

# SPECTRUM ECOLOGY

## Protected Species Surveys

### **Bat Roost and Emergence Surveys**

Summeryards, Cotmans Ash Lane, Kemsing  
TN15 6XD

Report Prepared for:  
Mr Julian Hay of Summeryards.  
September 2023

# SPECTRUM ECOLOGY

## Protected Species Surveys

# Report on survey for Bat Roost sites

At

Summeryards,  
Cotmans Ash Lane,  
Kemsing,  
Kent,  
TN15 6XD,

Report by

**Leigh Tuck**  
**Natural Resources Wales Bat**  
**Licence Number S092478/1**

**&**

**Daniel Lock**  
**NRW Licence Number S092528/1**

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## 1. Executive Summary

**1.1** Spectrum Ecology was commissioned by Mr Julian Hay to carry out a full survey for bats on a residential property known as Summeryards, at Cotmans Ash Lane, Kemsing, Kent, TN15 6XD, OS grid reference TQ 56755 59858. The survey was requested as a result of the findings of a preliminary ecological appraisal to support a planning application for the proposed demolition of Summeryards and construction of a new dwelling within the curtilage of the site. The objective of the survey was to gain an understanding of bat usage relating to Summeryards and any implications for proposed demolition works. The proposed works will involve the total demolition of the existing dwelling with a replacement dwelling proposed on the same footprint as the current built form within the curtilage of the site. The potential therefore exists to disturb bats, should they be present.

**1.2** The structure under survey is the main dwelling within the boundaries of the Summeryards complex and is constructed from brick and stone, with timber framed roof structure and a red tile roof covering. Summeryards is a long two storey building which stands alone on a sizable plot of approximately 5 Acres. The exterior of Summeryards appears to be well maintained and weather tight with any potential bat entry points primarily located around the eyebrow dormer windows, wooden soffits and chimney's lead flashing. Additional potential access points were noted on the roof corners.

**1.3** The initial preliminary assessment for bats at the property known as Summeryards was carried out during the daytime on the 31<sup>st</sup> July 2023. A detailed internal and external scoping survey inspection was made of the building, looking for evidence including droppings, staining on timbers from urine or fur, scratch marks and/or feeding remains. During the course of these investigations no bat droppings were found and no evidence in the form of bats, dead or alive, were found. A high number of mouse droppings were found in the loft space which would not be considered unusual in this rural location. There were no constraints preventing a thorough internal and external inspection of the building with any features examined using the digital endoscope, spot lamp and close focussing binocular.

**1.4** The outbuildings and garage were searched and inspected during the preliminary internal and external scoping surveys. All buildings were of a single skin and corrugated roof design and held very low potential for supporting bat roosts. In addition, a thorough search for the indicators of bat presence was undertaken with no evidence found.

**1.4** The initial internal / external building inspections was followed up with dusk emergence and dawn re-entry surveys on the 18<sup>th</sup> August and 9<sup>th</sup> September 2023 which focused on the potential access areas and around the chimneys. During the course of the initial dusk survey a maximum peak count of 3no. Common Pipistrelle bats (*Pipistrellus pipistrellus*) were detected and observed foraging in the garden area and tree lined driveway. No bats were detected or observed emerging from the dwelling on any of the survey occasions.

The owner of Summeryards indicated that during the summer of 2018, they installed a comprehensive ultrasonic rodent-repellent sound device in the loft, which emits an ultrasonic

sound to deter mice and rats, due to infestations of mice in the dwelling. Given the absence of the species confirmed by the bat activity surveys, it is considered highly likely that the introduction of the ultrasonic pest control has rendered the loft space and roof crevices of Summeryards sub-optimal as a roosting provision.

**The overall survey results therefore confirm Summeryards is not currently used as a summer bat roost. It is also considered that the impact of demolition works will be of a low/negligible impact to the favourable conservation of the species at a local level, with only the loss of potential roosting features requiring mitigation to ensure alternative roosting is provided within the proposed dwelling.**

**1.5** It is proposed to demolish the existing residential dwelling and existing outbuildings. **As the surveys indicated that bats are not currently or historically roosted in Summeryards, it is considered that a European Protected Species Development Licence will not be required prior to those demolition works.**

**1.6** It is proposed that mitigation and compensation measures will focus on minimising any potential harm to bats during the demolition works and ensuring that any loss of existing roosts and their access points are carefully mitigated and replaced within the new development. Additional roosting opportunities will be incorporated into the new dwelling to ensure a net enhancement of roosting opportunities as required by the local planning authority obligations under the Environment Act 2021. This will include augmenting and enhancing existing conditions for crevice dwelling bats by incorporating roosting opportunities for those species within the development. In addition, the addition of purpose-built bat access opportunities within the wooded areas to the east and west of the proposed dwelling, will significantly enhance the site for bats to ensure that the Favourable Conservation Status (FCS) of all bat species noted for the area, is maintained.

