



PRESENCE / ABSENCE SURVEY (BATS)

1A RATBY LANE MARKFIELD
LEICESTERSHIRE LE67 9RJ

Client: Mr. & Mrs. Goodie

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Report Reference: PRO120/05/25PAS

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1.0 Introduction

This report contains the results of a single Presence / Absence Survey (PAS) for bats at a hydrotherapy pool Building 1 (B1) and timber open fronted sheds (B2) scheduled for demolition at: Tomlinson's Kennels, 1 A Ratby Lane, Markfield Leicestershire LE67 9RJ. Central Grid reference: SK 49123 09129.

The following report should not be read in isolation and should be preceded by the Preliminary Ecological Appraisal (PEA) Elite Ecology (2024). The PEA found B1 to be of 'Low' bat roosting potential and recommended a single PAS also known as an emergence survey, using two surveyors to cover the whole building.

The PEA graded a series of connected open timber sheds as having 'negligible' bat roosting potential however, limited roosting potential was identified during an inspection so as a precaution B2 was upgraded to 'Low' potential.

The earlier report also provided recommendations regarding artificial lighting both during construction and post development as well as habitat enhancement for bats which will be discussed in more detail in this report.

1.1 Proposed Development

The proposals include: the replacement of the existing hydrotherapy pool with a new self-build residential dwelling with parking and landscaping and the demolition of connected open fronted timber sheds and replace with contained storage unit and car port. Planning reference: 24/01155/FUL.

1.2 Personnel and Quality Assurance

The PAS was undertaken by Consultant Ecologist Lawrence Armstrong BSc (Hons) Class 2 bat licence number: 2016-26134-CLS-CLS, Consultant Ecologist David Jones and Assistant Ecologist Kadie Whyte. Lawrence Armstrong has been undertaking ecological surveys professionally for over 15 years.

2.0 Methodology

2.1 Protected Species

The Leicestershire and Rutland Environmental Records Centre (LRERC) were not commissioned to provide records of bats and their roosts as the previous PEA commissioned a record search in December 2024 which is still valid.

The proposed development is also at a safe distance from any potential roosts should they be present at occupied houses on Ratby Lane.

The recommendations within this report will provide proportionate and adequate mitigation and compensation measures required for onsite habitat and any 'potential' bat habitat nearby.

Site photographs can be found in Appendix A. For an overview of the immediate bat habitat within the site, see Bat Habitat Plan Appendix B. For an overview of bat habitat within the wider landscape, see Bat Landscape Plan Appendix C. Raw survey data, Appendix E. For legislation relating to bats, Appendix F and suggested habitat enhancements Appendix G.

2.2 Building Inspection

The building inspection was undertaken 3 hours prior to the PAS by Lawrence Armstrong on 05/05/2025.

Building 1

An external inspection of B1 was undertaken and searches were made at the metal sheet roof covering, metal clad barge boards, door frames, window frames, walls and the ground immediately below walls.

The internal inspection was undertaken, and searches were made around the ceiling, walls, door and window frames and floors which was extended to two side rooms containing an office and small boiler room.

Building 2

A separate series of open fronted sheds is present 15m to the southwest of the B1 and separated by a small area of amenity grassland, hard standing and soft ground. Searches were made on the surface of stored items, timber walls, and timber roof supports.

Trees and shrubs

An inspection of a line of trees situated along the north boundary of the site was also undertaken following guidance within BTHK (2018)¹.

Signs of bats were searched for including droppings, prey remains, fur oil and urine staining, bats making audible sounds (squeaking) in the roost, carcasses of dead bats, scratch marks and smoothing of external tree cavity features, bats roosting in crevices within buildings or trees.

¹ BTHK (2018). Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-care and Ecology Professionals. Exeter: Pelagic Publishing.

2.5 Presence / Absence Surveys

One PAS was undertaken following guidance within Collins, J. (2023)². The survey was undertaken at Dusk on 5 May 2025 during calm, dry weather conditions using three surveyors to cover the whole of B1 and the front of B2, Appendix 2.

