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BAT & BARN OWL SURVEY

The Moorcock Inn, Waddington

BY

Jack Sykes BSc (Hons), MIEEM

BAT/11/1231

BAT & BARN OWL SURVEY

Instructions

Investigate for the presence or absence of bat species and Barn Owls as part of a planning application for the conversion of a public house to form three residential dwellings at The Moorcock Inn, Waddington.

Professional responsibility

This report has been commissioned and the actions of the surveyor have been made in accordance with the Code of Professional Conduct for the Institute of Ecology and Environmental Management. (www.ieem.org.uk) and the Royal Institution of Chartered Surveyors (www.rics.org.uk)

Accuracy of report

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, bats and Barn Owls are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and or in their interaction with bat species and or Barn Owls. If bats or barn owls are found during a work programme and continuing the work programme could result in their disturbance, injury or death either directly or indirectly an offence may be committed.

Bats and Barn Owls may only be disturbed, injured or killed under license. This report does not convey the authority to undertake work which may disturb, injure or kill bats of any species or barn owls.

If in doubt, stop work and seek further professional advice.

Quality and Environmental Assurance

This report has been printed on recycled paper as part of our commitment to achieving both the ISO 9001 Quality Assurance and ISO 14001 Environmental Assurance standards. Envirotech has been awarded the gold standard by the Cumbria Business Environmental Network for its Environmental management systems.

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1. Introduction

1.1 Site Description

The site lies 3km North of Waddington village. The A6478 road (Slaidburn Road) runs directly alongside the site to the East. Browsholme Road can be found 500m to the South. The surveyed building is made from rendered block under lined tiled roofs and flat felt roofs. The site is surrounded by a garden and exposed pasture fields.

1.2 Proposed Works

An application is to be submitted for the conversion of a public house to form three residential dwellings. Full details can be found in the plans accompanying this report for the planning application.

1.3 Aims of Study

To ensure that the proposed development does not affect any bat species which is listed under the Conservation (Natural Habitats, &c) Regulations 1994 which implements the EC Directive 92/43/EEC in the United Kingdom the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000.
The survey will:-

- ⇒ Identify the past and/or current use of the site by bat species
- ⇒ Assess the likely impact of the proposed development on these species
- ⇒ Provide a basis upon which to propose mitigation (if required) for bat species affected by the development

To ensure the proposed development does not affect Barn Owls as it is an offence under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) to

- ⇒ Kill or injure a Barn Owl
- ⇒ Damage or destroy the active nest site with eggs or young or before eggs are laid
- ⇒ Disturb the dependent young of a Barn Owl
- ⇒ Intentionally or recklessly disturb any Barn Owl whilst building a nest or is in, on or near an active nest site.

2 Methodology

The methods used comply with those described in BCT (2007). This is a progressive assessment starting with a broad habitat assessment then increasingly more thorough survey methods, until a level is reached at which additional survey effort is unlikely to provide additional useful information about the site.

2.1 Desk Study

- ⇒ Likely bat roosting and feeding sites adjacent to the site were identified from aerial photography. This allows us to determine likely commuting routes into and off the site.

⇒ A records search was undertaken of the Envirotech dataset. The purpose of a records search is to establish the species of bat found in the local area and any past history of bats at the site.

2.2 *Field Survey*

2.2.1 *Methodology*

⇒ Field assessment of adjacent bat feeding and roosting sites made following a review of aerial photography. This allows us to cross check our interpretation of aerial photography with actual habitat on the ground.

⇒ Inspection of the walls and eaves using a torch, binoculars and ladders to locate potential bat roosts

⇒ Inspection of the roof using a torch and binoculars to locate potential bat roosts

⇒ Search of walls, sills, doors for the presence of bat droppings deposited as bats fly inside the building or as they exit and enter their roosts to forage.

⇒ Search for detritus associated with bat feeding perches and roosts:- These roosts are usually associated with Brown Long-eared *(Plecotus auritus)* bats in roof voids and under eaves.

⇒ A search of the site was made for indications of nesting Barn Owls and birds such as nesting materials or accumulations of droppings. The surveyor was observant for birds displaying territorial behaviour, carrying prey items or calling.

