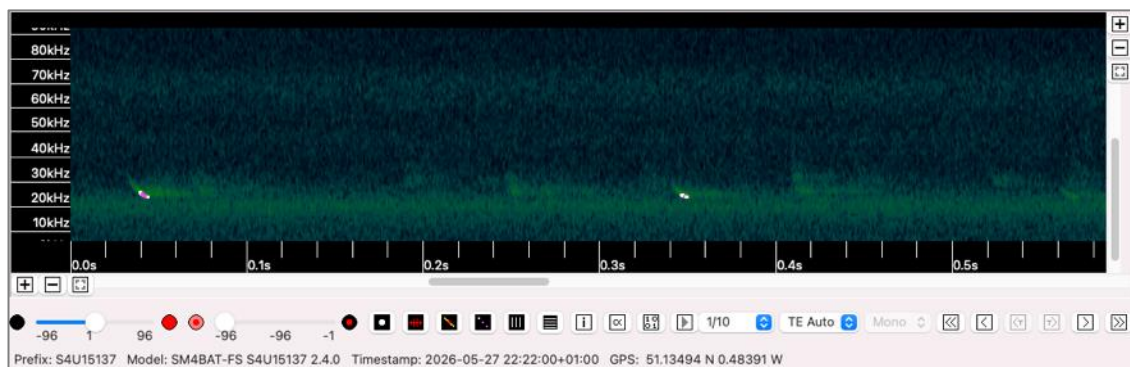
Brown long-eared bat



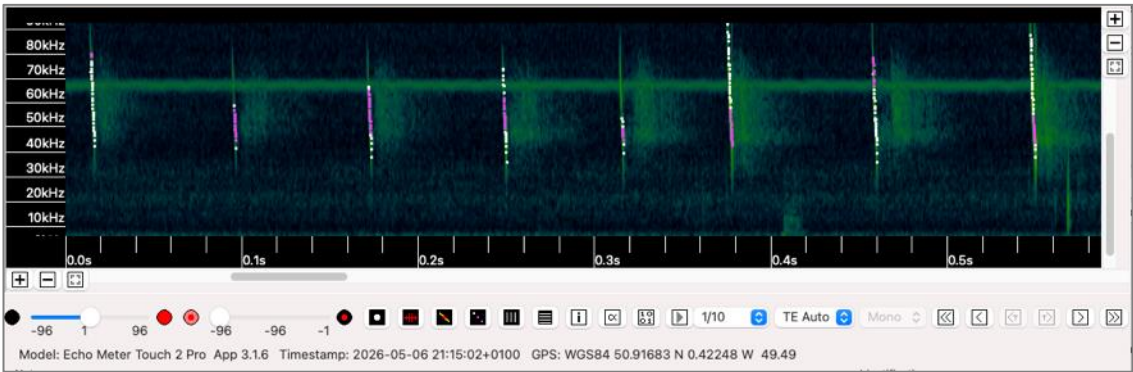
Common pipistrelle



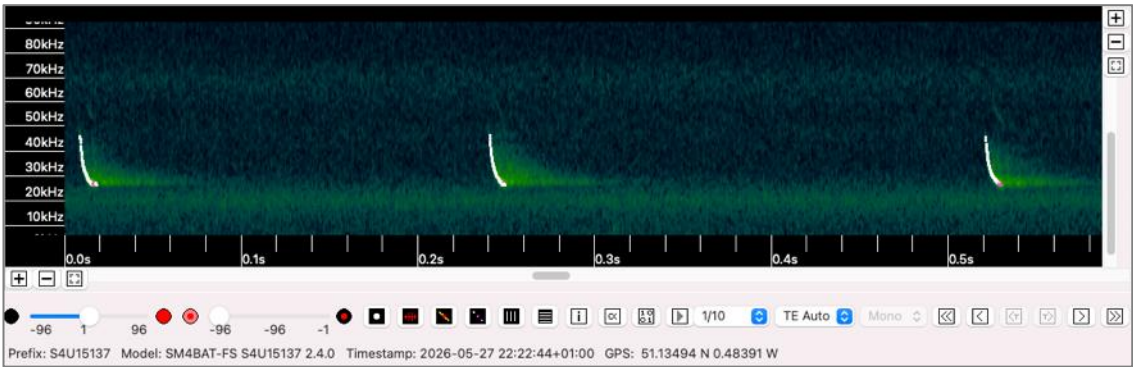
Leisler's bat



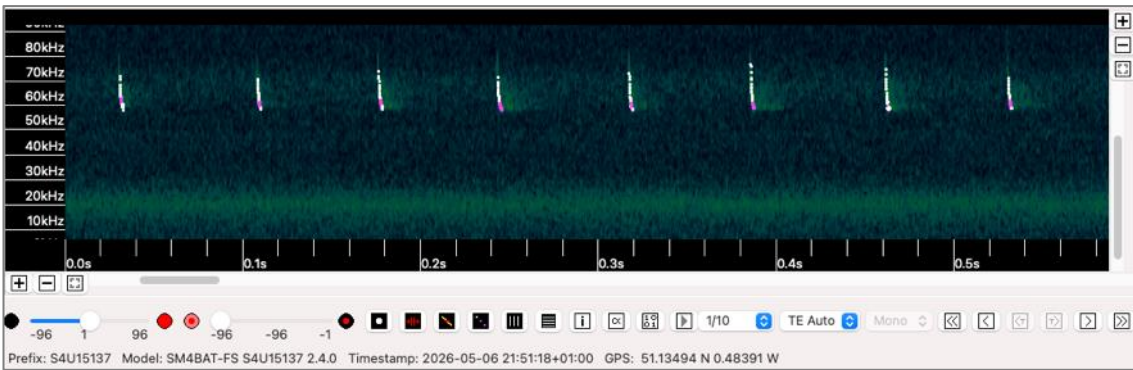
Myotis species



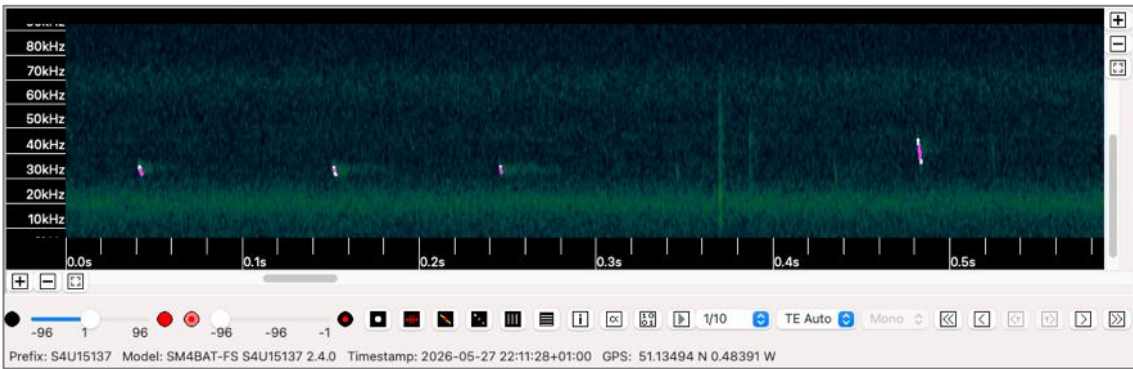
Serotine



Soprano pipistrelle



Western barbastelle



Appendix 2: Thermal Imaging Device Specification

Figure 10. Thermal Imaging Device Specification - Pulsar Helion 2 XP50 Pro

 TECHNICAL SPECIFICATIONS	
Model	HELION 2 XP50 PRO
SKU	77431
Microbolometer	
Type	uncooled
Resolution, Pixels	640x480
Pixel Pitch, µm	17
NETD, mK	< 25
Frame Rate, Hz	50
Optical Characteristics	
Optical Magnification, x	2.5
Smooth Digital Zoom, x	2.5-20
Digital Zoom	x2/x4/x8
Objective Lens	F50 mm, F/1.0
Field of View (Horizontal), °/ m@100 m	12.4 / 21.8
Eye-piece Focus Range, Diopter	±5
Range of Detection, m/y (Deer Type Object)	1800 / 1968.5
Display	
Type	AMOLED
Resolution, Pixels	1024x768
Operational Characteristics	
Power Supply, V	3 – 4.2 V
Battery Type	Li-Ion Battery Pack IPS7
Capacity	6400 mAh
Nominal Output Voltage	DC 3.7 V
External Power Supply	5 V (USB)
Battery Run Time at t=22°C, hours*	8
Level of Protection (acc. to IEC 60529), with Battery Installed	IPX7
Operating Temperature	-25 °C ...+50 °C
Dimensions, mm/inch	242x75x60 / 9.53x2.96x2.36
Weight (without battery), kg	0.5
Video Recorder	
Video / Photo Resolution, Pixels	1024x768
Video / Photo Format	.mp4 / .jpg
Built-In Memory	16 GB
Built-In Memory Capacity	About 5 h video or > 100,000 pictures
Wi-Fi Channel	
Frequency	2.4 GHz
Standard	802.11 b / g
Line-of-Sight Reception Range, m **	up to 15
*Actual operating time will depend to what extent the Wi-Fi and built-in video recorder is used.	
