



Bat Survey Report

**Pine Dene Lodge
Stamfordham Road
Northumberland**

Gurpreet Singh

FE-223-001-400-R-01-V1

October 2023



**FALCO Ecology Ltd is a registered company (England & Wales): 10885438
VAT reg. no: 364 7407 81 M: 07928040460 E: adrian@falcoecology.co.uk
18 Moorside, Great Lime Road, West Moor, Newcastle upon Tyne, NE12 7NL**



Page intentionally left blank



DOCUMENT CONTROL

Confidentiality: **Not Confidential**

Site Name	Pine Dene Lodge
Report Name:	Bat Survey Report
Client:	Gurpreet Singh
Reference No:	FE-223-001-400-R-01-V1

Document Checking

Written by: Adrian George	Date: 11/10/2023
Checked by: Adrian George	Date: 20/10/2023

Issue	Date	Status	Comments
V1	20/10/2023	Final	

Disclaimer:

This report has been prepared by FALCO Ecology Ltd with reasonable care and skill. It has not, unless specifically stated, independently verified information provided by others.

No other warranty, express or implied, is made in relation to the accuracy or completeness of this report. FALCO Ecology Ltd shall have no liability in respect of any errors, omissions in the report or misrepresentation made by others. Any findings or recommendations within this report were based on the circumstances at the time of the surveys and as such are subject to change.

This report and its content are solely for the Clients use. FALCO Ecology Ltd disclaim any responsibility or liability to third parties who use this report in full or part without prior written consent by FALCO Ecology Ltd. Third parties which use this report do so at their own risk. FALCO Ecology retain copywrite and ownership of this report.

None of the information contained within this report constitutes legal opinion.



Page intentionally left blank



CONTENTS

1 EXECUTIVE SUMMARY	1
2 INTRODUCTION.....	2
2.1 Background	2
2.2 Surveyed Building Description and Location	2
2.3 Development Proposals.....	2
2.4 Survey and Reporting Objectives.....	3
2.5 Legislation.....	4
3 METHODOLOGY	5
3.1 Desktop Study	5
3.2 Preliminary Roost Assessment	5
3.3 Roost Characterisation	6
3.4 Bat Activity Surveys	7
3.5 Breeding Bird Assessment.....	8
3.6 Surveyor’s Experience.....	8
3.7 Limitations	9
4 RESULTS.....	11
4.1 Desktop Study	11
4.2 Preliminary Roost Assessment.....	12
4.3 Bat Activity Surveys	15
4.4 Breeding Birds	16
5 EVALUATION	17
5.1 Roosting Bats	17
5.2 Assessment of Value.....	17
5.3 Assessment of Impact.....	17
6 RECOMMENDATIONS.....	18
6.1 Biodiversity Net Gain.....	18
6.2 Working Methods.....	19
7 REQUIRED ACTIONS.....	20
7.1 Client Responsibilities.....	20
8 PRECAUTIONARY METHOD STATEMENT.....	21
9 REFERENCES.....	26



PLATES

Plate 1: Surveyed building.	3
Plate 2: Surrounding habitats.....	3
Plate 3: Surveyor locations during the bat activity surveys.	8
Plate 4: Proposed integrated bat box location on the proposed east aspect wall.....	18
Plate 5: Example of an integrated bat box.	18
Plate 6: Nathusius Pipistrelle in the Hand.	22
Plate 7: Example of bat droppings between slates (removed) and roof underlay, next to a roof valley.	23
Plate 8: Example of bat droppings in eaves.	23

TABLES

Table 1: Guidelines for assessing potential roost features.	6
Table 2: Roost features in buildings that various bats prefer.	6
Table 3: Description of various bat roosts.....	7
Table 4: Bat activity survey details and weather conditions.	7
Table 5: Building description and photographs.....	12
Table 6: Potential access points and potential roost features per elevation.	15

FIGURES

Figure 1: Woodland priority habitats within 2km of the surveyed building.	33
Figure 2: EPSM licences within 2km of the surveyed building.	34

APPENDICES

Appendix 1 – Architectural Plans	27
Appendix 2 – Figures	32
Appendix 3 – Environmental Legislation & Convention Relating to Bats.....	35



1 Executive Summary

- FALCO Ecology Ltd. was commissioned by Gurpreet Singh (hereon referred to as the 'Client') to undertake a preliminary roost assessment and subsequent bat activity surveys on Pine Dene Lodge (hereon referred to as the 'surveyed building').
- The purpose of this report is to provide a pre-development record of the suitability of the surveyed building to support roosting bats and any evidence of bat roosts.
- The proposed development work involves a two-storey extension above the existing footprint, with a new full height roof void.
- Habitats within the local area included mixed farmland, with small fragmented deciduous woodland. It is considered that the surrounding habitats provided optimal foraging opportunities for a wide range of bat species.
- The preliminary roost assessment was undertaken by Adrian George on the 17th August 2023, which concluded that the surveyed building had moderate roost suitability for bats.
- A dusk and a dawn re-entry survey were undertaken on the 20th August and 10th September 2023 using 4no. surveyors who were aided by infrared/thermal cameras.
- Potential Access Points were recorded on the surveyed building, which included gaps in the ridge tile mortar and under hanging tiles.
- 2no. bat droppings were recorded on the doorsill of the southern balcony door.
- Common pipistrelle, soprano pipistrelle, myotis species (probable Daubenton's and whiskered/Brandt's) and noctule were recorded foraging and socialising in the vicinity of the surveyed building.
- Common and soprano pipistrelles appeared to commute to a roost to the northeast during the re-entry survey.
- No bats were recorded emerging or re-entering the surveyed building during the surveys.
- It is considered that the bat droppings on the doorsill of the southern balcony are from foraging bats as they pass over the surveyed building.
- No evidence of historical active nests were recorded during the surveys.
- Based on the results of the surveys, it is likely that roosting bats absent from the surveyed building.
- As Potential Access Points were present within the surveyed building and bats were recorded foraging within the vicinity of the surveyed building, it is recommended that the construction of the proposed development is undertaken following a Precautionary Method Statement. This will safeguard any potential roosting bat or bat roost found during the construction phase.



2 Introduction

2.1 Background

- 2.1.1 FALCO Ecology Ltd. was commissioned by Gurpreet Singh (hereon referred to as the 'Client') to undertake a preliminary roost assessment and subsequent bat activity surveys (hereon referred to as the 'surveys') on Pine Dene Lodge, Stamfordham Road (hereon referred to as the 'surveyed building').
- 2.1.2 The purpose of this report is to provide a pre-development record of the suitability of the surveyed building to support roosting bats and any evidence of bat roosts. The suitability of the surrounding habitats to support foraging bats is included within this report. Evidence of other protected species including breeding birds within/on the surveyed building is also included within this report.

2.2 Surveyed Building Description and Location

- 2.2.1 The surveyed building was a detached residential dwelling which was occupied by the Client at the time of the surveys. The address of the surveyed building was Pine Dene Lodge, Stamfordham Road, Newcastle Upon Tyne, Northumberland, NE15 0AE. The central Ordnance Survey grid reference for the surveyed building was NZ 1277 6931 and was ~115m above sea level. The surveyed building is shown in Plate 1 (page 3).
- 2.2.2 The surrounding habitats of the Site were dominated by pasture farmland with field boundary hedgerows and mature trees. Deciduous woodlands were scarce and fragmented within the surrounding area. The surrounding area of the surveyed building with 500m, 1km and 2km buffers are shown in Plate 2 (page 3).
- 2.2.3 The surveyed building was within the administrative area of Northumberland County Council.

2.3 Development Proposals

- 2.3.1 The proposed development work involves a two-storey extension above the existing footprint, with a new full height roof void.
- 2.3.2 The existing and proposed elevation plans are shown in Appendix 1.
- 2.3.3 The unmitigated proposed development has the potential to disturb roosting bats or destroy bat roost locations if present within the surveyed building.



Plate 1: Surveyed building.

© Google Earth. Imagery Date: 18/03/2022.



Plate 2: Surrounding habitats.

