Ecological Impact Assessment at Pont y Meibion, Llanarmon Road, Glyn Ceiriog, Llangollen LL20 7HS, On 29th July, 11th, 12th and 14th August and 4th and 9th September 2024

Report Completed: 2nd December 2024
Ref: PON290724

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1. Summary

The purpose of the report is to assess the potential ecological impacts of proposed work at Pont y Meibion and advise on any mitigation measures to comply with local planning policy and government legislation.

The proposed scheme involves the renovation and repairs to a set of adjacent barns and addition of dormers to a dwelling, also the construction of a garage and drive, and the demolition of a large shed to be replaced by a smaller one.
The buildings and adjacent land were examined to establish the presence of or evidence of use by protected species of animals. A visual inspection was carried out to assess the potential or actual use by bats and birds, of the exterior and interior of the buildings. Dusk emergence surveys were carried out.
No bats were found to be roosting in the buildings and no evidence of use by bats was found. Eleven swallow nests were found which were currently in use.

If any birds should gain access to the building and begin constructing nests during the development, then the work in that area must stop until the young have left the nests.
Bat and bird boxes are recommended as enhancement and eleven artificial swallow nests should be provided as compensation for those to be destroyed. A wildflower area will be planted to compensate for the loss of a small area of lawn.

If the recommended mitigation, compensation and enhancement measures are taken there should be minimal impact on the conservation status or danger of harm to any species and no net loss of roosting sites.

2. Introduction

Susan Worsfold BSc (Hons) ACIEEM is an experienced wildlife surveyor, licensed bat worker and voluntary bat roost visitor. Registration number CLS0895 2015-12555-CLS-CLS (CL15 Bat Roost Visitor Level 1) and registration number CLS 0895 2015-12556-CLS-CLS (CL18 Bat Survey Level 2) (Natural England) and S086005/1 (Natural Resources Wales);
Licensed great crested newt worker, registration number 2016-19947-CLS-CLS (NE) and S086057/1 (NRW)
Carole Jones is in training.
This report was commissioned by Frederick Carter Architectural Services at the site address.
The site comprises a set of barns and a dwelling surrounded by hard standing and short vegetation.
The proposed scheme involves the renovation and repairs to a set of adjacent barns and conversion to accommodation and office space, and the addition of dormers to a dwelling, also the construction of a garage and drive, and the demolition of a large shed to be replaced by a smaller one
The purpose of the report is to identify and address any significant ecological effects which are likely to occur as a result of the proposed work. This is necessary to comply with local planning policy and government legislation and avoid any offence being committed. Also, to describe any compensation, mitigation and enhancement measures which should be taken.

3. Methodology

3.1. Scope of the Assessment

The report incorporates a bat roost and nesting bird assessment, while also searching for use or potential use by any rare, threatened, endemic and non-native invasive species which might be associated with such a site in accordance with:
The Conservation of Habitats and Species Regulations 2017 and listed in:
Schedule 2. European protected species of animals
Schedule 5. European protected species of plants
The protection of Badgers Act 1992
Protected species which might be associated with such a site include bats and birds.
Dusk emergence surveys were carried out in accordance with *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)* (Collins 2016) and the Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys (*Bat Conservation Trust, May 2022*)

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3.3. Field Survey

The building was examined to establish the presence of or evidence of use by protected species of animals. A risk assessment was made before entering. A visual inspection was carried out to assess the potential or actual use by bats and birds, of the exterior and interior of the buildings. They were searched systematically for any signs of bats, including droppings, rub marks and urine stains at entrances to roosts and insect remains, such as moth or butterfly wings. Crevices were checked where possible.
Powerful lamps (LED Lenser H14 and P7) were used for examination under eaves. Binoculars were used to examine parts which were not otherwise accessible. Photographs were taken of all areas and those of relevance are shown in the appendices.

The preliminary survey was carried out on 29th July 2024 by Susan Worsfold.
Two sets of dusk emergence surveys were carried out by Susan Worsfold and Carole Jones, to cover all aspects of the building where potential roost features were identified.
These were done in accordance with *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)* (Collins 2016) and the Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys (*Bat Conservation Trust, May 2022*)
Frequency division detectors were used to record any bat sounds in and around the buildings for later analysis on the computer. These were Peersonic RPA3. The whole building was in view of the observer and infrared night vision aids (NVAs) were used alongside observers or to provide extra detail on areas of interest. These were Nightfox Whisker night vision goggles and Canon XA20 camcorder mounted on tripods, with Nightfox XB5 IR torches.

4. Baseline Ecological Conditions/Results

4.2 Habitats

Site: Rural, pastoral. The buildings are surrounded by hard standing and short vegetation on all sides.
House: In use as a dwelling. Two storeys. Walls were of stone with no cavity. Doors and windows were intact. The roof was of slate, pitched, with no missing or broken slates. There were no verge boards or soffits. Moderate potential for bat use.
Barn: In use as storage. Two storeys. Walls were of stone with no cavity. Some doors were intact (wood) while others were not hung. Windows were unglazed The roof was of slate, pitched, with some gaps between slates. Unlined, with a timber frame. No verge boards or soffits. Small stone extension at the south gable end with a corrugated steel roof. Moderate potential for bat use.
Outbuilding: In use as storage. Stone walls, unlined corrugated steel roof. Open windows and doors. Moderate potential for bat use.
Shed: In use as storage. Open on two sides. Wood lap wall on east side. Asbestos or fibre cement roof with steel and wood frame. Negligible potential for bat use.

4.3 Species and Species Groups

Birds
Four swallow nests were found in the outbuilding and seven in the barn. Swallows were using these at the time of the surveys.

