ASSESSMENT OF THE STATUS OF THE BAT ROOST (2008) GROBY LODGE FARM GROBY LEICESTERSHIRE

A report to:

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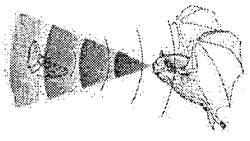


February 2008

1. INTRODUCTION

1.1 This report has been prepared by B J Collins Protected Species Surveyor for David Granger Architectural Design on behalf of the Groby Lodge Estate in Groby, Leicestershire.

1.2 This report details the results of the follow-up survey of the Groby Lodge Farm completed on the 21st February 2008. It is designed to be read alongside and with reference to the Protected Species Report, SECOND BAT SURVEY (2006) OF GROBY LODGE FARM, GROBY, LEICESTERSHIRE, completed by B J Collins on the 22nd August 2006.

1.3 The report details changes to the situation on the site during the February survey as opposed to that recorded in August 2006. This is the third survey of the site with the first being completed on the 5th May 2004, on behalf of EMEC Ecology.

1.4 The farm complex is situated in countryside to the northwest of the village of Groby at grid reference SK 504 077.

1.5 The assessment was completed to investigate whether the status of the farm for bats (*Chiroptera*), barn owls (*Tyto alba*) and nesting birds had altered since the initial protected species surveys completed in 2004 and 2006. Evidence of a maternity roost of brown long-eared bats was noted from the two-storey barn, Building J, and incidental roosting from the garages, Building M.

CHANGES TO THE LEGISLATION OR STATUS OF THE RESIDENT PROTECTED SPECIES

1.6 The only variance between the report of 2006 and the situation in February 2008 is regarding the status of the species. The Brown long-eared bat has been included within the 2007 review of Biodiversity Action Plan species. In this it has been included as a Priority Species of Conservation Concern due to a marked decline in its conservation status in the UK. This status has implications upon the proportionality of the mitigation proposed as part of the development plan.

1.7 The second is a new method of assessing the requirements for European Protected Species Licensing, the status of the roost recorded on the farm in 2006 is such that this consideration does not apply.

2. CHANGES TO THE STRUCTURAL DETAILS FOR THE FARM FROM THE 2006 SURVEY

2.1 Apart from a continued deterioration of the roof coverings of the traditional buildings on the farm there have been no significant changes between the two surveys.

2.2 *Buildings J - The two-storey barn.*
This is the largest of the traditional buildings on the site. It is a large barn constructed from three separate sections joined via a central passageway. It is constructed from solid brick walls and is covered with a slate roof. The eastern end section has been re-roofed in the past and is now lined with bitumastic underfelt. The other two sections have been re-roofed to the north only with a bitumastic felt underlining to the northern aspect and no lining to that of the south. The ground floor of the barn is

accessed via a large double door to the centre of the south aspect. Access to the first floor is via a central stairwell. The first floor is divided into three separate areas by solid brick walls. The western and central rooms are open for storage; the eastern room contains access to a grain silo. The first floor areas are lit by four open windows to the southern boundary wall.

2.3 *Building M – The garages*
This building is constructed from solid brick and stone. It is covered with a slate roof on a timber frame. The building is underlined with roofing felt and has been re-roofed in the past, at some time before the new owner took residence in 1997. It comprises two attached buildings. The first is the garage and storage area accessed via doors on the northern aspect. The second is built on a lower level and is accessed via the southern aspect.

3. SURVEY METHODOLOGY

3.1 The assessment of the current status of the farm for bats was completed by surveying all the buildings for signs of bats by an internal search of all floors, walls and roof frames focussing upon the presence of droppings, and actual sightings, as well as comparing field notes and previous photographic evidence.

3.2 An emergence survey for bats was not completed; the timing of the survey was during the inactive season, hibernation.

3.3 The site was assessed for the third time on the 21st February 2008.

4. SURVEY RESULTS

4.1 The building labels are as per the annotated plan in Appendix 2. – Site Sketch Plan

4.2 **Building M,** The Garages, contained very little fresh evidence of bats, as would be expected by a survey in the hibernation period (February). Two droppings of a more recent origin were located in the central section of the garages. This was typical of pipistrelle bats and suggests an individual is hibernating in the building structure. What was notable was the age of the brown long-eared bat droppings on the floors and stored items. None would appear to be from the 2007 season all appearing to be of an age beyond and typical of those found in 2006.

