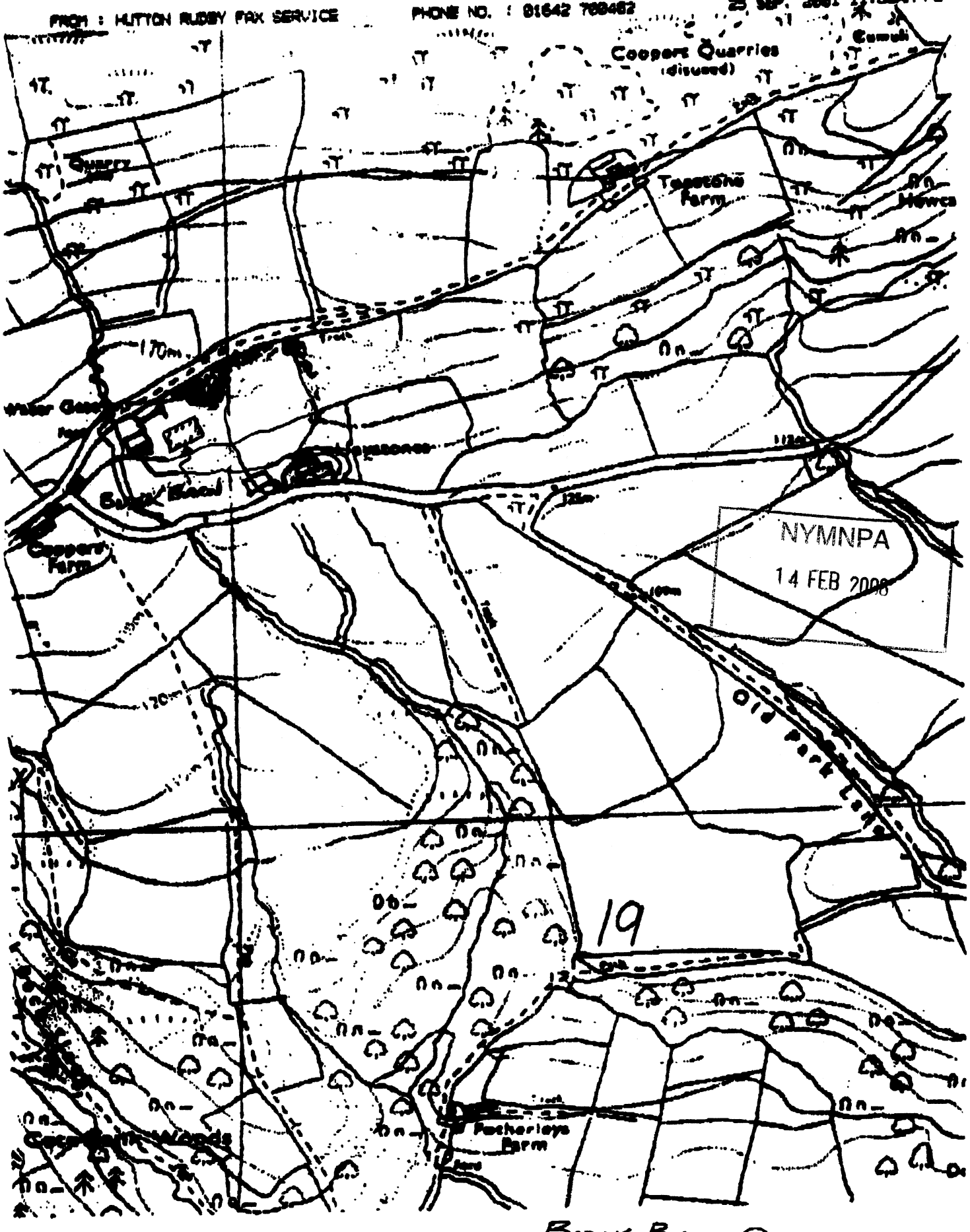
Part 1 Copy
08/78

ADDITIONAL AMENDMENTS

- [ ] Amended layout of buildings/outside areas
- [x] Additional background information
- [ ] Amended design
- [ ] Revised access arrangements
- [ ] Change of description of proposed development - as indicated on the previous page
- [ ] Change in site boundaries
- [ ] Other (as specified below)



Scale 1:5000

Ref NZ 829075

Bunk Barn @
Heystones Manor
Aislaby.

DESIGN & ACCESS STATEMENT

The existing old stone barn building, rebuilt approximately twenty years go, utilizes the old Yorkshire stone small piggeries into one large traditional barn. It has steel corrugated sheet affixed to it.

Existing external yard will be used for parking.

Large entrance gates provide easier disabled access enabling them to drive right up to the building.

There is plenty of grassland surrounding the building; it is wooded, ivy and other plants.

It is our intention to replace the old windows with new hardwood windows and replace the existing roof with traditional red pantiles.

