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**Courtyard Buildings, Ellingham Farm, Somerley
Estate, Ellingham, Hampshire, BH24 3PJ**

Ecological Assessment

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Contents

	Page
1.0 Summary	1
2.0 Introduction	2
3.0 Methodology	3
4.0 Results and Analysis	5
5.0 Requirements and Recommendations	14

Appendices

Appendix A: Site location

Appendix B: Existing site plan

Appendix C: Proposed Site Plan

Appendix C: Protected sites, habitats and species data from MAGiC database

Appendix D: Mitigation

Appendix E: Protected species legislation

1.0 Summary

The proposal is to convert the existing stables building, currently used for storage, into a farm shop and cafe.

A single Greater Horseshoe bat was recorded roosting in the barn on two occasions, the bat roosted in the same part of the building and accessed via a gap on a stable door. Two soprano pipistrelle were also recorded roosting on one occasion at the ridge of a roof under a tile. The bats use the building as a day roost.

The works in the absence of mitigation will result in disturbance and the loss of a day roost for Greater Horseshoe and therefore a European Protected Species licence will be required to proceed with the proposals once planning permission is granted.

Works to the building do not need to be timed as the building is unsuitable for hibernating bats and no maternity roost is present, a new roosting area with access via the gable will be provided for Greater Horseshoe bats and the existing crevice area where the Common Pipistrelle bats were recorded will be retained.

No new external lighting will be used where it might impact bats, their flight lines, their roosts or roost entrance – a lighting plan will be provided.

2.0 Introduction

Background

- 2.1 Peach Ecology was commissioned in June 2022 to carry out an Ecological Assessment of the proposed development at the Courtyard Buildings, Ellingham Farm, Somerley Estate, Ellingham, Hampshire, BH24 3PJ (Appendix A), central Grid Reference: SU 14406 08266 , laid out as shown in Appendix B. This report will be submitted to New Forest District Council for permission to convert the existing building into a farm shop and cafe (Appendix C).
- 2.2 This report describes the existing ecology on site based on the findings of an initial site visit, further Phase 2 bat surveys using cameras and static bat detectors, protected species and habitats data searches and review of local and national policies.

Description of site and surrounding area

- 2.3 The courtyard buildings are located on part of the Somerley Estate just to the south of St Mary's Church. The building is surrounded by several residential houses in Ellingham and these all have mature trees and strips of woodland around them and along the nearby roads. The River Avon is located approximately 500m to the west and the lakes associated with Ibsley and Blashford Lakes are located less than 500m to the east on the other side of the Salisbury Road. The local area within 1-2km is rural with a mix of arable, grazing and parkland, all connected by mature hedgerows and areas of woodland. The New Forest is located to the east within 2km. The local area has high value for biodiversity.

Brief

- 2.4 To carry out an Ecological Assessment of the site and inform the clients of any ecological implications associated with the current proposals. Further bat emergence surveys were then undertaken.

3.0 Methodology

Desk Study

- 3.1 This involved gathering ecological data relating to statutory nature conservation sites from within 2km, the results of which are shown in **Appendix D**. A search was undertaken using Multi-Agency Geographic Information for the Countryside (MAGIC), a DEFRA run website, to check for European Protected Species licences nearby. Ordnance Survey maps and aerial images were assessed to check for other relevant data on notable habitats and species nearby including ponds and wildlife corridors where the site connects into the surrounding area.

Site Assessment

- 3.2 The site was originally assessed on the 9th June 2022 by Davog McCloskey although the site was assessed in detail before and after each of the emergence surveys. The initial survey employed techniques based on standard Phase I Habitat Survey (JNCC) methodology and the CIEEM Guidelines for Ecological Impact Assessment (ECIA: CIEEM, 2016). Habitat types on and adjacent to the site were identified according to standard habitat definitions. The collection of botanical information focused on the dominant and key indicator species for each habitat type. The site survey included an assessment of the habitats immediately adjacent to the site, where possible, to look at the value of the site within the local landscape and to see whether these sites supported protected species. Indicative methodologies for the most likely protected and notable species that could occur on site and be impacted by the proposals are set out below.

