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PROTECTED SPECIES APPRAISAL

30th July 2013

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1.0 INTRODUCTION AND BACKGROUND

This report has been prepared by *James Johnston Ecology* (JJE) on behalf of the Brockhampton Estate (the site owner). It presents the findings of an ecology and protected species appraisal undertaken at a small detached rural barn, close to the Wye Valley, in Herefordshire. The applicant is seeking planning permission for conversion of the barn for office uses. This report supports the planning application to the local planning authority (LPA) - Herefordshire Council.

JJE has undertaken an 'initial protected species survey' during two winter visits in early 2013, and further detailed bat emergence surveys have been conducted over May and early June 2013. This approach has been discussed and agreed with the Council's Ecologist (Bridgit Symons), at a site meeting on 30/01/13. The initial surveys included searching for evidence of bats, as well as other notable fauna.

All British bat species and their roost sites are fully protected from 'intentional' and 'reckless' harm and disturbance, under the Wildlife and Countryside Act (WCA)1981 (as amended 1985 and 2000), and the Conservation Regulations 2010. Barn owls can use barns and outbuildings as nest and roost sites. This is a threatened species of medium conservation concern, listed by the Royal Society for the Protection of Birds (RSPB) as having undergone a moderate decline (25 - 49%) in the UK breeding population or range over the last 25 years, and with an unfavourable status in Europe. Along with most British bird species barn owls are legally protected from disturbance during nesting (from nest building until the young have fledged), under the WCA 1981.

Potential adverse effects on protected species are a 'material consideration' within the planning decision. If bats or barn owls, or other legally protected species are found to be residing within such buildings, a mitigation strategy will be required (providing compensatory opportunities, defining timing constraints and measures to avoid harm and disturbance to animals during building works, etc).

Where any active bat roost would be impacted by a development scheme, a Natural England roost disturbance/destruction licence would also be required, to avoid legal infringement, prior to site works starting.

The remainder of this report provides the following sections - Methodology, Findings, Potential Impacts, Mitigation and Enhancement Strategy, The Three Tests (that are required to be considered before a bat licence can be given), and the Conclusions. Photos are interspersed with the text to assist in setting the context, and plans at the rear of this report include 'Ecology Findings', 'Summary Ecology Mitigation', and 'Sketch of Bat Mitigation Cave' (which locate the features discussed).

2.0 METHODOLOGY

Background Records - A 'data trawl' (or records search) was undertaken via Herefordshire Biological Records Centre, seeking records of protected species within 2km of the site. Natural England's 'nature-on-the-map' website was also accessed for information on nature conservation designations, and the national biological recording network (NBN) website was also viewed at low resolution for wider records of Barbastelle bats, although for copyright reasons no specific records are referred to in this report.

Walkover Surveys – An ecology walkover survey / extended phase 1 survey was undertaken by James Johnston on 03/01/13. This involved walking all of the site and its boundaries, noting the principal plant species and habitats, noting any evidence of notable fauna and/or potential for fauna arising from the habitats, and surveying the buildings for protected species evidence (especially for bats and bird nesting, including barn owl evidence). A site meeting with the Council Ecologist on 30/01/13 gave the opportunity for updating the initial survey and reviewing bat roost evidence.

Preliminary Bat Roost Survey - A preliminary bat roost appraisal was conducted in line with the BCT 2012 Bat Survey Guidelines, for an 'initial or preliminary bat survey' - comprising records search plus a daylight search for roost evidence in and around the buildings (and especially around beams and internal crevices, roof voids, and around any architectural recesses). A ladder, torches and an endoscope were used where necessary for close inspection of potential roost features. Evidence looked for includes crevices or roof areas swept free of cobwebs, 'polishing' of crevice edges from oils being rubbed off the fur of bats, stains and scratch marks, bat droppings, bats themselves, and piles of discarded moth wings. Any bat droppings found are usually sent for DNA analysis to confirm the species identification.

Bat Emergence and Activity Surveys - The two emergence surveys were undertaken in good weather by James Johnston (MIEEM CEnv), along with a trained survey assistant with over 7 years bat survey experience (Mrs C Johnston). The survey technique followed the published guidelines in Bat Surveys – Good Practice

Guidelines (BCT 2012) and involved the surveyors using the standard approach of watching (all sides of the barn) and listening for emerging bats, whilst using an array of ultrasonic bat detectors and recorders to give acoustic warning of flying bats. These alert the surveyors to possible emergence activity and also record echolocation calls for later sonogram analysis of the species involved.

The equipment used included Duet, Pettersson 240x and 200, x2 'Batons', and broadband recorders (EM3 and SM2BAT+). Some bat detectors were placed around the margins of the survey area, with speakers turned to high volume to alert surveyors to more distant bats approaching. Emergence surveying was conducted from half an hour before sunset until one and a quarter hours after sunset. When a bat is heard, the surveyor looks around to see its direction of flight and whether it is emerging from a building or commuting past. A surveyor also occasionally walked into the barn to look for pre-emergence flight activity.

A valuable and additional bat survey technique used at this site involved the setting up of automated bat recording inside the main barn (ground floor) and inside the hayloft, over 5-consecutive nights using an SM2BAT+ broadband recorder, from 22nd to 26th May 2013. This was specifically to give an indication of any barbastelle activity within the barn at any time of the night over that survey period.