© Google Earth. Imagery Date: 17/07/2021.

2.4 Survey and Reporting Objectives

2.4.1 The surveys comprised of a preliminary roost assessment and two bat activity surveys and was undertaken by FALCO Ecology which included the following objectives:



- Establish if the surveyed building is used by roosting bats;
- Record evidence of use by bats;
- Record locations of Potential Access Points ('PAPs');
- Record locations of Potential Roost Features ('PRFs');
- Provide recommendations for further bat surveys where required;
- Obligations for the Client to consider if confirmed bat roost(s) are located;
- Requirement for a European Protected Species Mitigation License to lawfully disturb roosting bats or destroy a bat roost;
- Mitigation measures; and
- Observations of old bird nests within/on the surveyed building or PAPs for breeding birds were also recorded.

2.5 Legislation

- 2.5.1 UK Legislation (specifically related to England) relating to bats are fully documented in Appendix 3; however, in summary all bats and their roosts are protected under UK legislation. **This legislation makes it an offense to deliberately disturb, damage or destroy a bat roost. An unlimited fine and/or six months imprisonment may be given per offense.**
- 2.5.2 Active bird nests (nests under construction, nest with eggs or young) are fully protected from deliberate and reckless destruction under the Wildlife & Countryside Act 1981 (as amended). Furthermore, Schedule 1 species, such as barn owl *Tyto alba*, are protected from deliberate or reckless disturbance at the nest site or of dependant young.



3 Methodology

3.1 Desktop Study

Data Search

3.1.1 A data search from following web recourses was used:

- The Government’s Multi-Agency Geographic Information for the Countryside or ‘MAGIC’ website, which provides details of:
 - Statutory sites designated for their ecological interest;
 - Priority habitats including deciduous woodland that are likely to support roosting and foraging bats; and
 - Local European Protected Species Mitigation (EPSM) Licenses that had been granted.
- Google Earth Pro was utilised to assess the habitats surrounding the surveyed building for their suitability to support foraging, commuting and roosting bats;
- North East England Nature Partnership; and
- Northumberland Bat Group website.

Consultation Data

3.1.2 Consultation data is not included as part of this report. Given the locality of the surveyed building and the surrounding habitats it is considered that a wide range of bat species listed in paragraph 4.1.7 would be present in the local area. Consultation data of bat records within 2km of the surveyed building will be provided as part of any future European Protected Species Mitigation License application.

3.2 Preliminary Roost Assessment

3.2.1 The exterior of the surveyed building was surveyed from ground level using high powered binoculars (Swarovski EL 10x42) and a Ledlenser i18R torch to locate any PAPs. The interior inspection of the surveyed building with an Anabat Scout to record any potential bat calls. Furthermore, the interior inspection was surveyed for evidence of roosting bats, such as droppings and moth wings. Photos taken during the survey of the surveyed building were taken with either an iPhone 14 Pro.

3.2.2 The survey followed the guidance for assessing buildings as set out within the Bat Conservation Trust (BCT) Guidelines (Collins 2016) as shown in Table 1 (page 6). The survey was undertaken by Adrian George on the 17th August 2023 in suitable weather conditions.



Table 1: Guidelines for assessing potential roost features.

Suitability	Description
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individuals bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitats to be used on a regular basis or by large numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). 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.
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 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).
High	A structure or tree with one or more potential roost sites that are obviously used by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed	A bat or bats or evidence of roosting bats observed within the building/tree.

3.2.3 All UK bats have been found to be roosting in buildings; however, some bats prefer buildings more than others. Furthermore, many species prefer unique aspects of a roost feature within a building. Bats that utilise buildings for roosting can be separated into four categories and are described in Table 2 (BCT 2015).

Table 2: Roost features in buildings that various bats prefer.

Roost Type	Species
Crevice dwelling bats (These are often hidden from view)	Common pipistrelle <i>Pipistrellus pipistrellus</i> , soprano pipistrelle <i>Pipistrellus pygmaeus</i> , Nathusius' pipistrelle <i>Pipistrellus nathusii</i> , Brandt's bat <i>Myotis brandtii</i> and whiskered bat <i>Myotis mystacinus</i>
Roof-void dwelling bats (maybe seen on roof timbers)	Serotine <i>Eptesicus serotinus</i> , Leisler's bat <i>Nyctalus leisleri</i> , Daubenton's bat <i>Myotis daubentonii</i>
Bats that need flight space in certain types of roost	Natterer's bat <i>Myotis nattereri</i> and brown long-eared bat <i>Plecotus auritus</i>
Bats that need flight space and flying access into the roost	Greater Horseshoe <i>Rhinolophus ferrumequinum</i> and Lesser Horseshoe <i>Rhinolophus hipposideros</i>

3.3 Roost Characterisation

3.3.1 The various terminologies of bat roost types, used within this report, as illustrated within the BCT Guidelines (Collins 2016) and replicated from the Natural England European Protected Species Licence application form are shown in Table 3 (page 7).



Table 3: Description of various bat roosts.

Roost Type	Natural England definition
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.
Maternity roost	Where female bats give birth and raise their young to independence.
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.
Hibernation roost	Where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.

3.4 Bat Activity Surveys

3.4.1 Two bat activity surveys were undertaken on the surveyed building. The survey followed the guidance set out within the Bat Conservation Trust Guidelines (Collins 2016), which consisted of an emergence (dusk) and a re-entry (dawn) survey. The bat activity surveys were separated by 12 days which is two days less than the recommended 14 stated within Collins (2016). However, given the potential for poor survey weather conditions which are usually experienced in September, it was decided to undertake the second survey during optimal survey conditions rather than wait out the 14 days. The bat activity survey details are shown in Table 4 below.

Table 4: Bat activity survey details and weather conditions.

Survey Type	Date	Sunset/Sunrise Times	Start Time	End Time	Weather Conditions	Start Temp °C	End Temp °C
Emergence (Dusk)	28.08.23	20:13	19:58	21:43	Overcast, light wind, dry	14.0	13.0
Re-entry (dawn)	10.09.23	06:30	04:45	06:45	Overcast, calm, misty, dry	15.9	16.3

3.4.2 Four surveyors were used during the bat activity surveys which provided full coverage of the surveyed building. The surveys were led by Adrian George (licensed surveyor) and assisted by Jeanette Bryden, Ken Wright, Fiona Stafford, Debbie Goldsmith and Anna Stephenson.

3.4.3 Recordable bat detectors used during the surveys included an Anabat Scout and an Echo Meter Touch 2.



3.4.4 An Infrared CCTV camera, infrared camcorders and a thermal camera were situated around the surveyed building and covered the PAPs. The primary use of the infrared/thermal cameras was to identify any emerging bats when light levels were too low for surveyors to detect late emerging bats. Brown long-eared bats and myotis species enter or leave their roost sites when light levels are low and therefore the use of these cameras would facilitate the location of access points. Video footage underwent post-survey analysis by Adrian George.

3.4.5 Plate 3 below, shows the locations of the surveyors during the bat activity surveys.



Plate 3: Surveyor locations during the bat activity surveys.

© Google Earth. Imagery Date: 17/07/2021.

3.5 Breeding Bird Assessment

3.5.1 An inspection of the surveyed building to identify any nest material from former bird nests was undertaken during the survey. Nest material varies depending upon individual species, for example a house sparrow *Passer domesticus* may use small twigs, grasses and leaves; however, a house martin *Delichon urbicum* construct a nest using mud. Furthermore, some species are crevice nesters (house sparrow) whilst other are open nesting on external walls (house martin).

3.6 Surveyor's Experience

Adrian George

3.6.1 Adrian is an experienced ecologist who has undertaken bat surveys on a range of developments including residential properties, small to large scale wind farms, solar farms, power lines and water pipelines. Bat surveys have been undertaken throughout England, Wales and Scotland. Adrian holds a Class 2 Natural England (CL18 2017-32910-CLS-CLS) and a Scottish Natural Heritage bat licence. Adrian is a full member



of the Chartered Institute of Ecology & Environmental Management (CIEEM) and a member of the Northumberland Bat Group.

