



HALL FARM, HIGH HOYLAND.

BAT SURVEY.

Ref No:- 100431.

Date: 8th June 2010.

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1. INTRODUCTION.

1.1. Plans are being drawn up for the conversion of a series of barns at Hall Farm, High Hoyland into residential housing.

1.2. A bat survey of the barns was commissioned to accompany the application for planning permission on the site.

1.3. Whitcher Wildlife Ltd carried out the survey on the 27th May 2010. This report outlines the findings of the survey and makes appropriate recommendations.

1.4. Appendix I of this report provides back ground information with respect to bats and the legal protection afforded to them.

2. SURVEY METHODOLOGY.

The structure was checked for potential bat roosting sites by looking for the following signs:-

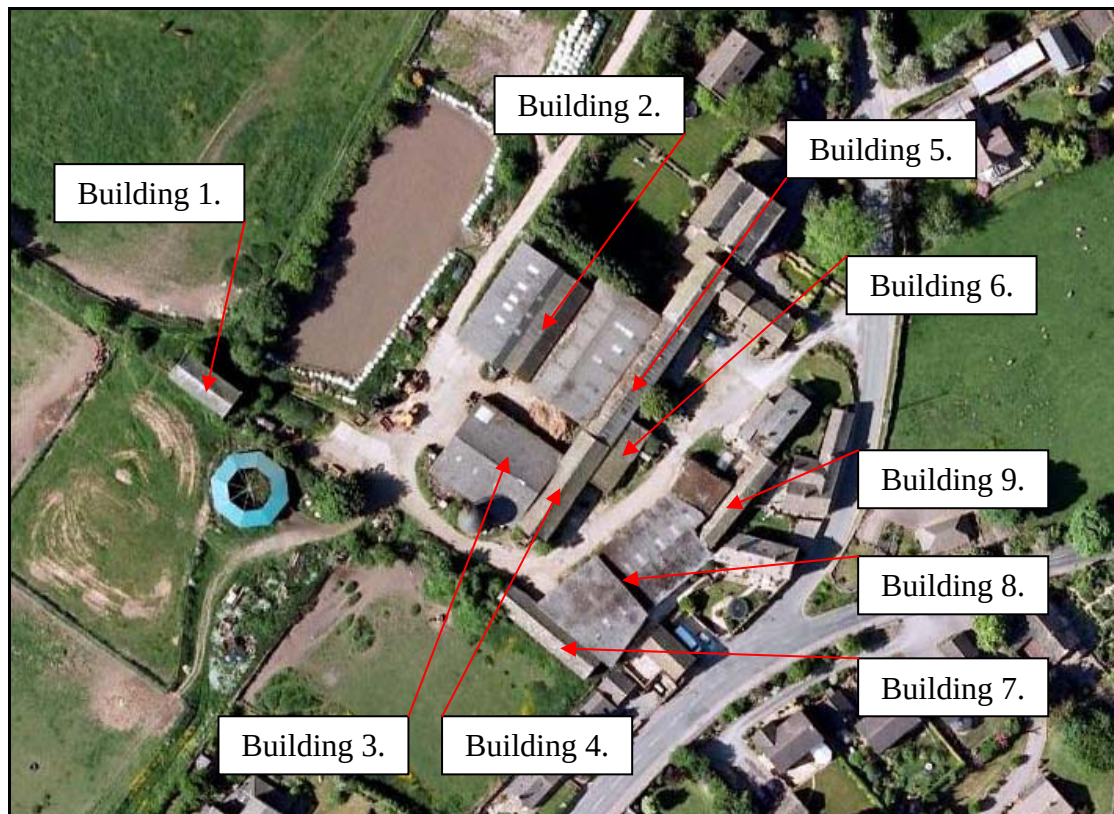
- * Holes, cracks or crevices.
- * Bat droppings.
- * Prey remains.

This was followed by a dusk emergence survey of the site carried out by six surveyors using Batbox Duet detectors. A further six Anabat bat detectors were also used around the site.

