

DUSK BAT EMERGENCE SURVEYS

Cadeby Hall, Cadeby

Issue Date: 07 July 2026

Report No. 251205.CadebyHall.BES.v1.0

Site Details

Report	Dusk Bat Emergence Survey
Site Address	Cadeby Hall, Main Street, Cadeby, Leicestershire CV13 0AX
Central OS Grid Reference	SK 42450 02549
Client	Mr Richard Hooper

Document Control

Author	Reviewer	Comments	Report Version	Issue Date
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Disclosure:

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EXECUTIVE SUMMARY

Topic	Conclusion
Commission	Croft Ecology was commissioned by Mr Richard Hooper to undertake two dusk emergence surveys at Cadeby Hall, Main Street, Cadeby, Leicestershire CV13 0AX in relation to proposed extensions and the removal of a chimney on the existing building.
Site Description	The Site comprised a residential property and parts of its grounds. The south of the Site consisted primarily of vegetated garden with sparse introduced shrubs, and three individual trees. Areas of urban land were present throughout the Site, comprising gravel access and concrete paved walkways.
Previous Surveys	A PRA and PEA were undertaken by Croft Ecology in March 2026, which identified a small number of bat droppings and hence moderate potential for bats in B1.
Survey Effort	Two dusk bat emergence surveys were undertaken on 02 June 2026 and 02 July 2026 in accordance with Bat Survey Guidelines (Collins, 2023).
Results	No bats were recorded emerging from the building, and activity was limited to foraging within the garden and occasional passes, with no evidence that the building supports a significant bat roost.
Recommendations	No further survey work is required. Should works not commence within 18 months of the survey date, updated ecological advice should be sought to determine whether the survey findings remain valid and whether any further survey effort or mitigation measures are required. Careful removal of the chimney under ecological supervision and at an appropriate time of year is recommended.
Enhancements	Proportionate enhancement measures are recommended, including provision of bat boxes and sensitive lighting design.

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1 Introduction

Croft Ecology was commissioned by Mr Richard Hooper to undertake a series of dusk bat emergence surveys of a building at Cadeby Hall, Main Street, Cadeby, Leicestershire CV13 0AX (central grid reference: SK 42450 02549), hereafter referred to as the Site, in relation to proposed extensions and the removal of a chimney on the existing building.

This report should be read in association with CadebyHall.PEA.PRA.v1 by Croft Ecology in March 2026. The building B1 on Site was identified to have moderate potential to support roosting bats, due to a small number of scattered droppings identified within the roof void, and several potential access points. However, as the proposed works were localised in nature and not expected to impact the area where evidence of bat activity had been recorded, further bat surveys were not considered necessary to inform the planning application provided works were conducted strictly in accordance with the proposed reasonable avoidance measures.

Following consultation with the Local Planning Authority, a series of dusk bat emergence surveys were requested to provide further information on bat use of the building. It is these surveys that were undertaken by Croft Ecology in 2026 and are detailed within this report

1.1 Aims

The aims of this report are to:

- Identify roosting bat presence/likely absence within the building(s);
- Characterise any bat roosts present;
- Identify mitigation measures or licensing likely required; and
- Identify opportunities for biodiversity enhancements.

1.2 Site Location

The building indicated by a red line boundary in Figure 1 below was the subject of the dusk bat surveys. Figure 2 below shows the Site in the context of the surrounding landscape. The Site

was located on Main Street, Cadeby. The grounds of Cadeby Hall were host to wooded areas, lines of trees, and open garden space. Field margins and hedgerows also provide connectivity between the Site and pockets of woodland in the wider landscape.