4.3 **Building J**, the Two-storey Barn, was the location of the bat maternity roost observed in 2006. As in 2006 all of the evidence of bats was restricted to the first floor area.

4.4 Again the results were surprising with all of the droppings aggregations appearing to be limited to those photographed in 2006, with no additional material apparent. No fresh droppings were found and no area where a new aggregation deposited. This is an unusual situation and is discussed in conclusions in greater detail. The photographs from 2006 and 2008 in Appendix 1 demonstrate this discovery.

4.5 Evidence was substantial in the first floor areas in 2006 with roost locations noted from five separate locations as opposed to three during 2004. The principal roost area is in the central section behind a loose section of bitumastic felt. In this location a total of 36 individual bats were noted emerging by the night vision video set to observe this point. Prior to the setting of this camera (the set up was delayed so as to reduce the impact of any disturbance) the second camera watching the room void

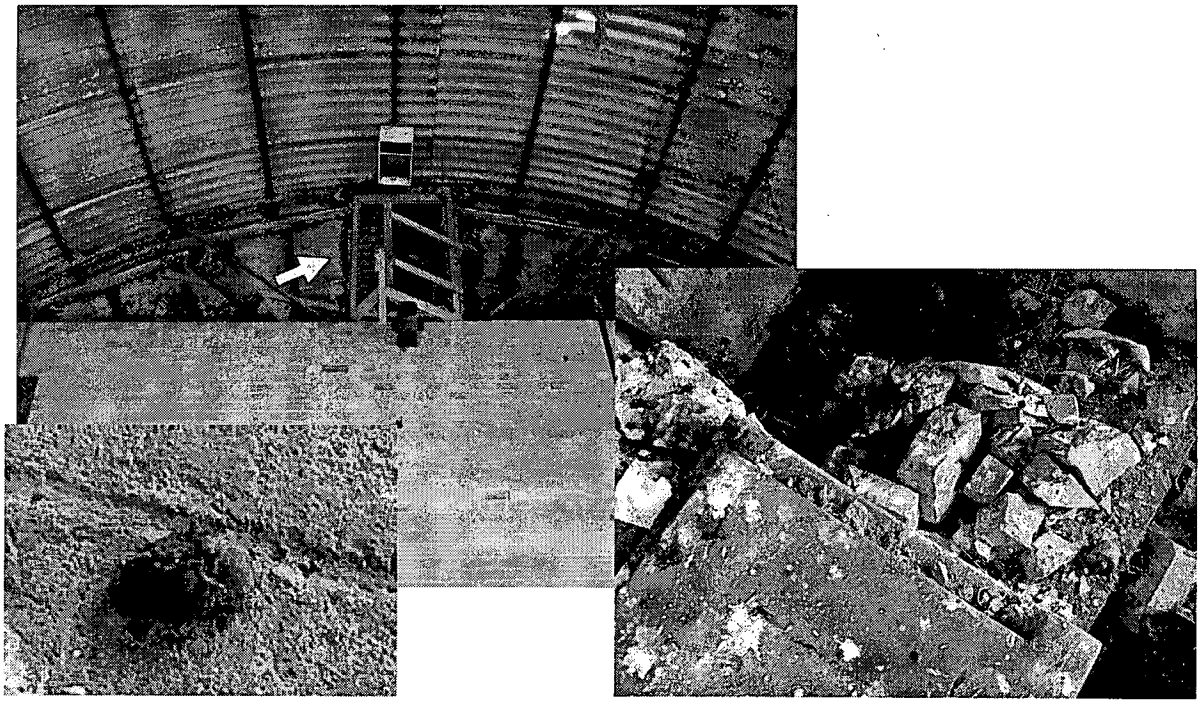
noted approximately 5 individuals flying prior to emergence. Combined this gave a roost of around 41 individuals.

4.6 The five roost locations found in 2006 were as follows: The main roost area was behind a sagging strip of bitumastic felt, the barn is underlined with traditional felt to the northern half of the roof covering only. 41 individuals of both adult and juvenile were counted using this area, clearly a maternity roost.

4.7 Apart from this location there were two roost areas in the eastern section, the mill hopper room. One area by the gable wall adjacent to the southeast corner of the building, no aggregation of droppings were found here with the deposits from the swallows nest above in 2007 covering the bat evidence recorded in 2006. The second was in the northeast corner of the room above the dividing wall and again there would appear to be no addition to the droppings deposited in 2006. Within the central section there was one roost area above the top of the stairwell. This area lacked any sign of bat occupation over 2007. Finally within the western room void there was a roost and feeding perch against the western gable wall. Again there appeared to be no variance between the evidence found in 2006 and that of 2008. The photographs shown in Appendix 1 are included to allow at a glance the situation in 2006 and 2008 to be compared.