3. SURVEY RESULTS.

3.1. The Surveyed Area.

3.1.1. The surveyed area was a series of barns at Hall Farm, High Hoyland, as shown on the plan below.



3.2. Survey Results.

3.2.1. The site was split into nine buildings for the purpose of this report. Each building is dealt with separately below.

3.2.2. Building 1.

3.2.2.1. Brief Description.



3.2.2.1.1. Building 1 is a two storey stone building with a stone tiled pitched roof. The building is currently disused and in a deteriorating state.

3.2.2.1.2. The walls of the building are coursed stone with a rubble fill and brickwork to the interior. There are no windows or doors fitted to the building and there are also various holes in the walls due to the deteriorating stonework.

3.2.2.1.3. There are metal ties around the exterior of the stonework and running through the building to prevent movement in the walls.

3.2.2.1.4. The roof of the building is pitched with all roof and ridge tiles in place and coping stones along the top of both gable ends.

3.2.2.1.5. Inside the building is one room, which is open to the interior of the roof with no lining and exposed timbers.

3.2.2.2. Daytime Survey Results.

3.2.2.2.1. The walls of the building are in a deteriorating state with abundant voids to the inside and through to the rubble fill of the walls. No bat field signs were identified around the exterior of the building although the walls provide a high potential for roosting bats.

3.2.2.2.2. The roof of the building is in a generally good condition with all roof and ridge tiles in place although the non uniform nature of the tiles leaves abundant voids. No bat field signs were identified around the roof of the building.

3.2.2.2.3. No bat field signs were identified around the interior of the building during this survey although the brick and stonework displays abundant voids and the timber roof frame displays gaps around the joints providing potential bat roosting sites.

3.2.2.2.4. A number of barn owl pellets were identified within the building during this survey although no barn owl nest was identified.

3.2.2.2.5. A crow's nest was identified in the southeast gable end of the building with a crow identified going to the nest during the survey implying that the nest is currently in use.

3.2.2.2.6. A number of other old nests were identified within the walls and along the ridge of the building during this survey although none of the nests appeared to be in use at the time of this survey.

3.2.3. Building 2.

3.2.3.1. Brief Description.



3.2.3.1.1. Building 2 is a series of three connected timber framed barns with pitched roofs. The barns are currently used as stables and general storage areas.

3.2.3.1.2. The walls of the building comprise a timber frame clad partially with concrete blocks and partially with wooden cladding.

3.2.3.1.3. The roofs of the building comprise single skin corrugated sheeting laid onto the timber frame.

3.2.3.1.4. Internally the building comprise large rooms open to the inside of the corrugated sheeting.

3.2.3.2. Daytime Survey Results.

The buildings provide little or no bat roosting potential due to the wood framed construction and single skin corrugated roof covering. No bat field signs were identified around the barns during this survey.

3.2.4. Building 3.

3.2.4.1. Brief Description.



3.2.4.1.1. Building 2 is a single storey wood framed barn with a low pitched roof. The barn is currently used as a stables and general storage area.

3.2.4.1.2. The walls of the building are constructed from a wood frame partially clad with concrete blocks and partially with wood cladding.

3.2.4.1.3. The roof of the building is a low pitch with a single skin of corrugated sheeting laid directly onto the wood frame.

3.2.4.1.4. Internally the building comprises one room open to the inside of the walls and roof.

3.2.4.2. Daytime Survey Results.

3.2.4.2.1. Due to its construction the building provides a very low bat roosting potential and no bat field signs were identified around the building during this survey.

3.2.4.2.2. A number of old bird's nests were identified within the building but no bird activity was identified around the nests during this survey.

3.2.5. Building 4.

3.2.5.1. Brief Description.



3.2.5.1.1. Building 4 is a two storey stone constructed barn with a pitched roof. The building is joined to the rear of buildings 2 and 3. The building is currently used as stables and storage area on the ground floor with the first floor being disused.

3.2.5.1.2. The walls of the building are constructed from coursed stone with a rubble fill. The windows and doors around the building are all intact although not sealed and with missing panes of glass providing potential bat access points.