Dates / Weather - The survey dates and weather conditions were acceptable for emergence surveying, although night-time minimum temperatures were lower than the ideal:

Date	Weather
22/05/13 1st Emergence	Mixed sun and cloud. Light but chilly northerly breeze. Max/min (day/night) temperatures 14-7^{0}C (10^{0}c recorded at sunset) . Sunset 9.02pm.
23 to 26/05/13 5-nights automated recording	23-25 May = Dry chilly nights, with little wind, and minimum temperatures of 6-8^{0}C. 26/05/13 = Dry and chilly night with minimum temperature of 8^{0}C, and with strong south-westerly wind.
01/06/13 2nd Emergence	Sunny day, but with cool northerly breeze. Max/min temperatures 19-11^{0}C. Sunset 9.15pm.

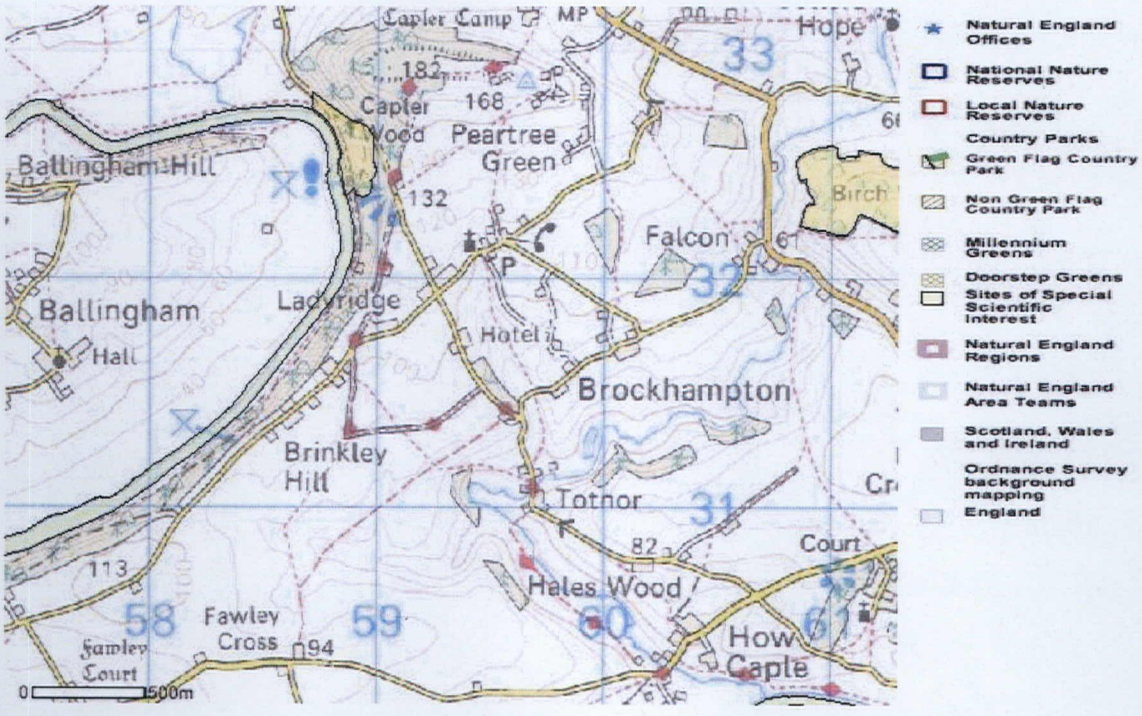
3.0 FINDINGS

Site and Wider Surroundings

The barn is centred in the aerial photo below (courtesy of Bing maps), and is located within open agricultural countryside, a few miles north of Ross-on-Wye. The barn is surrounded by arable land on three sides, but has a large parcel of mature parkland close to the north-east (part of the Brockhampton Estate), plus there are hedges running past the barn and the River Wye is located 500m away to the north-west. There are several blocks of mature woodland including ancient woodland within 2km of the site. Consequently there is good potential for a range of notable fauna to be active in the locality including bats and barn owls. This region of the country is known to support most of Britain's 18 bat species.

Site-centred aerial photo (courtesy of Bing Maps)

Designated Sites – The site-centred map below is taken from the 'nature-on-the-map' website. The River Wye SSSI/SAC flows around 0.5km away to the north and north-west (designated for its high quality riverine habitat and support of rare fauna including otter, lamprey, alis shad, and bullhead); Capler Wood SSSI is located 0.8km to the north of the application site (designated at ancient broad-leaf scarp woodland); and Birch Wood SSSI is located 1.6km away to the east (designated as calcareous semi-natural woodland).