4.8 The results for other species varied with two new species noted using the buildings that were absent from the 2004 and 2006 results. The first and most significant is barn owls. There was no evidence of this bird from the first two surveys. The report however detailed the suitability of the area to support what is a bird of conservation concern. In the February 2008 survey evidence of regular perching or roosting was noted from the northern half of Building E. There is also a potential nest platform here but this could not be accessed to inspect. Note that Building E is not within the footprint of the development proposal and therefore there is no impact upon this barn owl roost from the current development plan.

4.9 The barn owl perch/roost area in Building E



4.10 A second species of raptor has used the modern barns for perching with a solitary kestrel pellet noted under the western gable wall of building F.

4.11 All of the farm buildings support some level of breeding bird activity with several offering refuge for breeding swallows. The holes in the external pointing of the stone walled barns were also highlighted as a potential with a pair of blue tits nesting in the wall of building O during the February survey.

5. CONCLUSIONS

5.1 It is difficult to conclude the current status of a maternity roost site outside of the maternity season, May to September. However the status of sites is mostly determinable from the amount of sign left by bats. The signs within Building M and Building J are indicative of the roost having abandoned over 2007. This is highly unusual for the brown long-eared bat. Recent research into the fidelity of this species has found that out of 107 known roosts most have been resident every year for the seven years from when recording began, in only 7 instances were the bats not resident every year and of those only two where they abandoned the roost site. (Collins B. J. 2008 in prep.). There are no signs of disturbance within the barn with the floors covered with dust and the old grey droppings and as such cleaning is not the reason for the absence of evidence of bats.

5.2 Therefore the only way to determine the status of Groby Lodge Farm is to carry out an activity survey between mid- June and the end of July.

5.3 With the timing of this request the conclusion has to be to revert to the conclusions of the 2006 survey in that a maternity colony of brown long-eared bats is present and resident and with a peak count of 41 bats the roost is of local conservation significance.

5.4 The principal mitigation design will be the need to install a roof void within Building J, the two storey barn. This should measure 2.8 metres from the ridgeboard internally to the ceiling. The extent of this roof void should incorporate the entire central and eastern sections of the roofs of the barn. Bat access points will be required in this roof and the roofing materials will need to be one that is suitable for this species of bat, principally slate and bitumastic felt. The requirements for ventilating the roof timbers will need to reflect this specification. A low energy and low output roof heater should be installed within the central section of the roof void, the eastern end left as is with a small access created in the dividing wall between the two. Other construction details such as a double ridgeboard or adapted ridgeboard should be incorporated. The safest period for undertaking works would be mid-March to early May or in late September to late October when bats are active enough to re-locate to other roosts if disturbed and there are no dependent young.

5.5 A second option would be to put aside the entire room void at the eastern end of the two-storey barn. The room containing the mill hopper. This should be permanently closed at the dividing wall with the windows adapted to allow bird and bat access and access for inspection and cleaning by the bat ecologist or local bat group as applicable. The roost heater detail should also be used in this instance.

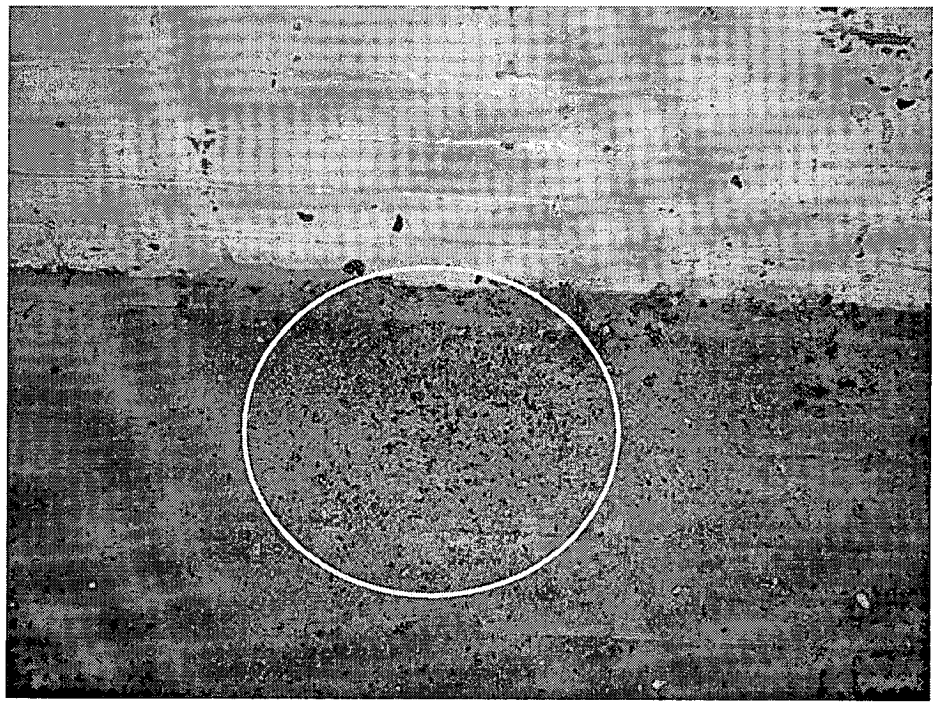
5.6 To conclude the final design of this mitigation needs to be developed as an integral and essential stage of a European Protected Species licence submission.