⇒ **In accordance with BCT (2007) for low risk buildings a daytime inspection only is sufficient.**

2.2.2 *Timing*

Date of Visit	Site/ Local area Inspection
12th March 2012	09:00- 10:15

2.2.3 *Weather conditions*

Site conditions can have a large impact upon the results of an emergence survey but they are less relevant for a site inspection. At this site, we judge that the weather had no impact on the results of the survey.

2.2.4 *Personnel*

The survey was carried out by

Mr Jack Sykes BSc (Hons), MIEEM
Natural England Bat License- All species, All counties

Mr Andrew Gardner BSc (Hons), MSc, MIEEM, MRICS, CEnv, Dip NDEA
Natural England Bat License- All species, All counties

3 Results

3.1 *Desk Study*

Bats

There are no records of bats on the datasets searched within 2km.

Having visited the area we are of the opinion that the records on the Envirotech dataset are likely to be under representative of the species of bats in the local area.

From the pre-existing records, a review of aerial photography, a field assessment of the area adjacent to the site and the experience of the surveyor, bat species which may occur adjacent to the site are:-

- Common Pipistrelle *(Pipistrellus pipistrellus)*
- Soprano Pipistrelle *(Pipistrellus pygmaeus)*
- Whiskered *(Myotis mystacinus)*
- Brandt's *(Myotis brandtii)*
- Noctule *(Nyctalus noctula)*

This assessment has been made on the following basis:

Landscapes can be divided into four categories for use by bats; open, closed, edge and water. Each type of landscape category is suitable for use by a different combination of bat species. We would classify the landscape immediately adjacent to the site as "edge", within 1km of the site the landscape could be described as "open".

The garden to the South of the site was judged to be the primary commuting route for bats next to the site. This was also judged to be a moderate **quality** foraging area for bats.

The lack of freshwater bodies in close proximity to the site would be unfavourable for bats which feed in "water" landscapes such as Soprano Pipistrelle *(Pipistrellus pygmaeus)* and Daubenton's *(Myotis daubentonii)*. These species are not always confined to landscapes including water bodies, although they have a strong preference for them.

Both Natterer's *(Myotis nattereri)* and Brown Long-eared *(Plecotus auritus)* bats prefer to

roost or fly inside enclosed spaces before emerging. There were enclosed roof voids at the site but we judge they would be unlikely to utilise the adjacent environs as they are too exposed and insufficiently "closed" for these species.

Noctule *(Nyctalus noctula)* are rarely found roosting in buildings but have been known to do so. These species of bat disperse widely from their roosts, which tend to be in trees, to feed. We would judge it unlikely they would roost in buildings such as those surveyed but are likely to be found in the wider area.

Whiskered *(Myotis mystacinus)*, Brandt's *(Myotis brandtii)* and Common Pipistrelle *(Pipistrellus pipistrellus)* are likely to make use of the surrounding pasture fields and gardens in the local area to forage.

Barn Owls

There are no records of Barn Owls within 1km of the site on the dataset. The habitat around the site appears to be reasonably favourable for hunting Barn Owls. The site and surrounding environs provide moderate quality nesting opportunities for other bird species.

3.2 Field Survey

3.2.1 Habitat Description

The site lies 3km North of Waddington village. The A6478 road (Slaidburn Road) runs directly alongside the site to the East. Browsholme Road can be found 500m to the South.

The surveyed building is made from rendered block under lined tiled and flat felt roofs.

The site is surrounded by a garden and exposed pasture fields.

It is judged that bats are likely to commute into and out of the site using the garden area to the South of the site which is judged to be of **moderate quality.** The pasture fields in the local area may support foraging bats but they are exposed, not structurally diverse and are considered to offer only marginal foraging potential.

An annotated satellite image of the surrounding habitat is shown overleaf.

Satellite Image of surrounding area

The site lies in a remote rural area

The site is surrounded by exposed pasture fields

Surveyed building

3.2.2 Bat Roost Survey

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Building

The exterior walls of the building were inspected for gaps, cracks, areas of rotten wood and or signs of bats such as grease marks, bat droppings and feeding detritus. Where appropriate ladders, binoculars and an endoscope were used to inspect areas above head height.

