



BAT SURVEY AND ASSESSMENT REPORT

Greenworld, Canisron Lane, Ashurst
Wood, West Sussex, RH19 3SD

A REPORT FOR MIKE &
LAEONY CONSTANTINOU
C/O MADGA DEVARIS

This report provides an independent assessment of the status of bats within the site alongside a determination of likely constraints, mitigation requirements and opportunities for enhancement.

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Surveys and Assessment completed between
May and July 2025.

Table 0.1 - Document and Version Control

Author	Jess Lewis BSc (Hons) MRes MRSB		
Site	Greenworld		
Reference	CE25064		
Type	Bat Survey & Assessment Report		
Version	Checked	Approved	Date
V1	Linda Kerrison ACIEEM	Giles Coe BSc (hons) MCIEEM	15/08/2025

Copyright and guidance

This report has been written to provide an objective assessment of the ecological constraints and opportunities that were considered to be present at the site at the time the survey/s were conducted and, should be used solely for the purpose for which it was designed. The copyright must be considered to rest with Co-ecology Ltd whilst use of the report is for the commissioning party and their client only, unless with the express and written consent of Co-ecology Ltd.

The surveys and assessment have been drafted to be in accordance with; Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition), British Standard for Biodiversity BS42020:2013, Biodiversity - Code for planning and development and the Code of Professional Conduct published by the Chartered Institute of Ecology and Environmental management.

N.B. It must be noted that investigations of this sort provide only a snapshot in time of the ecological conditions of a site, are limited in extent and cannot capture the full picture of the biodiversity interests at the given location.

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1 Summary of Assessment

Co-ecology Ltd were commissioned by Mike & Laeony Constantinou c/o Magda Devaris to undertake and update a bat building assessment followed by subsequent bat emergence surveys and provide advice and support relating to the proposed re-development of the building on site at Greenworld, Canisron Lane, Ashurst Wood, West Sussex, RH19 3SD. The following points summarise the main results of the bat surveys and assessment.

- 1.1. Proposals for the site are to redesign the existing residential building to include internal refurbishments under permitted development and a planning application relating to structural changes. These modifications include removal of the existing chimney, excavation of the courtyard, replacement of doors and frames, and works to the eaves and drainage systems.
- 1.2. Initial Preliminary Roost Assessment (PRA) survey undertaken in February 2025 (Arbtech, 2025) identified the building had **High Suitability** and was a **Confirmed Roost** for bats with droppings recorded present in two locations. In line with current guidelines (Collins, 2023), three bat emergence surveys were recommended to characterise the roost and inform appropriate mitigation and Natural England mitigation licence application.
- 1.3. Correspondence from Andrew Horrell on behalf of Mid-Sussex District Council dated 8th May 2025 in relation to the planning application reference DM/25/0896 confirmed that further information was required before determination of the planning application comprising three bat emergence surveys and proposed mitigation measures.
- 1.4. Co-ecology Ltd were commissioned 17th March 2025 to undertake an update building inspection and three dusk emergence/ roost characterisation surveys to inform the proposals and design appropriate mitigation.
- 1.5. Co-ecology undertook an update building inspection prior to the first emergence survey on 13th May 2025 and identified significant building works had taken place since the initial survey was undertaken.
- 1.6. As a result of the works several potential new roost features and access points were recorded including new drill holes in the external walls on the southern elevation, additional gaps into the roof void, gaps around window and door frames.
- 1.7. No internationally important nature conservation sites for bats were found to be located within 10km of the site boundary.
- 1.8. Habitats in the wider surroundings are considered highly suitable for bats with extensive areas of priority habitats including a high proportion of deciduous woodland cover, much of it ancient, good quality calcareous grassland and lowland meadows, connected via mature hedgerows with the River Medway and associated riparian habitats.
- 1.9. Data search results from the Sussex Biodiversity Records Centre (SxBRC) for bat records within 2km of the site within the past 10 years returned a total of 88 records for eight bat species and one bat species genera.
- 1.10. The building was detached, single-storey and roughly L-shaped, with extension on the northern elevation comprising a half open car parking area with pitched roof lined with felt that was ripped in places and half utilities/ shed room with flat roof and clad with timber weatherboarding. The main roof was pitched with hip and valley, and open gables clad with timber weatherboarding to the north, east and south.

- 1.11. The update inspection identified multiple features that could offer suitable roosting opportunities for bats. Due to the features identified, the building was confirmed as having **High suitability** to support roosting bats.
- 1.12. Subsequent emergence surveys identified both common and soprano pipistrelle bats roosting under roof tiles and behind ripped felt lining where the open pitched roof section is at the northwest corner of the building. The building is assessed as a **Confirmed day roost** for a **Low number of common pipistrelle bats** (maximum eight recorded).
- 1.13. In the absence of mitigation, the proposed remaining works the site would be likely result in the destruction of a roost for a low number of common species of bats and could result in direct impacts on individual common pipistrelle bats. To mitigate for such impacts, remaining works will need to be carried out under a **European Protected Species Mitigation (EPSM) Licence**, obtained from Natural England.
- 1.14. A method statement will be produced to support the licence application detailing the specific measures to be followed. Measures are likely to include a pre-works inspection by a licenced ecologist, sensitive timings to avoid sensitive bat hibernation season (November – March), supervised works including a soft-strip of any areas with suitable bat roost features, with any bats identified captured and relocated to a bat box installed for the specific purpose of providing alternative roosting opportunities during the works.
- 1.15. To maintain roosting opportunities and compensate for the loss of these roost features it is recommended that bat access tiles are included on the eastern elevation of the main roof, as well as bat access ridge tiles and a suitable roof void is retained, or void space created within the final roof structure.
- 1.16. Other measures recommended include the production of a sensitive lighting scheme design to avoid overnight light spillage to avoid light spill onto the northern boundary hedgerow, back garden and adjacent woodland to the south.

2 Background

Overview of the commission and the proposals

- 2.1. Co-Ecology Ltd were commissioned by Interior Design to undertake a bat assessment to identify and address the potential impacts on bat populations for the proposed works at Greenworld, Canisron Lane, Ashurst Wood, West Sussex, RH19 3SD.
- 2.2. The proposals for the site comprise the redevelopment of the existing residential property on site. Construction works will include alterations to both the internal spaces as well as the roof and external features.
- 2.3. Planning application reference DM/25/0896 to Mid-Sussex District Council described as “Proposed renovation of existing 1960’s bungalow including upgrade of insulation, new extension over existing storeroom and carport and renovation / conversion of LG garden room into office/ guest room.”
- 2.4. Previous survey work undertaken by Arbtech (Arbtech, 2025) assessed the building as having **High Suitability** to support roosting bats and identified that the building contained a **Confirmed bat roost** due to the presence of droppings. Further surveys were recommended in order to design an appropriate mitigation solution and inform the subsequent planning application.
- 2.5. Following Co-ecology Ltd’s initial site visit on 13th May 2025 it was apparent that works on site had already started. Works already undertaken included excavation of the ground floor lower level, internal works to the main area of the house, including removal of the ceiling which was replaced with plastic sheeting. There appeared to be newly created cavities within the ground floor external walls creating potential new access points and/ or roost features and resulting in possible disturbance to roosting bats.
- 2.6. During the site visit on 13th May 2025 the client was advised to stop all works to the building until surveys had been completed and appropriate licence obtained. This was followed up by an email containing further advice and reiterating the need to stop works on 16th May 2025.
- 2.7. On the second visit to site, it was noted that the staircase on the southern elevation had also been removed opening a large cavity / further new holes. Since this, some works including landscaping and removal of rubble piles around the building has taken place but major works resulting in direct impacts to any of the structure of the building appear to have stopped.
- 2.8. During the third visit on 14th July 2025, it was noted that the external staircase on the western elevation had been demolished and the windows appeared to have been replaced.
- 2.9. The ecology investigations required to inform the proposals and to determine the status of bats within the building impacted by the works will be based on the following elements:
 - A preliminary roost assessment undertaken by Arbtech in February 2025
 - A data search for bat records from the Sussex Biological Record Centre (SxBRC);
 - An update building inspection;
 - Three evening emergence surveys¹;
 - an evaluation of the status and relative conservation value of any roosts, if present;
 - an initial assessment of likely impacts and opportunities; and

¹ These surveys can be used as Roost Characterisation Surveys should bats be found to be present

- recommendations for appropriate mitigation and/or licence applications that may be necessary.