Bats

- 3.3 Buildings and trees within the footprint of the site and any areas potentially impacted by the proposals were inspected in accordance with current survey guidance (BCT, 2016) for potential access points and roosting features which could support bats. Trees were checked for ivy cover, crevices and rotten sections from ground level and using a ladder and binoculars where necessary. Buildings were checked internally and externally for any signs of roosting bats or bat activity including droppings, insect feeding remains, worn entrances and staining. The buildings were all inspected internally before every survey to check for any up to date signs of bats and afterwards to check for signs and presence. Ladders were used to check on top of gable and dividing walls along with an endoscope.
- 3.4 Three bat emergence surveys took place, two dusk surveys and a dawn survey. The dusk surveys started at least 15 minutes before sunset and continued until 1.5 hours after sunset, the dawn survey started approximately 1.5 hours before sunrise and finished just after. Four surveyors were present during the dusk surveys and three surveyors were present during the dawn survey, with each surveyor positioned at different points giving good coverage of all access points. A static bat detector was located internally and an infra-red camera was set up to monitor an open stable door where the Greater Horseshoe bat could fly in. Equipment used included hand-held Elekon Bat Logger M bat detector/recorders and a static elekon detector, and sounds were analysed on Elekon Software. Details on the environmental conditions were taken

at the time of survey. Davog McCloskey (Licence number 2015-11951-CLS-CLS) was present at all the surveys along with other surveyors.

Birds

- 3.5 Any habitat features on the building which could potentially be used by nesting birds, were surveyed and any nesting activity was noted.

4.0 Results and Discussion

Desk study

- 4.1 There are several protected sites within 2km, these include:
- The River Avon System Site of Special Scientific Interest (SSSI) is located within 500m to the west. The River Avon and its tributaries are of national and international importance for their wildlife communities. The Avon is richer and more varied than in most chalk streams with over 180 species of aquatic plant having been recorded, one of the most diverse fish faunas in Britain and a wide range of aquatic invertebrates. The River Avon is also a Special Area of Conservation (SAC). The Avon Valley is a Ramsar, a Special Protection Area (SPA) and a SSSI due to the Annex I Habitats and Annex II Species.
 - The site is located just with 2km to the east of the New Forest SSSI Ramsar SAC SPA.
- 4.2 Due to the relatively small scale and extent of the proposals it is unlikely that the development will impact upon any site of importance to nature conservation. It is important however that the proposals follow appropriate pollution prevention and drainage guidelines. The habitats and flora associated with waterways and ground water are sensitive to changes cumulatively, from different impacts locally so every development should consider and mitigate for their own impact with regards drainage and pollution.

Site Assessment

Buildings

- 4.3 The brick built, wooden framed building (Photo 1) is C shaped and is located around a courtyard with short well maintained lawn with a rose bush in the centre (Photo 2). The building was previously used for livestock but for many years has been used for storage and most of it is unused. It is all single storey, open to the rafters (Photo 3), with no attic area – the building is divided up into separate sections internally but these are all connected for species like bats and birds at roof level (Photo 4). The building has a slate roof (Photo 5) with wooden weather boarding (single skin) at the gables (Photo 6), there is a plastic roof membrane below the slates in places.
- 4.4 Access is possible for bats and birds:
- at the gable by the weather boarding and at the apex (Photo 7)
 - possibly at occasional ridge tiles where mortar is missing (Photo 8)
 - at ridge edge tiles (Photo 9)
 - at the soffits in places (Photo 10)
 - at an open stable door (Photo 11)
 - and at the top of a stable door (Phot 12)



Photo 1: The building from the north-west



Photo 2: The central courtyard



Photo 3: Internally



Photo 4: Gaps for bats between different internal rooms



Photo 5: Slate roof



Photo 6: Gable to south



Photo 7: Access at the ridge tile where two sections of roof meet



Photo 8: Ridge tile access



Photo 9: Access at a hip ridge tile



Photo 10: Access under soffits



Photo 11: Open stable door access



Photo 12: Gaps at the stable doors

- 4.5 The building currently receives little usage and converting it into a farm shop and café will result in higher levels of usage and disturbance however there are opportunities to make sections more suitable for bats and birds.

Habitats

- 4.6 The building has an area of well maintained lawn/grass to the front with some roses and other ornamentals growing in the centre of it. To the west of the building is a gravel parking area and drive. Roses are also growing up the side of the building in places. This vegetation will not be lost due to the proposals.

Bats

Desktop

- 4.7 One Bat EPS mitigation license has been granted within 2km of the proposals:
- 2017-28356-EPS-MIT located approximately 1.5km to the north for Brandts, Brown long-ear, Common Pipistrelle, Serotine, Soprano Pipistrelle and Whiskered. This is a breeding roost.
- 4.8 The surrounding area is dark and the habitat has high quality for roosting, commuting and foraging bats due to the presence of trees, hedgerow, grassland and other habitats. The habitat and nearby buildings will need to be protected from any light during and post construction.

