
E I N C

Ecological Information
Network Consultants



PROPOSED REPAIRS AT NEW HALL BARN

Wildlife Report

January 2010



NEW HALL BARN

Wildlife Report

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1 INTRODUCTION

1.1 Background to activity

- 1.1.1 At the request of Potts Parry Ives + Young Chartered Architects, EINC was commissioned in late September 2009 to undertake a wildlife survey of New Hall Barn, to the west of New Hall Farm, Ardsley, Barnsley, South Yorkshire. New Hall Barn is a Grade 11 listed cruck-framed threshing barn and is one of a number of historic farmsteads in South Yorkshire. The work required to bring the building back to good condition includes repair work to the roof, walls, floors, doors and windows. Proposed alterations include reinstating the original large doorway on the West side of the threshing area and the installation of an oak frame and pair of doors to match those proposed for the West side. Other alterations include the demolition (and rebuilding) of the existing internal wall to expose all the cruck trusses to full view from the South side.
- 1.1.2 The objectives of the survey were to provide the information required for an evaluation of wildlife within New Hall Barn and the immediate vicinity. This information was to be used to help identify and assess the nature conservation interest of the building and to inform the likely impact(s) of any proposed repair works. Protected wildlife species likely to be using New Hall Barn for breeding and/or sheltering purposes are bats and barn owls and, thus, the survey focused on determining the presence/absence of these two species.

1.2 Legislation

Bats

- 1.2.1 All species of bats are protected under The Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats, &c.) Regulations 1994. Under this legislation it is an offence for any person to intentionally kill, injure or take any wild bat; to intentionally disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection; to intentionally damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection; to be in possession or control of any live or dead wild bat, or any part of, or anything derived from a wild bat; or to sell, offer or expose for sale, or possess or transport for the purpose of sale, any live or dead wild bat, or any part of, or anything derived from a wild bat.
- 1.2.2 The Countryside and Rights of Way Act 2000 amends the Wildlife and Countryside Act to also make it an offence to intentionally or recklessly damage, destroy or obstruct a place that bats use for shelter or protection.

Barn owls

- 1.2.3 Within the Wildlife and Countryside Act 1981 (as amended), barn owls are listed on Schedule 1. Under this legislation it is an offence for any person to intentionally kill, injure or take any wild barn owl; intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'; intentionally take or destroy a wild barn owl egg; have in one's possession or control a wild barn owl (dead or alive), or egg, (unless one can show that it was obtained legally); intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or

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whilst in, on, or near a nest containing eggs or young; and intentionally or recklessly disturb any dependent young of wild barn owls

- 1.2.4 Anyone found guilty of an offence is liable to a fine of up to £5000 or to imprisonment for a term not exceeding six months, or both. The species is relatively abundant within some areas of Yorkshire. On a national scale it is listed on the RSPB's amber list, classed as a species that has undergone a moderate (25-49%) contraction of UK breeding range over the last 25 years and a species with an unfavourable conservation status in Europe.

2 SURVEY AND RESULTS

2.1 Pre-existing information on ecological data within a 2km radius of the survey site

- 2.1.1 New Hall Barn is within the natural range of species of bats listed in Table 1.

Table 1 Bat species within 100km of New Hall Barn

Species	National status
Common pipistrelle <i>Pipistrellus pipistrellus</i>	Widespread and common
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	Widespread and common
Nathusius' pipistrelle <i>Pipistrellus nathusii</i>	Uncommon
Noctule <i>Nyctalus noctula</i>	Widespread but uncommon
Leisler's bat <i>Nyctalus leisleri</i>	Widespread but rare
Brown long-eared bats <i>Plecotus auritus</i>	Widespread and common
Natterer's bat <i>Myotis nattereri</i>	Widespread but frequent
Daubenton's bats <i>Myotis daubentonii</i>	Widespread and common
Whiskered bats <i>Myotis mystacinus</i>	Widespread but scarce
Brandt's bats <i>Myotis brandtii</i>	Widespread but scarce

- 2.1.2 As noted in a previous Bat & Barn Owl Survey undertaken at New Hall Farm in November 2004 there is a record of a Leisler's bat *Nyctalus leisleri* bat in a chimney stack at Cranford Hall. The latter is located less than 100m north of the barn, but the record was some years ago and there have been no recent records (Bennett 2004). Other records of bats within a 2km radius of the site is summarised in Table 2.

Table 2 Bat species within 2km of New Hall Barn

Grid Reference	Species	Date	Location
SE 3706	Daubenton's and Natterer's bat <i>Myotis daubentonii</i> and <i>M. nattereri</i> respectively	11/10/94	Autumn mating & potential hibernation site at Ardsley Tunnel
SE 3805	Common pipistrelle <i>Pipistrellus pipistrellus</i>	17/07/2000	Nursery roost in Barnsley Crematorium. Two separate sites occupied.
SE 3707	Indeterminate (probably <i>Pipistrellus</i> spp.)	2000	Report of house roost Abbots Rd., Lundwood
SE 3804	Common pipistrelle <i>Pipistrellus pipistrellus</i>	19/06/04	Small roost at Low Laithes Farm, Ardsley

- 2.1.3 The previous Bat & Barn Owl Survey recorded two bat droppings on a steel sheet on the floor of the main part of New Hall Barn. In addition, this survey recorded fresh "whitewash" on the trusses and also on the main barn floor, as well as a few owl pellets, indicating recent use by barn owls (Bennett 2004).
- 2.1.4 The owners reported having seen a little owl roosting in the main barn, within a cavity behind the internal stonework of the west elevation, south of Truss E (Drawing No: 2533/004). In addition, information from the owners indicated that an owl box erected in the north end of the barn in the early 1990's had never been occupied.
- 2.1.5 Unfortunately, Barnsley currently does not have a biological records centre. Thus, further records for protected species and habitats of nature conservation interest in the vicinity of New Hall Barn (if any), would be based with the Planning Department at Barnsley MBC.

2.2 Survey area

- 2.2.1 The location of New Hall Barn, Ardsley, Barnsley, South Yorkshire, is shown in the aerial photograph of Figure 1 and it occurs at Grid Reference SE 395 052. A plan and elevations of the existing buildings is shown in Drawing Nos: 2533/004 and 2533/005.