Objectives

- 2.10. To use the process outlined above to assess the status and value of any roosts on site and the likely constraints to the proposed works. To determine an initial assessment of impact to those roosts and to devise measures to off-set impacts and provide enhancements in line with National and local planning policies.
- 2.11. The primary aim is to ensure that all impacts are correctly identified, and to provide in outline of appropriate measures for mitigation, compensation and enhancement. The results of the emergence survey will ascertain bat roost specification, if roosting bats are identified, and inform appropriate mitigation and the Natural England bat licence application which will be required for construction works to commence on site.

Site description

- 2.12. The site red line boundary measures approximately 0.17 hectares (ha) and is centred on National Grid Reference (NGR) TQ 42713 36571. Located in a rural area, towards the eastern edge of the village of Ashurst Wood, approximately 2.3km southeast from the town of East Grinstead, West Sussex, within the High Weald National Landscape.
- 2.13. The site is located on a dead-end narrow country lane with further residential properties extending along the road east to west, surrounded by agricultural land interspersed with numerous pockets of woodland, which is the dominant habitat type.
- 2.14. The site comprises a detached residential building located within a large private garden which slopes downhill from East to West, accessed by a gravel driveway at the northeast corner. Habitats include a grass lawn with introduced shrubs, bordered by mature trees, non-native conifer hedgerow along the eastern boundary and woodland habitat, Home Wood present beyond the southern boundary.
- 2.15. Priority habitats are present within 2km of the site that could provide good quality habitat and provide opportunities for roosting, foraging and dispersing bats Ancient Woodland is located 70m south but with good connectivity via a continuous strip of Deciduous Woodland to the site, Traditional orchards located 180m east, Wood pasture and Parkland (BAP Priority Habitat) located 1.75km south, ponds, watercourses associated with the River Medway network and hedgerows are also present.

Legislative and policy context

- 2.16. The following pieces of legislation and National policy are relevant to this appraisal and have been used to inform this appraisal;
 - Conservation of Habitats and Species Regulations 2017(as amended)
 - Wildlife and Countryside Act 1981 (as amended)
 - The National Planning Policy Framework 2024²
 - Biodiversity and geological conservation: circular from the ODPM 06/2005
- 2.17. The following local policies are extracted from the Mid Sussex District Plan 2014 – 2031, Adopted March 2018³:
 - DP16: High Weald Area of Outstanding Natural Beauty

² [National Planning Policy Framework](#)

³ [Mid Sussex District Plan 2014-2031](#)

- DP17: Ashdown Forest Special Protection Area (SPA) and Special Area of Conservation (SAC)
- DP38: Biodiversity

2.18. Ashurst Wood Neighbourhood Plan 2015-2031 - Section 5.2 - Objectives⁴:

- To protect and respect the landscape, wildlife and countryside of the Parish, and cherish its natural beauty
- To minimise the impact of any future development on the landscape and scenic beauty of the AONB ...
- To recognise the importance of the Ashdown Forest SPA and SAC.

2.19. An extract of the key relevant sections of the policies listed above is provided below whilst the full policies themselves are available online following the link provided in the footer.

2.20. Policy DP16: High Weald Area of Outstanding Natural Beauty

I. *“Strategic Objectives:*

- 3) To protect valued landscapes for their visual, historical and biodiversity qualities; and*
- 11) To support and enhance the attractiveness of Mid Sussex as a visitor destination...*

II. *Development within the High Weald Area of Outstanding Natural Beauty (AONB), as shown on the Policies Maps, will only be permitted where it conserves or enhances natural beauty and has regard to the High Weald AONB Management Plan, in particular;*

- the identified landscape features or components of natural beauty and to their setting;*
- the traditional interaction of people with nature, and appropriate land management;*
- the conservation of wildlife and cultural heritage.*
- character and local distinctiveness, settlement pattern, sense of place and setting of the AONB; and Small scale proposals which support the economy and social well-being of the AONB that are compatible with the conservation and enhancement of natural beauty will be supported.*

III. *Development on land that contributes to the setting of the AONB will only be permitted where it does not detract from the visual qualities and essential characteristics of the AONB, and in particular should not adversely affect the views into and out of the AONB by virtue of its location or design.”*

2.21. DP17: Ashdown Forest Special Protection Area (SPA) and Special Area of Conservation (SAC)

I. *“Strategic Objectives:*

- 3) To protect valued landscapes for their visual, historical and biodiversity qualities...*

II. *In order to prevent adverse effects on the Ashdown Forest SPA and SAC, new development likely to have a significant effect, either alone or in combination with other development, will be required to demonstrate that adequate measures are put in place to avoid or mitigate any potential adverse effects.*

III. *...Where bespoke mitigation is provided, these measures will need to be in place before occupation of development and must be managed and maintained in perpetuity. The effectiveness of such mitigation will need to be demonstrated prior to approval of the*

⁴ [Ashurst Wood Neighbourhood Plan](#)

development. Bespoke mitigation will need to be discussed and agreed by the District Council as the competent authority following advice from Natural England."

2.22. DP38: Biodiversity

I. *"Strategic Objectives:*

3) To protect valued landscapes for their visual, historical and biodiversity qualities; ...

II. *Biodiversity will be protected and enhanced by ensuring development:*

- *Contributes and takes opportunities to improve, enhance, manage and restore biodiversity and green infrastructure, so that there is a net gain in biodiversity, including through creating new designated sites and locally relevant habitats, and incorporating biodiversity features within developments; and*
- *Protects existing biodiversity, so that there is no net loss of biodiversity. Appropriate measures should be taken to avoid and reduce disturbance to sensitive habitats and species. Unavoidable damage to biodiversity must be offset through ecological enhancements and mitigation measures (or compensation measures in exceptional circumstances); and*
- *Minimises habitat and species fragmentation and maximises opportunities to enhance and restore ecological corridors to connect natural habitats and increase coherence and resilience; and*
- *Promotes the restoration, management and expansion of priority habitats in the District; and*
- *Avoids damage to, protects and enhances the special characteristics of internationally designated Special Protection Areas, Special Areas of Conservation; nationally designated Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty; and locally designated Sites of Nature Conservation Importance, Local Nature Reserves and Ancient Woodland or to other areas identified as being of nature conservation or geological interest, including wildlife corridors, aged or veteran trees, Biodiversity Opportunity Areas, and Nature Improvement Areas.*