Site-centred map of 'statutory designations' from Natural England's 'nature on the map' website

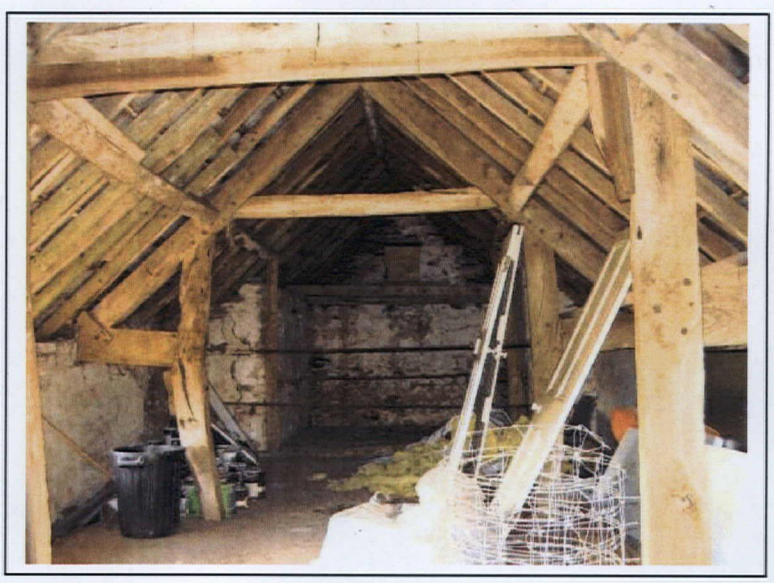
The Building / Architecture

The application site involves one relatively small two-storey stone barn, which has an open-fronted cart-shed built onto its north-eastern side, and a stone 'outshot' on the south-western side. The roofs are all pantiles, with no roof felt or membranes. The roof structure is rafter and purlin, involving some old hard-wood beams, plus some modern soft-wood repairs, though no traditional mortise joints are associated. There is an external stone stairway serving the hayloft, which has one open window. The ground floor has several open doors and windows that could allow fauna access, and the floor is a layer earth/dirt built up over stone paving.

NW Elevation. Outshot at right

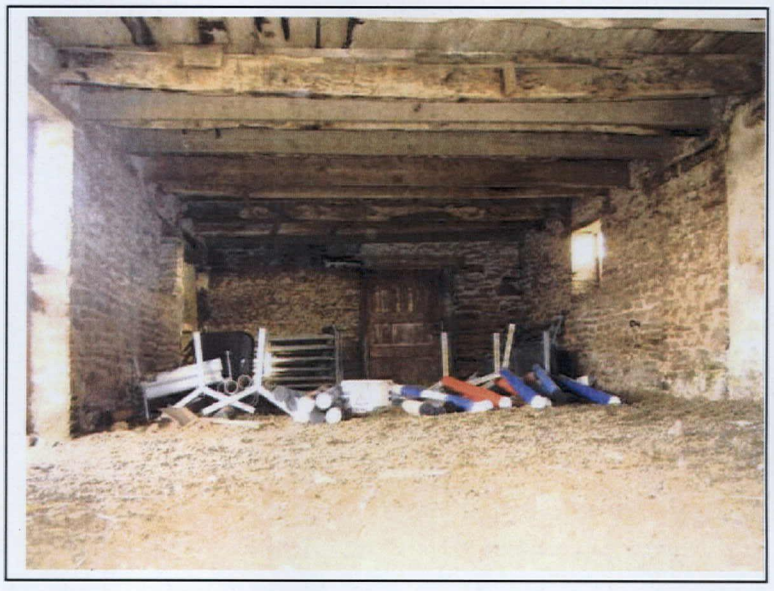
SE Elevation. Cart-shed at right

Barn hayloft



A barn owl nest box has been erected high up within the hayloft outshot.

Barn ground-floor



The barn's ground-floor ceiling joists are mostly rough-cut hardwood, but several of these have been repaired by fixing softwood joists to them in several places across the first floor structure. The walls are mostly in good condition with lime mortar intact (creating few masonry crevices).

The cart-shed is single-storey, with earth floor (used as an occasional horse stable). There is also one barn owl nest box erected inside. The cart-shed roof is a modern replacement with soft-wood rafters, without purlins.

Cart-shed

Cart-shed interior

Habitat

The barn sits within a paddock of horse-grazed agriculturally improved grassland. Around 20m from the rear of the barn runs a tall gappy remnant hawthorn and blackthorn hedge, which has several mature oak trees associated with it (further from the barn and outside the planning application boundary). Adjacent to the barn's horse-paddock field, is a large arable field plus a planted strip of pheasant cover.

Horse paddock containing barn

Adjacent arable land

Fauna

Records – The Herefordshire Biological Records Centre confirmed that within 2km of the site there are records of dormouse, grass snake, and great crested newts (none within 500m of the application site), plus bat roosts for the following species – common pip, soprano pip, Myotis spp., brown long-eared, lesser horseshoe, and noctule (all located around other barns that are 350m away to the north).

