

## BAT SURVEY

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# LITTLE GABLES, SINDLESHAM ROAD ARBORFIELD, WOKINGHAM RG2 9QE

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Client: Maria and Ross Hobbs

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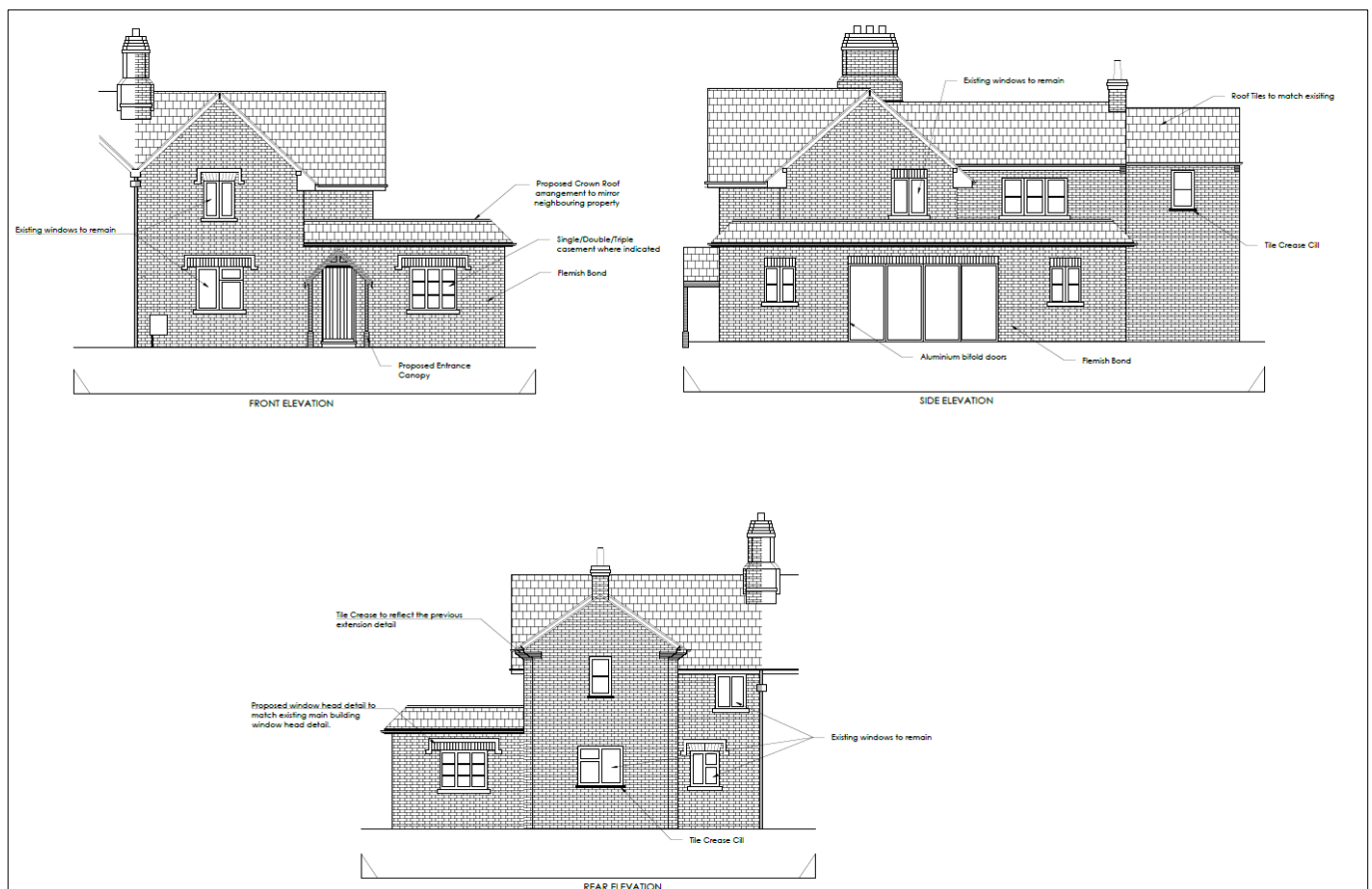


**Figure 2 – Existing and proposed elevations**

**EXISTING**



**PROPOSED**



## 2.0 Methodology

### **Desk study**

- 2.1 A desk study data search was undertaken. This involved reviewing publicly available datasets and citations of statutory designated sites of importance for nature conservation and Natural England's Ancient Woodland Inventory for sites within the zone of influence of the survey area (considered to be a maximum of 500m in this case).
- 2.2 In addition, species records (on the MAGIC website<sup>1</sup>) were accessed, and aerial photographs and Ordnance Survey maps were studied for features of interest.

### **Bat survey**

#### **Daytime Bat Walkover (DBW)**

- 2.3 A survey to assess the suitability of habitats for bats to roost, commute and forage within and adjacent to the site (where accessible). Habitat suitability was assessed as per Table 1 below.

#### **Preliminary Roost Assessment (PRA)**

- 2.4 This survey consisted of a detailed search of the interior and exterior of the buildings looking for bats and/or evidence of bats including droppings (on walls and windowsills and in roof and loft spaces), rub or scratch marks, staining at potential roosts and exit holes, live or dead bats and features, such as raised or missing tiles, potentially suitable for use by roosting bats. Binoculars, an endoscope, a ladder and a high-powered torch were used as required.
- 2.5 The buildings were classified in terms of their suitability for use by roosting bats (see Table 2) and in accordance with the Bat Conservation Trust's Bat Survey Guidelines<sup>2</sup>.
- 2.6 Classification was dependent on a number of factors including:
  - Bats and/or signs of bats
  - External and internal features potentially suitable for use by roosting bats (e.g. raised or missing tiles, gaps behind fascia boards)
  - Setting
  - Night time light levels
  - Disturbance levels
  - Proximity of suitable foraging habitat and flight-paths (e.g. ponds, streams, woodland, large gardens, hedgerows)

#### **Dusk emergence surveys**

- 2.7 Three dusk emergence surveys of Little Gables were carried out on 15 May, 19 June and 24 July 2025. Three surveyors were present during each survey.

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<sup>1</sup> <http://www.natureonthemap.naturalengland.org.uk/>

<sup>2</sup> Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn) Bat Conservation Trust

- 2.8 Surveyors were equipped with professional ultrasonic bat detectors and bat calls were recorded to facilitate bat species identification with specialist software.
- 2.9 Night-vision aids (NVAs) were also stationed around the house so that all potential roosting features could be seen. Footage from the NVAs was reviewed the following day on desktop PCs using specialist software with the ability to motion track, zoom in and watch footage in slow motion.
- 2.10 The dusk surveys started 15 minutes before sunset and continued until one and a half hours after sunset.
- 2.11 Surveys were carried out in accordance with the Bat Conservation Trust's Bat Survey Guidelines. Timings, weather, and survey results are given in Appendix 3.

### **Surveyor details**

- 2.12 Surveys were undertaken by Ryan Davies ACIEEM, Justine Whitehead Qualifying CIEEM, Cherry Leung Qualifying CIEEM, Teresa Verney Brookes, Matthew Stephenson, Andrew Blamey and Elisa Sutton of GS Ecology Ltd.
- 2.13 Ryan holds a Natural England WML A34 Level 2 bat survey licence and is an associate member of the Chartered Institute of Ecology and Environmental Management with more than 10 years' experience as professional ecologist.
- 2.14 Justine and Cherry are accredited agents under a Natural England WML A34 Level 2 bat survey licence and all others are experienced bat surveyors.