**1.7** Furthermore, it is proposed that all disturbing works will be undertaken during the autumn and winter months (a time when bats are least likely to be present) and any disturbing works such as the demolition will be undertaken between November and April of the given year in which development commences. In addition, a licenced bat surveyor will be on call for the duration of the demolition to oversee the works.

## **2. Background**

**2.1** The client is seeking planning permission to demolish the existing Summeryards and build a new dwelling on the existing built form footprint within the site.

**2.2** Part 6 of the Environment Act 2021 places a duty on public authorities 'to further the general biodiversity objective' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also have regard to "conserving, restoring or otherwise enhancing a population of a particular species, and conserving, restoring or otherwise enhancing a particular type of habitat." The duty replaces the Section 40 duties in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006) and applies to

those authorities that fell within the previous duty. As a result, the client commissioned protected species surveys for roosting bats as part of the process of applying for planning permission.

**2.3** Mr Leigh Tuck & Mr Dan Lock as lead licenced surveyors, assisted by trainee surveyors were commissioned to undertake a detailed survey for the presence of bats and their roosts. This report documents the results of surveys undertaken on the dates noted above. In addition, it makes recommendations on how the development will proceed and the conservation measures that will be taken to ensure that bats are fully considered as part of the demolition of this site.

### **3. Constraints**

**3.1** No problems were encountered in finding or accessing the site. The roof void was easily accessible and was searched thoroughly with the use of a high-powered spot lamp, close focussing binocular and digital endoscope and did not present a constraint.

**3.2** The external layout and pitch of the roof section imposed limitations on climbing onto the roof itself due to the overriding health & safety concerns and condition of the roof tiles. The potential external access points to the interior were noted and investigated as far as possible with the additional use of a high-powered spot-lamp, close focusing binocular and electronic 'see-snake' endoscope.

**3.3** All potential access features were the focus for the subsequent bat detector surveys.

**3.4** As a result of the above, the surveyors are confident that the assessment of the Summeryards has been as thorough as the Bat Conservation Guidelines require.

### **4. Surveyor Experience**

**4.1** The principal surveyors and authors of this report, Leigh Tuck (**Licence number S092478/1**) and Dan Lock (**Licence Number S092528/1**), assisted by trainee bat surveyors, Emma Roberts and Sian Davies. Leigh and Dan are Natural Resources Wales licensed bat surveyors with over twelve years licensed experience. They have over fourteen years of wide and extensive experience in countryside management and surveying for protected species and have worked on many projects related to bat conservation. Both have experience undertaking surveys as part of the National Bat Monitoring Programme, as well as undertaking numerous building and tree surveys for bats for private clients and more notably for County borough Councils.

**4.2** Spectrum Ecology have a wealth of experience in the bat surveying arena, and over the last 8 years have worked with a significant number of high level production companies for TV and Film in locations across the UK such as Disney, Sky TV, BBC, Channel 4, Lucas Film and HBO. This 'up close supervision' of film crews near to bat roosts has allowed the study of

behavioural patterns of bats in a roost environment.

This wealth of experience and resultant expertise allows us to produce good quality reports, mitigation documents and habitat management plans to assist clients with any ecology or biodiversity related plans for their projects. As well as producing numerous bat reports annually for private individuals and organisations, we have also been involved in providing training, guidance and advice in such matters to local authorities.

## **5. Site Description**

**5.1** Summeryards is a detached, two storey residential dwelling, with the internal layout as per most standard domestic dwellings with living quarters on the ground floor and bedrooms on the first floor. Summeryards and outbuildings are located in a rural part of Kent, surrounded on all sides by a mixture of arable and livestock farmland and loosely connected woodland blocks.

**5.2** The building is situated within a rural area with farms, open agricultural field systems, hedgerows and with the nearest significant urban areas 1.7km to the southwest (Kemsing Village).



