

# Eric Bennett Consultancy Ltd

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Protected species survey and advice

5 Lynwood Drive, Carlton, Barnsley, S71 3ES

Tel: 01226 723220

Fax: 01226 700998

E-mail: [eric.bats@uwclub.net](mailto:eric.bats@uwclub.net)

## **Dick Royd Farm, Carlecotes Barnsley**

### **Bat Survey**

June 2010.

### Details of Surveyor

| Surveyor        | Experience                                                                                                                  |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------|
| Mr Eric Bennett | Licensed bat worker since 1988. Licensed by Natural England for all bat species in all counties.<br>NE Licence No: 20094155 |

### Record of revisions

| Date          | Details         |
|---------------|-----------------|
| 13 June 2010. | Original Report |
|               |                 |

## **Report of Bat Survey**

### **Dick Royd Farm, Carlecotes**

#### **1 Introduction**

- 1.1 The survey was required in connection with proposals for the conversion of barns to residential use. The site was located off Brook Hill Lane, Carlecotes at O.S. Grid Reference SE 173029.

#### **2 Details of work proposed**

- 2.1 Full details not known but in terms of potential impacts on protected species are likely to involve roof removal and replacement, work to external walls, repair of timber work and remedial timber treatment and the permanent loss of separate loft space.

#### **3 Background to the special protection afforded to bats under UK and EC legislation.**

- 3.1 Bats are highly specialised creatures and require a relatively narrow range of suitable conditions in order to sustain a viable population. Bats require an abundant supply of flying insect food in places where they can easily be caught and they need safe and reliable roosting sites, particularly during breeding and hibernation.
- 3.2 Bats are heavily dependent on buildings and trees for their roost sites and, therefore, extremely susceptible to disturbance from human activities ranging from simple maintenance work through major conversion and renovation schemes to building demolition. Development schemes can also isolate bat populations and sever roost sites from favoured feeding areas, by removing hedgerows and trees that bats use as commuting routes.
- 3.3 Bats are susceptible to disturbance and have been known to abandon roosts sites after instances of disturbance. The effects of disturbance are more pronounced at different times of year. Serious disturbance during breeding can result in the breeding females being killed or the abandonment and subsequent starvation of dependent young. Repeated disturbance during winter hibernation can result in the death of adult animals from starvation.
- 3.4 The level of protection afforded to bats in UK and European legislation reflects the fact that it is now generally accepted that bats have declined substantially, maybe by as much as 60% over recent years. Most species are declining and vulnerable and all are protected.

#### **4 Details of Survey**

- 4.1 Daytime and dusk emergence survey by a single surveyor.

#### **5 Methodology for the survey**

- 5.1 A detailed internal and external inspection of the building was carried out to identify potential roost sites and access points and any *signs of actual occupation* such as droppings, discarded moth wings, staining etc.
- 5.2 A dusk emergence and activity survey was carried out.
- 5.3 Assessment of site and surrounding habitats.
- 5.4 Search of existing bat roost records.

#### **6 Description of habitats**

- 6.1 The site was situated in an elevated and quite exposed location at an elevation of 310 metres. Surrounding land was predominantly walled permanent pasture blending into heather moorland. The main habitat feature in the area was the Don Valley approximately 400 metres to the south. The river course was bounded by tree cover.

