

NYMNP

07/08/2019

From:
To: [Planning](#)
Subject: NYM/2018/0776/FL
Date: 07 August 2019 16:12:33
Attachments:

hi - thanks for your patience and have finally got the bat survey for this and attach it for you and understand that you have all the information now - regards mick



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Beacon Farm, Scalby, North Yorkshire

Bat Survey, July 2019.

NYMNP

07/08/2019

	Staff Member	Position
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1.0 EXECUTIVE SUMMARY

1.1 In May 2019, Wold Ecology was commissioned by Paul Cass to undertake a bat survey at Beacon Farm. The site is located at approximate National Grid Reference SE 99093 92504 in Scalby, North Yorkshire.

1.2 The field survey results are summarised below:

		Application Site Status
Proceed with caution, timing constraints	Birds	Birds are afforded various levels of protection and levels of conservation status on a species by species basis. The most significant general legislation for British birds lies within Part 1 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation, it is an offence to, kill, injure or take any wild bird, take, damage or destroy the nest of any wild bird while that nest is in use or being built, take or destroy an egg of any wild bird. All nests should remain undisturbed and intact until after the breeding bird season – mid February to early September. Planning consent for a development does not provide a defence against prosecution under this act. Bird's nests were observed in the buildings.
No roosting bats, Method Statement approach (Section 7.0) – Piggery Outbuilding	Bats	The field surveys during June and July 2019 revealed no evidence of roosting bats. As no bats or signs of bats were recorded in the piggery and outbuilding, a Natural England European Protected Species development license is not required. The method statement outlined in section 7.2 details the best working practice and precautions to be taken to avoid breaking the law and must be followed and provided to all contractors involved with the renovation of the buildings.
No constraints	Barn owl	There was no evidence of barn owls <i>Tyto alba</i> roosting in the buildings. No further surveys recommended.

1.3 **Bat roosts are protected throughout the year, whether bats are present or not.**

1.4 All bats and their roosts are fully protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and are further protected under the Conservation of Habitats and Species Regulations 2017. Should any bats or evidence of bats be found prior to or during development, work must stop immediately, and Natural England contacted for further advice. This is a legal requirement under the aforementioned acts and applies to whoever carries out the work.

1.5 Planning consent for a development does not provide a defence against prosecution under this act.

1.6 Habitat enhancement for bats should be implemented as outlined in section 7.0, in order to improve foraging opportunities to bats in the local area.

1.7 The data collected to support the output of this report is valid for one year. This report is valid until **July 2020**. After this time, additional surveys need to be undertaken to confirm that the status of the buildings, as a bat roost, has not changed.

2.0 INTRODUCTION

2.1 Background Information

2.1.1 In May 2019, Wold Ecology was commissioned by Paul Cass to undertake a bat survey at Beacon Farm. The site is located at approximate National Grid Reference SE 99093 92504 in Scalby, North Yorkshire.

2.1.2 The Application Site comprises the following buildings:

- Piggery
- Outbuilding

2.1.3 The proposed development includes the conversion of the buildings into residential.

2.2 Survey Objectives

2.2.1 The site was visited and assessed on 4th June 2019 and 24th July 2019; this was to determine whether the buildings on site contained bat roosts. The work involved the following elements:

Survey objective	Yes/No	Comments
Determine presence/absence of roosting bats	Yes	A daytime, visual inspection for bat roosts and roosting bats. Internal inspection of all roof voids. An assessment of the on-site potential for bats and the likelihood of their presence. Desktop study.
Determine bat usage e.g.s maternity roost, summer roosts	Yes	An assessment of whether bats are a constraint to the development. Emergence (dusk) survey. Return (dawn) survey.
Identify swarming, commuting or mating sites	Yes	The survey looked at commuting routes from the roost to foraging grounds to ensure works did not impact these.
Other	Yes	The production of a non-technical summary of the legal implications behind bat presence.
		Report the findings of the field survey work and identify recommendations for a potential mitigation strategy.



Scale: 1:25,000

Drawing title:
Location Map

KEY



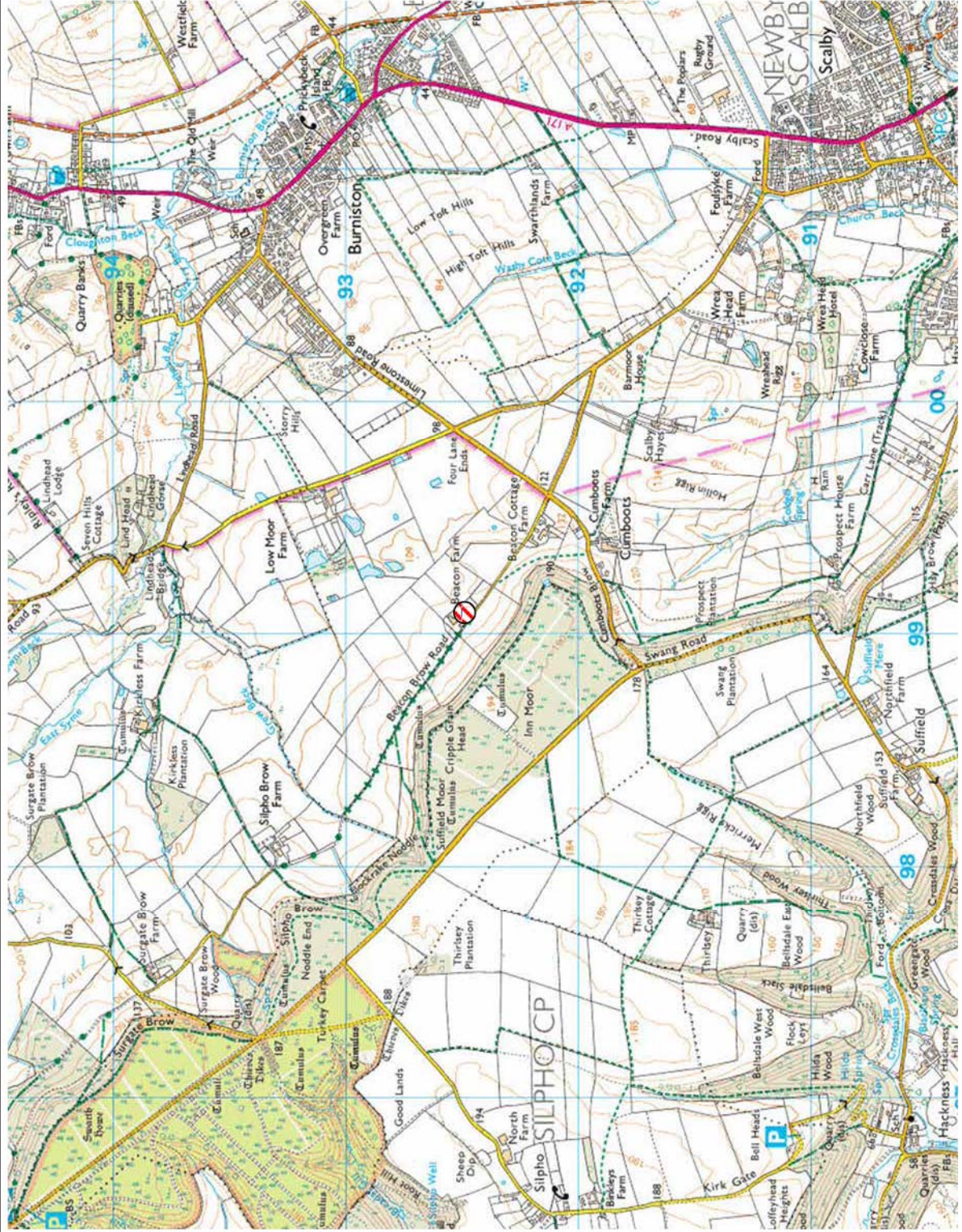
Application Site

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3.0 BACKGROUND TO SPECIES

3.1 Ecological overview

3.1.1 There are seventeen species of bat that currently breed in the UK. There is a wide variety of roost type and ecological characteristics between species and for this reason it is necessary to determine the species of bat and the type of roost resident in a structure prior to development. Roosts are utilised by different species of bat, at different times of year for different purposes i.e. summer, breeding, hibernating, and mating etc. (for more detailed information see section 9.0).