Location of the survey area at Summer Yards, Kemsing

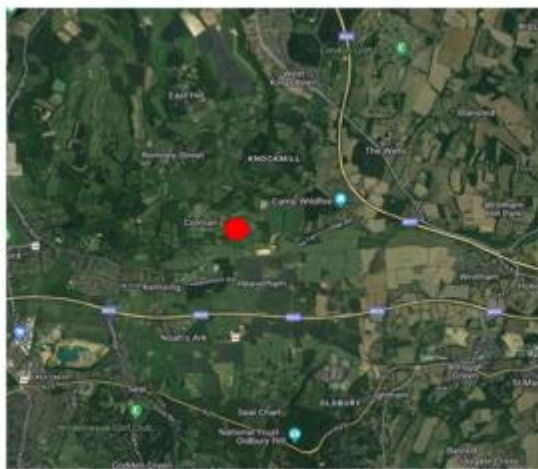


Figure 1: Location of the surveyed structure at Summeryards Kemsing



## 6. Survey Methodology

**6.1** The principal aim was to survey the property internally and externally to look for the presence of bat roost sites and to carry out evening emergence and dawn swarming bat detector surveys. First an external examination was made of the design and structure of Summeryards to assess the suitability for use by bats and for potential access points. Evidence such as bat droppings (faeces) or urine staining on window frames, doors, and walls or scratching on other surfaces was looked for.

**6.2** The building was also inspected internally and a search was carried out for the presence of bats or the remains of dead bats. Signs of bats such as droppings, urine staining, staining on timbers and discarded fragments of insects such as moth wings were also searched for. The survey was carried out with the aid of a close focusing binocular, spot lamp and a digital endoscope. Due to a moderate number of potential roosting features being identified together with the rural locations it was considered that further survey effort was required, as per the Bat Conservation Trust guidelines.

**6.3** In total, one dusk and one dawn bat activity surveys were carried out on the building to record any bats emerging from / entering the structure. These were carried out with the aid of Batbox Duet heterodyne / frequency division bat detectors and Wildlife Acoustics Echo Meter Touch 2 Pro recorded onto a Smartphone/tablet. The observation was conducted primarily of areas highlighted as potential access points in the building survey.

### 6.4 Surveyor Locations

Surveyor Locations of the survey area at  
Summer Yards, Kemsing



Figure 2: Location of surveyors across all surveys

## 7. Site Survey

7.1 The initial, preliminary building assessment for the potential of bats at the Summeryards was carried out on the 31<sup>st</sup> July 2023. A thorough investigation of Summeryards was carried out as part of the building scoping survey. The search was carried out with the aid of a digital 'see snake' endoscope, close focussing binocular, camera and high-powered 'Cluson' spot lamp. There were no constraints in accessing Summeryards although there were constraints regarding climbing onto the roof ridge (see Constraints section 3). The external roof slant also presented certain health and safety constraints and could not be examined at close hand. These and any other areas which could not be assessed at close hand were investigated from the ground or ladders with the use of the high-powered spot lamp and close-focussing binocular, meaning as thorough an examination as possible was made.

**7.2** Summeryards appeared to be structurally sound with no serious signs of damage. The roof covering was in good condition, with less than 5 individual slipped or cracked roof tiles. There were some gaps associated with the roof corners, but the majority of the roofing material was sound and weather tight.

**7.3** Inspection of the roof void revealed a number of mouse droppings, but no evidence of bat faeces or other diagnostic evidence. There appeared to be no light-bleed into the loft and no obvious potential access points to the interior.

**7.4** The initial evening emergence survey was carried out on the 18<sup>th</sup> August 2023. The survey began at 20:10hrs and finished at 22:20hrs.