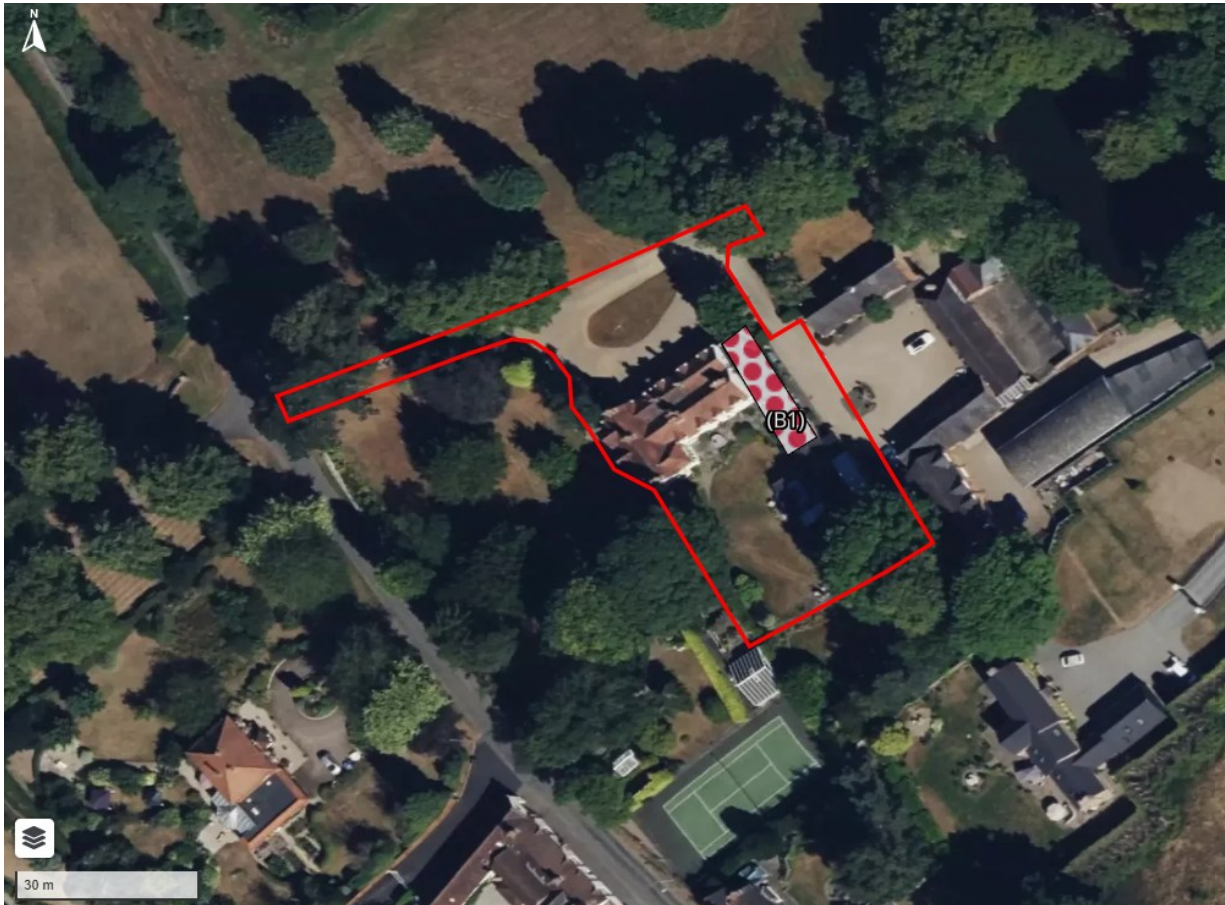


Figure 1. Building location (Basemap source: Google Maps Satellite Imagery 2025)



Figure 2 Site location in the context of the surrounding landscape (Basemap source: Google Maps Satellite Imagery 2025)

1.3 Planning and Legislative Context

All British bat species (*Rhinolophidae* and *Vespertilionidae*) are legally protected in the UK under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are fully protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended). The latter piece of legislation resulted in them being known as “European protected species”. This means that it is illegal to deliberately take, injure, or kill the animal; to intentionally or recklessly disturb the animal whilst they are in a 'place used for shelter or protection' or to damage or destroy a breeding or resting place (even when the animal is not present). It is also illegal to intentionally or recklessly obstruct access to a place of shelter or protection; or to possess, control, sell, or transport live or dead individuals or their body parts.

If you cannot avoid disturbing these species or damaging their habitats, you may apply to Natural England for a licence to carry out such works under the close supervision of a licensed ecologist.

2 Methodology

2.1 Personnel and Competence

The bat emergence surveys were led by Dom Riley, Ecologist at Croft Ecology. Dom Riley has 4 years of experience undertaking bat surveys.