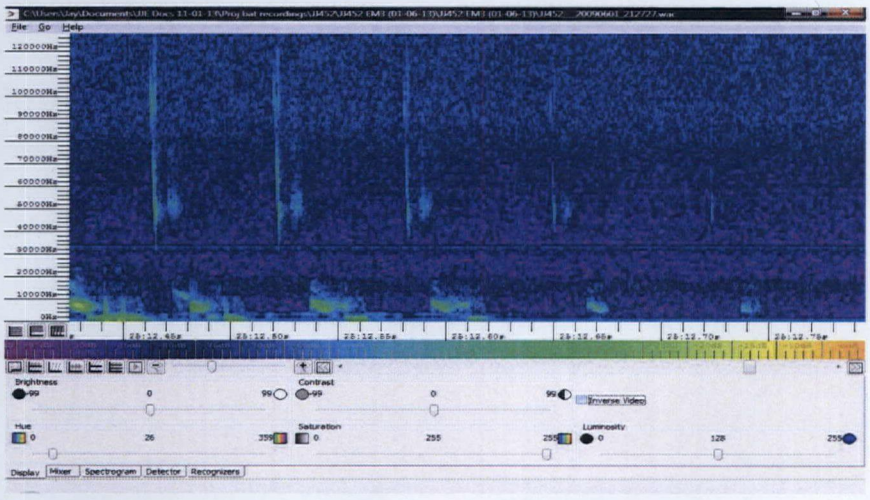
Daylight Barn Inspection – The initial survey on 03/01/13 revealed several small bat roosts around the main barn building. On the ground-floor some of the oak / elm floor joists that have been repaired by strapping a soft-wood beam to them, were found to support crevice-dwelling bats (see plans at the rear of this report for exact locations). Two pipistrelles could be clearly seen in two wooden crevice gaps close to the centre of the room, while the beam crevice at the southern end (where the out-shot of the barn starts), was seen to support two roosting barbastelle bats. All these bats were torpid or semi-torpid and did not react to torchlight. On the 30/01/13 visit only 1 barbastelle and 1 pipistrelle were present.

Barbastelle in ceiling beam crevice

There were no bat droppings beneath these roost crevices, and no aggregations of droppings found anywhere in the barns, indicating no significant summer roosting or maternity bat roosting. In the hayloft room, only six bat droppings were found, and these were beneath a wooden post repair crevice. These droppings were small and pointed at one end – typical of those from a pipistrelle bat.

Bat Emergence and Activity Surveys – The detailed May and early June bat surveys revealed no daylight evidence of current day-roosting (no fresh droppings and no bats seen inside any part of the barn or around any architectural crevices). However, the dusk surveying revealed a regular commuting route past the eastern and southern sides of the barn for common pipistrelles and soprano pipistrelles, with x4 bats seen commuting past between 9.40 – 9.55pm on 22/05/13, and x10 pipistrelles commuting past between 9.48 – 10.12pm on 01/06/13. These bats all arrived at the site by following the hedge-lined lane, and then either commuted south or westwards through the site, or first foraged a little over the paddock to the rear of the barn, for a few minutes before moving on.

On 01/06/13 a single bat was seen to emerge from the rear roof of the main barn at 9.53pm and the nearest recording device confirmed that this bat was a myotis species (considered natterers bat from the very high frequency start of the fm sweep) – see sonogram below.



Single myotis bat emerging from rear barn roof on 01/06/13

The 5-consecutive nights of bat recording (22-26/05/13) recorded no barbastelle echolocation on-site, indicating no activity or roosting from this species. One common pipistrelle pass was recorded at 10.10pm on 25/05/13 (which will relate to a bat commuting past, not emerging, as the time is too late for pipistrelle emergence). A single lesser horseshoe bat (LHB) also commuted past in the early evening on three of the five evenings (between 9.52 and 10.10pm). The recording suggested commuting and not roosting, as there were no dawn bat re-entry recordings.

Bat Roost Interpretation – Very low numbers of pipistrelle bats hibernate around this barn, involving only two individuals (see in January 2013). It is likely that these two bats also roost around the barn at times during summer, in beam crevices and beneath ridge tiles. There is no evidence of pipistrelle maternity roosting. The summer emergence surveys failed to record any pipistrelle emergence, but bat dropping DNA analysis of the few suspected pipistrelle droppings found in a beam crevice in the hayloft confirmed those droppings to be from a common pipistrelle. This confirms occasional summer-time day-roosting by one or two common pipistrelles (which will be male, as they roost alone), plus winter hibernation by two pipistrelles.

Two barbastelle bats also hibernate in beam crevices associated with the humid ground-floor part of the barn. There is no evidence of summer roosting by this species (no droppings were found, no barbastrelles were seen during the two summer emergence surveys, and no barbastelle echolocation was recorded around the barn over the 5-consecutive nights of recording in late May). The surveying therefore indicates that barbastelle roosting is limited to only winter hibernation for two bats. A LHB commutes past the barn on most summer evenings, but there was no evidence of LHB roosting (no pre-emergence flight activity / light-sensing, no bats seen roosting in the day, no LHB droppings, and no dawn echolocation recordings). A single natterers bat appears to occasionally roost around the rear roof.

Birds – Two barn owl nest boxes have been erected on site in the past, one in the main barn hayloft, and one inside the cart-shed. Neither has ever been used for barn owl nesting, but each had two barn owl pellets inside, plus there were a further 20 barn owl pellets beneath beams in the hayloft, indicating occasional barn owl roosting activity. No barn owls were seen in the buildings during any of the four ecology site visits. Two old swallow nest cups were noted on beams in the ground-floor part of the barn (in January), and a swallow pair were nesting in May. An old robin nest was also seen in the hayloft on a wall-top, indicating minor nesting activity around the buildings for small common birds.