The building is made from rendered block and has been painted. The walls are in excellent condition with no structural cracks or crevices on any elevation. The chimneys are made from brick and are fully pointed. The eaves of the building are generally well sealed however there are two areas of exception. These can be found on the Eastern elevation overlooking the road and one small area on the Southern elevation above the front door.

These areas had a slight gap behind the soffit boards but were found to be empty on close inspection. No bats or past evidence could be found in or around the holes (e.g. droppings, urine staining, grease marks etc). The barge and soffit boards were found to be in excellent condition elsewhere and sit tight to the wall surface. The gable wall apexes are all sealed.

One area of barge boards has suffered from damage and has broken on the South Eastern corner of the building. The gap behind this board was found to be empty on inspection with no previous signs of use by bats.

All window and door frames of the building were found to be fully sealed with no gaps or crevices.

The roof of the building is split into two parts. There is a flat section in the centre of the building which is made from felt and lead flashing. This area was found to be well fitted and had no potential roosting opportunities for bats. The remainder of the roof is made from pitched tiles and is in very good condition. These areas of pitched roof are all lined.

There are no slipped, missing or raised tiles but there are a number of ridge gaps where mortar is missing. These gaps were easily inspected from the ground with close focus binoculars and a 1,000,000 candle power torch but found to be empty with no signs of previous use by bats.

Internally the pitched roof voids were all found to be extremely well sealed from the outside. The voids are well insulated and in many cases boarded. The gable ends and eaves were sealed up to the roof lining. No evidence of bats could be found in any void, but mouse droppings and chewed materials were found in one area.

3.2.3 Barn Owls/ Birds

There was no "white wash", owl pellets, feathers or down anywhere on the site. It is judged that Barn Owls have not used this site in the past.

There was no evidence of extensive use of the site by other nesting birds.

4 Assessment

4.1 Constraints

The survey was carried out at a time of year when bat activity is low and consequently no emergence survey has been carried out. However, we judge that the site inspection is sufficient to address the minimum risk to bats at the site. The level of survey effort accords with the recommendations of BCT (2007) for low risk sites.

Full co-operation was received from the property owners.

4.2 Interpretation

4.2.1 Presence/ absence

No evidence of roosting bats was found at the time of the survey.

We consider that the building is unlikely to be used by bats for roosting and show no past or present evidence.

There is no evidence that Barn Owls have nested and/or roosted anywhere on the site.

4.2.2 Population size class assessment

From a review of adjacent habitat the maximum number of bats that are likely to use the area around the site is of the magnitude 1-10 (Small).

Barn Owls are considered to be absent.

4.2.3 Site status assessment

Whilst the site itself is unlikely to be used as a roost by bats, there is likely to be use of the adjacent landscape. Bats are likely to rely on a number of roost sites in other buildings and trees in the local area. It is therefore likely that the surveyed building has a low significance for bats.

We are of the opinion that the site is not used by Barn Owls.

4.3 Potential Impacts

4.3.1 Bat Roosts

4.3.1.1 Pre and mid-activity impacts

A worst case scenario will be considered in addressing potential impacts at the site without mitigation.

No signs of past maternity or gathering roosts were found at the site during the survey. The potential for a maternity or gathering roost in the building is judged to be low. Evidence of past use of the site by large numbers of bats such as would occur in a maternity or gathering roost, such as staining on the roof or walls, was absent. We judge

there is no risk to a maternity colony or gathering roost at this site from the proposed work.

We judge there is a low risk of disturbing bats in or loss of transitional, bachelor or non breeding female roost sites. A small number of gaps at the eaves and ridge tiles in the roof were found but these areas showed no signs of previous use. The surrounding habitat would not be likely to support significant numbers of roosting bats.

In our experience lek sites are commonly found in proximity to the main feeding and commuting routes. The primarily commuting and feeding area at the site was judged to be the garden to the South, this was judged to be of moderate quality. There were potential lek sites identified in the building facing this commuting route which are close enough to it to be used by male bats for leks. It is therefore possible that there could be a risk to disturbing bats in lek sites by the proposed work. Such a disturbance would however be of low significance and is unlikely to be significant.