We also think it is ideal for people who wish to walk, cycle, cross-country or to bring their ponies.

John Drewett
Ecological Consultant

Barn at Haystones Manor, Aislaby, Whitby, North Yorkshire, YO21 1SX

Bat survey report

26 November 2006

John Drewett BSc MIEEM – Ecological Consultant
3 Victoria Road, Ripon, Richmond, North Yorkshire, DL11 7DE
Tel/Fax: 01325 718138 Mobile: 07971 895038 Email: johndrewett@btinternet.com

Contents

Details of surveyors working on this project

Surveyor	Experience
John Drewett	Licensed bat worker and trainer with 15 years experience. Licensed by Natural England for all counties.

Details of report and revisions

Date	Details	Issued by
26 November 2006	Original report	John Drewett

1 Summary

1.1.1 A bat survey of a barn at Haystones Manor, Aislaby, Whitby was commissioned by Mr Jowsey in connection with a planning application to convert the building into holiday cottages. The survey was carried out by John Drewett on 23 November 2006.

1.1.2 There is no evidence of bats using the building.

1.1.3 At present the building is considered unsuitable for roosting bats, although it is possible that an occasional Pipistrelle bat could hibernate in the cavity wall.

1.1.4 It is considered that the proposed development will not be detrimental to bats.

1.1.5 Even though evidence of roosting bats in the property has not been found, there is always the risk that individual bats may be encountered during building works. Guidance has been provided to minimise the impact on any such bats.

2 Description of the proposal

2.1.1 The proposal is to convert an existing barn into one or two holiday cottages.

3 Bat survey

3.1 Desk study

3.1.1 North Yorkshire Bat Group was asked to provide copies of any records held relating to bats at the site or within 2km of the site. A summary of the results is provided in the table below.

Species	Site	Grid ref	Date	Comment
Unknown	Grosmont	NZ8205	08 Jul 2001	Orphaned bat
Unknown	Esk Valley Cottages, Grosmont	NZ8305	28 Jan 1986	
Unknown	Esk Valley, Grosmont	NZ8406	03 Sep 1985	Summer roost at dormer window
Unknown	Low Newbiggin House, Aislaby, Whitby	NZ8407	17 Jun 2002	300+ bats from cracked lintel above window in holiday let.

3.2 Survey methodology

3.2.1 A thorough search of the interior and exterior of buildings on the site was made in order to look for bat droppings, feeding remains, live bats, dead bats, stains on timber from the natural oils in bats' fur and claw marks on timbers made by bats regularly roosting in the same location. A torch was used to aid this part of the survey.

3.2.2 A visual inspection of the site was made to note any crevices in trees, buildings or other structures that may be suitable for roosting bats. Details of the survey are given in the table below.

Date	Time	Purpose of visit	Weather conditions
23.11.2006	1045-1145	Inspection of building for evidence of use by bats	Dry, sunny, windy

3.3 Limitations of survey

3.3.1 As the survey was undertaken outside the main bat activity season it is possible that roost sites may not have been located, particularly in places where bats enter through small crevices on the exterior of the building. However, in this case it is considered highly unlikely that the building is currently suitable for roosting bats.

3.4 Description of the site

3.4.1 Haylands Manor is located alongside a minor road between Egton and Aislaby in the North York Moors National Park at OS Grid Ref. NZ831074. The surveyed barn is at NZ829074, altitude 157m (figs. 1-2). The building is in an exposed position on a south facing hillside. There is extensive mixed woodland within 400m and the River Esk flows approximately 1km to the south.

3.4.2 There are good tree line and hedgerow links between the site and the wider countryside.

3.5 Description of each feature surveyed

3.5.1 The surveyed building is a large, two-storey stone barn that was rebuilt about 25 years ago (figs. 3-6). The interior wall is of concrete blocks, forming a cavity wall, although the interior wall is incomplete and so the cavity is rather exposed (fig. 8). The roof is of corrugated metal sheeting and is unlined (fig. 7). There is no roof space. There are a number of windows in the building making the interior light. There are one or two small crevices in the exterior wall (especially at the east end) which provide potential direct access for bats to the wall cavity from the outside (fig. 6). The building is currently used for the restoration of motor vehicles (fig. 9). There is extensive ivy growth on the exterior (fig. 4), with some of this now beginning to invade the interior of the building.

3.6 Field survey results

3.6.1 No evidence of bats was found in or around the building. Droppings were completely absent. There are a few butterfly wings on the floors inside the building, but these are well scattered and unlikely to be the result of feeding bats.

3.7 Evaluation of results

3.7.1 Sixteen species of bat are known to regularly breed in the United Kingdom, of which eight are known to occur in North Yorkshire. Although there are few existing local bat records this is quite typical of remote rural areas as most of the existing records have been accumulated as a result of responding to enquiries about bats from the public, rather than as a result of a comprehensive survey. It is likely that most of the county's eight species occur within the local area.