3.2.5.1.3. The roof of the building is constructed from stone tiles.

3.2.5.1.4. Internally the building provides two rooms on the ground floor and a single room on the first floor. The first floor room has exposed beams and a lining on the inside of the tiles.

3.2.5.2. Daytime Survey Results.

3.2.5.2.1. The building displays abundant voids around the exterior stonework although no bat field signs were identified around any of the voids.

3.2.5.2.2. A very small number of bat droppings were identified within the first floor room of the building. The droppings were scattered with no concentration in any one area of the room.

3.2.5.2.3. The droppings appeared to be old and therefore the species of bat could not be identified based on the droppings.

3.2.6. Building 5.

3.2.6.1. Brief Description.



3.2.6.1.1. Building 5 is a two storey stone built barn with a corrugated sheeting roof. The building is attached to the northern end of Building 4 and joins to another building not included in this survey. The building is currently used as a general storage area.

3.2.6.1.2. The walls of the building are constructed from coursed stone with a rubble fill. The windows and doors of the building are all intact although not fully sealed leaving potential bat access points.

3.2.6.1.3. The roof of the building comprises a pitched roof covered with corrugated sheeting and with skylights fitted.

3.2.6.1.4. Internally the building comprises one large room open from floor to ceiling with no lining on the inside of the corrugated sheeting although there are two small separated off areas at the southern end of the building.

3.2.6.2. Daytime Survey Results.

3.2.6.2.1. The exterior stonework of the building displays abundant voids although no bat field signs were identified around the voids during this survey.

3.2.6.2.2. No bat field signs were identified throughout the interior of the building during this survey.

3.2.6.2.3. A number of old nests were identified within the building during this survey although no bird activity was identified around the nests.

3.2.7. Building 6.

3.2.7.1. Brief Description.



3.2.7.1.1. Building 6 is a single storey stone constructed barn with a stone tiled sloping roof. The building is joined to the front of buildings 4 and 5 and is currently used for general storage.

3.2.7.1.2. The walls of the building are constructed from coursed stone with a rubble fill. The windows and doors of the building are all in place but there are various gaps around the doors providing potential bat access.

3.2.7.1.3. The roof of the building is a sloping roof covered with stone tiles and with coping stones to either end.

3.2.7.1.4. Internally the building is one room with exposed timbers and a felt lining on the inside of the tiles.

3.2.7.2. Daytime Survey Results.

3.2.7.2.1. The exterior walls of the building display abundant voids that would provide suitable bat roosting sites although no bat field signs were identified around the building during this survey.

3.2.7.2.2. The roof of the building displays abundant voids due to the irregular shape of the tiles. The voids will provide access to the void between the tiles and the lining felt although no bat field signs were identified during this survey.

3.2.7.2.3. No bat field signs were identified around the interior of the building during this survey.

3.2.8. Building 7.

3.2.8.1. Brief Description.



3.2.8.1.1. Building 7 is a single storey stone barn with a tiled pitched roof. The building is currently used as stables.

3.2.8.1.2. The walls of the building are constructed from coursed stone with a rubble fill. The northern side of the building is predominantly open with no doors in place.

3.2.8.1.3. The roof of the building is pitched and covered with stone tiles of a quite uniform shape and size.

3.2.8.1.4. Internally the building is one room with rough wooden partitions and a wood lining to the roof.

3.2.8.2. Daytime Survey Results.

3.2.8.2.1. The exterior stonework of the building displays abundant voids although no bat field signs were identified during this survey.

3.2.8.2.2. The roof of the building displays very few voids due to the uniform shape of the stone roof tiles. No bat field signs were identified around the roof of the building.

3.2.8.2.3. No bat field signs were identified around the interior of the building during this survey.

3.2.9. Building 8.

3.2.9.1. Brief Description.



3.2.9.1.1. Building 8 comprises a series of single storey wood framed barns. The barns are used as a garage, stables and general storage area.

3.2.9.1.2. The walls of the building comprise a wood frame with a partial concrete and partial wood lining. The western side of the buildings is open from floor to roof height providing access.