There are no areas of rotten wood in the building which offer crevices which could be suitable for hibernating Pipistrelle Sp. bats. There are no areas of the building which are sufficiently damp and cool which would be ideal for hibernating Myotis Sp. bats. There is very little evidence and limited potential for hibernation at the site; it is therefore unlikely there will be loss of hibernation sites.

There is unlikely to be any loss of a swarming site. Swarming sites are generally found at or near hibernation sites. We judge that the site is unlikely to be used by Myotis Sp. bats and Brown Long-eared *(Plecotus auritus)* which have been known to swarm as there are no hibernation sites for these species in the building.

4.3.1.2 Long term impacts

There are likely to be no negative long term impacts on bats. Development of the site is unlikely to affect commuting routes or feeding areas in the long term.

It is the opinion of the surveyor that the loss or creation of any other occasional roosts for crevice dwelling bats will not have a significant long term impact on the local population of the species.

4.3.1.3 Post activity interference impacts

It is our opinion that there will be no significant post activity impacts which may affect bat species.

4.3.1.4 Other impacts

It is our opinion that there will be no significant other negative impacts relating to the proposed work which may affect bat species.

4.3.2 Bat Foraging and Commuting Habitat

There is unlikely to be a disruption to any commuting routes at the site.

4.3.3 Barn Owls

There is a low potential for use of the site by Barn Owls.

4.4 Legislation and Policy Guidance

4.4.1 Legislative context - Bats

All bat species are protected under Section 39 of the 1994 Conservation (Natural Habitats, &c.) Regulations the 1981 Wildlife and Countryside Act (as amended) and the 2000 Countryside and Rights of Way Act.

Annex IV of the *Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora* (EC Habitats Directive) lists animal and plant species of Community interest in need of strict protection; this includes all bat species.

In the UK, the EC Habitats Directive has been transposed into national laws by means of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). These are commonly and collectively known as the 'Habitats Regulations' and they give bats, their breeding sites and resting places a high level of strict protection.

In summary, it is a criminal offence to:

- ⇒ capture or kill a bat;
- ⇒ disturb a bat whilst in a place of shelter or rest; or
- ⇒ damage or destroy a bat's breeding site or resting place.

The breeding sites and resting places of bats are usually known as 'roosts' and resting places also include, for example, feeding perches where a bat consumes its prey. Bat roosts are protected even when bats are not present.

Prosecution could result in imprisonment, fines of £5,000 per animal affected and confiscation of vehicles and equipment used.

It is essential that all contractors are instructed to work with particular care in order to avoid disturbing or harming bats. All those working at the site must be aware of the procedures to be followed if bats are found during works. Project Managers must commission surveys and expert advice as required to minimise the risk of reckless harm to bats.

Natural England advises that, if possible, any works at bat roosts should be undertaken so as not to affect the bats and/or their roosts.

With careful working, it is judged that no significant disturbance to bats will occur at the site and no offence will be committed.

4.4.2 Legislative context - Barn Owls

It is an offence under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) to

- ⇒ Kill or injure a Barn Owl
- ⇒ Damage or destroy the active nest site with eggs or young or before eggs are laid

⇒ Disturb the dependent young of a Barn Owl

⇒ Intentionally or recklessly disturb any Barn Owl whilst building a nest or is in, on or near an active nest site.

It is judged that so long as work on the building takes place when Barn Owls are not nesting, then no offence will be committed.

If Barn Owls start to nest on site, work must be deferred until the young are fledged.

5 *Recommendations and Mitigation*

5.1 Further Survey

We consider that the risk to bats in the building will remain low and no additional survey work is required.

5.2 Mitigation Measures

5.2.1 Mitigation for Roost Sites

Natural England requires that mitigation addresses the impacts picked up by the site assessment, as follows:-

• Quantitative characteristics: There should be no net loss of roost sites, and in fact where significant impacts are predicted there will be an expectation that compensation will provide an enhanced resource compared with that to be lost. The reasoning behind this concept is that the acceptability of newly created roosts by bats is not predictable

• Qualitative characteristics: the plans should aim to replace like with like. As an extreme example, it would be unacceptable to replace maternity roosts with hibernation sites.