Internal inspection

- 4.9 100 – 150 Greater Horseshoe (GHS) droppings (Photo 13) were recorded in one location in the building along with a single peacock butterfly wing which may be attributable to a feeding bat. The bat was recorded internally on two occasions, before the dusk emergence surveys. The GHS entered the building during the dawn survey but it was not seen roosting.



Photo 13: Some of the GHS droppings and where they were located

Phase 2 bat surveys

- 4.10 Three Phase 2 emergence surveys took place. These took place between July and August 2022. Each survey was carried out by between three and four surveyors using bat detectors to record ultrasound calls, in order to establish whether any of the buildings were being used by bats. Surveyors monitored the presence of bats and the direction bats flew when they left the roost or where they came from when going to roost.
- 4.11 Table 1 below shows a summary of the conditions, equipment and personnel present during the bat surveys.

Survey Date	Survey type	Surveyors	Equipment used	Duration	Weather	Sunset /sunrise time
9 th June 2022	Inspection	DM	High-powered torch, endoscope, ladder	Daylight hours	N/A	N/A
25 th July 2022	dusk	BA, GL, DM, RN	4x Elekon Batlogger M, Elekon Static, Infrared camera	2045 - 2233	40-20% cloud cover, wind force 1, no rain, 20°C at start of survey and 19°C at end	2103
9 th August 2022	dusk	CA, RN, DM, GL	4x Elekon Batlogger M, Elekon Static, Infrared camera	2024 - 2209	5% cloud cover, wind force 0, no rain, 21°C at start of survey and 19°C at end	2039
23 rd August 2022	dawn	DM, RN, DA	3x Elekon Batlogger M, Elekon Static, Infrared camera	0437 - 0622	90% cloud cover, wind force 0, no rain, 19°C at start of survey and 20°C at end	0607

Table 1: Environment conditions and surveyors present during bat surveys

- 4.12 During the first emergence survey the Greater Horseshoe bat was recorded emerging from above the stable door (See Photo 11) facing west at 2147-2148, the bat then flew over the building east before heading north towards St Mary's Church. 2 soprano pipistrelle were recorded emerging from under a ridge tile where two different roof sections meet, one being slightly higher than the other (See Photo 7). The bats were recorded emerging at approximately 2130, Other bats recorded in the vicinity included:
- Soprano pipistrelle foraging in the vicinity of the buildings, in the courtyard, to the east along the tree line and potentially in the adjacent garden to the east
 - Common pipistrelle foraging nearby, only recorded briefly, twice to the west and once to the east
 - Noctule passing overhead on approximately 10 occasions during the survey, more towards the start of the survey
 - Myotis bat heard but not seen in the vicinity, to the east and west on several occasions
- 4.13 During the second survey no bats were recorded roosting and no GHS bats were recorded.
- Soprano pipistrelle seemed to be foraging in the churchyard to the north of the site and came from this direction and potentially are roosting there, they were also recorded in the vicinity of the building an passing over the building and in the courtyard foraging.

Social calls were recorded to the south-east at 2130 on a few occasions and to the north-east at 2210 on one occasion.

- Noctule were recorded regularly throughout the survey, at least two bats were recorded together on one occasion
 - Myotis were recorded to the west and east several times with a few more periods of foraging recorded to the south-east
 - Common pipistrelle were recorded on a couple of occasions, to the west and east
 - A serotine was recorded once at 2155 and this was heard by all surveyors and again at 2202 by the surveyor to the south-east
 - A Nathusius Pipistrelle was recorded at 2104 to the south-east and then twice at 2130 and 2131 to the north-east (the second recording much more faint) – these were not seen
 - No bats were recorded emerging on the infrared camera
- 4.14 The Greater Horseshoe was recorded roosting internally in the same location to where its droppings had been recorded when the building was inspected internally after the survey was over. A GHS was heard and seen to the south at 0527 and was recorded on camera entering via the top of the stable door. Bat activity was recorded in the vicinity of the building, this included:
- Soprano Pipistrelle activity to the east, south and west and in the courtyard, some social calls were recorded including a Type C social call indicating that perhaps a maternity roost is located nearby
 - Occasional Common Pipistrelle bat passes
 - Long-eared bat passes
 - Noctule passes overhead, heard but not seen at around 0500
 - Myotis passes on several occasions to the west, south and south-east
- 4.15 The building is a day roost for Greater Horseshoe and also a day roost for Soprano Pipistrelle.
- 4.16 A European Protected Species licence is required to undertake the works to convert the building into farm shop and café or to undertake any works to the building externally or on the roof or stable doors.
- 4.17 Proceeding with the proposals in the absence of mitigation would result in the loss of the Greater Horseshoe roost and this could also result in harm to the bat and disturbance during construction. No work is likely to take place on the section of the roof where the Soprano Pipistrelle bats are roosting however the works could result in disturbance to bats roosting in this location.
- 4.18 Mitigation for the loss of the roosting area will require a new stand alone space for the Horseshoe bat to roost and direct flight access to this area via a 'dormer' opening or similar.