<b>Date</b>	18/08/2023
<b>Survey type</b>	Evening emergence survey
<b>Temperature</b>	19 °C, dropping to 17°C by 22:20hrs
<b>Weather conditions</b>	light southerly, intermittent breeze, dry, 7 oktas-majority cloud cover
<b>Sunset time</b>	20:15hrs

<b>Time</b>	<b>Species</b>	<b>Observation</b>
20:37	Common pipistrelle	Passed from west to east over surveyor towards house
20:41	Common pipistrelle	As above
20:50	Common pipistrelle	As above
20:53	Common pipistrelle	Pass, near south-eastern corner of roof
20:54 – 21:03	Common pipistrelle	Foraging along driveway to immediate west of building, 5 passes
20:55 – 21:15	Common pipistrelle	2 individuals foraging to south of building
21:04 – 21:17	Common pipistrelle	Numerous passes by 3 individuals along driveway, near eastern elevation
21:11 – 21:16	Common pipistrelle	2 individuals foraging over car parking area and wooded area to south and south-east of house
21:23- 21:31	Common pipistrelle	Foraging to north of house, between house and outbuilding
21.21 – 22:00	Common pipistrelle	2 individuals foraging over car parking area and grassed area to south and south-west of house
21:57	Noctule	Pass over house – detected not seen
22:13	Common pipistrelle	Pass – south elevation
22:19	Common pipistrelle	Pass – west elevation

**7.5** The dawn survey was undertaken on the 9<sup>th</sup> September 2023. The survey began at 05:00 hrs and concluded at 06:45hrs.

<b>Date</b>	09/09/2023
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<b>Survey type</b>	Dawn survey
<b>Temperature</b>	14°C
<b>Weather conditions</b>	Dead calm, no breeze, dry, 3 oktas cloud cover
<b>Sunrise time</b>	06:33hrs

<b>Time</b>	<b>Species</b>	<b>Observation</b>
05:49	Noctule	Pass – flying west to east over property
06:20	Common Pipistrelle	2 individuals detected and observed – foraging under tree canopy near driveway next to east elevation
06:24	Common Pipistrelle	Individual bat displaying foraging behaviour around large beech tree to west of house

**7.6** The highest number of bats observed on any one survey occasion was 3 Common pipistrelle bats. No bats were seen to emerge from or exit the building. The lack of droppings found in the loft space indicates that Summeryards has not been used by bats in the recent past.

**7.7** There is a growing understanding that most if not all buildings will have some potential for hibernating bats. However, lack of access to the loft space and the higher potential features present there (including access to any of the limited cavities within the walls) means that this potential is significantly reduced at Summeryards. The neighbouring farm buildings to the immediate north of Summeryards and certain large trees in the vicinity are likely to provide more optimum potential for hibernating bats.

## **8. Historical and Other Relevant Information**

**8.1** No further information on bats at the property was available during the desktop study. However, details of bat surveys recorded on the adjacent land detailed no roosting bats and low numbers foraging in almost identical habitat, which provides additional evidence supporting this recent bat survey.

## **9. Ecology of Bats**

**9.1** There are 18 species of bats of which 17 are known to be breeding in the United Kingdom. Most of them are regarded as threatened due to a variety of factors including habitat loss and disturbance/damage to roosts. Of these species a number regularly use buildings or trees at certain times of year in order to find safe secure roost sites.

**9.2** Bats are highly mobile flying mammals, which in the United Kingdom, feed entirely on insects. Having evolved over seventy million years they have developed sophisticated

mechanisms to allow them to effectively 'see' in the dark by using sound. Called echolocation this system allows them to track and hunt down small moving insects whilst in flight, rather like radar does in a modern military fighter aircraft.

**9.3** In winter, when their prey is scarce, British bats hibernate in the cool parts of caves, buildings and tree cavities. They may wake occasionally and will feed if evening temperatures are greater than 7°C, when flying insects will be active. Generally, however, activity in winter is very limited and bats only become fully active in spring.

**9.4** In late spring female bats will gather together in maternity roosts in order to give birth and rear their single baby in June. Such maternity roosts are often near to foraging areas in order to minimise energy usage, as flight requires vast energy resources.

**9.5** Whilst females form maternity colonies, usually in warmer roofs or trees, male bats tend to seek out cooler sites, which may not be so close to the foraging areas. Males are often solitary and do not exhibit the social behaviour that marks out females during the birthing period.

**9.6** Several British bat species are known to rely heavily on buildings to roost. The Common pipistrelle, *Pipistrellus pipistrellus* bat appears to be well represented in the Kemsing and Sevenoaks area and can often be encountered in built structures located in habitat such as the building under survey, as can Soprano pipistrelle, *Pipistrellus pygmaeus* bats. The Brown long-eared *Plecotus auratus* bats are another species which commonly roost in buildings and again are well represented in the Kent County.