**Table 1 – Habitat suitability scale for potential flight-paths and foraging bats**

|                                                                              | <b>Potential Suitability</b>  | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Potential Suitability of potential flight-paths and foraging habitats</b> | <b>High</b>                   | Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge.<br>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.<br>Site is close to and connected to known roosts. |
|                                                                              | <b>Moderate</b>               | Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens.<br>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.                                                                                                                                                                                    |
|                                                                              | <b>Low</b>                    | Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.<br>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.                                                                                                       |
|                                                                              | <b>Negligible<sup>3</sup></b> | No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.                                                                                                                                                                                                                                                                                    |
|                                                                              | <b>None [Not suitable]</b>    | No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).                                                                                                                                                                                                                 |

<sup>3</sup>Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant.' This category may be used where are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute)

**Table 2 – Description of the categories used to assess a building’s bat roost potential and the survey effort required to determine the likely presence or absence of bats**

|                                   | <b>Roost status</b>        | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Survey effort required to determine the likely presence or absence of bats</b>                                                                                                                                                                                                      |
|-----------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bat Roost Potential Status</b> | <b>Confirmed</b>           | Bats or evidence of bats found.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Surveys would be required to establish the status of the roost. Generally, three dusk emergence surveys between May and September. Optimum period May – August (two surveys should be undertaken during the optimal period). Surveys should be carried out at least three weeks apart. |
|                                   | <b>High</b>                | A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions (For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance) and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site. | Three dusk emergence surveys between May and September. Optimum period May – August. Two surveys should be undertaken during the optimal period. Surveys should be carried out at least three weeks apart.                                                                             |
|                                   | <b>Moderate</b>            | A structure 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 only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).                                                                              | Two dusk emergence surveys, between May and September (one of the surveys needs to be carried out between May and the end of August). Surveys should be carried out at least three weeks apart.                                                                                        |
|                                   | <b>Low</b>                 | A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).                            | One dusk emergence survey between May and the end of August (but only if features will be affected by the proposals).                                                                                                                                                                  |
|                                   | <b>Negligible</b>          | No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.                                                                                                                                                                                                                                                                                                                              | No further surveys required.                                                                                                                                                                                                                                                           |
|                                   | <b>None [No potential]</b> | No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).                                                                                                                                                                                                                                                                                                                                        | No further surveys required.                                                                                                                                                                                                                                                           |

### 3.0 Results

#### **Weather conditions**

- 3.1 Weather conditions during the initial survey were 9°C, 8/8ths cloud cover, wind at Beaufort scale 1, with no rain.
- 3.2 Weather conditions for the dusk emergence surveys are given in Appendix 2.

#### **Desk study**

##### **Statutory sites of importance for nature conservation and Ancient Woodland**

- 3.3 Within 500m of the application site, there are no statutory sites of importance for nature conservation or areas of woodland listed on Natural England's Ancient Woodland Inventory.
- 3.4 The nearest of such site - 'Hazeltons Copse', an area of ancient woodland – is situated 530m northeast of the application site.

##### **Bat licence records**

- 3.5 Within 2km of the site there are eight records of licenses issued by Natural England for works affecting bat roosts on The MAGIC website. These records are summarised in Table 3 below.

**Table 3 – Summary of Natural England licence records within 2km of the application site**

| Distance and direction from the application site | Species affected                                          | Breeding site | Year licence was issued |
|--------------------------------------------------|-----------------------------------------------------------|---------------|-------------------------|
| 0.8km Northwest                                  | Brown long-eared, common pipistrelle, soprano pipistrelle | No            | 2009                    |
| 1km Southwest                                    | Common pipistrelle, soprano pipistrelle                   | No            | 2019                    |
| 1.4km Southeast                                  | Brown long-eared, common pipistrelle, soprano pipistrelle | No            | 2016, 2019              |
| 1.7km Southeast                                  | Common pipistrelle, soprano pipistrelle                   | No            | 2017                    |
| 1.7 km South                                     | Common pipistrelle                                        | No            | 2019                    |
| 1.8km Southeast                                  | Common pipistrelle, Natterer's, soprano pipistrelle       | No            | 2017, 2018, 2018        |
| 1.9km Southeast                                  | Common pipistrelle                                        | No            | 2015, 2016, 2016        |
| 1.9km Southeast                                  | Brown long-eared, common pipistrelle                      | No            | 2015                    |

##### **Surrounding habitats**

- 3.6 The application site is located at the southern end of Sindlesham Road, adjacent to the Arborfield Cross roundabout in Arborfield. Adjacent to the south west is the adjoining semi-detached property and its associated gardens with trees. In addition, to the north east, and further south east and south are residential properties of varying sizes, and their gardens with some trees.
- 3.7 Directly to the north and east and south west are large grassland fields bound by hedgerows and scattered trees. Further afield in all directions are agricultural fields with, in places, hedgerows at their peripheries.
- 3.8 There are several areas of nearby woodland, located approximately 70m southwest, 200m east, 350m southwest and 500m northeast from the application site. These are all well-connected to the site via hedgerows, lines of trees and linked back gardens.
- 3.9 The habitats surrounding the site are of therefore of predominantly 'high' suitability for commuting and foraging bats (see Table 1).

### **Habitats within the application site**

- 3.10 The application site comprises a semi-detached, one and two-storey house and its curtilage – driveway, front and rear gardens, and, five outbuildings within the rear garden - all of which are unaffected by the proposals
- 3.11 The front garden consists of a short-cut amenity grassland lawn bound by ornamental hedges. The rear garden has a larger, short-cut lawn with scattered shrub planting and small ornamental trees.

### **Bat survey - Preliminary roost assessment**

- 3.12 Little Gables is a semi-detached, one- and two-storey house with single skinned brick walls. The main roof has an L-shaped pitch and is clad with clay tiles. At the rear of the house there is a single-storey section which has a pitched, clay-tiled roof, and an adjoining, felt-clad lean-to. On the southeastern elevation is a hipped, clay-tiled front porch.
- 3.13 The house has a UPVC soffits at the eaves and a mix of painted wooden and UPVC bargeboards at the gable ends.
- 3.14 The house has numerous features potentially suitable for use by roosting bats including:
- Numerous gaps under raised roof tiles on the rear elevation
  - Gap between verge tiles and barge board at both front and side gable ends
  - Gap between soffit and brick walls at the apex of the front gable – this is partially blocked by cobwebs
  - Gap between soffit and brick walls at the apex of the front gable – much of this is blocked by cobwebs and insulation
  - Small gaps under raised and slipped roof tiles on the rear single storey section
- 3.15 Internally the house has a single loft space below the main roof and an inaccessible void below the rear roof. The loft has wooden beams and ridge board and is approximately 1.3m high at the apex. The roof is lined with bituminous underfelt and the loft is insulated with fibreglass.
- 3.16 There were dense cobwebs throughout the loft and no bats or signs of bats were found.
- 3.17 No bats or signs of bats were found inside or outside of Little Gables and the house has numerous features potentially suitable for use by roosting bats. It was therefore assessed as having ‘high’ potential to host a bat roost (see Table 2).

### **Bat survey - Dusk emergence surveys**

#### **Survey 1 – 15 May 2025**

- 3.18 During the first dusk emergence survey, carried out on 15 May 2025, 33 bat passes were recorded from 2 different species: Common pipistrelle (27 passes) and noctule (6 passes).
- 3.19 No bats emerged from the building during the survey.