Additional surveyors assisting with the surveys included Michelle Walding-Kelly who has 4 years of experience undertaking bat surveys and holds a Natural England Level 1 Bat Survey Class Licence (2025-82533-SCI-CL17), and Danielle Olding, who has 10 years' experience undertaking bat surveys, and holds a level 2 bat licence for both England (2019-40541-CL18) and Wales (S094779/1).

The report was prepared by Dom Riley ACIEEM, Consultant Ecologist at Croft Ecology. Dom has 4 years of experience working in the field of ecology and has undertaken and reviewed dozens of walkover surveys/baseline habitat surveys and has been using UK Hab survey methodology for the last 3 years. Dom has prepared many reports during this time including protected species survey reports, method statements, and Preliminary Ecological Appraisal reports.

The technical review was undertaken by Anna Scott-Swift MCIEEM, Director of Ecology at Croft Ecology. Anna has over 20 years of experience working in ecology and has undertaken and reviewed dozens of Preliminary Roost Assessments, Preliminary Ecological Appraisals and Ecological Impact Assessments for projects of a range of scales. Anna holds a Level 2 survey licence for bats (2025-82204-CL18-BAT), a Level 1 survey licence for GCN (2025-82200-SCI-CL08) and a survey licence for barn owl (2026-88081-CL29-OWL).

2.2 Bat Emergence Survey(s)

Two dusk bat emergence surveys were undertaken on the building B1 on 02 June 2026 and 02 July 2026, in accordance with the methodology described within the Bat Survey Guidelines 4th edition (Collins, 2023).

Two surveyors, equipped with EMT2 Pro bat detectors and Nightfox Whisker infrared cameras and additional infra-red floodlights made observations of any bat activity or bat emergence both from and around the existing building, focusing on areas with potential roosting features. Echolocation calls were analysed with Kaleidoscope when required. Paired surveyor and camera locations are illustrated in Figure 3 below.



Figure 3 Surveyor and camera positions for both dusk bat emergence surveys

2.3 Site Survey Date and Conditions

Survey timings and weather conditions are provided in Tables 1 and 2 below.

Table 1. Dusk emergence survey timings

Date of survey	Survey start time	Sunset time	Survey end time
02.06.2026	21:05	21:20	22:50
02.07.2026	21:17	21:32	23:02

Table 2. Dusk emergence survey metadata

Date of survey		Cloud cover (%)	Wind Speed (Beaufort)	Precipitation	Air Temperature (°C)
02.06.2026	Start	60	2 – light breeze	None	15
	End	10	2 – light breeze	None	14
02.07.2026	Start	10	2 – light breeze	None	17
	End	0	2 – light breeze	None	14

2.4 Survey Limitations

No limitations were identified for either emergence survey.

2.5 Evaluation of Constraints and Opportunities

All potential ecological constraints to the Proposed Development were identified. In the context of the Mitigation Hierarchy¹, consideration was then given as to how any significant effects could be avoided, minimised or mitigated. Following this, appropriate compensation and enhancement

¹ “The overarching aims of ecological work used to inform the planning process are to minimize harm and to maximize benefits for biodiversity resulting from development. The generally accepted way of doing this, now embedded within the planning system, is to follow the “mitigation hierarchy”. This seeks as a preference to avoid impacts then to mitigate unavoidable impacts, and, as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures.” Biodiversity: Code of practice for planning and development (BS 42020:2013)

measures were outlined. Where additional surveys are required to better understand the likely presence of, and hence impact of the proposed development on, a given ecological feature, these are detailed in Section 4. Lastly, opportunities for enhancements have also been provided in Section 4.

3 Results

3.1 Previous Survey Effort

A Preliminary Roost Assessment (PRA) was undertaken by Croft Ecology on 03 March 2026.

The PRA identified the following:

- **Building B1** – moderate potential for roosting bats due to the presence of access points around ridge tiles, roof tiles and lead flashing, together with a roof void and evidence of limited bat use in the form of a small number of pipistrelle-type droppings.
- **Building B2** – negligible potential for roosting bats due to the absence of access points, crevices or roof void space.