2.3 Habitat description and Biodiversity Significance

- 2.3.1 New Hall Barn is located within a mix of arable fields and pastures as shown in the aerial photo of Figure 1. The barn itself occurred along the western edge of a courtyard, with the north gable end facing a large, modern grain store. A small woody copse was located to the north-east, together with a small mill pond and associated wetland. Further residual ecological interest resided in the hedgerows and isolated mature trees that occurred along some of the field boundaries as shown in Figure 1.
- 2.3.2 The biodiversity significance of New Hall Barn lies in the fact that such buildings are occasionally used for breeding or sheltering purposes by bats and/or barn owls, both of which are protected species of high nature conservation importance. Barn owls need a level area on which to lay their eggs and typical nest places within buildings such as New Hall Barn are on small level areas at the tops of walls, wall cavities, lofts or attic floors. In addition, some of the short-cropped grassland areas in the locality are likely to provide shelter for small mammals, and thus food for these birds. Evidence from this survey indicated that barn owls were roosting (but not breeding) within New Hall Barn.
- 2.3.3 Bats, on the other hand, may roost within small cracks between the external or internal brick/stone walls, at the junctions between window and door lintels and adjacent walls and/or between the overlapping timbers of roofs. Also, the nearby woody copse, individual mature trees and hedges, together with the mill pond (with a likely good population of freshwater invertebrates) in the local vicinity, are all host to numerous insects. These habitats therefore provide an important food source for bats. No direct evidence from this survey, however, indicated that New Hall Barn was occupied by bats.

2.4 Field Survey

Bats Methodology – daytime inspection

2.4.1 A daytime external and internal inspection for bats in New Hall Barn (Figure 2), was undertaken on the 23rd November 2009. In November bats are likely to be using their winter roosts but evidence of their presence nevertheless includes:

- Presence of bats – bats may be recorded roosting in small cracks within the external or internal brick/stone walls of the building and/or retaining wall(s), at the junction of wall(s) with ceiling(s), window and/or door lintels and adjacent brickwork/stonework.
- Staining – where sites are used heavily by bats the brick/stone around the roost entrance may become stained with oil from the bats fur. Scratches on the brick/stone worn smooth by the passage of bodies would also be used as evidence where this was attributable to bats rather than roosting or nesting birds.
- Droppings – bat droppings in crevices, stuck to walls below suitable crevices, and on the ground below suitable crevices. However, droppings may have been washed away by rain and bad weather, which will have occurred prior to the survey.

2.4.2 Each part of New Hall Barn was systematically searched for bats, bat droppings and any other signs beneath potential bat roost sites. Accessible cracks for bats were examined with the use of a Clulite Lamp (1,000,000 candle power). Ladders were used to access the various crevices between the walls and the parts of the first floor and pitched roof.

Barn Owls Methodology

2.4.3 New Hall Barn was searched for barn owls, barn owl droppings, pellets, feathers and/or nest debris as evidence of day-time roosts and/or nesting sites.

2.5 Survey results

Bats

2.5.1 A plan and elevations of New Hall Barn are illustrated in Drawing Nos: 2533/004 and 2533/005. The main barn was a tall, single storey unit with an uninsulated, pitched, stone slate roof. The roof was in a poor state of repair, with numerous holes visible between the slates and with vegetation growing along parts of the east-facing pitch. In addition, corrugated iron partly replaced the stone roof slates towards the southern end of the barn, along the east-facing pitch. Numerous gaps were noted at the base of the roof ridge tiles where the mortar had fallen out and these provided several gaps suitable for bat entry into potential bat roost spaces immediately under the ridge tiles. Also, several gaps suitable for bat entry into potential bat roost spaces were noted between the overlapping roof slates.

- 2.5.2 The following description outlines each different aspect of the building and whether there were any signs of bats:

Eastern external elevation

- 2.5.3 Several crevices between the coursed sandstone rubble wall of this elevation were suitable for bat entry into potential bat roosts as shown in Plate 1. However, each crevice was searched for signs of bats and none were recorded. Similarly, any crevices between the wall plate and the tops of the stone wall, between the stone wall and adjacent brick 'columns' that supported the main open door and crevices within the door lintels were all searched for signs of bats.

- 2.5.4 No signs of bats were recorded on any of the external surfaces.

Northern external elevation

- 2.5.5 A small, blocked-up, window occurred under the apex of the northern, external, gable end. Once again several crevices between the coursed sandstone rubble wall of this elevation were suitable for bat entry into potential bat roosts (Plate 2). However, once again no signs of bats were recorded on any of the external surfaces.

Western external elevation

- 2.5.6 This was similar in structure to the eastern external elevation, although several windows (and no doors) occurred here. The windows varied from being completely blocked to half-blocked-up to partially glass-framed. Once again, several crevices between the coursed sandstone rubble wall of this elevation were suitable for bat entry into potential bat roosts but, similarly, no signs of bats were recorded on any of the external surfaces. In addition, a fascia board occurred at eaves level along part of this elevation and several gaps suitable for bat entry were noted between the board and adjacent wall (Plates 3 and 4). However, no signs of bats were recorded.

Southern external elevation

- 2.5.7 An open window with a wooden lintel and stone sill occurred under the apex of the southern, external, gable end (Plate 5). In addition, the remnants of a stone-blocked window also occurred at the ground level of this elevation. Once again several crevices between the coursed sandstone rubble wall of this elevation were suitable for bat entry into potential bat roosts. However, once again no signs of bats were recorded on any of the external surfaces. Nevertheless, twigs were noted in one of the cavities within the stone wall, indicative of a bird's nest.

Internal – main barn

- 2.5.8 Many crevices suitable for bat entry into potential bat roosts were noted between the overlapping roof rafters and purlins (illustrated in Plate 6), as well as within the junctions between the various roof trusses and walls. No signs of bats, however, were recorded in any of these crevices. A swallow nest was recorded in the roof rafters above Truss E, two other birds' nests were

recorded above Truss C and another bird's nest was recorded above Truss B (Drawing No. 2533/004).

- 2.5.9 No signs of bats were noted on any of the internal surfaces of the main barn.

Internal - north room (ground floor)

- 2.5.10 The ground floor was divided up into pig pens and no signs of bats were recorded on any of the internal surfaces.

Internal - north room (first floor)

- 2.5.11 The wooden floor of the first floor was unsafe to walk on and the survey was therefore restricted to viewing it from two locations via ladders. The first view point was from the first floor opening within the existing cross wall and the second from a hole within the floor at the north eastern corner of the room. A bird's nest was recorded in the roof rafters.

- 2.5.12 No signs of bats were recorded.

Barn Owls

- 2.5.13 Fresh "whitewash" was recorded on all of the trusses within the main barn (Trusses C – E), indicative of roosting owls. In addition, 7 fresh barn owl pellets were counted on the floor between Truss D and the southern elevation. A further 30 older barn owl pellets were counted on the floor, mostly concentrated between Truss E and the southern elevation. The indication is that barn owls *Tyto alba* use New Hall Barn for roosting purposes.

- 2.5.14 In addition, 4 old owl pellets were collected from the first floor of the north room in the north-eastern corner. These were relatively small with a width that varied between 23 – 27mm and a length that varied from 27 – 35mm. These were preliminarily identified as barn owl pellets, based on the fact that barn owl pellets are very variable (average widths: 15 – 35mm and average lengths: 30 – 83mm). Cramp *et. al* (1985) note that the pellets produced by other owl species (e.g. Little owl and Tawny owl) tend to be narrower: little owl pellets (widths between 10 – 20mm and lengths between 20 – 40mm); tawny owls pellets (widths between 18 – 25mm and lengths between 30 – 65mm). Nevertheless, further pellets would be required to confirm the preliminary identification of these owl pellets.