**The reception range may vary depending on various factors: obstacles, other Wi-Fi networks.	
This product is subject to change in line with improvements to its design.	

Figure 11. Thermal Imaging Device Specification – Guide TrackIR-19 Pro

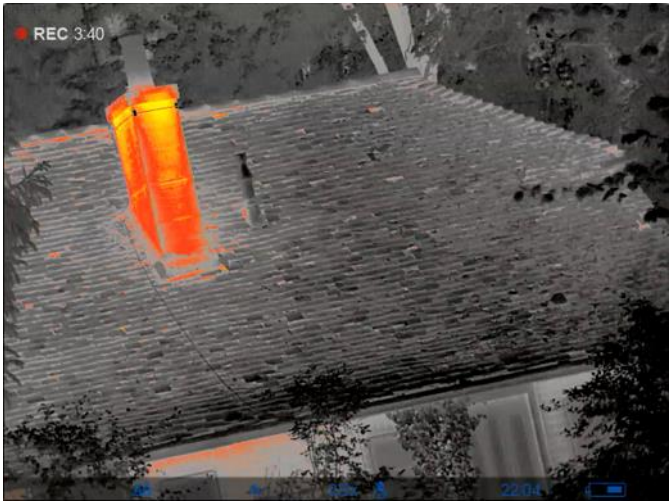
Model	TrackIR 25mm	TrackIR 35mm	TrackIR 50mm	TrackIR Pro 19mm	TrackIR Pro 25mm	TrackIR Pro 35mm
Infrared Detector						
Detector type				VOx		
Detector resolution and pitch	400 × 300, 17 μm			640 × 480, 12 μm		
Spectral range	8 to 14 μm					
NETD	≤50mk @ F1 25°C					
Lens						
Focal length	25 mm; F1.2	35 mm; F1.2	50 mm; F1.2	19 mm; F1.0	25 mm; F1.0	35 mm; F1.0
Focus	Manual					
Field of view	15.4° × 11.6°	11.1° × 8.3°	7.8° × 5.8°	22.9° × 17.2°	17.5° × 13.1°	12.5° × 9.4°
Frame Rate						
Output frame frequency	50 Hz					
Zoom						
Optical zoom	1.7x	2.3x	3.3x	1.1x	1.5x	2.0x
Digital zoom	1 – 4x			1 – 8x		
Visual effect	It's like viewing at a 22" screen at 1 meter					
Power						
Battery type	2 built-in 18650 batteries (6000mAh)					
Battery life	≥ 5 hours			≥ 4.5 hours		
Interface						
USB	Type C (USB 2.0 standard), supporting power supply and data access					
Video interface	micro HDMI					
External expansion	External Display					
Mechanical interface	UNC ¼"-20 (Tripod mounting), Picatinny					
Display						
Display type	0.4" FLCOS					
Resolution	1280 × 960					
Eyeiece	Monocular, exit pupil distance ≥10 mm, diopter adjustment: -4 to +2					
Eyeiece zoom	13.8x					
Video output	Digital video					
Button						
Button functions	Power / Up / Menu / Down / Photo / Video					
Functions						
Smooth zoom	Available					
Screen brightness adjustment	10 levels					
Detector brightness adjustment	10 levels					