3.1.2 Bat populations have undergone a significant decline in the latter part of the 20th century; the main factors cited for causing loss and decline include:

- A reduction in insect prey abundance, due to high intensity farming practice and inappropriate riparian management.
- Loss of insect-rich feeding habitats and flyways, due to loss of wetlands, hedgerows, and other suitable prey habitats.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

3.2 Legal Framework

3.2.1 A bat survey is required prior to planning permission being granted for a development, in order to prevent the potential disturbance, injury and /or death of bats and the disturbance, obstruction and/or destruction of their roosting places. This is in compliance with the Conservation of Habitats and Species Regulations 2017, provision 41 states an offence is committed if a person:

- (a) Deliberately captures, injures, or kills any wild animal of a European protected species (i.e. bats),
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal.

3.2.2 Section 9 of the Wildlife and Countryside Act (1981) states:

- It is an offence for anyone without a licence to kill, injure, disturb, catch, handle, possess or exchange a bat intentionally. It is also illegal for anyone without a licence to intentionally damage or obstruct access to any place that a bat uses for shelter or protection.

3.2.3 Bat roosts are protected throughout the year, whether or not bats are occupying a roost site.

3.3 Planning Policy Guidance

3.3.1 A bat survey is a requirement of the Local Planning Authority (LPA), as part of the planning application process. This is specified in the following legislation:

- National Planning Policy Framework (NPPF): Conserving and Enhancing the Natural Environment.

3.3.2 To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

3.3.3 When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

3.3.4 The LPA has to assess whether the development proposal would breach Article 12(1) of the Habitats Directive. If Article 12(1) would be breached, the LPA would have to consider whether Natural England was likely to grant a European protected species licence for the development; and in so doing the LPA would have to consider the three derogation tests:

- a) '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'.

In addition, the LPA must be satisfied that:

- (b) 'That there is no satisfactory alternative'
- (c) 'That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

3.3.5 Relevant Case Law

- Woolley v Cheshire East Borough (2009).
- R. (Morge) v Hampshire County Council (2011).
- Prideaux v. Buckinghamshire County Council and Fcc Environmental UK Limited (2013).

- 3.3.6 The rulings summarise that if it is clear or perhaps very likely that the requirements of the Directive cannot be met because there is a satisfactory alternative or because there are no conceivable ‘other imperative reasons of over-riding public interest’ then the authority should act on that and refuse permission.’
- 3.3.7 The conclusion of the judgement is that LPAs must ensure that the option/alternative that best takes into account all the relevant considerations (not just EPS) should be the preferred option assuming that the other two tests specified in Article 16 (1) are also met.
- 3.3.8 The judgements also clarified that it was not sufficient for planning authorities to claim that they had discharged their duties by imposing a condition on a consent that requires the developer to obtain a licence from Natural England. Natural England considers it essential that appropriate survey information supports a planning application prior to the determination. Natural England does not regard the conditioning of surveys to a planning consent as an appropriate use of conditions.

4.0

ASSESSMENT METHODOLOGY

4.1 Status of species present in Yorkshire

Bat Specie	UK Status	UK Distribution	Yorkshire Distribution
Common Pipistrelle	Not threatened	Common & widespread	Common & widespread.
Soprano pipistrelle	Not threatened	Common & widespread	Less common than common pipistrelle but fairly widespread.
Nathusius's pipistrelle	Rare	Restricted. Throughout British Isles.	Scarce, bat detector records only.
Brown long-eared	Not threatened	Widespread	Widespread.
Daubenton's	Not threatened	Widespread	Widespread.
Natterer's	Not threatened	Widespread (except N & W Scotland)	Present
Brandt's	Endangered	England and Wales	Few confirmed records.
Whiskered	Endangered	England, Wales, Ireland & S Scotland.	Present.
Noctule	Vulnerable	England, Wales, S Scotland.	Widespread
Leisler	Vulnerable	Widespread throughout the British Isles, except N Scotland.	Rare (locally common in West Yorkshire).
Barbastelle	Rare	England.	No records since 1950's.

Source - <http://www.nyorkbats.freeseve.co.uk/bats.htm>

4.2 Data Review and Desk Study

4.2.1 Currently, there is no pre-existing information on bats at the site.

4.2.2 Wold Ecology employees, field surveyors and network of associate ecologists have recorded brown long-eared *Plecotus auritus*, noctule *Nyctalus noctula*, Natterer's *Myotis nattereri*, Daubenton's *Myotis daubentonii*, Brandt's *Myotis brandtii*, whiskered *Myotis mystacinus*, soprano pipistrelle *Pipistrellus pygmaeus* and common pipistrelle *Pipistrellus pipistrellus* within 5km of the Application Site. Wold Ecology bat records date from 2006 and include over 1000 bat activity surveys.

4.2.3 There are no known Natural England development licenses relating to bats within 1km of the Application Site (source – www.magic.gov.uk).

4.3 Daytime and Visual Inspection

4.3.1 The daytime assessment identified whether the area had any signs of occupancy and/or bat usage. This took the form of a methodical search, both internally and externally, for actual roosting bats and their signs. Specifically, the visual survey involved:

- Assessment for droppings on walls, windowsills and in roof spaces
- Scratch marks and staining on beams, other internal structures and potential entrance and exit holes
- Wing fragments of butterfly and moth species underneath beams and other internal structures
- The presence of dense spider webs at a potential roost can often indicate absence of bats
- Assessment of crevices and cracks in the buildings to assess their importance for roosting bats
- The duration of the daytime, visual inspection was 30 minutes

4.3.2 Summary of daytime inspection and visual survey

Date of each survey visit	Structure reference/location	Equipment used/available	Weather
04/06/19	Piggery Outbuilding	Binoculars, 1million candle power clu-lite torch, micro Dart endoscope, Dewalt DW03050 Laser Measure. 3.9m telescopic ladders	14°C, 20% cloud. Beaufort 0, SW. No recent rain.
Comments (to include # of surveyors used for each visit): 1 surveyor undertook the visual inspection.			
14/06/19	Piggery Outbuilding	Binoculars, 1million candle power clu-lite torch, micro Dart endoscope, Dewalt DW03050 Laser Measure. 3.9m telescopic ladders	14°C, 20% cloud. Beaufort 0, W. No recent rain.
Comments (to include # of surveyors used for each visit): 1 surveyor undertook the visual inspection.			
Personnel: Daniel Lombard (Class 1 bat licence – 2015-11490-CLS-CLS) – 4 th June and 14 th June 2019			

4.4 Activity Surveys

4.4.1 Emergence surveys are used to determine bat presence in a building and can also give a good estimate of the numbers present. Bats can emerge up to 15 minutes before sunset and 2 hours after sunset. The survey times ensured that bats would have emerged from their roost sites and would be foraging (see section 9.4 and 9.5).