Amphibians and Reptiles – No ponds were identified within 250m of the site, and the habitat surrounding the barn is not suitable newt terrestrial habitat (it is close-grazed paddock and arable land), and so there is considered no potential for great crested newts to be active on site. Similarly, although reptiles such as grass snake and slow worm have been recorded within 2km of the site, the habitat surrounding the barn has negligible potential for supporting these species (no suitable tussocky grass, or matted dead-grass / cover is present).

Evaluation

The general site locality is ecologically of moderate value, due to its location 'sandwiched' between an area of historic parkland and the Wye Valley (500m away), and its proximity to the internationally important River Wye SAC and its valley woods, and other nearby SSSI woodlands. However, the barn's immediate surroundings are of low ecological value (horse-grazed pasture and arable land).

Nevertheless, the barns are considered of moderate local ecological value for supporting occasional barn owl roosting (a rare Schedule 1 protected bird); some swallow nesting (a UK declining species of 'conservation concern'); small hibernation bat roosts (involving 2 individuals of one common species (common pipistrelle) and one rare species (barbastelle)); and a minor occasional natterers bat roost for one bat. Using the published Natural England guidelines for evaluating roost conservation significance (within the *Bat Mitigation Guidelines*), the most notable roosting activity involves roosts within the 'medium' range of the sliding scale (eg – of **medium conservation significance**), as the surveying confirms a small hibernation site (small numbers of common and rare species).

4.0 POTENTIAL IMPACTS

The Scheme

The proposed scheme involves conversion of the barn to provide office accommodation. For the office scheme to be viable this requires conversion of all internal areas (thereby allowing sufficient space for the required facilities - toilets, staircase, storage, and kitchen, plus the desk-space). The conversion work will need to involve re-roofing, and installation of insulation, heating, internal staircase, plumbing, electrics, drainage, windows/doors, and an insulated floor. Minor landscaping alterations will involve creation of a parking area at the front (with gravelled surface), and access via the existing farm-gate entrance. The existing hedge either side of the entrance may need to be translocated by 1-2m to create a visibility splay.

Potential Impacts

Bats – Without any mitigation in place, the scheme would likely cause loss of the barbastelle hibernation activity (impacting 2 bats), and loss of an occasional roost for a single natterers bat, from the barn's internal conversion works, and potential harm and disturbance to low numbers of pipistrelles and barbastelles and the single natterers bat during build works. The pipistrelle roosting and hibernation activity would probably not be lost, even without mitigation in place, since this species will readily roost and hibernate externally around old buildings, and suitable roost crevices would very likely be naturally re-created for them during re-roofing.

It is also recognised that without bat mitigation in place, future ridge area roosting (eg – beneath ridge tiles) could also harm bats, as a breathable roof membrane would very likely be added. All breathable roof membranes are potentially harmful to bats if located in places where bats can crawl or hang on them. This is because the bats' claws become entangled and they are then trapped, leading to dehydration and death.

Bat Licensing – Where a development scheme causes disturbance, damage to, or loss of an active bat roost, the activity is unlawful (under the Habitats Regulations 2010) unless a Natural England roost disturbance/alteration derogation licence is first gained. For this scheme it will certainly be necessary for a bat licence to be gained prior to conversion works starting, as some internal roosts will be lost to the scheme.

Birds – Without mitigation in place, there is potential for unlawful disturbance of small nesting birds (as all British birds are legally protected from disturbance under the WCA 198, from the time of nest-building until the chicks have fledged). Additionally, the scheme will involve the loss of some occasional barn owl roost features, which would slightly impact upon the opportunities within the territory of that owl.

A minor swallow nesting opportunity is also lost to the conversion works, which reduces local nesting opportunities for this declining species.

All these potential impacts (above) are fully avoided or compensated via the mitigation strategy described below at Section 5.

Other – The required landscaping and parking area surfacing will not impact upon any ecologically valuable habitat or any habitats likely to support protected species. Reptile and crested newt potential was found to be negligible, and there are no badger setts in the area.

None of the local ancient woodlands or SSSIs would be impacted in any way by this scheme, and no trees require felling. If a visibility splay is required around the entrance drive, this can be achieved by hedge translocation, so that there is no net loss of hedgerow.

5.0 MITIGATION AND ENHANCEMENT

Bats

Roost Provision – Suitable roost provision for the bats on-site will be maintained by a combination of constructing a new bat mitigation 'cave' partially sunk into the ground within the far western corner of the plot (adjacent to a proposed new hedge), for compensatory winter hibernation provision (see plans at the rear of this report); plus creating summer-time roost crevices around the barn ridge area; and erecting a barbastelle summer-roost box onto a nearby oak tree.

The internal volume of the new bat mitigation cave, will be the same as the current internal volume of the stone outshot (internally around 2x2.5m floor area and 1.9m tall). It will be constructed with a bare earth floor, blockwork or concrete walls, and flat green turf roof, to maintain high internal humidity and stable temperatures (mimicking the existing stone outshot). Suitable bat hibernation crevices will be created inside by leaving some 12mm gaps in the blockwork mortar, and by fixing roughsawn timber blocks to the ceiling and walls (with10-15mm gaps between the wooden blocks). There will be no door into the bat cave, just an open window for bat access. There will be no electricity, or internal or external lighting of the bat cave, and so no risk of human usage of this room.