The survey began 15 minutes before sunset until 1.5 hours after sunset. Equipment used included: Anabat Swift, Peersonic RPA 3 and Echo Metre Touch 2 Pro for full spectrum recording, Petterson D230 and bat Box Duet for active listening. Night Vision Aids (NVA's) included 2 x Night fox Whisker Infra-Red (IR) cameras with three Night fox Arc IR lamps.

NVA's were positioned at B1 toward the southeast corner and covered an area of broken brickwork at the façade including a gap between a metal cladding bargeboard and brickwork.

Camera 2 covered the east gable of B1 which also had gap between the bargeboard and brickwork. Camera 2 and IR lighting had to be raised onto the roof of a small glass conservatory attached to the east end of B1 to view the gable.

3.0 Constraints

External evidence of bats such as faecal deposits can be removed by the effects of weathering so may not be present at the time of inspection. Such evidence can be hidden from the surveyor but be present within wall cavities or under roofing tiles and therefore remain undetectable until a roof strip or destructive hand search.

Bats can vacate their roosts for reasons unknown and may not be present during PAS's.

4.0 Results

4.1 Building Inspection

The exterior building inspection showed B1 to be a single storey solid 9-inch brick construction measuring approximately 14m X 8m. The roof covering is constructed of metal cladding which was tight fitting apart from the east gable, the façade and rear of the building where gaps between the metal cladding bargeboard and brickwork could allow ingress to bats.

² Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice (4th Edition). Bat Conservation Trust, London. ISBN-978-1-7395126-0-6

The façade of the building is fitted with very bright security lighting which was requested to be turned off for the survey for optimal performance of IR camera and lighting.

The gaps at the rear cladding had cobwebs so have not been subject to recent disturbance. A small gap is present due to missing mortar around a loose half-brick on the southwest corner of the building. No signs of bats were found throughout the external inspection, Appendix A Photographs 1 – 3. A small log storage area is present to the northeast end of B1 which could be used by roosting bats but is subject to disturbance regular disturbance, Photo 4.

The internal inspection revealed a circular dog hydrotherapy pool which was full of water at the time of the survey. The air around the pool was humid and had a strong odour of chlorine. The ceiling above the pool room is constructed of plastic water-proof sheeting. No loft hatch is present so the small loft void could not be inspected, Photo 5. A small office and boiler room adjacent to the pool room are well-sealed throughout. No signs of bats were found throughout the internal inspection.

B1 is graded as 'Low' potential to support roosting bats and this is based upon the roof covering of the building being tin and well-sealed, bright lighting to the façade and west gable, lack of suitable ingress points and the availability of two storey buildings nearer to better quality habitat. As a result, a single PAS was undertaken after the building inspection. The demolition of B1, means potential bat roost features will be lost to the development. See Figure 1 for recommended compensation.

Trees

A tree line is present at the north boundary, Species include ash (*Fraxinus excelsior*), elder (*Sambucus nigra*), (*Prunus*) spp., holly (*Ilex aquifolium*) and hawthorn (*Crataegus monogyna*). The trees had negligible bat roost potential, but bats commuting east to west along the north site boundary to the tree line may be impacted by artificial light spillage from windows.

As bats can still navigate to these trees and the wider area via existing hedgerows and trees, 'Low' impact due to light spillage from the proposed dwelling is predicted, Appendix C. This impact can be mitigated for by providing two integrated bat roost features into the new dwelling and facing southwest and southeast, Figure 1.

Weather Conditions during the Presence / Absence Survey

Table 1 shows the weather conditions recorded before and after the PAS. Raw survey data can be viewed in Appendix 3.