Jeanette Bryden

3.6.2 Jeanette has been undertaking bat surveys for the past 15 years for a variety of consultancy companies based in the Northeast of England. She is also a Northumberland and Durham bat carer.

Ken Wright

3.6.3 Ken has undertaken five seasons of bat activity surveys, including transect surveys. He is a volunteer for the Northumberland Bat group and has participated in winter hibernation surveys and trapping for *Nathusius pipistrelle* as part of the national project.

Fiona Stafford

3.6.4 Fiona completed the Bat Conservation Trust (BCT) course on Bats and Bat Surveys in 2010 and has been undertaking bat activity surveys for the past 11 seasons. Fiona also holds a Natural England Class 1 bat licence.

Anna Stephenson

3.6.5 Anna has completed bat survey training with another northeast England based ecological consultancy in 2019. This included four shadowing surveys followed by several surveys undertaken individually.

Debbie Goldsmith

3.6.6 Debbie has two years' experience surveying for bats. During this time, she has undertaken ~70 bat activity surveys and led ~30 of these. Debbie is undergoing training with BatAbility to obtain her bat survey licence.

3.7 Limitations

3.7.1 DEFRA (2023) provides a digital database of the issued European Protected Species Mitigation licences within England; however, no digital online records are available for Low Impact Class licenses. Therefore, it is plausible that further impacts on local bat roosts, either breeding or resting locations, have been approved by Natural England within the local area.

3.7.2 It was not possible to access the small shallow roof void within the combe ceilings. As two bat activity surveys were undertaken, it is considered that this limitation has not impacted the assessment within this report.

3.7.3 The details within this report will remain valid for a period of 12 months. Beyond this period, it is recommended that a new review of the ecological conditions of the surveyed building are undertaken.

3.7.4 A relevant bat licence application with Natural England will generally require bat survey data within the most recent survey season (May to September, inclusive). Further



update surveys maybe required if any future licence application is submitted beyond May 2024.



4 Results

4.1 Desktop Study

Data Search

Statutory Designated Sites

4.1.1 The surveyed building was not situated within a statutory designated site. Additionally, no statutory designated sites were present within 2km of the surveyed building. The surveyed building was also not situated within a Site of Special Scientific Interest (SSSI) Impact Zone.

Priority Habitats

4.1.2 The UK priority (S41) habitats within the search area included deciduous woodland which were all small in scale and fragmented. The nearest deciduous woodland was ~320m northwest of the surveyed building. Woodland priority habitats are shown in Figure 1, Appendix 2.

4.1.3 It is considered that the surrounding habitats provided optimal foraging and roosting opportunities for a limited range of bat species, principally pipistrelles.

EPSM Licenses

4.1.4 A data search on DEFRA's MAGIC maps (2023) showed three granted EPSM Licence within the search area which was for the:

- destruction of a resting place for common pipistrelle, whiskered bat and Brandt's bat (EPSM2013-6536) ~950m east of the surveyed building.
- damage of a breeding and resting place for common pipistrelle (EPSM2009-1474) ~1.4km southeast from the surveyed building.
- Destruction of a resting place for common pipistrelle and soprano pipistrelle (2016-25348-EPS-MIT) ~1.3km north of the surveyed building.

4.1.5 ESPM Licences within the search area are shown in Figure 2, Appendix 2.

4.1.6 It is not known how many Low Impact Class Licenses have been issued within the local area.

Local & Regional Status of Species

4.1.7 There were 17 bat species recorded in the UK, of which ten (possibly more) had been recorded in Northumberland. Nine bat species had been recorded breeding within the county. Their abundance within the county is stated within the Northumberland Biodiversity Action Plan (NEENP 2020) and is as follows:

- Brandt's bat – rare;
- Whiskered bat – uncommon;
- Natterer's bat – uncommon;
- Daubenton's bat – frequent on water;
- Noctule bat – scattered;



- Leisler’s bat – rare;
- Brown Long-eared bat – frequent;
- Common Pipistrelle – common and widespread;
- Soprano Pipistrelle – common and widespread; and
- Nathusius’ Pipistrelle – rare with single figure maternity roosts known via radio-tracking.

4.1.8 All the above species are listed as a Northumberland Biodiversity Action Plan Priority Species.

4.2 Preliminary Roost Assessment


Key Findings

- *Potential Access Points recorded within the roof structure.*
- *2no. fresh bat droppings were recorded on the door sill of the southern balcony.*

External and Internal Inspection

4.2.1 The description of the external features is listed and shown in Table 5, below. Examples of potential access points are shown by the red arrows.



Table 5: Building description and photographs.

Description	Photographs
<p>External</p> <ul style="list-style-type: none"> • Pan roof tiles with clay ridge tiles. Wet ridge system with gaps. • Soffit box around the entire building. • Rendered walls with no gaps along the wall heads. • uPVC windows and doors which were tight and sealed. • Balcony with dormer doors and clay hanging wall tiles. Lead apron around the base of the hanging tiles with gaps underneath. 	



Description	Photographs
<p data-bbox="204 1267 320 1301">Internal</p> <ul data-bbox="220 1317 703 1541" style="list-style-type: none"><li data-bbox="220 1317 703 1413">• The 1st floor rooms had a combe ceiling and the roof void was very small in height.<li data-bbox="220 1429 703 1491">• The lower roof eaves were inspected from the access hatches.<li data-bbox="220 1507 703 1541">• Breathable roofing membrane <p data-bbox="204 1798 405 1832">Breeding birds</p> <ul data-bbox="220 1848 703 1910" style="list-style-type: none"><li data-bbox="220 1848 703 1910">• No evidence of active nests on or in the surveyed building.	



Description	Photographs
	
PAPs	



Description	Photographs

Summary of PAPs and PRFs

4.2.2 Table 6 summaries the PAPs and PRFs from the three elevations of the surveyed building.

Table 6: Potential access points and potential roost features per elevation.

Elevation	Potential Access Points	Potential Roost Features
East aspect (rear elevation)	<ul style="list-style-type: none"> • Gaps within ridge tile mortar 	<ul style="list-style-type: none"> • Under ridge tiles • Within roof void
South aspect	<ul style="list-style-type: none"> • Gaps between hanging wall tiles 	<ul style="list-style-type: none"> • Under hanging wall tiles
West aspect (front elevation)	<ul style="list-style-type: none"> • Gaps within ridge tile mortar 	<ul style="list-style-type: none"> • Under ridge tiles • Within roof void

4.3 Bat Activity Surveys

Emergence Survey

Key findings:

- *No bats emerged from the surveyed building.*
- *Common pipistrelles, soprano pipistrelles, noctule and a myotis sp. were recorded foraging within the vicinity of the surveyed building.*

4.3.1 The first bat recorded by the surveyors during the survey was a soprano pipistrelle at 20:32, which was 19 minutes after sunset. This bat was heard but not seen and was likely to have been behind the surveyor along the adjacent access road. .

4.3.2 The first common pipistrelle was also heard and not seen at 20:37, which was 24 minutes after sunset. A peak of two common pipistrelles were recorded foraging up and down the adjacent road during the survey.

4.3.3 No bats were recorded emerging from the surveyed building by the surveyors or during port survey video analysis.



4.3.4 Other bat species recorded during the survey included foraging noctules and a brief pass of a myotis species (probable Daubenton's bat) at SL01.

4.3.5 Overall, the bat activity around the surveyed building was moderate with most calls related to bats foraging bats along the adjacent access road.

Re-entry Survey

Key findings:

- *No bats were recorded re-entering the surveyed building.*
- *A common pipistrelle and soprano pipistrelle were recorded foraging in the vicinity of the surveyed building.*

4.3.6 Common pipistrelle and soprano pipistrelle were recorded constantly foraging along Stamfordham Road and in the vicinity of the surveyed building from the outset of the survey.

