



Sella Park, Calder Bridge

Preliminary Roost Assessment Survey and Presence / Likely Absence Surveys for Bats

Commissioned by: Green Swallow North Limited

Client: Sella Bark Country House Hotel

December 2023

Lakeland Ecology

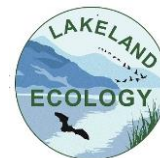
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DOCUMENT CONTROL

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Project: LE033 – Sella Park, Calder Bridge

Report Date: 08 December 2023

Report Revision: Version 3

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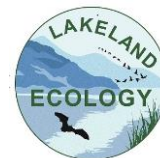
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EXECUTIVE SUMMARY

This report relates to a Preliminary Roost Assessment and Presence / Likely Absence & Roost Characterisation Surveys for bats conducted on a barn proposed for conversion works at Sella Park, Calder Bridge, Gosforth.

Evidence of previous bat activity, including scattered bat droppings and a brown long-eared bat carcass, was observed within the barn's interior during the Preliminary Roost Assessment. The building was assessed and found to provide high suitability for roosting bats.

During the Dusk Emergence Surveys, day / transient roosts used by a small number of Brandt's and soprano pipistrelle bats were identified within the roof of the surveyed barn.

No evidence of brown long-eared bat activity was found within the barn's interior or the surrounding habitat during the Dusk Emergence Surveys. It is considered that the brown long-eared bat roost identified within the barn's interior during the Preliminary Roost Assessment is no longer active.

A licence from Natural England will be required to derogate from relevant wildlife legislation and lawfully proceed with the works to the building's roof.

An outline mitigation strategy has been provided in this report to prevent any risk of harm or significant disturbance to bats.

Furthermore, the proposed works will enable the reinstatement of the inactive brown long-eared bat roost within the converted barn, providing bats with the opportunity to reuse this roosting space in the future



1.0 INTRODUCTION

1.1 Background

Lakeland Ecology was commissioned to undertake a Preliminary Roost Assessment (PRA) and Presence / Likely Absence Surveys for bats at Sella Park, Calder Bridge. This report was prepared by Patryk Gruba BSc (Hons) MCIEEM.

1.2 Site Location

The site is located at Sella Park Country House Hotel, Calder Bridge, CA20 1DW, and it is cantered at OSGB Reference NY14793841 – see Figure 1.

The site comprises the Sella Park Hotel building, residential houses and a traditional barn. The building considered within this assessment includes a single barn to the northwest of the site – see Figure 2.

The site is situated on the southern outskirts of the village of Calder Bridge. The small town of Gosforth is located 3.5km to the southeast, and the town of Egremont is 5km northwest of the site. The Sellafield multi-functional nuclear site grounds are 500m to the south.

The surrounding landscape predominantly consists of small blocks of woodland and agricultural fields bordered by hedgerows, lines of trees, as well as residential properties with associated gardens and agricultural buildings to the north, east, and west. Further to the south, the landscape is dominated by the industrial grounds associated with the Sellafield nuclear facilities.

The River Calder and associated riparian woodland habitat are located 150m east of the site, while the Solway Coast is situated 3.5km to the southwest.

1.3 Proposal

The proposal involves converting the barn on-site to allow for additional guest accommodation. The conversion work will primarily focus on internal alterations, with no significant structural changes. The resulting converted building will feature two stories. New doors and windows will be installed within the existing openings along the east elevation, with some of the openings enlarged to accommodate the windows. Additionally, several new window openings will be created within the east elevation and the north gable wall.

To enhance lighting for the first-floor accommodation, three new skylights will be installed along the southern section of the converted barn. It is understood that the roof void within the northern section of the barn will be retained.

See Appendix I for the proposed site layout and elevations.

1.4 Survey Objectives

The main objective of the survey was to provide results of an ecological appraisal for bats on site as part of the planning application to convert the barn on site as specified in Figure 2. The secondary objective was to highlight any evidence and / or potential for nesting birds and barn owl *Tyto alba* within the surveyed buildings.

This report aims to:

- Outline the legislative protection afforded to bats;
- Summarise the findings of the preliminary roost assessments survey i.e. bat evidence and roosting potential within the surveyed building;
- Summarise the findings of the presence / likely absence (dusk emergence) surveys for bats;
- Highlight any evidence and/or potential for nesting birds and barn owl;
- Provide an assessment of the potential ecological constraints to proposed conversion works; and
- Outline avoidance measures and / or mitigation strategy for the scheme where appropriate.

A summary of the relevant legislation is provided in Appendix II.

2.0 METHODOLOGY

2.1 Desk Study

A search for relevant information was made on MAGIC (www.magic.gov.uk) - DEFRA's interactive, web-based database. This search identified information on any European Protected Species Mitigation Licence (EPSML) applications relating to bats that have been granted within a 2km radius from site.

The desk study also included a review of any previous ecological reports or other information available for the site.

A species data search was not commissioned and was considered not necessary to inform the report evaluation, as the current survey is considered to be sufficient to provide an assessment based on the field evidence.

2.2 Bat Roost Assessment

The Preliminary Bat Roost Assessment survey was completed by Patryk Gruba MCIEEM - Natural England (NE) Class 2 bat licence (ref: 2015-11080) on the 13th June 2023. The survey methodology followed the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).

The exteriors of the barn were systematically inspected during daylight and any features suitable for bats were noted, such as weatherboarding, hanging tiles, soffit boxes, gaps in stonework, cracks, crevices, slipped or broken tiles and gaps around ridge tiles and lead flashing. Roof coverings were viewed from the ground using close-focussing binoculars (Viking ED 8x42). Any potential bat access points were identified and inspected for signs of bats using a high-powered torch (Ledlenser P17) and endoscope (Teslong NTS 300). Signs of bats include droppings, feeding remains (in association with droppings), wear marks on potential egress points, oily staining on stone / brick / timber, the smell of bats, audible signs of bats or presence of live bats or bat corpses.

The interiors to the barn were accessed and the internal spaces, where safely accessible, were accessed and inspected. Beams, joists, surfaces, floors, stored contents and internal walls and wall tops were inspected where accessible.

The exterior walls, windows, doors, floors, lintels and other flat surfaces were examined for droppings that may have adhered to them.

The grounds surrounding the barn were examined for droppings that may have collected beneath roost sites. Areas that were inaccessible, but which had potential for bats were noted.

During the Preliminary Roost Assessment, the surveyed building was also categorised for its bat roosting potential. The following categories based on the BCT Guidelines have been used:

- Negligible suitability – a building or structure providing negligible features for roosting bats;

- Low suitability - a building or 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 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);
- Moderate suitability – a building or structure 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;
- High suitability - A building or structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis & potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

2.3 Bat Presence / Likely Absence Surveys

The survey methodology followed the Bat Conservation Trust's (BCT) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016).

Three dusk emergence surveys were completed on site in July and August 2023 in order to cover all elevations / aspects of the surveyed barn. Following guidance included in the *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys* produced by BCT in May 2022, no dawn surveys were conducted on site (see further details in section 2.5 Limitations). The dusk emergence surveys commenced 15 minutes before sunset and continued for 1.5 hours after sunset.

The dusk emergence surveys were led by Patryk Gruba (PG) MCIEEM - Natural England (NE) Class 2 bat licence (ref: 2015-11080) with the assistance from Pippa Sheather (PS).

The date, survey times, weather conditions and personnel involved in each of the surveys are provided in Table 1 below.

The surveyors were equipped with Echo Meter Touch 2 (full spectrum) bat detectors. The sound analysis software used to analyse bat calls included AnalookW 4.6e, Kaleidoscope Lite 5.5.0 and Anabat Insight 2.0.7.

In addition, night vision aids (NVAs) in the form of infrared cameras were used to complement the field surveyors during each dusk emergence survey. The NVAs included: 2 No.



Panasonic HC-VX980 4K Camcorders and 1 No. Nightfox Whisker HD night vision binoculars paired with Nightfox XC5 & XC10 850NM infrared floodlights. Chorus static bat detectors were paired with NVAs where applicable.

Location of the surveyors and NVAs are shown in Figure 3.

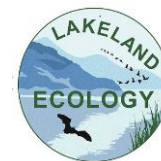


Table 1: Dates, times, weather conditions and personnel for the surveys

Survey	Buildings Surveyed	Date	Sunset	Start	Finish	Start Temp (°C)	End Temp (°C)	Rain	Wind (Beaufort scale)	Cloud (% cover)	Surveyors
1	Barn	11.07.23	21:44	21:29	23:14	17	16	Predominantly dry, shower between 22:10 and 22:25	1	80%	PG and PS
2	Barn	01.08.23	21:14	20:59	22:44	16	15	None	1	50%	PG and PS
3	Barn	17.08.23	20:41	20:26	22:11	18	16	None	1	80%	PG and PS

2.4 Nesting Birds

The surveyed building was visually inspected for any current or past evidence of nesting bird and barn owl activity.