6.2 Overall the site appeared quite exposed to prevailing winds.

## 7 Results of daytime survey

7.1 The survey was carried out on 11 June 2010 and the results are set out in the following table.

| Key | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A   | <p>Two-storey height stone barn with corrugated asbestos cement roof sheets. The northern gable was partially covered by an attached porch connected to the house. The apex of the barn was quite low above the porch roof and unlikely to be attractive to bats. The eaves corner of the barn at this point was approx. 1.8 metres above the path level, too low for bats.</p> <p>The walls on the east (yard) side contained a full height uncovered door opening and a ground floor window opening. The walls contained ventilation slots and abundant open joints. The west wall contained a full height covered door opening and much of the rest of the wall was covered by Barn C.</p> <p>Internally the barn was open to the underside of the roof which was supported on simple 'A' frame trusses. The apex had two close fitting purlins rather than a traditional ridge board leaving no suitable enclosed crevices under ridge tiles which are favoured by bats. The large timbers did not contain any suitable mortise or socket holes. The internal walls also contained abundant crevices. There were no signs of droppings, urine spotting or discarded insect remains on the inner gable walls, floor or the many surfaces of materials stored within the barn including the roof of a van parked inside.</p> |
| B   | <p>Two-storey height stone barn with stone slate roof. The southern gable contained an 'Owl' window in the apex with vent slots and abundant joint crevices in the wall face. The slate verge pointing also contained numerous gaps. The walls on the east (yard) side contained two ground floor windows and a door all closely covered. The west wall was contained within barn C.</p> <p>Internally the barn was open to the underside of the roof which was supported on Queen-post trusses. The large timbers did not contain any suitable mortise or socket holes. The ridge board was quite clean and not covered by cobwebs. There was a half loft at the western end with an enclosed store room below accessed from the yard. The barn was partially filled with old hay bales. There were no signs of droppings, urine spotting or discarded insect remains on the inner gable walls, floor or the many surfaces of materials stored within the barn.</p>                                                                                                                                                                                                                                                                                                                                                           |
| C   | <p>Lean-to barn with concrete block outer walls and a mono-pitch asbestos sheet roof. There was a large door opening in the southern end.</p> <p>The external walls of barn B contained joint crevices. There were no signs of droppings, urine spotting or discarded insect remains on the inner gable walls, floor or the many surfaces of materials stored within the barn.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

7.2 As a matter of course the buildings were checked for the presence of other protected species. There were no signs of Barn Owl but nesting Swallows were found in barn A.

## 8 Results of dusk survey

8.1 A dusk survey was carried out on 11 June 2010. Weather conditions were reasonable with partial cloud cover and a fresh westerly breeze. The temperature was 11°C at 22.00 hrs.

8.2 A single Common Pipistrelle bat was recorded at 22.10 in the entrance to the barn and later at 22.20 feeding in the shelter of a large tree opposite the eastern end of the house. No other activity was recorded.

## 9 Existing local records

9.1 The following existing bat roost records are known for the locality.

| Site Name                | District  | Roost Type | NGR      | Species          | Count | Date     |
|--------------------------|-----------|------------|----------|------------------|-------|----------|
| Hazlehead Station Tunnel | Hazlehead | Tunnel     | SE192028 | Brown Long-eared | 1     | 17/01/88 |
| River Don Tunnel         | Hazlehead | Tunnel     | SE193029 | Natterers        | 8     | 27/07/91 |
| Don Villa                | Hazlehead | House      | SE195030 | Indet            | -Dr   | 01/06/91 |

## 10 Protected species legislation

- 10.1 Bats and their roosts are fully protected at all times (whether the bats are currently present or not). This protection comes from the Wildlife & Countryside Act 1981 (updated by the Countryside & Rights of Way Act 2000) and the Habitats Regulations 1994 (updated by the Conservation (Natural Habitats) (Amendment) Regulations 2007). Under this legislation it is an offence to deliberately kill, injure, capture or disturb bats or to damage, destroy or obstruct access to any place used by bats as a breeding site or resting place.
- 10.2 Under the habitats regulations, where bats may be affected by development proposals, a licence is required from Natural England. Published guidelines on the licence procedure indicate that if, on the basis of survey information and specialist knowledge of the species concerned, the proposed activity is reasonably likely to result in an offence then, a licence is required. If, on the other hand the proposed activity is reasonably unlikely to result in an offence, then a licence is not required.
- 10.3 All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981, during the breeding season. It is an offence to intentionally take, kill or injure any wild birds or destroy their nests and eggs. In addition some species have additional protection under schedule 1 of the act where it is an offence to disturb these birds whilst nest building or at a nest containing eggs or young or to disturb the dependent young of such a bird.
- 10.4 Barn Owls have special protection under schedule 1 of the Wildlife & Countryside Act 1981. The adult birds, their eggs and young are fully protected at all times but disturbance of the nest site (including the building or tree containing the nest site) would only be an offence during the breeding period (from start of egg laying until the last chick leaves the nest) usually between March and August, but could be longer. To constitute an offence, disturbance must be shown to be reckless. Disturbance may be deemed to be reckless if it is committed by someone who could be expected to know that the bird(s) might be present, but failed to check.
- 10.5 Licenses cannot be issued for removal of Barn Owls in order to facilitate development.

