COCKLE EDGE FARM, INGBIRCHWORTH

Results of Preliminary Bat Survey

(including initial dusk and dawn bat detector survey)

WHp Residential Limited

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May 2016

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DRAWINGS

DRAWING 1: RESULTS OF 9th MAY 2016 BAT SURVEY

1.0 INTRODUCTION

1.1 Terms of Reference and background to proposals

SLR Consulting Ltd was commissioned by WHp Residential Limited to undertake a daytime building inspection and dusk/ dawn bat detector survey of Cockle Edge Farm, Huddersfield Road, Ingbirchworth, South Yorkshire, S36 7GQ (OS grid reference SE 22918 05559).

It is understood that planning permission is being sought to convert the buildings, most of which are derelict and not in use, into a team room and cafe.

1.2 Relevant Legislation & Policy[1]

1.2.1 Legislation

In England, all British bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2010, which defines European protected species, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006. These pieces of legislation combine to give substantial protection to bats and their roost sites, making it an offence to:

- Deliberately/intentionally kill, injure or take a bat;
- Damage, destroy or 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); or
- Deliberately/intentionally or recklessly disturb[2] bats.

The Natural Environment and Rural Communities Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

1.2.2 Policy

The National Planning Policy Framework (NPPF) lays out current government policy on sustainable development including considerations towards biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications.

The UK Biodiversity Action Plan (UKBAP) (Anon, 1995), organised to fulfil the Convention on Biological Diversity in 1992, to which the UK is a signatory, has produced a national priority species list with all species included having specific action plans defining the measures required to ensure their conservation. Regional and local BAPs have also been organised to develop plans for species of nature conservation importance at regional and local levels.

[1] Please note that this legal information is a summary and intended for general guidance only. The original legal documents should be consulted for definitive information. Web addresses providing access to the full text of these documents are given in the References & Bibliography section.

[2] Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.

The UKBAP, as updated in 2007, lists seven bat species as conservation priorities:

- Barbastelle *Barbastella barbastellus*
- Bechstein's *Myotis bechsteinii*
- Noctule *Nyctalus noctula*
- Soprano pipistrelle *Pipistrellus pygmaeus*
- Brown long-eared *Plecotus auritus*
- Greater horseshoe *Rhinolophus ferrumequinum*
- Lesser horseshoe *Rhinolophus hipposideros*

2.0 METHODOLOGY

2.1 Building Inspection

The internal and external building inspection was undertaken by Mr Gary Oliver, Principal Ecologist with SLR Consulting Ltd and holder of a Class 2 bat survey licence, on the 9th of May 2016.

All buildings were searched internally for bats and signs of occupation by bats, including droppings and moth wings; this was aided by the use of a powerful Clulite (million candlepower) torch; a small flexi-torch and a fibre-optic endoscope were used to more closely inspect accessible cracks and crevices.

The exterior of the buildings were also searched for characteristic signs of occupation by bats, such as droppings on walls, windows and window sills, and, as with the internal search, accessible cracks and crevices on the outside of the buildings were searched using a flexi-torch and/ or endoscope. Potential bat access points, such as gaps created by missing mortar, or slipped or raised roof tiles were also searched for using binoculars and a powerful (million candlepower) Clulite torch.

The potential of each building to support roosting bats was then graded, according to the criteria contained within Table 2.1.

Table 2-1:
Guidelines for Assessing the Potential Suitability of Trees/ Structures for Bats

Suitability	Description Roosting habitats
Negligible	Negligible habitat features likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/ or suitable surrounding habitat to be used in a regular basis by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure or tree 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).
High	A structure or tree 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 and surrounding habitat.
Confirmed Roost	Bat(s) found occupying a roost, or droppings or other field signs found to indicate that a roost is present. Bats seen exiting from or returning to roosts during dusk or dawn bat detector surveys can also confirm the presence of a roost.

2.2 Dusk Emergence Bat Detector Survey

The single dusk emergence bat detector survey was undertaken by Mr Gary Oliver on the evening of the 9th May 2016. Survey commenced at 20.37 hrs (15 minutes before local sunset) and finished at 22.22 hrs (1.5 hours after local sunset), in compliance with best practice[3]. The surveyor was positioned within Building B initially, where good views of the interior of this building could be gained, as well as views of the wall on the northern side of Building I (both of which contained a number of cracks and crevices of potential value to roosting bats). At 21.20 hours, the surveyor left Building B and stood in the central courtyard, where good views of the roofs of all buildings could be gained. The surveyor periodically entered Buildings A, B, and F (from where the upper floors of Buildings E, D, and G could be seen) to search for bats flying within these buildings, and 'light testing'.