2.5 Limitations

It is considered that the absence of bat evidence at suitable roosting locations does not equate to evidence of absence. Evidence of roosting is often inconspicuous (particularly in the case of day or transient roosts used by a low number of bats) and use can differ throughout the season. In cases where crevice dwelling bat species might be present, evidence may be located within the stonework cavities or between roof tiles and bitumen felt roof lining. It is often the case that it is not possible to fully inspect such features without significant damage or destruction of a potential roost location.

The presence / absence surveys were conducted in July and August 2023; this is within the optimal / recommended survey period for dusk emergence bat detector surveys to identify maternity / day / transient bat roosts (Collins, 2016). The survey effort deployed on site was deemed sufficient to characterise the identified low-status bat roosts and the information gathered during the surveys was considered satisfactory for informing the impact assessment and designing mitigation measures.

No dawn surveys were conducted as part of the presence / absence surveys. Although the 3rd edition of BCT Survey Guidelines (Collins, 2016) recommends that at least one dawn survey should be conducted for buildings with moderate and high roosting potential, the Interim Guidance on use of NVAs (BCT, 2022) clarifies that presence / absence surveys should transition away from the dawn surveys in favour of dusk surveys supported by NVAs. This approach was officially implemented within the 4th edition of the BCT Bat Survey Guidelines which was published in September 2023.

Recent studies show that dawn return times are significantly variable both between and within species (Andrews & Pearson, 2022). The average return times quoted in the study are more than two hours before sunrise (the timing advised for dawn surveys in the current BCT guidelines) for many species. Therefore, it is considered that the dawn surveys can have limited reliability in providing information on presence / likely absence of roosting bats within the buildings.

3.0 RESULTS

3.1 Desk Study

A search on Natural England MAGIC portal showed no Statutory Designated Sites with bats as qualifying interest bats within 2km radius from the site.

One granted EPSM Licence for bats (EPSF2011-3850) was identified 1km south of the site and included destruction of a resting site in relation to following species: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Daubenton's bat *Myotis daubentonii* and noctule bat *Nyctalus noctula*.

3.2 Preliminary Bat Roost Assessment

During the Preliminary Bat Roost Assessment, evidence of roosting bats was identified within the surveyed barn.

Multiple scattered bat droppings were found on the upper floor of the barn; these droppings appeared to be relatively fresh and included a mixture of larger and smaller droppings (see Figure 2 and Plate 1).



Plate 1 – Mixture of large and smaller bat scattered throughout the upper floor of the barn.

Furthermore, two piles (approximately 100 droppings) of larger droppings mixed with butterfly wings and insect feeding remains were discovered on the upper floor in the southern section of the barn. These piles were distributed under the ridge beam and near the gable end wall (see Figure 2 and Plate 2).



Plate 2 – Accumulation of larger bat droppings mixed with feeding remains near the gable end wall on the upper floor of the southern section of the barn

Additionally, a deceased adult male brown long-eared bat *Plecotus auritus* was noted within the upper floor of the southern section of the barn. The bat carcass was desiccated but appeared to be relatively fresh (estimated to have originated between one and three years ago) (see Figure 2 and Plate 3).

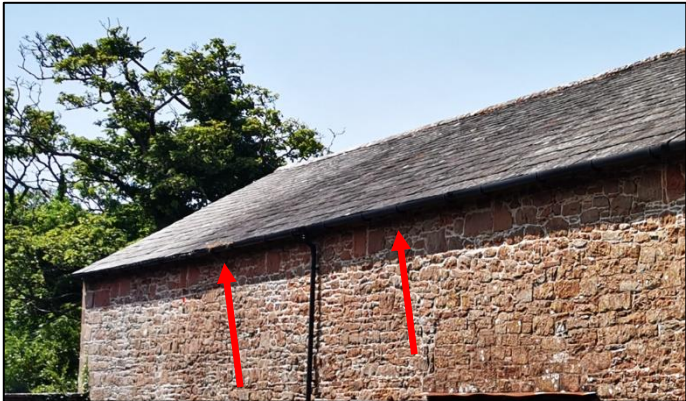


Plate 3 – Brown long-eared bat carcass identified on the upper floor of the southern section of the barn

Results of the Preliminary Bat Roost Assessment including barn description and potential roosting features have been provided in the Table 2 below.

Table 2 – Barn description and potential roosting features

Description	Potential Roosting Features	Bat Roost Suitability
The building was a tall former agricultural sandstone barn located in the northwest of the site. Structurally, the barn was in very good condition, with no crevices within the external stonework.  	- Multiple gaps under slates and ridge tiles throughout the roof area – roosting potential between slates and internal felt lining.  - Gaps between the gable end coping flag tones and edge roof slates. 	High

Description	Potential Roosting Features	Bat Roost Suitability
Internally, the barn consisted of a tall, open first-floor section that extended throughout the central and northern sections. The upper floor of the southern section was approximately 2 meters lower than the rest of the first-floor area. The ground floor of the barn was divided into three separate rooms / compartments, all connected to the open tall section near the main entrance to the barn. The primary use of the barn was for storage. 	 • Potential gaps at the wall tops – western and eastern elevation. 	

Description	Potential Roosting Features	Bat Roost Suitability
The barn had timber frame kingpost roof structure which was finished with slate tiles and lined with bitumen felt. 	- Internal roof timbers – void dwelling species. The upper interior of the barn was dark, with no window openings present. However, access to the interior seemed limited as owl holes, ventilation grills, or window openings were blocked off or boarded up.  - Few gaps within the internal stonework, particularly where the wooden purlins join the stone walls along the south and north gables. Gaps on top of the internal gable wall tops 	

3.3 Presence / Likely Absence and Roost Characterisation Surveys

3.3.1 First Dusk Emergence Survey – 11th July 2023

During the first dusk emergence survey, no bats were recorded emerging from the surveyed barn.

Furthermore, two infrared cameras and a static detector deployed within the interior of the barn for the duration of the survey registered no bat activity inside of the barn.

Moderate levels of soprano pipistrelle commuting and foraging activity were observed on-site during the survey. The majority of the activity was concentrated along the vegetation and trees to the northeast and south of the surveyed barn site, with the first soprano pipistrelle recorded at 21:56.

Low levels of common pipistrelle and noctule commuting and foraging activity were also observed on-site. Common pipistrelle passes were recorded at 22:08, 23:01, and 23:04. Noctule bat activity was recorded at 21:59, 22:08, 22:47 to 22:50, 23:01 to 23:04, and 23:09 to 23:10.

A single pass of a myotis species of bat *Myotis sp.* was recorded southwest of the site at 23:11

3.3.2 Second Dusk Emergence Survey – 1st August 2023

During the second dusk emergence survey, an infrared camera and a static detector were deployed within the interior of the barn for the duration of the survey.

At 21:25, an infrared camera and static detector deployed within the barn registered a brief light sampling activity of a myotis bat (considered to be Brandt's bat *Myotis brandtii* based on the sound analysis of the recorded call). At 21:45, a single myotis species of bat was recorded emerging from under the ridge tile in the middle section of the barn. Refer to Plate 4 and Figure 3 for the detailed location of the identified Brandt's bat roost.

In general, low levels of myotis bat activity were recorded on-site, with individual passes recorded at 21:48, 22:18, and 22:24



Plate 4 – showing Brandt’s bat roost, used by a single bat located under the roof slates within the eastern pitch of the roof.

High levels of soprano pipistrelle commuting and foraging activity were observed on-site during the survey. The majority of the early activity was observed to the north and east of the site, with the first bat observed commuting from the west at 21:19. Foraging activity of soprano pipistrelles was also observed north of the site, with the first bat recorded in this area at 21:52.

Similar to the previous dusk emergence survey, low levels of common pipistrelle and noctule bat commuting and foraging activity were also observed on-site. Common pipistrelle passes were recorded at 21:47 to 21:48, 21:55, 22:16, 22:34 to 22:45, and 22:48 to 22:49. Noctule bat passes were recorded at 21:41, 21:53, 22:19, and 22:41 to 22:44.

3.3.3 Third Dusk Emergence Survey – 17th August 2023

During the third dusk emergence survey, a single soprano pipistrelle was observed emerging from the gap under the apex ridge tile of the northern gable wall at 20:54. Refer to Plate 5 and Figure 3 for the detailed location of the identified roost.



Plate 5 – showing soprano pipistrelle bat roost, used by a single bat located under the apex ridge tile of the northern barn gable.

Additionally, three Brandt's bats were observed emerging from under the roof slate tile of the eastern roof pitch of the northern section of the barn at 21:08, 21:14, and 21:18 respectively. Refer to Plate 6 and Figure 3 for the detailed location of the identified Brandt's bat roost.



