TYSDALE HOUSE

TYDD ST MARY

LINCOLNSHIRE

PE13 5QH

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SURVEY AND MANAGEMENT FOR BATS AND OWLS

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TYSDALE HOUSE, TYDD ST MARY, LINCOLNSHIRE, PE13 5QH

SURVEY AND MANAGEMENT FOR BATS AND OWLS

1. BACKGROUND

1.1 The proposed development of barns in Tydd St Mary village was almost opposite the church. To the north of the site were arable fields with very few hedgerows. Mown grass surrounded the barns. There were two types of barns in this proposed development, one being three storeys high and the other was single storey. There were other buildings on the site that were not part of the development. These were all surveyed for bats.

1.2 An earlier survey was carried out by C & A Faulkner in April 2008. All references will be parallel to theirs which appeared a good appraisal of the site and local area (APPENDIX 1).

1.3 Bats often roost in old barns. All species of bat are protected under Section 9 of the *Wildlife and Countryside Act 1981* (Schedule 5)(*WCA 1981*) as amended by the *Environmental Protection Act 1990* and *The Countryside and Rights of Way Act 2000* and *Natural Environment and Rural Communities Act 2006.* Indeed, roosts are protected at all times irrespective of whether bats are present. Also, the Bonn Convention gives further weight to the importance of protecting bats and the Habitats and Species Directive lists four (of Britain's 16 resident species) on Annex II requiring *inter alia* setting up Special Areas of Conservation (SACs) to aid their conservation. The provisions contained within the *WCA 1981* and Habitats Directive are embodied in *The Conservation (Natural Habitats, &c.) Regulations 1994.* The *UKs Biodiversity: Action Plans* lists all British bat species, which serves to highlight the requirements to protect nursery and hibernation roosts (which may be in the same site e.g. a built structure) as well as foraging habitat. Roosts in structures may be used by bats in any season. Therefore, great care needs to be exercised when carrying out any works which may affect bat roosts.

1.4 Barn owls are specially protected under Section 1 of the *Wildlife and Countryside Act 1981* (Schedule 1) as amended by the *Environmental Protection Act 1990* and *The Countryside and Rights of Way Act 2000* and *Natural Environment and Rural Communities Act 2006.*

2. AIM

2.1 To survey the various buildings for the presence of bats and their roosts.

2.2 To survey the buildings for the presence of owls and their nests.

2.3 To assess the significance of the findings.

2.4 To make recommendations on any requirements for licencing and mitigation in the proposed re-development of the site.

3. METHODS

3.1 A full and close survey of all external parts of the building was followed by examination of all places where experience has shown bats might select for roosting internally. The aim was to search for bat roosts and signs of bat occupation. Inspection involved searching all areas for signs of use by animals, e.g. presence of scratches, obvious signs of wear, staining by oils rubbed off fur, droppings etc. and any place where bats might gain entry. If droppings were found they could be distinguished from birds or other animals which also utilise holes for roosts or nest sites.

3.2 The history of any bat occupation can be deduced from a variety of micro-evidence which is central to the detailed surveys developed by and conducted by this Consultancy over the past 50+ years. Old farm buildings can be 'home' to a variety of wild and feral species including rodents.

3.3 The survey used high-resolution binoculars and high-powered hand-held lighting as well as access equipment such as two types of ladder. High quality endoscopes were available but their use was not required.

3.4 Use of buildings by owls is revealed mostly by the presence of pellets as well as feathers and distinctive droppings but the pellets are of distinctive shape and size for each species. The number and position of pellets can indicate whether nesting occurs and suggest the history of occupation.

4. RESULTS

4.1 Main Barn

A three-storey brick built barn with slate on battens and no sarking felt. The internal dimensions were approximately 23m long, 4.5 wide and 7.0m floor to ridge (7.25 at the south end).