A small number of historic bat droppings, characteristic of pipistrelle species, were recorded within the roof void of Building B1. The limited quantity and distribution of droppings suggested occasional opportunistic use of the building by individual bats, most likely as a day roost. No evidence of a significant roost was identified, and no droppings were recorded in association with the chimney structure itself.

Although further surveys are often recommended where roof works are proposed to a building of moderate suitability, the proposed works are limited to the removal of the chimney and temporary disturbance of immediately adjacent roof tiles, with no impacts to the wider roof structure or areas where evidence of bat activity was recorded. Consequently, further bat surveys were not considered necessary to inform the planning application, and the works were considered capable of being undertaken under a Reasonable Avoidance Measures (RAMs) approach.

Following consultation with the Local Planning Authority, dusk bat emergence surveys were requested to provide further information on bat use of the building.

3.2 Desk Study Summary

The desk study returned 30 bat records within 1km of the Site. Of these there were 18 records of common pipistrelle *Pipistrellus pipistrellus*, nine soprano pipistrelle *Pipistrellus pygmaeus*, one brown long-eared (BLE) record *Plecotus auritus*, one noctule record *Nyctalus noctula*, and one unidentified bat species. The closest record for a roost was a suspected BLE roost, within

the residential area just 135m west of the Site, dated 2012. The majority of these records were from car transect surveys, with records along Ashby Road, Cadeby Lane, and Bosworth Lane.

There were no European Protected Species licences for bats on the MAGIC website within 1km of the Site.

3.3 Bat Emergence Surveys

Paired surveyor and NVA positions are indicated by Figure 3.

Appendix A captures an image from each of the NVAs during the darkest part of each survey.

Appendix B shows summarised maps of flight paths observed during the surveys.

Appendix C contains the raw survey data collected by surveyors.

3.3.1 Emergence survey #1 – 02 June 2026

One *Myotis* sp. bat was recorded emerging from a separate building within the courtyard area, outside the red line boundary, during this survey; however, no bats were recorded emerging from or entering building B1 during the survey.

General bat activity was low, comprising occasional passes by common pipistrelle, soprano pipistrelle, noctule, *Myotis* sp. and brown long-eared bat within and around the Site, mainly within the garden arriving from the south, and the courtyard arriving from the east.

The first bat recorded was a common pipistrelle at 21:34, approximately 14 minutes after sunset, which was observed foraging within the garden to the southwest of the building. Common pipistrelle activity increased steadily throughout the survey period, with occasional commuting and foraging passes recorded. Several noctule and *Myotis* sp. passes were also recorded, with activity considered to relate to bats commuting through the wider landscape rather than emerging from the buildings.

No behaviour indicative of emergence or re-entry was observed during the survey, with all recorded bat activity relating to commuting or foraging within the surrounding habitat.

The final bat recorded during the survey was a common pipistrelle at 22:47.

3.3.2 Emergence survey #2 – 02 July 2026

No bats were recorded emerging from or entering the building during the survey.

General bat activity was moderate, comprising occasional passes and foraging by common pipistrelle, soprano pipistrelle and a single brown long-eared bat within and around the Site.

The first bat recorded was a soprano pipistrelle at 21:43, approximately 23 minutes after sunset. Activity throughout the survey was dominated by soprano and common pipistrelles frequently foraging around the mature sycamore tree to the southwest of the building, with occasional commuting passes by common pipistrelles over the Site. A single social call from a common pipistrelle was also recorded at 22:33.

A single brown long-eared bat was recorded at 22:56, approximately 1 hour and 36 minutes after sunset, whilst foraging within the local area. This is beyond the typical emergence period for this species and no emergence or re-entry behaviour was observed, indicating it was very unlikely to have emerged from the buildings surveyed.

No behaviour indicative of emergence or re-entry was observed during the survey, with all recorded bat activity relating to commuting or foraging within the surrounding habitat.

The final bat recorded during the survey was a common pipistrelle at 23:02.

4 Discussion and Recommendations

4.1 Summary of Proposed Development

The proposed development is for the proposed extensions and the removal of a chimney on the existing building at the Site, with associated gardens and access routes.