4.3.7 A peak of 2no. foraging common pipistrelles were recorded foraging above the tree canopy along Stamfordham Road. The last common pipistrelle was recorded at 05:48 which flew northeast over the surveyed building. The last soprano pipistrelle was at 06:11 which was also social calling. The spectrogram of the bat was typical of a bat flying away from as recording device as the echolocation reduced in strength with only louder social being detected. No bats were observed re-entered the surveyed building during the survey.

4.3.8 A myotis bat, probable Daubenton's bat, flew east of the top of the surveyed building at 04:45 and also recorded at 04:48. A whiskered/Brandt's bat briefly passed SL01 and SL04 at 05:28 and a myotis species at 05:39 (SL04) which were both heard and not seen.

4.3.9 Between 05:43 and 05:51 common and soprano pipistrelles were recorded commuting northeast from the surveyed building.

4.3.10 Overall, bat activity around the surveyed building was moderate throughout the survey, which principally consisted of foraging common pipistrelle and soprano pipistrelle with occasional passes of noctule.

4.4 Breeding Birds

4.4.1 No breeding birds or signs of historic active nests were recorded within or on the surveyed building during the bat activity surveys.

4.4.2 No Schedule 1 species, i.e. barn owl, were heard or seen during the bat activity surveys.



5 Evaluation

5.1 Roosting Bats

5.1.1 The survey data indicates that the surveyed building has Potential Access Points although roosting bats are likely to be absent from the surveyed building.

5.2 Assessment of Value

Roosting Bats

5.2.1 As no bat roosts were recorded during the surveys, the value of the surveyed building to roosting bats is **negligible**.

Breeding Birds

5.2.2 No breeding birds and active nests were recorded within or on the surveyed building during the surveys; therefore, the value of the surveyed building to breeding birds was **negligible**.

5.3 Assessment of Impact

Roosting bats

5.3.1 As no bat roosts were recorded during the surveys, the impact of the proposed development to roosting bats is **negligible**.

Breeding Birds

5.3.2 No active nests were recorded on or within the surveyed building and therefore no nests should be destroyed during the construction of the proposed development and approved loft conversion. The impact on breeding birds will be **negligible**.



6 Recommendations

6.1 Biodiversity Net Gain

6.1.1 To fulfil the latest National Planning Policy Framework which includes biodiversity net gain into proposed developments, it is recommended that an integrated bat box is integrated into the proposed south aspect wall as shown in Plate 4 (below). An example of an integrated bat box is the Istock Enclosed Bat Box 'C' which is shown in Plate 5¹. NOTE – this box must be installed vertically with the entrance hole at the base as shown in Plate 5.

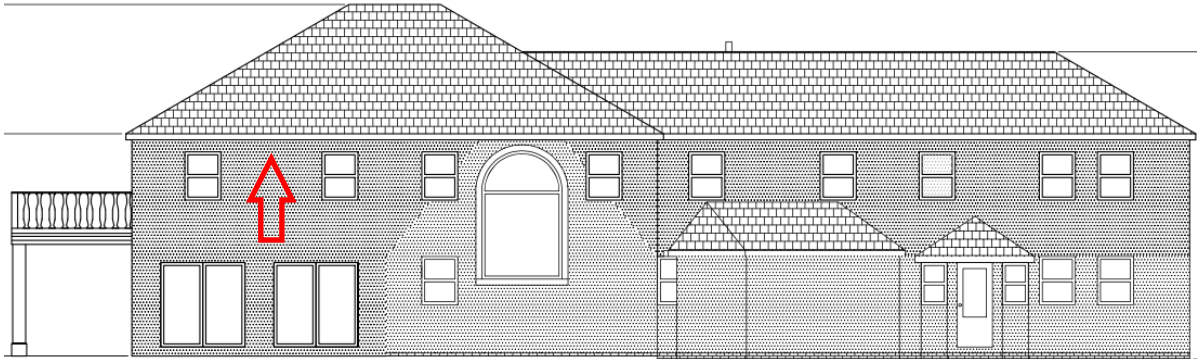


Plate 4: Proposed integrated bat box location on the proposed east aspect wall.



Plate 5: Example of an integrated bat box.

¹ Photo sourced from www.nhbs.com



6.2 Working Methods

- 6.2.1 Although no bat roosts were recorded within the surveyed building during the survey, there remains the potential of bats roosting within the surveyed building in the future if the PAPs remain in-situ. Therefore, it is recommended that the construction phase of the proposed development follows a Precautionary Method Statement as set out in Section 8 of this report.



7 Required Actions

7.1 Client Responsibilities

7.1.1 The following required actions are required:

- The make and model of the integrated bat box will require confirmation with Northumberland County Council and evidence (photos) of the integrated bat box into the surveyed building will also be submitted to Northumberland County Council.
 - To ensure that the biodiversity net gain features are installed and installed correctly.
- Ensure construction works follows the Precautionary Method Statement.
 - To safeguard potential protected species – namely roosting bats.



8 Precautionary Method Statement

- 8.1.1 This Precautionary Method Statement (pages 21-23) will be made available at all times for construction workers to reference as they need, such as in the main compound office or attached to an internal wall of Pine Dene Lodge.

Roosting bats

Background

- 8.1.2 No bat roosts were recorded within Pine Dene Lodge ('surveyed building') and it is likely that roosting bats are absent from the surveyed building. However, Potential Access Points were recorded along the ridge tiles of the roof structure and under the hanging tiles around the southern balcony. Therefore, it is recommended that the construction phase of the proposed development is undertaken following this Precautionary Method Statement to safeguard any potential roosting bats or bat roosts.

Personal

- 8.1.3 All construction workers, particularly roofers, undertaking works related to the proposed development are required to read and agree to the methods and procedures if a bat or a bat roost is found, as outlined within the Precautionary Method Statement. The Client (Gurpreet Singh) will keep a copy of the signature sheet (page 24) to record this has been undertaken and may need to be supplied to Natural England as part of any potential future EPSM Licence application or the Police.

Timing

- 8.1.4 Following the guidance from the Bat Conservation Trust, the preferred construction period is between early spring and late autumn when bats are potentially least likely to be impacted by works, as per BCT guidance (BCT 2012). It is extremely unlikely that the surveyed building supports or would support a hibernation roost. No Potential Roost Features were recorded that had the suitability to support a maternity roost. It is acknowledged that the surveys were undertaken towards the end of the bat survey season and therefore unlikely to detect a maternity roost.

- 8.1.5 No restrictions on the timing of the construction phase are required.

Method

Roof works/hanging tile removal

- 8.1.6 All ridge tiles will be gently dislodged and lifted by hand. The void between the underlay and ridge tile and the underside of the ridge tile will be checked for bats or evidence of a bat roost (bat droppings) before sliding down the roof.
- 8.1.7 All hanging tiles around the southern balcony will be removed by hand and the underside of each tile will be checked for roosting bats or evidence of a bat roost (bat droppings).



Night-time working

8.1.8 No external night-time (dusk to dawn) working under flood lighting will occur. This is to reduce the potential of displacing foraging bats in the vicinity of the surveyed building.

Procedure if a bat is found

8.1.9 If a bat or evidence of bats are found during the construction works, then works will **STOP**. More details on what a bat and evidence of a roost look like are described in the below paragraphs. The Bat Conservation Trust or a Bat Licensed Ecologist (FALCO Ecology) will be contacted for professional advice before any works re-commence. A site visit may be required by a Bat Licensed Ecologist and potentially a European Protected Species Mitigation License before certain works could continue.

8.1.10 It is a criminal offense to **deliberately or recklessly destroy a bat roost or disturb a roosting bat** under the Wildlife & Countryside Act 1981 (as amended).

Bats and Identification of Bat Roosts

8.1.11 UK bats are relatively small, and the body of the common pipistrelle is only the size of a human thumb. Plate 6 below, shows the size of a closely related nathusius pipistrelle in the hand during a monitoring program under licence from Natural England.



Plate 6: Nathusius Pipistrelle in the Hand.

8.1.12 Plate 7 and Plate 8 (page 23) show examples of bat droppings which indicates the presence of a bat roost location. Bat droppings, which will crumble to dust when rubbed between fingers, can be easily identified from mouse droppings, which are hard and generally do not crumble easily. Bat droppings are generally 1.5-2mm wide by 7-9mm long.



