

Pandy Holdings

Halghton Lane, Halghton, Wrexham

Preliminary Ecological Appraisal Report

August 2018

Produced by



www.wildbanksconservation.com

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1 INTRODUCTION

1.1 Background Information

- 1.1.1 Wildbanks Conservation was instructed by Mr Phil Higgins to undertake a Preliminary Ecological Appraisal, in relation to the proposed renovation of a house and outbuilding at Pandy Holdings, Halghton Lane, near Wrexham.
- 1.1.2 As part of the Appraisal, a site walk-over (extended Phase 1 Habitat survey) was conducted in addition to a desktop study and bat surveys. This report provides the results of these, as well as an appraisal of the potential effects the proposed development may have on biodiversity, and recommendations for mitigation and enhancement, where required.
- 1.1.3 The aim of the appraisal is to provide sufficient ecological information for the local planning authority (LPA) to determine the associated planning application. The objectives of the study were to:
- Provide baseline information on the current habitats and ecological features both on-site and in the immediate surrounding area;
 - Identify the presence or potential presence of any protected species or habitats and provide an appraisal of any potential effects that the proposed development may have on these;
 - Identify the proximity of any sites designated for nature conservation interest and provide an appraisal of any potential effects that the proposed development may have on these; and
 - Provide recommendations for further pre-construction survey work and / or mitigation measures if required and present opportunities for habitat enhancement.
- 1.1.4 Given the nature of the proposed development, the existing structures on site and surrounding habitat, it is considered that the key potential constraints could be bats.

1.2 Site Description

- 1.2.1 The Site comprises a detached former farmhouse with associated outbuilding which is connected to the house. The building is surrounded by former farmyard (south), garden (east) and field (north and west). Further afield is a brook, fields and woodlands.
- 1.2.2 The proposed development is hereby referred to as the Site and comprises the house and connected outbuilding. However, it was considered necessary to look at surrounding habitat to provide context and understanding of how nearby habitats may influence the use of the Site by protected species such as bats and great crested newts.

2 LEGISLATION AND PLANNING POLICY

2.1.1 Many sites, animals and plants are protected by European and/or UK legislation either because of their decline across Europe and the UK or due to the persecution they have placed upon them by negligent or illegal acts such as baiting or trade. Legislation is also in place to prevent the spread of introduced or non-native invasive species and harmful weeds. When undertaking an appraisal of a proposed development, such legislation is taken into account as follows.

- European: Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive'); and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (the 'Birds Directive').^{[1][2]}
- UK (England & Wales): The Conservation of Habitats and Species Regulations 2010, as amended (the 'Habitat Regulations') which transposes the Habitats Directive in UK law; The Wildlife and Countryside Act 1981 (as amended); the Countryside and Rights of Way Act (CRoW) 2000; the Protection of Badgers Act 1992; the Natural Environment and Rural Communities Act (NERC) (2006) and the Environmental Protection Act (EPA) 1990.

2.1.2 Species such as bats, great crested newts, otter, water vole, reptiles and badgers are all protected to varying degrees under this legislation.

2.1.3 In addition to legislation, there are also national and local planning policies pertaining to the protection of biodiversity. The Planning Policy Wales (PPW) Edition 9 (Welsh Government, 2016) sets out the land use planning policies of the Welsh Government and is supplemented by Technical Advice Notes (TAN); TAN5-Nature Conservation and Planning (2009) relates to biodiversity. The Welsh Government's objectives for the conservation and improvement of the natural heritage include the promotion of the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats, ensuring that designated sites are protected and managed and safeguarding of protected species.

2.1.4 Under the NERC Act, local authorities (and other public bodies) have a duty to conserve biodiversity the local authority must take the protection of the priority habitat into consideration when it is making a planning decision.^{[1][2]}