• Functional characteristics: compensation should aim to ensure that the affected bat population can function as before. This may require attention to the environment around the roost.

Natural England also recommends that precautions are taken to avoid the deliberate killing or injury of bats during development work at the site.

The site survey found no evidence of use of the building by roosting bats.

As a precautionary approach the following guidelines will be adhered to.

1. All contractors on the site will be made aware of the possible presence of bats prior to the commencement of work.

2. Contractors will be provided with the contact details of an appropriately qualified individual who can provide advice in relation to bats at any time during work. In the event that bats are found during work, unless the action has already been cleared by a suitably qualified individual, **all work will cease** and an appropriately qualified individual will be contacted for further advice.

3. Contractors will be observant during any demolition work for bats which may use the building if new areas of the roof are exposed and left open over night. Bats are opportunistic and may make use of gaps opened up during work overnight.

4. If it is necessary to remove a bat to avoid it being harmed, gloves should be worn. It should be carefully caught in a cardboard box and kept in the dark in a quiet place until it can be released at dusk near to where it was found, or moved to an undisturbed part of the building, with outside access, and placed in a location safe from predators.

5. **If bats or bat roosts are found during work, all work should cease** as per point 2. The site will need to be re-assessed in regard to its use by bats. A Natural England license may be required if continuing work is, on balance, likely to result in the disturbance, killing or injury of bats or the alteration, destruction or obstruction of roost site.

6. Maintain all existing ridge line gaps in the tiled roof (see appendix 3 Bat Roost Plans).

7. Maintain all existing gaps at the eaves behind barge and soffit boards.

Following English Nature (Natural England) guidance Mitchell-Jones (2004), if these guidelines are followed we would consider that on balance, a disturbance to bat species which could be contrary to the 1994 Habitat Regulations and Wildlife and Countryside Act 1981 (as amended) is unlikely. **If bats are found prior to or during work a license application may be required.**

8. If Barn Owls are seen nesting at the site, all work should cease. The site will need to be re-assessed in regard to its use by Barn Owls. **A Natural England license may be required if continuing work is, on balance, likely to result in the disturbance of nesting Barn Owls or their killing or injury.**

5.2.2 Mitigation for Foraging and Commuting Habitat

No specific mitigation for foraging and commuting habitat is necessary. The habitat surrounding the site does not change.

5.3 Requirement for Habitats Regulations (EPS) Licence

At this stage, we judge that a Natural England license will not be required to cover work on the building. The loss of potential roost sites will be avoided and no significant disturbance to bats will occur, so long as the recommendations at paragraphs 5.1 and 5.2 of this report are followed.

If bats are disturbed or bats are found as a result of work, **all work must cease** as per point 5 above and the site will need to be re-assessed by a suitably qualified person with regard to its use by bats. A **Natural England license** may be required if continuing work is, on balance, likely to result in the disturbance, killing or injury of bats or the alteration,

destruction or obstruction of a roost site. 32013039 4

6 *Summary*

An application is to be submitted for the conversion of a public house to form three residential dwellings.

A bat and Barn owl survey was requested following guidance under Regulation 39 of the Conservation (Natural Habitats, &c.) Regulations 1994, the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way Act 2000 and Planning Policy Statement 9 (PPS9) Biodiversity and Geological Conservation.

The survey was undertaken by a licensed surveyor following a methodology which would be likely to identify past or current use of the site by bat species and/or Barn owls.

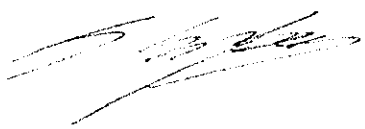
The site survey found no past or present evidence of bats roosting or Barn Owls nesting in the building.