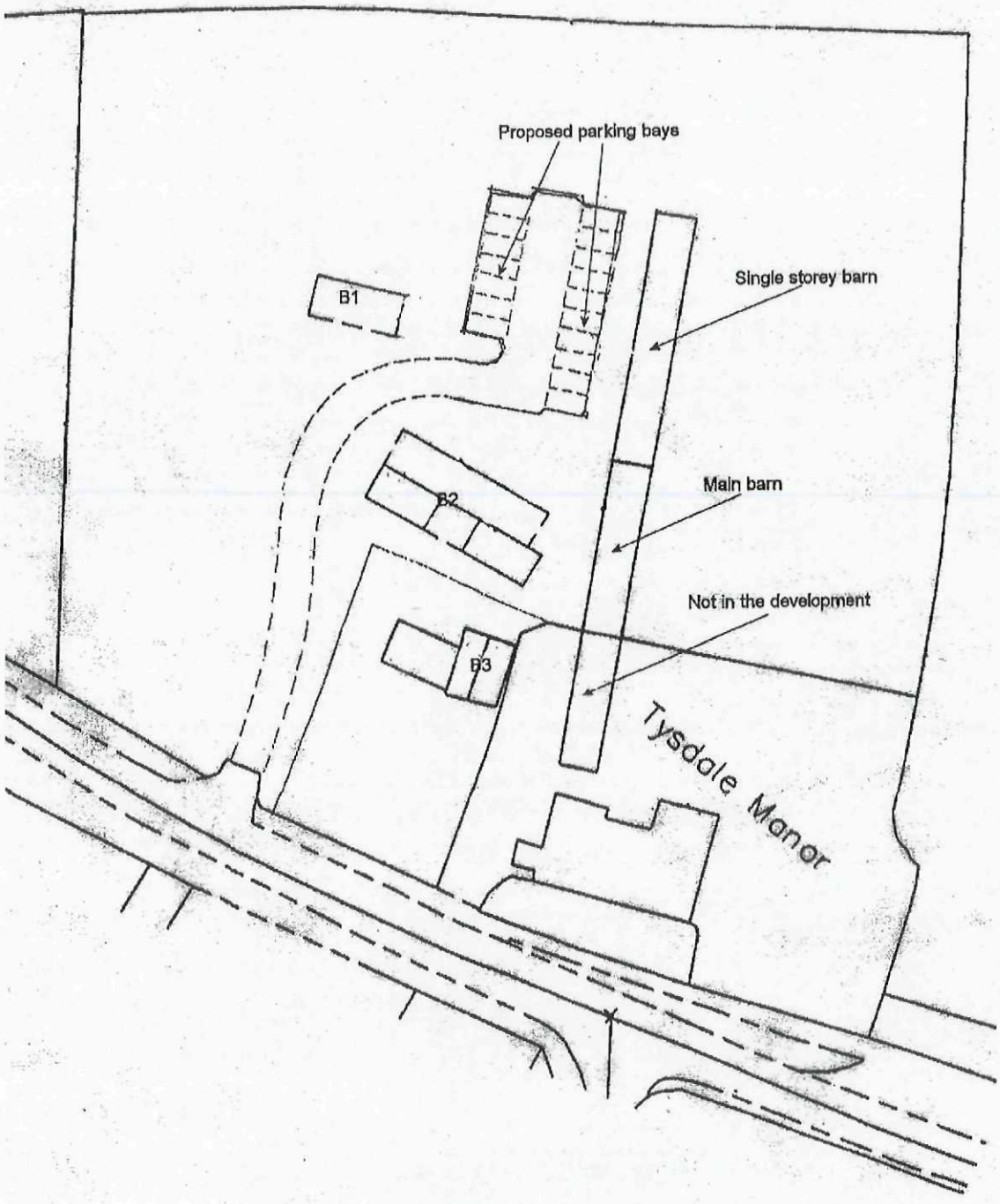
The south end had a first floor platform which projected 4.0m from the south gable wall. The survey on 27 February 2009 revealed no bat droppings on the floor as it had been swept clean. In the Faulkner report, this area was not surveyed. The central area of this barn was open to the roof. Originally it had had a floor on the same level as the platform at the south end. Timbers could still be seen where they were cut off and the ends remain in the wall.

The north gable end had a wall 4.7m from the gable end that supported the first floor, beneath this were areas that can be accessed only from the outside ('Shed' in the Faulkner report).