3.2.9.1.3. The roof of the building comprises a series of low pitched roofs clad with corrugated sheeting.

3.2.9.1.4. Internally the building provides three separate rooms all of which are open from floor to roof with no lining on the inside of the corrugated sheeting.

3.2.9.2. Daytime Survey Results.

3.2.9.2.1. The building provides a very low potential for roosting bats due to its wood framed construction.

3.2.9.2.2. Occasional bat droppings were identified in the southern end of the building during this survey. The low number of droppings and the lack of a concentration of droppings in any one area imply that the building is used for occasional foraging.

3.2.10. Building 9.

3.2.10.1. Brief Description.



3.2.10.1.1. Building 9 is a single storey stone constructed barn with a pitched roof. The building is currently used as a general storage area.

3.2.10.1.2. The walls of the building are constructed from coursed stone with a rubble fill. The western side of the building is predominantly open with no doors fitted.

3.2.10.1.3. The roof of the building is pitched with a stone tile covering.

3.2.10.1.4. Internally the building comprises two rooms both of which are open to the inside of the tiles with exposed timbers.

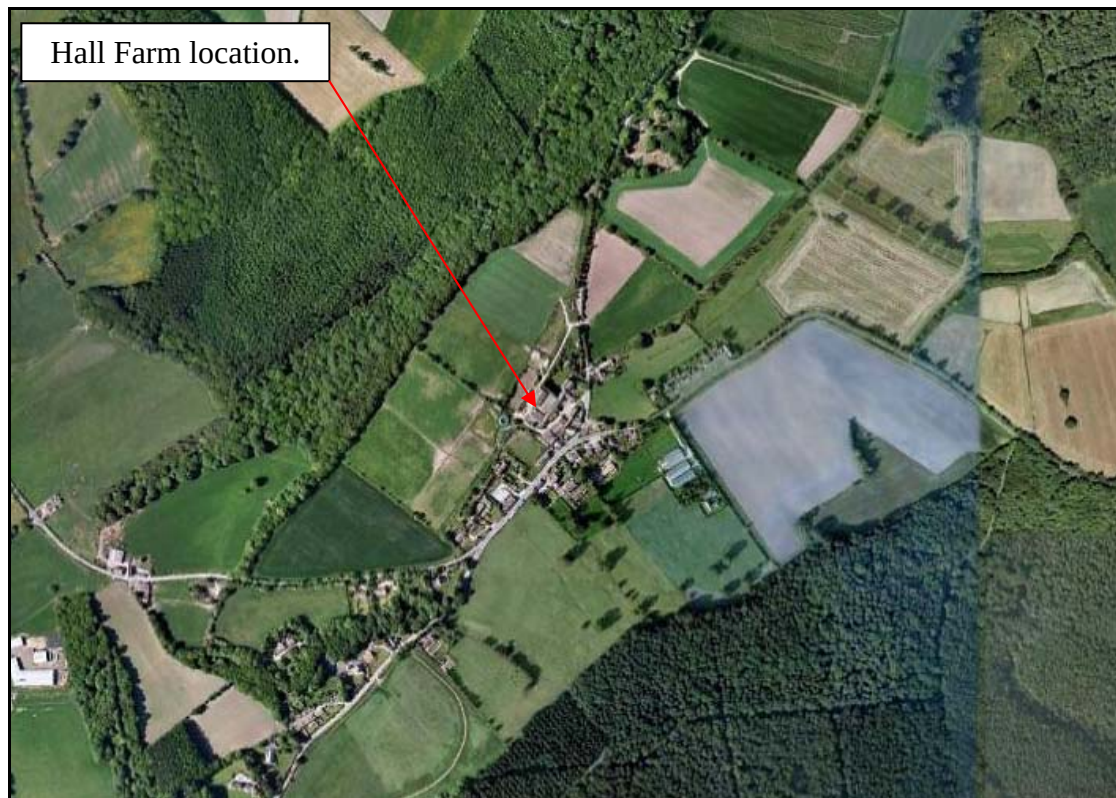
3.2.10.2. Daytime Survey Results.