4.4.2 Summary of emergence survey(s)

Date of each survey visit	Start/end times and times of sunset	Structure reference/location	Equipment used/available	Weather
14/06/19	Sunset: 2130 Start: 2100 Finish: 2330	Piggery Outbuilding	Cluson CB2 1 million candle power lamps Digital thermometer Heterodyne bat detectors Anabat Walkabout Wildlife Acoustics EM Touch 2 PRO EM3 Anabat Express Night vision scope	14°C - 13°C, 20% cloud. Beaufort 0. No recent rain.
Comments (to include # of surveyors used for each visit): 2 surveyors were positioned around the site so that all potential access points, identified in the daytime, visual inspection, could be observed.				
Personnel: Daniel Lombard (Class 1 bat licence – 2015-11490-CLS-CLS) – 14 th June 2019 Josh Saunders - 14 th June 2019				

4.4.3 Return surveys conducted at sunrise are particularly useful as bats tend to swarm outside their roosts for up to 2 hours before entering, thus allowing the surveyor more time to identify the bat and entrance locations. Bats will return to roosts approximately 90 minutes before sunrise and 15 minutes after. The timing of the survey ensured that returning bats would be recorded (see section 9.4 and 9.5).

4.4.4 Summary of return survey(s)

Date of each survey visit	Start/end times and times of sunrise	Structure reference/location	Equipment used/available	Weather
24/07/19	Sunrise: 0500 Start: 0300 Finish: 0530	Piggery Outbuilding	Cluson CB2 1 million candle power lamps Digital thermometer Heterodyne bat detectors Anabat Walkabout Wildlife Acoustics EM Touch 2 PRO EM3 Anabat Express Night vision scope	18°C, 100% cloud. Beaufort 0. No recent rain.

Comments (to include # of surveyors used for each visit): 2 surveyors were positioned around the site so that all potential access points, identified in the daytime, visual inspection, could be observed.

Personnel:

Daniel Lombard (Class 1 bat licence – 2015-11490-CLS-CLS) – 24th July 2019

Todd German – 24th July 2019

4.5 Summary of personnel

Personnel	Experience	Licence No.
Daniel Lombard MCIEEM	Experienced bat surveyor since 2010, Daniel has assisted with over 300 bat surveys for Wold Ecology and is currently working towards his bat handling license.	2015-11490-CLS-CLS
Josh Saunders	Experienced Wold Ecology Ltd bat surveyor with over 3 years of bat activity survey experience undertaken under the tuition of Wold Ecology licensed bat ecologists. Josh has undertaken over 100 bat activity surveys.	N/A
Todd German	Wold Ecology Ltd associate with bat activity survey experience undertaken under the tuition of Wold Ecology licensed bat ecologists.	N/A

5.0 RESULTS

5.1 Habitat description

5.1.1 The Application Site is located 2km north west of Scalby village, in a rural location. The Application Site is approximately 0.1ha and the studied buildings are immediately surrounded by short grassland and the farm yard. The adjoining farm buildings also have bat roosting potential and comprise a similar structure to the outbuilding and piggery.

5.1.2 Adjacent Landscapes

5.1.2.1 Beacon Farm is surrounded by mixed agricultural land dominated by arable with grazed pastures. Woodland cover within 2km is good and occurs as shelterbelts adjacent to farms and small holdings, semi natural woodland, and plantations. Optimum bat foraging habitat connectivity within 500m is provided by hedgerows that bound most arable fields and woodland cover.

5.1.2.2 Wold Ecology concludes that the adjacent and continuous high-quality habitats that include woodland, tree lines, hedgerows, scrub, and waterbodies connect the Application Site to the wider countryside. These habitats are likely to be used regularly by foraging and commuting bats. Consequently, the Application Site and adjacent habitats are considered to be integral to the favourable conservation status of local bat populations.

5.1.3 Habitat Summary

5.1.3.1 A summary of the surrounding habitat is (radius of < 2km from the site):

- Buildings – farm buildings and residential properties
- Hedgerow
- Hedgerows with trees
- Mature trees and woodland
- Broxa Forest
- Thirsley Wood
- Bellsdale Slack
- Thirsley Plantation
- Kirkless Plantation
- Surgate Brow Plantation
- Arable
- Mature private gardens
- Ponds and watercourses
- Brown Beck
- Grew Beck
- East Syme
- Lindhead Beck
- Quarry Beck
- Washy Cote Beck
- Grazed pasture



NORTH

Scale: 1:25,000

Drawing title:
Aerial Photograph

KEY

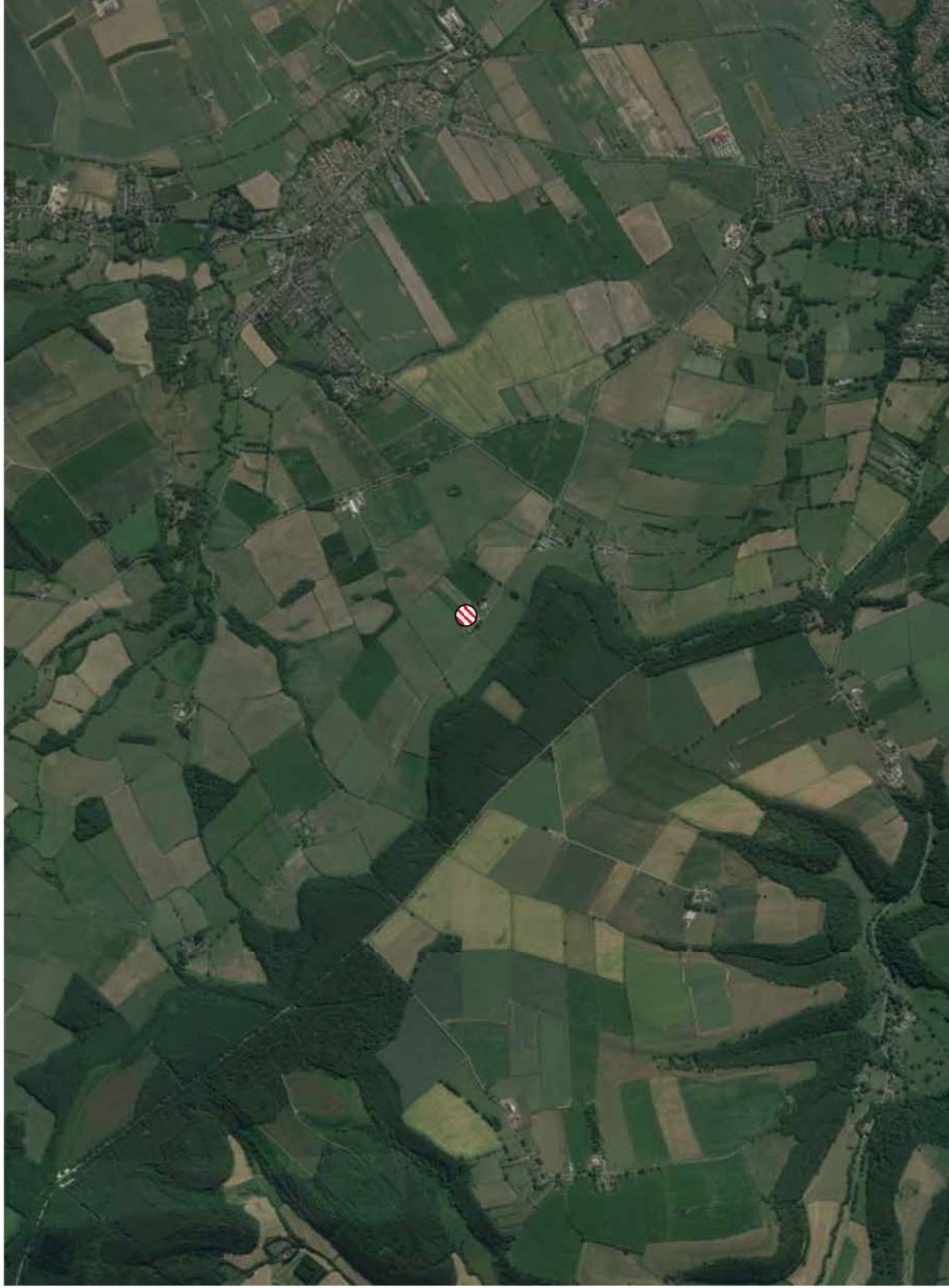
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5.2 Building descriptions