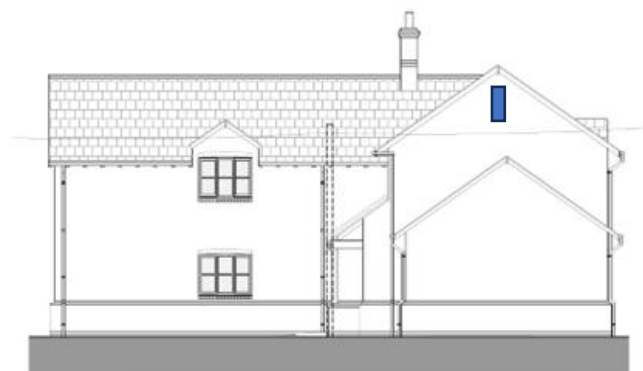
Table 1. Weather conditions before and after the Presence / Absence survey at 1A Ratby Lane Markfield, Leicestershire LE67 9RJ.

Survey conditions	Dusk 5 th May 2025 Sunset: 20:39
Start – finish time	20:24 – 22:09
Temperature (°C)	11.5°C – 10°C
Wind speed (Beaufort)	3 - 1
Cloud cover (Okta)	3 - 5
Precipitation	Dry - Dry

The weather conditions were suitable for undertaking PAS's which requires temperatures of 10°C or above throughout the survey period and no heavy rain or strong wind.



Elevation A As Proposed



Elevation B As Proposed

Figure 1. Southeast and southwest elevations of the proposed new dwelling showing the most suitable location of two integrated bat boxes or tubes, (blue rectangle). These can be built into the design of the building, see Habitat Enhancement below for product details.

4.2 Presence / Absence Survey

5th May 2025

A total of four bat call registrations were made during the survey. Three were recorded as *P. pipistrellus* and one Noctule (*Nyctalus noctula*). The first bat was the Noctule heard but not seen by all surveyors. The second bat was a (*P. pipistrellus*) at 21:14, 35 minutes after sunset. This species usually emerges around 20 minutes after sunset suggesting the bat may have emerged from further afield or was late emerging and was observed flying from the direction of neighbouring houses in the northeast as observed by Surveyor B, Appendix B.

The remaining two bats recorded were identified as (*P. pipistrellus*) recorded at 21:24 -21:26 and 21:38. The bat recorded at 21:24 was seen by Surveyor A flying around trees and foraging 50m to the south for two minutes. The bat at 21:38 was heard but not seen by Surveyor B.

The low numbers of bats recorded at the site may be due to bats more suitable habitat to the east Appendix D. Bats can also vacate roosts for reasons unknown and not be present at the time of the survey.

5.0 Conclusions and Recommendations

B1 and B2 are of 'Low' and very 'Low' roost potential respectively. The previous PEA Elite Ecology (2024) recommended three integrated bat boxes into the new building, however, given the roost potential of B1 and B2 and the poor quality of the existing ingress points available, two integrated bat boxes fitted to the new dwelling is more proportionate in this instance. The bat boxes should be fitted centrally near the apex of the gable facing a southerly direction to maximise warmth from the sun, see Figure 1 above and Appendix G.

Soft land scaping scheduled under the proposals can include flowers and flowering shrubs and/or trees which will provide a source of nectar and fruit beneficial for invertebrates which in turn would benefit bats.

5.1 Lighting

Artificial lighting can prevent bats from foraging and commuting. Security lighting during demolition and construction should avoid illuminating peripheral vegetation and face downwards to reduce impacts upon foraging and commuting bats.

Post development sensitive lighting scheme would reduce impacts on foraging and commuting bats. There are numerous Passive Infrared (PIR) lighting products available which can be triggered by human motion to prevent small mammals etc, from triggering the lights thus reducing the impact to bats and other nocturnal animals and invertebrates. The Bat Conservation Trust: Bats

and Artificial Lighting at Night. Guidance Note 08/23 Institute of Lighting Professional provides advice and recommendations to reduce impacts upon commuting and foraging bats.

Further Work Required

No further survey work regarding bats is required unless works are delayed beyond the validity of this report which is two years from the date of the survey.