Plate 6 – showing Brandt's bat roost, used by three bats located under the roof slates within the eastern pitch of the roof.

Furthermore, a single Brandt's bat was recorded emerging from under the ridge tile in the middle section of the barn (as shown on Plate 4) at 21:14.

Similar to previous dusk emergence surveys, high levels of soprano pipistrelle commuting and foraging activity were observed on-site during the survey. The majority of the early activity was observed to the north of the surveyed building, with the first bat observed commuting from the west at 20:43. After 21:20, the majority of the foraging activity for this species moved to the north of the site.

Low levels of common pipistrelle and noctule bat commuting and foraging activity were also observed on-site. Common pipistrelle passes were recorded at 20:43, 20:44, 21:17, 21:45, 21:55, 21:58 and 22:08. Noctule bat passes were recorded at 20:58, 21:24, 21:57, 22:03.

3.4 Nesting Birds

No obvious signs of current bird nesting activity were observed within the surveyed barn. Access to the interior appeared to be sealed off for birds and barn owls, with owl holes, ventilation grills, and window openings either blocked off or boarded up.

4.0 EVALUATION & RECOMMENDATIONS

4.1 Bats

Bats and their roosts are protected under the Habitat Regulations and the Wildlife & Countryside Act (see Appendix I for detailed legislation).

There was evidence of previous bat activity within the interior of the surveyed barn. Multiple scattered bat droppings were noted throughout the upper and lower floors of the barn. These droppings appeared to be relatively fresh and included a mixture of larger droppings (characteristic of brown long-eared bats) and smaller ones, likely indicating a pipistrelle species of bat or a small myotis bat (such as the whiskered bat *Myotis mystacinus* or Brandt's bat). A carcass of a male brown long-eared bat was also noted within the southern section of the upper floor of the barn.

The roof area of this building provided suitability for a larger number of bats or maternity roosts for species such as pipistrelle bats between the slates and the internal roof lining, or void-dwelling species such as the brown long-eared bat within the internal roof area. Furthermore, the site was surrounded by highly suitable bat habitat that was well connected to the wider landscape and other potential roost sites within the area.

The evidence collected during the Preliminary Roost Assessment indicates that the interior of the barn was being used by a small group of brown long-eared bats. The presence of a male brown long-eared bat carcass within the interior suggests that the roost was likely a bachelor day roost and / or a night feeding roost.

The barn on site was assessed as offering high suitability for roosting bats, and there was previous evidence of roosting within the barn interior. Following the BCT Survey Guidelines (Collins, 2016), three presence / likely absence / roost characterisation (dusk emergence) surveys were undertaken during the bats' active season.

The barn was considered to provide limited suitability for hibernating bats. There were no external crevices within the stonework and limited access to the barn's interior. The roosting features identified within the roof had some potential for 'non-standard' hibernacula. However, these features would be considered to provide low potential for individual / small groups of bats or for opportunistic but would be largely unsuitable for prolonged use, as they would not typically provide the necessary protection from weather, or the favorable temperature and humidity conditions required during the winter period. Hibernating bats are particularly vulnerable to disturbance.

4.2 Bat Dusk Emergence Surveys

Active myotis bat roosts (considered to be Brandt's bat based on field observations and sound analysis of recorded bat calls) and soprano pipistrelle roost were identified within the surveyed barn during the dusk emergence surveys:

- Roost R1 is located within a gap on top of the ridge beam / under the ridge tile in the central section of the barn. A single Brandt's bat was observed using this roost during the dusk emergence surveys on 01/08/23 and 17/08/23 (see Plate 4 and Figure 3). The roost is considered to be a day roost used by an individual / low number of bats.
- Roost R2 is located under the apex ridge tile of the northern gable wall of the barn. A single soprano pipistrelle bat was observed using this roost during the dusk emergence survey on 17/08/23 (see Plate 5 and Figure 3). The roost is considered to be a day / transient roost used by an individual / low number of bats.

- Roost R3 is located under the roof slates within the eastern pitch of the roof in the northern section of the barn. Three Brandt's bats were observed using this roost on 17/08/23 (see Plate 6 and Figure 3). The roost is considered to be a day roost used by a low number of bats.

Furthermore, the survey evidence indicates that Brandt's bats, which use the roof area for roosting, occasionally enter the interior of the barn and utilize the internal open space for light sampling before emergence.

Roosts used by individual bats / small numbers of common species (not maternity or hibernation sites) are relatively low in significance to local populations and their status is identified to be 'low' (Mitchell-Jones A. J., 2004).

No evidence of brown long-eared bat activity was identified within the interior of the barn or within the habitat surrounding the barn during the dusk emergence surveys. Therefore, it is considered that the brown long-eared bat roost identified within the interior of the barn during the Preliminary Roost Assessment is no longer active. As a result, it was not possible to characterise this roost during the dusk emergence surveys conducted as part of the survey effort on site.

4.3 Impact Assessment

Direct Impacts

The proposals to convert the barn and install the skylights will destroy / modify the identified day roost R3 used by low numbers of Brandt's bats. Without appropriate mitigation, the proposed works have the potential to cause a permanent loss of this roost.

Furthermore, without mitigation, there is a risk of disturbance, killing, or injury to individual bats if they are present at the time of the works.

The proposed plans indicate that the remaining roosts identified within the roof area of the surveyed barn can be retained as part of the conversion works. No works on the external roof area are proposed, except for the installation of skylights within the northern section of the roof.

Works to the roof undertaken on the barn during the peak hibernation season could potentially disturb hibernating bats that might be opportunistically using the roof of barn. The roosting features identified within the roof area might be used by individual bats during the hibernation period; however, these features are not considered suitable for prolonged use, as they would

not typically provide the necessary protection from weather or the favorable temperature and humidity conditions required during the winter period. Hibernating bats are particularly vulnerable to disturbance.

Indirect Impacts

Any increase in lighting on site may have an impact on local bat populations using the site for roosting and foraging. Additionally, there will be a permanent loss of covered flying / light sampling space currently provided by the surveyed barn.

4.4 Mitigation Strategy

As the proposed barn conversion works will remove / modify the roost used by a small number of Brandt's bats, an European Protected Species Mitigation (EPSM) Licence must be obtained from Natural England (NE) before works to the roof of the barn commence. The licence will place reasonable conditions on the development to ensure that the risk of harm and disturbance to bats is minimal and that the favorable conservation status of the species present is maintained.

In accordance with the NE Bat Mitigation Guidelines (Mitchel-Jones, 2004), the proposed mitigation strategy should be proportionate to the "type of impact and importance of the population affected." As there are only small numbers of common species present roosting on site (not maternity roosts), there is flexibility regarding new roost facilities and timing constraints.

This report provides an outline / overview of the mitigation scheme proposed. A detailed mitigation strategy and methodology for works will be submitted as part of an EPSM application to NE.

Overview of the mitigation strategy on-site:

- Three bat boxes should be installed on other buildings or suitable mature trees on-site to serve as release sites for relocating bats during the works. These boxes will also provide ongoing roosting provisions throughout the conversion works. Suitable bat box options include the Vivara Pro WoodStone Bat Box, Low Profile WoodStone Bat Box, Beaumaris Woodstone Bat Box, or 2F Schwegler Bat Box.

- Any modified or destroyed bat roosts must be replaced after the works. This can be achieved by installing external bat boxes on the east elevation or northern gable of the converted barn.
- Any non-structural works within the interior of the barn (e.g., clearance works or works to construct internal timber frame) or works conducted at ground floor level of the barn (e.g., removal of the concrete floor slabs at the ground floor level) are considered to pose a very low risk of disturbance to the bats using the roof area for roosting and it is considered that these works can proceed outside of the EPMS Licence. Any low levels of disturbance resulting from the above works (e.g., noise) are considered insignificant in terms of the impact on the identified roosts.
- Contractors must be informed about the identified roosts and the potential presence of bats. If bats are observed or suspected while work is ongoing and the named ecologist or accredited agent is not on-site, work must immediately pause, and the acting ecologist must be contacted for advice.
- Implementation of a sensitive lighting strategy on-site is recommended as part of the proposed scheme. This strategy should align with the *Bats and Artificial Lighting at Night Guidance Note* (BCT, 2023). No lighting should be directed at the roof areas of the converted barn or adjacent habitat. Additionally, external lighting along the east elevation of the building should be kept to minimum.

Overview of timing and methodology (conducted under an EPMS Licence) to avoid any risk of harm or disturbance to bats:

- The identified roosts will undergo a destructive search or be made unsuitable for roosting bats under the direct supervision of the named ecologist.
- The ecologist will provide a toolbox talk to the contractors before the commencement of conversion works.
- Since no maternity roosts are present on-site, the building works can commence during the bat's active season (April – October).
- The installation of skylights should avoid starting in the peak bat hibernation season (November – February). Although the risk of hibernating bats using the building's roof is considered low, this precautionary recommendation is made due to the extreme vulnerability of hibernating bats to disturbance.