4.2 Assessment of Potential Impacts to Bats

The two dusk bat emergence surveys and subsequent review of the survey footage identified no bats emerging from or entering Building B1. Bat activity recorded during both surveys was limited to occasional commuting and foraging by common pipistrelle, soprano pipistrelle, noctule, *Myotis* sp. and brown long-eared bat within the surrounding garden and adjacent habitats. Although a *Myotis* sp. was observed emerging from a separate building elsewhere within the wider site, no emergence or re-entry behaviour indicative of a roost associated with either building B1 or B2 was observed.

The PRA identified a small number of old small bat droppings, characteristic of a *Pipistrellus* sp., within the roof void of Building B1, indicating occasional opportunistic use by individual bats. The survey findings support this assessment, with no evidence that Building B1 supports a significant or regularly used roost. The proposed works remain limited to the removal of the chimney stack and temporary disturbance of the immediately adjacent roof tiles and will not affect the wider roof structure or the remaining access points beneath the roof covering.

The absence of any emergence or re-entry behaviour during either survey, together with the limited evidence recorded during the PRA, indicates that any use of the building by bats is likely to be occasional, opportunistic and most likely to take place during May-August. Whilst the presence of individual bats within the roof structure at other times of year cannot be entirely discounted, the proposed works are considered unlikely to result in significant impacts to roosting bats.

The removal of the chimney stack is not anticipated to remove any bat access points or impact potential roosting locations, as the remainder of the roof structure, the gaps beneath the tiles and the roof lining will remain in place. As the chimney was not in use, its removal is also not anticipated to alter the thermal characteristics of the adjacent roof void.

As a precautionary measure, the chimney should therefore be carefully dismantled by hand in the presence of a bat-licensed and experienced ecologist during the period September to April inclusive, when bats are least likely to be present, but during suitable weather conditions for active bats. This ensures works are targeted, minimal and short in duration.

The surrounding trees and garden habitats were shown during the surveys to be used by bats for commuting and foraging. Any external lighting installed as part of the development should therefore avoid illuminating nearby trees, the likely roost in the adjacent building within the courtyard and vegetated areas.

4.3 Summary of Further Surveys Required

No further surveys are required at this stage.

Should works not commence within 18 months of the survey date, updated ecological advice should be sought to determine whether the survey findings remain valid and whether any further survey effort or mitigation measures are required.

4.4 Mitigation and Compensation Requirements

- The chimney should be carefully dismantled by hand during the period September to April inclusive, when bats are least likely to be present in B1 but during weather conditions that are suitable for bats to be active (air temperature at the time of works to be at least 8°C with no heavy rain, strong wind or recent frost). Dismantling should be undertaken under the supervision of a suitably qualified and bat-licensed ecologist to prevent any accidental damage or destruction of potential roosting sites and minimise the risk of disturbance to bats. If evidence of bats (individuals or droppings) are discovered during the supervision works, then works must cease immediately as further survey effort would be required to inform a bat mitigation licence from Natural England which must be in place before works can recommence.
- No night-time work is anticipated. Any lighting to be installed as part of the scheme should use warm white LEDs to reduce the blue light component. Lighting must avoid roost entrances (a bat box is proposed as an enhancement below), the nearby Myotis roost, and foraging and commuting areas, namely the tree and garden habitats. Further advice

concerning light-spill, column height and glare should be discussed and agreed with an ecologist.

4.5 Opportunities for Enhancement

- Inclusion of one 2F Schwegler bat box or similar (Figure 4) on a retained mature tree within the garden, to be installed prior to works commencing should be considered, to provide enhanced roosting opportunities for bats. The box should be installed on a southwest and southeast aspect, at least at 3m height, and away from artificial light sources.



Figure 4 2F Schwegler Bat Box available from various sources

- A bird box should be incorporated within the Site, attached to the building, to provide replacement nesting opportunities for birds. These should be installed between the north and west aspect, at least 5m above ground. One sparrow terrace would be appropriate.



Figure 5 Schwegler house sparrow terrace available from various sources

- Should any landscape proposals within the existing garden areas be proposed, we encourage the addition of night-scented species, such as evening primrose *Oenothera biennis* and honeysuckle *Lonicera periclymenum*, planted in areas of full sun or partial shade, with honeysuckle supported on trellis features to allow climbing. These would provide foraging opportunities for nocturnal pollinators and a food source for bats.