3.7.2 There was no evidence of bats roosting in the surveyed building. Opportunities for roosting bats are limited by the nature of the roof, lack of underdrawing or an enclosed roof space. Bats could utilise the cavity wall, especially on the south side of the building, but as the interior wall is incomplete it currently provides little disturbance from predators and other disturbance. It is possible that an occasional hibernating bat could utilise the cavity in winter, especially on the east or north wall, but this is relatively unlikely.

3.7.3 It is considered that the building is unlikely to support roosting bats in its present condition.

4 Impact assessment

4.1.1 Even though evidence of roosting bats in the property has not been found, there is always the risk that individual bats may be encountered during building works, especially in winter. Guidance has been provided to minimise the impact on any such bats.

4.1.2 Overall, it is unlikely that the proposed development will have any adverse impact on bats. Following conversion the building is likely to be more suitable for roosting bats, particularly if access and mitigation features are incorporated.

5 Mitigation strategy

5.1 Mitigation principles for bats

5.1.1 Where bats are present mitigation is required to avoid or reduce the impact of development proposals on the population of bats, 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 crucial feeding habitat.

5.1.2 Natural England in their published guidelines *(Mitchell-Jones, 2004)* defines the key principles involved. **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.

5.1.3 Mitigation and compensation are required to be proportionate to the size of the impact and the importance of the population affected. There should be no net loss of roost sites and compensation should provide an enhanced resource since the adoption of new roost sites by bats is not guaranteed. The scheme should replace like with like in terms of the type of roost. Compensation should ensure that the affected bat population could continue to function as before.

5.2 Procedures to be followed during building works

5.2.1 Even though evidence of roosting bats in the property has not been found, there is always the risk that individual bats may be encountered during building works. This is most likely in wall crevices during pointing works.

5.2.2 If bats are found work in the vicinity must stop and further advice be sought. If bats have been exposed and are vulnerable they may be put into a securely fastened ventilated container until help has been obtained. Note that a small number of British bats have been found to carry a rabies related virus. Consequently bats should be handled only if wearing gloves and care should be taken to avoid the very low risk of being bitten. Bats should not be released outside during daylight.

5.3 Incorporating features in the conversion to encourage bats

5.3.1 Bats may well find the converted building attractive, particularly if access is provided to the area between roof tiles and underdrawing/underfelt; any enclosed roof void; or the interior of cavity walls. Bats would be most likely to utilise the cavity wall on the south side of the building in summer and on the north side in winter.

5.3.2 Access to the area between the tiles and underfelt can be provided by the inclusion of bat access slates. A 300mm square of lead (at the very least Code 6 quality) is sufficient to construct a bat slate. The bat slate should take no more than a couple of minutes to make and can be fitted during the normal re-roofing process. On a plain tile roof the bat slate can be fitted anywhere. The wings of the bat slate should go under

the adjacent tiles. On a slated roof or profiled tile roof the bat slate can only be fitted under the ridge tiles. See illustrations below.

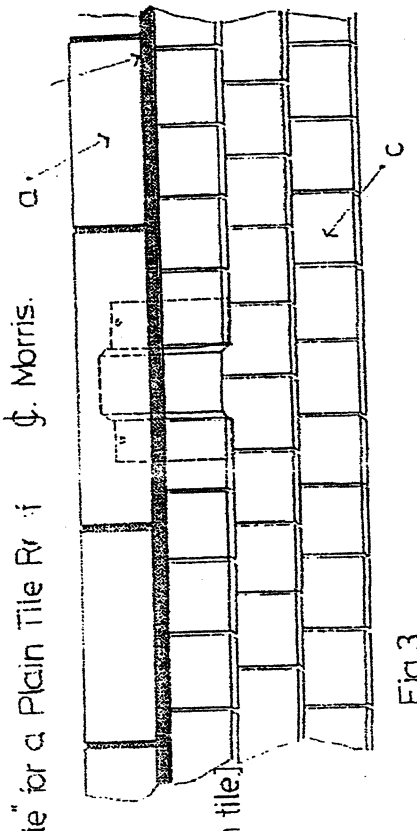


Fig.3.

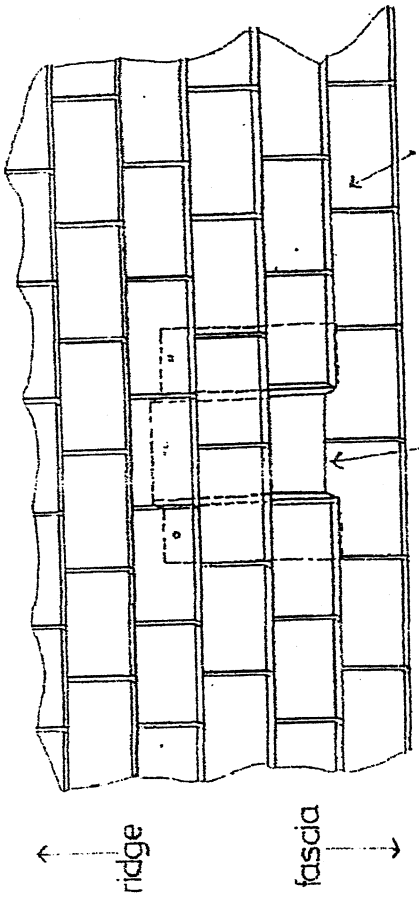


Fig.4. Bat Access

Lead 'Bat Slate' for a Plain Tile Roof ©. Morris.