6.0 Impact Assessment

Short term impact

- There is potential for nearby habitats such as hedgerows and trees to be impacted via security lighting during demolition or construction. Lighting can deter bats from foraging and/or commuting.

Long term impact

Bats

- Light spillage from the proposed dwelling windows and any security lighting will impact bats using the north boundary or neighbouring garden for commuting or foraging purposes.
- The removal of a small hedgerow section to the north boundary of B1 means the loss of limited foraging and commuting habitat for bats however, this will not sever important bat commuting and foraging areas.

Appendix A Photographs



Photo 1. Facing northeast toward the hydrotherapy pool building showing the external lighting and area where the metal bargeboard is slightly lifted from the wall (arrowed).



Photo 2. Loose half brick to the southeast corner with security lighting.



Photo 3. Facing northwest toward gaps above vent and under the bargeboard.



Photo 4. Log store to the northeast of B1 is subject to regular disturbance.

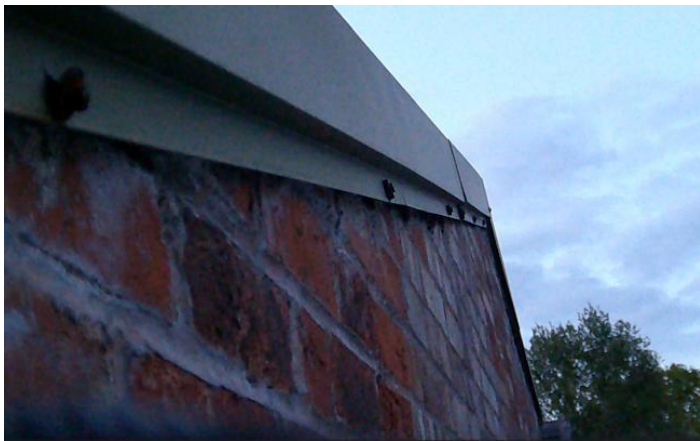


Photo 4. Facing northwest toward the upper east gable showing a gap between metal cladding and brickwork potentially providing access under the roof covering to bats. No signs of bats found during the inspection.



Photo 5. Hydrotherapy pool interior showing the building to be in use and plastic sheet ceiling is tightly fitted. No signs of bats throughout.



Photo 6. Facing southwest toward the eastern end of the open fronted sheds and part of the proposed dwelling footprint (foreground). See next photo showing the interior.