5 References

Bat Conservation Trust (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition).

Bat Conservation Trust (2026). Bat Emergence Surveys with Night Vision Aids: A Technical Guide for Professional Ecologists.

Bat Conservation Trust (2025) Encouraging Bats: A Guide for Bat-Friendly Gardening and Living
BS42020:2013 Biodiversity – Code of Practice for Planning and Development.

Conservation of Habitats and Species Regulations 2017 (as amended).

Croft Ecology (2026). Preliminary Ecological Appraisal and Preliminary Roost Assessment – Ref: CadebyHall.PEAPRA.v1.0.

MAGIC Map – www.magic.gov.uk

Wildlife and Countryside Act 1981 (as amended).

6 Appendices

6.1 APPENDIX A – NVA Field of View at Darkest Point

Survey #1 – 02 June 2026



Figure 4 Southwestern elevation of B1



Figure 5 Northeastern elevation of B1

Survey #2 – 02 July 2026



Figure 6 Southwestern elevation of B1



Figure 7 Northwestern elevation of B1

6.2 APPENDIX B – Activity Maps from Emergence Surveys

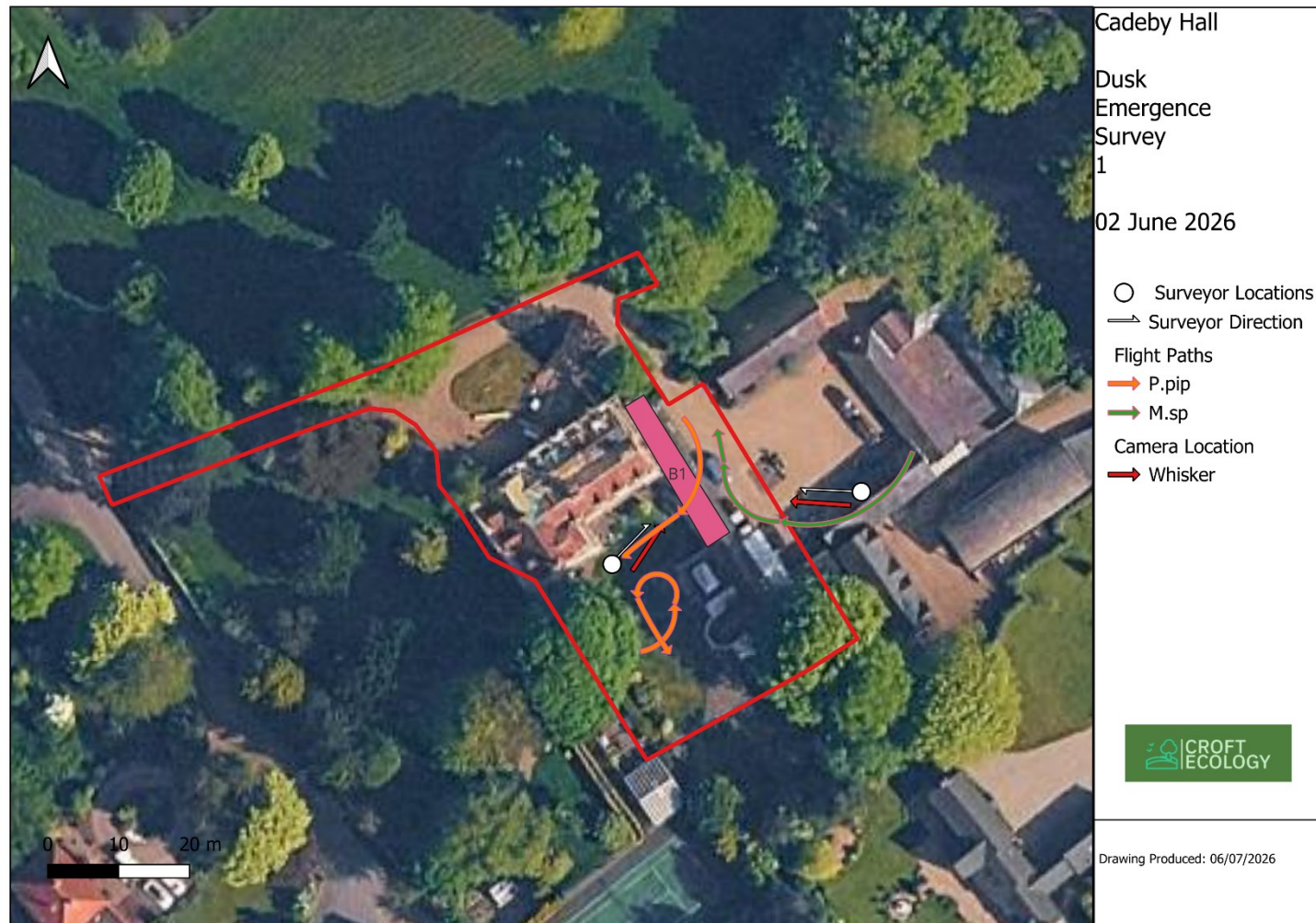


Figure 8. Activity map from first emergence survey

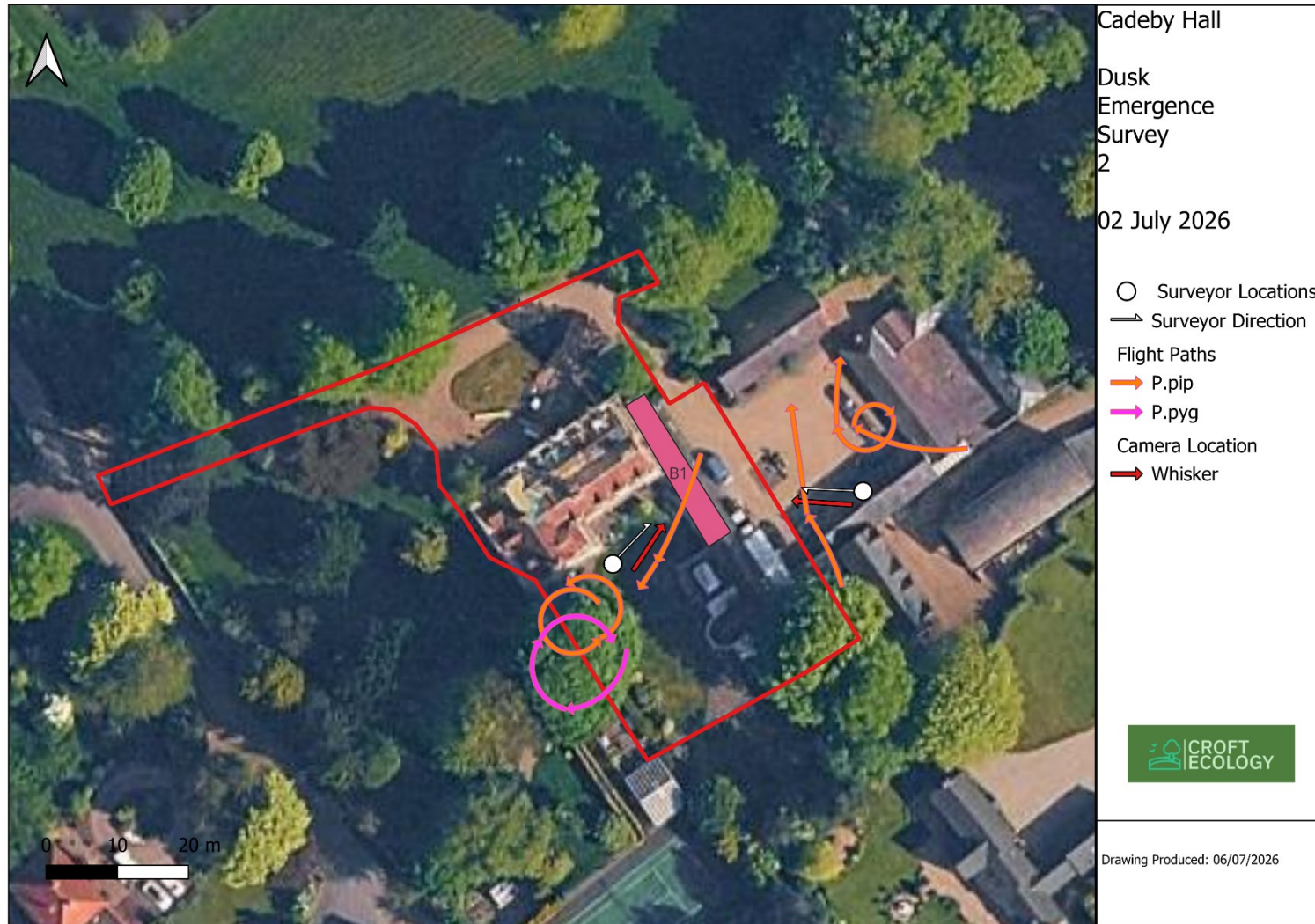