- The identified roosts R1 and R2 must be retained, and no work should be undertaken on the roof areas around these roosts. Additionally, access to the identified roosts must not be obstructed by scaffolding or other construction features.

4.5 Additional Recommendations

As the brown long-eared bat roost identified within the interior of the barn during the Preliminary Roost Assessment is no longer active, no mitigation measures are required in relation to this roost. However, retaining the roosting provision for brown long-eared bats within the barn is recommended as part of the project. This would allow bats the opportunity to re-use this roosting space in the future.

To achieve this, the inactive brown long-eared bat roost will be reinstated by incorporating a bat loft within the southern section of the converted barn. The bat loft should have a minimum height of 2 meters and a length of 5 meters. Access to the bat loft can be facilitated by creating bat access holes in the southern gable wall (refer to Appendix III for the bat loft design).

Furthermore, it is advisable to avoid directing external lighting toward the bat access area to the bat loft. Currently, there is some lighting spillage from the external floodlights that illuminate the adjacent hotel building. It is recommended that these lights are slightly repositioned to prevent illumination of the southern gable of the converted barn after the completion of the conversion works.

5.0 REFERENCES

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

ILP (2023) Bats and artificial lighting at Night, Guidance Note 08/23.

Mitchell-Jones, A.J., (2004), *Bat mitigation guidelines*, Version January 2004, English Nature: Peterborough

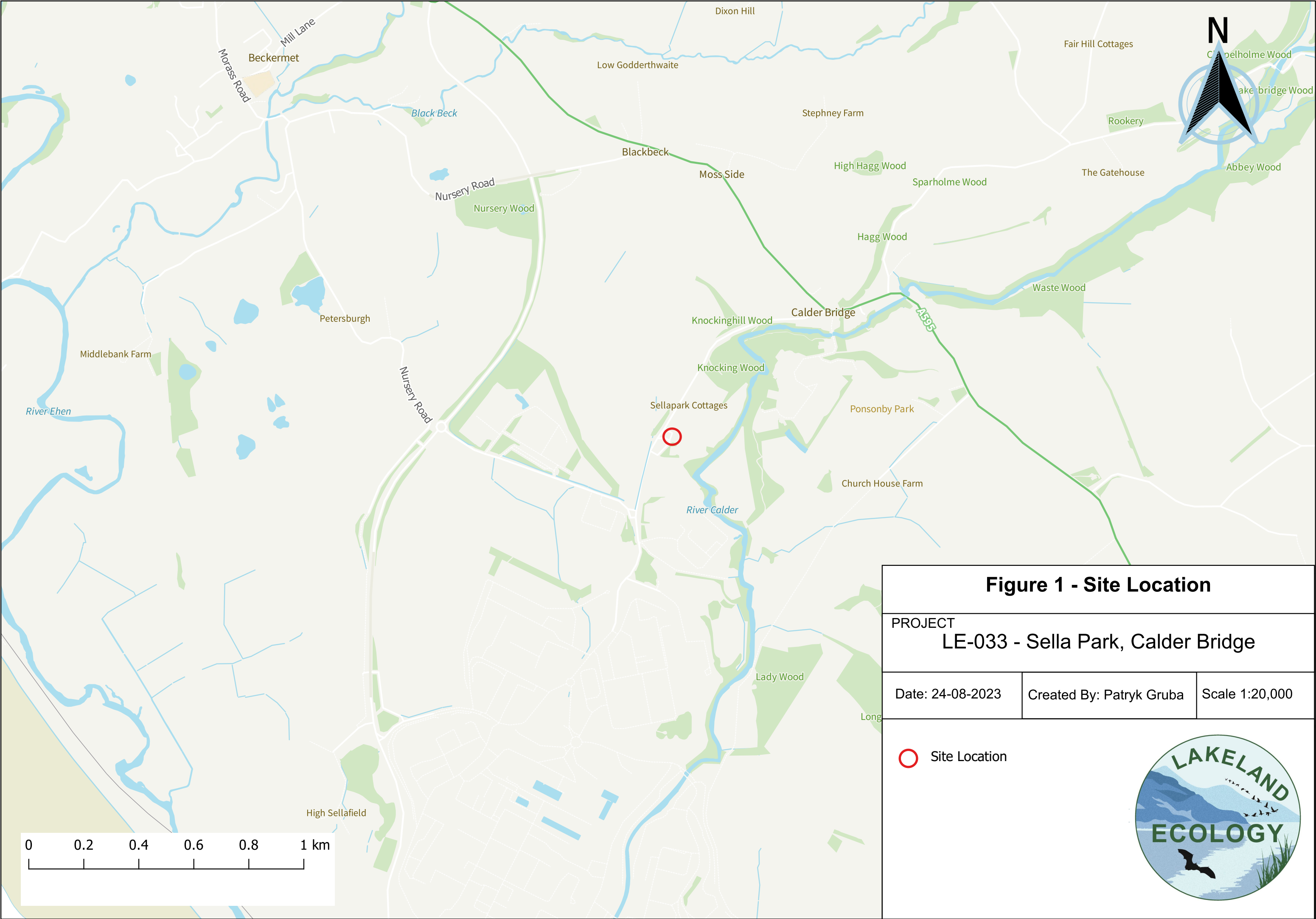


FIGURES

Figure 1 – Site Location

Figure 2 – Site Plan with PRA Evidence

Figure 3 – Dusk Emergence Surveys Results





Mixture of large and smaller bat droppings scattered throughout the upper floors of the barn

Two piles of accumulated larger/BLE bat droppings mixed with bat feeding remains

Brown long-eared bat carcass noted in the uppor floor of the barn



Figure 2 - Site Plan with PRA Evidence

PROJECT LE-033 - Sella Park, Carder Bridge		
Date: 24-08-2023	Created By: Patryk Gruba	Scale 1:500

-  Surveyed Building
-  Bat Droppings





Figure 3 -Dusk Emergence Surveys Results

PROJECT
LE-033 - Sella Park, Carder Bridge

Date: 24-08-2023	Created By: Patryk Gruba	Scale 1:500
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 Surveyed Building

