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Protected species survey and advice

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The Brownie Hut, Cawthorne Barnsley

Bat Survey

July 2008.

Report of Bat Survey
The Brownie Hut, Cawthorne

1 Introduction

- 1.1 The survey was required in connection with proposals for the conversion of the building to residential use. The site was located off Tivvy dale, Cawthorne at O.S. Grid Reference SE 282077.

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.
- 2.2 It is understood that the building will be converted open plan on the ground floor with two bedrooms accessed by Stairlift.

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 Dusk emergence and activity survey.
- 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 located within the village envelope surrounded generally by traditionally built dwelling houses. Extensive mature tree cover was present in the immediate vicinity and Cannon hall Country Park with lakes and woodlands was approximately 500 metres to the north-west.

7 Results of daytime survey

- 7.1 The survey was carried out on 12 July 2008.
- 7.2 The building was a simple rectangular stone structure with a stone slate roof. A small stone porch type extension was attached to the east wall and low coal bunkers attached to the north wall. The walls contained numerous crevices to the point that they appeared to be dry-stone construction. Gaps were also noted at wall top level under the edge of the roof slates. The gables were well pointed with no openings at all except between the stone slates. The porch was built from finely dressed stone with no suitable openings and the brick coal bunkers were too low to be attractive to bats. No signs of bat droppings etc were found externally but signs of nesting birds were found on the eastern eaves.
- 7.3 Internally, the upper floor was open to the underside of the roof. The roof was supported on two timber trusses. Some socket holes were noted in purlins but none in the trusses. Part of the roof was dry lined with plasterboard with a polythene lining behind. The remainder was lined with traditional under-felt. The roof timbers were covered by cobwebs. No signs of bat droppings, urine spotting or discarded insect remains were found.
- 7.4 The adjacent house, 3 Brook Houses, showed small amounts of bat droppings on cills etc at the rear of the property indicating a potential bat roost.

8 Results of dusk survey

- 8.1 A dusk survey was carried out on 12 July 2008. Weather conditions were good with full cloud cover and light winds. The temperature was 14°C at 21.30.
- 8.2 No emergence or other activity was recorded that might indicate the presence of a bat roost in the building. Emergence was however recorded from under the roof tiles on the back of the house and overall 60 Whiskered bats were counted. These all flew round the back of the barn and through the trees to the rear. Several were present feeding around the trees at the rear of the site for some time. The details are shown on the attached plan.

9 Existing local records

- 9.1 A number of bat roosts are known from the area. These are set out in the following table.

						Report of Bat Survey The Brownie Hut, Cawthorne
Site Name	District	Roost Type	NGR	Species	Count	Date
Flash House Farm	Cawthorne	Garage	SE 268073	Brown Long-eared	19	11/05/93
Lane Head Road	Cawthorne	House	SE 278074	Indet		
Tivvy Dale	Cawthorne	House	SE279076	Brown Long-eared	105	25/07/81
Cannon Hall Deer Shelter	Cawthorne	Folly	SE272082	Natterers	1	22/05/88
Cannon Hall Deer Shelter	Cawthorne	Folly	SE272082	Brown Long-eared	11	22/05/88
Oakleigh	Cawthorne	House	SE284077	Indet small bat	2	22/03/02
Kirkfield Close	Cawthorne	House	SE286079	Pipistrelle	101	27/05/92
Brook Houses	Cawthorne	House	SE282078	Whiskered	+	28/07/90
Barnby Bridge, A635	Cawthorne	Bridge	SE303080	Natterers	1	13/05/89

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. Under this legislation it is an offence to intentionally or recklessly kill, injure, capture or disturb bats or to damage, destroy or obstruct access to any place used by bats for shelter or protection.
- 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 The Habitats Regulations also includes important protection in relation to disturbance away from the roost which might have an effect on the future use of the roost site. This involves two elements:-
- The disturbance must be likely to significantly affect the ability of any significant group of animals of that species to breed or rear or nurture their young.
 - The disturbance must be likely to significantly affect the local distribution or abundance of that species.
- 10.4 For an offence to be committed, the disturbance must be likely to have a significant adverse effect on the animals involved and must significantly impact on the local distribution or abundance of the species.
- 10.5 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.