Barn and cart-shed ridge tile roost crevices will be created by laying a narrow band of bitumen felt over the top of the breathable roof membrane for just the ridge line and the top 20cm of the roof slopes (to keep bats away from contact with the breathable membrane), and laying every fifth ridge tile on small 'patties' of mortar under each end (leaving the central bottom part of the ridge tile free of mortar and creating a 12mm access gap leading to the underside of the ridge tile). Such ridge crevices are suitable for a variety of roosting bat species, including pipistrelles.

Additionally, a single wooden 'barbastelle nursery bat box' will be purchased and erected at around 5-6m height onto the mature oak tree that stands in the hedgeline along from the site's south-eastern boundary (50m from the barn). This type of bat

box can be purchased from www.ktnestboxes.co.uk.

Barbastelle nursery roost bat box

Bat Mitigation Timing – The construction of the bat mitigation cave will proceed as soon as planning permission is granted, plus the barbastelle wooden bat box will be erected as a first stage, so that these aspects become phase 1 of the build works, ensuring that alternative (disturbance-free) roost opportunities for bats are available before any internal conversion works start inside the barn. It is proposed that the bat cave construction will occur over Autumn 2013 so that it is in place before winter. The required roost exclusion/destruction work inside the barns will then occur during late autumn or early winter 2013 (starting October/November), once the bat licence is in place, and the conversion works will proceed at the same time. This will include re-inspecting the hibernation areas and excluding bats if they are not in torpor (detailed method statement to be agreed with Natural England during licence application). The main programme would therefore be as follows:

September 2013 – Gain planning consent - Ecologist to brief contractors on site.
Sept/Oct – Bat mitigation cave constructed + barbastelle box erected.
Oct 2013 or April 2014 – Bat licence gained (roost exclusion / destruction occurs).
Winter 2013 or spring 2014 – Re-roofing and conversion works occur (plus ridge tile crevice roost creation).

Birds

Nest Opportunities – The two barn owl nest boxes will be moved to the mature oak trees along the site's south-eastern boundary hedgeline, where they will be weather-proofed by fixing bitumen felt to their external walls. They will be fixed onto different trees at 4-5m above the ground. Swallows and other small birds will have permanent flight access into the new bat mitigation cave for nesting (mimicking / recreating some existing nesting opportunities from inside the out-shot), plus there are suitable swallow nest opportunities under eaves and at gable ends. Therefore suitable compensatory bird nesting and roosting opportunities are retained for all birds on site.

Timing - To avoid any potential for infringement of the Wildlife and Countryside Act 1981 in relation to disturbance of nesting birds, the barn conversion works are programmed to start outside the March to August nesting season (eg – build works will start during the autumn).

Enhancement

The Government's National Planning Policy Framework (NPPF) advises that LPAs should seek some genuine ecological enhancement (net gain) within all planning applications. This scheme has good potential for simple localised ecological enhancement, through the following measures for bats and birds:

- Creation of a new native mixed species hedge around the barn site boundary, using locally sourced 'natives' of the following species – hawthorn, blackthorn, ash, hazel, dogwood, English oak and holly (which will assist in providing commuting cover as well as a foraging resource). See Summary Ecology Mitigation plan for location.
- Secondly, the proposed erection of a barbastelle nursery roost box provides some enhancement, as there is currently no suitable nursery roost opportunity here, for this rare bat species.

6.0 THE THREE TESTS UNDER REGULATION 53(2)+(9)

Where a licence is required for bat roost disturbance or roost damage / destruction in relation to a development project (under Regulations 53(2) and (9) of the Habitats Regulations 2010), the licensing system requires that three tests of the scheme must be met before a licence can be issued. The three tests have traditionally been considered at the time of the licence application, eg – post planning consent. However, recent case law (Woolley vs Cheshire East Borough Council – 05/06/09) indicates that the three tests should be considered by the Local Planning Authority as part of the planning application. They are consequently considered here.

The three tests are as follows:

1. The project must be '*in the interests of public health or public safety, or for other imperative reasons of over-riding public interest, including those of a social or economic nature and beneficial consequences of importance for the environment*';
2. There should be *no satisfactory alternative* to the project, as a whole or in the way it is implemented (that would avoid the licence or reduce bat impacts);
3. The scheme / action will not be *detrimental to the maintenance of the population of the bat species concerned at a favourable conservation status in their natural range.*

Interests of public health, etc (1) – The scheme will have significant local economic and social benefits arising from all the conversion / construction works over a 12 month period, eg - employing specialist tradesmen for services installation (insulation / builders, electrician, plumber, kitchen/bathroom installer, plasterer, decorator, etc); Through supporting local businesses supplying the trade materials for the conversion works; Plus, in the long-term the local economy benefits from having an increased local workforce (supporting local services) and rural employment opportunities; And finally – there are likely to be environmental benefits from reduced carbon emissions from commuting, as the business that is interested in expanding its offices into this barn currently has local employees commuting

considerable distances to its further town and city offices on a daily basis, and they will be able to work closer to home as a result of this scheme.