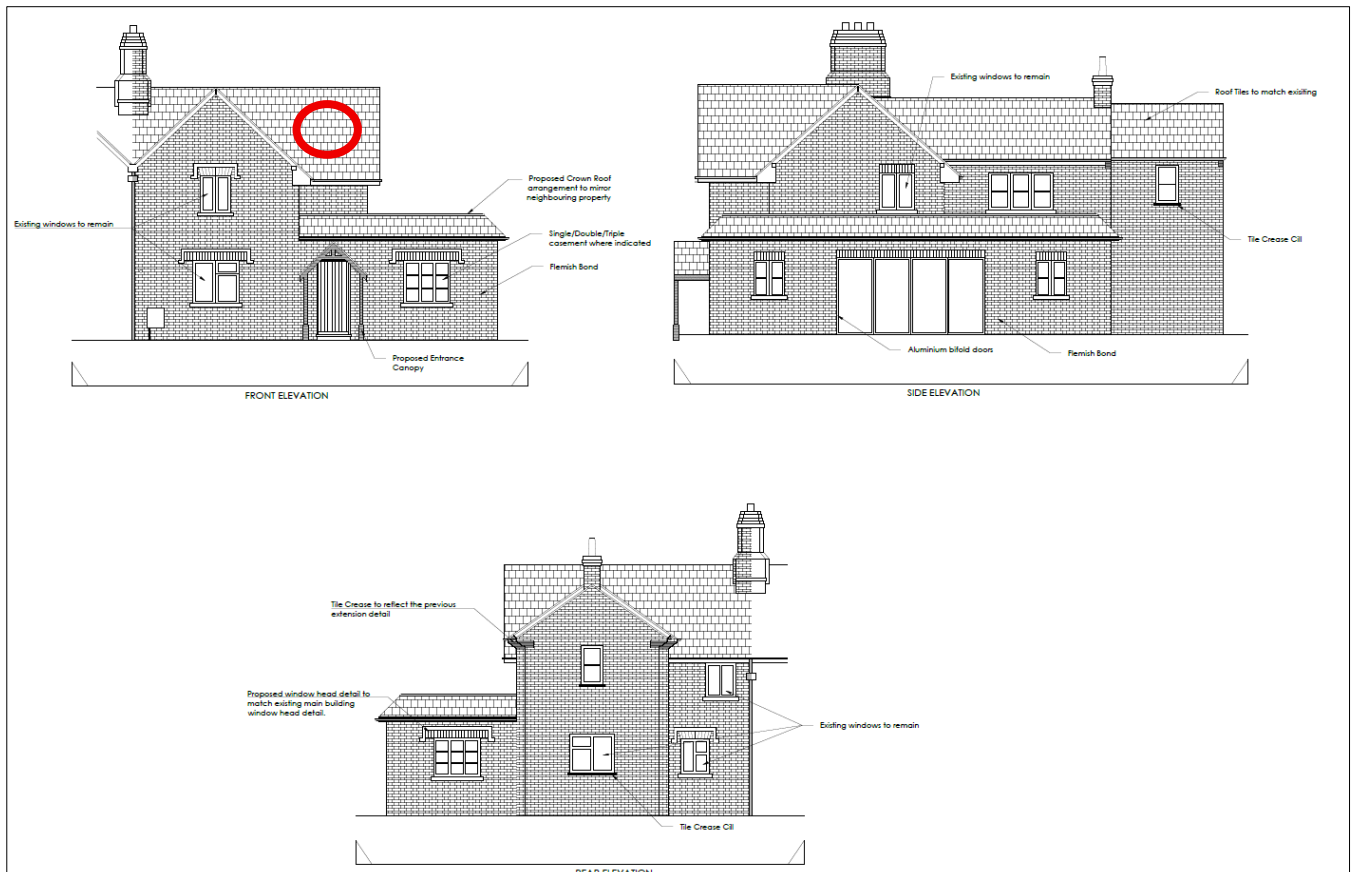
#### **Survey 2 – 19 June 2025**

- 3.20 During the second dusk emergence survey, carried out on 19 June 2025, 38 bat passes were recorded from 3 different species: Common pipistrelle (26 passes), soprano pipistrelle (4 passes), and noctule (8 passes).
- 3.21 No bats emerged from the building during the survey.

### Survey 3 – 24 July 2025

- 3.22 During the dusk emergence survey, carried out on 24 July 2025, 75 bat passes were recorded from 5 different species: Common pipistrelle (62 passes), soprano pipistrelle (8 passes), noctule (3 passes), brown long-eared bat (1 pass), and serotine (1 pass).
- 3.23 At 21:23, a single common pipistrelle bat emerged from under a roof tile on the front (south eastern) elevation of the house.

**Figure 3 – Proposed Elevations showing location of common pipistrelle day roost (red circle denotes roost location)**



## 4.0 Assessment

### Survey constraints

- 4.1 The survey was carried out at a time of year suitable for undertaking preliminary bat roost assessments.
- 4.2 The roof void of the rear single storey section of the house was inaccessible. However, this is not considered to represent a significant constraint to the survey as three further dusk emergence surveys of the building were undertaken during the optimum survey period.

### Site status

- 4.3 Little Gables hosts a single common pipistrelle day roost used by a maximum count of one bat. The roost is located under roof tiles on the front (south eastern) elevation of the house.
- 4.4 Common pipistrelle bats are classified as “*Widespread all geographies*” in all areas of the UK (see Table 3.1 on Page 30 of the UK Bat Mitigation Guidelines<sup>4</sup>).
- 4.5 The day roosts of these species are of “site” importance (see Table 3.2 on Page 33 of the UK Bat Mitigation Guidelines).

### Effect of the proposals on the bat roost

- 4.6 The front roof elevation will not be directly affected by the proposed works and therefore it is unlikely that the roost will be disturbed by the proposals. As such, a licence for development works affecting bats is not required for these works.
- 4.7 However, as the location of the day roost may be transient, and it is possible that bats will change roost location to utilise the other features present around the building - depending on the time of year and environmental factors such as temperature – it is recommended that the following non-licensed method statement is followed during the works.

### **Non licensed method statement**

- (1) If works have not begun before May 2027 (i.e., two bat active seasons after the last survey was undertaken) an updated bat survey is to be carried out.
- (2) A Schwegler 2f bat boxes (see [2f-schwegler-bat-box](#) or a bat box constructed in accordance with Bat Conservation Trust guidelines) will be installed by the Ecological Clerk of Works (ECoW) on a suitable tree nearby prior to the commencement of works. This will be used to receive any bats captured during the works but will remain in place, and therefore be available to bats after the works. This will ensure that there is no net loss of roosting sites for bats.
- (3) Prior to the commencement of works a “tool box talk” will be given to contractors by a licensed bat ecologist. The talk will: explain that the building hosts a bat roost; explain the relevant legislation relating to bats; detail the measures that will be used to protect bats; agree good working practices; and explain what should be done if bats are found during works.

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<sup>4</sup> Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1*. Chartered Institute of Ecology and Environmental Management, Ampfield.

- (4) Prior to the start of works to the roof or loft a licensed bat ecologist will check the loft for bats and or signs of bats. In the event that bats are found, an assessment will be made, and any requisite licence will be obtained.
- (5) All tiles, roof lining, soffits and bargeboards are to be removed carefully by hand, under the direct supervision of a licensed bat ecologist (acting as the ECoW). In the event that bats are found, works will stop, an assessment will be made, and any requisite licence will be obtained.
- (6) New roof lining is to be bitumen 1F type roofing felt, or a breathable membrane that has passed a snagging propensity test<sup>5</sup>, as other breathable membranes have been found to kill bats.
- (7) Care will be taken to ensure that any new exterior lighting does not illuminate large parts of the site, and, if new security lighting is installed it will be directional low lux and/or triggered by motion detection devices located below (human) head height.

### **Further survey requirements**

- 4.8 Three bat dusk emergence surveys of Little Gables were undertaken over the bat survey season and in accordance with The Bat Conservation Trust's Bat Survey Guidelines. There are therefore no further survey requirements.
- 4.9 However, if works to the building haven't commenced by May 2027, an updated bat survey may need to be carried out in order to inform the proposals, and, may be needed for a Natural England licence application (Natural England's advice is that a licence should be informed by information from the current or most recent bat-active season).

### **Legislation**

- 4.10 All species of bats receive special protection under UK law. It is a criminal offence under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations) to deliberately or recklessly destroy or damage their roosts, or to disturb, kill or injure them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).
- 4.11 In order to issue the licence, the SNCO must apply the requirements of the Regulations and, in particular, the three tests set out in sub-paragraphs 55(2)(e), (9)(a) and (9)(b). These are as follows:
  - (1) Regulation 55(2)(e) states that a licence can be granted for the purposes of "preserving 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".
  - (2) Regulation 55(9)(a) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".

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<sup>5</sup> A snagging propensity test checks that the membrane can stand the repeated snagging actions of roosting bats. To pass, a membrane must show no change in the average number of loops per cm<sup>2</sup> as rotations are increased from 0 to 1000. See <https://www.gov.uk/government/publications/bats-apply-for-a-mitigation-licence#full-publication-update-history~:text=Use%20of%20safe%20roofing%20membranes>

- (3) Regulation 55(9)(b) states that the appropriate authority (the SNCO) shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

### **Legislation relating to bats**

- 4.12 All species of bat receive special protection under UK law and it is a criminal offence under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (The Habitat Regulations), deliberately or recklessly to destroy or damage their roosts, or to disturb, kill or injure them without first having obtained the relevant licence for derogation from the regulations from the Statutory Nature Conservation Organisation (the SNCO - Natural England in England).
- 4.13 In this case, as surveys have shown that the proposed works are unlikely to affect roosting bats, a licence from Natural England will not be required to carry out the works.

### **Planning policy**

- 4.14 Paragraph 99 of the Government Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within The Planning System (referred to in the National Planning Policy Framework) reads:
- “It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. ”*
- 4.15 In this case, because it has been established that, if the method statement given above is adhered to, bats are unlikely to be affected by the proposed works and therefore the proposals will be in accordance with the above planning policy.

## 5.0 Summary

- 5.1 Little Gables hosts a single common pipistrelle day roost under roof tiles on the front (south eastern) elevation of the house. The front roof elevation will not be directly affected by the proposed works, it is unlikely that the roost will be disturbed by the proposals and as such, a licence for development works affecting bats is not required for these works.
- 5.2 There is however a small risk that contractors could disturb bats if works are not supervised. It is therefore recommended that the non-licensed method statement in this report is followed to minimise this risk.