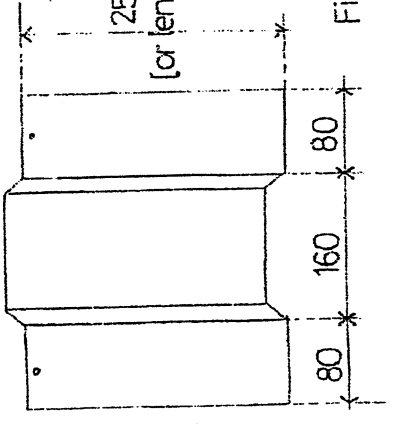


Fig.1.

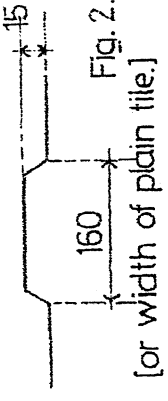


Fig. 2.

Original size of lead:
250x350mm. approx.

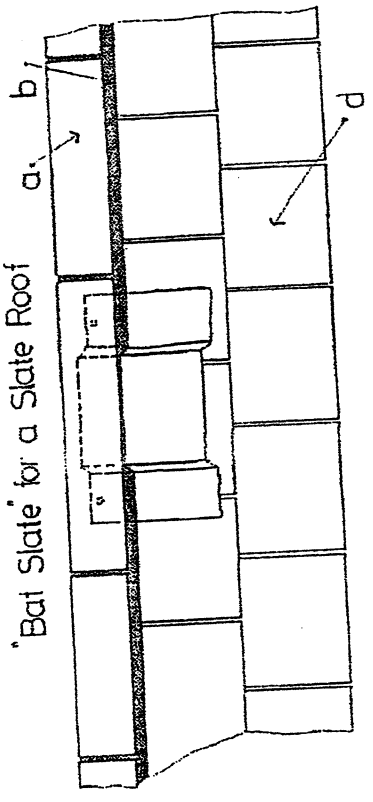


Fig.7

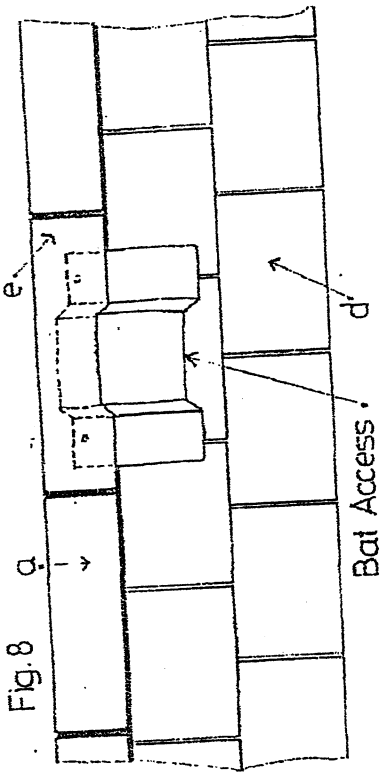


Fig.8

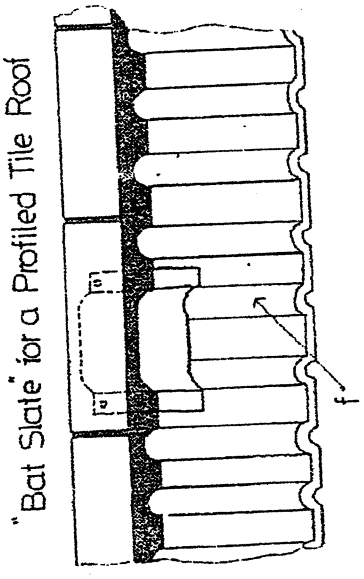


Fig.5

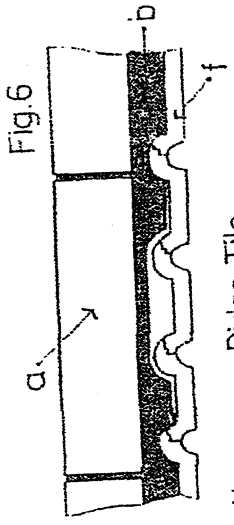


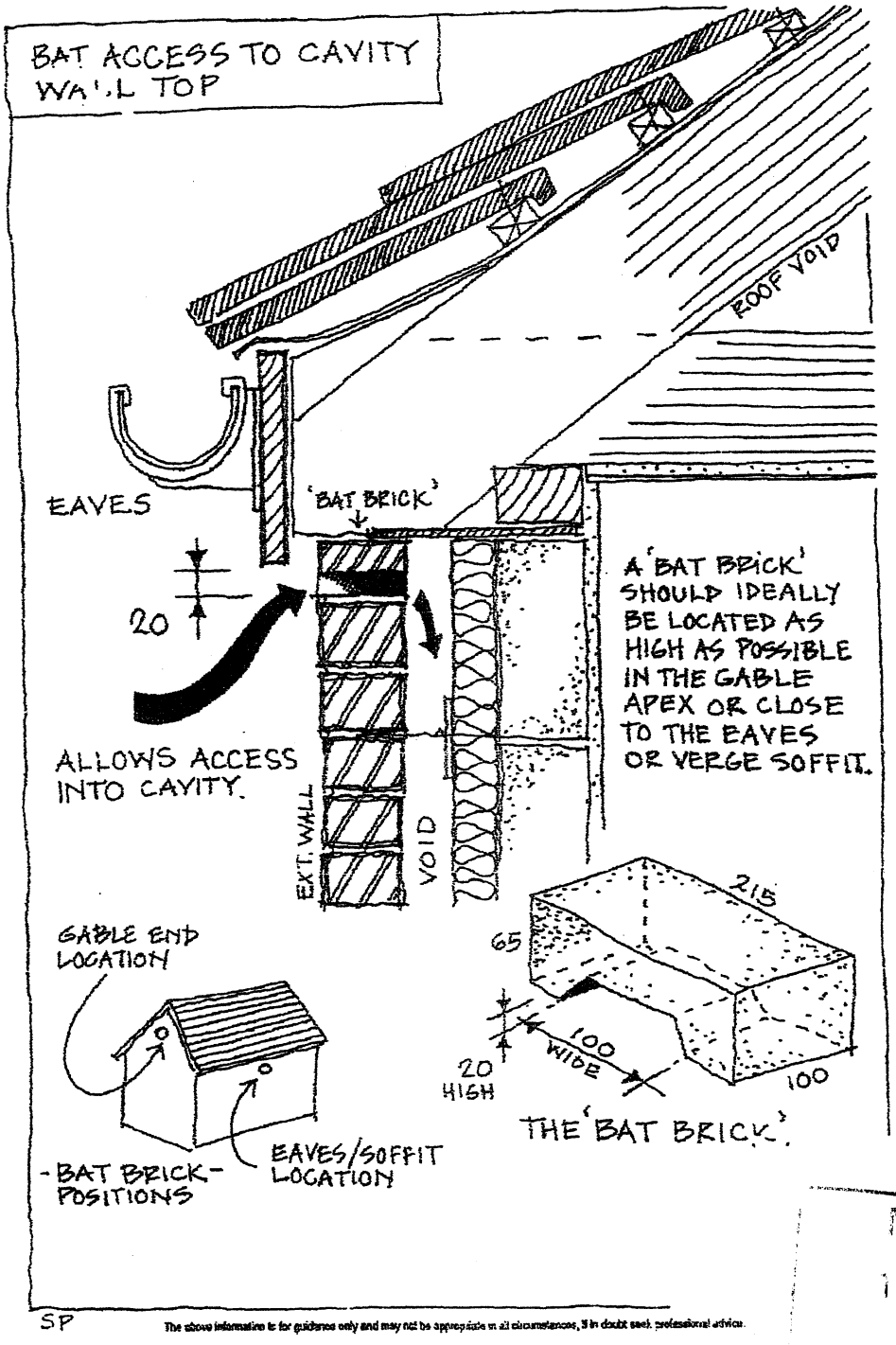
Fig.6

Key: a Ridge Tile
b Mortar
c Plain Tile
d Slate
e Modified Ridge
f Profiled Tile

G. Morris.

5.3.3 To provide access for bats to any roof void, holes will need to be cut in the underfelt immediately beneath bat access slates at the ridge.

5.3.4 To provide access to the cavity wall for bats in summer access should be provided to the south wall by the use of one or more bat bricks. These are available from Marshalls Clay Products. The method of achieving this is illustrated below.



5.3.5 Gaps should be left in the external wall during pointing to encourage hibernating bats to use the cavity wall. The gaps should slope up slightly to shed water and have a height of 18mm (range 15-20mm) and be a minimum of 80mm wide. These are best achieved by inserting a batten in the wall prior to pointing and removing this once the mortar has set. These gaps should be just above head height on the north and west sides of the building and not above windows or doorways.