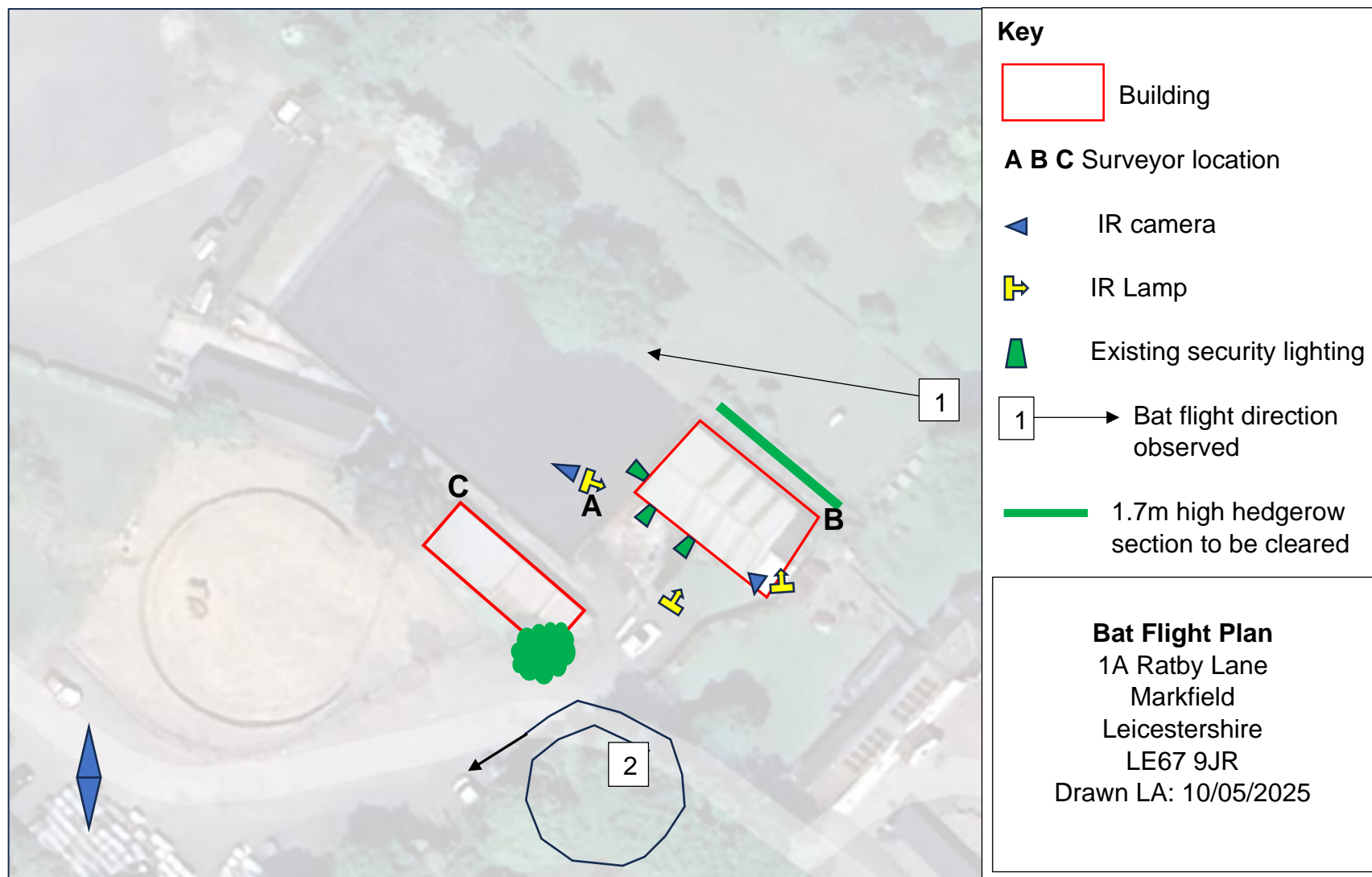


Photo 7. The roof is corrugated tin. There are no gaps in roof support timbers that can be used by crevice dwelling bats to roost in. The walls are single skin timber plank. Stored items were covered with dust indicating long term storage and had no evidence of bats such as droppings or urine staining. The remaining sections of the sheds are in this condition with no potential bat use apart from the northeast end wall, see next photo.