- 2.1.5 The RSPB's Birds of Conservation Concern 3' (Eaton et al., 2009) is also taken into consideration when undertaking this appraisal. ^[1]_{SEP}
- 2.1.6 Given the nature of the proposed development, it is likely that bats, could be a key constraint to the development. The reasons for this are outlined below in greater detail. Also outlined is the process required to be undertaken to facilitate development, where bats are present.
- 2.1.7 All bat species are protected in the UK under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The species is also protected under Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive). This has been transposed into UK law by the Conservation of Habitats and Species Regulations 2010 (as amended) in England and Wales. Bats are referred to as European Protected Species (EPS).
- 2.1.8 It is an offence to deliberately capture, injure or kill a bat; intentionally or recklessly disturb in a way that would affect their local distribution or abundance, or affect their ability to survive, or breed. It is also an offence to damage or destroy a bat roost and to possess, advertise, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.
- 2.1.9 If work is proposed that would affect an EPS then a licence will normally be required. Natural Resources Wales (NRW), in exercise of the powers conferred under regulation 53(1) and 56(3) (a) of the Conservation of Habitats and Species Regulations 2010, may issue licences for the following purposes:
- Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
 - Preventing the spread of disease;
 - Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries; to allow people to carry out activities which would otherwise be illegal.
- 2.1.10 Before issuing a licence under the Habitats Regulations, the licensing authority must be satisfied that “there is no satisfactory alternative” to the work as proposed and, that the proposed actions “will not be detrimental to the maintenance of the population of the species at a favourable conservation status (FCS)”.

2.1.11 To ensure these requirements are met, the licensing authority must have enough information to complete an assessment of the application. This includes sufficient survey data so that the roost and how it is used by bats is understood and impacts upon the roost are appropriately assessed so that mitigation and/or compensation can be designed into the proposed development that will ensure the bat population can be incorporated and maintained in the long term.

2.1.12 Seven bat species are UK BAP Priority Species. These are as follows:

- Barbastelle *Barbastella barbastellus*
- Bechstein's *Myotis bechsteinii*
- Brown long-eared *Plecotus auritus*
- Greater horseshoe *Rhino ferrumequinum*
- Lesser horseshoe *Rhinolophus hipposideros*
- Common noctule *Nyctalus noctula*
- Soprano pipistrelle *Pipistrellus pygmaeus*.

3 METHODOLOGY

3.1 Introduction

- 3.1.1 To inform this Appraisal, a desk-top study, an extended Phase 1 Habitat survey, a bat scoping survey and three bat activity surveys of the Site were undertaken between May - August 2018.

3.2 Desk-top

- 3.2.1 The desktop study involved a data search for statutory and non-statutory sites, priority species, and other features of interest within a 1km radius of the Site. The centre of the site (Ordnance Survey Grid Reference SJ42314309) was used for the data search.

- 3.2.2 The following sources were searched for information about the Site:

- Cofnod (17/08/2018)
- Defra's 'MAGIC' website;
- Google Earth;
- Bing Maps; and
- Wrexham County Borough Council website.

3.3 Extended Phase 1 Habitat Survey

- 3.3.1 The purpose of the Extended Phase 1 Habitat Survey was to determine:

- the habitats present;
- any potential constraints to development;
- the potential for legally protected species to be present;
- the presence of invasive plant and animals; and
- any requirement for additional ecological surveys.

- 3.3.2 The survey was carried out by Rebecca Sambrook MCIEEM on 11 May 2018. The surveyor is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and adheres to that organisation's Code of Professional Conduct. The weather was warm with an average temperature of 20°C.

- 3.3.3 The survey was carried out in accordance with the extended Phase 1 Habitat survey methodology as described in Guidelines for Ecological Assessment (Institute of Environmental Assessment, 1995).

This is a development of the original methodology outlined in the Handbook for Phase 1 habitat survey – A technique for environmental audit (JNCC, 2010). Photographs are included within the document. Plant names follow the third edition of the New Flora of the British Isles (Stace, 2010). The common name of the plant is stated first and is followed by the Latin name, on the first occasion that it is used. Only the common name is used subsequently.

- 3.3.4 The Site and immediately adjacent areas (up to 30m) were searched for evidence of protected species such as bats, great crested newts *Triturus cristatus*, badgers *Meles meles*, birds, reptiles, otters *Lutra lutra*, water vole *Arvicola amphibious* and also any invasive plants or animals.