Figure 9 Activity map from second emergence survey

6.3 APPENDIX C – Surveyor Results from Emergence Surveys

Survey #1 – 02 June 2026

Completion time	Name	Bat activity type	Bat Species	Heard	Seen	Notes
02/06/2026 21:36	Dom	Passing	Common pipistrelle	Yes	Yes	
02/06/2026 21:46	Dom	Passing	Noctule	Yes	No	
02/06/2026 21:46	Michelle	Foraging	Noctule	Yes	No	
02/06/2026 21:48	Dom	Foraging	Common pipistrelle	Yes	No	
02/06/2026 21:50	Michelle	Foraging	Noctule	Yes	No	
02/06/2026 21:50	Dom	Passing	Noctule	Yes	Yes	
02/06/2026 21:55	Dom	Passing	Common pipistrelle	Yes	No	
02/06/2026 21:59	Dom	Foraging	Common pipistrelle	Yes	Yes	
02/06/2026 22:04	Dom	Passing	Common pipistrelle	Yes	No	
02/06/2026 22:15	Michelle	Other	Myotis	Yes	Yes	Emerged from different building outside of the site.
02/06/2026 22:21	Dom	Passing	Soprano pipistrelle	Yes	Yes	
02/06/2026 22:32	Dom	Passing	Myotis	Yes	No	
02/06/2026 22:33	Michelle	Foraging	Myotis	Yes	No	Close
02/06/2026 22:34	Michelle	Foraging	Noctule	Yes	No	
02/06/2026 22:43	Michelle	Social / behavioural activity	Common pipistrelle	Yes	No	
02/06/2026 22:47	Michelle	Social / behavioural activity	Common pipistrelle	Yes	No	