11 Evaluation of survey results

- 11.1 The survey produced no information at all to suggest the possible presence of a bat roost in the barn. Wall crevices were abundant but no signs of actual use were noted. Internally the roof timbers were quite cobwebby indicating that bats were unlikely to be present and no signs of droppings, urine spotting or discarded insect remains were found.

11.2 During the survey a roost of Whiskered bats *Myotis mystacinus* was confirmed from the adjacent house 3 Brook Houses. Some 60 animals were seen to emerge and use a "commuting" route round the rear of the barn and out of the site in south-east corner. Several bats remained for some time feeding around the trees at the rear of the site.

11.3 There were no signs of nesting swallows etc internally but there was evidence in the eastern eaves.

12 Site & species status assessment

12.1 No evidence to suggest the presence of a bat roost in the barn although given the close proximity of the roost in the house, use of wall crevices for winter hibernation could be likely.

12.2 The Whiskered bat roost is currently the only known roost for this species in the Barnsley area and therefore significant in conservation terms.

13 Assessment of Impacts

13.1 Impacts are limited to potential for hibernating bats in deep wall crevices or under roof slates. These impacts can be mitigated by care and use of safe working methods.

Development effect	Scale of Impact		
	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 i.e. potential disturbance from lighting.		+	

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 English Nature 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 English Nature also require 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.