The weather conditions were dry during the emergence survey, with an ambient temperature of 14°C at the start, dropping to 13°C by the end. A wind speed of 'light air' was recorded throughout, from an easterly direction and cloud cover was 1/8.

2.3 Dawn Re-Entry Bat Detector Survey

The dawn re-entry bat detector survey was undertaken by Mr Gary Oliver on the morning of the 10th May 2016. Survey commenced at 03.45 hrs (1.5 hours before sunrise) and finished at 05.30 hrs (15 minutes after local sunrise), in compliance with best practice[3].

The surveyor was 'mobile' during the dawn survey; changing position at regular intervals, so that all sides of all of the buildings were covered; this is a recognised survey technique for dawn surveys, where bats tend to perform several loops/ passes of their roosts, before entering.

The weather conditions were largely dry during the dawn re-entry survey, with an ambient temperature of 11°C a wind speed of 'light air' throughout (from the east), and cloud cover of 8/8 throughout. Very light drizzle (mizzle) fell between 04.40 and 05.00 hours, but this did not affect the behaviour of the bats.

2.4 Quality Assurance & Environmental Management

All ecologists employed by SLR Consulting Ltd are members of, or are under application for, membership of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow the Institute's code of professional conduct when undertaking ecological work.

[3] Collins, J (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust (BCT), London.

3.0 RESULTS

3.1 Results of External and Internal Building Inspection

Cockle Edge Farm consists of a collection of farm buildings, and a single residential dwelling (which is rented out). The occupied dwelling did not form part of the survey area, as it is not due to be affected by the proposed works.

The arrangement of the various buildings, including the occupied dwelling, is shown in Drawing 1; Plate 1 below shows the site from the east (looking west), whilst Plate 2 shows the site from the north-west (looking south-east), and Plate 3 shows the site from the south (looking north).

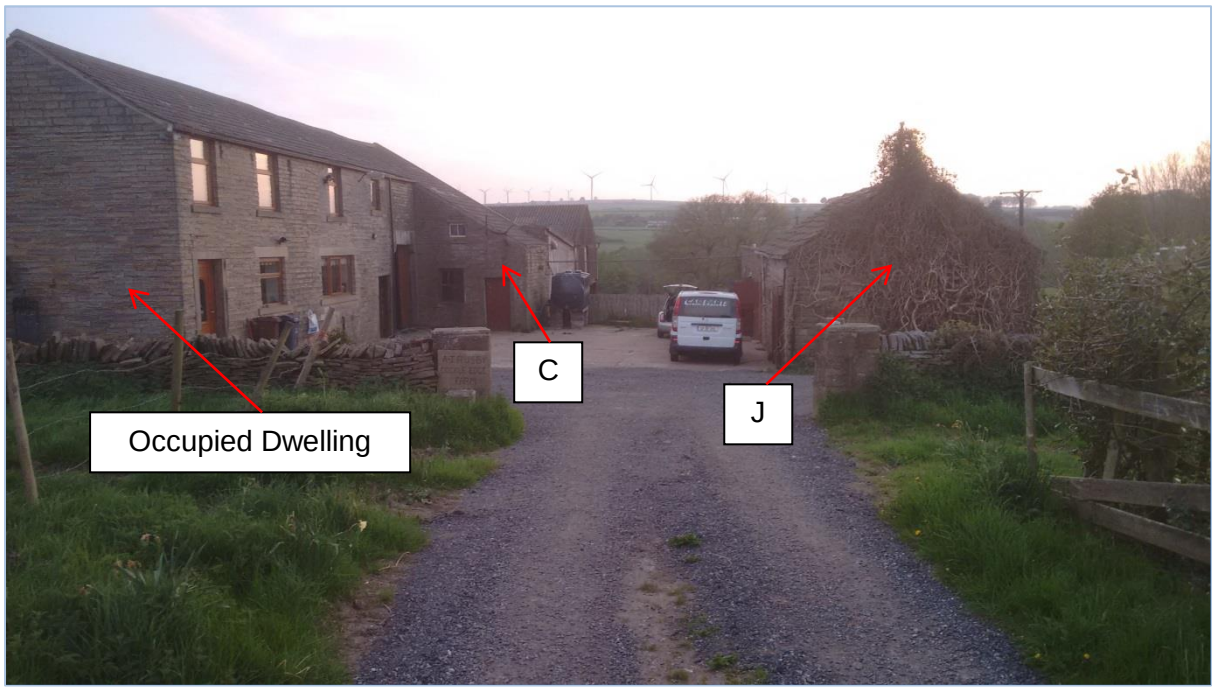


Plate 1: *View of the site from the east (looking west). It should be noted that the occupied dwelling is not due to be affected by the proposals.*

A detailed description of each of the buildings, and their potential bat roosting features is provided in Table 3.1, along with their overall grading (i.e. Negligible, Low, Moderate or High potential for roosting bats, or 'confirmed roost').