## 11 Evaluation of survey results

- 11.1 The survey produced no information to suggest the presence of a bat roost in any of the barns. Internally and externally the stone walls contained abundant joints and crevices that might potentially be suitable but no signs of a roost were found.
- 11.2 The location and altitude of the barn on the edge of heather moorland bearing in mind the exposure to prevailing winds makes it very unlikely that a summer breeding roost would be found here. These sites, used by breeding females, are generally found in more sheltered valley locations where feeding opportunities are more reliable. This is shown by the known roost records which are all located along the river Don.
- 11.4 A single Common Pipistrelle bat was recorded and likely to represent a single male roosting in the buildings.
- 11.5 There was no evidence, such as pellets, "whitewash" excreta staining, moulted feathers etc, at all to suggest the current or even recent use of the barn by Barn Owl. The presence of breeding Swallows was confirmed in barn A.

## 12 Site & species status assessment

- 12.1 No evidence to suggest the presence of a summer breeding roost but single male Common Pipistrelle present.

## 13 Assessment of Impacts

- 13.1 No negative impacts are predicted.

| Development effect                                                    | Scale of Impact |     |        |      |
|-----------------------------------------------------------------------|-----------------|-----|--------|------|
|                                                                       | Negligible      | Low | Medium | High |
| Destruction of roost site                                             | +               |     |        |      |
| Temporary loss of roost site during building works.                   | +               |     |        |      |
| Modification of roost site                                            | +               |     |        |      |
| Risk of entombing bats during building work                           |                 | +   |        |      |
| Risk of killing/injuring bats during roof stripping                   | +               |     |        |      |
| Temporary disturbance from building works during breeding season      | +               |     |        |      |
| Temporary disturbance from building works outside the breeding season | +               |     |        |      |
| Post development interference                                         | +               |     |        |      |

## 14 Mitigation guidelines

- 14.1 Mitigation is required to avoid or reduce the impact of development proposals on the population of bats present, either roosting or feeding. Licences are normally required where a roost site is threatened in some way by a scheme, but might also be necessary where the viability of a roost is threatened by the removal of the availability of crucial feeding habitat.
- 14.2 Natural England in their published guidelines (Bat Mitigation Guidelines Jan 2004) defines the key principles involved. i.e. Mitigation involving changes to the scheme or altering the timing of work to reduce or remove impacts and Compensation, the creation of new replacement roosts or habitats.
- 14.3 Natural England also requires mitigation/compensation to be proportionate to the size of the impact and the importance of the population affected and as a principle:
- There should be no net loss of roost sites and that compensation should provide an enhanced resource since the adoption of new roost sites by bats is not guaranteed.
  - The scheme should aim to replace like with like in terms of the status of the site. i.e. male roost, maternity roost, hibernation roost etc.
  - Compensation should ensure that the affected bat population could continue to function as before so attention may need to be given to surrounding habitats.

## 15 Mitigation proposals

- 15.1 In this case since there are no indications to suggest the presence of a bat roost, no formal mitigation measures are required although some simple precautionary measures are recommended in all cases because single male Pipistrelle bats can be found just about anywhere.
- 15.2 Purely as a precaution care should also be taken during roof stripping lifting rather than sliding ridge tiles and checking beneath for signs of bats. If bats or droppings are found further advice should be sought immediately and work halted in that area.
- 15.3 Any timber treatment should be carried out using only safe Permethrin type chemicals on the Natural England list of approved safe chemicals. The work area should be checked for the presence of bats prior to application (including mortise joints) to ensure that bats are not directly sprayed with the chemical.