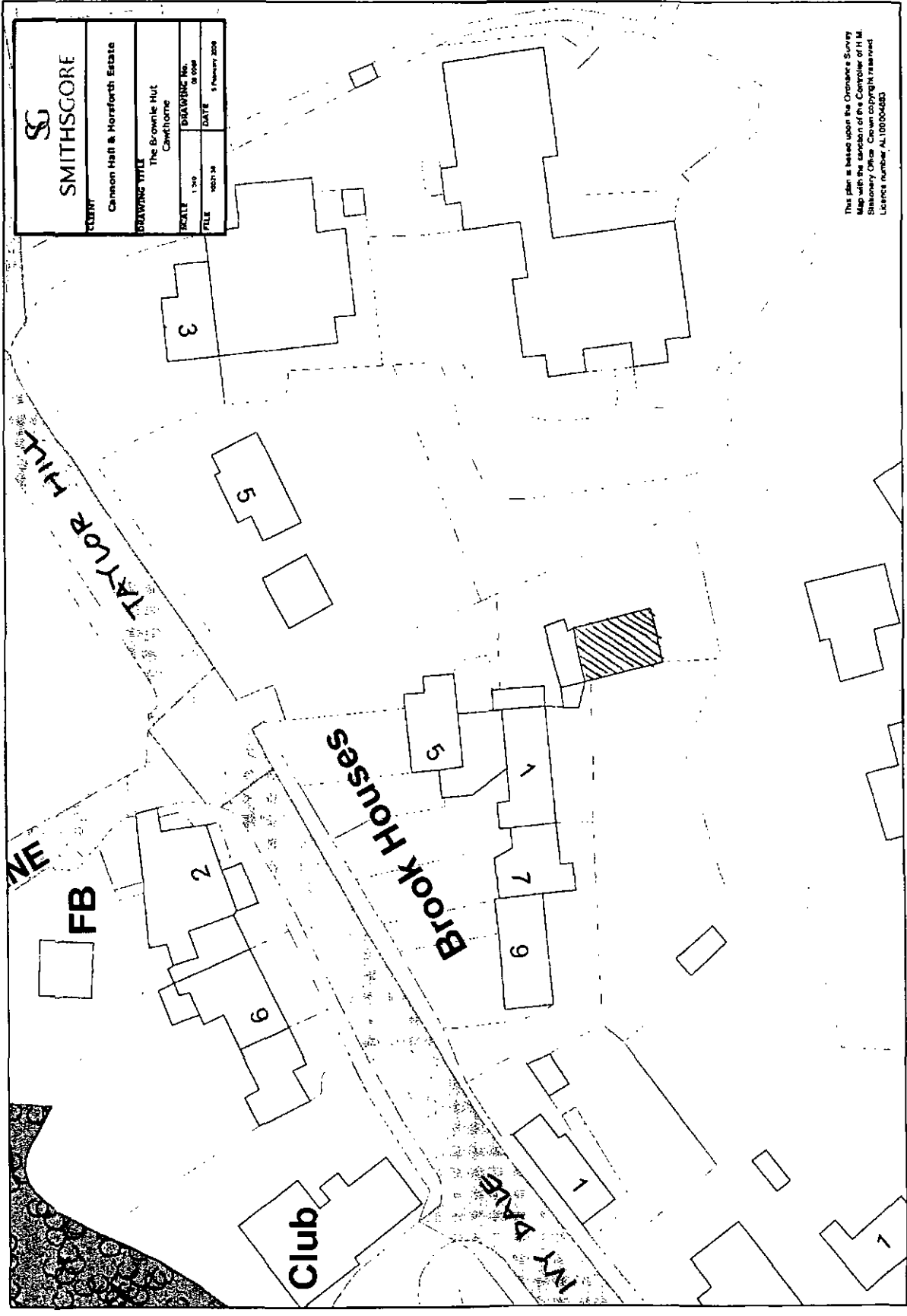
15 Mitigation proposals

- 15.1 In this case since there are no indications to suggest the presence of a bat roost in the barn, no formal mitigation measures are therefore required although some precautionary measures are recommended because of the presence of the bat roost in the adjacent house.
- 15.2 Purely as a precaution, roof stripping should not be carried out during the winter months (November -March) because of the possible presence of hibernating bats. If work during this period is unavoidable, the roof should be stripped under the supervision of a licensed bat worker in case animals are found. At any time of year 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 Permethryn 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 pointing walls. Bats will hibernate in the rubble filled core of walls such as these, 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 not be done in the winter months unless openings can clearly be seen to be empty although holes can be reduced leaving smaller escape holes at regular intervals accessing the core of the wall. At any time of year holes at the gable apex should be checked before filling and some holes, particularly at the gable apex and along the eaves should be retained.
- 15.5 Care will be necessary with any proposals for external lighting, particularly at the rear of the barn because this may deter the bats from use of the commuting route past the barn and could affect the viability of the roost site. Powerful PIR controlled spotlights should not be used in this area.

16 Conclusions & Recommendations

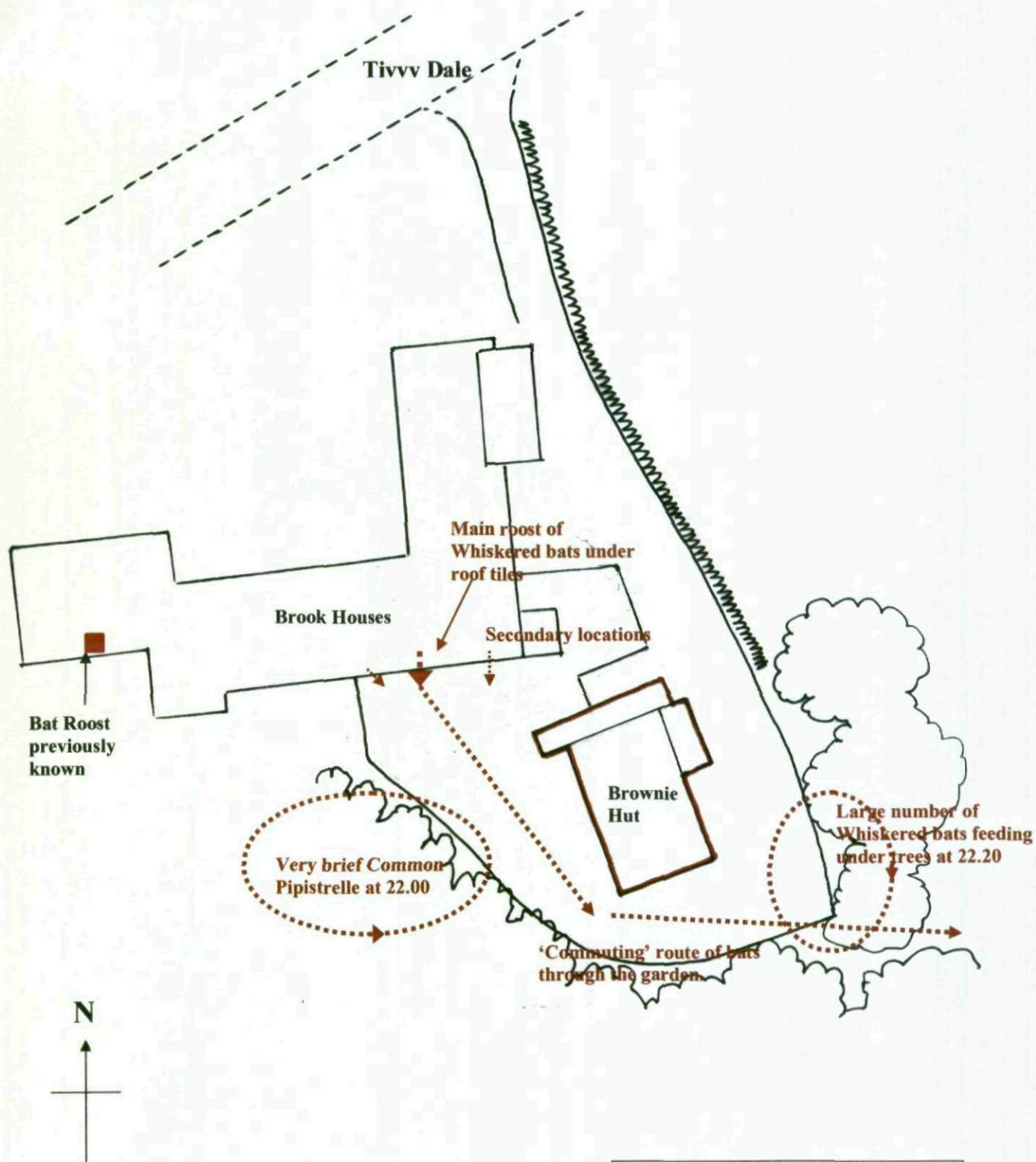
- 16.1 As things stand there is no evidence to suggest the presence of a bat roost in the barn and accordingly no need, therefore, to seek a Natural England license. It should be kept in mind, however, that if bats are subsequently discovered or suspected, (droppings appearing in patches on external walls, or audible sounds of scratching or chattering are heard, work should be stopped and further advice sought without delay. A Natural England license application would almost certainly be required. This process generally takes 30 working days from submission.
- 16.2 The precautionary mitigation measures as described are recommended.