3.4 Bat Scoping Survey

- 3.4.1 The surveys followed the methodology set out in the Bat Conservation Trust Handbook Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).
- 3.4.2 The property (house and attached outbuilding) was inspected both externally and internally for evidence of the presence of bats. The survey started with an examination of the external part of the house and outbuilding to locate potential roosting features such as lifted/missing roof material, gaps around soffits, barge boards and similar. Evidence such as staining, droppings, urine splashes and individuals were also searched for. Ten minutes was also spent listening for squeaking noises that bats make when in their roost. With no evidence externally, an internal inspection was undertaken, searching for the same evidence. The loft area of the house was not accessed due to health and safety concerns. The house is currently subsiding and a large crack down the centre of the house is evident.

3.5 Bat Activity Survey

- 3.5.1 Three activity surveys (2 dusk and 1 dawn) were undertaken between June and August 2018 during which is within the main bat activity season. The dusk surveys commenced 15 minutes before sunset until 1.5 hours after and the dawn survey commenced 2 hours before sunrise until 10min after sunrise.
- 3.5.2 All of the surveyors are experienced in bat activity surveys; Mick Smith (NE bat license no: 2015-15175-CLS-CLS), Chris Gossett, Rebecca Sambrook MCIEEM, Jack Halpin and Joe Taylor. Four surveyors carried out each survey and were positioned strategically so that good coverage of the buildings was achieved.
- 3.5.3 The surveyors each used a Wildlife Acoustics' EM Touch Pro detector or a Batbox Duet with MP3 recording device. Recordings were then analyzed using batsound software and Kaleidoscope.

3.5.4 The following table provides details of the surveys.

Table 1: Survey Data

Date	Survey type	Time started	Time completed	Sunrise/Sunset time	Temperature	Weather conditions
08/06/2018	Dawn	03:19	04:58	04:48	14°	Dry, mild, light drizzle for 10 minutes at 03:35
12/07/2018	Dusk	21:15	22:55	21:30	21°	Cloudy, Heavy rain shower at 21:30 for 20 min. light rain from 22:45
07/08/2018	Dusk	20:25	22:25	20:55	17°	Dry, cloudy, slight breeze

3.6 Limitations

3.6.1 Due to health and safety concerns, it was not possible to access the loft space of the house so the internal inspection was limited to the main rooms of the house and the outbuilding. During the dusk survey on 12/07/18 a heavy rain shower passed over at 21:30, after which it dried again. Bats were recorded foraging during this survey to a similar extent to the other 2 surveys and a bat was recorded emerging from the property. It is considered this survey is acceptable.

4 RESULTS

4.1 Introduction

- 4.1.1 This section provides a commentary on the data collected during the surveys undertaken between May and August 2018. Photographs depicting the site can be found in the Photographs section at the back of this document.

4.2 Desk-top Study

- 4.2.1 As discussed above, a number of resources were reviewed as part of the desk-top study.
- 4.2.2 There are no statutory designated sites within 1km of the Site. The Site falls within a SSSI/SAC Impact Risk Zone. Impact risk zones are used by Local authorities to assess planning applications for likely impacts on SSSIs, SACs, SPAs and Ramsar sites in England and Wales. However, the proposed development type is not included in the planning proposal categories that would trigger the necessity for the planning authority to consult with Natural Resources Wales i.e. it is considered that this development type is unlikely to impact upon the nearby designated site.
- 4.2.3 The non-statutory designated sites search provided by Cofnod revealed there to be three designated sites within 1km of the proposed Site.
- Ford Wood, a small broadleaved woodland with bluebells and semi-improved grassland;
 - Kitchen Wood, a medium aged coniferous plantation along the floodbank of the stream, with some common broadleaved species in the canopy indicating this was once an ancient woodland. Bluebell, wood anemone, dog's mercury, primrose and wild garlic are present;
 - Charity Farm Grassland, semi-improved grassland on banks down to a brook with some scrub and woodland areas.
- 4.2.4 The priority species search provided by Cofnod returned 40 records of protected or notable species within 1km of the Site. The records include barn owl *Tyto alba*, curlew *Numenius arquata*, skylark *Alauda arvensis*, fieldfare *Turdus pilaris*, woodcock *Scolopax rusticola*, reed bunting *Emberiza schoeniclus*, common pipistrelle *Pipistrellus pipistrellus*, noctule *Nyctalus noctula*, American mink *Neovison vison*, badger *Meles meles* and hare *Lepus Europaeus*. There was also one record for great crested newt *Triturus cristatus*, 832m to the south of the Site. Plant species include bluebell *Hyacinthoides non-scripta*, charlock *Sinapis arvensis*, common club-rush *Schoenoplectus lacustris*, common cudweed *Filago vulgaris*, large-leaved lime *Tilia platyphyllos*, least duckweed *Lemna minuta*, many-seeded goosefoot *Chenopodium polyspermum*, radish *Raphanus raphanistrum*, spiny restharrow *Ononis spinosa*.