3.2.10.2.1. The walls of the building display abundant voids although no bat field signs were identified around the stonework during this survey.

3.2.10.2.2. The roof tiles are quite uniform providing very few voids and all the ridge tiles are in place and well pointed. No bat field signs were identified around the roof of the building.

3.2.10.2.3. No bat field signs were identified around the interior of the building during this survey.

3.2.11. The Surrounding Area.



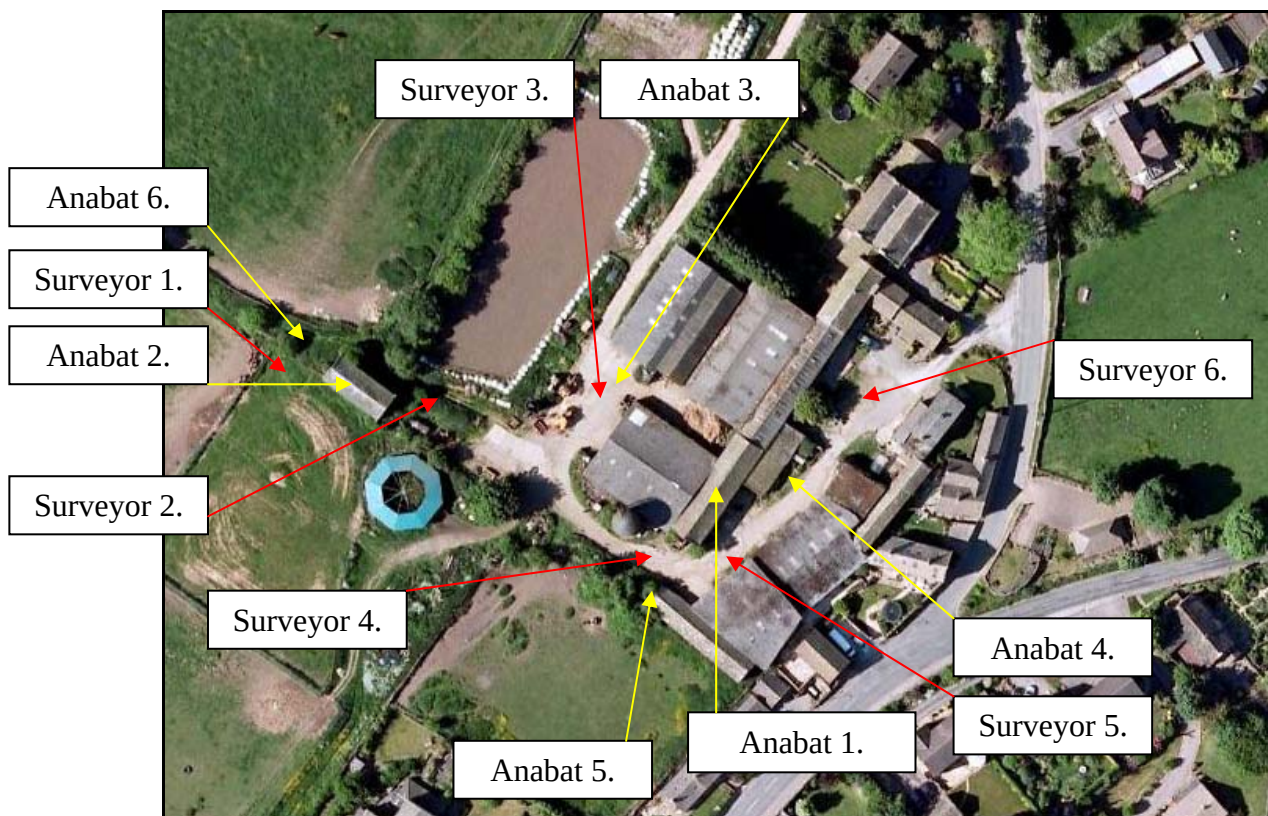
3.2.11.1. The land surrounding Hall Farm comprises the village of High Hoyland to the southwest with large areas of woodland located a short distance to the northwest and southeast.