Other fauna

- 2.5.15 Pigeon feathers and the remains of pigeon eggs were recorded on the first floor of the north room. Swallow nests and the remains of several other birds' nests were also recorded in many of the roof rafters of the barn. Other birds recorded were 8 grey partridge in the adjacent field to the west and a flock of greenfinch.

2.6 Interpretation/evaluation of survey results

Presence/absence

- 2.6.1 Evidence from the daytime survey indicated the absence of any roosting bats within New Hall Barn at the time of survey (23rd November 2009). However, such a conclusion must be treated with some caution as bats often use roosts temporarily during the active season (mid-April – September), and such use can therefore only be fully determined through a series of exit surveys throughout the active season. Thus, it is possible that one or two bats may roost temporarily in the barn during the summer months and/or may hibernate in one of the areas that was inaccessible for survey.

Site status assessment

- 2.6.2 There was no direct evidence of a bat roost within New Hall Barn at the time of survey. Nevertheless, crevices suitable for bat entry into potential bat roosts were recorded and it is possible that one or two bats may roost temporarily in such areas at other times of the year. This assessment takes into account the reasonable feeding habitat in the immediate vicinity and in the surrounding area, the condition of the building and the results of the inspection together with the bat roost potential present. It is therefore recommended that several precautionary mitigation measures be undertaken to ensure that the status of the local population of bats is maintained prior to, during and after the proposed repair works.

2.7 Constraints

- 2.7.1 There were several constraints to the survey, one of which was that the survey occurred on 23/11/09, when bats are hibernating. Thus, external signs of summer roosting bats may have been washed away via rain etc. Another constraint was that the main barn floor had been cleared of accumulated clutter to allow for a thorough survey of the internal elements of the building. Unfortunately any bat dropping evidence was likely to have been on this material, which had been effectively removed.
- 2.7.2 Sweeping was commenced as part of the clear-out but halted as soon as the implications were realised. Thus, it is possible that the barn owl pellets, which were concentrated on the floor along the internal south, south-western, edge of the barn, may also have been more frequent elsewhere within the main barn. Finally, several parts of the barn roof could not be surveyed without the aid of scaffolding.

3 IMPACT ASSESSMENT IN ABSENCE OF MITIGATION

3.1 Short-term impacts: disturbance

- 3.1.1 Short-term disturbance to any small, temporary bat roost(s) within New Hall Barn could occur from scaffolding the roof and walls in order to undertake repair works. In addition, the extra noise, vibration and dust that would occur from the presence of site operatives and machinery may also cause some disturbance.
- 3.1.2 It is also likely that the existing roosting barn owl(s) would be sensitive to disturbance from the proposed repair works and re-locate/abandon the building.

3.2 Long-term impacts: roost modification and/or loss

- 3.2.1 The proposed repair works at New Hall Barn would permanently remove the current barn owl roost within the main barn. It may also permanently remove any small bat roost(s) that may occur within this building.

3.3 Predicted scale of impact

- 3.3.1 The proposed repair works to New Hall Barn would have a long term, negative, impact on the barn owl roost that currently exists within this building. This would have a small adverse impact on the population of barn owls at the local level.
- 3.3.2 The proposed repair works to New Hall Barn may also have a long term, negative, impact on any small bat roost(s) within this building. This may have a small adverse impact on the population of, for example, common pipistrelle *Pipistrellus pipistrellus* at the local level.

4 RECOMMENDED MITIGATION MEASURES

4.1 Mitigation Strategy

Bats

- 4.1.1 The recommended mitigation practices described in this report are aimed at ensuring that no net loss of any existing bat roost(s) in New Hall Barn occurs as a result of the proposed repair works. These are described in this section as the following key elements:

- 1 At least three Schwegler bat boxes should be placed in suitable areas on mature, or semi-mature, trees adjacent to the property at least two months prior to the commencement of any repair work. This would ensure that alternative roosting places are available should bats be indirectly disturbed during the proposed works. Alana Ecology Ltd (www.alanaecology.com) is a good supplier of such equipment and correct siting of the bat boxes is important to increase chances of occupancy. The boxes should be sited at least 3.5m from the ground and in places where there are clear flight paths for bats entering and leaving the boxes. In addition, at least some of the boxes should be sited with the front facing SW to SE, to ensure that they warm up during the day. The boxes should remain in place once the works are complete and their extremely durable material (made of light-concrete) would ensure that they would last for many decades. Finally, these types of boxes are self-cleaning and thus maintenance-free.
- 2 If possible the proposed repair work to the roof and walls of the barn should be commenced at some point between April – mid-May or September – October, when bats are at their least vulnerable. The aim would be to start these works when bats would have finished hibernating but would not have started breeding or *vice versa*, so that they could move to a new roost should they be disturbed. Should such works commence outside the recommended times then there is a low risk of having to stop works (as noted in mitigation measure No. 3, below).

- 3 Caution should be applied to all dismantling procedures with any cavities beneath the roof covering, timbers and walls checked for bats as work proceeds. Any bat found during operations should have the cavity covered or protected, work should cease in that area and Natural England informed for further advice. However, should bats be discovered then it is likely that they would be able to fly away at the recommended time of year for such works (April – mid-May or September – October) and find an alternative roost nearby, perhaps in one of the nearby bat boxes.
- 4 The existing timbers of the buildings should not be treated unless found to contain active woodborer in which case 'bat friendly' permethrin compounds will be used. As far as possible any remedial timber treatment within the barns should be timed to avoid the summer months (beginning of May – end of August) and to take place when no bats appear to be present.
- 5 It is recommended that a series of access points for bats into potential bat roosts are created within the repaired barn. These are as follows:
 - Insert modified 'bat' bricks/stones within the gable end walls and also along the eastern and western elevations of New Hall Barn. These would allow bats entry into any potential roosts within the wall cavities at these locations. The dimensions of such a modified 'bat' brick are shown in Figure 2 and they should be placed in locations higher than 3m.
 - In some locations it is recommended that bats be allowed entry into the interior of the barn so that they can access any suitable crevices for roosting that occur between overlapping roof timbers etc. This could be achieved via the creation of small ventilation slots within the walls of the main barn and in the loft over the North room.
 - Create between ten to fifteen access gaps for bats into potential roosting spaces between the ridge tiles and underlying roof membrane of the newly repaired pitched roof of the barn. These could be achieved by simply leaving gaps (20mm x 50mm) in the mortar at the base of some of the ridge tiles.
 - If possible, replace the existing fascia board recorded on the west elevation, ensuring that gaps with a width of 20mm – 25mm are maintained between the board and adjacent wall to create a series of potential bat roosts.