## Appendix 1 - Photographs

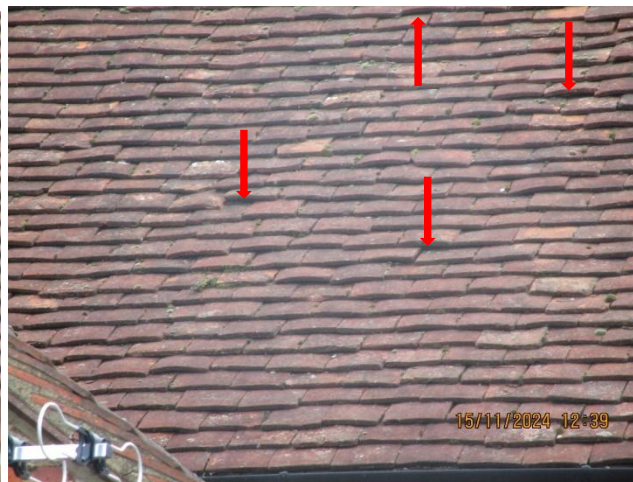
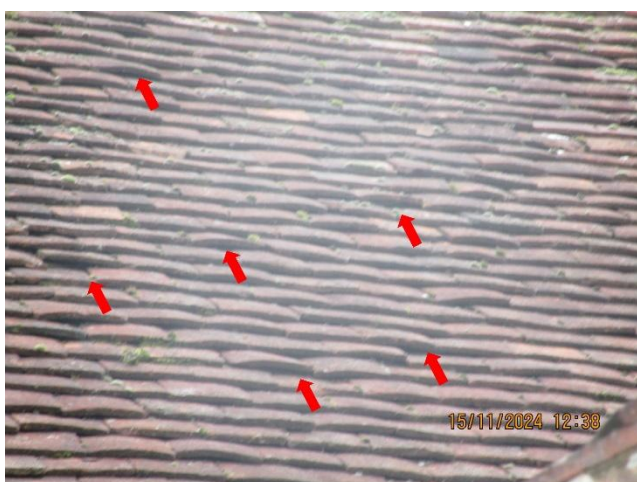
Photos 1 and 2 – Little Gables viewed from the southeast and northeast



Photo 3 – Gap between roof tiles and barge board at the front gable, and Photo 4 – Gaps between soffits and brick wall at the gable apex



Photos 5 and 6 – Examples of gaps under raised roof tiles on the rear elevation



Photos 7 and 8 - Inside the loft space at Little Gables



Photos 9 and 10 – Front and rear gardens of Little Gables



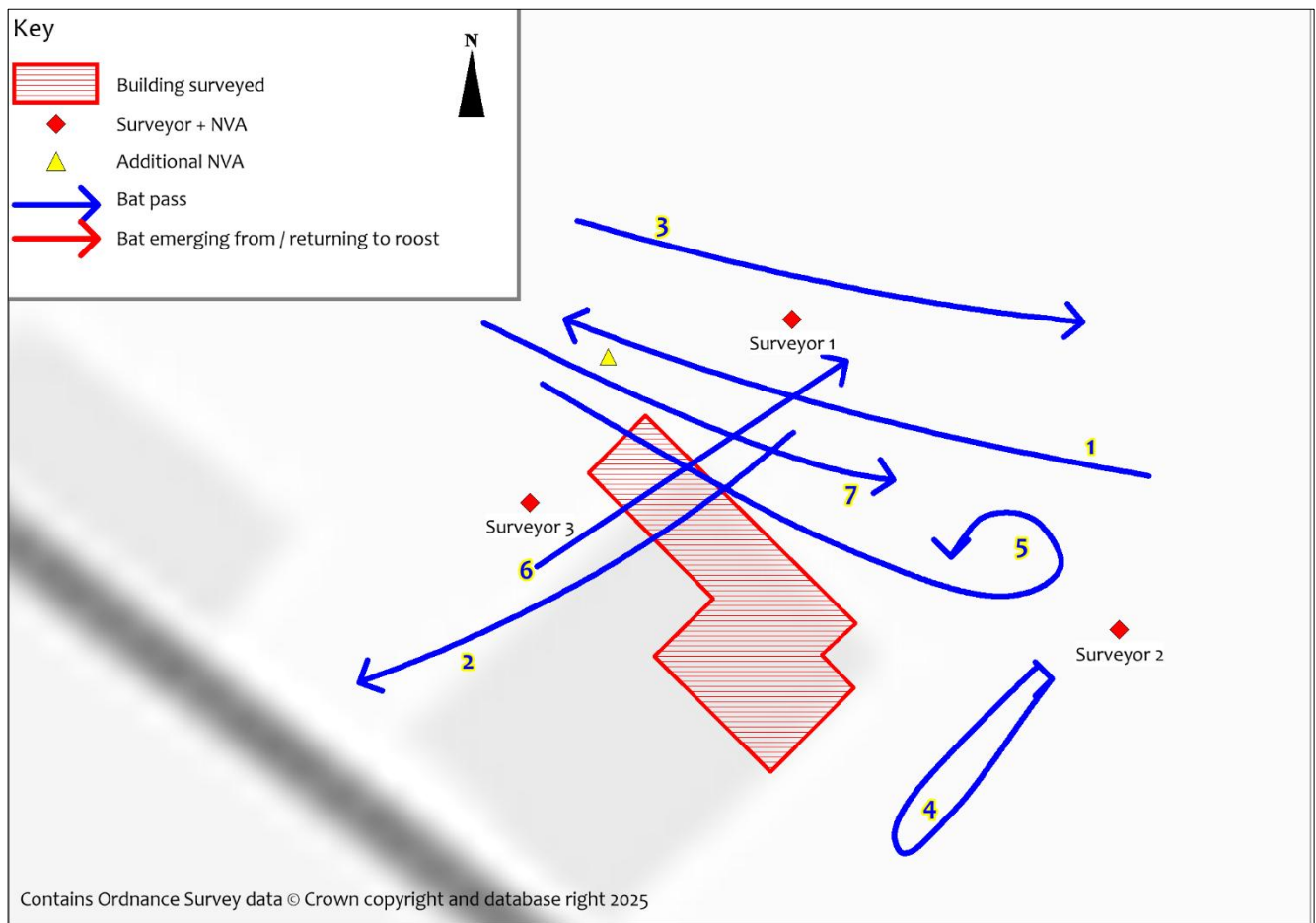
## Appendix 2 – Bat survey results

### Survey 1

| Date         | 15/05/2025 | Weather               | Start    | End    |
|--------------|------------|-----------------------|----------|--------|
| Sunset time  | 20:47      | Temperature (Celsius) | 12       | 11     |
| Start time   | 20:32      | Cloud cover (8ths)    | 8/8ths   | 8/8ths |
| End time     | 22:17      | Wind (Beaufort scale) | 3        | 1      |
|              |            | Rain                  | None     | None   |
| Surveyor 1   | CL         | Surveyor 2            | JW       |        |
| Bat detector | EM Touch   | Bat detector          | EM Touch |        |
| Surveyor 3   | TVB        |                       |          |        |
| Bat detector | EM Touch   |                       |          |        |

| Surveyor | Time        | Species            | Number of bats | Map ID | Notes                  |
|----------|-------------|--------------------|----------------|--------|------------------------|
| 1        | 21:04       | Common Pipistrelle | 1              | 1      | Commuting              |
| 1        | 21:08       | Common Pipistrelle | 1              | 1      | Commuting              |
| 1, 3     | 21:08       | Common Pipistrelle | 1              | 2      | Commuting              |
| 1        | 21:13       | Common Pipistrelle | 1              | 1      | Commuting              |
| 1        | 21:14       | Common Pipistrelle | 1              | 3      | Commuting              |
| 1        | 21:14       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:14       | Common Pipistrelle | 1              | 3      | Commuting              |
| 1        | 21:16       | Common Pipistrelle | 1              | 4      | Commuting              |
| 1        | 21:17       | Noctule            | 1              | N/A    | Not seen               |
| 1        | 21:20       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:21-21:25 | Common Pipistrelle | 1              | 5      | Foraging               |
| 1        | 21:26-21:28 | Common Pipistrelle | 1              | 5      | Foraging               |
| 1        | 21:29       | Common Pipistrelle | 1              | 6      | Commuting              |
| 1        | 21:29-21:35 | Common Pipistrelle | 1              | 5      | Foraging               |
| 1        | 21:35       | Noctule            | 1              | N/A    | Not seen               |
| 1        | 21:36       | Noctule            | 1              | N/A    | Not seen               |
| 1        | 21:37-21:38 | Common Pipistrelle | 1              | 5      | Foraging               |
| 1        | 21:39-21:40 | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:42       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:42       | Noctule            | 1              | N/A    | Not seen               |
| 1        | 21:44-21:46 | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:48       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:52       | Noctule            | 1              | N/A    | Not seen               |
| 1        | 21:53       | Noctule            | 1              | N/A    | Not seen               |
| 1        | 21:56       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:59       | Common Pipistrelle | 1              | N/A    | Not seen, social calls |
| 1        | 22:03       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 22:08       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 22:10       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 22:11       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 22:12       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 22:14       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 22:16       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 2        | 21:14       | Common Pipistrelle | 1              | 4      | Commuting              |
| 2        | 21:16       | Common Pipistrelle | 1              | 5      | Foraging               |
| 2        | 21:16       | Noctule            | 1              | N/A    | Not seen               |
| 2        | 21:19       | Common Pipistrelle | 1              | N/A    | Not seen               |
| 2        | 21:20-21:40 | Common Pipistrelle | 1              | 5      | Foraging               |
| 2        | 21:35       | Common Pipistrelle | 1              | N/A    | Not seen               |