Plate 2: *View of the site from the north-west (looking south-east).*

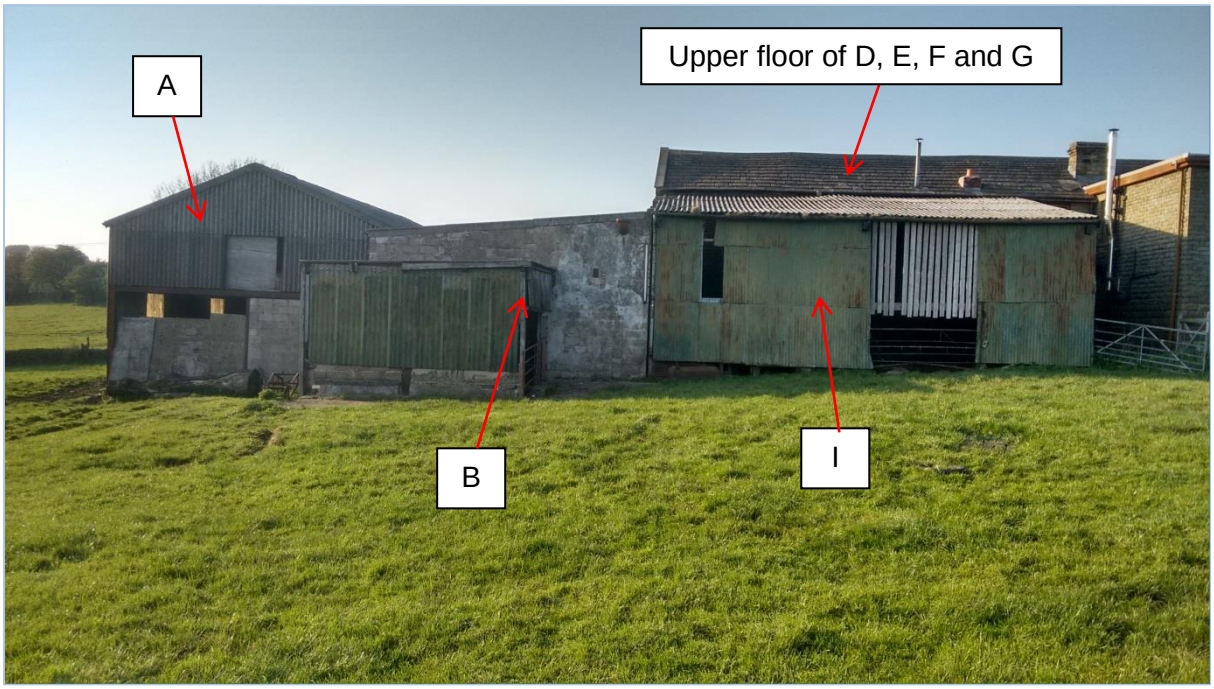
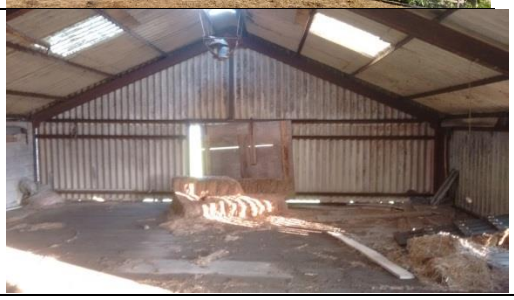
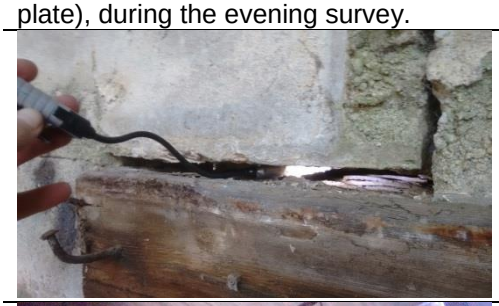