EM Bennett
14 July 2008



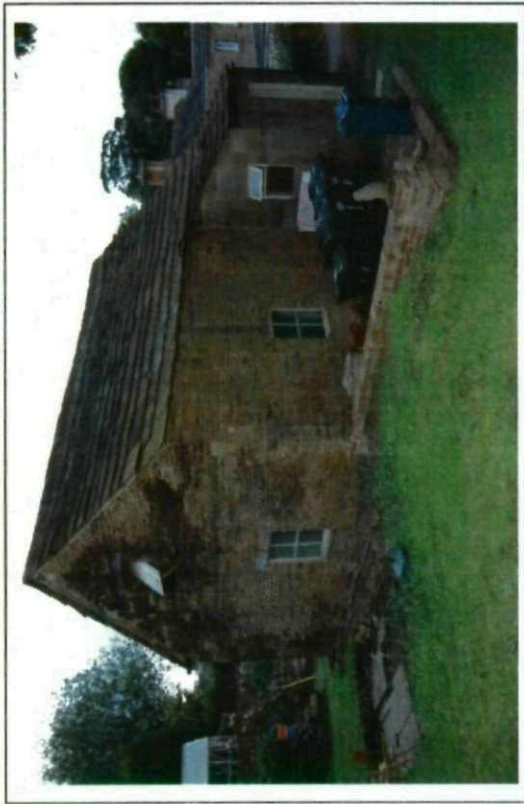
 SMITHSCORE	
CLIENT Cannon Hall & Horsforth Estate	
DRAWING TITLE The Browlie Hut Cawthorne	
SCALE 1:250	DRAWING NO. 01/004
FILE 1001-34	DATE 5 February 2008

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The Brownie Hut, Cawthorne
Bat Survey – July 2008.
Not to Scale



Brownie Hut, Cawthorne
Bat Survey – July 2008.

FIG 1



Details of Surveyor

Surveyor	Experience
Mr Eric Bennett	Licensed bat worker since 1988. Licensed by Natural England for all bat species in all counties. NE Licence No: 20073248

Record of revisions

Date	Details
14 July 2008.	Original Report