| Surveyor | Time        | Species             | Number of bats | Map ID | Notes                  |
|----------|-------------|---------------------|----------------|--------|------------------------|
| 2        | 21:42       | Noctule             | 1              | N/A    | Not seen               |
| 2        | 21:42       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 2        | 21:44-22:17 | Common Pipistrelle  | 1              | 5      | Foraging               |
| 2        | 21:53       | Noctule             | 1              | N/A    | Not seen               |
| 2        | 22:00       | Soprano Pipistrelle | 1              | N/A    | Not seen               |
| 3        | 21:04       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:14       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:15       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:17       | Noctule             | 1              | N/A    | Not seen               |
| 3        | 21:22       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:23       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:27       | Common Pipistrelle  | 1              | 7      | Foraging               |
| 3        | 21:29       | Common Pipistrelle  | 1              | 6      | Foraging               |
| 3        | 21:34       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:35       | Noctule             | 1              | N/A    | Not seen               |
| 3        | 21:36       | Noctule             | 1              | N/A    | Not seen               |
| 3        | 21:37       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:38       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:40       | Common Pipistrelle  | 1              | N/A    | Not seen, social calls |
| 3        | 21:42       | Noctule             | 1              | N/A    | Not seen               |
| 3        | 21:52       | Noctule             | 1              | N/A    | Not seen               |
| 3        | 22:04       | Common Pipistrelle  | 1              | N/A    | Not seen               |

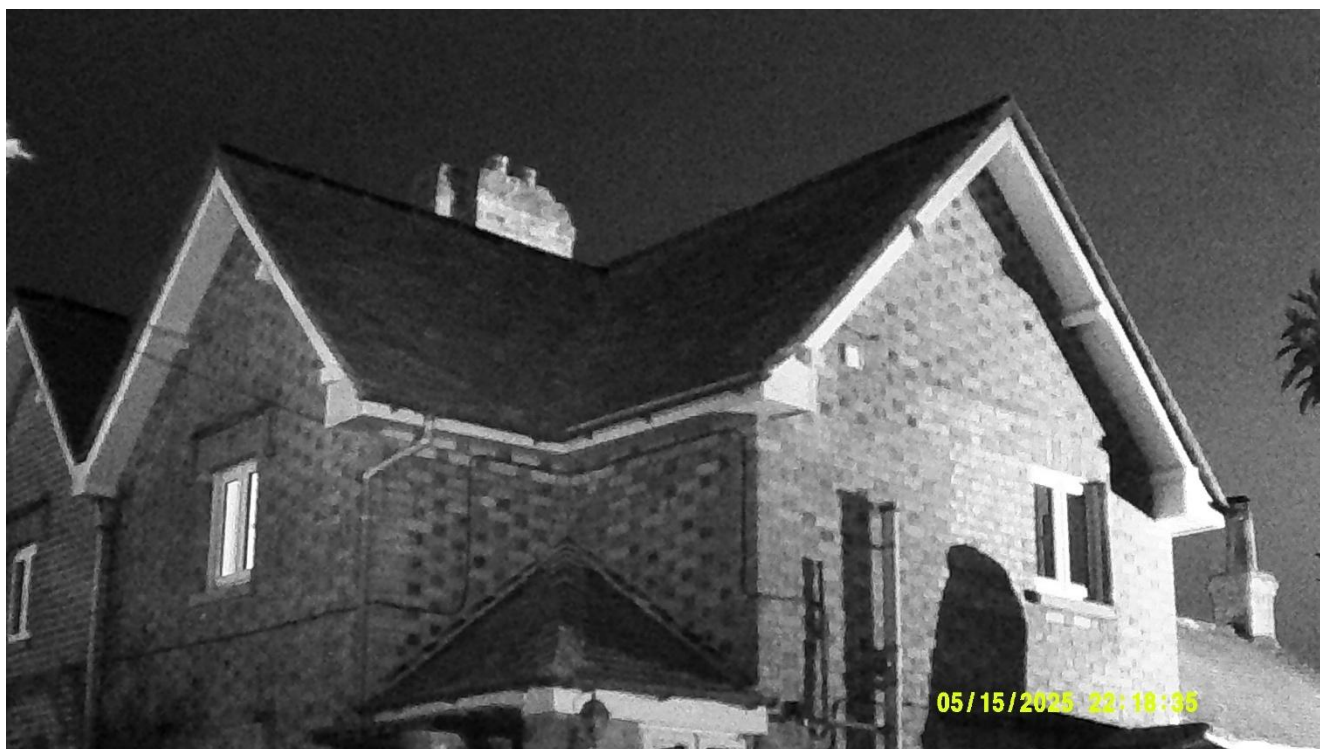


Infrared images from the darkest point of survey (all taken on Nightfox Whisker)

Surveyor 1 (2x NVAs)