It is judged that the work can take place without affecting bats or Barn owls, **so long as the recommendations in paragraphs 5.1 and 5.2 of this report are followed.**

On the basis of survey information, specialist knowledge of bat species and the mitigation that has been proposed, it is considered that on balance the proposed activity is reasonably unlikely to result in an offence under regulation 39 of the Conservation (Natural Habitats, &c.) Regulations 1994. We do not consider there to be a need for a Natural England licence at this time.

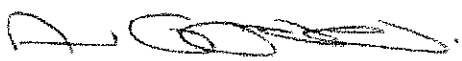
I certify that this report reflects my objective opinion of the facts found in relation to the instruction received and information available based upon the methodology, assumptions and constraints detailed within this report.

Report compiled by



Jack Sykes BSc (Hons) MIEEM
Surveyor
Monday 12th March 2012

Signed



Andrew Gardner BSc (Hons), MSc, MIEEM, MRICS. CEnv, Dip NDEA
Director
Tuesday, 13 March 2012

7 References

Information from the following sources has been used in preparing the survey report.

Altringham J, (2003). *British bats*. London: HarperCollins

Altringham J, (1996). *Bats and Behaviour*. Oxford University Press

English Nature (2004). *Supplementary guidance note: surveying for bats following the publication of English Nature's national bat mitigation guidelines (January 2004)*. English Nature, Northumbria Team

Entwistle, A. C. *et al.* (2001). *Habitat Management for Bats*. JNCC

Greenaway, F. and A.M. Hutson (1990) *A Field Guide to British Bats*. London: Bruce Coleman Books.

Loller, A and Schmiot-French, B (2002). *Captive care and medical reference for rehabilitation of insectivorous bats*. Bat World

Mitchell-Jones, A (2004) *Bat mitigation guidelines*. English Nature

Mitchell-Jones, A. J. & McLeish, A. P. (1999). *The Bat Workers' Manual*. JNCC

Neuweiller, G (2000). *The Biology of Bats*. Oxford University Press

R. E. Stebbings (1998). The conservation of European Bats. Christopher Helm

Russ, J. (1999). The Bats of Britain and Ireland, Echolocation, Sound Analysis and Species Identification. Alana Books

Swift, S. (1998). Long-eared bats. Cambridge University Press

Appendix 1 Previous Survey Information 3 2 0 1 3 0 3 9 4

No previous survey information is known to exist.