3.2.11.2. The remaining areas around the farm comprise horse paddocks and grazing fields.

3.2.12. Dusk Emergence Survey.

3.2.12.1. A dusk emergence survey of the site was carried out by six surveyors using Batbox Duet bat detectors. A further six Anabat stand alone bat detectors were also used on the site to further the results of the survey.

3.2.12.2. The location of the surveyors and the additional equipment is shown on the plan below.



3.2.12.3. The weather at the time of the survey was fine and warm with a temperature of 9°C at 21:00. Light rain started to fall at 22:45.

3.2.12.4. Below is a brief outline of the bat activity identified by the surveyors and Anabats during the survey.

3.2.12.4.1. Surveyor 1.

21:45 – A Pipistrelle bat was identified to the northwest of Building 1.

21:56 – A Pipistrelle bat was briefly heard but not seen.

22:01 – A Pipistrelle bat flew from the southeast through Building 1 and off the site to the northwest.
22:04 – A Pipistrelle bat flew along the southwest boundary of the site.
22:08 – A Pipistrelle bat was briefly heard but not seen.
22:10 – A Pipistrelle bat flew along the southwest boundary of the site.
22:11 to 22:20 – Five Pipistrelle bats were briefly heard but not seen.
22:21 – A Pipistrelle bat flew along the southwest boundary of the site.
22:23 – A Pipistrelle was heard foraging, quiet.
22:33 – A bat was heard but not seen.

3.2.12.4.2. Surveyor 2.

21:56 – A Pipistrelle bat flew past Building 1.
22:00 – A Pipistrelle bat flew along the southwest boundary of the site.
22:07 – A Pipistrelle briefly foraged around Building 1 before leaving the site to the northwest.
22:10 – A Pipistrelle bat flew along the southwest boundary of the site then off to the north.
22:14 – A Pipistrelle was identified foraging around Building 1.
22:21 – A Pipistrelle bat was briefly heard but not seen.
22:33 – A Pipistrelle bat was briefly heard but not seen.

3.2.12.4.3. Surveyor 3.

21:48 to 22:02 – A Pipistrelle bat was identified foraging within Building 2.
22:02 – A Pipistrelle bat flew overhead and off the site to the northwest.
22:07 – A Pipistrelle bat flew from the northwest overhead.
22:18 to 22:45 – Pipistrelle bats were identified foraging in between Buildings 2 & 3.

3.2.12.4.4. Surveyor 4.

21:41 – A Pipistrelle bat was heard but not seen.
21:44 – A Pipistrelle bat was heard but not seen.
21:46 – A Pipistrelle bat was heard but not seen.
21:49 – A Pipistrelle bat was identified passing overhead.
21:50 to 22:03 – Pipistrelle bats were identified foraging in and around Building 8.
22:07 – A Pipistrelle bat was identified flying over the site from the southeast.

22:11 – A Pipistrelle bat was identified flying from the southeast and foraging around Building 8.

22:16 – A Pipistrelle bat was identified flying from the site to the southeast.

22:18 to 22:45 – Occasional Pipistrelle bat activity was identified around Building 8.

3.2.12.4.5. Surveyor 5.

21:47 – A Pipistrelle bat was identified flying from the southwest foraging briefly then leaving the site.

21:52 – A Pipistrelle bat was identified foraging within Building 8.

21:55 – A Pipistrelle bat was identified flying onto the site from the southwest.

21:56 – A Pipistrelle bat was identified flying off the site to the southwest.

22:01 to 22:15 – Occasional Pipistrelle bats were identified foraging around the rear of Building 3.

22:16 – A Pipistrelle bat flew off the site to the southwest.

22:20 – 22:45 – Occasional Pipistrelle foraging activity was identified.

3.2.12.4.6. Surveyor 6.

21:42 to 21:47 – A Pipistrelle bat heard foraging but not seen.

21:53 – A Pipistrelle bat was briefly heard but not seen.

21:53 – 22:04 – Pipistrelle bats were identified foraging around the northeast corner of the site.

22:07 – A Pipistrelle bat was heard but not seen.