Birds

- 4.19 An old robin nest was recorded at the time of survey, this was located in an old swallow nest. The swallow nest did not appear to be active for many years, the robin nest was more recent.
- 4.20 None of the nests were active. A new feature on the gable for robins to nest will be created.

5.0 Requirements and Recommendations

Bats

- 5.1 A European Protected Species EPS mitigation license will be required to proceed with the proposals once planning permission has been granted. A licence would also be required to undertake any internal works, works to the roof or anything which would prevent bat access via the doors.
- 5.2 A 1f bat box or a similar style will be erected prior to any work on the buildings – these can be erected nearby in a tree or on a retained building.
- 5.3 The removal of any roof features will need to be carried out by hand, under the supervision of a trained ecologist who will be present to ensure that no bats are disturbed or harmed during the process.
- 5.4 A night time dusk survey will be undertaken to ensure the Greater Horseshoe has left the stables before work is undertaken there. The stable door and any other direct flight access points will be sealed up to ensure the bat can not get back in.
- 5.5 The new building will have a new bat roosting area included in it as shown in Appendix D, this will be sectioned off from the commercial areas and will include:
 - A space from floor to the internal ridge of the roof that is as large as possible and as high as possible. Floor area at least 4x4m with a minimum height of 2m from soffit height to the apex of the roof.
 - A gable access enabling direct flight access into the void measuring 150mm tall by 300mm wide
 - Any new roof lining will use bitumen 1f style roofing felt under tiles/slates.
 - Baffles will be used to create micro-environments to minimise draughts.
 - A 'hot box' is a sectioned off area within a bat roost that provides protection from any draughts, allowing the temperature to remain higher than the surrounding area. They are typically constructed from plywood panels. The access in the base must be 500mm x 500mm and the external parts will be painted black to increase heat absorption.
- 5.6 The site will be monitored during construction to ensure bat features are installed correctly.
- 5.7 Follow up monitoring will take place in the 2 years following completion to check on the bat population locally.
- 5.8 No new external lighting will be used where it might impact bats, their flight lines, their roosts or roost entrance – a lighting plan will be provided.

Birds

- 5.9 Impacts on the roofs of the buildings internally or externally will avoid the bird nesting from March – August inclusive, unless it can be shown by an ecologist that there are no nesting birds present. Similarly any vegetation removal will be undertaken outside the bird nesting season or alternatively under ecological supervision.
- 5.10 The building will have a feature created for nesting Robins at a suitable location.
- 5.11 A swift and house sparrow box will be installed under the eaves of the building, facing north, in the courtyard area.
- 5.12 A barn owl box will be located in a retained mature tree to the south.

Landscaping

- 5.13 A new hedge will be planted to the west of the building.

Pollution prevention and drainage

- 5.14 It is important that the proposals follow appropriate pollution prevention guidelines (PPG 6) and drainage guidelines (Defra guidelines for Sustainable Urban Drainage) to protect habitats connected hydrologically.