III. *Designated sites will be given protection and appropriate weight according to their importance and the contribution they make to wider ecological networks."*

3 Methodology

Personnel

- 3.1. The surveys and reporting were carried out by Jess Lewis BSc (Hons) MRes MRSB. Jess is an ecologist with over eight years' commercial consultancy experience in quantitative field surveys and assessments and holds a class licence for great crested newts and beavers. Jess has undertaken numerous preliminary ecological appraisals and preliminary roost assessments during her professional career and has experience identifying roosts for different UK bat species. Throughout her career Jess has extensive field experience with undertaking bat activity surveys (including Level 4), monitoring surveys with the Bat Conservation Trust and volunteers as a bat rescue worker.
- 3.2. The surveys, appraisal and reporting were carried out by suitably experienced surveyors including:
 - Clara Gonzalez Hernandez MSc MCIEEM (level 2 class licence for bats)
 - Georgie Baulcomb MSc ACIEEM (level 2 class licence for bats)
 - Linda Kerrison MSc ACIEEM (level 2 class licence for bats)
 - Jess Lewis BSc (Hons) MRes MRSB
 - Tessie Rudge-Hendry BSc PIEMA

Contextual information and data records

- 3.3. Contextual information of the site was gathered from freely available online resources including a 10km search for Internationally important sites for bats, a 2km search for any European Protected Species Mitigation (EPSM) licences for bats using Magic Map hosted by Defra.
- 3.4. A data search for bat species within 2km of the site boundary was obtained from the Sussex Biological Records Centre (SxBRC). Online aerial imagery was used to make of assessment of the site's position within the wider landscape including connectivity and potential corridors for wildlife movement.

Previous Survey Work

- 3.5. An initial Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) was completed by Arbtech in February 2025, and this bat survey report should be read in conjunction with this initial assessment (Arbtech, 2025).
- 3.6. During initial surveys bat droppings were recorded on the exterior wall, northern elevation on the gable underneath the pitched roof open area and internally on the floor of the loft at both the north and south gable ends comprising approximately 200, mixed age droppings.

Update Roost Assessment

- 3.7. An update building inspection was completed by a suitably experienced ecologist from Co-ecology Ltd on 13th May 2025, immediately prior to the first emergence survey. The surveyor carried out a detailed external and internal inspection of the residential building on site. The survey consisted of a close inspection of all exterior features using close focusing binoculars and high-powered torch, where necessary, in order to locate any roosting bats, and/ or secondary evidence of bats such as droppings, urine stains, scratch marks and feeding remains.
- 3.8. The inspection sought to identify any actual or potential roosting locations and assign an overall classification of likely presence based on the surrounding landscape and the numbers and type of potential roost features that were located.

Emergence Surveys

- 3.9. Three emergence surveys were conducted between May and July 2025. Following established methodology (Collins, 2023), surveyors were situated so as to have a good view of the features identified during the building inspection. Surveyors were equipped with full spectrum heterodyne ultrasound detectors (Elekon Batlogger M2) to identify bats in the field and record bat calls for later evaluation.
- 3.10. Surveyors used Night Vision Aids (NVAs) to augment the survey effectiveness; two infrared setups (Canon XA10 camcorder paired with infrared light) and two Guide TK612 thermal scopes were deployed so as to have full coverage of the building.
- 3.11. The survey started 15 minutes prior to sunset and continued until 90 minutes past sunset with the surveyors making a note of weather conditions and the time, activity and species of any bats that were heard and/or observed.
- 3.12. To augment the survey effectiveness and to increase the coverage of the roof a UAV equipped with a thermal camera (DJI Mavic 3T) was utilised. The UAV was deployed at approx. 15m horizontal distance from the target building and at approx. 20m height and left hovering on position for the duration of the survey (with the exception of the time required to swap batteries in the equipment). The drone was utilised on the May and June surveys, but was not possible on the final visit due to high wind speeds (gusts of up to 31km/h).

Evaluation & Impact Assessment

- 3.13. If any roosts were identified during the surveys their relative value was assessed against published criteria for conservation significance as set out in Table 3.2 4 of the Bat Mitigation Guidelines (CIEEM, 2023), and a simple assessment compiled to determine any likely impacts that could arise from the proposals. The impact assessment is based on the relevant chapter (6) of the Bat Mitigation Guidelines.

Constraints

- 3.14. Internal conversion works were already underway when the first visit to site to undertake the updated building inspection and first dusk emergence survey were carried out on 13th May 2025.
- 3.15. Significant impacts to the structure of the building had taken place at the time of survey including the removal of the internal ceiling, with temporary sheeting erected to partition the roof void from the internal refurbishment works.
- 3.16. Additionally, a small excavator was parked part-way inside the lower level where works had taken place to the floor and walls. It appeared that several new holes had been made in the walls along the lower, western elevation.
- 3.17. The plastic soffit had been removed at the northeast corner, over the main entrance.
- 3.18. As there was a level of concern that the works risked being in breach of the legislation relating to protection of bats and their roosts, the client was advised to stop all further works until the appropriate surveys had been completed to inform the works.
- 3.19. Due to the works that had already taken place, it was not possible to carry out a detailed inspection or look for evidence of roosting bats such as droppings, as these had already been removed/ impacted. In addition, it was not felt safe to enter the roof void to look for roosting bats due to the amount of dust that was present and any droppings likely to have gone when the ceiling was removed.
- 3.20. The small building and the upper storey of the mezzanine area could not be internally inspected due to health and safety concerns relating to dust and possible presence of asbestos. For the purposes of this assessment, it is assumed that both areas are highly suitable (as there is no evidence otherwise).
- 3.21. Due to health and safety concerns relating to high wind speeds, it was not possible to use the drone on the final survey. An additional ground-based camera was deployed in order to compensate for this constraint and ensure full coverage of the building was still possible.

4 Results

Contextual information and data search

- 4.1. The site lies within but towards the eastern extent of the village of Ashurst Wood, typical of the High Weald National Landscape (formerly Area of Outstanding Natural Beauty – AONB), consisting of a ridge-top village immediately surrounded by a small-scale rural landscape containing a mosaic of small farms and woodlands, and sunken lanes.
- 4.2. To the north, east and west, the site is surrounded by, but not within, the South Downs National Park, the boundary of which is located 910m east at its closest point.
- 4.3. Statutory designated sites are present within 2km of the site including Ashdown Forest designated Special Protection Area (SPA), Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). The site lies within the Impact Risk Zone (IRZ) for Ashdown Forest.
- 4.4. There are no statutory protected sites for bats within 10km of the site boundary.
- 4.5. The tables below set out the pertinent findings from the desk study and data search.

Table 4.1 Protected areas within either a 10km radius (SAC) or 5km radius (SSSI) of the development site

Type	Site	Reason for Citation	Distance and orientation
SPA, SAC, SSSI	Ashdown Forest	<i>Containing one of the largest single continuous blocks of lowland heath in south-east England. Ashdown Forest is an extensive area of common land on mainly sandy soils between East Grinstead and Crowborough in East Sussex. It comprises a mosaic of wet and dry heath, valley bog and woodland and supports several uncommon plants, a rich invertebrate fauna and nationally important numbers of breeding nightjar and Dartford warbler.</i>	2km south at closest point
SSSI	Mill Rocks	<i>Designated for its geological features. Habitats include rocky outcrops, supporting rare plant communities, and deciduous woodland.</i>	1.3km west
SSSI and LNR	Wier Wood Reservoir	<i>Containing one of the largest areas of open water in Sussex and supporting a rich community of breeding birds as well as providing important habitat for significant diversity and numbers of wintering and passage birds.</i>	2.4km southwest

- 4.6. The data search from the Sussex Biodiversity Records Centre (SxBRC) returned a total of 88 records from within the past 10 years.