5.2.1 The bat survey and assessment targeted the following (see section 5.5):

- a. **Piggery** – the single storey building is currently used as storage/dog kennel and comprises double skin local stone walls and a pitched roof. The roof is covered with pan tiles and is supported by smooth sawn timbers; the roof is not lined.
- b. **Outbuilding** - is currently used as an outhouse and comprises local stone walls and a pitched roof. The roof is covered with pan tiles and is supported by smooth sawn timbers; the roof is not lined.

5.2.2 **Piggery** (see 5.5 plates) - the following roosting opportunities were present within the fabric of the piggery:

- Gaps beneath the ridge tiles where mortar has been displaced.
- There are no missing ridge tiles.
- Loose fitting pan tiles with gaps beneath.
- Missing/slipped pan tiles.
- Gaps in missing mortar below gable tiles.
- Gaps above the eaves.
- Missing mortar in the stonework.
- Subsidence cracks.
- Gaps adjacent to timber doors and timber windows.
- Gaps adjacent to stone lintels.
- Gaps above the internal wall plates.
- Gaps above the ridge beam.
- Gaps in the internal stonework.
- Gaps in the roof structure and mortice joints.
- Access into the building is provided by open doors and windows.
- No evidence of bats was observed.
- The building has been assessed as having a MODERATE SUITABILITY to support bats.

5.2.3 **Outbuilding** (see 5.5 plates) - the following roosting opportunities were present within the fabric of the outbuilding:

- Gaps beneath the ridge tiles where mortar has been displaced.
- There are no missing ridge tiles.
- Loose fitting pan tiles with gaps beneath.
- Gaps in missing mortar below gable tiles.
- Gaps beneath coping stones.
- Gaps above the eaves.
- Missing mortar in the stonework.
- The timber doors and timber window frames were tight fitting.
- There was no open doors/window access into the building.
- No evidence of bats was observed.
- The building has been assessed as having a MODERATE SUITABILITY to support bats.

5.2.4 Based on the field survey and the criteria in table 4.1 (Bat Surveys for Professional Ecologists – 3rd Edition, p35. Bat Conservation Trust, 2016), the Application Site and studied buildings have the following suitability for bats:

	Negligible	Low	Moderate	High
Application Site habitats (<2km)				X
Piggery			X	
Outbuilding			X	

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation ^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ^c	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Source - Bat Surveys for Professional Ecologists – 3rd Edition, p35. Bat Conservation Trust, 2016.

5.3 Justification of activity surveys

5.3.1 The level of survey to give confidence in a negative result is summarised as (Bat Surveys for Professional Ecologists, 3rd Edition. Bat Conservation Trust, 2016):

Low Roost Suitability	Moderate Roost Suitability	High Roost Suitability
One survey visit. One dusk emergence or dawn re-entry survey.	Two separate survey visits. One dusk emergence survey and a separate dawn re-entry survey.	Three separate survey visits. At least one dusk emergence survey and a separate dawn re-entry survey. The third visit could either be dusk or dawn.
May to August.	May to September with at least one survey between May to August.	May to September with at least two surveys between May to August.
Activity surveys should be at least 2 weeks apart. Moderate buildings will be assessed according to site location and habitats within the locality and if there is a possibility that late emerging bats are present, a dawn survey will be more appropriate.		

5.3.2 The Application Site requires the following surveys between May and late September:

	Emergence (dusk)			Re-entry (dawn)		
	LOW	MOD	HIGH	LOW	MOD	HIGH
Piggery		x 1			x 1	
Outbuilding		x 1			x 1	

5.4 Results of Activity Surveys

5.4.1 Emergence Survey

5.4.1.1 14th June 2019

- The first common pipistrelle bat was detected at 2204. This was close to the anticipated (< 30 minutes after sunset) emergence time and suggests that a roost is close by. The bat appeared from the direction of the adjacent farm buildings to the east.
- Common pipistrelle, soprano pipistrelle and brown long-eared bats were detected and/or observed foraging and commuting around the site in low numbers.
- No bats were observed emerging from the buildings.
- 10 common pipistrelle bats were observed emerging from the adjacent farm buildings, the roost is located in a building that does not adjoin the outbuilding or piggery.

5.4.1.2 For survey results see appendix 9.4 and 9.5.

5.4.2 Return Survey

5.4.2.1 24th July 2019

- Bat activity was low throughout much of the survey with the site used by common pipistrelle and brown long-eared bats.
- No bats were observed returning to roosts in the studied buildings.

5.4.2.2 For survey results see appendix section 9.4 and 9.5.

5.5 Photographs of key features – 4th June 2019

Plate 1 – outbuilding east elevation



Plate 2 – outbuilding west elevation



Plate 3 – piggery west elevation and north gable



Plate 4 – piggery east elevation








Not to Scale

Drawing title:
Layout plan of the
Application Site.