Plate 7: Example of bat droppings between slates (removed) and roof underlay, next to a roof valley.



Plate 8: Example of bat droppings in eaves.



Precautionary Method Statement - Signature Sheet

I confirm that I have read and understood the Precautionary Method Statement in relation to the *potential* presence of roosting bats at Pine Dene Lodge, Stamfordham Road.

I am aware that:

- **The building has Potential Access Points that could provide points where bats could enter the property. These include:**
 - Gaps within ridge tile mortar – potential of bats under ridge tiles
 - Gaps under hanging tiles – potential for bats under hanging tiles
- **All bats and their roosts are legally protected.**
 (e.g. Fines & imprisonment per offense)
- **In the event of finding a bat or a bat roost & procedure which follows.**
 (**Cease work**, contact The Bat Conservation Trust, Project Ecologist (Adrian – 07928040460) or Natural England for advice)
- **All active bird nests are legally protected – this includes any nests with eggs in at any time of the year.**
 (**Cease work**, contact Project Ecologist (Adrian – 07928040460) for advice)

Date	Name (Print)	Company	Signature



Date	Name (Print)	Company	Signature



9 References

Anon. 2019. Bats in Northumberland. Northumberland Bat Group. [Online]. [Accessed on 26 April 2021]. Available from <https://www.northumberlandbats.org.uk/home/bat-info/>

Collins, J. (ed.). 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). London: The Bat Conservation Trust.

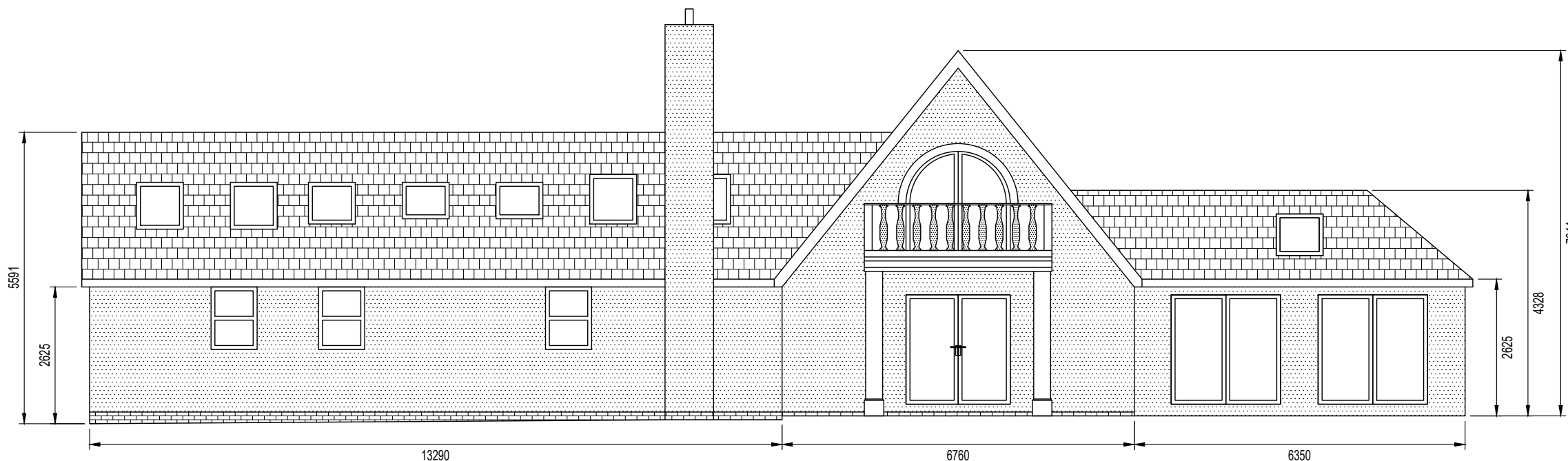
DEFRA. 2023. Magic Maps. [Online]. [Accessed 11 October 2023]. Available from <https://magic.defra.gov.uk/MagicMap.aspx>

North East England Nature Partnership. 2020. Bats Action Plan. [Online]. [Accessed 25 October 2020]. Available from <https://neenp.org.uk/natural-environment/durham-priority-species/847-2/>

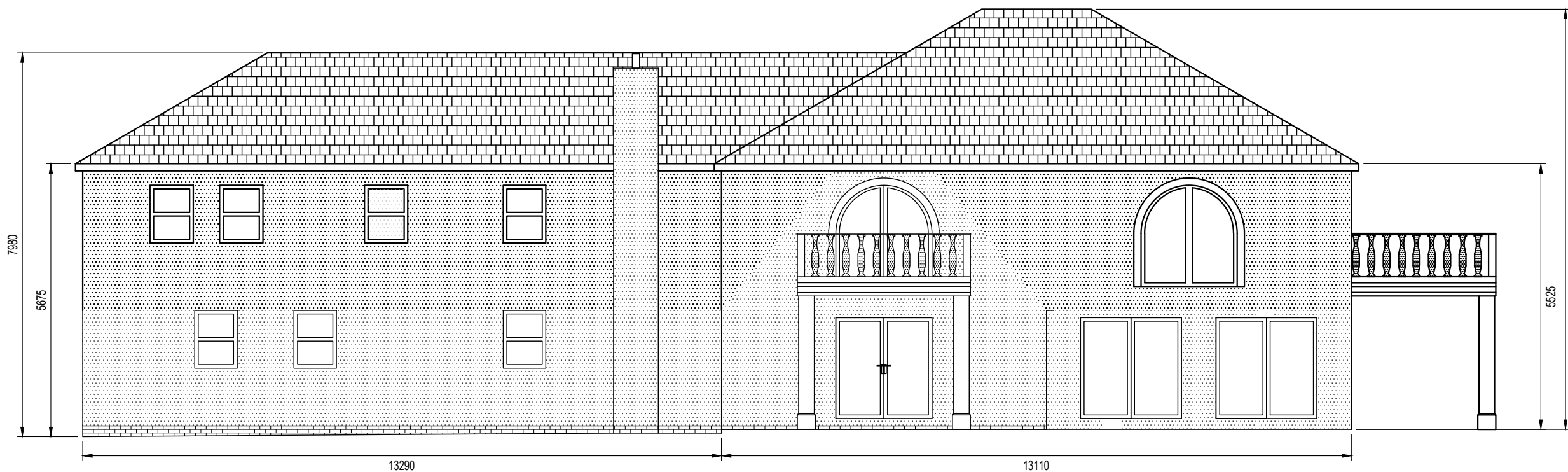
The Bat Conservation Trust. 2015. Bats in Buildings. [Online]. [Accessed 14 July 2020]. Available from https://cdn.bats.org.uk/pdf/Bats_and_Buildings.pdf?mtime=20181101151310