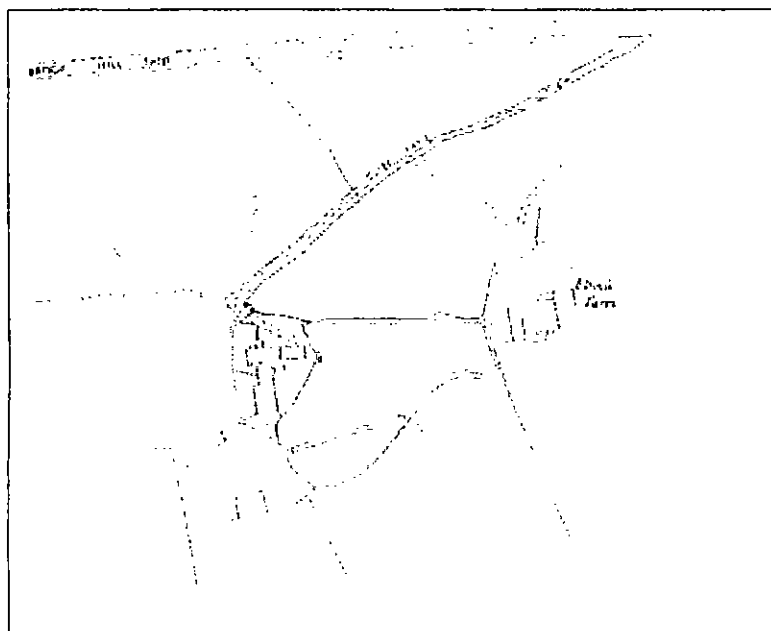
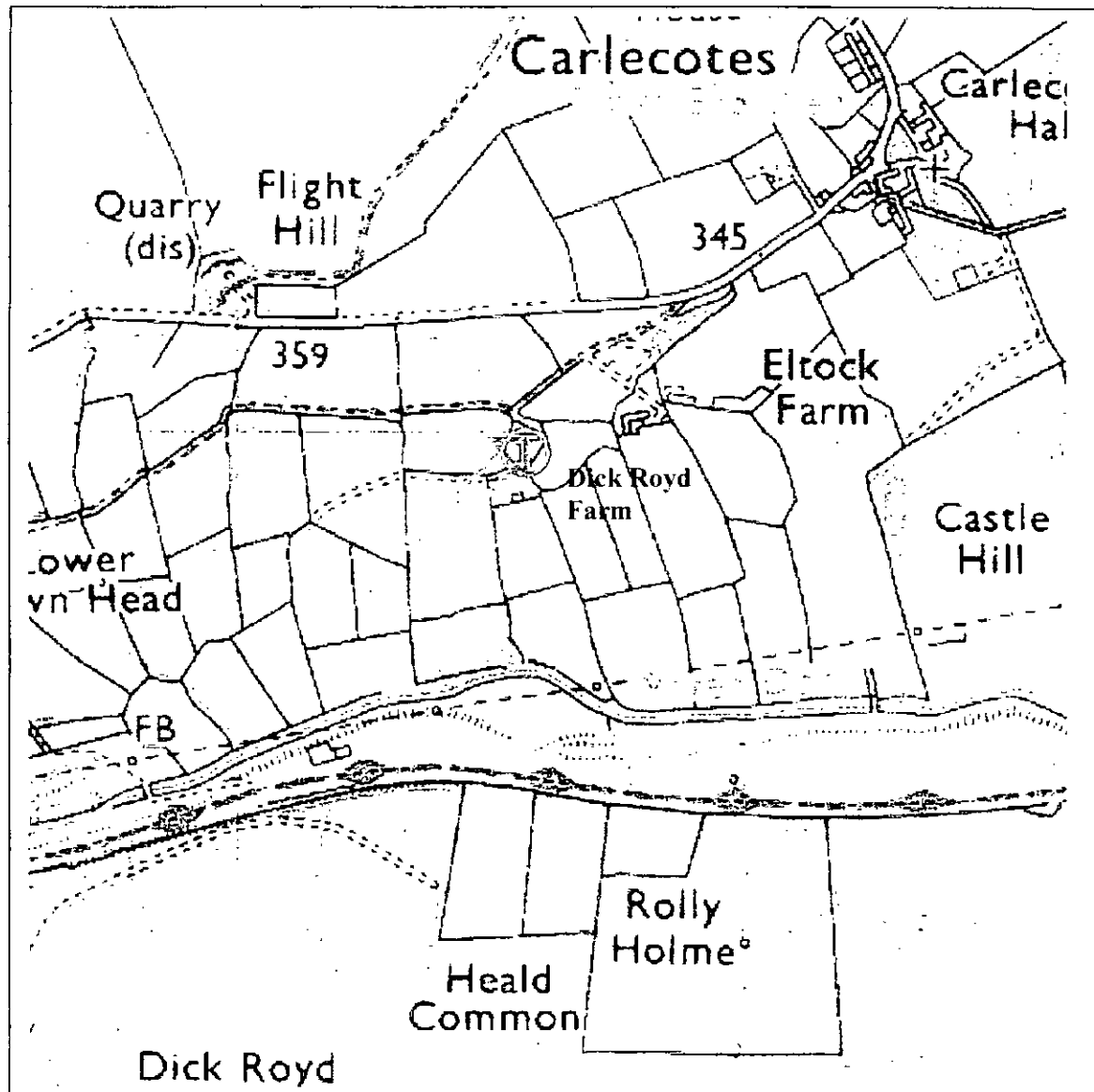
Use of new pre-treated timber such as tanalised, is safe provided the treated timber has been allowed to dry before use.