KEY

 Primary commuting route

 Location of surveyor – 4th June 2019

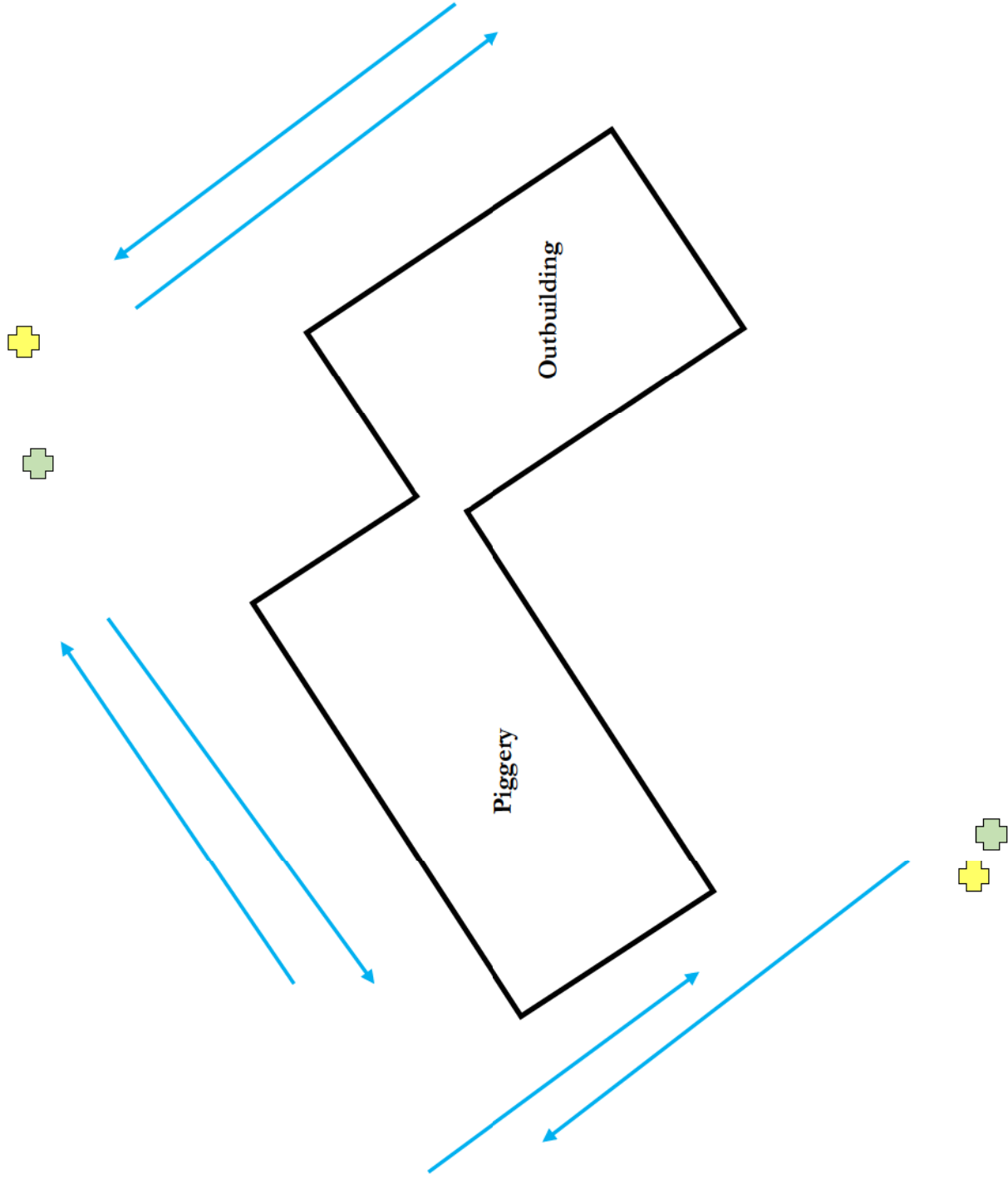
 Location of surveyor – 24th July 2019

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5.6 Summary of field surveys conducted in 2019

Date	Type of survey	Results				Building Dimensions (m)		
						L	W	H*
4/06/19 14/06/19	Habitat assessment	Wold Ecology concludes that the adjacent and continuous high-quality habitats that include woodland, tree lines, hedgerows, scrub, and waterbodies connect the Application Site to the wider countryside. These habitats are likely to be used regularly by foraging and commuting bats. Consequently, the Application Site and adjacent habitats are considered to be integral to the favourable conservation status of local bat populations.						
	Visual inspection.	<i>Piggery</i> There were no signs of roosting bats or bat activity inside the building, but due to the presence of features with potential to provide roosting opportunities for bats, the piggery has been assessed as having a MODERATE SUITABILITY to support bats (see 5.3 plates 1 and 2).				11.4	5.1	2.8
		<i>Outbuilding</i> There were no signs of roosting bats or bat activity inside the building, but due to the presence of features with potential to provide roosting opportunities for bats, the outbuilding has been assessed as having a MODERATE SUITABILITY to support bats (see 5.3 plates 3 and 4).				8.9	5.3	2.8
Date	Spp.	Roost type	Structure Reference	Roost Location	Access points (including #)	Dimension of roost or explanation where the roost is		
14/06/19	Emergence	No roosting bats were observed emerging from the buildings.						
24/07/19	Return	No bats were observed returning to a roost in the buildings.						

* Height from ground floor to ridge

5.7 Interpretation and Evaluation of Survey Results

5.7.1 Presence/absence

5.7.1.1 The site is currently used by foraging and commuting common pipistrelle, soprano pipistrelle, noctule and brown long-eared bats, a maximum of two bats were observed at any one time.

5.7.1.2 No roosting bats or evidence of roosting bats were observed in the outbuilding and piggery during the field surveys.

5.7.2 Site Status Assessment

5.7.2.1 Based on a building inspection, an emergence survey and return survey, it has been determined that the studied outbuilding and piggery at Beacon Farm are unlikely to support a bat roost. The results are based on survey work conducted in June and July, but as the piggery and outbuilding have a moderate suitability to support

roosting bats, there remains the possibility that bats could use the buildings at other times of the year.

5.7.2.2 Beacon Farm is located adjacent to surrounding favourable foraging habitat which will play an important role in the ecology of the local bat population.

5.7.3 Constraints

5.7.3.1 There are no constraints to the survey.

6.0 IMPACT ASSESSMENT

6.1 Based on current information, the piggery and outbuilding does not support a bat roost. Consequently, the impact to roosting bats from the conversion of the outbuilding and piggery is considered to be **negligible**.

6.2 The current information obtained is based on a desk top study, visual inspection and activity surveys conducted in June and July. Bat activity surrounding the buildings was also low, with a total of 4 common and widespread bat species observed foraging/commuting in low numbers. Consequently, the impact to bat populations locally, nationally and regionally from the proposed development is considered to be **negligible**.

7.0 MITIGATION & COMPENSATION

7.1 Legal Protection

7.1.1 Legal obligations towards bats are generally concerned with roost protection. All developments, known to contain bat roosts, require a development licence from Natural England. Under the Wildlife and Countryside Act (1981) and the Habitats and Species Regulations (2017), it is an offence for anyone without a licence to:

- Deliberately take, injure or kill a wild bat
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
- Damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not occupying the roost at the time)
- Possess or advertise/sell/exchange a bat of a species found in the wild in the EU (dead or alive) or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.

7.1.2 Planning consent for a development does not provide a defence against prosecution under these acts.

7.1.3 **Bat roosts are protected throughout the year, whether bats are present or not.**

7.1.4 As no bat roosts or evidence of bats were detected in the outbuilding or piggery during the surveys, conversion work to the aforementioned buildings would not require a Natural England development licence. However, the buildings have a moderate suitability of bat interest and therefore have features that could support roosting bats. There is a low possibility that individual bats could turn up roosting in the buildings at any time during the year. The following procedures highlighted in Section 7.2 should be adopted during the building works. Section 7.2 identifies working practices or precautions necessary to avoid injury or death to any bats that may be present in the buildings.

7.2 Method Statement

7.2.1 **This statement should be copied to contractors and all those involved with timber treatment, roofing and building works, whose work may affect bats and their roosts on site. Even though bats have not been found, building works should occur as though bats could be present.**

7.2.2 Timing

7.2.2.1 There are no mandatory timing constraints when roosting bats have not been found.

7.2.3 Locating Bats

7.2.3.1 Bats are by nature highly secretive, mobile mammals; therefore, bats and their roosts can be very difficult to detect. A pipistrelle bat is capable of roosting in a crack measuring 20mm. In order to reduce any unnecessary disturbance, injury or death of any late discoveries of individual bats roosting in the buildings the following procedures should be implemented. Common roosts locations must be checked. These include:

- Underneath tiles
- Underneath ridge tiles
- Crevices in stone work and gaps in mortar
- Mortise joints in roof timbers
- Above the eaves and internal wall plates
- Around window/door frames

7.2.4 Working Approach

7.2.4.1 Careful removal by hand of all fittings and fixtures as describe in 7.2.3. Wall cavities should be checked prior to demolition (if applicable) and pointing.