Barn owls

- 4.1.2 Evidence from the survey indicates that barn owls currently roost in the main barn of New Hall Barn. High platforms and/or ledges suitable for breeding barn owls were, however, not present within the roof rafters of the barn, and therefore the likelihood is that barn owls do not, at present, breed within the barn. It is therefore recommended that a series of measures are undertaken both prior to, and during, the proposed repair works to ensure that New Hall Barn continues to be suitable for roosting barn owls. If possible, it is also recommended that the repaired building includes several extra features which may allow barns owls to breed within the building.

4.1.3 The recommended mitigation measures are described as the following key elements:

- 1 Three barn owl boxes have already been erected in the vicinity of New Hall Barn (pers. comm) and these should provide alternative roosting sites for these birds during the proposed repair work.
- 2 Although there was no evidence of barn owls breeding within the barn, there was considerable evidence of other nesting birds within the roof rafters and stone wall cavities of this building. Ideally, then, the building works should be timed so as to avoid the birds' main nesting season (March to August inclusive) and commence in September 2010 although, in practice, this may not be possible.
- 3 Any noisy static machinery should be located away from the parts of building that are occupied by roosting barn owls. In addition, site workers should, whenever possible, be excluded from parts of the southern end of the main barn (the area most used by roosting barn owls) until it is scheduled for repair. This may provide a temporary 'sanctuary' area for these birds during the proposed repair work.
- 4 Long-term provision for barn owls should be created within the barn at the southern gable end of the building respectively, as this is the part of the barn that is most used by these birds. The provision should be undertaken during the proposed roof repairs as this is an ideal time to create a new entrance hole (minimum size 12cm wide x 25cm high) for barn owls through the end wall, just under the apex. The removal of one stone from the outer face beneath one of the bridging stones in the apex of the gable end should be sufficient to allow these birds to continue to roost within New Hall Barn.
- 5 To enhance the newly repaired barn it is recommended that a small ledge/platform or 'owl loft' suitable for breeding purposes also be constructed within the roof rafters at the southern end of the building. Once the roof is repaired such provision could be made by simply constructing one or two ledge(s)/platform(s) in the vicinity of the entrance hole to encourage them to breed at this location. Barn owls need a level area on which to lay their eggs, normally at least over 3 metres above ground level. Typical nest places within buildings are small level areas at the tops of walls, wall cavities, nestboxes, lofts or attic floors.

Two different examples of provision for barn owls within small loft areas are shown in Figures 3 and 4. Note that in each case the chosen design would have to be adapted to the specific situation of New Hall Barn which, in any case, does not have a main loft at the recommended location for such provision. Thus, the boards that cover loft insulation and/or additional loft insulation (for sound proofing) that are illustrated in Figure 3 may be simply replaced with a small platform.

Other fauna

4.1.4 If possible, access for breeding swallows inside the barn should continue to be made available. This could be achieved by ensuring that some ventilation slots are constructed within the walls of the main barn.