6 Figures

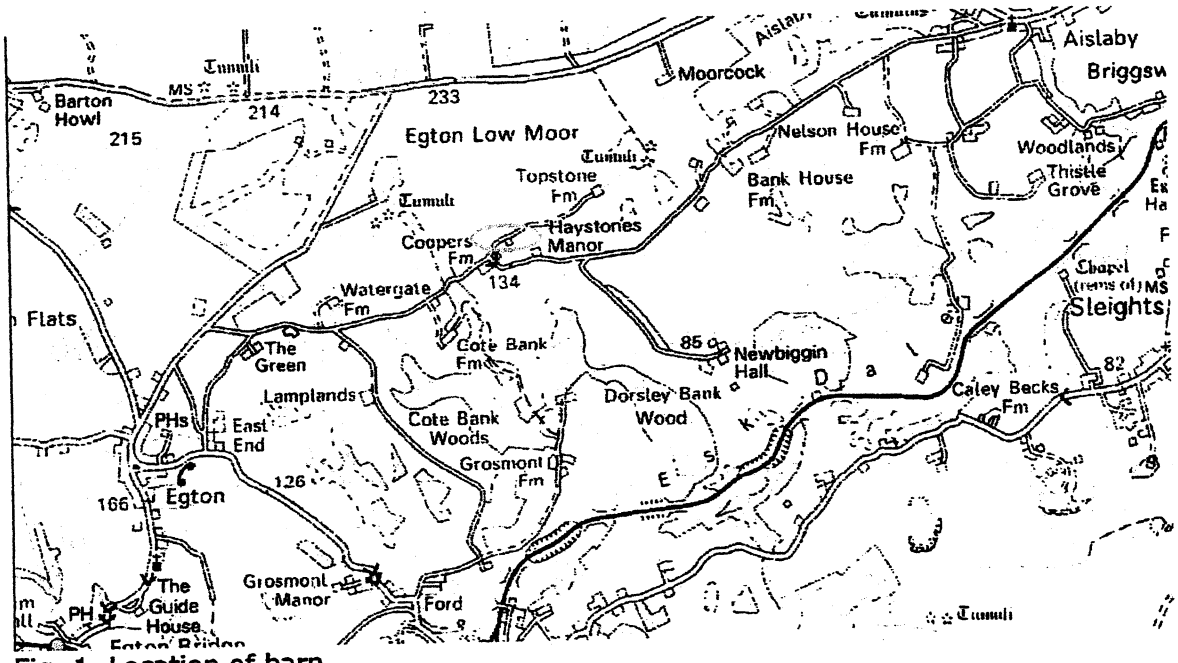


Fig. 1 Location of barn

Fig. 2 Location in relation to local habitats

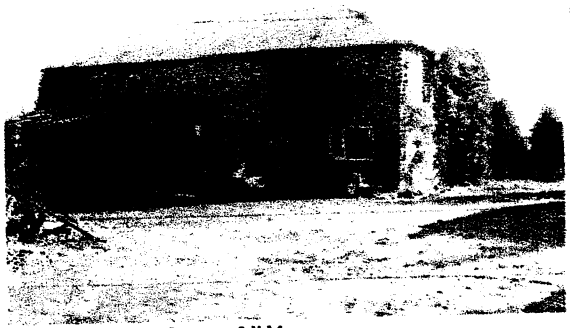


Fig. 3 Barn from NW

Fig. 4 S side of barn viewed from SW

Fig. 5 East end of building

Fig. 6 Crevice in east end wall

Fig. 7 Underside of roof

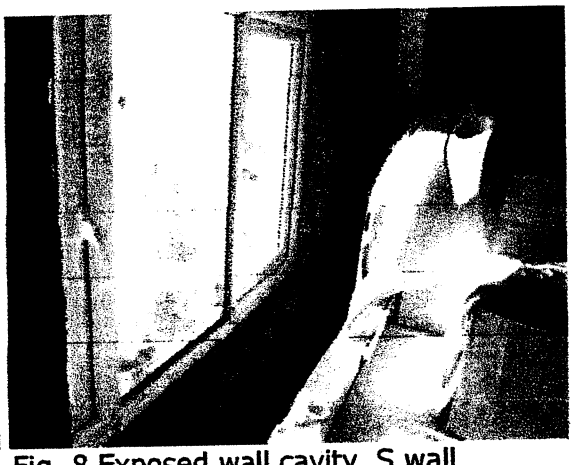


Fig. 8 Exposed wall cavity, S wall

Fig. 9 Interior, ground floor

7 Brief summary of bat biology

7.1.1 Bats are the only mammals to have developed powered flight. They are the second largest group of mammals in the world, with almost 1000 different species. In Britain 17 species occur, with the variety generally declining northwards. All British bats feed solely on invertebrates.