Table 4.2. Summary of pertinent results provided by SxBRC within 2km radius of the development site within the last ten years

Species	Number of Records	Description	Date	Location
Chiroptera	6	<i>2 roost records relating to same roost, maximum count of 5 individuals present.</i>	July 2015	1.1km NW
Serotine Eptesicus serotinus	7	<i>Bats in flight only, closest.</i>	July 2018	0.6km SE
Myotis sp.	7	<i>Bats in flight all from two locations, closest</i>	August 2018	1.9km SE
Natterer's bat Myotis nattereri	1	<i>Rescue of injured adult female bat from kitchen of residential property with connectivity to site via woodland habitat. Possible roost</i>	February 2016	0.6km W

Table 4.2. Summary of pertinent results provided by SxBRC within 2km radius of the development site within the last ten years

Species	Number of Records	Description	Date	Location
Leisler's bat <i>Nyctalus leisleri</i>	4	All records for bats in flight from one location in Tablehurst, maximum count of two present	July 2018	0.9km SE
Noctule bat <i>Nyctalus noctula</i>	3	Two relate to a roost count survey of The Pixton, Forest Row with a maximum count of 8 recorded	June 2018	1.4km SE
Nathusius' pipistrelle <i>Pipistrellus nathusii</i>	1	Recorded on a static monitoring survey in Ashurst Wood	March – August 2019	0.3km NW
Common pipistrelle <i>Pipistrellus pipistrellus</i>	32	Majority relate to bats recorded in flight. Three records for The Pixton, Forest Row roost count survey with a maximum of 30 recorded to emerge from under a clat roof tile, June 2018, 1.4km SE. Unspecified roost record from a house, maximum count of two, 1.4km NW, September 2019. Three records relate to injured bats taken into care, two of which were later released, including: 1. Adult male, Freshfield Bank, Forest Row 2. Juvenile male, Ivy Lane, Ashurst Wood 3. Adult male, School Lane, Ashurst Wood	June 2018 September 2019 September 2016 June 2016 September 2015	1.4km SE 1.4km NW 1.85km SW 1.2km SE 0.5km NW
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	22	Majority relate to bats recorded in flight. Three records for The Pixton, Forest Row roost count survey with a maximum of three recorded to re-enter beneath wooden cladding, June 2018, 1.4km SE. Two records relate to injured bats taken into care one of which was released, including: 1. Juvenile female, Hartfield Road, Forest Row 2. Juvenile female, Air Controls Ltd, Forest Row	June 2018 August 2015 June 2015	1.4km SE 1.75km SE 1.3km S
Brown long-eared <i>Plecotus auritus</i>	12	Majority for bats recorded in flight, three roost records with droppings only, The Pixton, Forest Row, June 2018, 1.4km SE. Two records relate to injured bats taken into care including: 1. Adult male, Homestall Road, Ashurst Wood, later released 2. Juvenile male, 5 Swan's Gill, Forest Row, released in spring	June 2018 September 2016 December 2015	1.4km SE 980m NW 1.4km SW

- 4.7. Of those records, 5 corresponded with roosts, and 8 records relate to grounded bats in need of rescue.
- 4.8. Data search on Defra's Magic mapping tool identified the presence of one granted European Protected Species Mitigation (EPSM) Licence relating to bats within 2km of the site (2020-44776-EPS-MIT). This related to the destruction of a resting place comprising a mixed species bat roost containing brown long-eared bats, common pipistrelle bats and soprano pipistrelle bats (between February 2020 and February 2025) located approximately 1.35km southeast.
- 4.9. Figure 1 offers a visualisation of the location of such roosts in respect with the site and the species and number of bats identified with each roost.

Habitats

- 4.10. Priority habitats (see Figure 1) within 2km of the site boundary include a high proportion of deciduous woodland cover including Ancient Woodland (closest 80m southeast), good quality semi-improved grassland (360m east), lowland meadows (800m southeast), the River Medway and associated riparian habitats (990m south), ponds and hedgerows.
- 4.11. Due to the records obtained, the high proportion of woodland cover including ancient woodland, with good connectivity to the site, and the presence of priority habitats that could provide quality foraging resources, the site is considered to be located in an area **Highly suitable** to support roosting, foraging and commuting bats.

Preliminary Roost Assessment – Update Building Description

- 4.12. The building was ground-level roughly L-shaped with a basement storey on the western elevation where the site slopes downhill. Constructed of brick, supporting a pitched, hip and valley roof clad with curved, interlocking concrete roof tiles and timber weatherboarding on open gables to the north, south and east.
- 4.13. There is an extension on the northern elevation comprising a pitched roof covered parking area with open sides to the north and east. This was constructed of timber and lined with felt lining that was torn and loose in places. This area is connected along its western elevation to a flat-roofed enclosed area with timber weatherboarding to the north, east and west.
- 4.14. There is a flat roof section that protrudes from the western elevation with an external staircase connecting the upper ground floor level and basement. There is a basement level extension at the southwest corner with flat roof. The building supports a single concrete chimney stack located centrally along the southern elevation.

Update Building inspection – Results

- 4.15. Comparison of the update inspection results, and the initial survey undertaken in February (Arbtech, 2025) indicated that alterations included the following:
- Removal of the flat roof porch over existing main door NW corner with short section of fascia removed exposing gap under lower row of tiles.
 - Removal of the chimney and replace/ repair the roof in this area.
 - Removal of protruding flat roof section along western elevation over exterior staircase exposing lower row of tiles.
 - Removal/ replacement of windows and doors on the western elevations and lower levels.
 - Excavation of the basement level including new double doorway opening on western elevation entrance, wall cavities created/ missing.
 - Internally – stripping out of internal rooms including removal of ceiling, with plastic sheeting temporarily in place to separate works areas from the roof void.
 - Between the first and second visit, partial then between second and third visit, complete demolition of the external staircase on the western elevation (see photographs 2 and 3).
 - Additional works are likely to have been completed, and a list of proposed tasks are provided in the clients' proposals (available in Appendix 3, Arbtech, 2025).
- 4.16. Figure 2 provides an overview of the results of the update building inspection undertaken on 13th May 2025, and subsequent survey visits. Supporting photographs can be found in the Appendix.

Emergence Surveys

- 4.17. Three emergence surveys were conducted between May and July 2025 following established best practice methodologies. Supporting photographs of emerging bats taken from Wildlife Imaging Systems post-survey analysis of video footage is provided in the Appendix.