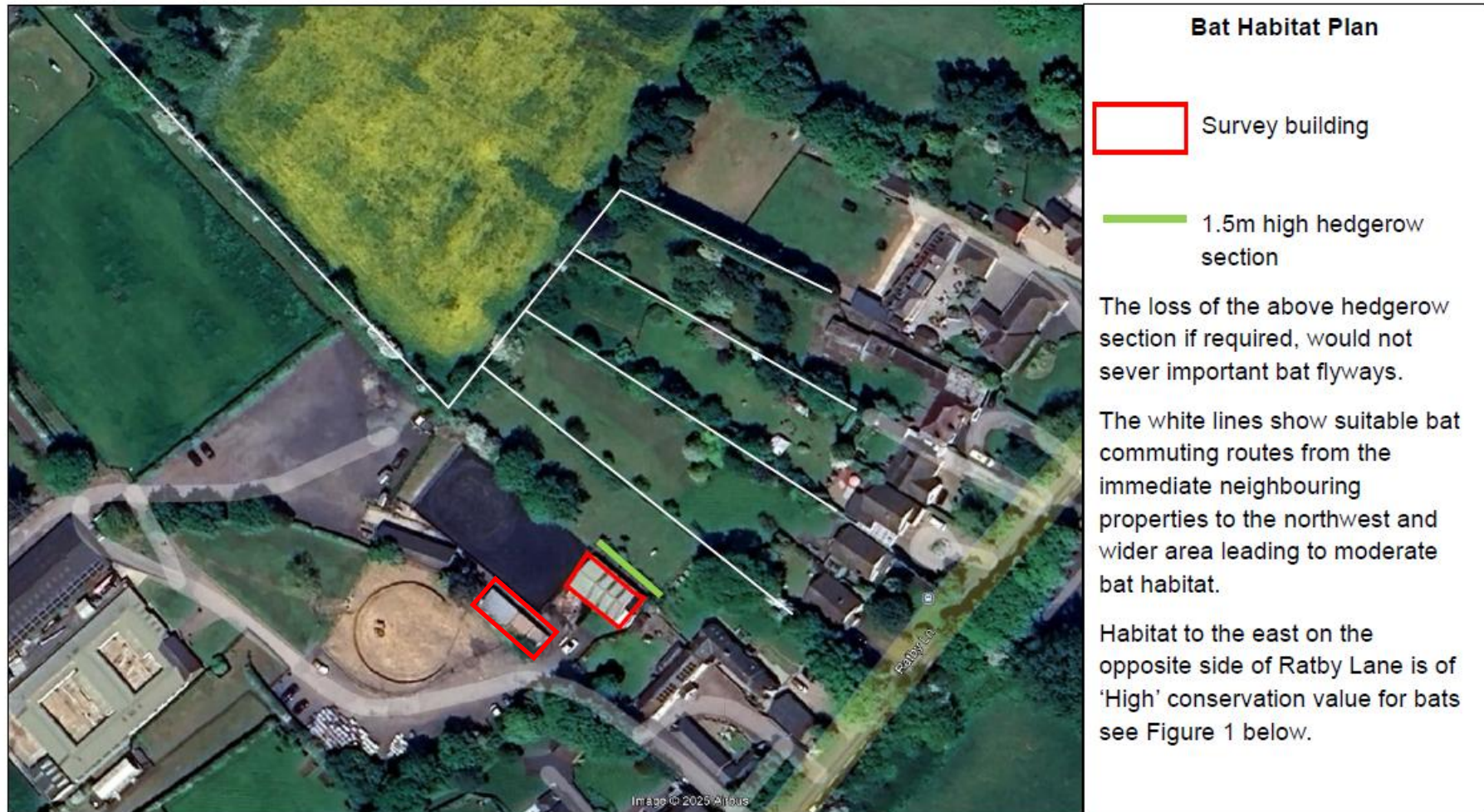


Photo 8. Facing south toward the northeast end of the of the sheds showing the wall is in poor condition and reinforced with plywood with small gaps (arrowed) providing a 'Low' potential roosting area. Bats will use these features as temporary roosting areas (Pers. Comm). Surveyor C was positioned near this feature during the PAS and could view along the open fronts of all sheds.