- 15.4 Great care should be taken with masonry work and re-pointing walls. Bats will use crevices at any time of year but are more vulnerable during winter hibernation when they are unable to escape when disturbed. At this time they are likely to use sites deep in the rubble filled core of walls, gaining access through open joints etc. The roost site can be a considerable distance from the access point. For this reason where bats may be present this type of work should preferably not be done in the winter months with spring and autumn being the preferred seasons.
- 15.5 During the active season bats are likely to be disturbed by the erection of scaffolding, general building work disturbance etc and move to other sites. Work to crevices should therefore be started after a sustained period of disturbance in that part of the building.
- Shallow crevices where the full extent can be easily seen and that can clearly be seen to be empty may be filled.
  - Any crevices that appear to extend into the rubble filled core of the wall or disappear behind other building stones and cannot be fully seen may be reduced by careful pointing leaving small permanent escape holes approx. 15x30mm in size at regular intervals accessing the core of the wall.
  - Any such crevices that have to be fully filled and where permanent escape openings cannot be retained will need to be checked by a licensed batworker with an endoscope or similar instrument or by dusk emergence observations.
  - Open joints at eaves level which extend under the edge of roof slates and openings below stone window cills should generally be retained for potential use by bats in the future. These should be identified in advance and clearly marked in order to prevent accidental filling. Examples are shown circled blue in Fig 3.
- 15.6 It would be beneficial in conservation terms to retain some openings for bats in the converted building. These need be no more than small un-pointed openings in gable apex locations approximately 15x50mm in size or unsealed openings behind fascias. Locations over doors and windows should be avoided.
- 15.7 In general it is preferable to have completed any work before swallows return in spring or to cover openings to buildings where swallows might nest, prior to their return, to prevent nest building and disturbance during the summer. Where the birds have commenced nesting it would be an offence to destroy the nests etc.
- 15.8 Because nest sites will be lost to the development, it would be advantageous to retain or provide some accessible outbuildings for the birds to use in the future.