22:11 – A Pipistrelle bat was identified foraging around the northeast corner of the site.

22:13 – A Pipistrelle bat was briefly heard but not seen.

22:17 to 22:34 – Pipistrelle foraging activity was identified around the northeast corner of the site.

3.2.12.4.7. Anabat 1.

21:27 – A Pipistrelle 45 bat foraging.

21:47 – A Pipistrelle 45 bat foraging.

21:48 to 22:10 – Quiet recordings of foraging Pipistrelle 45 bats.

22:22 – A brief recording of an unidentified Myotis bat.

3.2.12.4.8. Anabat 2.

21:55 – A brief recording of a Pipistrelle 45 bat.
22:00 – A brief Pipistrelle 45 bat.
22:07 to 22:10 – Constant Pipistrelle 45 bat foraging.
22:13 – A brief Pipistrelle 45 bat.
22:15 – A brief Pipistrelle 45 bat.
22:20 – A brief Pipistrelle 45 bat.
22:21 to 22:24 – Constant Pipistrelle 45 bat foraging.
22:33 to 22:37 – Constant Pipistrelle 45 bat foraging.

3.2.12.4.9. Anabat 3.

21:50 to 22:11 – A total of 76 brief Pipistrelle 45 bat recordings.
22:24 to 22:26 – Pipistrelle 45 bat foraging activity.
22:33 – A brief recording of an unidentified Myotis bat.
22:38 – A brief Pipistrelle 45 bat.

3.2.12.4.10. Anabat 4.

21:49 – A brief Pipistrelle 45 bat.
21:51 – A brief Pipistrelle 45 bat.
21:56 – A Pipistrelle 45 bat.
22:04 – A Pipistrelle 45 bat.
22:07 – A brief Pipistrelle 45 bat.
22:18 – A Pipistrelle 45 bat.
22:24 – A foraging Pipistrelle 45 bat.

3.2.12.4.11. Anabat 5.

21:47 – A foraging Pipistrelle 45 bat.
21:53 to 21:56 – Pipistrelle foraging activity.
22:01 to 22:07 – Pipistrelle 45 foraging activity.
22:11 – A foraging Pipistrelle 45 bat.
22:16 to 22:24 – Pipistrelle 45 bat foraging activity.
22:26 – A brief unidentified Myotis bat.
22:31 – A brief unidentified Myotis bat.
22:32 – An unidentified Myotis bat.

22:33 – An unidentified *Myotis* bat.
22:34 – A *Pipistrelle* 45 bat.
22:38 – A *Pipistrelle* 45 bat.

3.2.12.4.12. Anabat 6.

21:55 – A brief *Pipistrelle* 45 bat.
22:00 – A brief *Pipistrelle* 45 bat.
22:03 – A brief *Pipistrelle* 45 bat.
22:07 – A brief *Pipistrelle* 45 bat.
22:09 to 22:10 – *Pipistrelle* 45 bat foraging activity.
22:15 to 22:16 – *Pipistrelle* 45 bat foraging activity.
22:20 – *Pipistrelle* 45 bat foraging activity.
22:22 – A *Pipistrelle* 45 bat.
22:32 – A brief unidentified *Myotis*.
22:33 – A *Pipistrelle* 45 bat.

4. EVALUATION OF FINDINGS.

4.1. Buildings 1, 4, 5, 6, 7 and 9 displayed a high potential for roosting bats with abundant voids identified in the stonework of the buildings and non uniform shaped stone tiles on the majority of these buildings.

4.2. Buildings 2, 3 and 8 displayed a low potential for roosting bats due to the wood framed construction of the buildings although the open nature of the buildings provides suitable bat foraging sites.

4.3. Small numbers of bat droppings were identified within Buildings 4 and 8 during the daytime survey of the site. The droppings were scattered with no concentration that would imply the presence of a roost.

4.4. An accurate assessment of the species could not be made from the droppings due to the low numbers and age of the droppings.

4.5. The land surrounding the site provides a suitable habitat for bats with the village of High Hoyland located a short distance to the southwest of the site and areas of woodland to the north and south.