Above this floor was another platform (2nd floor). This extended 7.5m from the north gable end wall. In the gable wall at this floor level was a small wooden door and attached to this on the outside was a nesting box which Kestrels use (pers. com. via Mr Hendy). This 2nd floor platform was where in the Faulkner report they found brown long-eared droppings. Since their survey,

the floors have been swept clean and there were now stored items on the first floor. No bat droppings were found on either of the floors or the on the covers protecting the stored items.

All recesses and crevices inside the barn were surveyed for evidence of bats. In a recess with a crevice above near the north door (west wall) were three unidentified bat droppings stuck to a brick which would indicate that bats could be using this building throughout the year. The area below the north end first floor (termed 'Shed' in the Faulkner report) was searched and no bat droppings were found but there was an old bird's nest. This area now had stored items in it.



Tysdale Barns, Tydd St Mary

4.2 Single Storey Barn

A brick built barn, 27.4 long, 4.5 wide and 4.5m floor to ridge, with some open 'doorways'. The original roof covering had been replaced with corrugated asbestos and skylights had been installed on the west side. Some of the roof sheeting was missing at the north end. It was being used mainly to store logs. A little owl was disturbed in this barn during this survey.

Conclusion: Bats were not roosting in this barn.

4.3 Conclusions

From the present survey which showed very little evidence of bats using the main barn combined with the useful observations made in April 2008 by C & A Faulkner, it would seem their conclusion that the site is used occasionally by brown long-eared bats. This use would appear to be principally in summer. It is known there is a significant colony of this species which is centred on the adjacent church. However, it is well known that members of such colonies use a number of roosts in the neighbourhood especially in summer where bats rest between bouts of feeding, Some bats may stay in the roost by day as well. Additionally, the numbers of bats using such alternative roosts vary annually depending on the weather and proximity to good foraging habitats.

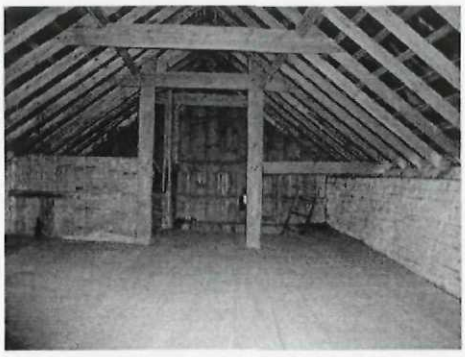
5. RECOMMENDATIONS

Bats

5.1 The second floor at the north end of the Main Barn should be dedicated for a bat loft, 7.5m long, 4.5 - 4.0m wide and 2.8m high from floor to the ridge. This will involve forming a bulk head above stairs to retain full length of bat loft or reposition the four steps over the office area.



North gable wall of bat roosting area



Looking south from north gable wall (bat roosting area)

5.2 No insulation should be installed above, between or below the rafters of the bat loft area.

5.3 Insulate the south wall of this 'bat' area and below the floor.

5.4 No lighting to be installed into the retained bat loft area.

5.5 No ridge vents should be introduced above the bat loft so as to retain solar heat which bats seek.

5.6 If a breathable membrane is used under the slates then a strip of bitumen felt 1.8m down slope from the ridge on each side, will be required to retain the heat.

5.7 A new bat access will have to be created into the bat loft above the kestrel box. This needs to measure about 150mm high x 300mm wide. It is best to make this slot slope up at about 20 degrees from the outside to prevent penetration of water. The base can be lined with a roofing slate or lead.

5.8 The loft will require additional roosting areas on the ridge board, between the rafters and on the gable wall. This is in the form of attaching 25mm thick rough sawn boarding x100mm wide spaced 25mm from the wall and ridge board with battening.

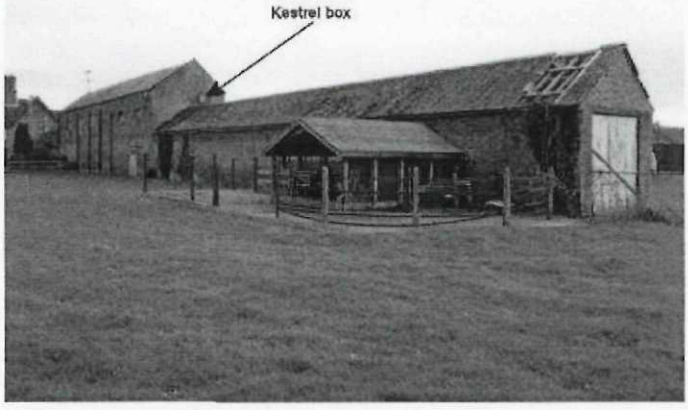
5.9 Excluders will need to be fitted to all of the internal crevices where it appears bats have entered in the past (to prevent any possibility of bats being trapped inside wall crevices)..