## 16 Conclusions & Recommendations

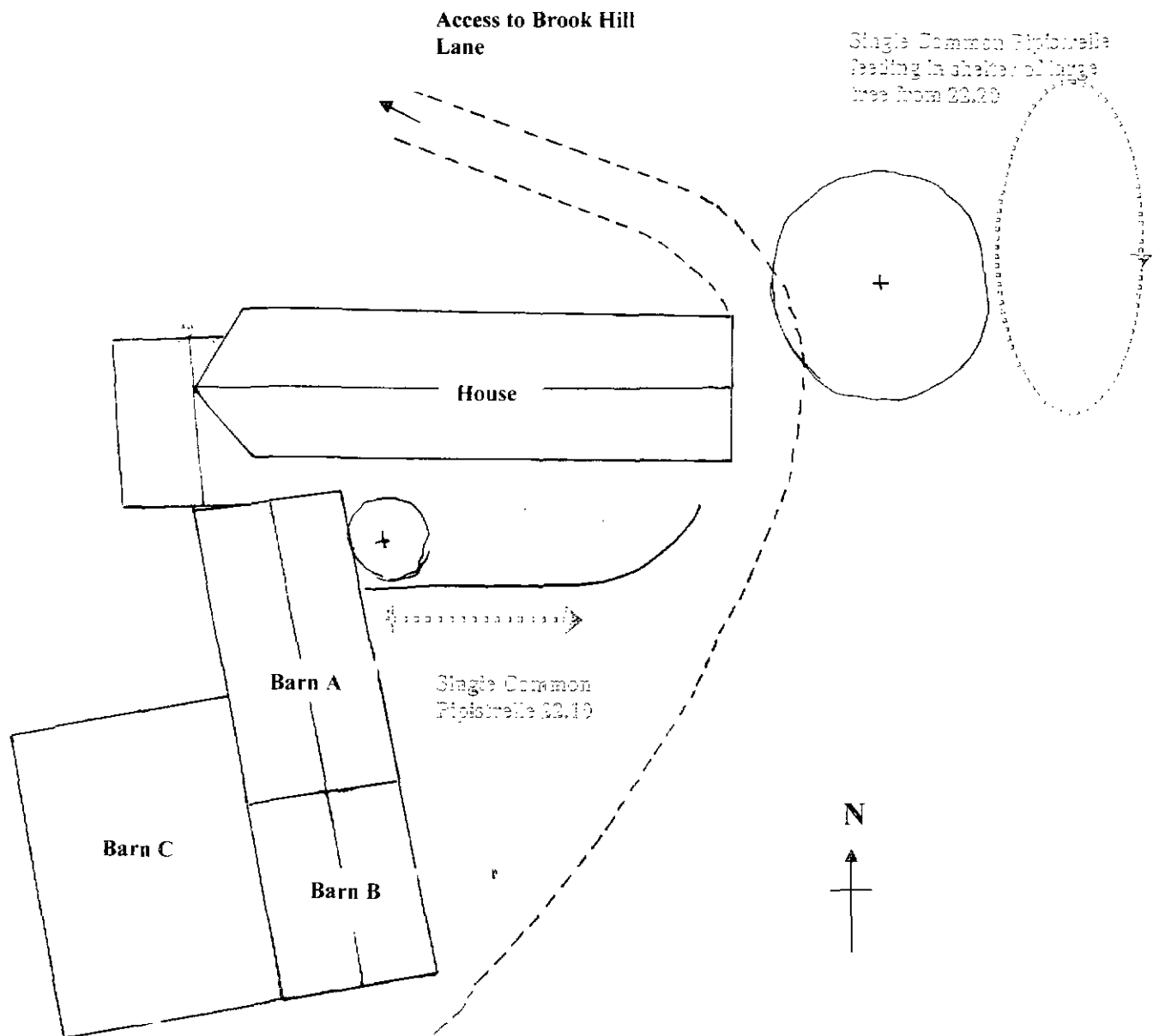
- 16.1 As things stand there is no evidence to suggest the presence of a bat roost and accordingly no need, therefore, to seek a Natural England license. It should be kept in mind, however, that if bats are subsequently discovered or suspected, (droppings appearing in patches on external walls, or audible sounds of scratching or chattering are heard, work should be stopped and further advice sought without delay.
- 16.2 The precautionary measures are recommended.

EM Bennett  
13 June 2010



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Dick Royd Farm, Carlecotes  
Bat Survey - June 2010  
Not to Scale



Dick Royd Farm, Carlecotes  
Bat Survey – June 2010  
Results of Survey.

Dick Royd Farm, Carlecotes  
Bat Survey – June 2010.

FIG 1



Dick Royd Farm, Carlecotes  
Bat Survey – June 2010.

FIG 2