- 4.2.5 A search of MAGIC, Google Earth and Bing Maps revealed there to be one pond within 250m of the Site. The pond is located 160m to the east of the Site, on the other side of a fast flowing brook.
- 4.2.6 Wrexham County Borough Council planning portal did not reveal any pertinent information and there do not appear to be any current adjacent developments that would likely cause any in-combination effects with the Site.

4.3 Extended Phase 1 Habitat Survey

- 4.3.1 The Site, located within a rural setting, surrounded by agricultural fields and farmsteads, comprises a traditional 19th century detached two storey red brick farmhouse with a connected outbuilding. The house is undermined and a large crack in the centre of the house is apparent. Scaffolding has been erected around the house to support the structure. Ivy dominates the northern gable end. The roof is in a reasonable state of repair to the front of the property, however some raised/broken slates are present; to the back it is in a similar state of repair but there is one area of missing and broken slates. Roofing membrane appears present in some parts. Connected to the house is a single storey outbuilding which is separated into different uses; store room with hay loft above; pig sty and stable. The roof of the outbuilding is in a poor state of repair with numerous gaping holes, missing and broken slates. There was no roofing membrane.
- 4.3.2 A semi-improved grassland field, grazed by cattle, surrounds the northern and eastern ends of the building with a well maintained garden directly adjacent to the western end of the house and a farm yard area and hardstanding driveway to the south. Further afield there are more agricultural fields and farmsteads. At the Applicant's western landholding boundary, approximately 40m from the Site runs a brook. The brook is freely flowing with steep, vegetated banks and overhanging mature and semi-mature trees.
- 4.3.3 The Site offers potential for nesting birds, however during the phase 1 survey and bat external/internal survey no birds were seen nesting within the Site.
- 4.3.4 The Site offers limited habitat for most protected species. The exception to this is bats which are considered in Section 4.4 below.

4.4 Bat Scoping Survey

- 4.4.1 Externally, the house and attached outbuilding exhibit good potential for roosting bats, both having missing slates which create large access points. Where slates are present, they are gappy with plenty

of opportunities for crevice dwelling species to take refuge. Barge boards are present at each gable end (although obscured by ivy at the northern end) and offer access to the roof structure. The ivy itself is dense and offers at least transient roosting opportunities. No evidence of bats was found during the external inspection.

- 4.4.2 Internally, the house was unremarkable for bats. The loft was not accessed since the property is structurally unsound. The lower and upper floors were carefully searched but no evidence in the form of droppings, urine or individuals was found. The outbuilding was also examined internally, again no evidence of the presence of bats was identified. It was noted that certain sections of the outbuilding (e.g. above the hayloft) where the roof was in a very poor state of repair was very open susceptible from adverse weather due to huge holes in the roof; this would limit potential and certainly for important roosts such as maternity colonies.
- 4.4.3 In the wider area, the Site is rural and provides excellent commuting and foraging opportunities for bats, particularly the adjacent brook and quiet country lanes.
- 4.4.4 Overall, the main consideration is the potential of the buildings to support bat species. When undertaking a Bat Scoping Survey, it is not always possible to conclude how bats are using the building and hence activity surveys were undertaken.