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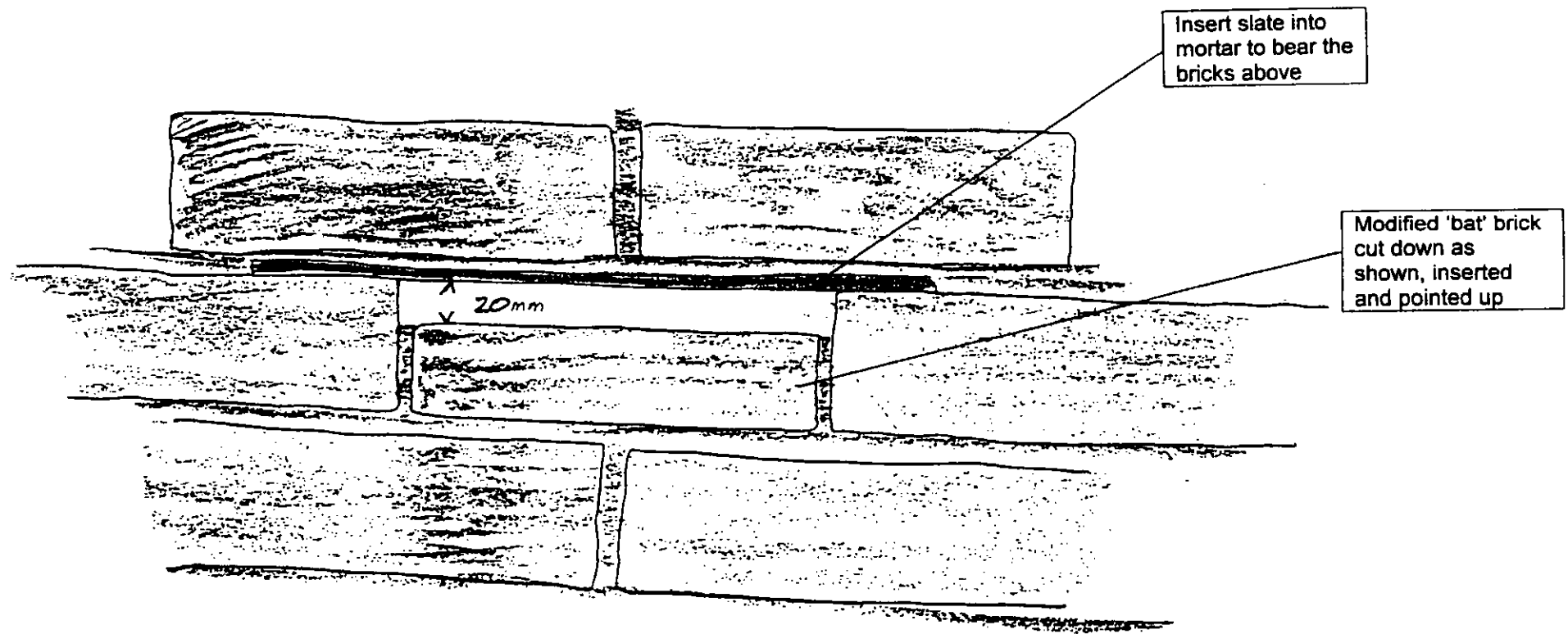
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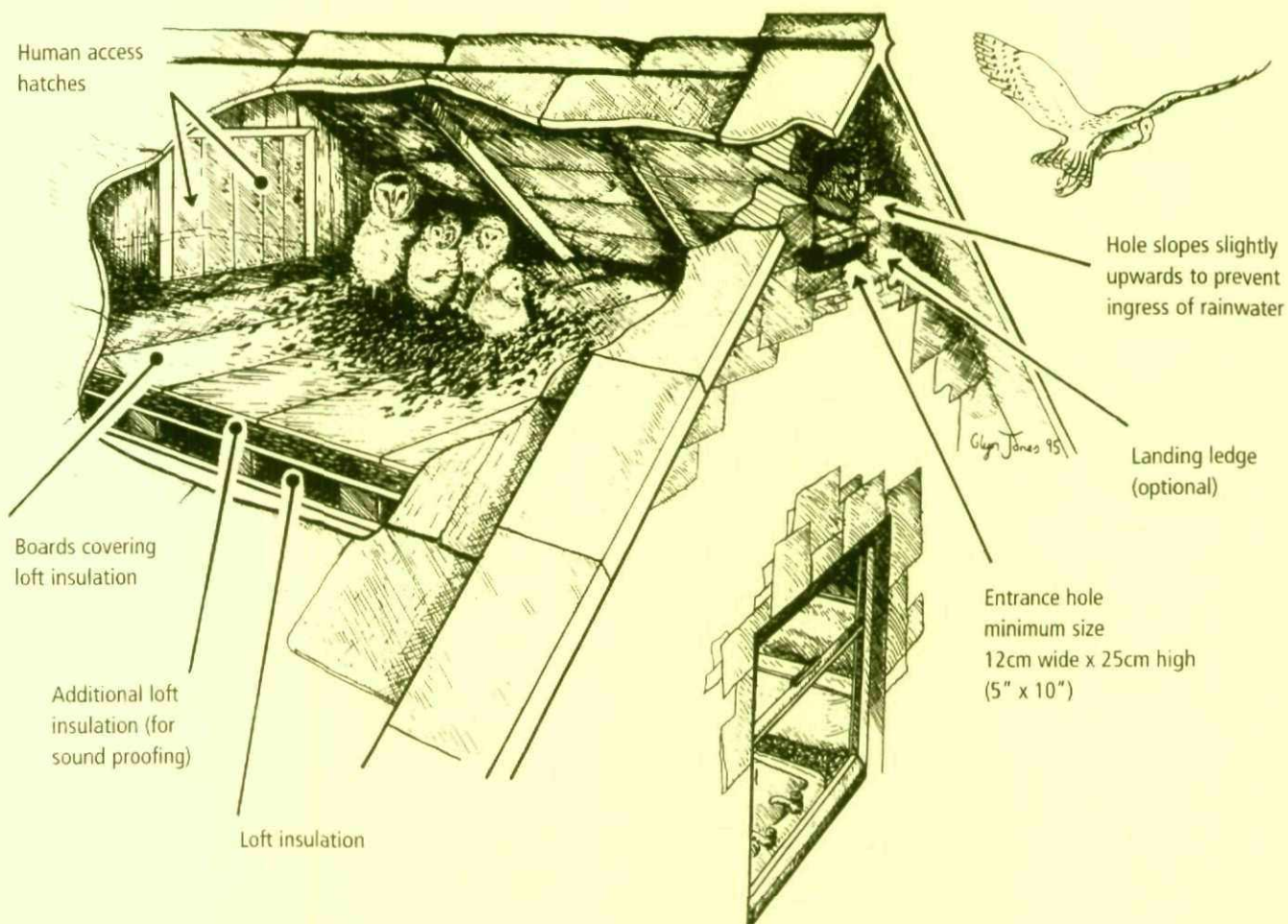
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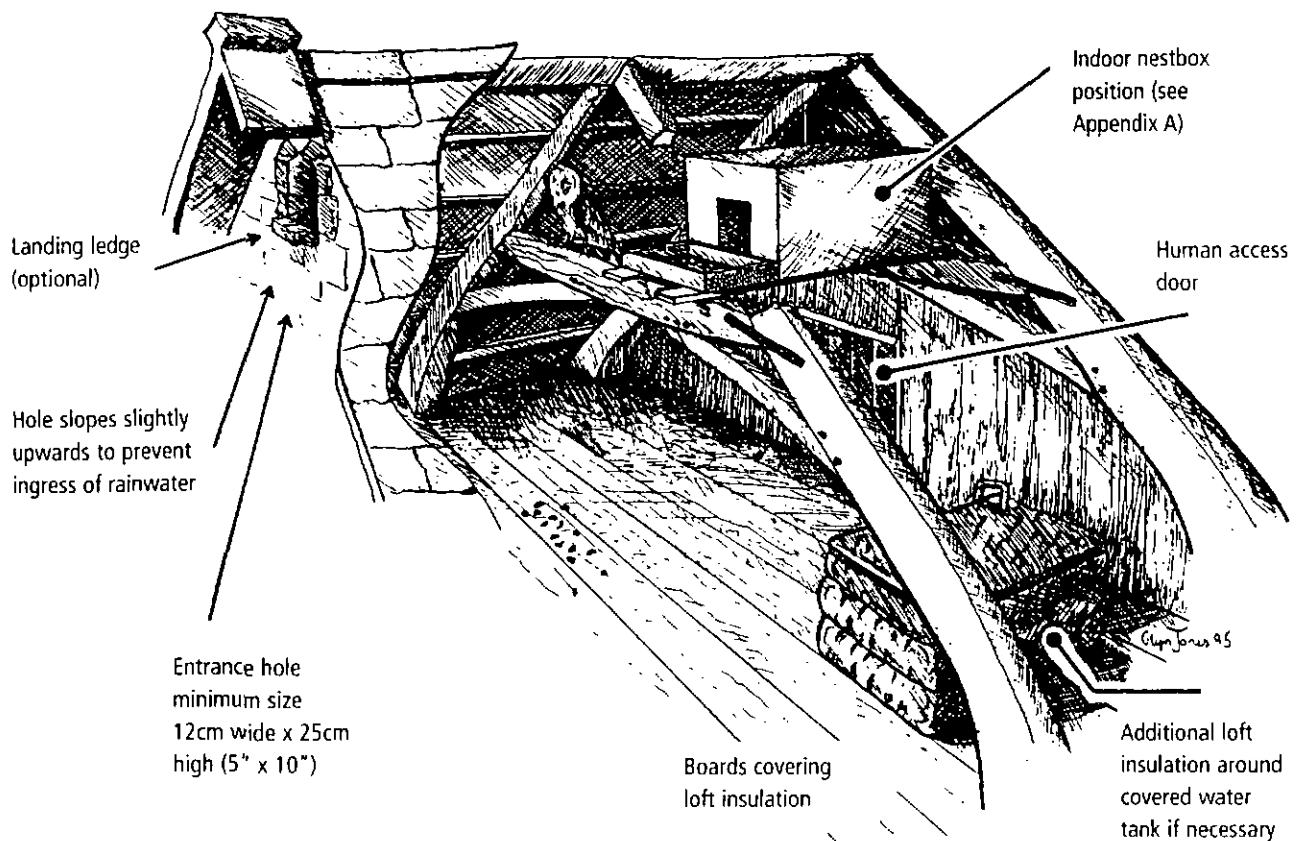
PROJECT	New Hall Barn	
TITLE	AERIAL PHOTO AND SITE LOCATION MAP	
SCALE	DATE	January 2010
EINC	FIGURE	1