Detector contrast adjustment	10 levels					
Image enhancement	Available					
Scene modes	Enhanced, Highlight and Natural					
Ultra power saving mode	Available					
Image capturing	Available					
Video recording	Available					
WIFI	Transmission of real-time video via WIFI for remote control in the 2.4G frequency band and within 15 meters					
Color palettes	Black Hot, White Hot, Red Hot, Iron Red, Blue Hot			Black Hot, White Hot, Adjustable Red Hot, Iron Red, Blue Hot		
Hot spot tracking	Available					
Working indicator	On/Off					
Charging indicator	On/Off					
Compensation modes	Automatic, shutter and scene compensation					
Rough ranging	Available					
Automatic shutdown	Closed, 15, 30 or 60 mins					
Automatic sleep	Closed, 5, 10, or 15 mins					
Language settings	Chinese / English / Russian / German / French					
System						
Time setting	Available					
Watermark settings	Closed, setting of date or date and location					
PIP	Upper left, Upper middle, Upper right, Closed					
Restore to default	Available					
Start up	2 s					
Memory capacity	16 GB					
Environmental						
Operating temperature range	-10 °C to 50 °C					
Storage temperature range	-30 °C to 60 °C					
Humidity	10 % to 95 % non-condensing					
Shock	30 G at 11 ms half sine pulse (as per IEC60068-2-27)					
Vibration	10 Hz - 150 Hz - 10 Hz 0.15 mm (as per IEC60068-2-6)					
Drop	1 m					
Encapsulation	IP66					
Certification	IP66, FCC, CE, RoHS, EAC, un38.3					
Physical						
Weight	≤470 g	≤485 g	≤535 g	≤490 g		≤560 g
Size (L × W × H)	192 × 65 × 71 mm		214 × 65 × 71 mm	192 × 65 × 71 mm		214 × 65 × 71 mm
Standard	Power adapter, USB cable (Type C), micro HDMI cable, lens cap, wrist strap, inner bag, shoulder strap, quick start guide					