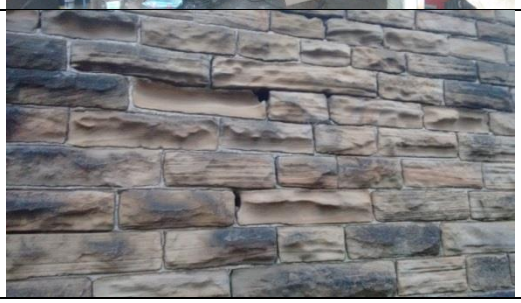
Plate 3: *View of the site from the south (looking north), showing the rear of Buildings A, B and I, as well as the second floor above Buildings D, E, F and G.*

Table 3-1:
Results of Assessment of Buildings for Potential Bat Roosting Features

No.	Description of Building	Plate	Bat Potential
A	'Cow shed' in active use. The walls are a mixture of breeze block and corrugated asbestos cement sheeting supported by a simple metal structure. A wooden floor divides the building into two levels. Internal light levels are relatively high.		Low
B	Former milking parlour, or 'mistle', which has been disused for circa 20 years. Mainly breezeblock walls, with stone wall on eastern side (where meets Buildings C and D). The corrugated asbestos cement roof, which contains 8 'open' skylights, is supported by a simple metal frame. A small corrugated metal lean-to occurs at the rear (see Plate 3). A small 'window' in the breeze block wall separating it from the upper floor of Building A has hollow sections of potential value to roosting bats. Number of gaps potentially suitable for roosting bats, between breeze blocks, and above wooden beam above doorway, on northern side. A single common pipistrelle emerged from a roost at the top of a wall on the northern side (see bottom left plate), during the evening survey.		Confirmed Bat Roost

No.	Description of Building	Plate	Bat Potential
C	Stone building with stone tiled roof supported by traditional wooden 'kingpost' beams, and multiple purlins. The roof has bitumen under-felt, which is in sound condition. The building consists of two levels, separated by a wooden ceiling; the lower level has rendered white-washed walls and is being used to store wheelbarrows, carpets, and other belongings. The upper floor is being used to store old windows and window frames, a child's swing, and chairs. The lower floor has three windows, and high internal light levels; the upper floor has a single open window (i.e. not containing glass) on its western side, which was being used as ab access point for swallows. There are many gaps within the external and internal mortar, creating potential bat access points.		Moderate
D	Small white-washed room being used to store sofas (downstairs) with a window and high internal light levels; shares the same roof space as that which lies above building C (i.e. also split-level). The southern stone wall (pictured below) contains multiple gaps in masonry, within potential for roosting bats.		Moderate
E	Fairly large walk-in cupboard/ pantry beside Building D, with white-washed walls. To the south, the stone wall (forming the boundary between it and Building I) contains a window which has some un-mortared blocks in it (see right), creating crevices of potential value to roosting bats.		Moderate

No.	Description of Building	Plate	Bat Potential
F	Building F is accessed via two large wooden doors on its northern side. It is of stone construction, and is open to the roof – it does not have a second floor (unlike Buildings C, D, E and G). As with the other buildings, the roof supports stone tiles, with kingpost beams and purlins; there is bitumen underfelt, creating a potential roosting cavity between the outer tiles, and the inner felt. There are gaps in the masonry between the stones, both internally and externally, including where Buildings C and F join (see right).		Moderate
G	This stone building is on two levels and is attached to the residential property (which lies immediately to the east). The ground floor consists of a 'blackened' white-washed room containing a large wood-burning stove, and a more modern boiler. The upper floor shares the same roof space as Buildings C, D, E and F, with traditional stone tiles supported by wooden kingpost beams. A window on the north-facing aspect creates relatively high internal light levels. A large sheet of black polythene separates the upper part of this building from the residential property, to the east (see below).		Moderate
H	Large two-storey residential property which lies outside of the proposed development footprint. This building is of stone construction with a stone tiled roof.	N/A	N/A
I	Corrugated metal lean-to attached to the back (i.e. southern side) of Buildings D, E, F and G. It has a simple wooden structure. It appears to be used as a shelter for cattle. As previously described, the stone wall contains missing mortar and is of potential value to roosting bats, whereas the southern, eastern and western metal sides, and the metal roof, are less suitable. There are some gaps between the timber sides and the corrugated sheets they support, which potentially create niche roosting features for bats (see overleaf) but those that could be accessed were not found to contain bat droppings, or bats themselves.		Moderate