PROJECT	New Hall Barn	
TITLE	DIMENSIONS OF A MODIFIED BAT BRICK/STONE	
SCALE	DATE	January 2010
EINC	FIGURE	2



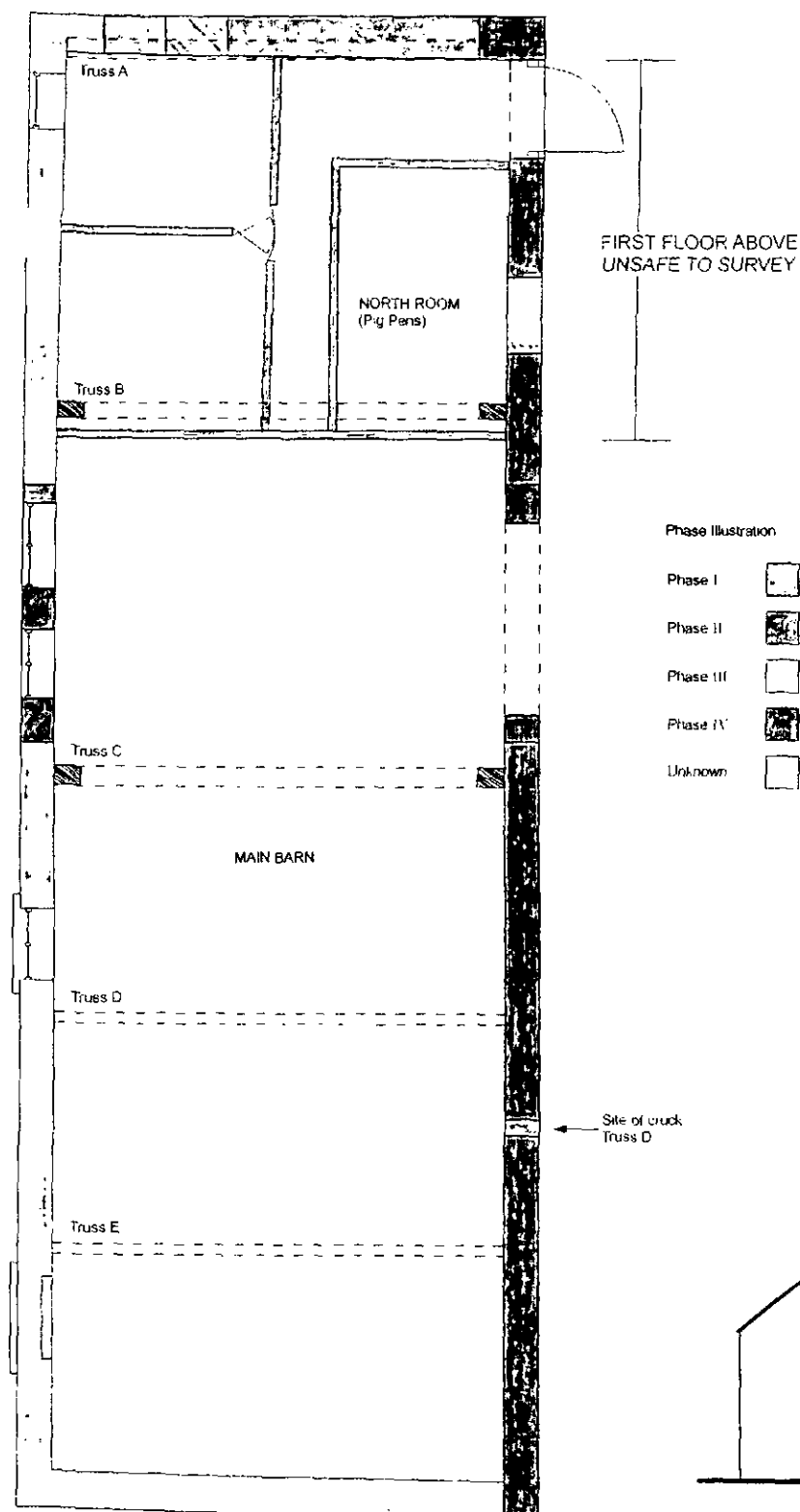
PROJECT	New Hall Barn	
TITLE	EXAMPLE OF BARN OWL PROVISION (1)	
SCALE	DATE	January 2010
EINC	FIGURE	3



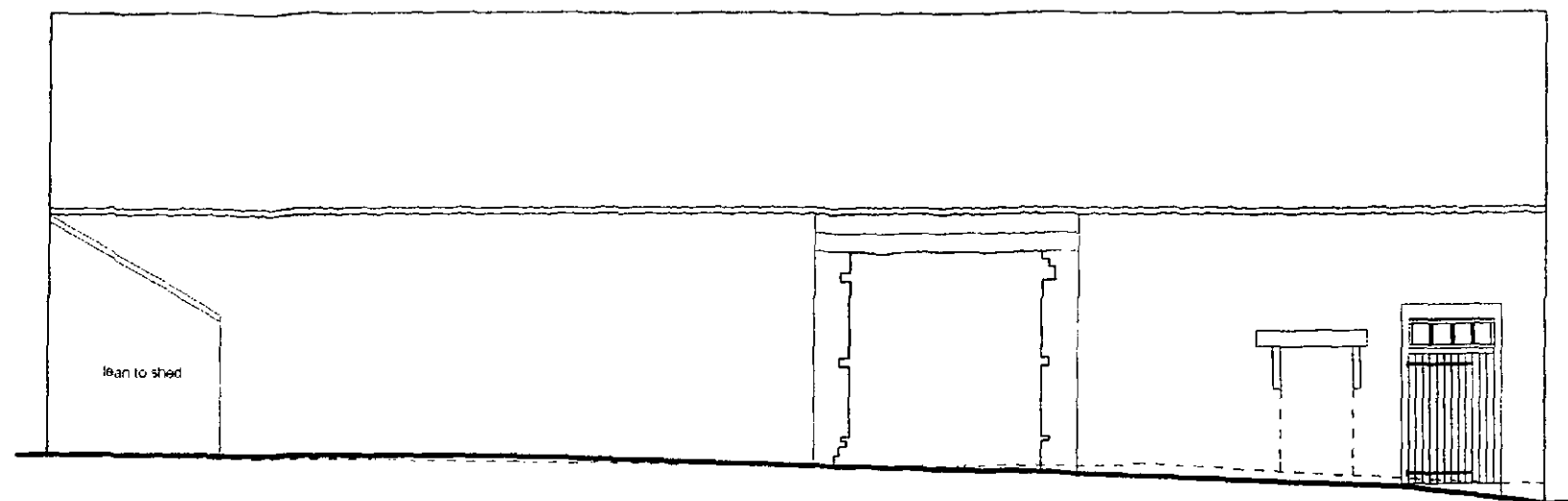
Warning

Do not use material such as old carpet to cover loft insulation as young barn owls can become entangled in loose thread