Appendix 1 – Architectural Plans



EXISTING ELEVATION A-A
SCALE 1:100



PROPOSED ELEVATION A-A
SCALE 1:100



DB DESIGN & DRAUGHTING LIMITED
6 GREBE CLOSE
SOUTH BEACH
BLYTH
NORTHUMBERLAND
NE24 3QU
07391 407 370
info.dbdd@gmail.com

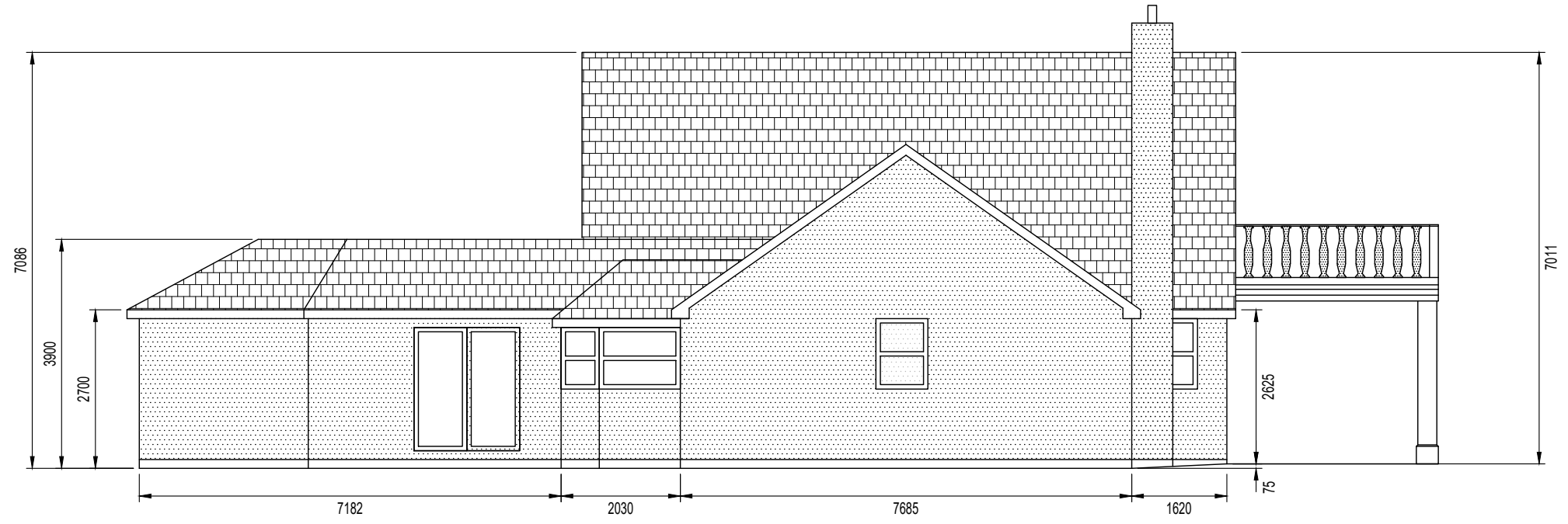
CLIENT: GURDAWAR SINGH
PINE DENE LODGE
DISSINGTON LANE
NEWCASTLE UPON TYNE
NE15 0AE

PROJECT: PROPOSED 2 STOREY EXTENSION & ROOF
RECONFIGURATION

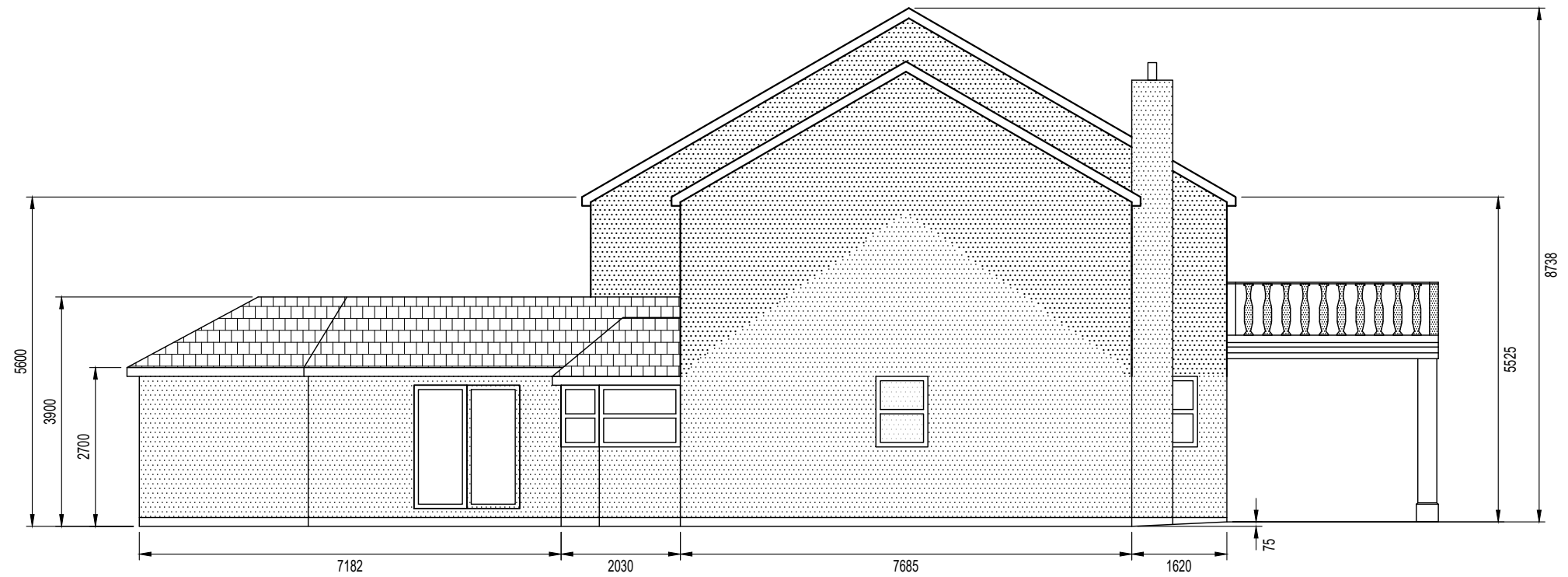
DRG TITLE: EXISTING & PROPOSED ELEVATIONS
1 OF 4

DRG No: 2023-027-09

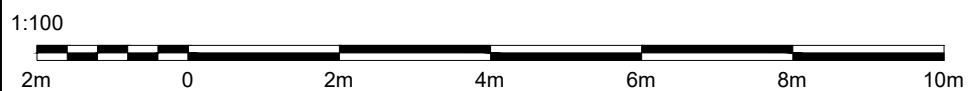
REV	DATE	DESCRIPTION
0	05/04/2023	ORIGINAL FOR PLANNING




EXISTING ELEVATION B-B
SCALE 1:100



PROPOSED ELEVATION B-B
SCALE 1:100




DB DESIGN & DRAUGHTING
 DB DESIGN & DRAUGHTING LIMITED
 6 GREBE CLOSE
 SOUTH BEACH
 BLYTH
 NORTHUMBERLAND
 NE24 3QU
 07391 407 370
 info.dbdd@gmail.com

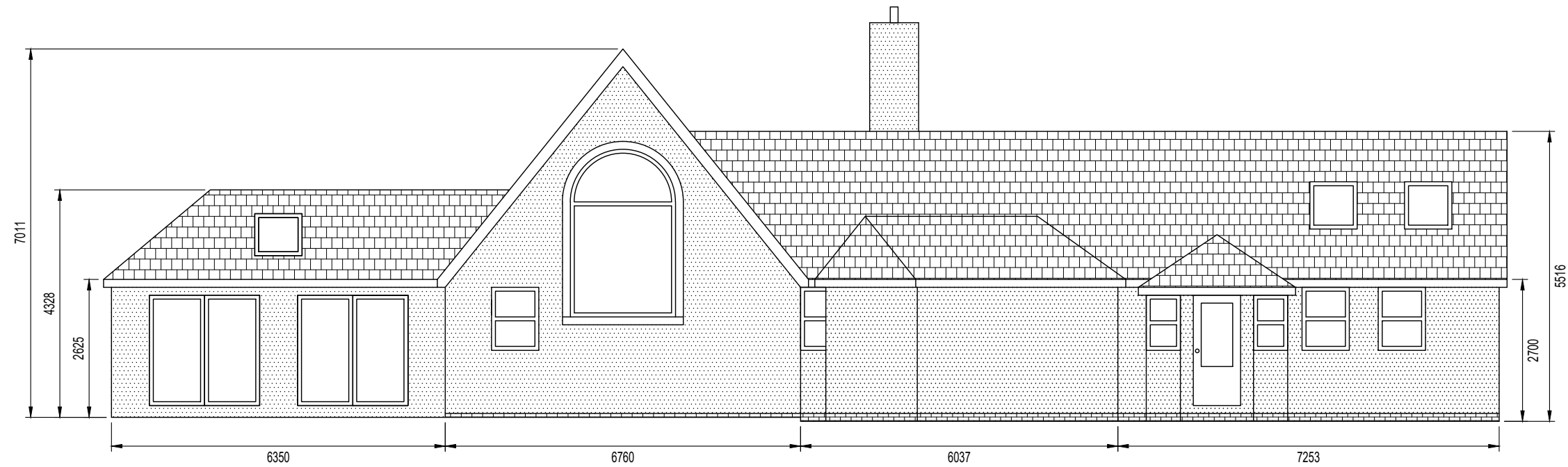
CLIENT: GURDAWAR SINGH
 PINE DENE LODGE
 DISSINGTON LANE
 NEWCASTLE UPON TYNE
 NE15 0AE