## 10. Relevant Legislation

**10.1** The marked decline of all British bats has resulted in their being given protection under the Wildlife and Countryside Act 1981. Section 9 of the Act (through provisions in Schedule 5) made it illegal to intentionally kill, injure or take any British bat. It also made it an offence to intentionally damage or destroy their place of rest (the roost).

**10.2** Previously all bat species were protected under Annex IV of the European Communities Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, which required the United Kingdom government to provide bats with strict protection.

**10.3** All species of British bat are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (which consolidates the European Conservation Regulations 1994 - Natural Habitats etc.) **The Habitats and Species Regulations 2010 and amended in 2017 has now been superseded as the UK has now left the EU. The legislation protecting bats post January 1st, 2021, is The Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019.**

**10.4** Certain species of bats including the brown long-eared *Plecotus auritus* bat and soprano pipistrelle *Pipistrellus pygmaeus* are also listed as a Species of Principal Importance (SPI) under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This



means public bodies, including local planning authorities have a duty to have regard for SPI when carrying out their functions, including determining planning applications.

Due to the high level of protection afforded to bats and their habitat, a European Protected Species License (EPSL) must be sought from Natural England before any works directly or indirectly affecting a confirmed bat roost can proceed. Licensing is subject to three tests, as defined under the Habitats Regulations 2019; the planning authority must also apply these before granting permission for activities affecting bats. For permission to be granted the following criteria must be satisfied:

- The proposal is necessary 'to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.
- 'There is no satisfactory alternative'; and
- The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favorable conservation status in their natural range'.

## **11. Discussion**

**11.1** The surveys carried out by Spectrum Ecology showed that the surveyed building is not currently or historically been used as a bat roost. The subsequent surveys and evidence-gathering showed that the building is highly unlikely to have not been in use certainly since 2018 since the ultrasonic rodent-repellent device was installed, although there is little evidence from the Bat Conservation Trust indicating such a device has an effect on bat roosts. However, some impact resulting from the device cannot be ruled out.

**11.2** During the emergence / bat activity surveys, a maximum total of 3 (three) individual Common pipistrelle bats were observed to forage and commute within 10m of the dwelling. Whilst bats were observed to be active all around the building during the surveys, flight paths were mostly concentrated on foraging over the lawn area under tree cover to the west of the dwelling, the lawns and grassed areas to the south and west, and along the lane which runs in an east-west direction to the east of the property. The times at which bat were observed in the area after sunset indicate a high likelihood of them emerging elsewhere and commuting to this site before moving on to other foraging grounds.

**11.3** A single Noctule bat was noted flying high above the building during the dusk survey. The Noctule did not use the site but carried on in a north-easterly direction. A higher number of Common pipistrelle bat passes were recorded during the surveys along the North Downs Way or public footpath SR83 which runs to the north of the site. The bats observed appeared to arrive at the site from the north, in the direction of the farm buildings and stables to the immediate north of Summeryards and outside the curtilage of the survey site. However, it is worth recording to ensure that no new lighting from the proposed dwelling illuminates this flight path.

**11.4** The conditions for the observations made during the dusk and dawn bat detector surveys were excellent on all occasions. The surveys were carried out in the 2023 season covering to

help any roosts present could be appropriately characterised with mitigation tailored accordingly. The relatively low numbers of bats observed during the surveys would suggest that the larger numbers of bats associated with maternity roosts in the area were not present and a maternity roost for Common pipistrelle and / or any other bats can be discounted.

Furthermore, as the surveys showed that the dwelling does not support bats, the impact of the development is likely to be negligible to the roosts currently present. New features for crevice dwelling species will be incorporated within the new development to ensure adequate mitigation which replaces and enhances existing opportunities within the site, providing a biodiversity net gain.

As a result of the extensive surveys, the surveyors believe that the best possible picture of bat usage and activity has been gained.

**11.5** The impact of the proposed development is considered to be low in a wider context and is not considered to contribute to the reduction in abundance or distribution of any bat species or roosting habitat in a regional or national context. Therefore, the favourable conservation status of the species would not be detrimentally affected.

No significant changes to the foraging and commuting landscape for bats are predicted, with the character of the wider grounds and gardens being maintained. The location of the new building is on or near to observed flight paths. While this location is not considered to obstruct such flight paths, it does mean that local bat populations are more likely to find and use the new features for bats which will be incorporated into the development. It is considered there will not be any impact to foraging bats in the local area as there is a dwelling already present on site.