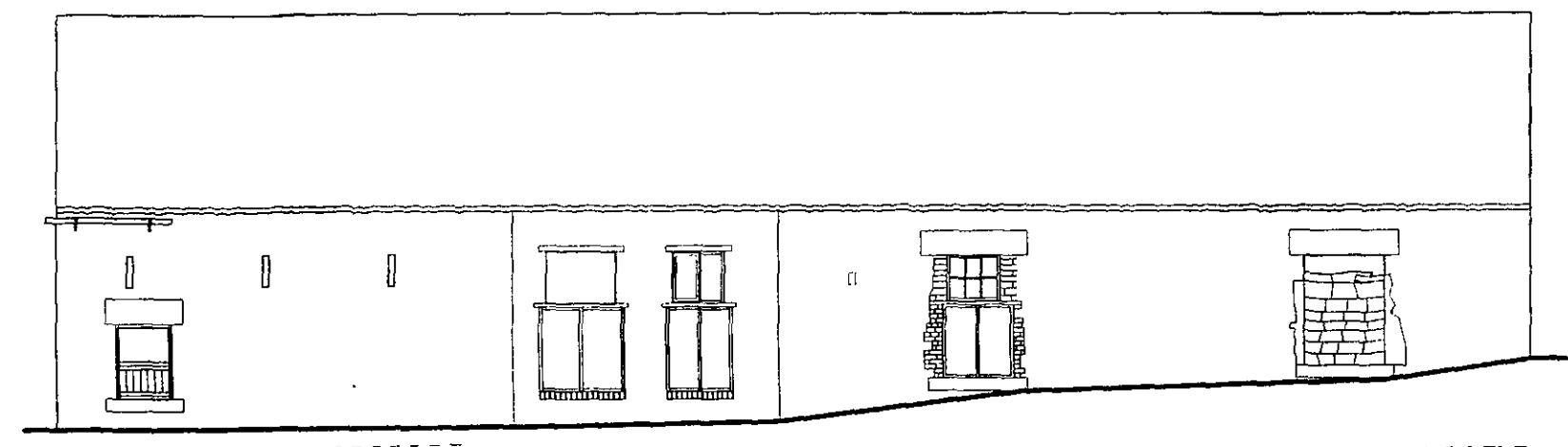
PROJECT	New Hall Barn		
TITLE	EXAMPLE OF BARN OWL PROVISION (2)		
SCALE	DATE	January 2010	
EINC	FIGURE	4	



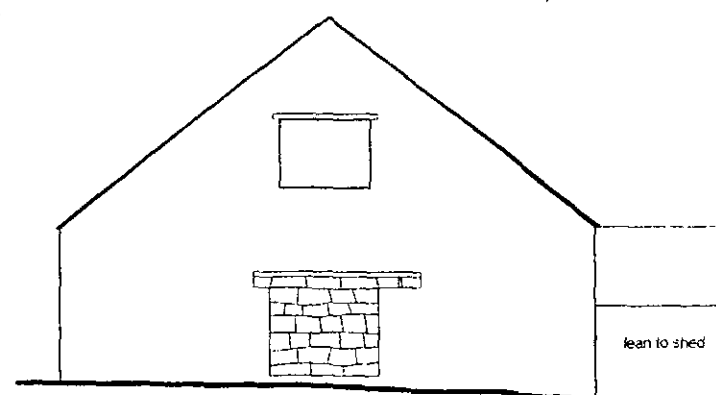
EXISTING PLAN OF MAIN BARN AND NORTH ROOM
(SCALE 1:50)



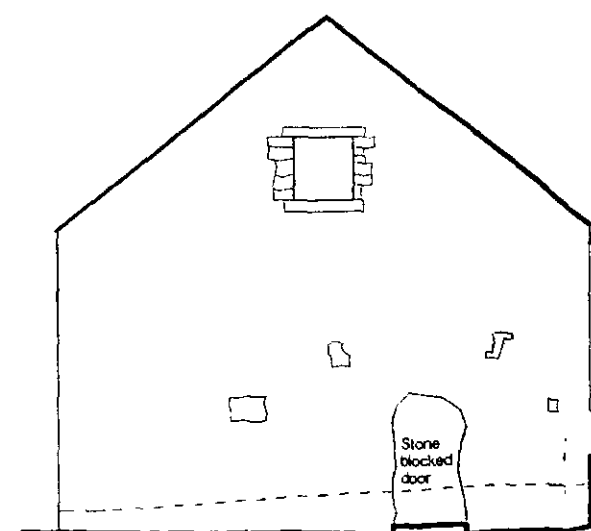
EAST WALL EXTERNAL ELEVATION
(SCALE 1:50)



WEST WALL EXTERNAL ELEVATION
(SCALE 1:50)



SOUTH WALL EXTERNAL ELEVATION
(SCALE 1:50)



NORTH EXTERNAL ELEVATION
(SCALE 1:50)

- Phase Illustration
- Phase I
 - Phase II
 - Phase III
 - Phase IV
 - Unknown

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**POTTS PARRY
IVES + YOUNG**
Chartered Architects

**NEW HALL BARN
RENOVATION**
Existing plan and external elevations

SCALE 1:100
DATE 14/12/09
DRAWN MS

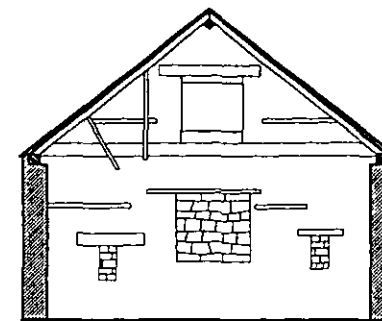
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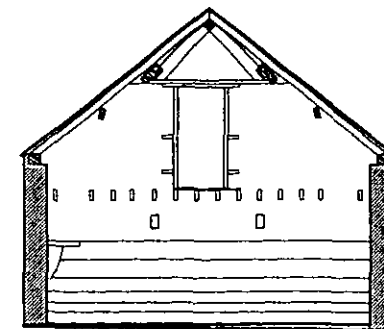
All Drawings Copyright of PPIY Limited



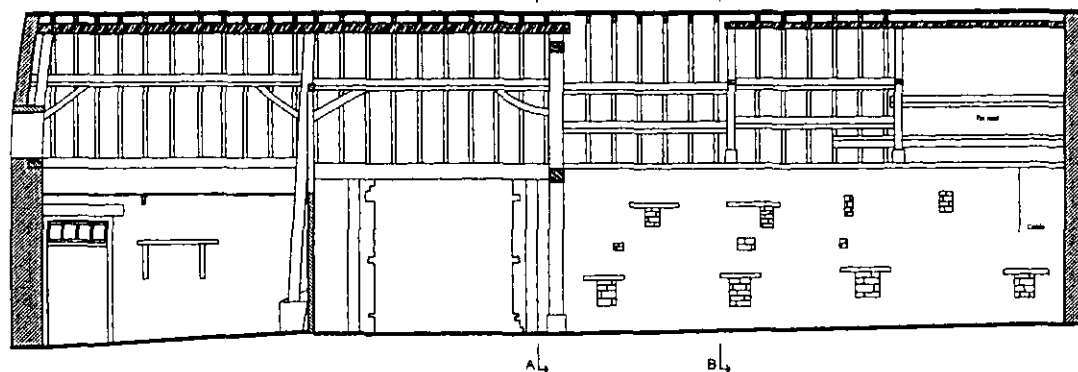
WEST WALL INTERNAL ELEVATION MAIN BARN & NORTH ROOM
(SCALE 1:50)