No alternative (2) – There are considered no viable alternatives that would not require similar licensing of impacts, because the barn is largely disused and so currently does not 'pay for its upkeep', but does need maintenance. Without maintenance and a genuine use, the barn will fall into disrepair and the roosts will eventually be lost. Any change-of-use would very likely cause the same potential impacts to the bat roosts (because the roosts are located inside the interior of the main barn), where human activity and installation of some services, would likely cause bat disturbance and/or loss of roosts (requiring licensing). Under the 'do nothing' option, the roosts will eventually be lost as the barn falls into disrepair (having failed to pay for its upkeep).

Favourable conservation status (3) – The mitigation and enhancement strategy presented at Section 5 above, allows for the continuation of current bat roosting patterns within the site (short-term and long-term) for the same bats, species, and range of roosting activities that have been found on site, whilst also preventing harm to bats during build works. This maintains the roosts and their ecological functionality. The bat populations will therefore be maintained at a favourable conservation status.

7.0 CONCLUSIONS

This report concludes that no designated nature conservation site is affected in any way by the proposal to convert the stone barn for office uses. Initial surveys in January 2013 confirmed 2 hibernating pipistrelle bats and 2 hibernating barbastelle bats within the ground-floor room of the barn, and evidence of minor pipistrelle summer-roosting in the hayloft room above. Detailed summer bat surveying found no barbastelle summer-roosting, but one natterers bat appears to roost around the rear roof and a pipistrelle has occasionally roosted in the hayloft. There is also occasional barn owl roosting, no barn owl nesting, but some minor nesting from swallows and other small birds.

Without mitigation the proposed conversion scheme to offices would cause unlawful roost damage and potential harm and disturbance to the few bats using the site. The work therefore needs to proceed under a Natural England derogation licence.

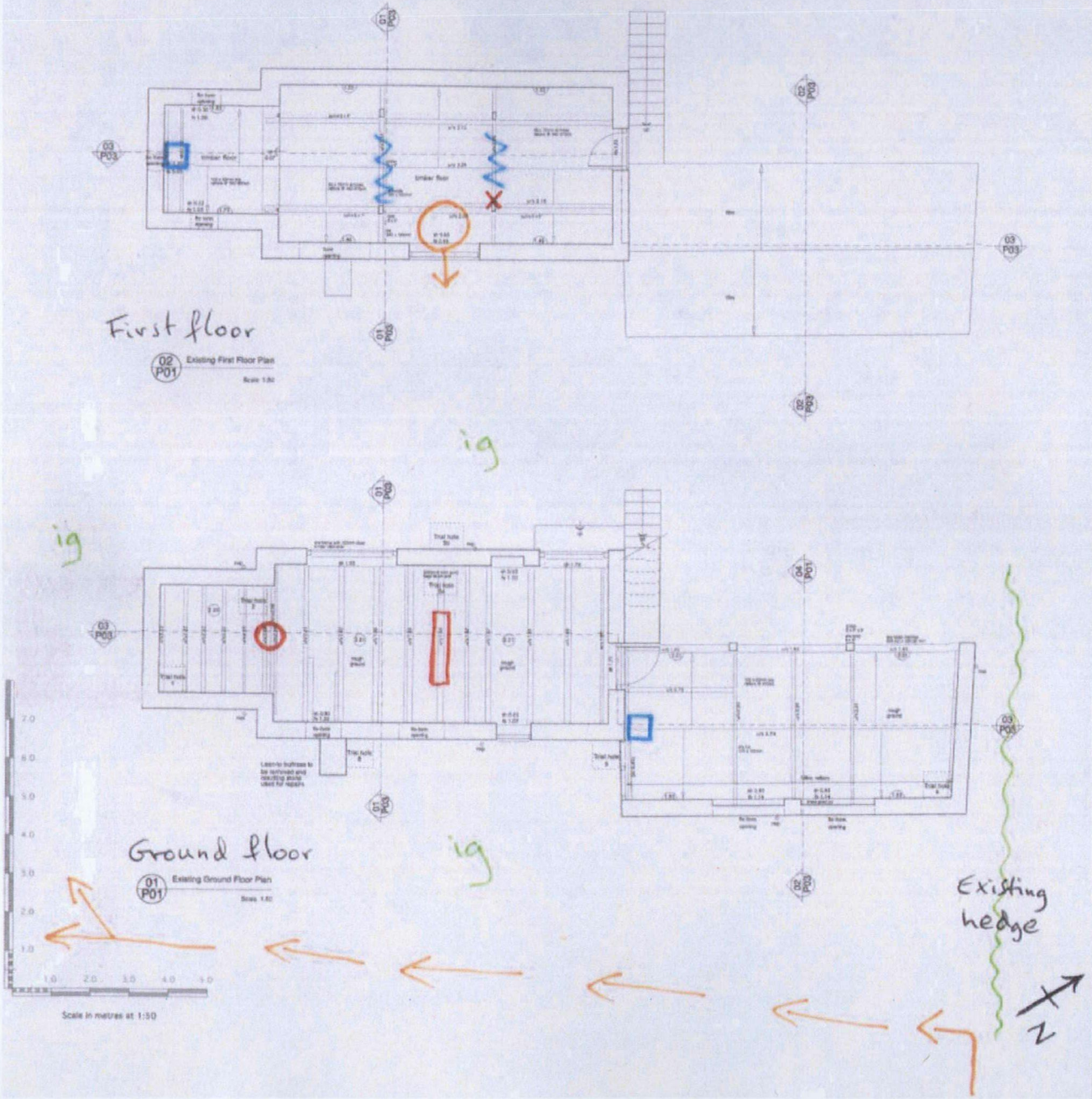
A mitigation strategy has been designed, involving care with timing of works to avoid unlawful disturbance of bats and birds, plus re-creation of suitable summer and winter bat roosting opportunities for the bat species, as well as suitable bird nesting and roosting opportunities. For the bat derogation licence the scheme must first meet 'the three tests'. These are considered at Section 6 and it is concluded that the scheme meets the three tests. Some ecology enhancement arises from a proposed new native mixed-species hedge around the site boundary (which benefits insects, birds and bats), plus through the erection of a barbastelle nursery roost box onto a nearby tree.