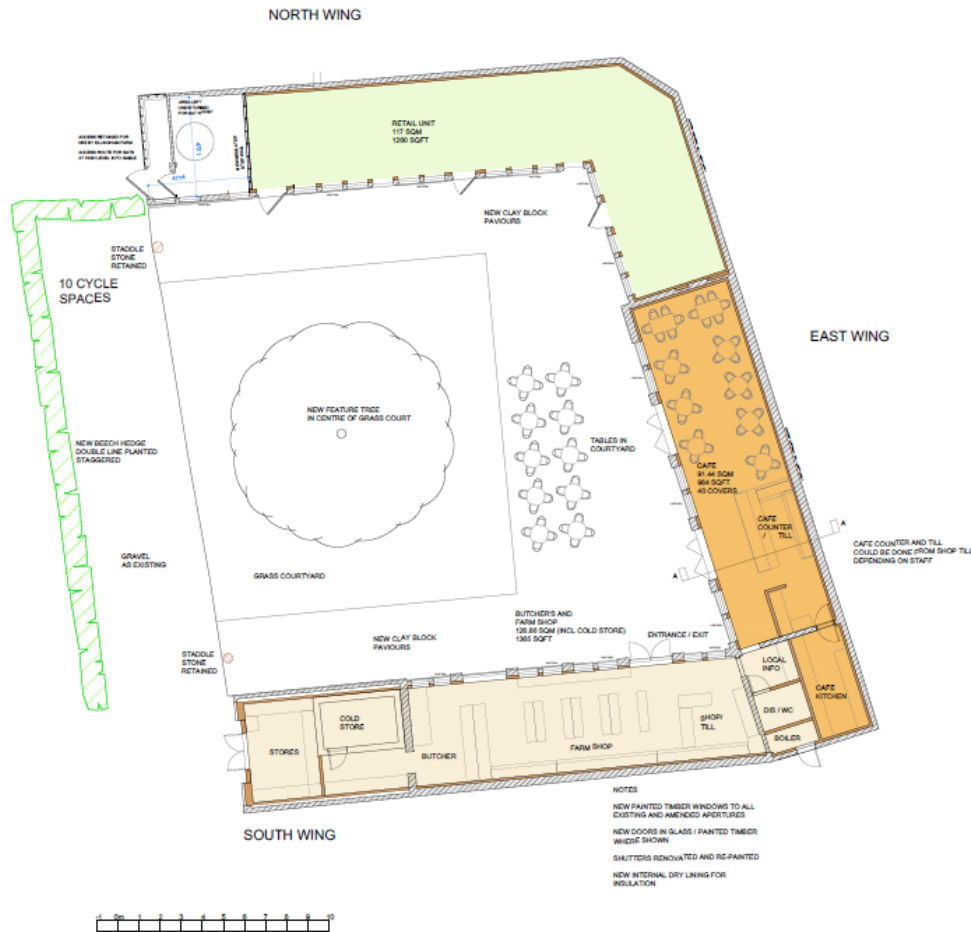
Appendix A: Site location



Appendix B: Existing site plan



Appendix C: Proposed Site Plan



NOTES
 NEW PAINTED TIMBER WINDOWS TO ALL EXISTING AND AMENDED APERTURES
 NEW DOORS IN GLASS / PAINTED TIMBER WHERE SHOWN
 SHUTTERS RENOVATED AND RE-PAINTED
 NEW INTERNAL DRY LINING FOR INSULATION

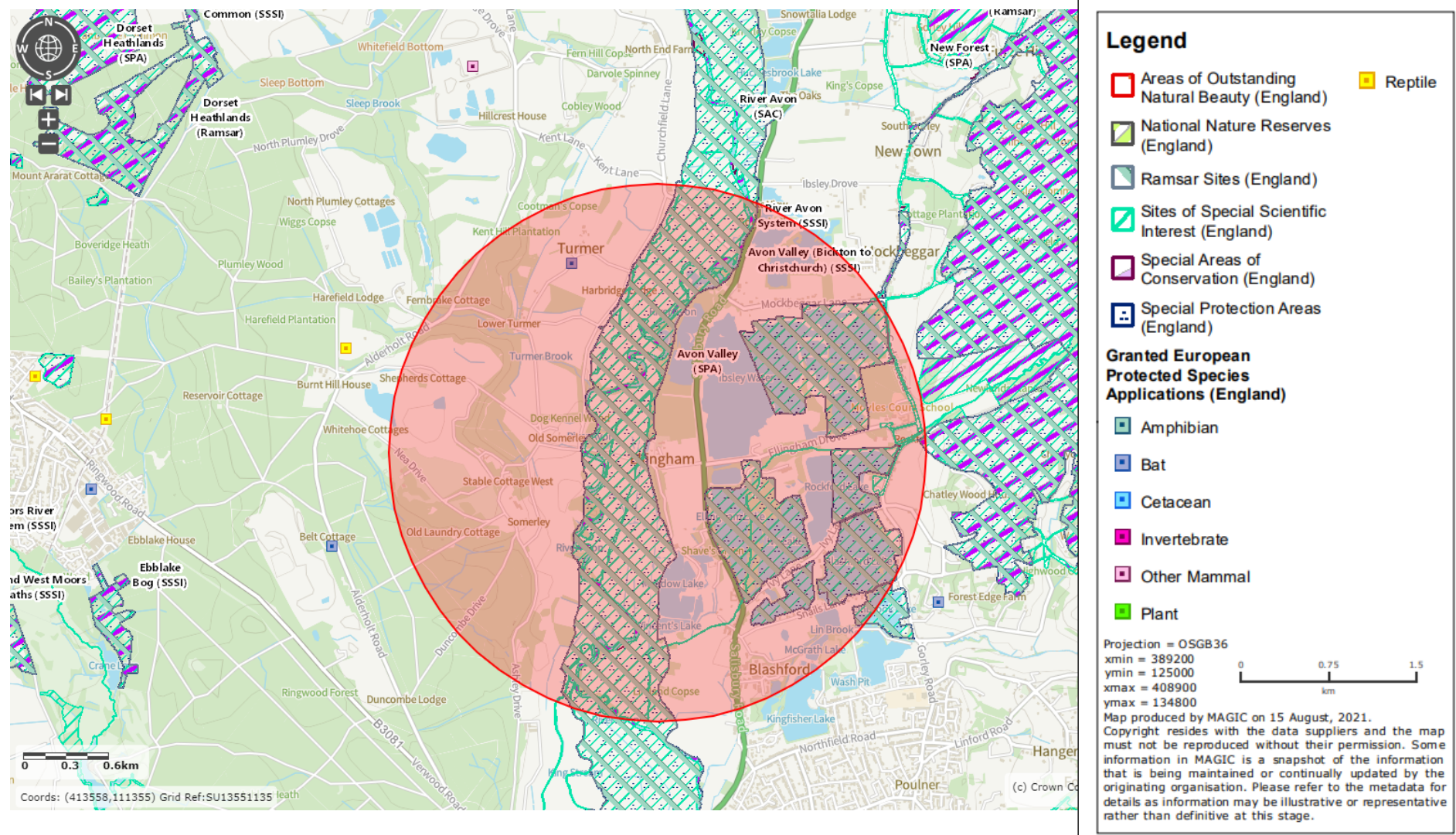
A. 08.10.22 Rev for 600 Presentation		CPL	CPL
Rev.	Date	Drawn	Checked
PLANNING			
Project Name	Project No.		
SOMERLEY ESTATE	2112		
ELLINGHAM FARM COURT	101	Drawn By	Rev.
FARM SHOP		CPL	A
Scale	1/100 @ A1	Checked By	Date
Drawing	NOV	CPL	08.04.22
PROPOSED PLANS			