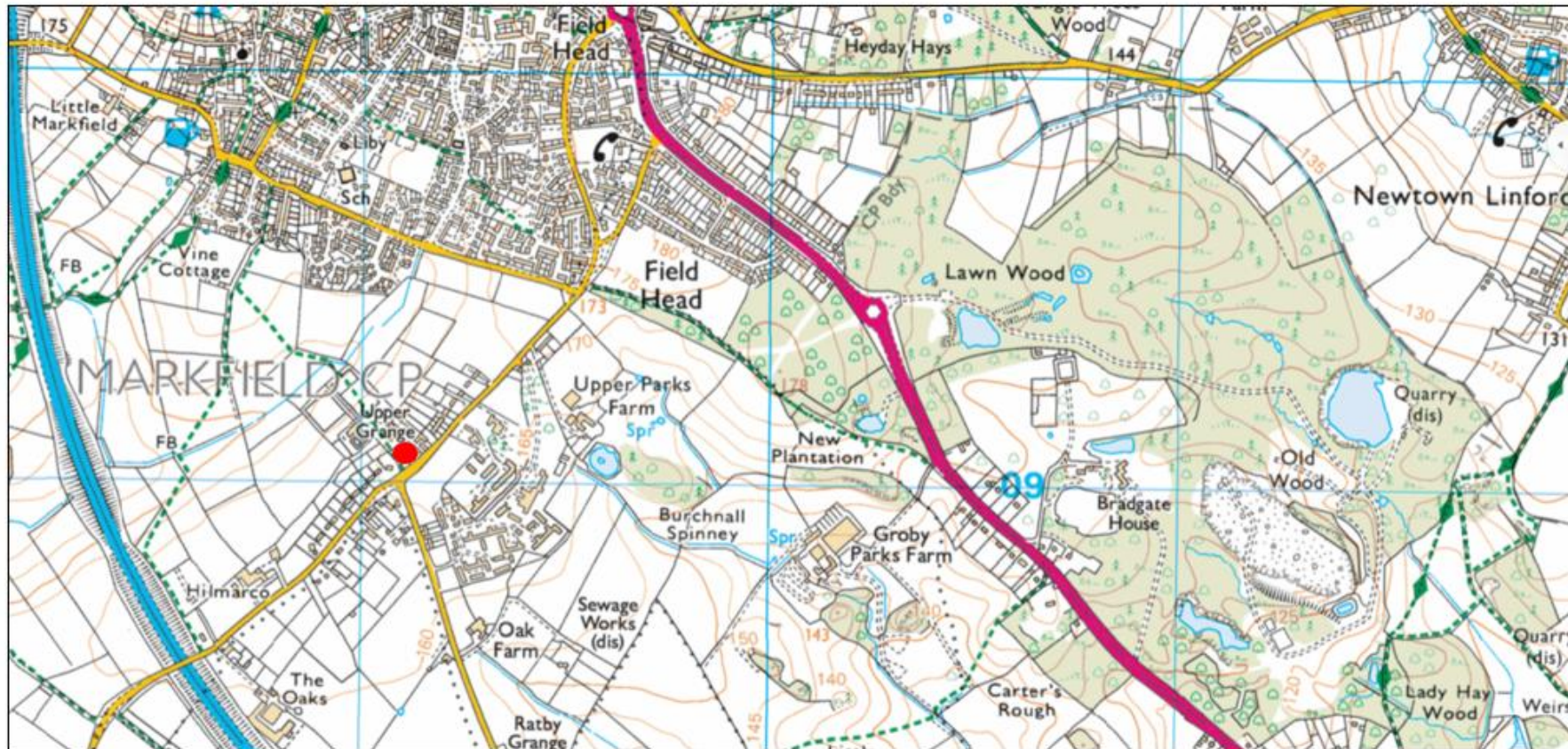
Appendix B Bat Flight Plan



Appendix C Bat Habitat Plan



Appendix D Bat Landscape Plan



Bat Landscape Plan

Red dot shows the approximate location of the proposed development. The habitat to the east on the opposite of Ratby Lane, is of 'High' conservation value for bats with Lawn Wood and Old Wood supporting extensive woodland with a network of ponds. The immediate west is of 'Moderate' conservation value for bats being mainly agricultural and grazing pasture, with hedgerows and ditches which are bisected by the M1 Motorway to the west and the densely populated Markfield Village to the north.

Table 2. Presence / Absence Survey showing time bats were recorded, species common and scientific names, bat behaviour, flight number which correlates to the bat flight direction observed as shown in Appendix B Bat Flight Plan, and surveyor location. HNS denotes bat Heard Not Seen.