## 12.0 Mitigation & Enhancement Requirements

**12.1** Mitigation should focus on replacing and adding to existing roosting opportunities by incorporating new features for bats into the new building. In addition, new features in the form of bat boxes added to existing outbuildings will enhance overall opportunities by providing alternatives within the immediate vicinity.

**12.2** When applying the precautionary principle potentially disturbing works to the roof structure of Summeryards should be timed to ensure they occur outside of the main bat activity period – i.e., works conducted October to March inclusive. This will avoid the main summer activity period. The services of an on-call licensed bat ecologist will be enlisted, to undertake a pre-works inspection of the roof and an evening emergence survey within 24 hours of works commencing, to help ensure no bats are present. The on-call licenced bat ecologist will also be present for the first day of works (and any subsequent works), especially while any disturbance of the roof covering is carried out. The licenced bat surveyor will continue to provide assistance in the event that bats are encountered during works.

**12.3** On the redevelopment of Summeryards within the existing built form ground, where possible any new lead flashing, barge boards, soffits, gutter plates, and fascia will be left with a gap of 15mm-20mm along the lower edge, allowing access for crevice roosting species such as Pipistrelle sps and myotis species (Brandts and Whiskered bats) behind the board.

**12.4** In addition, due to the proposed dwelling being of modern design with no traditional roof slant, the brick walls on the southern elevation will have Bat Bricks incorporated into the fabric of the building. There will be a minimum of 2 bat bricks per elevation placed as high as possible.

In addition, the proposed garage will require the installation of 2 further bat bricks on each elevation which is of brick construction.

An appropriate bat brick model which caters for many of the other species noted for the location would be the Istock Bat Box C integral bat box

During the redevelopment, all materials used should be carefully chosen to ensure that they are not toxic or harmful to bats. Any areas where bats gain access into the cladding cavity shall be lined with bitumen felt to ensure no entanglement with breathable membrane. If it is proposed to treat timbers or use any chemical sprays, these should be with `bat friendly` compounds only, in accordance with current NE guidelines.

**12.5** In addition to the above, 3 bat boxes such as the Schwegler model 1FF should be fitted to the large beech tree immediately to the west of the dwelling prior to works commencing to act as relocation roosts in the unlikely event that bats are encountered during works. The boxes will remain thereafter as additional and enhanced roosting provision. The bat boxes should be located and installed by or under the guidance of a suitably qualified bat surveyor.

**12.6** The mitigation strategy will follow the mitigation hierarchy, Avoid, Mitigate, Compensate and Enhance, and will aim for the closest possible replacement and enhancement of existing roosting opportunities as a minimum within the new building, to ensure no net loss. These will be further augmented with the installation of additional bat roosting measures on the existing outbuildings and nearby trees. Additional measures to control timings and avoid any disturbance to bats will also be implemented.

**12.7** Contractors awarded the demolition contract will be instructed in writing to implement a `destructive searching` method, checking for the possible presence of bats on the undersides of roofing materials, within wall / foundation cavities etc. as materials are removed, before smashing or dumping them. The roofing materials will be removed from the top down to ensure that if any bats are present, they will not be at risk of crush injuries. This is especially important at the outset of the works.

**12.8** All lighting associated with the new development will be positioned so as not to illuminate the new features and roosting provision for bats. Any new lighting is to be kept to a minimum and designed so as to avoid illuminating the surrounding treelines and hedgerows which exist near to the observed flight lines for bats. These features will remain in darkness to provide appropriate

commuting and foraging features. The wider grounds including the lawns / field to the south within the grounds will not be illuminated by additional lighting and will continue to provide appropriate foraging potential.

**12.9** Bats are highly mobile flying animals, which may set up new roosts at any time, therefore this report can only be considered valid for 24 months. If no development of the site has been undertaken within twelve months of this survey, it is recommended that a further 'top up' survey for use by bats should be carried out before proceeding with any potentially disturbing works.