CPL ARCHITECTURE

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Appendix C: Protected sites, habitats and species data from MAGiC database within 2km

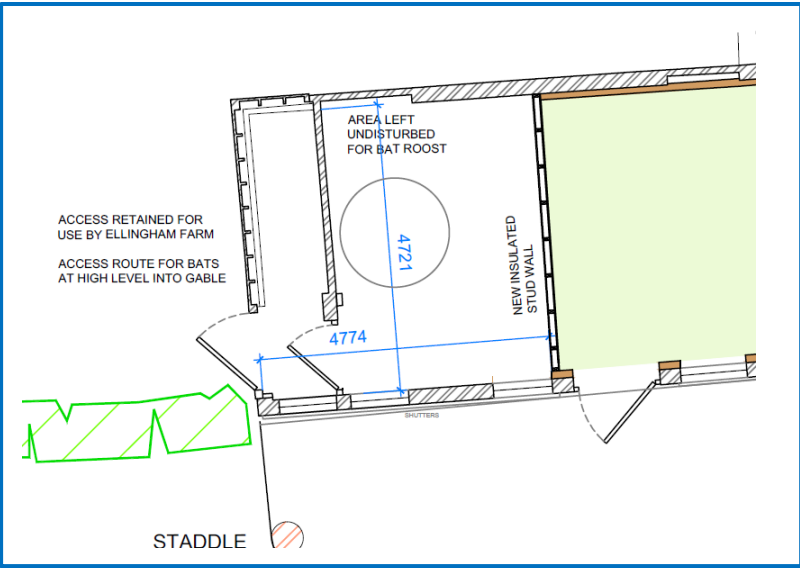
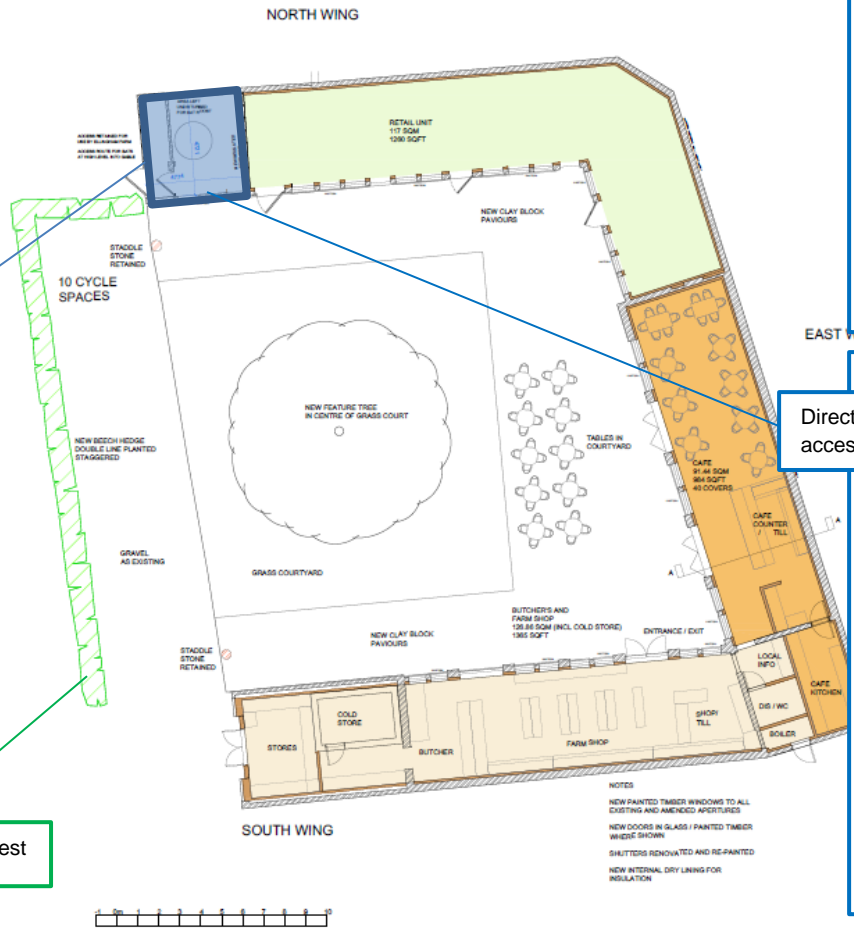