4.18. Table 4.2 below summarises the timings and weather conditions for each survey visit.

Date	Sunset time	Survey start/stop times	Temps (°C)	Cloud	Wind	Rain
13/05/2025	20:40	20:25 – 22:10	17 – 12	15%	14.9km/h E	No
11/06/2025	21:14	20:59 – 22:44	15 - 14	10%	12.8km/h	No
14/07/2025	21:10	20:55 – 21:40	19 - 15	0%	Gusts up to 31km/h	No

Emergence survey 1 – 13th May 2025

- 4.19. Two ground-based surveyors and one drone pilot, as well as one unattended ground-based camera paired with audio bat recording device set to record automatically were positioned around the building in order to cover all the Potential Roost Features (PRFs). Due to the sloping topography of the site a drone was used to fully cover the roof structure.
- 4.20. The first activity recorded was at 20:51, 11 minutes after sunset, of a common pipistrelle bat seen to commute along Canirson Lane and around the site boundary tree line.
- 4.21. During the survey, a total of eight common pipistrelle bats were recorded to emerge, as detailed in the table below.

Roost Number	Time	Species (Count)	Description	Photo
R1	20:51, 20:52, 21:13	Common pipistrelle (3)	Likely behind ripped felt lining – emerged from under covered, open northern section.	Photograph 6
R2	21:17	Common pipistrelle (1)	from behind a section of weatherboarding where this meets the ridge of the open pitched northern section.	Photograph 7
R3	21:19	Common pipistrelle (1)	from under a section of missing fascia on the western elevation of the northern roof section.	Photograph 8
R4	21:35, 21:45	Common pipistrelle (2)	from the southwest corner of the building at 21:35 and 20:45, possibly from a wall cavity but this could not be confirmed.	Photograph 9
R5	21:44	Pipistrelle sp. (1)	Under a lifted tile close to ridge, main roof.	Photograph 10

- 4.22. Early foraging activity was concentrated along the northern boundary and along Canirson Lane (first activity recorded 20:57 of a common pipistrelle commuting along the lane) and the eastern boundary to the north of the building (21:08-21:18) later on foraging extended across much of the site with bursts of activity around the southwest corner and along boundary features.
- 4.23. Bat activity recorded along the northern boundary (and along Canirson Lane external to the hedge) and eastern and western boundary hedgerows was dominated by common pipistrelle bats species with regular passes also recorded for soprano pipistrelle bats and occasional passes recorded for serotine bats at 21:24 and 21:30 and brown long-eared bats at 21:45.

Emergence survey 2 – 11th June 2025

- 4.24. One ground-based surveyor, one drone pilot and one unattended ground-based camera set up paired with audio bat recording devices set to record automatically were positioned around the building to cover all PRFs.
- 4.25. The surveyor positioned at the southeast corner, (Surveyor 2) recorded two common pipistrelle bats foraging across the garden and along the boundary hedgerows for much of the survey, first noted at

21:00 – 14 minutes before sunset. During the survey, a total of three common pipistrelle bats were recorded to emerge, as detailed in the table below.

Roost Number	Time	Species (Count)	Description	Photo
R1	21:51	Common pipistrelle (1)	Likely behind ripped felt lining – emerged from under covered, open northern section.	Photograph 6
R6	21:55, 22:08	Common pipistrelle (2)	From under the bottom row of tiles/ under the eaves on the western elevation of the main roof, just north of the edge of the balcony.	Photograph 11

- 4.26. Most of the recorded activity was attributed to common pipistrelle bats with sporadic passes recorded for noctule bats and Myotis species bats.

Emergence survey 3 – 14th July 2025

- 4.27. Three ground-based surveyors and one unattended ground-based camera set up paired with audio bat recording devices set to record automatically were positioned around the building to cover all PRFs.
- 4.28. Due to the high wind speeds on the day of the survey it was not possible to use the drone to survey the building and as such, on this occasion survey effort was from the ground only. See constraints section.
- 4.29. The first recorded activity was of an emerging bat at sunset. During the survey, a total of seven bats were considered likely to have emerged, as detailed in the table below.

Roost Number	Time	Species (Count)	Description	Photo
R1	21:10, 21:12, 21:17	Common pipistrelle (3)	Likely behind ripped felt lining – total of three bats appearing to emerge from under the covered area, seen foraging under the open pitched roof before flying out and east around the building. There was no sound file associated with this time, so it is assumed that these were pipistrelle species bats, due to the early emergence time.	Photograph 6
R7	21:15, 21:24, 21:26	Common pipistrelle (3)	bats recorded flying within the open covered area at the northwest corner before emerging and flying around the building to the southwest.	Photograph 12
R8	21:43	Common pipistrelle (1)	under a roof tile on the eastern elevation of the main roof, towards the southern end.	Photograph 13
R9	21:44	Common pipistrelle (1)	Flew south out from under a tile close to the ridge of the side-extension.	Photograph 14
R10	22:32	Common pipistrelle (1)	Flew east out from under a ridge tile, towards the southern end of the main roof.	Photograph 15

- 4.30. Regular foraging activity was recorded across the survey with common and soprano pipistrelle bats observed using boundary features and foraging over the house and garden. Occasional activity was also recorded for Myotis species and long-eared species bats towards the end of the survey, although recorded as heard not seen only.

Roost Characterisation

- 4.31. The table below provides a simple assessment of the status of any bat roosts located within the site boundary and their classification following accepted guidance and terminology⁵.

Table 4.3. The status and type of any bat roosts confirmed or likely to be present at the site

Building	Species	Likelihood	Status	Location	Conservation significance
House	Common pipistrelle	Present	Day roost used by a low number of individuals (maximum eight recorded)	Between felt lining/ inside covered area, beneath lifted roof and ridge tiles, behind timber weatherboarding, wall cavity	Site level

Evaluation

- 4.32. A total of ten roosting locations were identified across the three survey visits, corresponding to bat roosts. Generally, each roost was used by a single common pipistrelle bat with the maximum number of bats recorded using the same feature was three. The maximum number of bats recorded roosting was on 13th May 2025 when eight bats were recorded to emerge from six roosting locations. One roost could not be confirmed through sound analysis due to both common and soprano pipistrelle bats foraging in proximity to the emergence location, however it is considered likely and has been assessed as a common pipistrelle roost.
- 4.33. Following the results of the data and contextual search, the building inspection and the three emergence surveys, the building subject to survey (Main House) is a confirmed bat roost for a low number of common pipistrelle bats.

⁵ The classification of roost type follows that set out by Natural England in their method statement for a bat Mitigation Licence: Day, Night, Feeding Perch, Transitional, Satellite, Maternity, Hibernation.