7.1.2 British bats live in crevices in trees, caves, buildings, bridges, tunnels and other structures. They are long-lived animals which use roost sites to which they return in subsequent years. In summer females are generally colonial, each species gathering together in warm maternity roosts to give birth to their single young. Males often spend the summer singly or in smaller groups. Bats may use several different roosts over a summer, moving between sites depending on prevailing weather and other conditions.

7.1.3 In winter bats hibernate. During hibernation their body temperature falls close to the ambient temperature of their chosen hibernaculum and their heart rate and metabolism drop dramatically. In this state they use little energy, allowing them to survive until spring on their fat reserves. They are very sensitive to temperature changes which cause them to wake, a process which uses considerable energy. Repeated arousal in winter can threaten their survival. Many species hibernate in cool, stable underground sites such as caves and tunnels.

7.1.4 For more than 50 years bats have undergone a major decline in numbers. The reasons for these declines are many and varied, but include destruction of roost sites, a reduction in insect prey and direct and indirect poisoning from toxic chemicals. Even our commonest species, the Pipistrelle bats, have declined by more than 60% in recent years.

7.1.5 The survival of a colony of bats depends on there being a range of suitable summer roost sites, hibernation sites and feeding areas within a reasonable distance. For most species, these various sites must be linked by a more or less continuous network of linear features such as rivers, woodland edges and hedgerows, along which the bats commute from place to place (Limpens & Kapteyn 1991).

8 Legislation and planning in relation to bats

8.1.1 Bats receive full protection under the Wildlife and Countryside Act 1981 (in Northern Ireland under the Wildlife (Northern Ireland) Order 1985 and on the Isle of Man by the Wildlife Act 1990). They are also protected under the Conservation (Natural Habitats, &c.) Regulations 1994.

8.1.2 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.

8.1.3 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. The prosecution has to show that a person either deliberately took an unacceptable risk, or failed to notice or consider an obvious risk.

8.1.4 Where it is proposed to carry out works which will affect a bat roost other than in an existing dwelling house, a European Protected Species (EPS) licence must first be obtained from Natural England even if no bats are expected to be present when the work is carried out. Alterations to existing dwelling houses must first be submitted to Natural England for approval.

8.1.5 An EPS licence application requires details of the work proposed, the bats which may be affected and mitigation proposed to maintain the favourable status of bats in the region. The application is usually drawn up and submitted by someone with bat expertise. A licence may also require ongoing monitoring of the site following completion of the works.

8.1.6 When considering an application, Natural England consult with the local planning authority. This process may take a considerable length of time. Natural England presently state that they aim to respond formally to an application within 30 working days of receipt, but there is no guarantee that this time scale will be met and occasionally it is exceeded, sometimes by a substantial margin. There is no fast track to obtaining a licence and applications can only be made once planning permission has been granted (where appropriate).

8.1.7 EPS licences can only be issued if Natural England is satisfied that there is no satisfactory alternative to the development and that the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

8.1.8 PPS9: Biodiversity and Geological Conservation is the relevant national planning statement in relation to protected species. It provides guidance on how the Government's policies on nature conservation should be implemented through the land use planning system. PPS9 states that "the aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. Where granting planning permission would result in significant harm to those interests, local planning authorities will need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that... adequate mitigation measures are put in place... If that significant harm cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused.

9 References

Anon (2005) *Planning Policy Statement 9: Biodiversity & Geological Conservation,* Office of the Deputy Prime Minister

Limpens H J G A & Kapteyn K (1991) *Bats, their behaviour and linear landscape elements*, Myotis 29, 39-47.

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

Mitchell-Jones A J & McLeish A P (2004) *Bat Workers' Manual*, JNCC.

COPY.

R. A. & J. M. PARKER

Building Engineers & Chartered Surveyors

JMP LtdSvy

ELEMENTAL SURVEY / INVESTIGATION REPORT.

Name and
Address of Client

Mr C Jowsey
Heystones Manor
AISLABY
Whitby
North Yorkshire
YO21 1UQ

Address of
Property Inspected

THE BARN
HEYSTONES MANOR
AISLABY
WHITBY
NORTH YORKSHIRE

1.0 INSTRUCTION

Telephone instruction received, to carry out a survey of the structural wall and roof elements of the barn and prepare an Elemental Report on the condition and suitability for conversion, based on our findings. Confirmed.

1.1 DATE OF SURVEY

21 November 2006.

1.2 WEATHER

Bright with high cloud and a cool wind.

17 South Side, Hutton Rudby, North Yorkshire. TS15 ODD. J.M.PARKER, F.B.Eng P.Eng MRICS MCIOB.
Tel : [redacted] - Fax [redacted] - Mobile [redacted] E-mail : [redacted]

1.3 FINDINGS

The subject building is approximately 20 – 25 years old and situated on the North side of the Esk valley, with an open frontal elevation to the South. The bard is approximately 20 metres long x 8 m wide, with a natural stone face to each elevation.