Appendix D: Mitigation

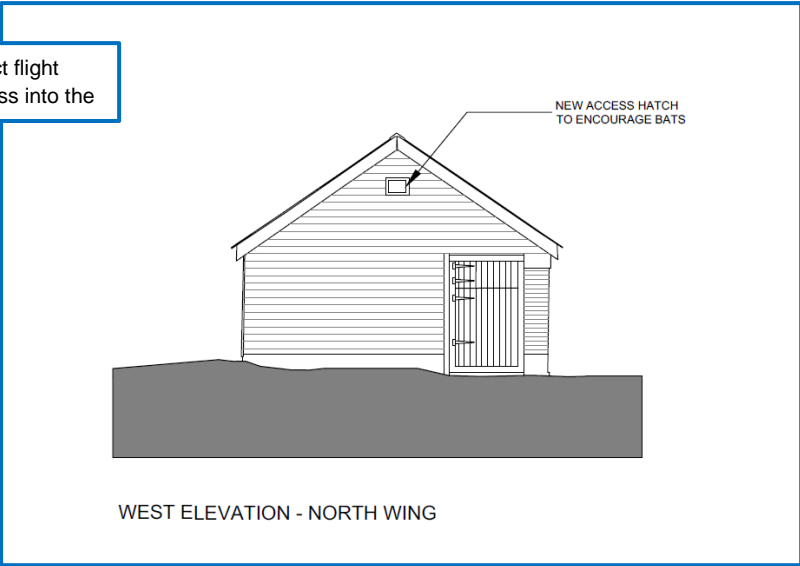
Void attic area created here and separate from the commercial area. This will be as large as possible and as high as possible. Floor area approximately 4x5m with a minimum height inside of at least 2m from soffit to internal attic apex.

Any new roof works will use bitumen 1f style roofing felt under tiles and slates.