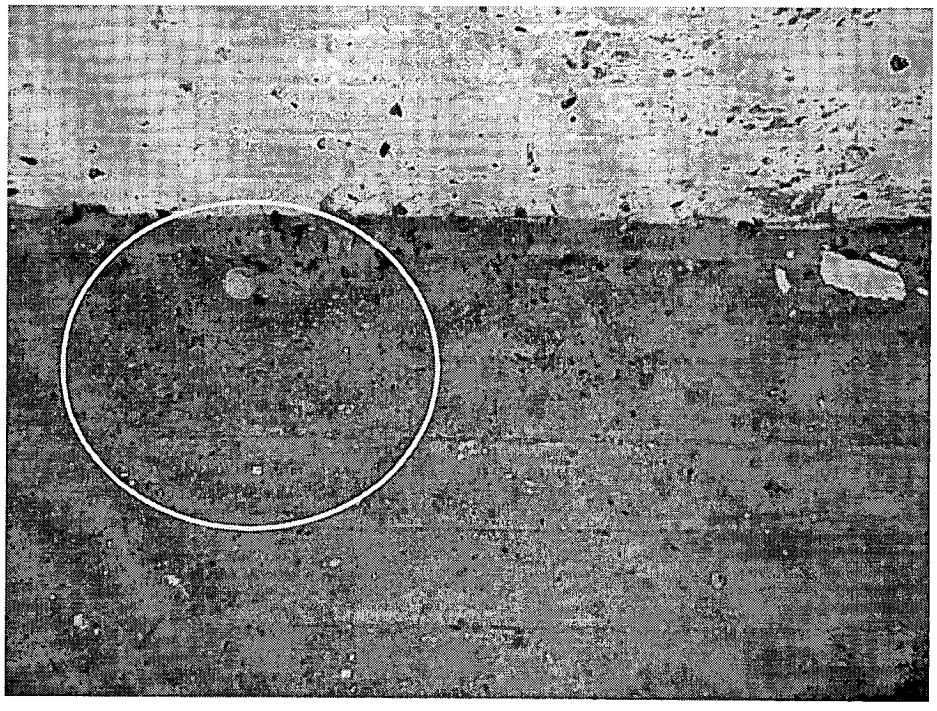
5.7 With regard to the altered status of the site for barn owls. The location of the barn owl roost/perch and potential nest site is outside of the current development footprint.

5.8 Therefore whilst not a necessity it is possible to provide other suitable nest sites on the wider land holding. A range of nest boxes are available from the from the barn owl trust, www.barnowltrust.org.uk. There are many suitable sites within the mature trees that could offer habitat for this bird to breed.