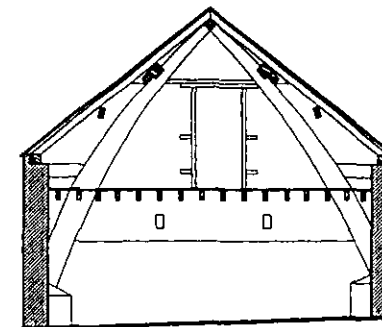
SOUTH WALL INTERNAL ELEVATION MAIN BARN
(SCALE 1:50)



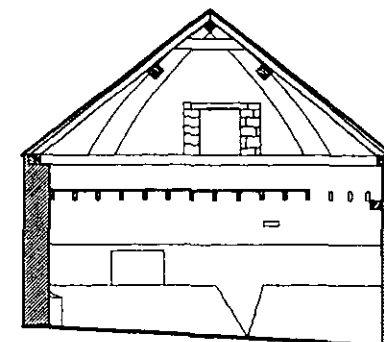
NORTH INTERNAL ELEVATION MAIN BARN
(SCALE 1:50)



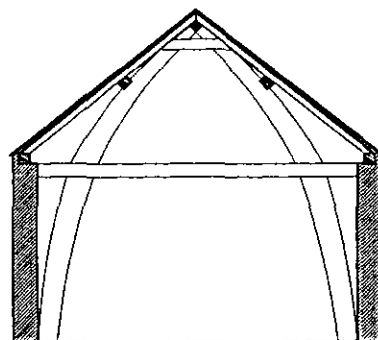
EAST WALL INTERNAL ELEVATION NORTH ROOM & MAIN BARN
(SCALE 1:50)



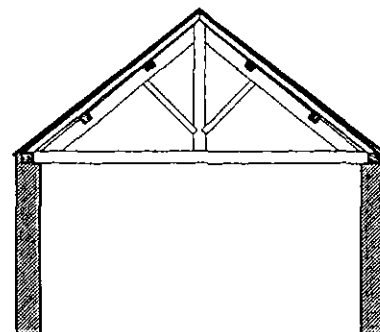
SOUTH INTERNAL ELEVATION NORTH ROOM
(SCALE 1:50)



NORTH WALL INTERNAL ELEVATION NORTH ROOM
(SCALE 1:50)



SECTION A-A CROOK FRAME MAIN BARN
(SCALE 1:50)



SECTION B-B ROOF TRUSS MAIN BARN
(SCALE 1:50)


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**NEW HALL BARN
RENOVATION**
Existing internal elevations

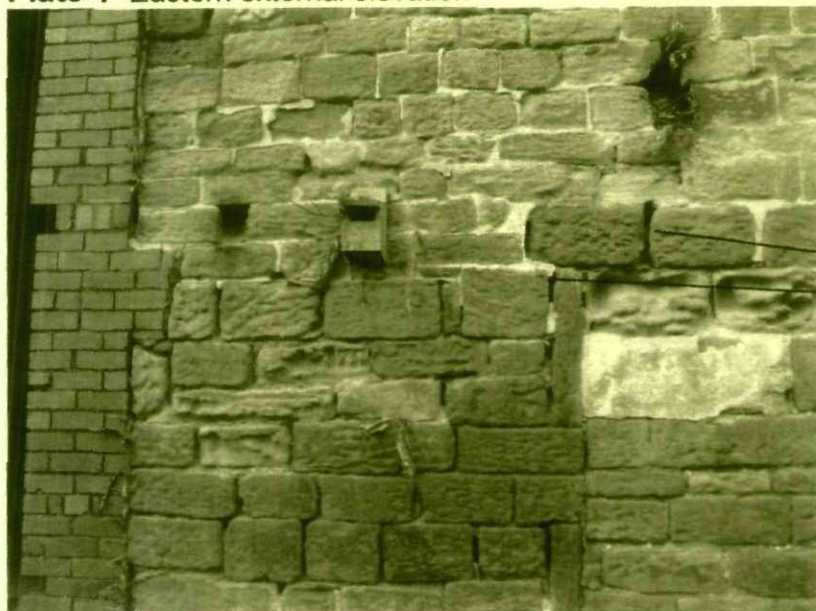
SCALE 1:100
DATE 14/12/09
DRAWN MS

REV

2533/005

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Plate 1 Eastern external elevation



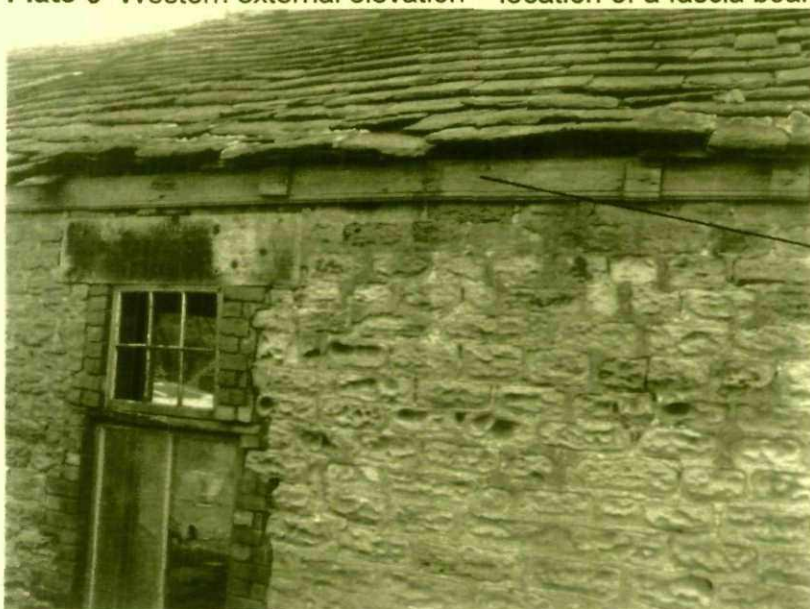
Numerous
crevices
between the
stonework were
suitable for bat
entry into
potential bat
roosts

Plate 2 Northern external gable end



Numerous
crevices
between the
stonework
were suitable
for bat entry
into potential
bat roosts

Plate 3 Western external elevation – location of a fascia board at eaves level



Fascia
board

Plate 4 Western external elevation – close-up of the fascia board



Crevice suitable for bat entry into a potential bat roost between the fascia board and the stone wall

Plate 5 Southern external gable end – the open window is one of the roosting barn owl's main entrances



Plate 6 Internal view of the roof to illustrate overlapping roof timbers



Crevices between the overlapping purlins were sometimes suitable for bat entry into potential bat roosts