WALLS:

The external structural walls are in cavity construction having an overall thickness of 460 mm, with an external leaf built in random natural local stone bedded in cement mortar and an inner leaf constructed in standard 100 and 150 mm concrete blocks, with wire cavity ties spanning to the outer stonework. There are no lateral walls, or internal piers supporting, the longer spans to the front and rear structural walls. Horizontal PVCu damp proof courses are built into the walls at between 100 and 350 mm above the present external ground levels. The door and window openings are supported with a variety of pressed steel lintels and rolled steel universal beams. The wall structures are supported on wide concrete strip foundations; on the front elevation the foundations on the falling made up ground, are up to 2.0 m below the current ground level, onto the clay subsoil.

A detailed survey of the wall structures, both internally and externally, did not reveal evidence of any settlement, subsidence or other abnormal movement, either in the walls or supporting foundations and sub-soil. Minor isolated deterioration noted in the external weather pointing and hairline cracks in the bed joints are typical of a structure of this age, with natural stone bedded in varying cement mortar mixes. There are no airbricks providing ventilation to the suspended timber ground floors; holes in the front wall allow airflow to the area, with no protection from vermin.

ROOF:

The roof is a traditional style, double-pitched structure, with pitched hip detailing on the East and West ends. The main pitch is formed with standard heavy duty timber 'fink' trussed rafters, spanning North – South from timber wall plates on the inner leaf of the cavity walls, the trusses are at a maximum 400 mm centres and spiked to the wall plates and finished with minimal bracing. The hip detailing is formed in 63 x 100 mm spars and joists, the joists connecting to a single truss at the lower string, with supporting timber framing to the mid span of the spars.

The timber roof structure supports a weather covering of lightweight profiled metal sheets on timber supports, partly backed with PVC sheeting. The roof discharges to gutters on the front and rear elevations, with no gutter protection to the roof on the hipped ends.

FLOORS:

At ground floor level, a concrete slab floor serves the area immediately inside the sliding entrance doors, with suspended timber floors over the remaining area. These are formed with 50 x 230 mm timber joists, spaced at a maximum of 400 mm centres, supported on brick and block piers and sleeper walls. The surface is boarded in tongued and grooved boards, with 70 % over boarded in a compound board finish. The sub floor void is poorly ventilated and up to 1 metre deed, the front area filled to level on the original sloping site.

The first floor is of similar suspended construction, formed with 50 x 230 mm timber joists, supported on double timber runners and a steel UB at mid-span. The finish is boarded in a compound sheet (Chipboard)

There is evidence of some decay in the board finishes at the lower level, though there is no evidence of movement in the timber joisting at ground or first floor level, or of any movement or distortion in the supporting walls.

1.4 CONCLUSIONS

The **wall** structures are substantial and of relatively recent construction, supported on heavy concrete strip foundations. Our survey did not reveal evidence of any settlement, stress movement or other damage to the property, affecting the integrity of the structure. Minor hairline cracks noted in isolated mortar beds, notably at external window openings, are common in this form of construction, due to differential thermal movement around the steel lintels.

The main **roof** construction is formed with standard trussed rafters, designed for the 8 metre span of this building, with no evidence of abnormal settlement, spread or stress in the timber structure, or in the supporting external wall structures.

The timber structures forming the hipped ends to the roof are adequate for the current profiled metal sheet weather protection in place; with no evidence of any settlement or spread developing in the structures.

There has been no movement at the ends of the joists forming the suspended timber floor; if present this form of deflection or settlement could indicate possible movement in the supporting wall structures.

1.5 RECOMMENDATIONS

The building is well constructed and generally in good condition, requiring only minor maintenance work to retain the long-term integrity of the structure. In my opinion, the wall structures would be more than adequate to support a change of use to domestic properties, with the addition of the lateral internal party walls this would involve.

Any domestic conversion contemplated, would involve the upgrading of the weather protection and insulation levels to the roof areas. The roof trusses in place would, in my opinion, be adequate to support such additional loadings, e.g. a pantile or similar roof covering and 140 mm board insulation. The junction of the main central roof and the hipped ends will require additional strengthening to sustain an additional loading at this level. Stainless steel tie down straps will need to be added to the exposed wall plate and additional diagonal bracing will be required in the roof structures.

1.5 GENERAL

We have not inspected parts of the property other than those instructed, woodwork or other parts of the structure, which are covered, unexposed or inaccessible and we are, therefore, unable to report that any such part of the property is free from defect.

In preparing this report, the assumption has been made that no high alumina cement concrete, calcium chloride additive or other deleterious material was used in the construction of the property and consequently no material has been taken for laboratory analysis unless otherwise stated.

Unless otherwise expressly stated, it shall be assumed that we have not been asked to provide advice in relation to asbestos or materials containing asbestos products.

Signed ..... Date 22-11-2006

J M PARKER FBEng. MPEng. MRICS. MCIOB.