 Roost Location

Surveyors Location

 11/07/2023

 01/08/2023

 17/08/2023

Infra Red Cameras

 11/07/2023

 01/08/2023

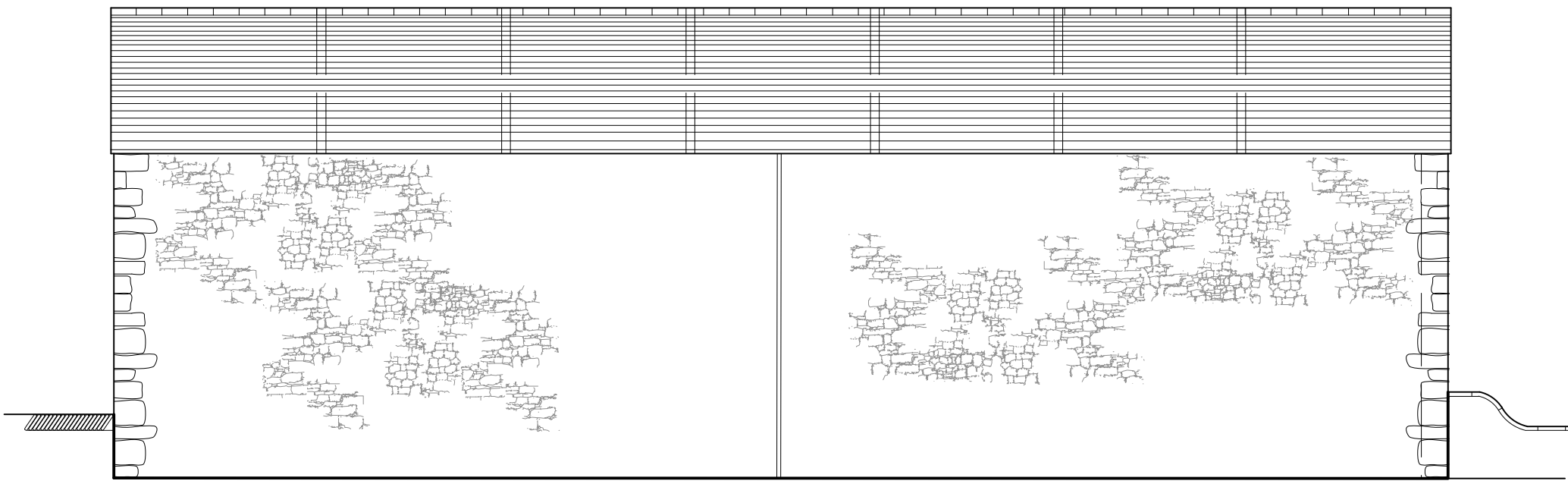
 17/08/2023



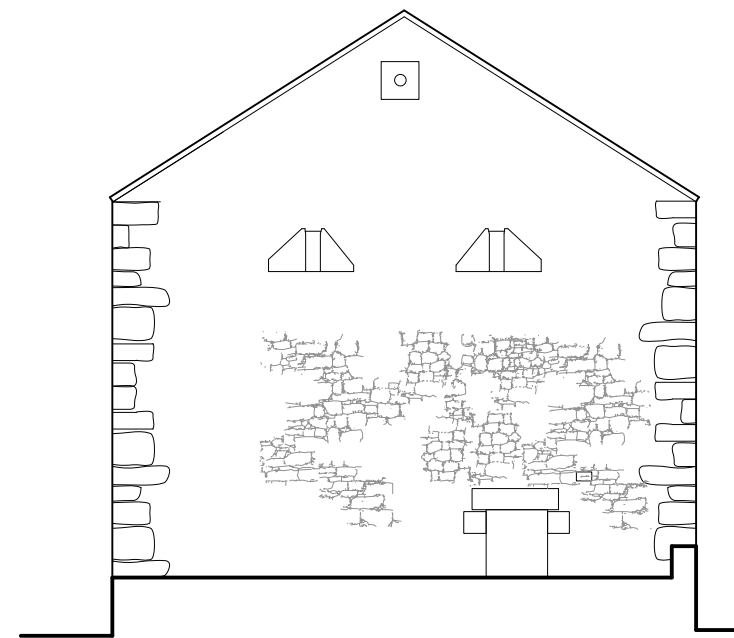


APPENDIX I – PROPOSED DESIGN

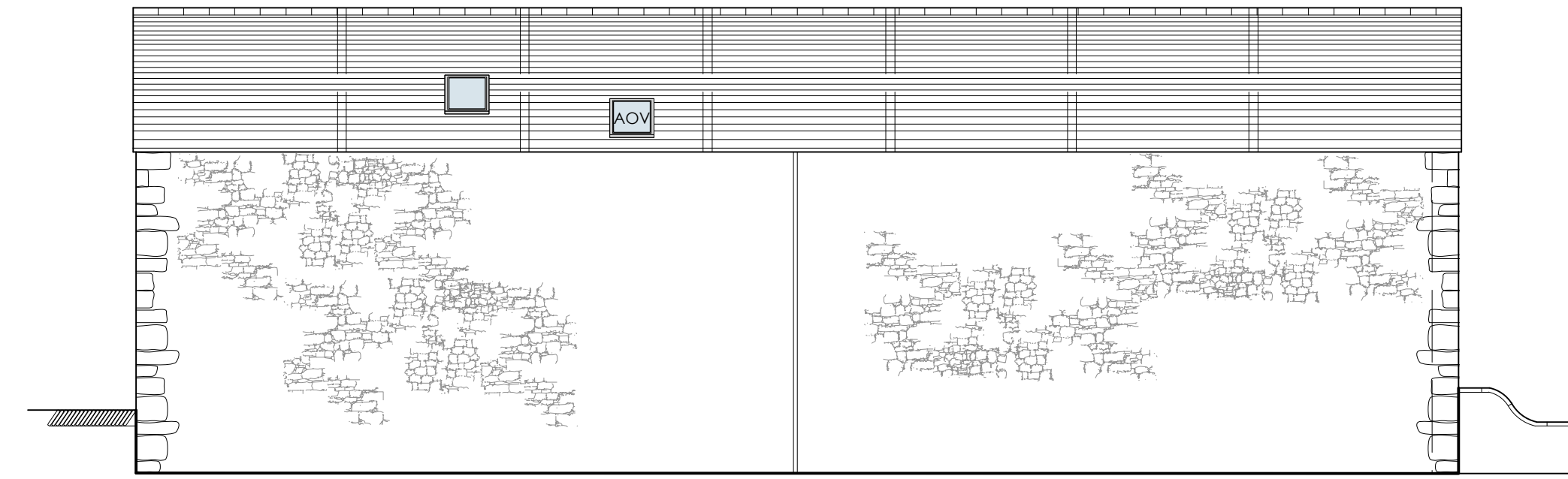