02/06/2026 22:48	Michelle	Passing	Brown long-eared	Yes	No	

Survey #2 – 30 June 2026

Completion time	Name	Bat activity type	Bat Species	Heard	Seen	Notes
02/07/2026 21:43	Dom	Other	Soprano pipistrelle	Yes	No	
02/07/2026 21:46	Dom	Foraging	Soprano pipistrelle	Yes	Yes	
02/07/2026 21:54	Dom	Passing	Common pipistrelle	Yes	Yes	
02/07/2026 22:02	Dom	Foraging	Soprano pipistrelle	Yes	Yes	Reg foraging by sycamore tree
02/07/2026 22:17	Danielle	Passing	Common pipistrelle	Yes	Yes	SE to NW
02/07/2026 22:22	Danielle	Passing	Common pipistrelle	Yes	No	
02/07/2026 22:26	Danielle	Foraging	Soprano pipistrelle	Yes	No	
02/07/2026 22:31	Dom	Foraging	Common pipistrelle, Soprano pipistrelle	Yes	Yes	Continuous foraging by sycamore
02/07/2026 22:33	Danielle	Foraging	Soprano pipistrelle	Yes	No	
02/07/2026 22:33	Danielle	Social / behavioural activity	Common pipistrelle	Yes	No	
02/07/2026 22:45	Danielle	Foraging	Soprano pipistrelle	Yes	No	
02/07/2026 22:56	Danielle	Foraging	Brown long-eared	Yes	No	
02/07/2026 22:56	Danielle	Foraging	Common pipistrelle	Yes	Yes	
02/07/2026 23:02	Danielle	Passing	Common pipistrelle	Yes	No	