7.2.4.2 Remove roof coverings by hand. Only half of the roof should be removed on the first day and the second half 24 hours later. This will create unfavourable conditions for any bats still roosting within the roof structure and encourage the bats to leave on their own accord.

7.2.4.3 In the unlikely event that bats are discovered:

- Immediately stop the work that you are undertaking.
- Do not expose the bat or cause it to fly out of the roost on its own accord.
- Contact Wold Ecology on
- Advise colleagues in the vicinity of your work why you have stopped and advise them to be aware of the potential for bats being disturbed, injured or killed.
- Immediately report the matter to your site manager/line manager who will inform relevant personnel.
- Grounded bats must be carefully placed in a lidded, ventilated box with a piece of clean cloth and a small shallow container with some water. The box must be kept in a safe and quiet location.
- Any underweight or injured bats must be taken into temporary care by an experienced bat carer and looked after until such time that the bat can be transferred to a suitable replacement roost at the same site, or weather conditions are suitable for release at the same site.

7.2.4.4 Bats will only be handled by a licensed bat ecologist, wearing gloves, who has received a rabies vaccination. The bat will be placed either into a holding box, with water provided, and re-released close to the farm at dusk, or placed into a bat box located on site.

7.2.4.5 Injured bats will be taken into care (as directed by the Bat Workers Manual, section 7.3, pages 64 – 66: 3rd edition 2004) and fed and cared for until such time when conditions are suitable (night time temperature are $>6^{\circ}\text{C}$) for them to be released at dusk in the mitigation area.

- 7.2.5 Bat boxes
- 7.2.5.1 Specially designed bat boxes can be located on site. Schwegler Bat Boxes are recommended and well tested boxes. The following bat boxes provide additional roost habitats and are available from Wold Ecology:
- The **1FQ** is an attractive box designed specifically to be fitted on the external wall of a house, barn or other building. Equally appealing to bats as a roost or a nursery, it features a special porous coating to help maintain the ideal temperature inside along with a rough sawn front panel to enable the bats to land securely.
- 7.2.5.2 The majority of these boxes are self-cleaning as they are designed so that the droppings fall out of the entrance. This reduces the possibility of smell during the summer months. For more information on designs and installation of bat boxes see: www.schwegler-natur.de and www.bct.org.uk.
- 7.2.5.3 Wold Ecology recommends that at least 1 bat box is sited on a building at the farm. Bat boxes should be erected on south, east or west elevations/aspects; 3-5 metres above ground level or close to roof lines.
- 7.2.6 Lighting
- 7.2.6.1 Lighting has a detrimental effect on bat activity; many bats will actually avoid areas that are well lit. Lighting can cause habitat fragmentation by preventing bats from commuting between roosts and foraging grounds (A.J Mitchell-Jones 2004).
- 7.2.6.2 The impact on bats can be minimised by the use of low pressure sodium lamps or high-pressure sodium instead of mercury or metal halide lamps where glass glazing is preferred due to its UV filtration characteristics. Lighting to be used should not emit Ultra Violet radiation so that they don't attract insects and consequently, they will have a minimal effect on bats.
- 7.2.6.3 Luminaire and light spill accessories - Lighting should be directed to where it is needed, and light spillage avoided. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only.
- 7.2.6.4 If applicable, the height of lighting columns in general should be as short as is possible as light at a low level reduces the ecological impact. However, there are cases where a taller column will enable light to be directed downwards at a more acute angle and thereby reduce horizontal spill. For pedestrian lighting, this can take the form of low level lighting that is as directional as possible and below 3 lux at ground level. Aim for lighting column of 5m or less, hooded and cowed to prevent light spill, for main lighting columns
- 7.2.6.5 Security lighting power, it is rarely necessary to use a lamp of greater than 2000 lumens (150 W) in security lights. The use of a higher power is not as effective for the intended function and will be more disturbing for bats. Many security lights are fitted with movement sensors which, if well installed and aimed, will reduce the amount of time a light is on each night. This is more easily achieved in a system where the light unit and the movement sensor are able to be separately aimed. If the light is fitted with a timer this should be adjusted to the minimum to reduce the amount of 'lit time'. The light should be aimed to illuminate only the immediate

area required by using as sharp a downward angle as possible. This lit area must avoid being directed at, or close to, any bats' roost access points or flight paths from the roost. A shield or hood can be used to control or restrict the area to be lit. Avoid illuminating at a wider angle as this will be more disturbing to foraging and commuting bats as well as people and other wildlife.

7.2.6.6 At this site, lights will **not** be mounted where they will shine directly on to bat boxes or the surrounding woodland/hedgerow habitat used by foraging and commuting bats.

7.2.7 Timber treatment

7.2.7.1 It is good practice, where bats may come into contact with roof timbers, to carry out timber treatment using Permethryn type chemicals on the Natural England list of approved safe chemicals. New pre-treated timbers i.e. tanalised timber will be allowed to dry thoroughly before use, if applicable. A list of Natural England approved paints and timber treatments is available at <https://www.gov.uk/guidance/bat-roosts-use-of-chemical-pest-control-products-and-timber-treatments-in-or-near-them>

7.2.8 Habitat enhancements

7.2.8.1 Freshwater, woodland, grassland, urban gardens, trees and amenity green space are suitable foraging habitats for bats whilst linear habitats such as hedgerows and streams are particularly important commuting routes between roosts and foraging ground.

7.2.8.2 It is recommended that the natural landscape remains largely unchanged. Landscaped areas can provide good foraging grounds for bats and the retention of adjacent trees is recommended. Ornamental, semi natural and managed habitats can be improved by growing night-scented flowers and other flowers favoured by insects. Suitable species include:

- Foxglove *Digitalis purpurea*
- Cowslip *Primula veris*
- Red campion *Silene dioica*
- Marjoram *Origanum vulgare*
- Ox-eye daisy *Leucanthemum vulgare*
- Red clover *Trifolium pratense*
- Evening primrose *Oenothera biennis*.
- Honeysuckle *Lonicera periclymenum*.
- Wild Clematis *Clematis virginiana*