No.	Description of Building	Plate	Bat Potential
J	Constructed mainly of stone, but with some breeze block and brick, and with a pitched stone tiled roof containing many gaps but without any underfelt (see right, and bottom right). This building is divided into two sections, the most easterly is a locked garage (used by the resident of the occupied dwelling (Building H); it seems to be being used as a workshop and place to store childrens' toys. It could not be entered, but was viewed from a window (see below). The western half of Building J is divided into two levels by a wooden floor; the lower floor is cobbled, and is used to store a bicycle; the upper floor is being used to store old fluorescent lights, and a blue toilet. There are many gaps in the stonework of this building, particular on the rear (i.e. north facing side); one crevice was being used by nesting blue tits.		Moderate
K	Former single floor piggery building, of stone, breeze block, and brick construction and a single pitched corrugated asbestos cement roof. It is divided into a number of rooms, the largest of which is being old to store furniture. There are some sizeable gaps, where mortar is missing between breeze blocks, at the western end of this building, on the southern aspect, of potential value to roosting bats.		Moderate

3.2 Results of Dusk Emergence and Dawn Re-Entry Bat Detector Surveys

During the dusk emergence survey of the 9th May 2016, a common pipistrelle *Pipistrellus pipistrellus* bat emerged from the top of the breeze block wall, on the southern aspect of Building B (see Drawing 1 for location, and Plate 4 below). The bat emerged at 21.17 hours, and circled around inside Building B for approximately a minute, before returning to the same roost.

The surveyor then left Building B. The next 'bat pass' also involved a common pipistrelle at 21.21 hours; this bat entered the courtyard from the north, then foraged briefly above cattle which had gathered at the entrance of Building A, before flying around the back of this building, and off-site.

The surveyor then entered Building B again, and the same pipistrelle which had emerged at 21.17 hours, then returned to its roost, emerged once again (at 21.41 hours), before circling around inside the building, then exiting it through the roof, via one of the missing skylights.

The surveyor then returned to the courtyard, and at 21.47 hours, a common pipistrelle was seen foraging above cattle near Building A, before flying over the courtyard in an easterly direction, towards Carr Lane; this was repeated at 21.57 hours, and 22.05 hours, possibly involving the same bat.

Plate 4: *Location of common pipistrelle roost (single bat), on southern breezeblock wall of Building B. This bat emerged at 21.17 hours, and circled before re-entering the roost; it emerged again at 21.41 hours, before exiting the building by an open skylight.*

During the dawn re-entry survey of the 10th May 2016, no bats were seen to return to roosts on site. A single brief common pipistrelle pass were heard at 04.18 hours, above the courtyard, but the bat was not seen. At 04.43 hours a bat entered Building B, through the main entrance, but almost immediately exited via an open skylight; the surveyor lost sight of the bat at this point.

4.0 DISCUSSION & RECOMMENDATIONS

4.1 Further Survey Work

Building B (disused milking parlour) at Cockle Edge Farm was found to support a single roosting common pipistrelle bat, which was occupying a gap at the top of a breeze block wall, on the southern aspect of this building, in May 2016.

A number of other buildings on site were assessed as having moderate potential to support roosting bats.

As such, it is recommended that a further survey is undertaken during June 2016, to establish whether additional and perhaps larger, roosts are present at that time.

4.2 The Need or Otherwise for a Low Impact Bat Class Licence or full European Protected Species Licence (EPSL)

A Low Impact Bat Class Licence (LIBCL) or full European Protected Species Licence (EPSL) from Natural England would be required before demolition or renovation works could commence.

The need or otherwise for a LIBCL or EPSL would be determined after the completion of the additional bat survey (as described above).

If, after further survey in June, the situation remains as present with small numbers of bats roosting on site, it would be possible to apply for a LIBCL.

However, should more than 5-10 bats, more than 3 roosts, or more than 3 species (involving the seven most commonly occurring species), or more significant/ maternity roosts be found, it would be necessary to apply for a full EPSL.

The above options will be reviewed once the results of the second survey, in June, have been completed.