Figure 1. Desk Study Results

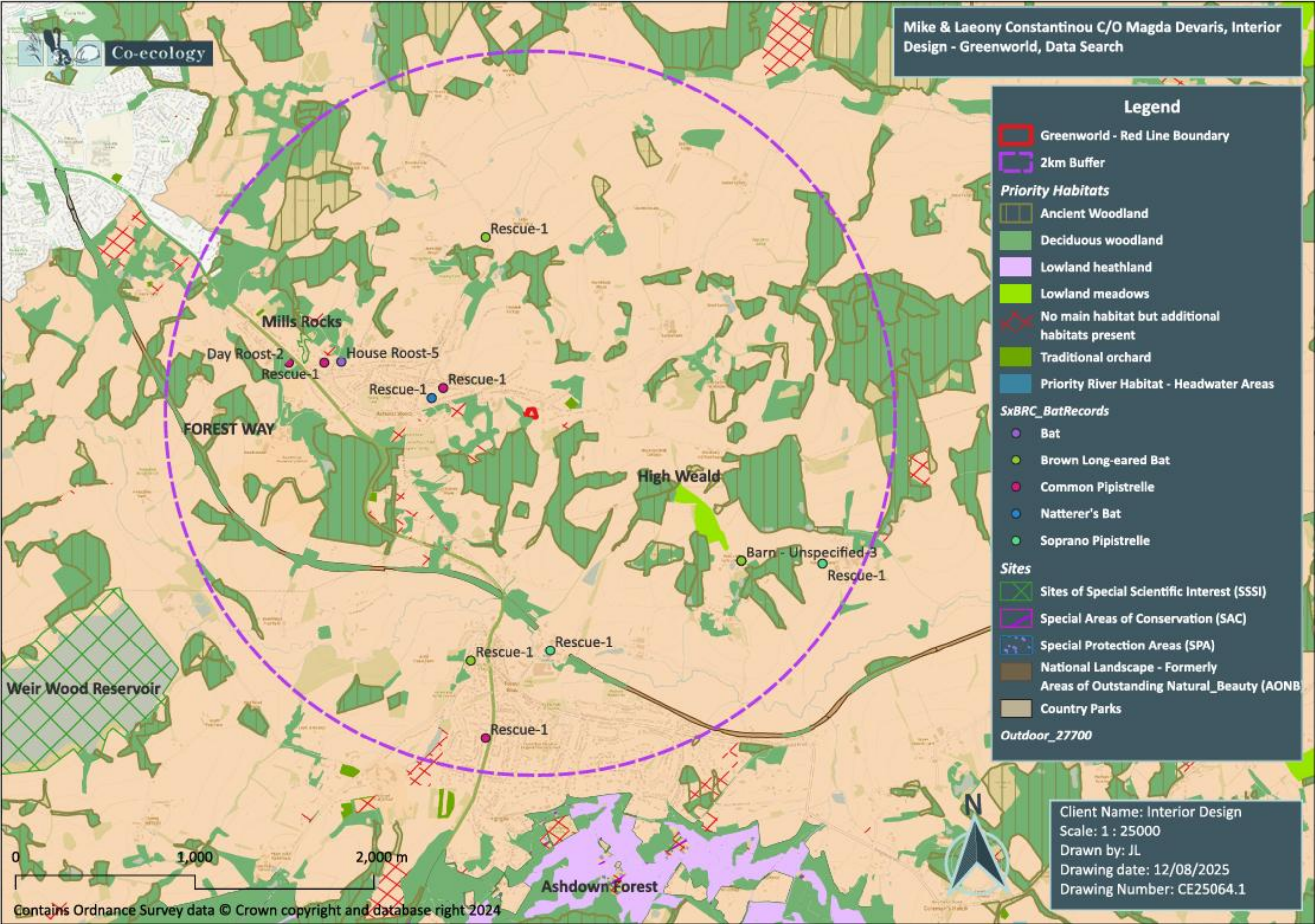


Figure 2. Bat Survey Results – Update Building Inspection

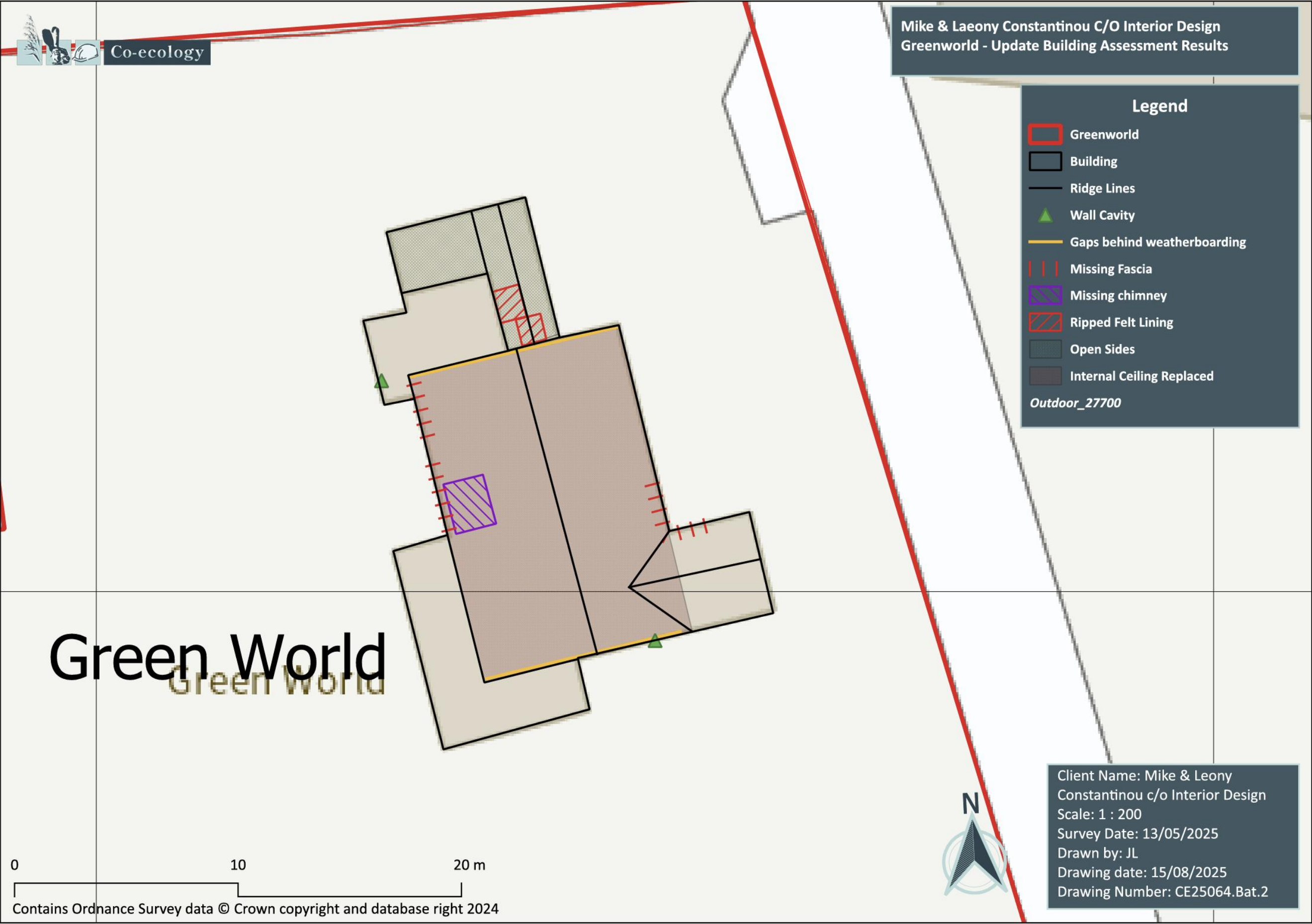
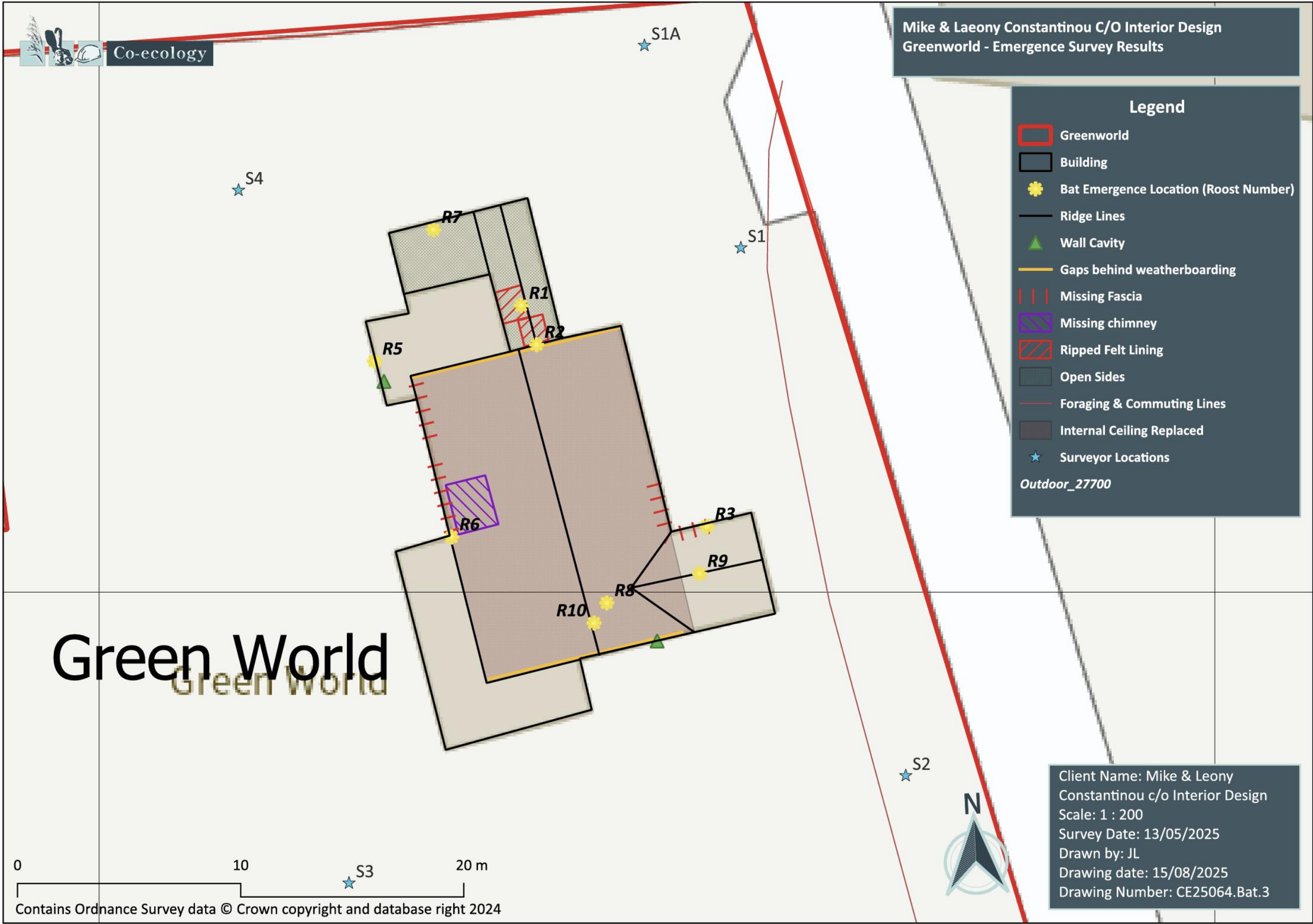