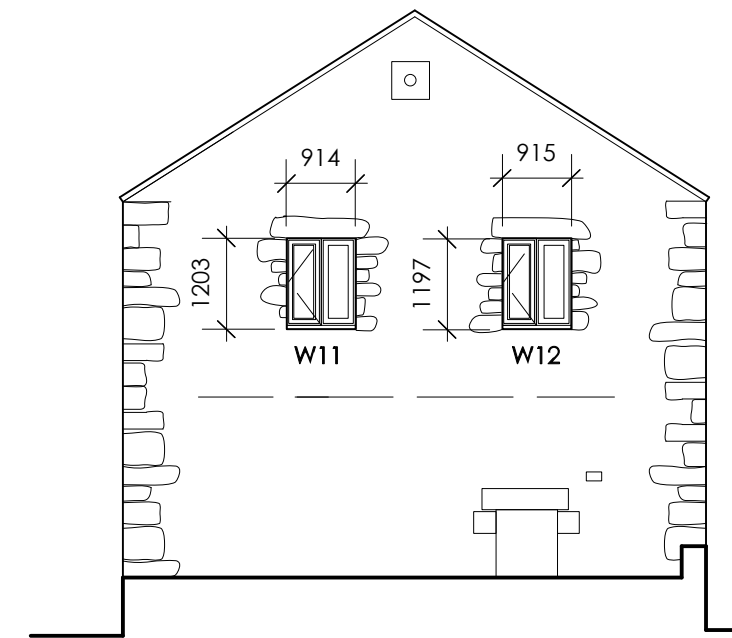
REAR (ROADSIDE) ELEVATION



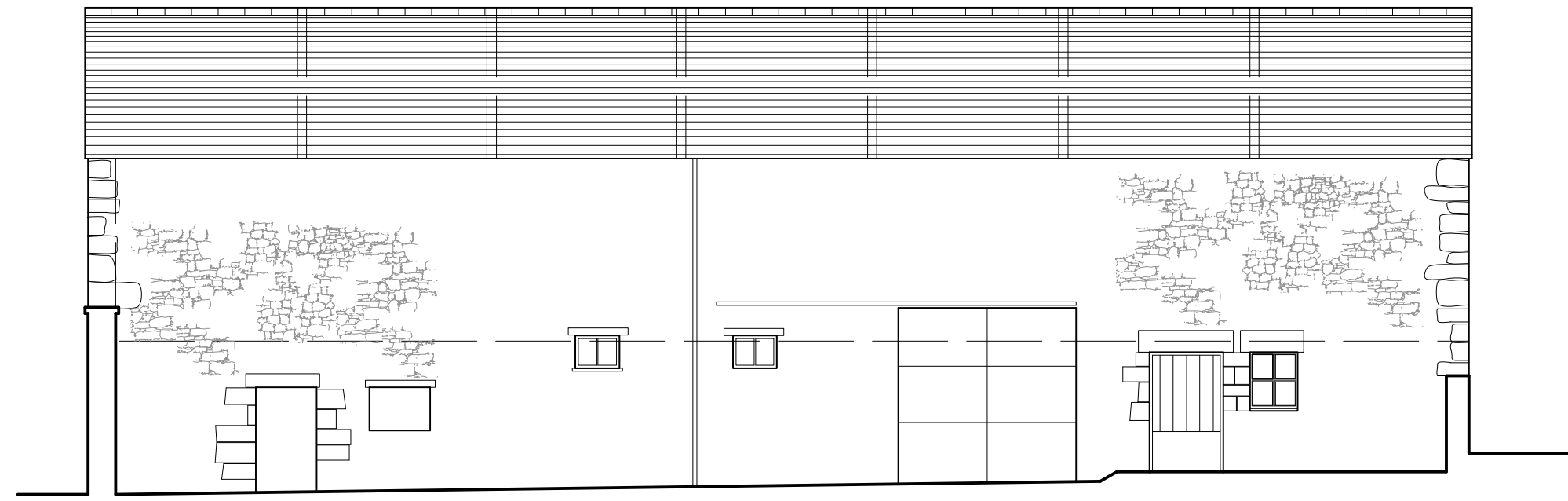
GABLE ELEVATION



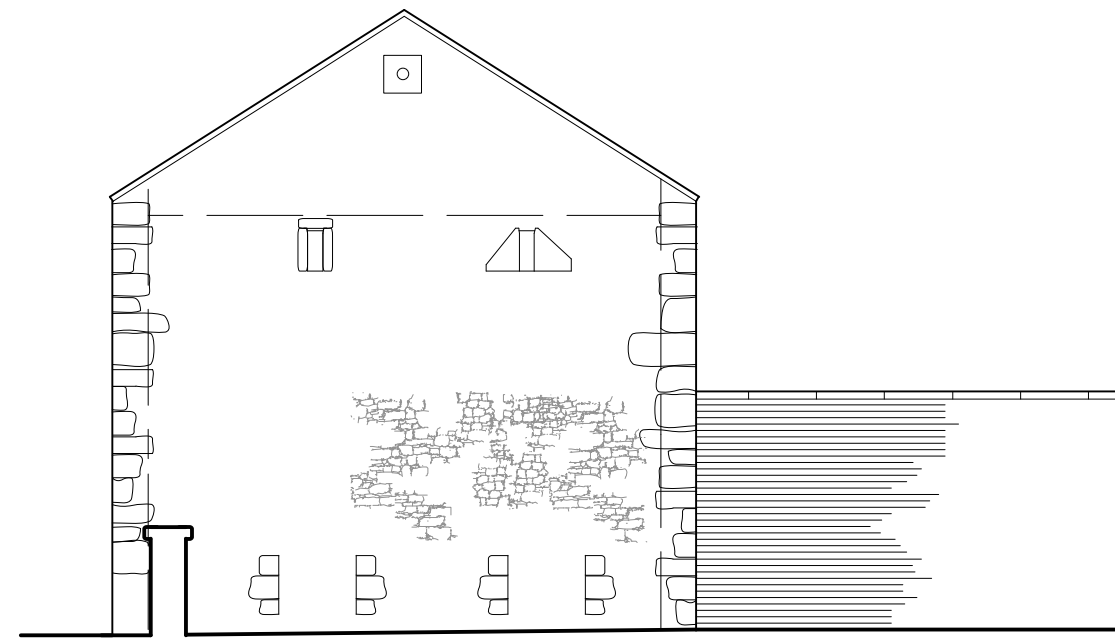
WEST (ROADSIDE) ELEVATION



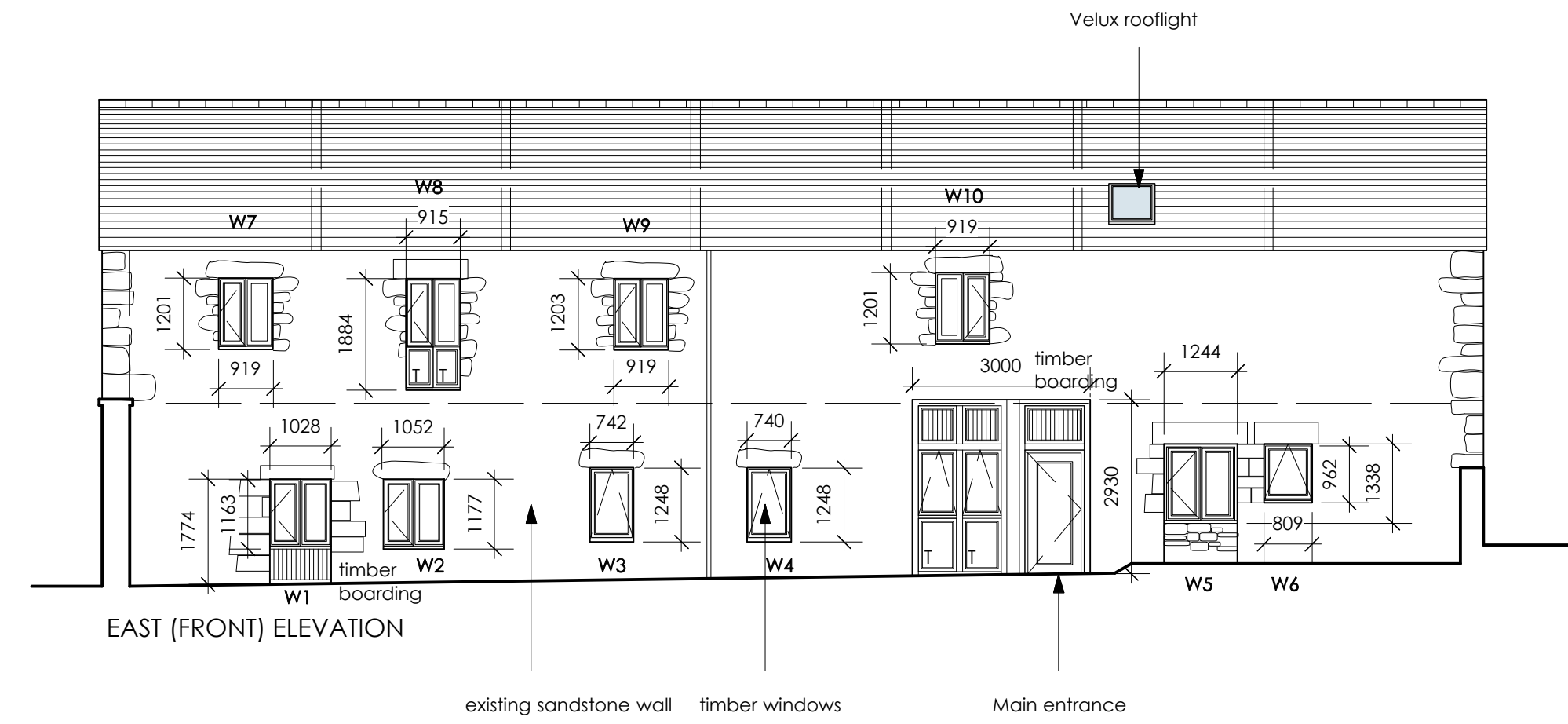
NORTH ELEVATION



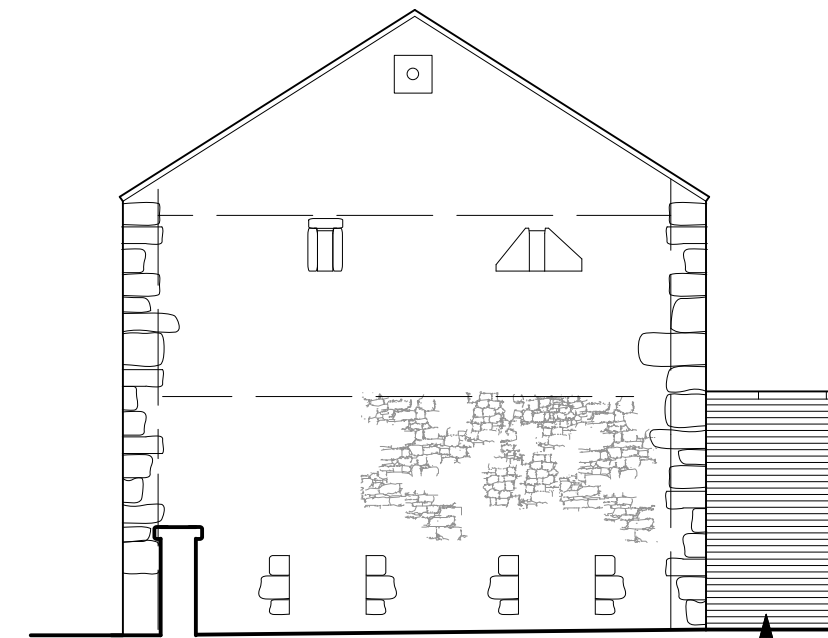