4.5 Bat Activity Surveys

- 4.5.1 Three bat activity surveys conducted during June-August revealed the roof of the house and outbuilding to support bats.
- 4.5.2 **During the June dawn survey (08/06/18)** there were two definite re-entries under the tiles to the front of the house at 04:12 (myotis species) and 04:13 (unknown species - no echolocation) and one possible re-entry into the roof of the southern elevation of the outbuilding at 04:00 (unknown species - no echolocation). The rest of the activity during the morning centred on intermittent foraging and commuting common and soprano pipistrelles around the building, surrounding fields and along the lane with frequent passes of noctule commuting overhead at 03:34, 03:46, 03:54, 04:17 and 04:20, and Myotis sp. at 03:48, 03:59, 04:05 and 04:11. These were later analysed and determined to be Whiskered/Brandts bat
- 4.5.3 **During the July dusk survey (12/07/18)** much of the activity was again attributed to common and soprano pipistrelles which were observed foraging intermittently around the building and along the lane. At 21:48, and unknown species (no echolocation) was observed emerging from under the barge boards on the southern gable end. The bat flew off in a southerly direction. At 21:53, a common

pipistrelle bat was seen to emerge from the same location and headed off in a southerly direction also. There was limited activity around the building after this point. No bats were seen emerging from the outbuilding.

4.5.4 **During the August dusk survey (07/08/18)** a similar pattern was observed with soprano and common pipistrelle intermittently foraging during the evening, noctule passing overhead occasionally and Myotis passing through the site infrequently. Three passes of brown long-eared were recorded at 21:10, 21:21 and 22:14. The first emergence occurred from the southern gable end (underneath the barge boards), a common pipistrelle at 21:06 followed by a Myotis at 21:08 and an unknown species (no echolocation) from the northern gable end of the house at 21:22. No bats were seen to emerge from the outbuilding.

4.5.5 **To summarise**, it is considered that the level of survey effort undertaken is sufficient to assess the use of the buildings by bats. The house supports four individual roosts of common pipistrelle and whiskered bat. Their locations can be seen from Figure 2: Roost Location Plan. The maximum count of emergences/re-entries on one survey was 3 coming from 2 different roost locations. They are considered to be irregular used summer roosts primarily used by individual bats. The outbuilding also supports at least 1 bat, possibly on a transient basis since on only one occasion a bat was observed re-entering the building at dawn. Common pipistrelle bats are the most common species of bat found in the UK and are known to use multiple roost sites throughout the summer and regularly move between them when weather conditions, external disturbance or feeding opportunities change.

Functional and contextual significance of the site (Based on Bat Mitigation Guidelines, 2004)

4.5.6 **Locally:** the roost sites are likely to be part of a wider network of roost sites which the bats will utilise at different stages of their life cycle. Given the size of the roosts and their status as small, irregularly used summer roosts of common species, it is considered that this roost is of low conservation significance locally.

4.5.7 **Regionally:** as common pipistrelle and Myotis bats are considered to be common and widespread throughout the UK, many of the roost sites recorded are attributed to common pipistrelle bats. It is considered that bats generally are under recorded in the local area as species identification is limited. However, common pipistrelle are thought to be an abundant and widespread bat species in North Wales. Therefore, the roosts are regarded as of low conservation significance regionally.

- 4.5.8 **Nationally:** common pipistrelle bats are common and widespread throughout Great Britain (JNCC 2007 and NBMP 2008) and the likely availability of similar sites on a local, regional and national level suggests the site is of negligible significance nationally.

4.6 Appraisal of Potential Effects in Consideration of Mitigation

- 4.6.1 There are no statutory designated sites in close proximity to the proposed Site and therefore effects on such sites are not anticipated. The local non-statutory designated sites will also not be affected by the proposals due to the separation distance between these sites and the proposed Site.
- 4.6.2 Overall, with the exception of bats, the Site offers little potential for other protected or notable species and hence the proposals are not expected to adversely affect other protected and notable species, including those listed on the data search provided by Cofnod.
- 4.6.3 The buildings do not currently support birds but if it is proposed for work to commence (on buildings or vegetation) during the nesting bird season (March to August inclusive) a nesting bird survey should be undertaken by a qualified ecologist. The disturbance and/or destruction of bird nests is illegal under the Wildlife and Countryside Act 1981 (as amended) and so if nests are identified, the nests must remain intact and undisturbed until young have fledged. The proposals include the erection of 2 bird boxes in trees adjacent to the house. With this in mind, negative effects on nesting birds are not anticipated.
- 4.6.4 It may be possible that badger transiently pass through the Site and surrounding hard standing but this opportunity will remain upon renovation of the building. During construction, any excavations will be covered overnight or fitted with a means of escape to prevent entrapment of badgers and otter that could fall in. No effects in this respect are anticipated.
- 4.6.5 The renovation of buildings can give rise to numerous effects on bats in the absence of mitigation. Direct impacts can include killing and injury of bats, disturbance, loss or modification of roosts due to building work, and fragmentation and isolation due to modification of habitats that bats may use to commute to areas for foraging and roosting.
- 4.6.6 The loss of lower status roost sites, in the absence of mitigation, is likely to result in a low impact on the local population of the species (NEBMG). Therefore, it is considered that this development will have a low impact on population viability in the long term as the affected individuals are likely to have alternate roost sites in the immediate locality.