Appendix 2 Photographs

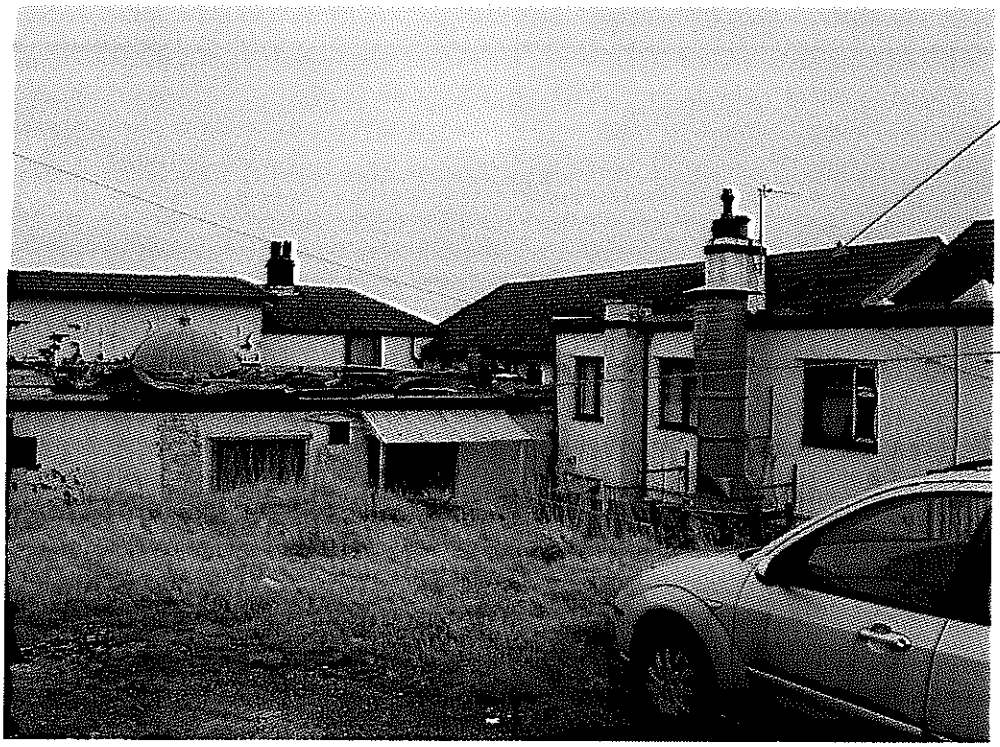
Rendered walls in excellent condition

Building external - Southern elevation

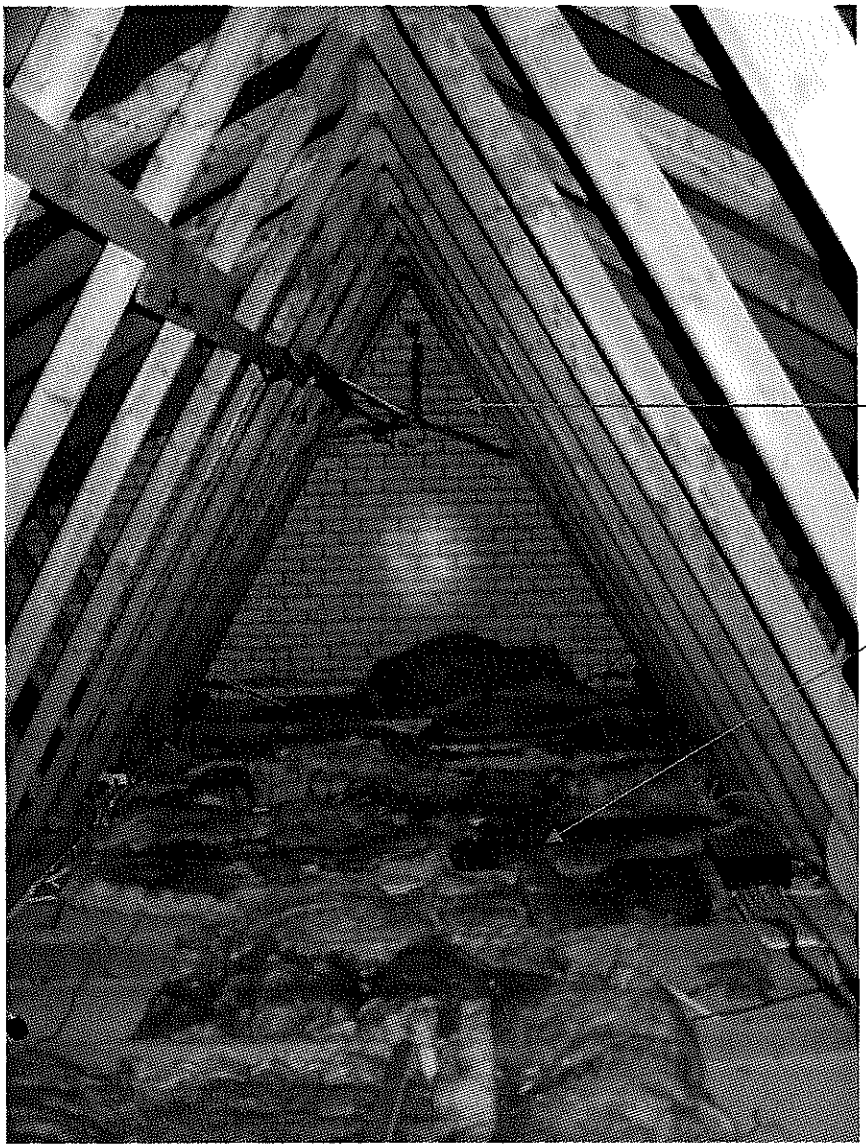
Building external - Western elevation

Building external - Gable wall apex

Building external - Eastern elevation



Building external - Central flat roof area



Building internal - Roof void

Appendix 3 Bat Roost plans

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