FRONT ELEVATION



GABLE ELEVATION

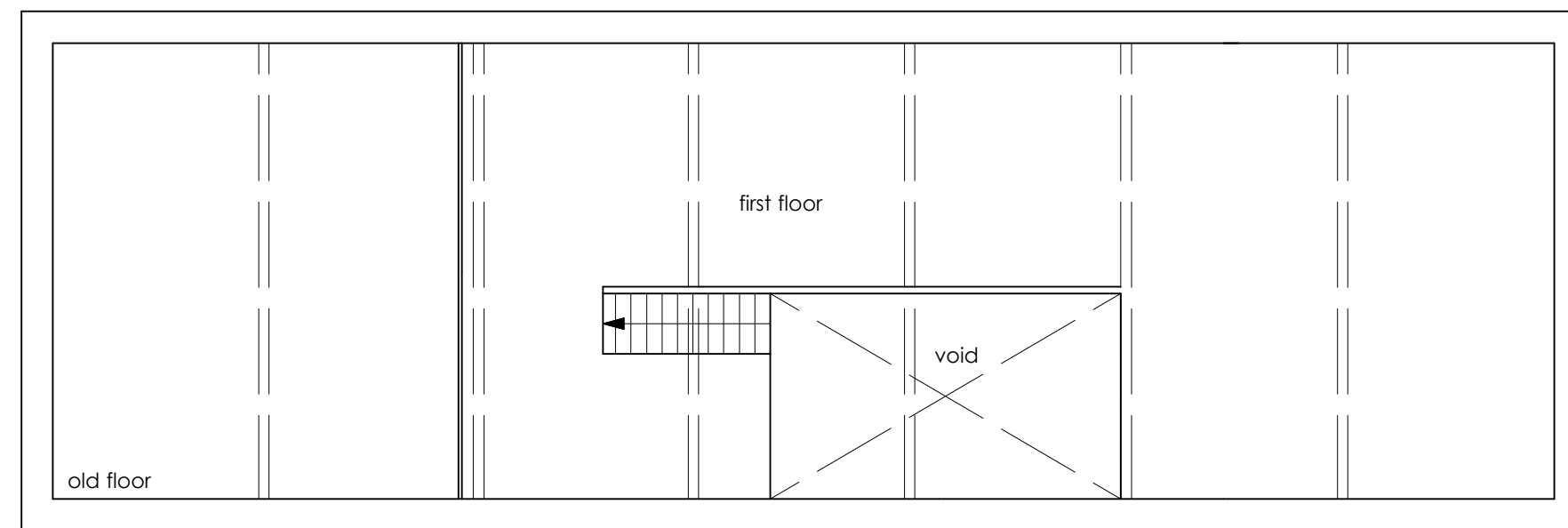


EAST (FRONT) ELEVATION

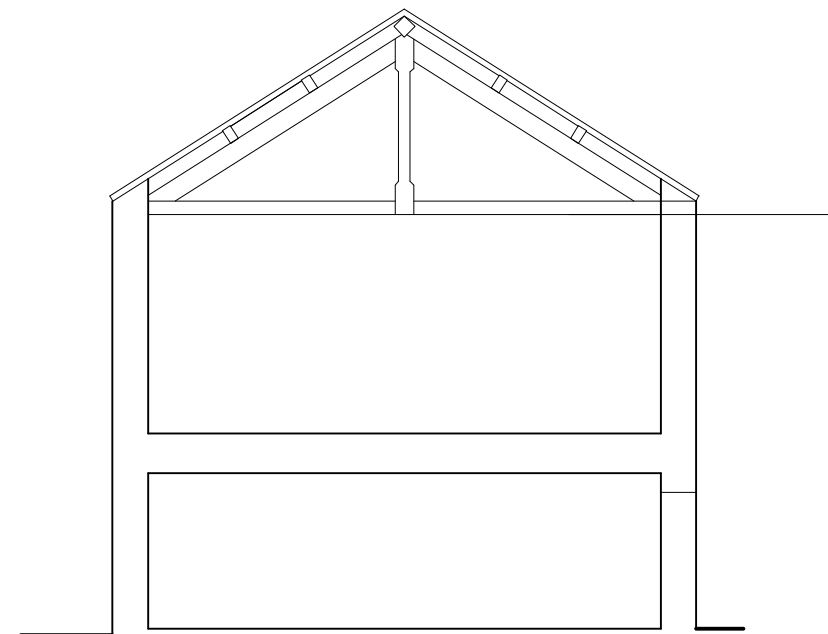


SOUTH ELEVATION

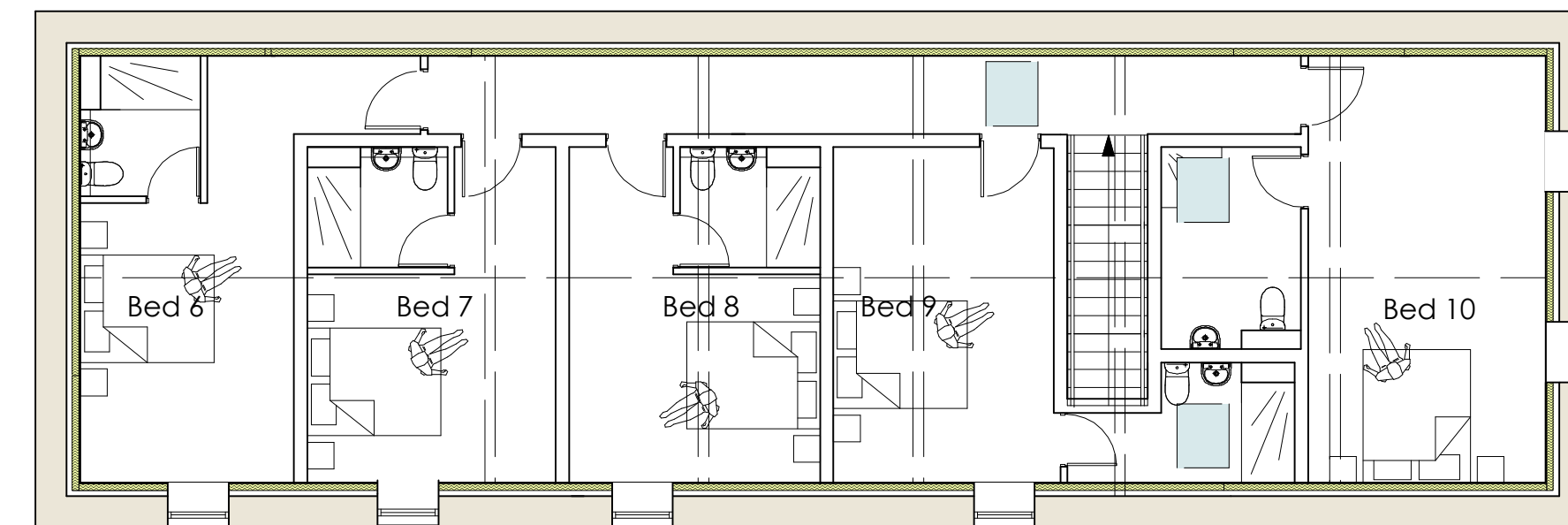
new acces through boundary wall subject to separate Listed Building Consent application