PROJECT:
 PROPOSED 2 STOREY EXTENSION & ROOF
 RECONFIGURATION

DRG TITLE:
 EXISTING & PROPOSED ELEVATIONS
 2 OF 4

DRG No:
 2023-027-10

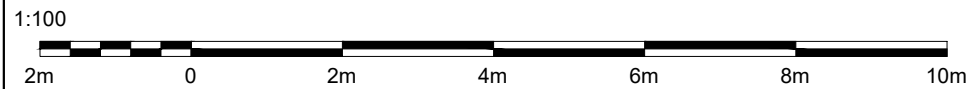
REV	DATE	DESCRIPTION
0	05/04/2023	ORIGINAL FOR PLANNING



EXISTING ELEVATION C-C
SCALE 1:100



PROPOSED ELEVATION C-C
SCALE 1:100



DB DESIGN & DRAUGHTING LIMITED
6 GREBE CLOSE
SOUTH BEACH
BLYTH
NORTHUMBERLAND
NE24 3QU
07391 407 370
info.dbdd@gmail.com

CLIENT: GURDAWAR SINGH
PINE DENE LODGE
DISSINGTON LANE
NEWCASTLE UPON TYNE
NE15 0AE

PROJECT: PROPOSED 2 STOREY EXTENSION & ROOF
RECONFIGURATION

DRG TITLE: EXISTING & PROPOSED ELEVATIONS
3 OF 4

DRG No: 2023-027-11

REV	DATE	DESCRIPTION
0	05/04/2023	ORIGINAL FOR PLANNING

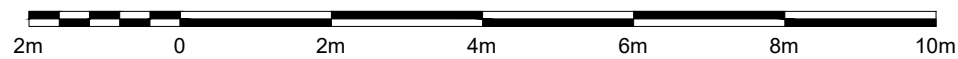


EXISTING ELEVATION D-D
SCALE 1:100



PROPOSED ELEVATION D-D
SCALE 1:100

1:100



DB DESIGN & DRAUGHTING LIMITED
6 GREBE CLOSE
SOUTH BEACH
BLYTH
NORTHUMBERLAND
NE24 3QU
07391 407 370
info.dbdd@gmail.com

CLIENT:
GURDAWAR SINGH
PINE DENE LODGE
DISSINGTON LANE
NEWCASTLE UPON TYNE
NE15 0AE

PROJECT:
PROPOSED 2 STOREY EXTENSION & ROOF
RECONFIGURATION

DRG TITLE:
EXISTING & PROPOSED ELEVATIONS
4 OF 4

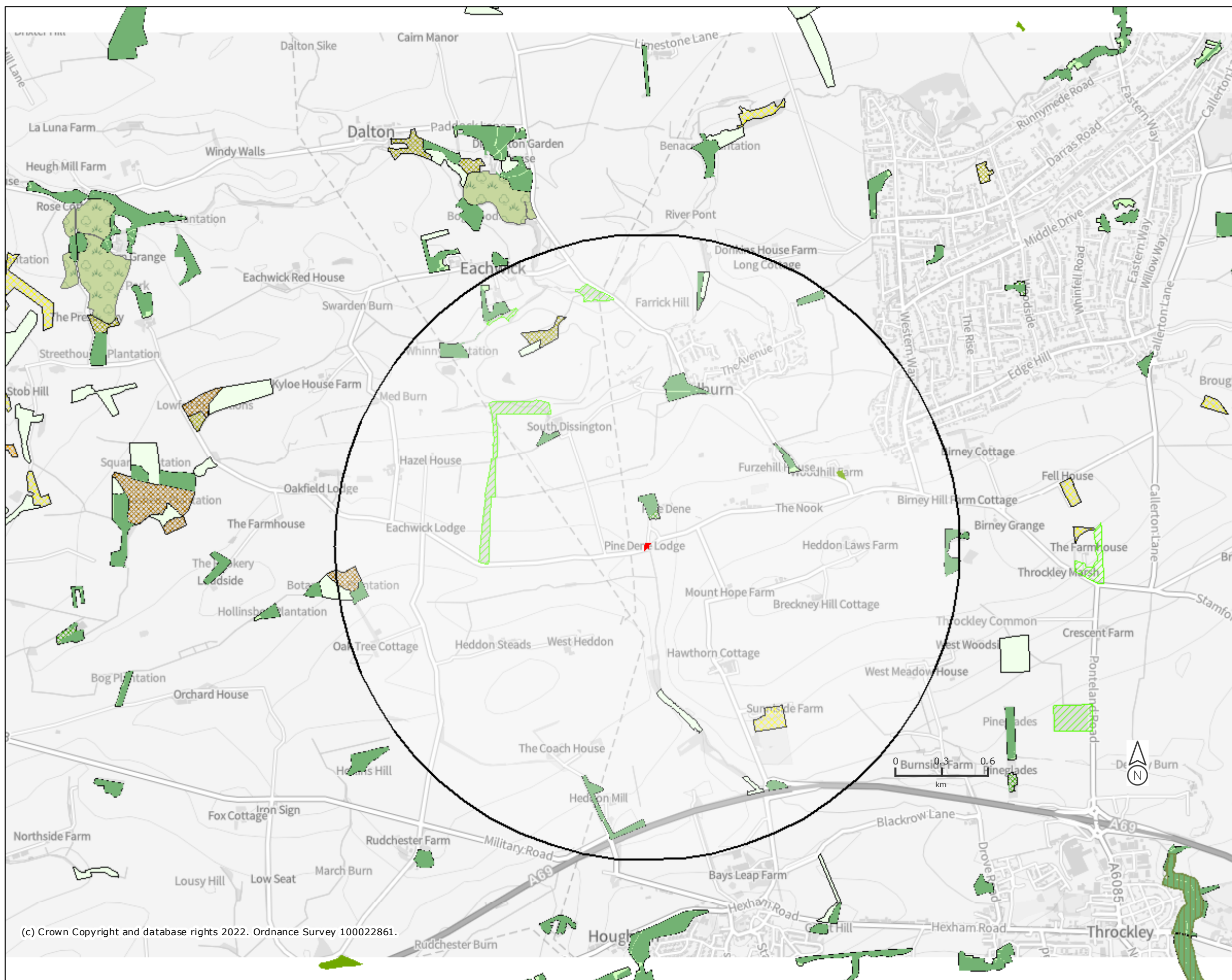
DRG No:
2023-027-12

REV	DATE	DESCRIPTION
0	05/04/2023	ORIGINAL FOR PLANNING



Appendix 2 – Figures

Figure 1: Woodland priority habitats within 2km of the surveyed building.