7.2.8.3 More information on suitable planting to encourage bats obtained from The Bat Conservation Trust (www.bats.org).

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www.bats.org.uk

<https://www.gov.uk/government/collections/bat-licences>

9.0 APPENDICES

9.1 Background to Bats - Bat Biology.

- 9.1.1 Bats roost in a variety of places such as caves, mines, trees, and buildings. Woodlands, pasture, ponds and slow flowing rivers or canals provide suitable feeding areas for bats as they support an abundance of suitable insect forage. Bats tend to feed during the first two to three hours after sunset and again before dawn, when insect activity is at its most intense (JNCC 2004).
- 9.1.2 Bat activity over the course of a year reflects the seasonal climate and the availability of food as follows (The Bat Conservation Trust, undated):
January - March - insect prey is scarce, and bats will hibernate alone or in small groups.
April - May - insects are more plentiful and bats will become active. They may become torpid (cool and inactive) in bad weather. Females will start to form groups and will roost in several sites.
June - July - females gather in maternity roosts and give birth to young, which are suckled for several weeks. Males roost alone nearby.
August - September – mothers leave the roost before the young. Bats mate and build up fat for the winter.
October - December – Bats search for potential hibernacula. They become torpid for longer periods and then hibernate.
- 9.1.3 Bats do not stay in the same roost throughout the year. They have different requirements of roosts at different times of the year. During late April/May the bats leave their winter roosts and the females come together to form ‘nursery roosts’, these usually consist of pregnant females along with a few non-breeding and immature females. At this time the males roost either singly or in small numbers. The single offspring is born during late June early July and can fly within 3-5 weeks.
- 9.1.4 Typical roost sites are cracks and crevices in buildings and other structures but more typically under hanging tiles, slates, soffits and cavity walls of fairly modern buildings or holes and splits in trees.
- 9.1.5 The conditions needed by bats for hibernation require the maintenance of a relatively stable low temperature (2 – 6°). Suitable sites include; old trees, caves, cellars, tunnels, and icehouses.
- 9.1.6 Whilst the summer roosts consist of single species (although 2 – 3 species can be found within one large structure but occupying separate roost sites), winter sites often consist of 4 – 6 different species of bat, although there is often niche separation.
- 9.1.7 Bats have a complex social structure based on ‘meta populations’ and also utilise other transitional or intermediate roost sites. The several different types of roost, which bats occupy throughout the year, are as follows:
- **Day roost:** a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.
 - **Night roost:** a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.

- **Feeding roost:** a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.
- **Transitional/occasional roost:** used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
- **Swarming site:** where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites
- **Mating sites:** sites where mating takes place from later summer and can continue through winter.
- **Maternity roost:** where female bats give birth and raise their young to independence.
- **Hibernation roost:** where bats may be found individually or together during winter. They have a constant cool temperature and high humidity. These have to be cold and free from any temperature fluctuation with high humidity. The coldness enables bats to lower their body temperature and become torpid. This saves a lot of energy, enabling them to survive on the fat stores within their bodies that they have built up throughout the summer.
- **Satellite roost:** an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

9.1.8 The main threats to bats include:

- Habitat loss (e.g. deforestation)
- Loss of feeding areas as a result of modern forestry and farming practices.
- Use of toxic agrochemicals and remedial timber treatment chemicals.
- Disturbance and damage to bat roosts.

9.1.9 Bats have been in decline both nationally and internationally during the latter part of the 20th Century. Bats require a variety of specific habitats in order to meet the basic needs of feeding, breeding, and hibernating and are therefore extremely vulnerable to change such as the loss of flight lines through the removal of hedgerows. It is thought that even the two most common and widespread bats, the common pipistrelle and the soprano pipistrelle, have declined by an estimated 70% (1978-1993 figures). There are a number of bat species, which are now considered seriously threatened with one species, the greater mouse-eared bat being classed as extinct as it is no longer breeding in the U.K.

9.1.10All European bats are listed in Annex IV of the EC Directive 92/94/EEC ‘The Conservation of Natural Habitats and of Wild Fauna and Flora’ as needing “strict protection”. This is translated into British Law under the Habitats and Species Regulations 2017. British bats are included under Schedule 5 of the Wildlife & Countryside Act 1981. They can therefore be described as a ‘fully protected’ or ‘protected’ species.

9.1.11 A summary of the legal protection afforded to bats under both European and British law is provided by the Bat Conservation Trust (BCT, 2010):
 ‘All European bat species and their roosts are listed in Annex IV of the EC Directive 92/94/EEC ‘The Conservation of Natural Habitats and of Wild Fauna and Flora’ as needing “strict protection”. This is implemented in Britain under the Conservation of Habitats and Species Regulations 2017 which has updated the Conservation (Natural Habitats &c.) Regulations (as amended). In summary, in the UK, it is an offence to:

- Deliberately capture, injure, or kill a bat;
- Deliberately disturb a bat in a way that would affect its ability to survive, breed or rear young, hibernate or migrate or significantly affect the local distribution or abundance of the species;
- Damage or destroy a roost (this is an absolute offence); and
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.’

9.1.12 The species is also listed in Appendix II of the Bonn Convention (and its Agreement on the Conservation of Bats in Europe) and Appendix II of the Bern Convention (and Recommendation 36 on the Conservation of Underground Habitats). Although these are recommendations and not statutory instruments.

9.1.13 Natural England is the Government body responsible for nature conservation. Local planning authorities must consult them before granting planning permission for any work that would be likely to result in harm to the species or its habitat. Natural England issue “survey” licenses for survey work that requires the disturbance or capture of a species for scientific purposes. They also issue “conservation” licenses that are required for actions that are intended to improve the natural habitat of a European protected species or to halt the natural degradation of its habitat.

9.1.14 ‘Development’ licences are issued by Natural England for any actions that may compromise the protection of a European protected species, including bats, under the Conservation of Habitats and Species Regulations 2017. This includes all developments and engineering schemes, regardless of whether or not they require planning permission.

9.1.15 The UK Biodiversity Action Plan states that although the pipistrelle is one of the most abundant and widespread bat species in the UK, it is still thought to have undergone a significant decline in the latter part of this century. The main factors cited for causing loss and decline include:

- A reduction in insect prey abundance, due to high intensity farming practice and inappropriate riparian management.
- Loss of insect-rich feeding habitats and flyways, due to loss of wetlands, hedgerows, and other suitable prey habitats.
- Loss of winter roosting sites in buildings and old trees.
- Disturbance and destruction of roosts, including the loss of maternity roosts due to the use of toxic timber treatment chemicals.

9.2 Significance of bat roosts, appraising the nature conservation value;

9.2.1 The significance of bat roosts should be appraised against the following table. Where the extent of the bat roost is unclear a precautionary approach should be taken in evaluating the significance of the roost and the highest potential category should be selected.

Table 9.2.1 Appraisal of significance of bat roosts.

Scale	Summary	Examples
International	Any significant roosting sites for European Annex 2 species	Barbastelle bat roosts are only known applicable feature in East Anglia.

National	Any roosts qualifying as SSSI under the EN criteria.	Details of criteria are given in 9.1.2 Site Selection Guidelines for Biological SSSI's.
Regional	Any significant bat roosts and features, equivalent in interest to qualifying a site as a Country Wildlife Site.	Breeding and hibernation roosts of most species.
Local	All other sites supporting feeding bats as Wildlife and Countryside Act protected species.	Bats foraging within a structure, night roosts and minor transition roosts.