The mitigation and enhancement can be guaranteed through use of a Planning Condition linked to this report (requiring the Project Ecologist to report back to the LPA at the completion of build works, to state that the mitigation has been properly followed). Two years post-completion bat monitoring will also be conducted, as is required by the roost licensing system, to demonstrate the level of mitigation success.

It can therefore be concluded that this scheme (with the mitigation followed) avoids or compensates for ecology impacts (and includes enhancement), and so would not be contrary to Local Plan ecological policy or wildlife laws. There should consequently be no ecological 'reasons for refusal' of the planning application.

PLANS

- Ecology Findings (JJ452 18/06/13) *hand-drawn*
- Summary Ecology Mitigation (JJ452 21/07/13) *hand-drawn*
- Sketch of Bat Mitigation 'Cave' (JJ452 15/07/13) *hand-drawn*



- Barbastelle bat hibernation in floor joist crevice
- Pipistrelle bat hibernation in floor joist crevice
- x6 Pipistrelle droppings
- Barn owl nest box
- 20 Barn owl pellets on floor
- ig - Horse-grazed agriculturally improved grassland
- Pipistrelle commuting route identified from summer surveys
- x1 Natterers bat emerged on 01/6/13

- Parlours Barn, Brockhampton
- Ecology Findings

(JJ 452 18/6/13)

- Bat roost crevices created under barn ridge tiles
- Bat 'cave' constructed
- Mature oak trees used for x2 relocated barn owl boxes, plus x1 barbastelle nursery roost bat box
- New native mixed-species hedge to be planted

- Parlours Barn, Brockhampton
- Summary Ecology Mitigation

(SS 452 21/7/13)

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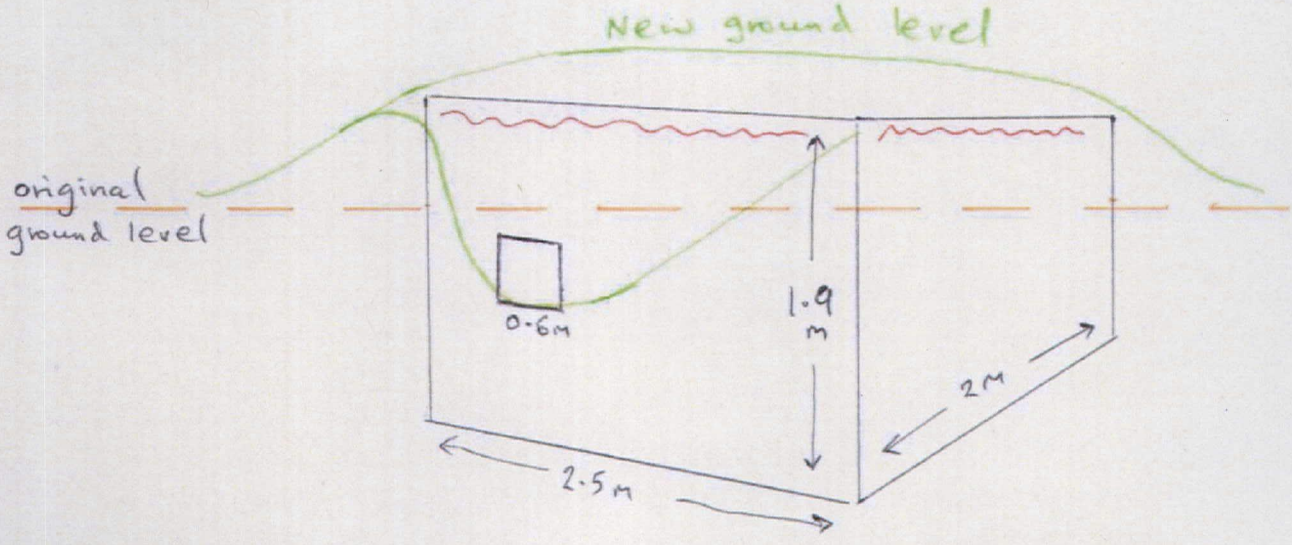
Part-buried concrete bat 'cave'.



~~~~ - Roost crevices made from wood + concrete blocks inside

- Parlours Barn
- Sketch of Bat Mitigation 'Cave'

(SJ 452 15/7/13)

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