Legend

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland
- Priority Habitat Inventory - Deciduous Woodland (England)

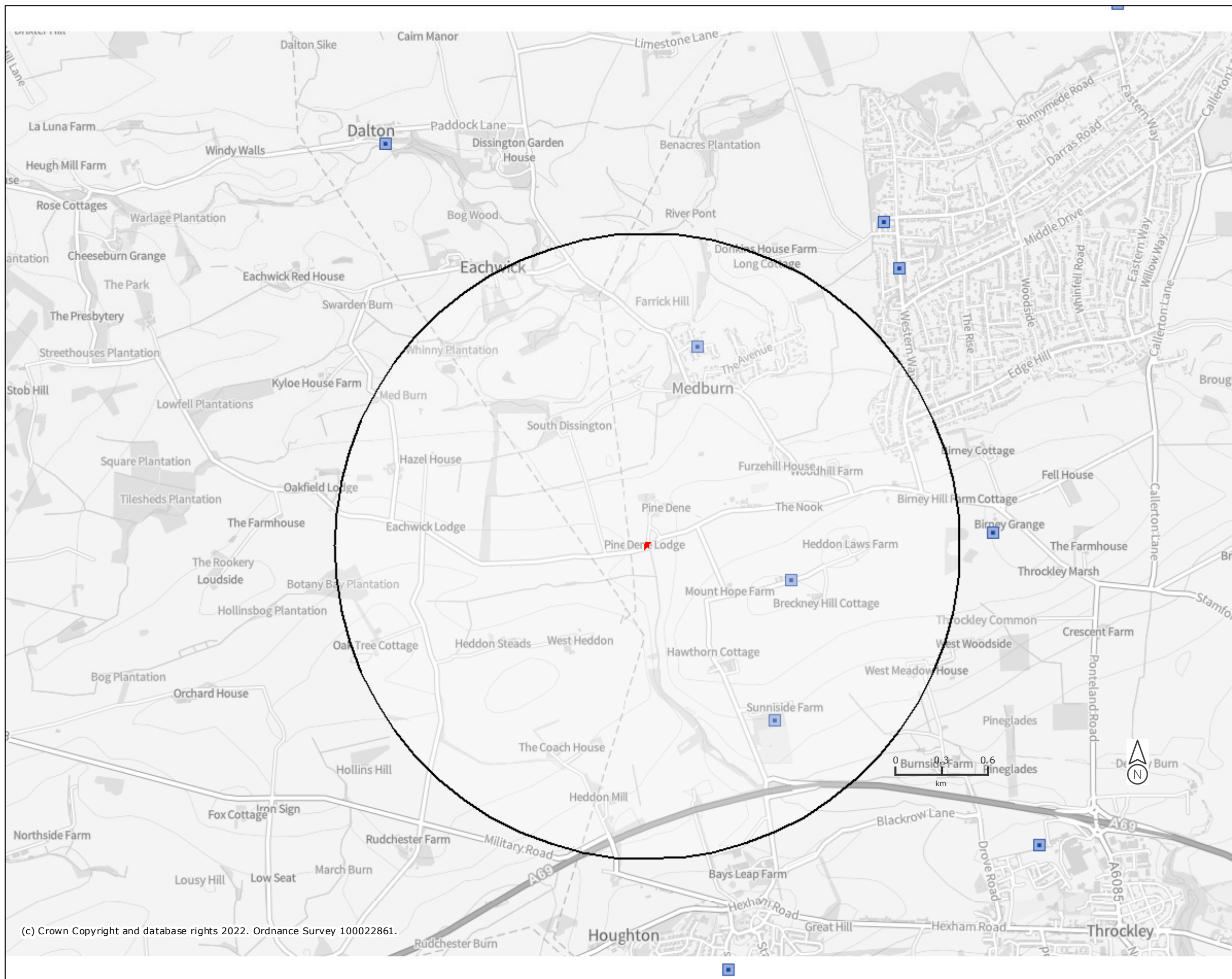
National Forest Inventory (GB)

- Assumed woodland
- Broadleaved
- Cloud \ shadow
- Conifer
- Coppice
- Coppice with standards
- Failed
- Felled
- Ground prep
- Low density
- Mixed mainly broadleaved
- Mixed mainly conifer
- Shrub
- Uncertain
- Windthrow
- Young trees
- Priority Habitat Inventory - Traditional Orchards (England)
- Woodpasture and Parkland BAP Priority Habitat (England)

Projection = OSGB36
 xmin = 407100
 ymin = 566700
 xmax = 418100
 ymax = 572600

Map produced by MAGIC on 12 October, 2023.
 Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

Figure 2: EPSM licences within 2km of the surveyed building.



Legend

Granted European Protected Species Applications (England)

- Amphibian
- Bat
- Cetacean
- Invertebrate
- Other Mammal
- Plant
- Reptile

Projection = OSGB36
 xmin = 407100
 ymin = 566700
 xmax = 418100
 ymax = 572600



Map produced by MAGIC on 12 October, 2023.
 Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.



Appendix 3 – Environmental Legislation & Convention Relating to Bats



Introduction

The UK has ratified a number of Conventions and implemented legislation pertaining to the protection of bats, either independently or as member state of the European Union. These are defined and summarised below.

Lists of threatened, endangered and extinct species are also provided, together with a summary explanation of each.

Bern Convention (1982)

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the Convention and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries to protect more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the EC Birds Directive (1979) and the EC Habitats Directive (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

The UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework was published in July 2012 and supersedes the Biodiversity Action Plan which lists and prioritises habitats and species and sets national targets to be achieved. The UK Post-2010 Biodiversity Framework includes all the species formally listed under the old UKBAP. The Environmental Departments of all four governments in the UK work together through the Four Countries Biodiversity Group.

The former UKBAP identified 391 'Priority' Species Action Plans (SAPs) and 162 Local Biodiversity Action Plans. Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level) and are usually drawn up by a consortium of local Government organisations and conservation charities.

UKBAP Bat priority species include Barbastrelle Bat, Bechstein's Bat, Soprano Pipistrelle, Noctule, Brown Long-eared Bat, Greater Horseshoe Bat and Lesser Horseshoe Bat.

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985, Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CRoW)

The UK has currently ratified four legally binding Agreements under the Convention, one of which is the Agreement on the Conservation of Populations of European Bats (EUROBATS).

National Planning Policy Framework (2021)

Following the publication of the first revision of the National Planning Policy Framework (NPPF) in March 2012, Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation (2005) has been withdrawn. However, ODPM 06/2005: Biodiversity and Geological



Conservation – Statutory Obligations and their impact within the Planning System (the guidance document that accompanied PPS9) has not been withdrawn and, where more detailed guidance is required than is given within the NPPF, local planning authorities will continue to rely on ODPM 06/2005. The NPPF has been revised and was published in July 2021.

The natural environment is covered within the NPPF 2021 in Chapter 15, paragraphs 174-188.

The purpose of the NPPF is to conserve and enhance the natural environment including:

- *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.*

To protect and enhance biodiversity and geodiversity, plans should:

- *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; and*
- *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.*

This guidance requires local planning authorities (planning policies and planning decisions) to take account of the conservation of protected species when determining planning applications and makes the presence of a protected species a material consideration when assessing a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Furthermore, the NPPF 2021 still includes the requirement for developments to *improve biodiversity* including ecological *net gain*. In the case of European Protected Species such as bats, planning policy emphasises that strict statutory provisions apply (including the Conservation of Habitats and Species (Amendment) Regulations 2012), to which a planning authority must have due regard.

Where developments requiring planning permission are likely to impact upon protected species it is necessary that protected species surveys are undertaken and submitted to meet the requirements of paragraph 98 of ODPM Circular 06/2005 which states that:

'The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'

Potential Special Protected Areas, possible Special Areas of Conservation, listed or proposed Ramsar site should be given the same protection as habitats sites.

Species of Principal Importance in England

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions.



The S41 list includes Barbastrelle Bat, Bechstein's Bat, Soprano Pipistrelle, Noctule, Brown Long-eared Bat, Greater Horseshoe Bat and Lesser Horseshoe Bat.

The Conservation of Habitats and Species (Amendment) (EU exit) Regulations 2019

The Conservation of Habitats and Species (Amendment) (EU exit) Regulations 2019 came into force on 1st February 2020 and ensures that the species and habitat protection and standards derived from EU law will continue to apply during the Brexit transitional period. No alterations have been made within the amendment from the Conservation of Habitats and Species Regulations 2017 consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales.

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. The 2012 amendments include that public bodies help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, which include all horseshoe bats *Rhinolophidae sp.* and all common bats *Vespertilionidae sp.*

Wildlife and Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The WCA makes it an offence to:

- deliberately capture, injure or kill a bat;
- intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- intentionally or recklessly obstruct access to a bat roost; and
- possess or advertise/exchange/sell a bat (alive or dead) or any part of a bat.