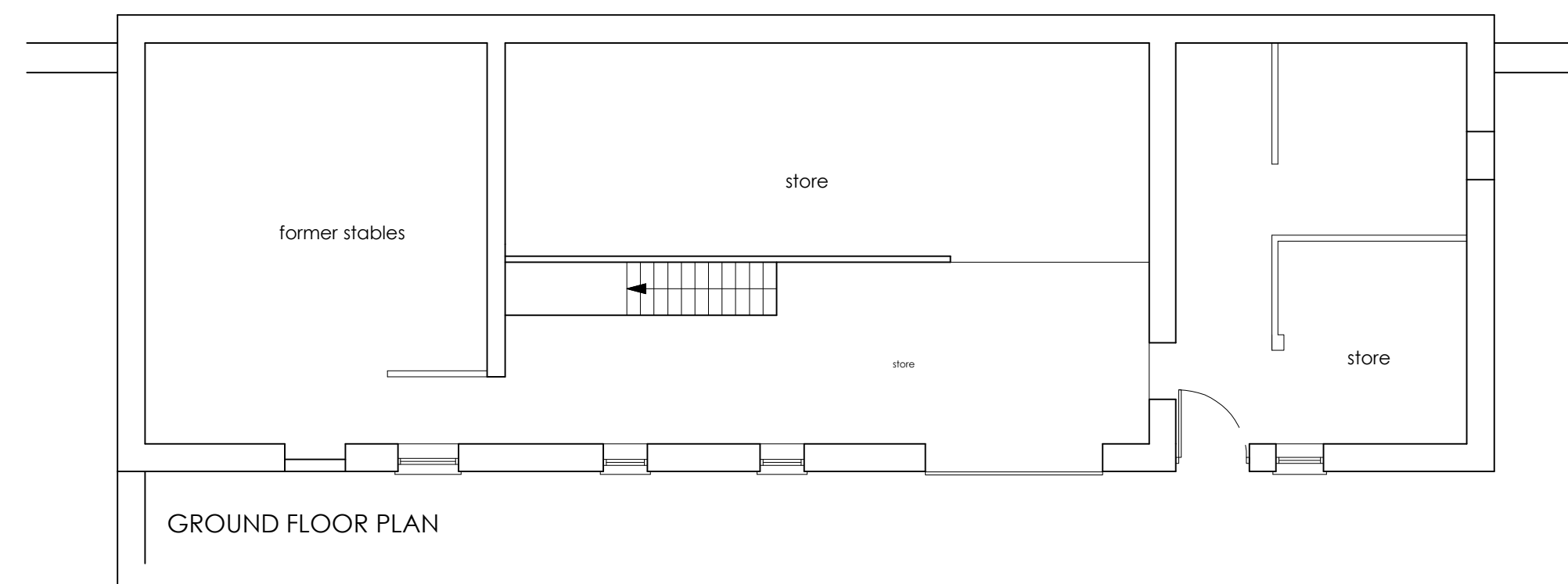
FIRST FLOOR PLAN



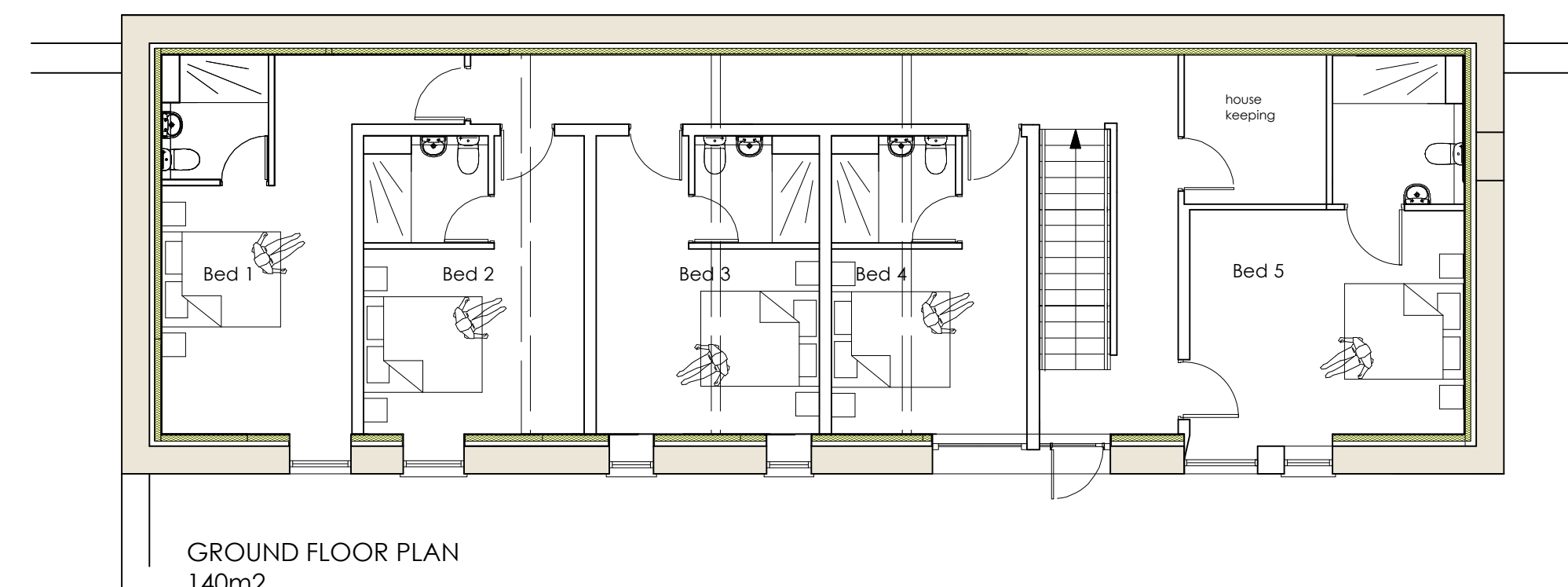
CROSS SECTION



FIRST FLOOR PLAN



GROUND FLOOR PLAN



GROUND FLOOR PLAN
140m2

EXISTING

PROPOSED

Issue -

FOR PLANNING

Client -

Sella Park Country House Hotel

Project -

New Residential Bedrooms

Location / Postcode / what3words

Sella Park, Calderbridge
cases.yacht.forgotten

Drawing Title - Window Sizings

Job No - **1377** Dwg No - **05** Rev : -

DATE : 1 August 2023 SCALE : 1: 50 Paper A1



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APPENDIX II - RELEVANT LEGISLATION

All British bat species are given special protection within England by their inclusion on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

- As a result, it is 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's roosting place (even if bats are not occupying a roost at the time);
- Possess or advertise, sell or exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

With specific reference to the offence of disturbance, Regulation 41(1) of the Conservation of Habitats and Species Regulations 2017 (as amended) states that a person commits an offence if they:

"...deliberately disturb wild animals of any such species [i.e. a European Protected Species] in such a way as to be likely significantly to affect:

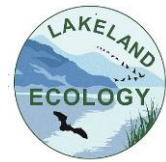
(i) the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or

(ii) the local distribution or abundance of that species".

Where development will result in damage to, or obstruct access to, any bat roost (whether occupied or not) or risks harming or significantly disturbing bats, a European Protected Species Mitigation Licence (EPSML) is required from Natural England to allow the development to proceed.

Bats are also afforded more general protection in England (and Wales) within the Natural Environment and Rural Communities Act (NERC) 2006. This imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, *"...to have due regard, so far as is consistent with the proper exercise of those functions, to the*



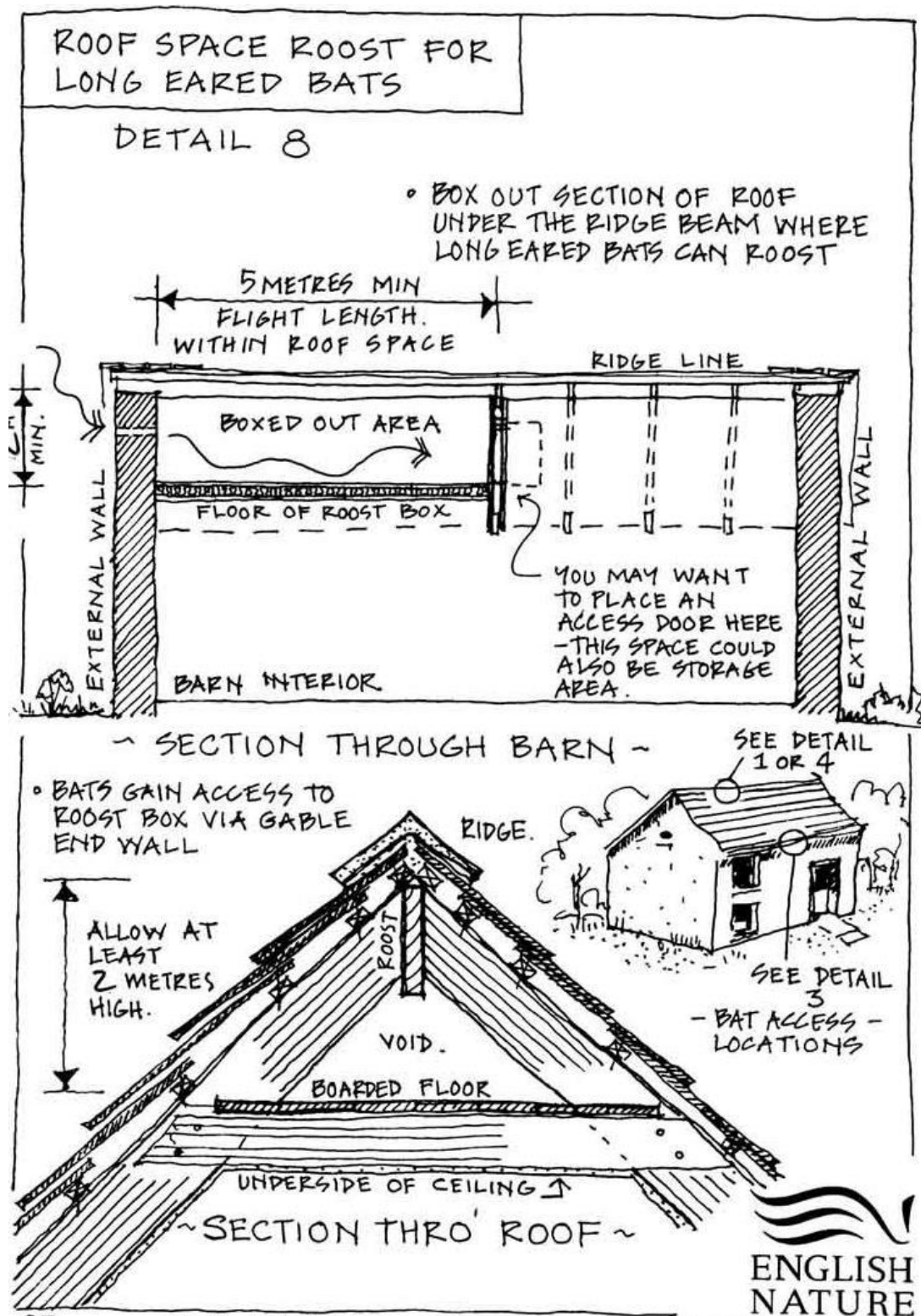


purpose of conserving biodiversity” [Section 40 (1)]. It notes that “conserving biodiversity includes restoring or enhancing a population or habitat” [Section 40 (3)].

All nesting birds, their nests (whilst being built or in use), eggs and dependent young, are protected from disturbance by the Wildlife and Countryside Act 1981. Barn owls are also listed under Schedule 1 of the Wildlife and Countryside Act, which awards additional protection from disturbance during the breeding season.



APPENDIX III- ROOF SPACE ROOST FOR LONG EARED BATS



SP

The above information is for guidance only and may not be appropriate in all circumstances, if in doubt seek professional advice.
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