5 th May 2025 Sunset: 20:39						
Time	Species	Scientific name	Behaviour	Flight number	Surveyor	Notes
20:20	Noctule	<i>Nyctalus noctula</i>	Commuting	HNS	A, B, C	
21:14	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Commuting	1	B	Seen flying NE to SW
21:24 – 21:26	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Foraging	2	A	Seen flying circuits around trees to the SE.
21:24 – 21:26	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Foraging	HNS	C	Suspected to be bat observed by surveyor A.
21:38	Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Commuting	HNS	B	
END: 22:09						

Appendix F Legislation

The following is for guidance only and is not intended to be a comprehensive and definitive statement of the law. A more comprehensive description can be viewed within the relevant primary and secondary legislation, refer to footnotes. Anyone unsure of their legal rights or obligations should consult a legal representative.

In England, all British bats and their roosts are protected under the Wildlife & Countryside Act 1981³ and by The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018⁴. Taken together the above legislation make it an offence to:

- Deliberately or intentionally kill, injure or take a bat;
- Damage, destroy or intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not);
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006⁵ (NERC) Section 40 (1) Duty to Conserve Biodiversity places a legal duty upon a public authority that “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Public authority includes a local authority and a local planning authority, in England this means a county council, district council or a parish council.

- Section 41 (1) states that “the Secretary of State in consultation and under guidance from Natural England, must publish a list of living organisms and habitats of principal importance for conserving biodiversity”. There are currently 943 species and 56 habitats of principal importance.

Certain species of bats in the UK are protected under national and European law which includes:

- The Habitats Directive
- Bonn Convention
- Bern Convention
- Eurobats Agreement

³ Wildlife and Countryside Act: <mailto:https://www.legislation.gov.uk/ukpga/1981/69>

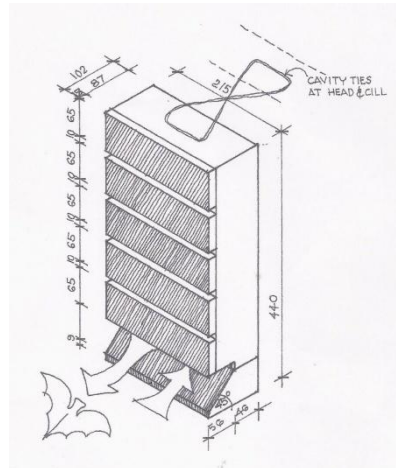
⁴ The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018. <mailto:https://www.legislation.gov.uk/uksi/2018/1307/note/made>

⁵ Natural Environment and Rural Communities Act 2006: <mailto:https://www.gov.uk/government/publications/national-planning-policy-framework--2>

The above is a summary of the main legislation only. Should clarification be required then readers of this report should consult the full versions which can be found within the appropriate governmental websites or seek professional legal advice.

Appendix G Habitat Enhancement

The following is not an exhaustive list of integrated bat boxes and tubes. There are numerous products available to suit various building designs and finishes.



Habibat Bat Box 001 - Custom Brick Facing

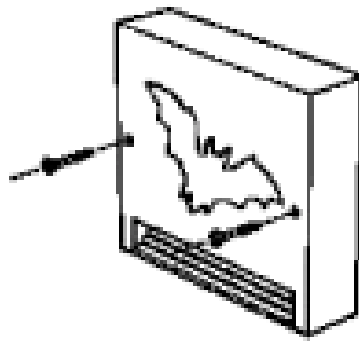
Follow link for construction method, supplier and pricing details:

<mailto:https://www.nhbs.com/habibat-bat-box-custom-brick-facing>



Vivara Pro Build-in WoodStone® Bat Box

Follow link for details: <mailto:https://www.nhbs.com/vivara-pro-build-in-woodstone-bat-box?bkfno=252139>



1FE Schwegler Bat Access Panel

<mailto:https://www.nhbs.com/1fe-schwegler-bat-access-panel?bkfno=183033>

Further product suggestion can be provided.