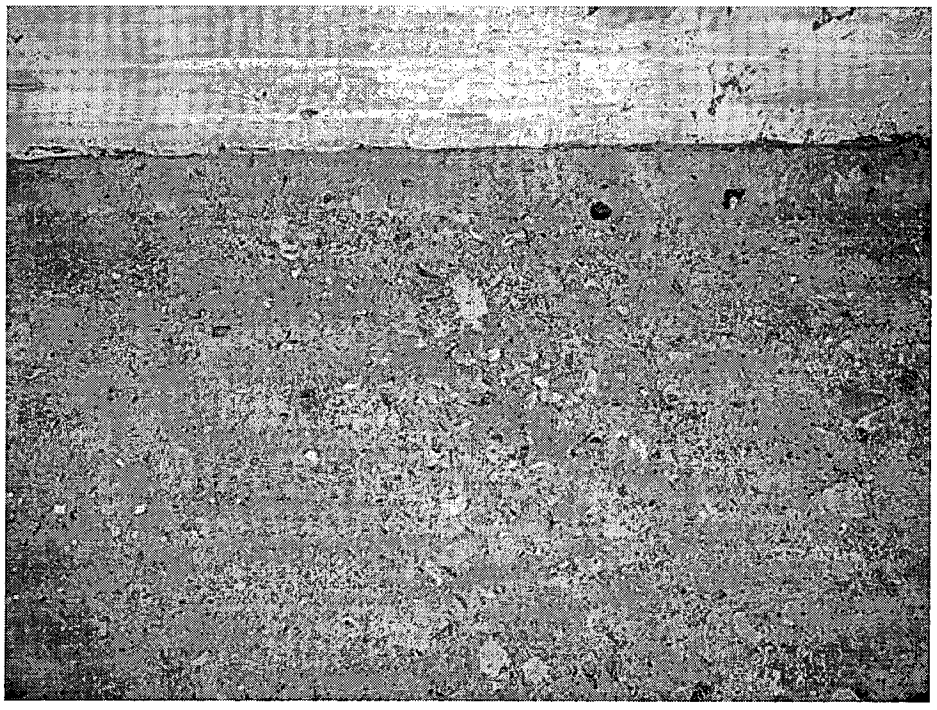
APPENDIX 1: THE BAT ROOST AREAS IN 2006 AND DURING THE FOLLOW-UP IN 2008

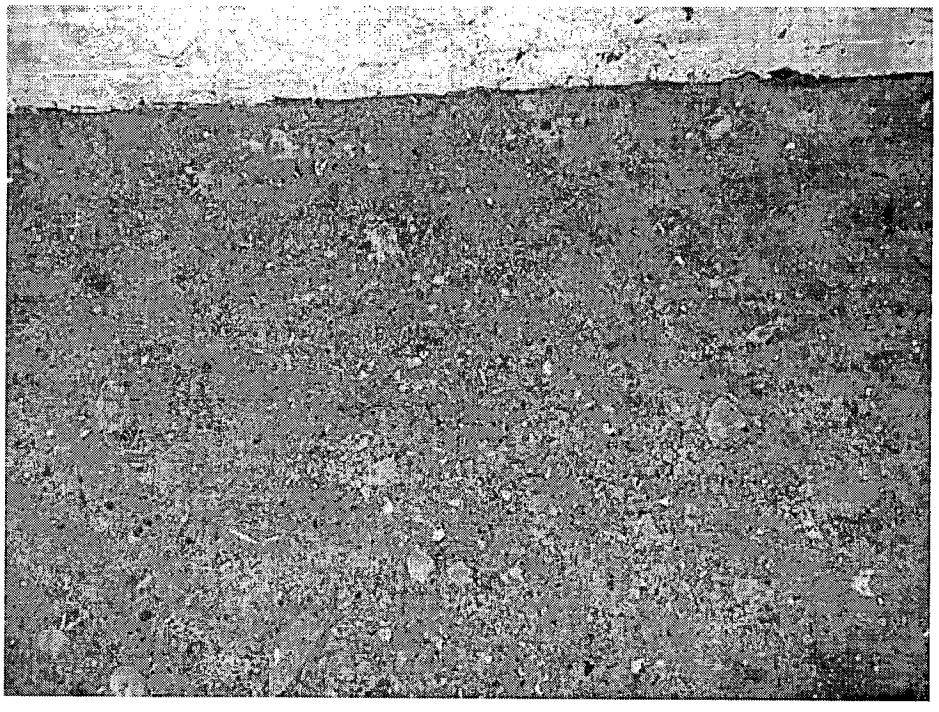
The roost area against the dividing wall in 2006 and below the area in 2008, highlighting the lack of variance in quantity of evidence.