9.3 Summary of conservation significance of roost types (Bat Mitigation Guidelines, 2004).

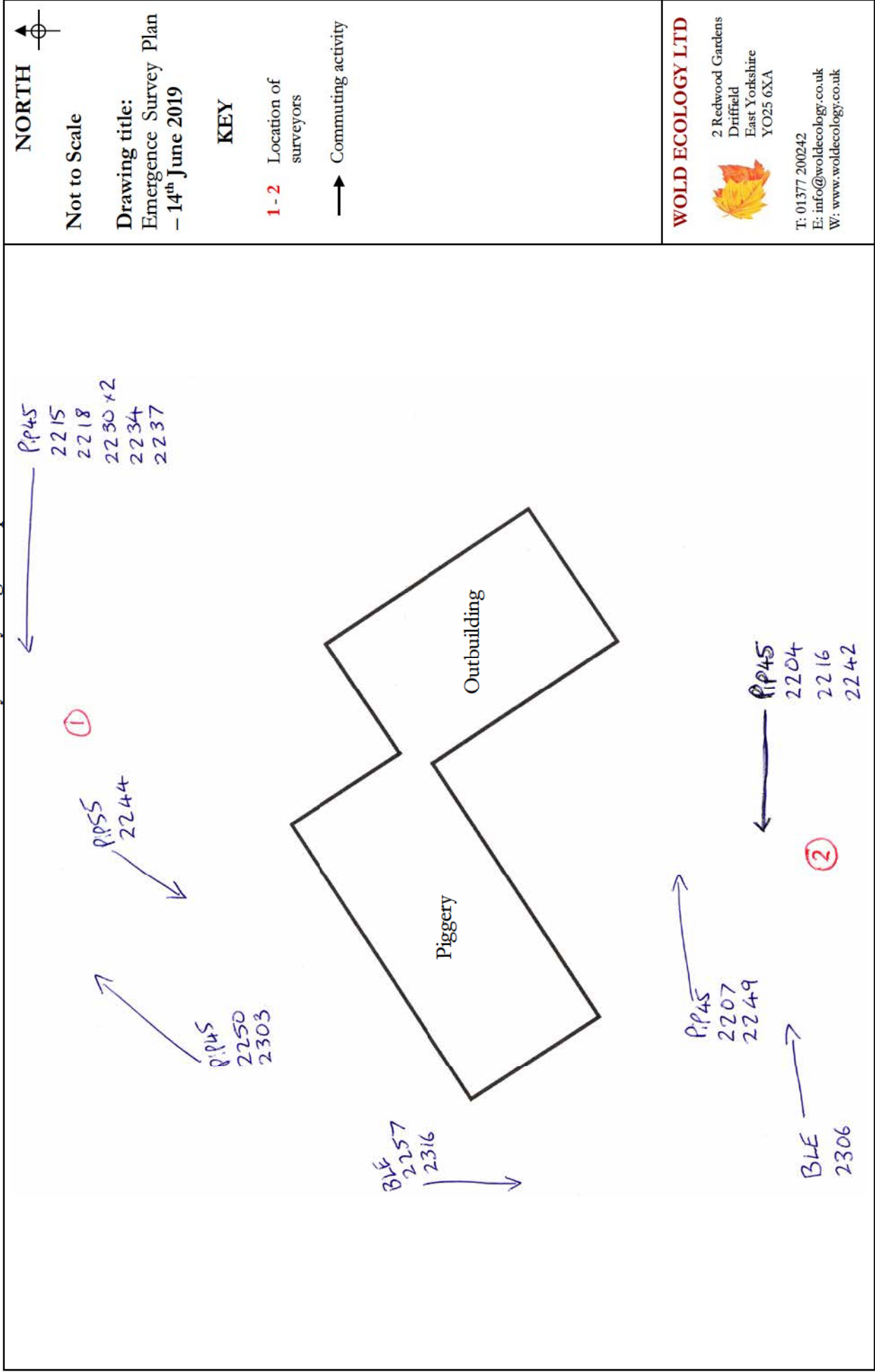
Roost type	Development effect	Scale of impact		
		Low	Medium	High
Maternity	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance outside breeding season	✓		
	Post-development interference			✓
Major hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference			✓
Minor hibernation	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction, modification		✓	
	Modified management		✓	
	Temporary disturbance outside hibernation season	✓		
	Post-development interference		✓	
	Temporary destruction, then reinstatement	✓		
Mating	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		
Night roost	Destruction	✓		
	Isolation caused by fragmentation	✓		
	Partial destruction	✓		
	Modified management	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		

NB This is a general guide only and does not take into account species differences. Medium impacts, in particular, depend on the care with which any mitigation is designed and implemented and could range between high and low.

9.4 Bat records for activity surveys conducted in 2019

Date – 14 th June 2019					
Loc.	Time	Species	kHz	Direction	Comment
2	2204	C. Pipistrelle	45	W	Commuting
2	2207	C. Pipistrelle	45	E	Commuting
1	2215	C. Pipistrelle	45	W	Commuting
2	2216	C. Pipistrelle	45	W	Commuting
1	2218	C. Pipistrelle	45	W	Commuting
1	2230	C. Pipistrelle x2	45	W	Commuting
1	2234	C. Pipistrelle	45	W	Commuting
2	2242	C. Pipistrelle	45	W	Commuting
2	2244	S. Pipistrelle	55	S	Commuting
2	2249	C. Pipistrelle	45	E	Commuting
1	2250	C. Pipistrelle	45	N	Commuting
2	2257	Brown long-eared	39	S	Commuting
1	2303	C. Pipistrelle	45	N	Commuting
2	2306	Brown long-eared	39	E	Commuting
2	2316	Brown long-eared	39	S	Commuting
Date – 24 th July 2019					
2	0312	Brown long-eared	39	W	Commuting
2	0357	C. Pipistrelle	45	N	Commuting
2	0410	C. Pipistrelle	45	N	Commuting
S	0416	C. Pipistrelle	45	S	Commuting
1	0443	C. Pipistrelle	45	E	Commuting
1	0451	C. Pipistrelle	45	E	Commuting
1	0500	C. Pipistrelle	45	E	Commuting

9.5 Bat Activity Survey Flight Maps



NORTH

Not to Scale


Drawing title:
Emergence Survey Plan
- 14th June 2019

KEY

1-2 Location of surveyors

→ Commuting activity

WOLD ECOLOGY LTD



2 Redwood Gardens
Driffield
East Yorkshire
YO25 6XA

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Not to Scale

Drawing title:
Return Survey Plan -
24th July 2019

KEY

- 1-2 Location of surveyors
- Commuting activity

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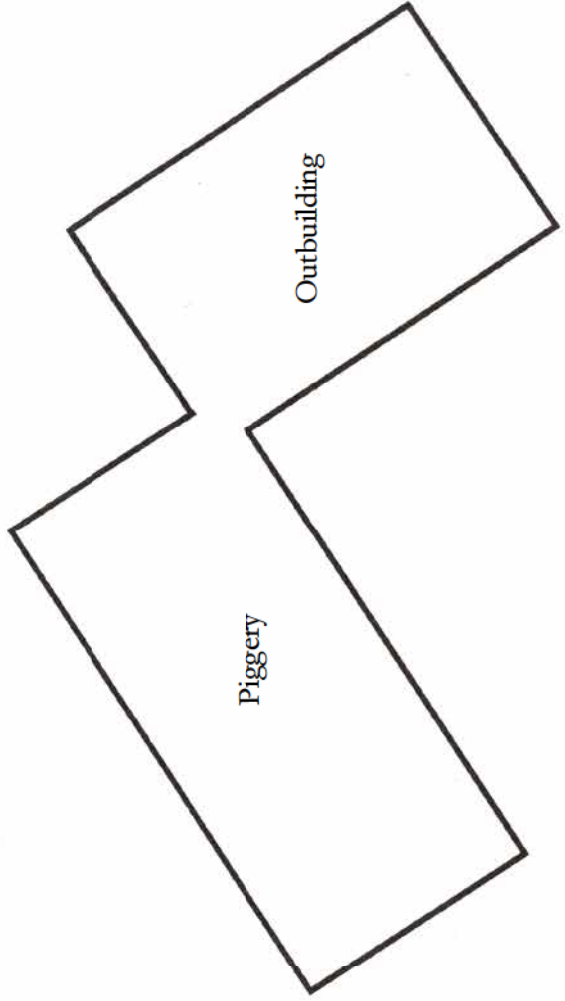
①

PIP45
0443
0451
0500

→

PIP55
0416

→



PIP45
0357
0410

←

← BLE
0312

②