Surveyor 2



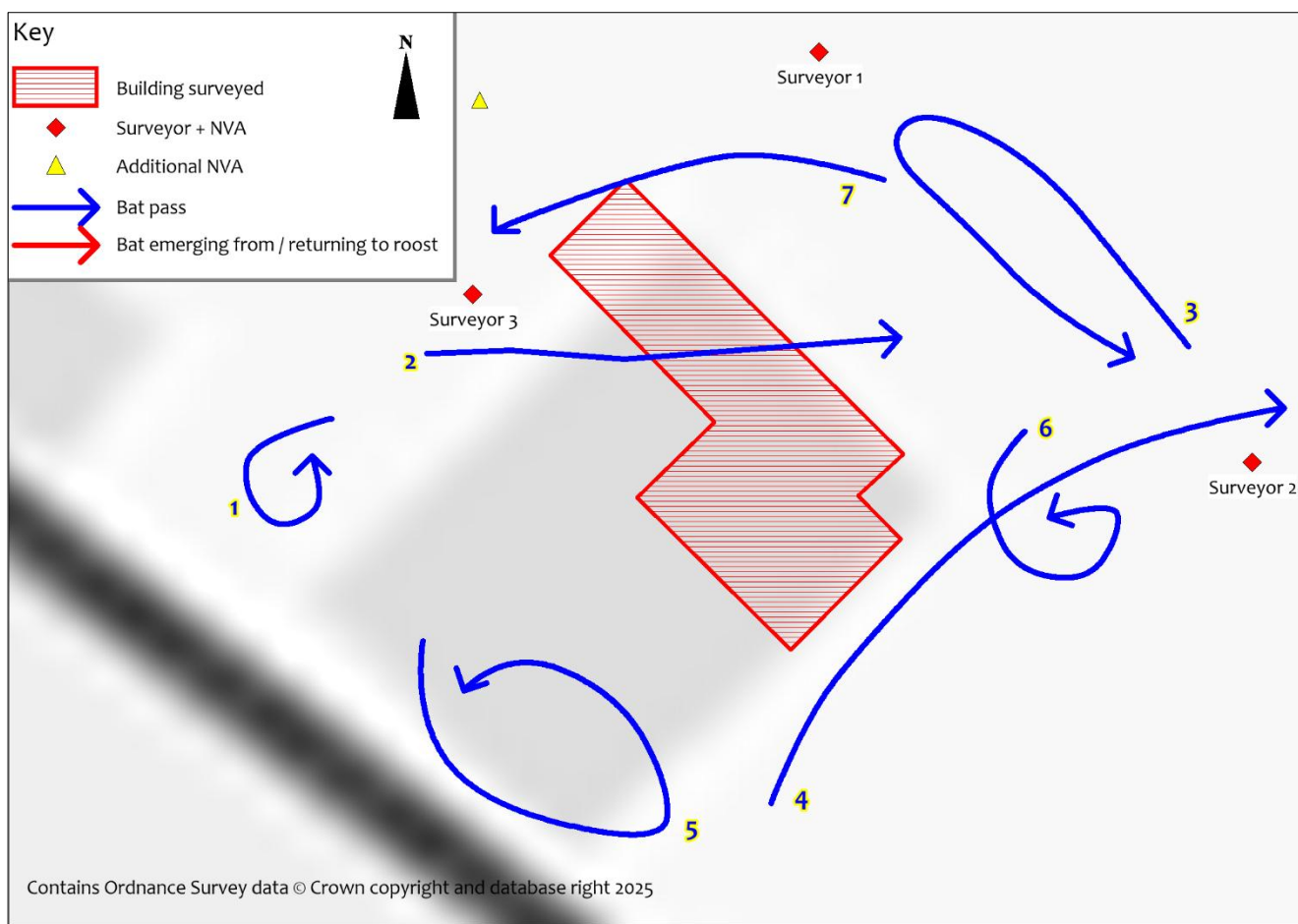
Surveyor 3



## Survey 2

|              |            |                       |          |      |
|--------------|------------|-----------------------|----------|------|
| Date         | 19/06/2025 | Weather               | Start    | End  |
| Sunset time  | 21:07      | Temperature (Celsius) | 24       | 20   |
| Start time   | 20:52      | Cloud cover (8ths)    | 0        | 0    |
| End time     | 22:37      | Wind (Beaufort scale) | 0        | 0    |
|              |            | Rain                  | None     | None |
| Surveyor 1   | MS         | Surveyor 2            | AJB      |      |
| Bat detector | EM Touch   | Bat detector          | EM Touch |      |
| Surveyor 3   | ES         |                       |          |      |
| Bat detector | EM Touch   |                       |          |      |

| Surveyor | Time        | Species             | Number of bats | Map ID | Notes                  |
|----------|-------------|---------------------|----------------|--------|------------------------|
| 1, 2, 3  | 21:48       | Noctule             | 1              | 1      | Foraging               |
| 1        | 21:48       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 1        | 21:51       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 1,3      | 21:51       | Noctule             | 1              | N/A    | Not seen               |
| 1        | 21:54       | Soprano Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 21:56       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 1, 3     | 21:58       | Common Pipistrelle  | 1              | 2      | Commuting              |
| 1        | 22:01       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 1        | 22:04       | Common Pipistrelle  | 1              | 3+4    | Foraging               |
| 1        | 22:05       | Common Pipistrelle  | 1              | 4      | Commuting              |
| 1, 2     | 22:05       | Noctule             | 1              | N/A    | Not seen               |
| 1        | 22:07-22:12 | Common Pipistrelle  | 2              | 3+4    | Foraging               |
| 1, 2     | 22:10       | Noctule             | 1              | N/A    | Not seen               |
| 1        | 22:13       | Soprano Pipistrelle | 1              | N/A    | Not seen               |
| 1        | 22:16       | Common Pipistrelle  | 1              | 3      | Commuting              |
| 1        | 22:24       | Soprano Pipistrelle | 1              | N/A    | Not seen, social calls |
| 1, 3     | 22:31       | Noctule             | 1              | N/A    | Not seen               |
| 1        | 22:31-22:32 | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 1, 3     | 22:34       | Noctule             | 1              | N/A    | Not seen               |
| 1        | 22:46       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 1, 3     | 22:47       | Noctule             | 1              | N/A    | Not seen               |
| 2        | 21:43       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 2        | 21:45       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 2        | 21:48       | Common Pipistrelle  | 1              | 5      | Commuting              |
| 2        | 21:58       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 2        | 22:05       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 2        | 22:08       | Common Pipistrelle  | 1              | 6      | Foraging               |
| 2        | 22:18       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 2        | 22:30       | Common Pipistrelle  | 1              | 7      | Foraging               |
| 2        | 22:30       | Noctule             | 1              | N/A    | Not seen               |
| 2        | 22:46       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 21:53       | Soprano Pipistrelle | 1              | N/A    | Not seen               |
| 3        | 22:07       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 22:07       | Common Pipistrelle  | 1              | 2      | Commuting              |
| 3        | 22:10       | Common Pipistrelle  | 1              | 9      | Commuting              |
| 3        | 22:31       | Common Pipistrelle  | 1              | N/A    | Not seen               |
| 3        | 22:46       | Common Pipistrelle  | 1              | N/A    | Not seen               |



**Infrared images from the darkest point of survey (all taken on Nightfox Whisker)**

**Surveyor 1 (2x NVAs)**





Surveyor 2



Surveyor 3

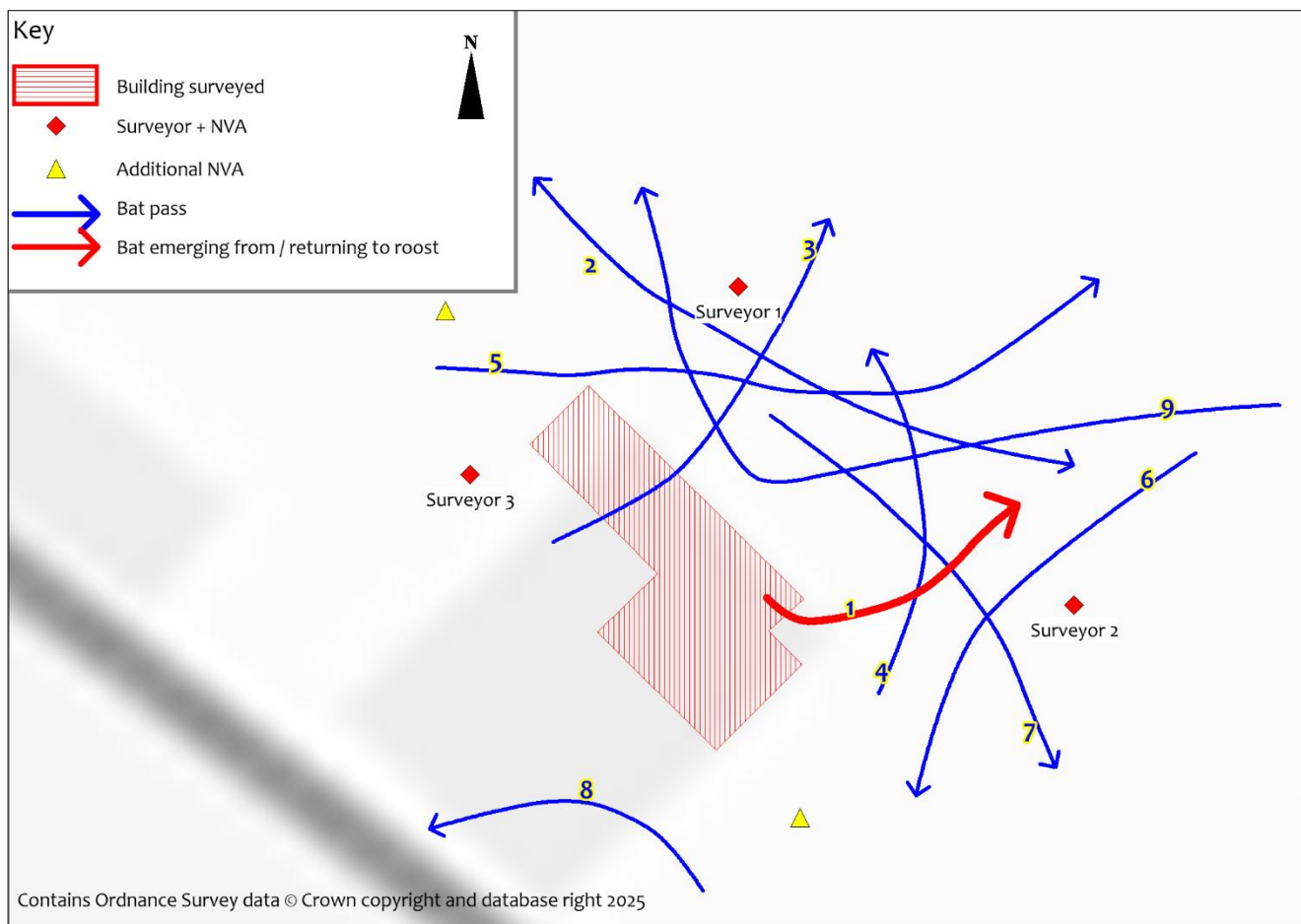


### Survey 3

| Date         | 24/07/2025 | Weather               | Start    | End  |
|--------------|------------|-----------------------|----------|------|
| Sunset time  | 21:03      | Temperature (Celsius) | 19       | 17   |
| Start time   | 20:48      | Cloud cover (8ths)    | 2        | 8    |
| End time     | 22:33      | Wind (Beaufort scale) | 0        | 0    |
|              |            | Rain                  | None     | None |
| Surveyor 1   | CL         | Surveyor 2            | RD       |      |
| Bat detector | EM Touch   | Bat detector          | EM Touch |      |
| Surveyor 3   | TVB        |                       |          |      |
| Bat detector | EM Touch   |                       |          |      |