5.10 If the bat loft was built during the winter months (October - March) with a gentleman's agreement (bats in the walls during winter) with the owner, this could be done without a NE licence.

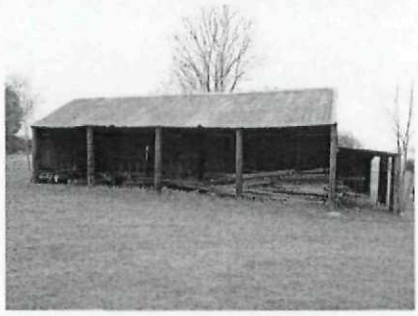
Birds

5.11 There are other buildings nearby that are open and could be used for nesting.

5.12 If work was to start during the breeding season, the Kestrel box should be repositioned immediately and away from the development before they start to nest. An appropriate site could be a pole along the northern boundary of the land ownership.



5.13 The little owls that were reported in the C & A Faulkner report also should be blocked out before nesting and a new nesting box should be provided away from the proposed development. Barn B1 (see plan above) could provide a suitable location.



Next page: Copy of the report by C & A Faulkner dated 16 April 2008

H21/0358/08 Tysdale House barns, Tydd St Mary
Preliminary protected species survey

Having seen a photograph of these barns, it was clear that there was good potential for both bats and birds to be using the buildings, and in addition they are very close to the parish church, which has populations of both pipistrelle and brown long-eared bats within it.

The survey was carried out by C & A Faulkner on behalf of the Council on 11 April 08.

The main barn is substantial, being of 3 storeys and with its original slate roof and timbers. Attached to it is a long single storey barn, which has been re-roofed at some point in the past with new timbers and covered with corrugated asbestos sheet.

The owner told us that they see a large number of bats in the summer.

The main barn
The centre section of the barn is open to the roof ridge, but at each end are platforms at first floor height. The north end platform forms the roof of a small enclosed shed with a separate access, and above it is a further platform forming a second storey that projects some distance into the barn, as shown on the plans.

The owner told us that in Dec 2006 a hibernating brown long-eared bat was found in a redundant electricity box.

On the floor of the open area were numerous butterfly wings, which can sometimes be associated with brown long-eared feeding activity; however, although a very small number of old brown long droppings were found on the floor it was concluded that virtually all the butterfly wings were associated with bird activity.

The south platform was not inspected.

The lower north platform was checked and 5 intact and several old swallows' nests were found. However, although there was an open window access for the birds, the owner told us that the nests had not been used for a number of years and that last year they had had only one pair nesting, in another building. This decline would appear to be consistent with a general trend in the swallow population in this area.

The upper north platform is accessed from the lower one and here, below the ridge, was a scattering of brown long-eared droppings, thought to be mostly from last year, covering an area of approximately 1.5m x 0.5m. It is thought that this roost will be an outlying roost associated with the main colony in the church, probably used by males and non breeding females.

Shed
No evidence of bats was found, but a bird's nest, species not known, probably from last year, was present on the ledge formed by the top of the east wall.

Single storey barn
This had been disturbed recently with the introduction of stored materials, including a large quantity of logs, so a detailed survey was not possible. However, it was considered that its open nature and roof lights would have made it far less attractive to roosting bats. The owner did tell us, though, that he suspected little owls were nesting in a subterranean cavity accessed at the foot of the east wall, and he had found beetle remains there, suggestive of feeding activity. There were no other signs of nesting birds.

Recommendations
The owners are delighted at the discovery of the bat roost, but clearly, before any firm plans can be made, a detailed survey and requirements for mitigation to preserve the roost will be necessary. We therefore advise that this should be referred to a suitably qualified and licensed consultant ecologist as soon as possible.

Annette Faulkner 16 April 2008