Figure 12. Thermal Imaging Device Specification – Pixfra Arc A613

	
Pixfra ARC A613 Thermal Imaging Monocular Specification <u>Pixfra ARC A613</u>	
Specifications	
Thermal Sensor	640x512, 12µm, <30mK NETD
Detector Type	Vanadium oxide uncooled focal plane detector
Spectral Range	8µm~14µm
Frame Rate	50 Hz
Objective Lens	13mm f1.0
Field of View	H: 32.3°; V: 25.8°
Detection Range	670m
Magnification	0.875x
Colour Palettes	6 (white hot/black hot /iron red/ alarm/amber/emerald)
Close Focus Distance	0.5m
Digital Zoom	1x, 2x, 4x, 8x
Display Screen Dimensions	0.41 inch, OLED
Screen Resolution	1440 x 1080
Diopter	-4D ~ +5D
Eye Relief	15mm
Uniformity Correction	Auto; Manual
Storage	Built-in EMMC (32 GB)
Audio Recording	Yes
Hot Spot Trace	Yes
Wi-Fi	Yes
Power Supply	5 V Type-C
Battery Type	1 rechargeable 1850 Lithium battery
Battery Capacity	3,200 mAh

Appendix 3: Thermal Imaging Device Fields of View

Table 13. Thermal Imaging Device Fields of View

06 May 2026 - DUSK	
Weaversden (B1) - West	 REC 3:40
Annex (B2) – Southwest	 2026/05/06 21:58:53
27 May 2026 - DUSK	
Weaversden (B1) - West	 REC 2:11 10:31 PM

Weaversden (B1) - Northwest	
Annex (B2) – Southwest	



Full Bat Roost Assessment
Weaversden, Storrington
Report for Darren Blackman
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