| Surveyor | Time        | Species             | Number of bats | Map ID | Notes                        |
|----------|-------------|---------------------|----------------|--------|------------------------------|
| 1 & 2    | 21:23       | Common Pipistrelle  | 1              | 1      | Emerged from under roof tile |
| 1        | 21:27       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 21:28       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 21:29       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 21:30       | Soprano Pipistrelle | 1              | N/A    | Not seen                     |
| 1        | 21:31       | Soprano Pipistrelle | 1              | N/A    | Not seen                     |
| 1        | 21:32       | Common Pipistrelle  | 2              | 2      | Foraging                     |
| 1 & 3    | 21:33       | Soprano Pipistrelle | 1              | 3      | Foraging                     |
| 1        | 21:33       | Common Pipistrelle  | 1              | 4      | Foraging                     |
| 1        | 21:34       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 21:37-21:41 | Common Pipistrelle  | 2              | 2      | Foraging                     |
| 1        | 21:41-21:44 | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 21:47-21:51 | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 21:52       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 21:52       | Noctule             | 1              | N/A    | Not seen                     |
| 1        | 21:53       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 21:54       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 21:55       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 21:57       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 21:58       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 21:59       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 21:59       | Serotine            | 1              | 5      | Commuting                    |
| 1        | 22:00       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 22:02-22:03 | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:05       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 22:06       | Common Pipistrelle  | 1              | 2      | Commuting                    |
| 1        | 22:07       | Common Pipistrelle  | 1              | 2      | Foraging                     |
| 1        | 22:08-22:09 | Common Pipistrelle  | 1              | 1      | Foraging                     |
| 1        | 22:10       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:11       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:14       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:15       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:16       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:18       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:21       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:25       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:28       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 1        | 22:31       | Soprano Pipistrelle | 1              | N/A    | Not seen                     |
| 1        | 22:33       | Common Pipistrelle  | 1              | N/A    | Not seen                     |
| 2        | 21:21       | Common Pipistrelle  | 1              | 6      | Commuting                    |
| 2        | 21:24       | Common Pipistrelle  | 1              | N/A    | Not seen                     |

| Surveyor | Time        | Species              | Number of bats | Map ID | Notes                             |
|----------|-------------|----------------------|----------------|--------|-----------------------------------|
| 2        | 21:25       | Common Pipistrelle   | 1              | 7      | Commuting                         |
| 2        | 21:27       | Common Pipistrelle   | 1              | 6      | Foraging                          |
| 2        | 21:27       | Common Pipistrelle   | 1              | 8      | Foraging                          |
| 2        | 21:28       | Common Pipistrelle   | 1              | 9      | Commuting                         |
| 2        | 21:28       | Common Pipistrelle   | 1              | 6      | Commuting                         |
| 2        | 21:29       | Common Pipistrelle   | 1              | 6      | Commuting                         |
| 2        | 21:29       | Common Pipistrelle   | 1              | 4      | Foraging                          |
| 2        | 21:30       | Common Pipistrelle   | 1              | 4+5    | Commuting                         |
| 2        | 21:32       | Common Pipistrelle   | 1              | 4      | Foraging                          |
| 2        | 21:32       | Noctule              | 1              | N/A    | Not seen                          |
| 2        | 21:32       | Soprano Pipistrelle  | 1              | 6      | Foraging                          |
| 2        | 21:33       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 2        | 21:35       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 2        | 21:37       | Soprano Pipistrelle  | 1              | 4      | Foraging                          |
| 2        | 21:37       | Common Pipistrelle   | 1              | 6      | Foraging                          |
| 2        | 21:38       | Common Pipistrelle   | 1              | 2      | Foraging                          |
| 2        | 21:40       | Brown Long-eared Bat | 1              | 6      | Foraging                          |
| 2        | 21:44       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 2        | 21:52       | Common Pipistrelle   | 1              | 7      | Foraging                          |
| 2        | 21:53       | Common Pipistrelle   | 1              | 4      | Foraging                          |
| 2        | 21:53-21:55 | Common Pipistrelle   | 1              | 2      | Foraging                          |
| 2        | 21:57-22:02 | Common Pipistrelle   | 1              | N/A    | Not seen, foraging intermittently |
| 2        | 22:05-22:11 | Common Pipistrelle   | 1              | N/A    | Not seen, foraging intermittently |
| 2        | 22:07       | Soprano Pipistrelle  | 1              | N/A    | Not seen                          |
| 2        | 22:14       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 2        | 22:18       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 2        | 22:21       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 3        | 21:33       | Noctule              | 1              | N/A    | Not seen                          |
| 3        | 21:33       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 3        | 21:55       | Common Pipistrelle   | 1              | N/A    | Not seen                          |
| 3        | 22:07       | Soprano Pipistrelle  | 1              | N/A    | Not seen                          |
| 3        | 22:08       | Common Pipistrelle   | 1              | N/A    | Not seen                          |



**Infrared images from the darkest point of survey (all taken on Nightfox Whisker)**

**Surveyor 1 (2x NVAs)**





Surveyor 2 (2x NVAs)





Surveyor 3



## Appendix 2 - Bat ecology and conservation status

### **Background**

Bats are the only true flying mammals and belong to their own taxonomic group, the *Chiroptera*. Worldwide there are almost 1,000 species, with 16 in the UK. All species in the UK are insectivorous. They have a highly sophisticated echolocation system that allows them to avoid obstacles and catch invertebrates, either in flight or by picking them off water, the ground or foliage.

### **Bat species in the UK**

There are 16 species of bat that are known to exist in the UK mainland, with a further two - the greater mouse eared bat *Myotis myotis*, and the parti-coloured bat *Vespertilio murinus* - that are thought to occur as rare migrants or to have small populations in the UK. Bats in the UK belong to one of two taxonomic families, the Rhinolophidae (horseshoe bats) and the Vespertilionidae (all other UK bats).

### **Bat Conservation Status**

Bat populations have undergone a significant decline in the past sixty years. For example, estimates from the National Bat Colony Survey suggest that the UK pipistrelle population (one of our commonest bat species), declined by approximately 70% between 1978 and 1993. Factors contributing to this decline include:

- Loss of, and damage to, roosting sites, including buildings, trees, and underground structures (mines, tunnels, ice-houses, cellars, etc).
- Loss and fragmentation of suitable insect-rich feeding habitats such as wetlands and deciduous woodland.
- Reduction in the abundance and diversity of insect prey due to intensive agriculture, particularly over-grazing and the use of pesticides.
- Loss of linear features such as tree-lines and hedgerows, depriving bats of commuting routes between roosts and feeding areas.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

### **Roosts**

Bats use a variety of roosts of different types including trees, buildings, caves, mines and other structures. Most species are colonial and roost in groups. This can make populations particularly vulnerable to loss of roosts as the loss of a single roost may affect the whole population. Some species hang in obvious locations, such as the timbers near to the apex of a roof, others roost in cracks and crevices, such as the gaps under tiles, and as such can be very difficult to locate.

During the winter (November to February), when there is a reduction in insect numbers, bats hibernate to conserve energy. They prefer sites with a constant low temperature and a high relative humidity. On mild winter's nights, bats may wake up and feed. However, bats are particularly vulnerable to disturbance at this time of year, as flying in winter uses up large quantities of energy that cannot easily be replaced.

In the spring, after emerging from hibernation, bats often move from site to site and may congregate in small groups. Female bats gather together in the summer (approximately May to August dependant on species) in maternity roosts. Once the young have stopped suckling, and the baby is independent, bats tend to disperse and use other roosts. Maternity roosts are particularly vulnerable to disturbance, as

bats may have come from a wide geographical area and have a strong tradition of returning to the same roost year after year.

During the late summer and early autumn males occupy mating roosts which are visited by several females. After mating some species gather together at swarming sites to fatten up prior to hibernation.

### **Habitat associations**

In addition to roosts, bats also need foraging habitats to find suitable food resources, and commuting routes to get to these areas. As would be expected, the highest numbers of bats are found in areas with abundant invertebrates. Some species specialise in catching small invertebrates in flight, whilst others specialise in catching larger invertebrates such as moths and beetles. The distances that bats travel to foraging areas varies between species; records have shown some greater horseshoe bats travel up to 22km to forage, although many species will typically feed within 1km of a roost.