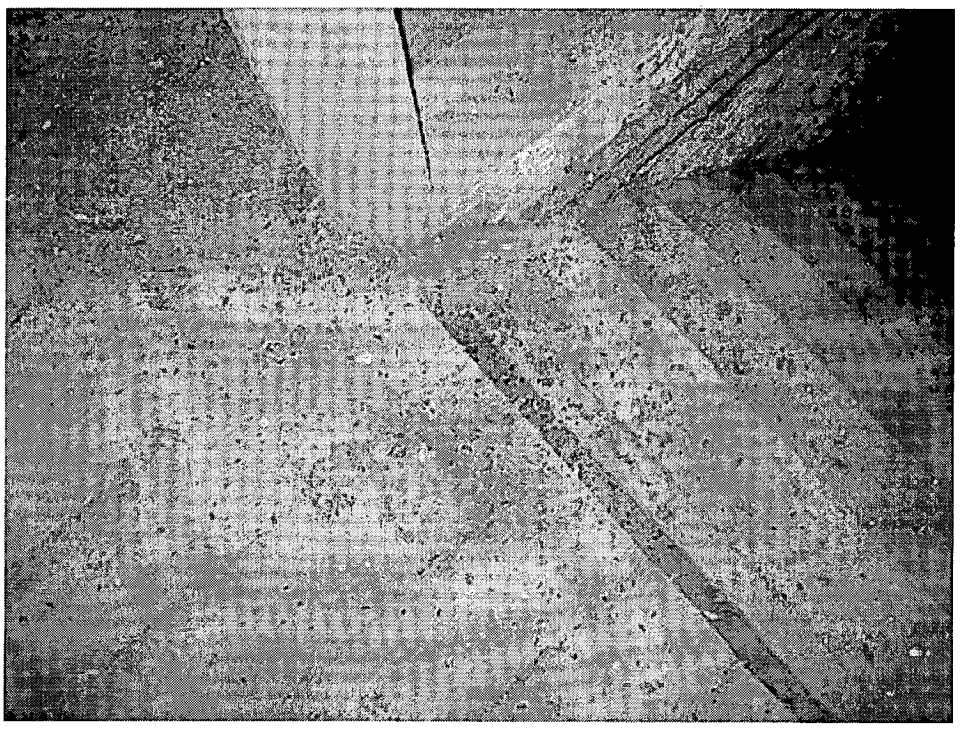


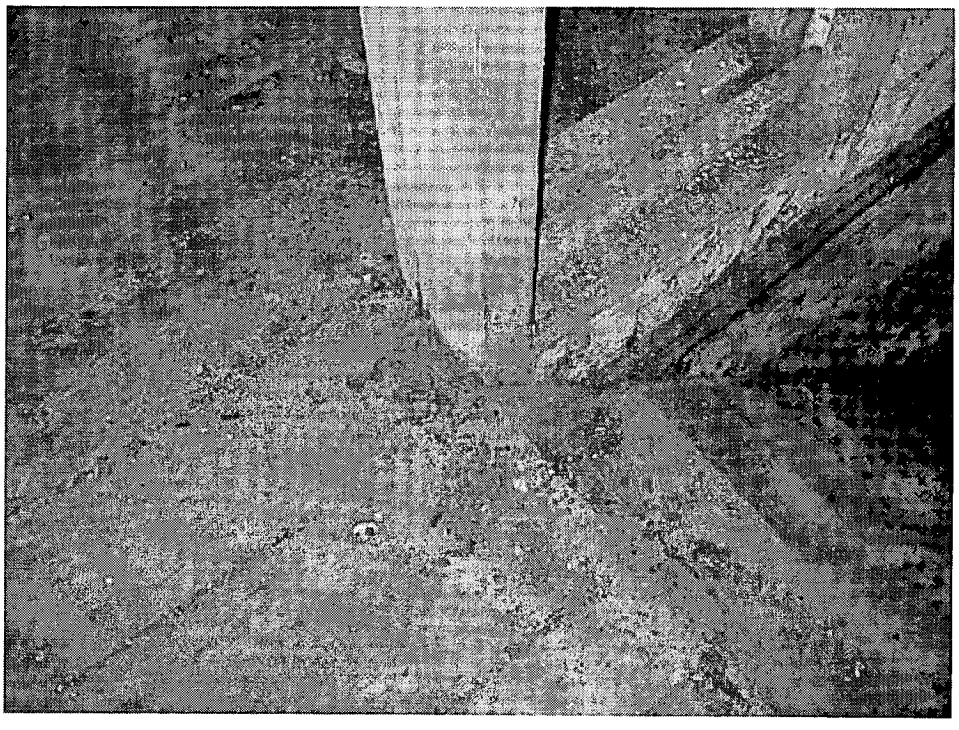
The roost area against the western gable wall in 2006 and again below in 2008.





The roost area at the top of the stairs in 2006 and 2008.





APPENDIX 2: SITE SKETCH PLAN