New hedge to the west



Direct flight access into the

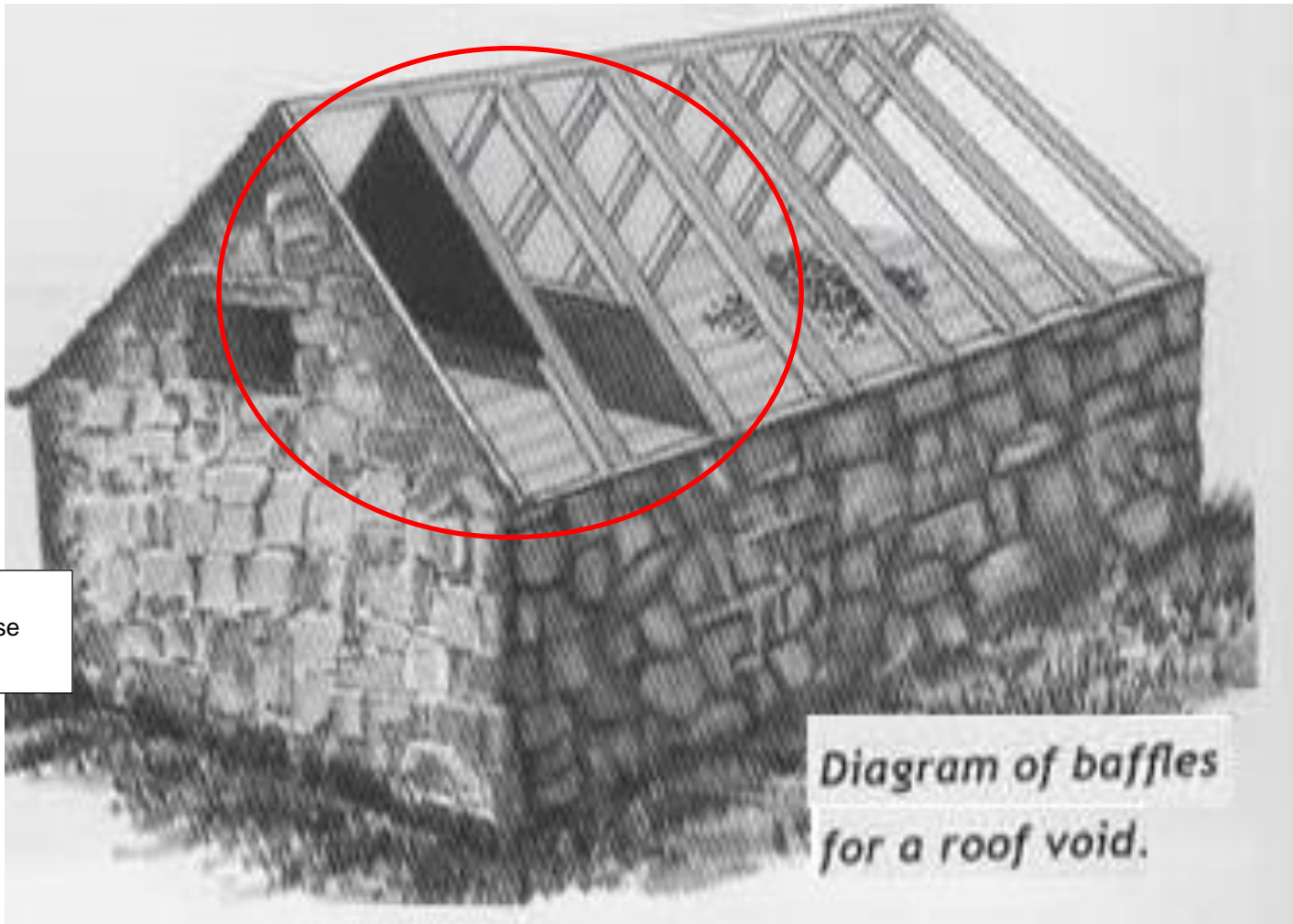


WEST ELEVATION - NORTH WING

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Installation of Baffles



Baffles will be used to create micro-environments to minimise draughts.

Hot Box

A 'hot box' is a sectioned off area within a bat roost that provides protection from any draughts, allowing the temperature to remain higher than the surrounding area. They are typically constructed from plywood panels. The access in the base must be 500mm x 500mm and the external parts will be painted black to increase heat absorption.



Appendix E: Protected species legislation

European Protected Species

Bats

These species are listed in Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and Schedule 2 of the *Conservation of Habitats and Species Regulations 2010*. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence, *inter alia*, to:

- deliberately capture, injure or kill any such animal;
- deliberately disturb any such animal, including in particular any disturbance which is likely:
 - to impair its ability to survive, breed, or rear or nurture their young;
 - to impair its ability to hibernate or migrate;
 - to affect significantly the local distribution or abundance of that species; or
- damage or destroy a breeding site or resting place of any such animal; or
- intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- Greater horseshoe bat (*Rhinolophus ferrumequinum*);
- Lesser horseshoe bat (*Rhinolophus hipposideros*);
- Bechstein's bat (*Myotis bechsteinii*);
- Barbastelle (*Barbastella barbastellus*);
- Greater mouse-eared bat (*Myotis myotis*).

In certain circumstances where these species are found the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favorable conservation status. Outside SACs, the level of legal protection that these species receive is the same as for other bat species.

Nationally Protected Species

Breeding Birds

With certain exceptions¹, all wild birds, their nests and eggs are protected by section 1 of the *Wildlife and Countryside Act 1981* (as amended). Therefore, it is an offence, *inter alia*, to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- intentionally take or destroy the egg of any wild bird.

These offences do not apply to hunting of birds listed in Schedule 2 subject to various controls.

Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or
- intentionally or recklessly disturb the dependent young of any such bird.

¹ Some species, such as game birds, are exempt in certain circumstances