- 4.6.7 All species of bat and their roost sites are afforded full legal protection under the Conservation of Habitats and Species Regulations 2010 and the Wildlife & Countryside Act 1981 (as amended). This legislation affords full protection to bat roosts whether the animals are present or not. All species are European Protected Species, which is the highest level of protection afforded to species in the United Kingdom.
- 4.6.8 The presence of the bat roosts potentially presents a constraint to any proposed re-development works affecting the roost areas associated with the roofs in the building. Given that the roosts have been determined to be occasionally used by small numbers of individual common pipistrelle and Myotis bats at any one time, impacts from the loss or disturbance of the roosts through any future development / demolition works is considered to be low. However, in the absence of mitigation and compensation the individual bats in these locations, that could be present at the time of the proposed works, are at a high risk from disturbance and possible death and injury.
- 4.6.9 Externally, the Site and surrounding habitats provide excellent foraging and commuting habitat for bat species and there is good connectivity to other bat habitat in the wider area. This will all remain intact during and post construction.
- 4.6.10 The landscape surrounding the building will remain relatively unchanged post construction and any minor changes such as the conversion of hard standing into garden could positively impact bats, as it will further increase foraging resources if nectar rich plants (encouraging invertebrate prey) are included in the soft landscaping design.
- 4.6.11 A scheme of mitigation is proposed at Section 5 which aims to protect individuals and safeguard populations in the long term. If these are implemented, impacts on bat populations in the long term are considered unlikely.

5 OUTLINE MITIGATION STRATEGY

5.1 Introduction

- 5.1.1 In the absence of potential effects on other species, the mitigation strategy focuses on bats. Where the potential for impacts on bats and their roosts has been identified, the proposed development must include the implementation of suitable compensation and mitigation measures to prevent harm to bats and their roosts and to maintain favourable conservation status of the species concerned.
- 5.1.2 It is considered that a European Protected Species licence is not required to permit this development to proceed due to the small numbers of commonly occurring bats being affected by the development. Following the granting of full planning approval, to facilitate any works affecting the roosts and prevent any detrimental impacts on individual bats it is recommended that works follow a Precautionary Method Statement. Once approved and the works and appropriate mitigation/compensation measures are undertaken, in accordance with the method statement, it is unlikely that there will be any significant effect on any individual bats or the conservation status of the species.
- 5.1.3 **The development must not commence until a Method Statement has been adhered to and appropriate mitigation and compensation measures have been implemented.** The results of the 2018 surveys will be valid for 18 months. If the development doesn't commence within this time it is likely these surveys will require repeating. The Method Statement will include a Mitigation Strategy that will likely include but may not be limited to following actions summarised below
- 5.1.4 The overriding emphasis of the mitigation strategy is preventing harm and securing the long-term viability of populations. The following principles of mitigation will be taken forward:
- The commencement of the scheme of renovation will commence outside of the two most vulnerable periods; breeding (late April to September) and hibernation (November to February);
 - A 'soft works' technique will be used for the initial works, to include removal of roof slates by hand.
 - A licensed ecologist will provide a watching brief during the initial works, including removal of roof slates and will be available on an on-call basis throughout construction.
 - Replacement roosts will be installed in the new house in the form of one of the following: an Ibstock Enclosed Bat Box 'C', 1FR Schwegler Bat Tube, Build-in Woodstone Bat Box, 1WI

Schwegler Summer and Winter Bat Box or 1WQ Schwegler Summer & Winter Bat Roost (see nhbs.com);