4.6. A dusk emergence survey of the site was carried out on a night where the weather was suitable and bats were active. The survey was carried out by six surveyors with a further six Anabat bat detectors used on the site.

4.7. During the survey a high level of Pipistrelle 45 bat activity was identified between 21:47 and 22:45. The activity was foraging activity and occasional bats passing the site predominantly along the southwest boundary, around building 8 and in between buildings 2 and 3.

4.8. Anabat 1, located within Building 4, picked up Pipistrelle 45 bat activity as early as 21:27 with no surveyors or Anabats picking these bats up coming onto the site therefore it is assumed that the bats emerged from somewhere within Building 4.

4.9. Anabat 1 also picked up a brief unidentified Myotis bat at 22:22 which was then picked up around the perimeter of the site from 22:30 to 22:33 implying that the bat emerged from within Building 4.

4.10. No other bats were identified emerging from any other buildings on the site by any of the surveyors during the dusk emergence survey.

4.11. Barn owl pellets were identified within Building 1 during the survey implying that owls use this building although a barn owl nest was not identified within the building.

4.12. A large number of bird's nests were identified around the site during this survey although the only nest that displayed any current activity was a crow's nest within the wall of Building 1.

4.13. Despite the low number of used nests identified on the site a large amount of bird activity was identified around the building and vegetation showing that the site is well used by a variety of species of bird.

5. RECOMMENDATIONS.

5.1. Due to the early recordings of Pipistrelle 45 bats within Building 4 and the recordings of an unidentified Myotis bat within this building it is recommended that a further dusk emergence and a dawn swarming bat survey of this building and the immediately surrounding area is carried out prior to work on site commencing.

5.2. It is recommended, whatever that findings of the additional dusk and dawn bat survey, that bat roosting potential is designed into the new buildings on site to increase the potential habitat for the Pipistrelle 45 bats.

5.3. The roosting opportunities should either take the form of 75mm x 15mm gaps left in the soffits or high up in the brick/stonework of the buildings or bat boxes built into the buildings on the site. These features should be predominantly placed around the southwest side of the site with a total of ten such features included and the specific locations agreed with the author of this report.

5.4. Due to the presence of barn owl pellets within Building 1 it is recommended that either a barn owl nest box is designed into one of the new buildings on the site or that a barn owl nest box on a pole is erected somewhere around the northwest corner of the site.

5.5. It is recommended that any building work carried out on the site is done outside the nesting season, which extends from March to September.

5.6. If it is not possible to carry out the work outside the nesting season a thorough nesting bird survey must be carried out immediately prior to work commencing on the site. Any nests identified must remain completely undisturbed until the young have fledged.

Steven Whitcher.

Natural England Bat Survey Licence Number : 20092967.

Natural England Barn Owl Survey Licence Number : 20094248.

08.06.2010.

Appendix I. BAT INFORMATION.

It is necessary to understand a little about bats, their basic nature, ecology and legal protection in order to evaluate the findings of this report.

Over 15 species of bat have been recorded in Britain. These fall into two families, the horseshoe bats and the 'ordinary bats'. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to shortage of food, caused by pesticides, as insects are their sole diet, and habitat change.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man made structures and will readily use these to roost and to rear their young.

Bats are protected under the Wildlife and Countryside Act 1981, The Habitats Regulations 1994 and the Countryside & Rights of Way Act 2000.

It is an offence to intentionally or recklessly kill, injure or capture or disturb bats or to damage, destroy or obstruct access to any place used by bats for shelter or protection.

A breeding or resting site of any bat is known as a bat roost. A bat roost is therefore any structure a bat uses for shelter or protection. Because bats tend to use the same roosts each year, legal opinion is that the roost site is protected whether or not the bats are present at that time.

Bat roosts can be identified by looking for:-

- Suitable holes, cracks and crevices.
- Bat droppings.
- Prey remains.
- By carrying out night observations using a bat detector.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

The person applying for that licence has to be suitably qualified and experienced in bat matters. That person is then responsible for ensuring that the measures contained in the licence are carried out.