Bats, especially the smaller species, tend to follow linear features (such as hedgerows and tree lines) to their foraging habitats and will often not cross open spaces. A gap of 10m in a linear feature will often not be crossed by bats, and it is important that developments do not create such gaps if linear features are used by bats.

## **Appendix 3 - Legislation and planning policy**

Planning Authorities have a legal duty to consider biodiversity when assessing planning applications. Where there is a reasonable likelihood that a planning application might affect important protected sites, species or habitats, information on the species, habitat or site likely to be affected, together with an assessment of the impacts of the proposals, will almost certainly be required.

The legal duty for Planning Authorities to have regard to the conservation of biodiversity was introduced in the 2006 Natural Environment and Rural Communities Act (The NERC Act). This act clarified existing commitments with regard to biodiversity, raised the profile of biodiversity and aimed to make the consideration of biodiversity a natural and integral part of policy and decision making.

In addition to the NERC Act there is also national and international biodiversity legislation. This includes legislation in relation to protected species and sites which operates outside of the planning system. Local Authorities and developers have a duty to comply with this legislation.

### **National planning policy**

Paragraph 99 of the Government Circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System (this document has not been revoked by the recently published National Planning Policy Framework) states that:

*'It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.'*

As such, in line with national planning policy, most planning authorities will ask for this information to be provided before a planning decision is made and in many cases before it is registered.

### **Local planning policy**

In addition to national planning policy, most councils have planning policies to protect biodiversity, and to enhance it where practicable within and adjacent to development sites.

### **European protected species**

The United Kingdom hosts a number of European Protected Species (EPS) of animals (table 1) and plants (table 2). These species receive special protection under UK law and it is an offence under the Wildlife and Countryside Act 1981 (as amended) and the European Habitats and Species Directive (92/43/EC), enacted in the UK through The Conservation of Habitats and Species Regulations 2017, to deliberately or recklessly destroy or damage their habitat, or to disturb, kill or injure the species without first having obtained the relevant licence from Natural England.

Planning Authorities have a statutory duty under these regulations to have regard to the requirements of the Habitats Directive and need to be satisfied that the development is likely to receive a licence from Natural England, and therefore comply with the Habitats Directive, before granting planning permission.

**Table 1 – European Protected Species of Animal found in the UK**

| Common name                                  | Scientific name                                                                                                                               |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Bats, Horseshoe (all species)                | <i>Rhinolophidae</i>                                                                                                                          |
| Bats, Typical (all species)                  | <i>Vespertilionidae</i>                                                                                                                       |
| Butterfly, Large Blue                        | <i>Maculinea arion</i>                                                                                                                        |
| Cat, Wild                                    | <i>Felis silvestris</i>                                                                                                                       |
| Dolphins, porpoises and whales (all species) | <i>Cetacea</i>                                                                                                                                |
| Dormouse                                     | <i>Muscardinus avellanarius</i>                                                                                                               |
| Frog, Pool                                   | <i>Rana lessonae</i>                                                                                                                          |
| Lizard, Sand                                 | <i>Lacerta agilis</i>                                                                                                                         |
| Moth, Fisher's Estuarine                     | <i>Gortyna borellii lunata</i>                                                                                                                |
| Newt, Great Crested (or Warty)               | <i>Triturus cristatus</i>                                                                                                                     |
| Otter, Common                                | <i>Lutra lutra</i>                                                                                                                            |
| Snail, Lesser Whirlpool Ram's-horn           | <i>Anisus vorticulus</i>                                                                                                                      |
| Snake, Smooth                                | <i>Coronella austriaca</i>                                                                                                                    |
| Sturgeon                                     | <i>Acipenser sturio</i>                                                                                                                       |
| Toad, Natterjack                             | <i>Bufo calamita</i>                                                                                                                          |
| Turtles, Marine                              | <i>Caretta caretta</i><br><i>Chelonia mydas</i><br><i>Lepidochelys kempii</i><br><i>Eretmochelys imbricata</i><br><i>Dermochelys coriacea</i> |

**Table 2 – European Protected Species of Plant found in the UK**

| Common name                     | Scientific name              |
|---------------------------------|------------------------------|
| Dock, Shore                     | <i>Rumex rupestris</i>       |
| Fern, Killarney                 | <i>Trichomanes speciosum</i> |
| Gentian, Early                  | <i>Gentianella anglica</i>   |
| Lady's-slipper                  | <i>Cypripedium calceolus</i> |
| Marshwort, Creeping             | <i>Apium repens</i>          |
| Naiad, Slender                  | <i>Najas flexilis</i>        |
| Orchid, Fen                     | <i>Liparis loeselii</i>      |
| Plantain, Floating-leaved water | <i>Luronium natans</i>       |
| Saxifrage, Yellow Marsh         | <i>Saxifraga hirculus</i>    |

**Nationally protected species**

Many species of animal are protected under the 1981 Wildlife and Countryside Act (as amended). 'Full protection' applies to EPS and some non EPS species such as the water vole. This prohibits the intentional killing, injuring or taking (capture. etc); possession; intentional disturbance whilst occupying a 'place used for shelter or protection' and destruction of these places; sale, barter, exchange, transporting for sale and advertising to sell or to buy. Many species, such as common species of reptile and amphibian, are protected from intentional killing and injuring and trading.

**Badgers**

Badgers and their setts are protected under the 1992 Protection of Badgers Act and the Wildlife and Countryside Act 1981 (as amended). It is illegal to intentionally or recklessly kill, injure or take badgers or to interfere with a badger sett. Interference with a sett includes blocking tunnels, or damaging the sett in any way, and could include blocking a badger pathway if it were to stop badgers entering or leaving a

sett. Penalties for offences can be severe, with fines of up to £5,000 plus up to six months' imprisonment, for each illegal sett interference, badger death or injury.

Work that disturbs badgers occupying a sett is illegal without the appropriate licence from the relevant statutory authority being held. Natural England issue licences for reasons including science, education or conservation, for development such as the building of houses and for investigation of offences against badgers. They also issue licences for the prevention of serious damage to land, crops or other form of property, as well as for agriculture, forestry, drainage operations and prevention of the spread of disease.

## **Birds**

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), whilst they are actively nesting or roosting. Section 1 of this Act makes it an offence to kill, injure or take any wild bird, and to intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built. It is also an offence to take or destroy any wild bird eggs.

In addition, bird species listed under Schedule 1 of the Act receive extra protection. The Act states that 'it is an offence to intentionally or recklessly disturb any wild bird listed in Schedule 1 while it is nest building, or at (or near) a nest containing eggs or young, or disturb the dependent young of such a bird'.

In practice this means that in areas where birds are likely to be nesting works should not be undertaken during the nesting season, which is generally considered to be March to September, although this very much depends on weather conditions, habitats and the species involved. If works cannot be avoided then areas should first be checked for nesting birds. Habitats likely to host nesting birds include trees, hedgerows and dense scrub, buildings, reedbeds and riverine habitats and open areas with tussocky vegetation.

## Appendix 4 - About GS Ecology

Established in 2009, GS Ecology is an independent [ecological consultancy in Berkshire](#). We carry-out surveys and ecological consultancy services for public and private sector clients including in Berkshire, Oxfordshire and Hampshire, London and the south of England. We can advise you on cost effective sustainable solutions for your project, whether it be a bat survey to inform a planning application, the ecology chapter of an Environmental Statement or a Woodland Management Plan.

Our work is undertaken by experienced and qualified ecologists, who are members of the [Chartered Institute of Ecology and Environmental Managers](#). Our services include:

- [Ecology surveying and reporting to inform planning applications](#), e.g.
  - [Preliminary Ecological Appraisal](#)
  - [Extended Phase 1 Habitat Survey in Hampshire](#), Berkshire, Oxfordshire, London and Southern England
  - [Protected species surveys](#), e.g. badgers, dormouse, great crested newts
  - [Bat surveys in Oxfordshire](#), Berkshire, Hampshire, London and Southern England
- [Code for sustainable homes or BREEAM ecology assessments](#) – to demonstrate the sustainability of a new building
- [Protected species licensing](#) such as bat and great crested newt licences for development sites after planning permission has been obtained
- Providing advice to land managers and writing ecological management plans, such as [woodland management plans](#) and farm environmental plans for [England woodland Grant Scheme](#) and Environmental Stewardship applications
- [Providing ecology advice to Local Authorities](#) and Local Planning Authorities