- A bespoke roost will also be created under a ridge tile and one under the barge board, replacing like for like roosts.
- As an enhancement measure, 4 bat boxes (such as a 2FN Schwegler Bat Box) will also be erected in mature trees, within the Applicant's ownership.
- During the construction period, lighting will not be switched on permanently throughout the night to avoid effects on foraging and commuting areas of light sensitive species such as brown long eared.
- Post-construction, the long-term impacts must be considered; external lighting both on the building and associated garden could give rise to impacts on existing and replacement roosts and deter some species of bats from foraging. The external lighting scheme of the property should be designed sympathetically to reduce the potential for impacts on light sensitive bat species. Guidance on lighting schemes can be found on the Bat Conservation Trust website at www.bats.org.uk.
- The landscaping scheme will remain the same post-construction. It currently provides a range of foraging opportunities and will continue to do so in the long term. Additional planting should include nectar rich species such as honeysuckle.
- A monitoring programme of the replacement roost will be implemented for 2 years post-construction; a suitably experienced ecologist will undertake a dusk or dawn survey in each June.

5.2 Post Development Site Safeguard

- 5.2.1 A monitoring programme will be implemented for the first 2 years from completion of the renovation.
- 5.2.2 On an annual basis for the first 2 years, a single monitoring dusk or dawn survey will be undertaken in June to record activity around the bat boxes, following methodology set out in Bat Conservation Trust's Bat Surveys for Professional Ecologists, Good Practice Guidelines (3rd Ed.).
- 5.2.3 The bat boxes are self-maintaining and therefore no maintenance is proposed.
- 5.2.4 The results of the monitoring programme will be reported to Cofnod.

6 CONCLUSION AND RECOMMENDATIONS

6.1.1. The Site has been the subject of a preliminary ecological appraisal and bat surveys in May-August 2018. These revealed that the building exhibits features that have the potential to support roosting bats and bat activity surveys revealed emerging bats. Therefore the property is confirmed as a bat roost and that roost has been categorized as a summer roost used by individual common pipistrelle and whiskered bats

- **Recommendation:** A European Protected Species License is not required and the development can proceed following a detailed Method Statement with regards to bats and that this is produced as a condition of planning permission.
 - **Reason:** all bat roosts are protected by law and it is necessary to protect bats and their habitats in the process of development. The Method Statement will set out measures that must be taken to protect bats and secure long-term viability of individuals/populations that are present locally.

6.1.2 In regards to birds:

- **Recommendation:** if work is to commence during the nesting bird season (March-August inclusive) a nesting bird survey should be undertaken by a qualified ecologist; if nests are identified, the nests must remain intact and undisturbed until young have fledged. ONLY IF no active nests or breeding behavior is observed, can development commence.
 - **Reason:** The disturbance and/or destruction of bird nests is illegal under the Wildlife and Countryside Act 1981 (as amended).
- **Recommendation:** Erect two bird nest boxes in trees adjacent to the development.
 - **Reason:** to improve nesting opportunities for birds in the long term.

6.1.3 The transient use of the Site by badger cannot be precluded and it is necessary to protect them from harm during the construction period.

- **Recommendation:** it is recommended that excavations are covered overnight or are fitted with a ramp as a means of escape should this species venture into holes and crevices. The same applies to open ended pipes which must be capped overnight.
 - **Reason:** Badgers are protected from harm under the Protection of Badgers Act 1992.

6 REFERENCES

- CIEEM (2013). *Guidelines for Preliminary Ecological Appraisal*. Winchester. CIEEM.
- Collins, J (ed.). 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust. London.
- Department for Communities and Local Government (2012). *National Planning Policy Framework*.
- Mitchell-Jones, A.J. 2004. *Bat Mitigation Guidelines*. English Nature, Peterborough
- Natural England (2010). *European Protected Species and the Planning Process*.

Photographs of the Site

Plate 1: Front of house



Plate 2: Southern gable end (bats seen emerging)



Plate 3: Front of house showing large crack



Plate 4: Roof – front of house (bats seen emerging)



Plate 5: Roof – back of house



Plate 6: 'outhouse'



Plate 7: Northern roof aspect 	Plate 8: Internal of outbuilding 	Plate 9: Outbuilding southern elevation 
Plate 10: Improved grassland (shed not part of application) 	Plate 11: Garden 	Plate 12: The brook 