Figure 3. Bat Emergence Survey Results



5 Impacts and Opportunities

Impacts

- 5.1. **Statutory Protected Sites** – There are no statutory protected sites of importance for bats within 10km of the site boundary. No impacts to any other statutory protected sites are expected because of the proposed development.
- 5.2. **Habitats** – The proposals will not result in the direct loss of any good quality foraging habitats but any overnight lighting on the eastern elevation could result in an indirect impact on the individual bats and invertebrate assemblage using the river corridor for foraging or commuting.
- 5.3. **Bat Roosts** – The building has been identified as supporting a **Day Roost** for a maximum count of eight common pipistrelle bats. It is likely that the building also previously contained a bat roost for low numbers of brown long-eared bats, possibly no longer in use. In the absence of mitigation, the proposals will result in the loss of roost of low conservation significance, and the permanent destruction of suitable roosting features.
- 5.4. The remaining works will directly impact areas of the building where bats have been confirmed roosting. In addition, previously identified bat roost locations have been impacted by the works. To ensure the long-term favourable conservation status of the local bat population, appropriate mitigation and compensation measures will need to be put in place for the remaining works. To be detailed within the method statement to accompany the licence application.

Opportunities

- 5.5. There are numerous ways to enhance the site for bats, these include planting of night-scented flowers, (such as evening primrose, honeysuckle, nicotiana and jasmine) that attract nocturnal insect prey. Avoiding the use of pesticides and herbicides can also serve an important function in protecting insect populations and maintaining a healthy food supply for bats locally. Management measures such as leaving areas of longer sward grassland, maintaining compost heaps, planting boundary shrubs and hedgerows and the creation of a wildlife pond or water feature which could attract aquatic insect prey such as midges and caddisflies, which are an important food source for species such as Daubenton's bats.
- 5.6. The proposed works could incorporate bat and bird boxes on the external walls.

6 Recommendations

Recommendations for surveys to inform the proposals

- 6.1. No further surveys are considered necessary for the purposes of this current planning application.

Recommendations for surveys prior to construction

- 6.2. No further bat surveys are considered necessary if the building works are started before the next bat active season (Spring 2026).
- 6.3. If the project is delayed by 12 months or more from the date of the final bat survey, a repeat building inspection and emergence surveys will be required due to the high mobility of bat species.
- 6.4. A pre-works check for nesting birds must be carried out if works occur between March and August (inclusive).

Avoidance Measures:

- 6.5. Internal works should remain physically separated from the roof void. It is understood that ceilings have been replaced, isolating the main ground-floor living area from the loft space, allowing internal refurbishment to proceed without further impacts to roosting bats.
- 6.6. All external works affecting the roof, soffits, fascias, windows, doors, walls, cladding, or weatherboarding should cease until a licence is obtained from Natural England.
- 6.7. As bats have continued to use the building during initial works, any newly created or temporary cavities should be sealed or covered overnight to prevent bats from entering and becoming trapped or injured.
- 6.8. A sensitive lighting scheme should be implemented to avoid light spill onto the northern boundary hedgerow, back garden and adjacent woodland to the south. Measures should include the use of LED lighting with no UV component and careful angling of light sources.

Mitigation

- 6.9. The following points describe the preferred practicable mitigation measures that should be followed to facilitate the redevelopment works at Greenworld. Licencing will need to be obtained from Natural England immediately following determination of the current planning application.

Licensing options:

- 6.10. Due to the number of bat roosting locations and bats recorded to be roosting within the building as well as the potential for impacts to have already occurred, a full European Protected Species Mitigation (EPSM) Licence is required.
- 6.11. Mitigation measures to be detailed within the accompanying method statement for the licence application but are likely to include direct supervision and hand removal of suitable roost features, including a soft strip of any roofing areas to be removed, provision of suitable alternative roosting locations prior to commencement or re-commencement of any works, and incorporation of suitable replacement roosting opportunities within the final building design.
- 6.12. *Timing:* works should avoid the bat hibernation season, mid-November to March, to eliminate potential constraints from encountering hibernating bats. As no maternity roost is suspected, there are no further time restrictions to the proposals regarding to bats on site.