5.0 CLOSURE

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of WHp Residential Limited. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

6.0 REFERENCES AND BIBLIOGRAPHY

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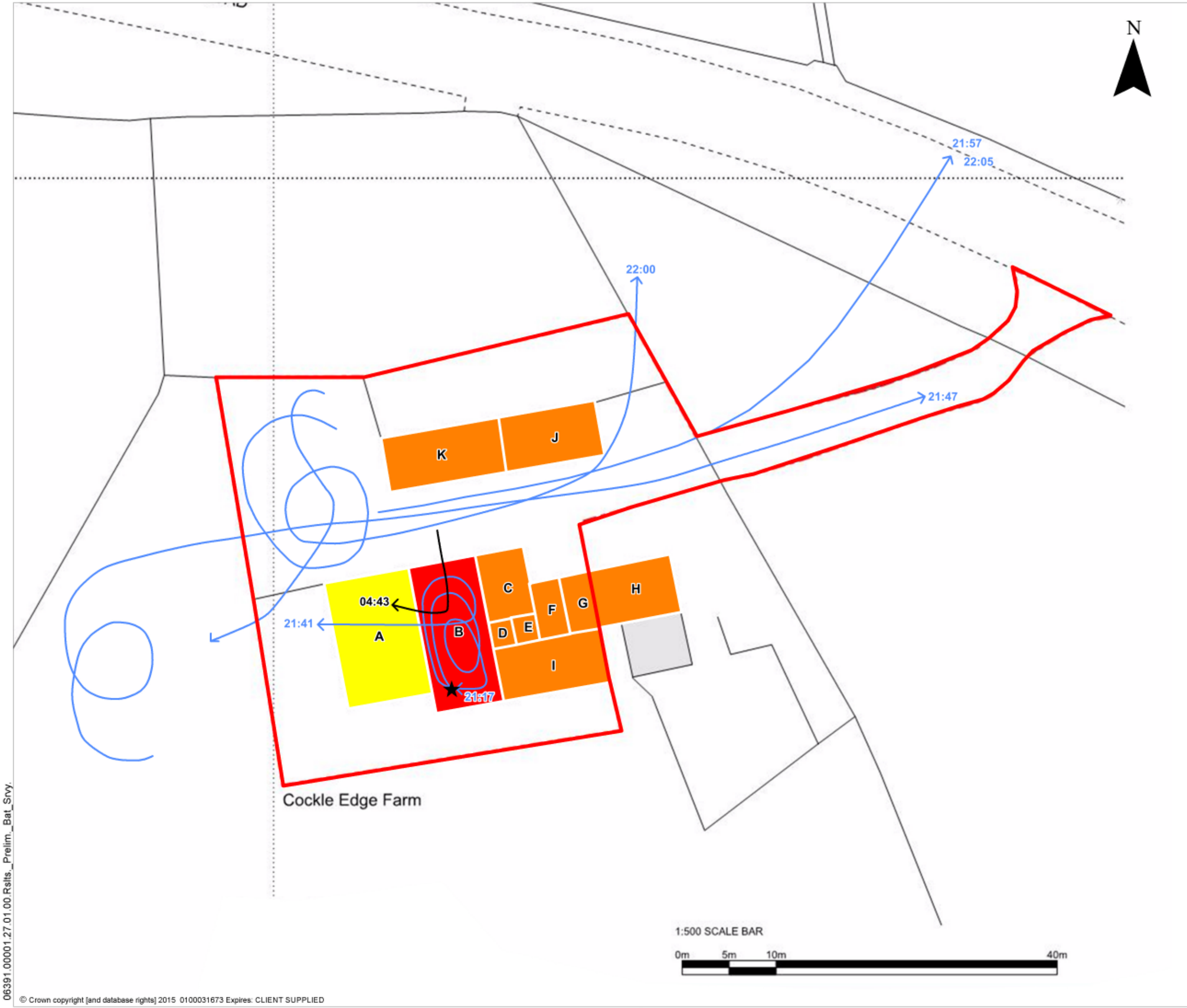
DRAWING 1: RESULTS OF 9th MAY 2016 BAT SURVEY



NOTES

LEGEND

- SITE BOUNDARY
- BUILDING WITH LOW BAT POTENTIAL
- BUILDING WITH MODERATE BAT POTENTIAL
- BUILDING WITH CONFIRMED BAT ROOST
- LOCATION OF CONFIRMED SINGLE COMMON PIPISTRELLE BAT ROOST
- COMMON PIPISTRELLE FLIGHT LINE DURING 9TH MAY DUSK SURVEY (WITH TIME OF REGISTRATION)
- COMMON PIPISTRELLE FLIGHT LINE DURING 10TH MAY DAWN SURVEY (WITH TIME OF REGISTRATION)

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COCKLE EDGE FARM, INGBIRCHWORTH

RESULTS OF PRELIMINARY BAT SURVEY

RESULTS OF 9TH MAY 2016 BAT SURVEY

DRAWING 1

SCALE	DATE
1:400 @ A3	MAY 2016

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