## 13. References

- *Bat Surveys: Good Practice Guidelines 3rd Edition* - Bat Conservation Trust 2016
- *Bats in Traditional Buildings* - English Heritage, National Trust and Natural England 2009
- *Urban Environments and Wildlife Law: A Manual for Sustainable Development* – Paul A Rees 2002
- ‘*Bats and the law: What to do when the law is broken*’, Childs, J. (2001), The Bat Conservation Trust and the Royal Society for the Protection of Birds.
- ‘*Distribution Atlas of Bats in Britain and Ireland: 1980 – 1999*’, Richardson, P. (2000), The Bat Conservation Trust.
- ‘*Focus on Bats*’, Mitchell-Jones, T. (1992), English Nature.
- *3rd Edition Bat Workers' Manual* - Mitchell-Jones, A.J, & McLeish, A.P. Ed. 2004
- *Bat Mitigation Guidelines* - A. J. Mitchell-Jones / English Nature / JNCC 2004
- ‘*Action Plan for the Conservation of Bats in the United Kingdom*’, Hutson, A.M. (1993), The Bat Conservation Trust.

### Disclaimer

**This survey was carried out and an assessment was made of the site described at a particular time. The evidence that this report contains can be used to draw conclusions as to the likely presence or absence of bats and the likely impacts of any proposed works. Every effort has been taken to provide an accurate assessment of the situation pertaining to this site at the specific time of the survey. No liability can be assumed for omissions or changes after the survey has taken place.**