- 6.13. *Capture*: Any bats that are located will be captured by hand and placed into dedicated bat care boxes before being released shortly after into a tree mounted box, such as the Schwegler 2FN or Eco Kent Bat Box, installed specifically for this purpose.
- 6.14. *Reinstatement*: The proposed works will result in a net loss of bat roosts and potential roosting features. It is recommended that dedicated bat access tiles (at least 5) and roost features, such as a wall integrated bat box (recommended for the southwest/ southern elevation), or additional tree-mounted bat boxes are installed on suitably mature, native trees around the site boundaries, particularly along the southern boundary where there is good connectivity to woodland habitat beyond.
- 6.15. *Enhancements*: To improve site biodiversity and support foraging and commuting bats, enhancements may include wildlife-friendly gardening, planting night-scented flowers, installing a bug hotel or pond, and reducing light spill through angled or hooded security lighting.
- 6.16. Additional efforts to improve the overall biodiversity on site and the local landscape could create opportunities to enhance the site for foraging and commuting bats. Bats could be encouraged through adoption of wildlife friendly gardening practices, planting of night-scented flowers, installing a bug hotel and/ or pond to encourage insect prey. Security lighting, where required, could be angled or hooded to reduce current light spill.

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- Natural England (2021) Method Statement to Support an Application for Licence under Regulation 55(2(e)) in respect of Bats. Natural England, Peterborough.

Appendix 1. Site photographs

Photograph 1.

Aerial view of the site showing the roof structure taken using DJI Mavic 3T before the first survey on 13th May 20225. Lower row of roof tiles exposed creating new access points that could be used by bats. Chimney removed, small porch over main door removed and flat roof section around northwest corner removed.



Photograph 2.

Wall cavity on external stairs before removed between first and third emergence survey (see below). Bottom row of tiles open where section of fascia missing.



Photograph 3.

View of southwest elevations taken prior to final emergence survey on 14th July 2025 showing external stairs removed.



Photograph 4.

View from entrance to site of north and eastern elevations of main section of building and side extension showing missing section of fascia/ porch roof missing. Taken during update building inspection prior to first emergence survey visit on 13th May 2025



Photograph 5.

Drone footage taken 11th June 2025 showing the chimney and flat roof sections along southern elevation as well as staircase missing since initial PRA survey carried out in February (Arbtech, 2025)



Photograph 6. Roost R1 – Ripped felt lining. Feature not directly viewed but bats first seen circling inside the open covered pitched roof area before flying out. Occupied by a maximum count of three common pipistrelle bats. Bat recorded using this feature on all three emergence survey visits. Wildlife Imaging Systems still image of infra-red camera footage at 20:51 for location S1A, 13th May 2025. For each of the roost photos top shows analysed composite image, below shows actual video footage (provided on first instance of surveyor location/ view).

Photo ref:
IVR_20250513_202506_Summary_00h27m30s.



Photograph 7. Roost R2 - behind a section of weatherboarding where this meets the ridge of the open pitched northern section. – single common pipistrelle bat recorded using this feature during the first survey visit only. Wildlife Imaging Systems still image of infra-red camera footage at 21:17 for location S1A, 13th May 2025.

Photo ref:

IVR_20250513_202506_Summary_00h52m00s.



Photograph 8. Roost R3 - Single common pipistrelle bat recorded emerging from under missing section of fascia/ where porch is missing on northeast elevation during first survey only. WIS still image of thermal imaging camera footage 21:19 Location S1, 13th May 2025.

Photo ref:

IVR_20250513_203045_Summary_00h49m00s



Photograph 9. Roost R4 - Two common pipistrelle bats recorded to likely emerge from a wall cavity around northwest corner during first survey visit on 13th May 2025 only. WIS still image of bat recorded to emerge at 21:35 (also recorded at 21:45).

Photo ref:

DJI_20250513213511_0003_T_Summary_00h00m00s



Photograph 10. Roost R5. Single common pipistrelle recorded to emerge from under ridge tile eastern side of main roof, close to northern end on first survey only. Wildlife Imaging Systems still image of infra-red camera footage at 21:44 for location S1A, 13th May 2025.

Photo ref:

IVR_20250513_213555_Summary_00h09m00s



Photograph 11. Roost R6 – WIS summary image of drone camera footage from second survey visit on 11th June 2025 only – total of two common pipistrelle bats emerging from under bottom row of tiles on SW elevation above balcony area.

Photo ref:

DJI_20250611214947_0004_T_Summary_00h06m30s



Photograph 12. Roost R7 - Video summary footage (Wildlife Imaging Systems output file) from unattended thermal imaging camera deployed at Location 4 showing common pipistrelle bat emerging from under open northern section at 21:15 during the final survey on 14th July 2025. Total of three common pipistrelles recorded using feature during final survey only. As this feature was not directly viewed it is possible these bats also emerged from R1 but exited the building northwest rather than east as recorded for R1.

Photo ref: MVI_0562_Summary_00h16m00s



Photograph 13. Roost R8 – single common pipistrelle bat recorded to emerge from under roof tile on eastern elevation of main roof, towards southern end at 21:43 on final survey visit 14th July 2025 only.

Photo ref:

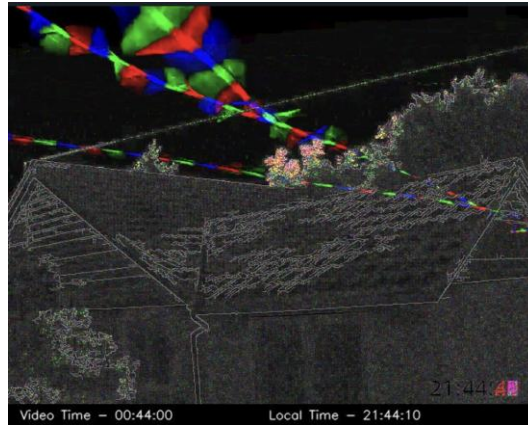
IVR_20250714_210010_Summary_00h43m30s



Photograph 14. Roost R9 - WIS summary image showing bat emerging from around ridge tile on side extension. Single common pipistrelle bat recorded using feature at 21:44 during final survey on 14th July 2025 only.

Photo ref:

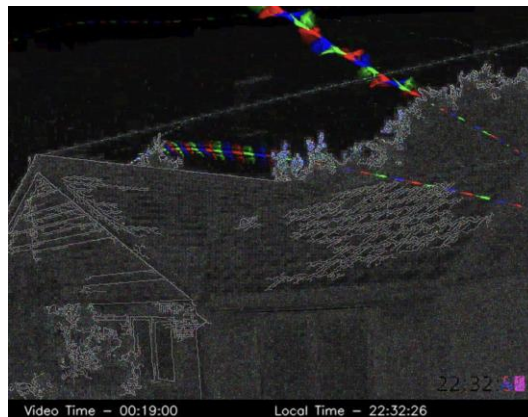
IVR_20250714_210010_Summary_00h44m00s

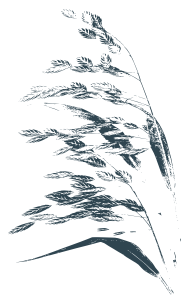


Photograph 15. Roost R10 – Single common pipistrelle bat appears to emerge from under a ridge tile towards the southern end of the main roof at 22:32 during final survey only.

Photo ref:

IVR_20250714_221325_Summary_00h19m00s





Co-ecology