**Appendix 1: Aspects of the building under survey**



*Plate 1: Southern aspect of main dwelling*



*Plate 2: Western aspect*





*Plate 3: Eastern aspect*



*Plate 4: Northern aspect*





*Plate5: Garden and pond behind solar panels*



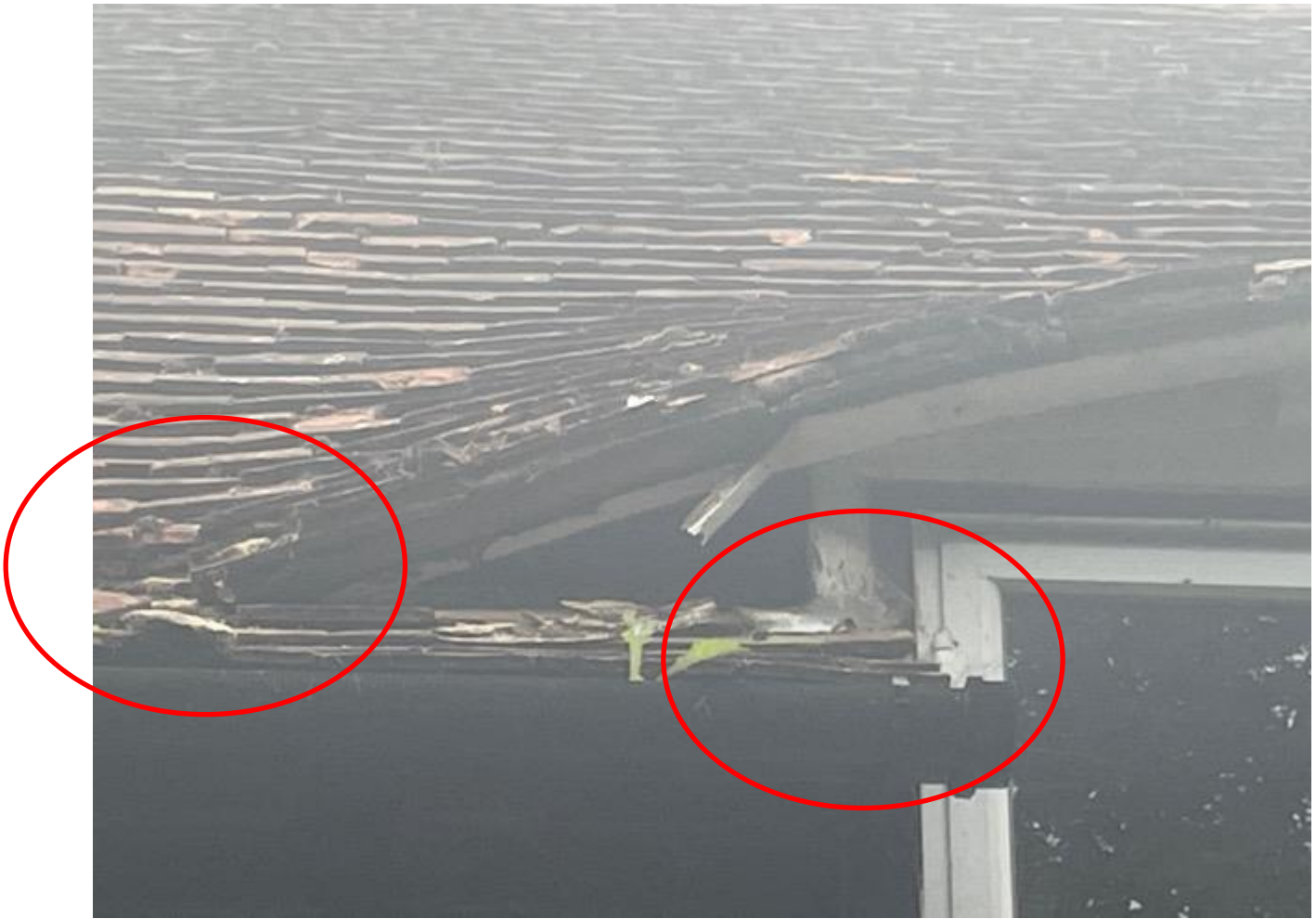


*Plate 6: looking south from the house*

Appendix 2 – Other Potential Roost Access Points



Plate 4: SE corner / (no evidence found with endoscope)



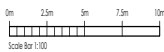
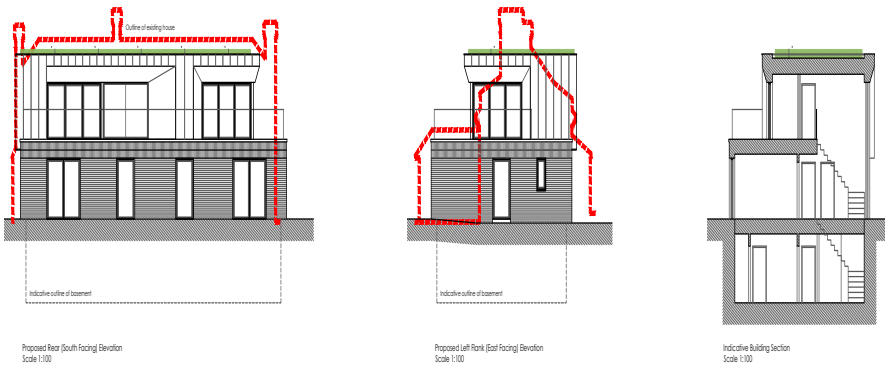
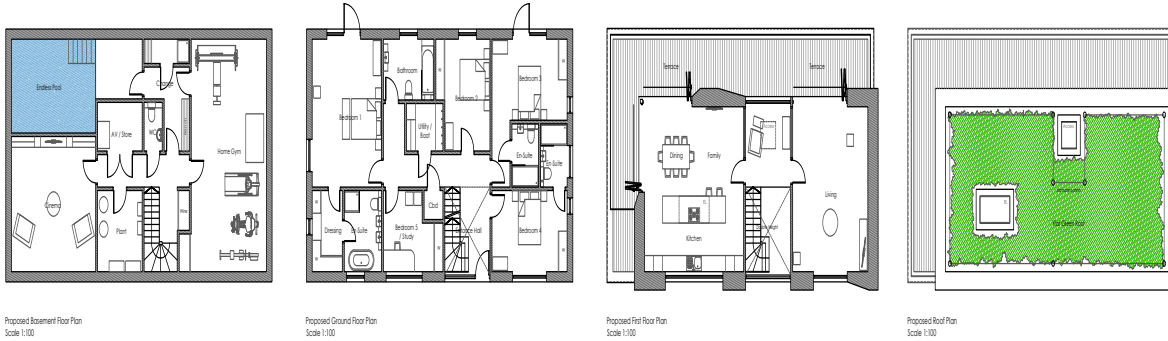
*Plate 5: Northern aspect eyebrow window of main dwelling/ no evidence with endoscope*



*Plate 6: SE gable end chimney raised lead / wasp nest present*



Appendix 3 – Plans of proposed new dwelling



Rev	Date	Comment
<b>PRELIMINARY</b>		
Client Mr Julian Hay		
Project Summeryards, Coburns Lane, Kemsing, TN15 6XD		
Title New Build: Proposed Plans, Elevations and Section		
Project No.	Date	
5428	June 2023	
Drawing No.	Revision	
5428-SX-11		
Scale	Drawn	DA
As shown @A1		
	Check	RR