Bats
There was no evidence of use by bats.
No bats were seen to emerge from any building. There was little bat activity during most of the surveys.

5. Description of the Development

The proposed scheme involves the renovation and repair of the barns and conversion to residential and office space which will involve intrusive work to the roofs and walls and loss of potential roost sites internally. Also, addition of two dormers and a single storey extension to the house which will involve removal of some roof slates and intrusive work to the walls. Also, construction of a garage and drive which will involve the loss of approximately 150 m^2 lawn. The shed will be demolished and a smaller replacement constructed in the same area.

6. Assessment of Effects and Mitigation Measures

Designated Sites:
It is not considered that the proposal will have any significant impact on any designated sites due to the small scale of the development and distance from the sites.
Habitats:
No priority habitat is affected by the proposal. A small amount of low biodiversity vegetation is to be lost.

Species:

Birds
If any birds should gain access to the buildings and begin constructing or occupying nests during the work, then work in that area must stop until the young have left the nests.

Bats
The proposed work will not lead to the loss of any roosting sites or access, nor disturbance to individuals.
The site is suitable for foraging and commuting bats. Three species of bats were recorded externally.

Residual Effects
None anticipated.

8. Compensation

11 artificial swallow nests to be placed inside the new shelter. A wildflower area will be created which will be approximately 30 m^2. This will be planted with a native seed mix.

8. Enhancement Recommendations

A crevice dwelling bat box to be fitted externally at the south gable end of the barn, e.g. Vivara Low Profile WoodStone Bat Box. Further information is given in the bat box information pack available at https://www.bats.org.uk/our-work/buildings-planning-and-development/bat-boxes.
One woodcrete nest suitable for small birds such as robin, blackbird, tit species and sparrow to be fitted to the north gable end of the barn:
House Sparrow Terrace - Wooden (or woodcrete) nest box with 3 sub-divisions to support 3 nesting pairs. To be placed under the eaves. Entrance holes: 32mm diameter. Dimensions: H310 x W370 x D185mm. Also suitable for tits, redstarts and spotted flycatchers. Place at least 2 m from the ground.

9. Ecological Constraints

None identified.

10. Monitoring

Not considered necessary.

11. Conclusions

No bats were seen to emerge from the buildings and no evidence of use of the building by bats was found. If the recommended mitigation and enhancement measures are taken there will be no net loss of roosting or nesting sites, nor any danger of harm to any species

12. Bibliography

Bat Conservation Trust available at: http://www.bats.org.uk

BCT and ILP Guidance Note 8 Bats and Artificial Lighting available at: https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

Collins J. (Ed) (2016) *Bat surveys for professional ecologists: Good Practice Guidelines (3rd Edn)*. The Bat Conservation Trust, London

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Google Maps available at: https://maps.google.com/maps

Magic Maps available at: http://magic.defra.gov.uk

Mitchell-Jones, A. J. (2004) *Bat Mitigation Guidelines,* Peterborough: English Nature

Mitchell-Jones, A. J. and McLeish, A. P. (2004) *Bat Worker's Manual,* Peterborough: Joint Nature Conservation Committee

Natural Resources Wales available at: https://naturalresources.wales/?lang=en

UK BAP Priority Habitats available at: jncc.defra.gov.uk

Wildlife and Habitat Conservation available at: https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation

Appendix 13.1: Activity Surveys

Survey Conditions

Date	Sunset/ Sunrise	Start Time	End Time	Temp. Start °C	Temp. End °C	Cloud %	Wind 0-6	Rain
11/8/24	20:46	20:30	22:15	19	18	10	0	None
12/8/24	20:44	20:30	22:15	14	9	30	0	None
14/8/24	20:41	20.25	22:10	13	12	5	0	None
4/9/24	19.53	19:40	21:25	12	10	95	0	None
9/9/24	19.41	19:25	21:10	12	11	40	1	None

11/8/24

Observer or area	*Equipment*
Sue Worsfold (SW) south east corner barn	Peersonic RPA3 + Canon XA20 NVA
Carole Jones (CJ) south west corner outbuilding	Peersonic RPA3 + Canon XA20 NVA

Bats recorded:
Externally:
20.58 Common pipistrelle (*Pipistrellus pipistrellus*)
Also Soprano pipistrelle (*Pipistrellus pygmaeus*)

Bats observed:
20.58 1 bat flew around corner (common pipistrelle)
21.13 1 bat flew N to S
Subsequent intermittent occasional foraging near building

12/8/24

Observer or area	*Equipment*
Sue Worsfold (SW) north west corner barn	Peersonic RPA3 + Canon XA20
Carole Jones (CJ) south west corner barn	Peersonic RPA3 + Canon XA20

Bats recorded:
Externally:
22.06 Soprano pipistrelle (*Pipistrellus pygmaeus*)

Bats observed:
21.10 2 bats came over roof E to W

14/8/24

Observer or area	*Equipment*
Sue Worsfold (SW) south east corner house	Peersonic RPA3 + Nightfox Whisker
Carole Jones (CJ) north east corner outbuilding	Peersonic RPA3 + Canon XA20

Bats recorded:
Externally:
None

Bats observed:
21.09 1 bat flew over roof of barn
21.25 1 bat came over roof then flew E

4/9/24

Observer or area	*Equipment*
Sue Worsfold (SW) south east corner barn	Peersonic RPA3 + Canon XA20 NVA
Carole Jones (CJ) north west corner barn	Peersonic RPA3 + Canon XA20 NVA

Bats recorded:
Externally:
21.04 Common pipistrelle (*Pipistrellus pipistrellus*)
Also Myotis, proably Daubenton's (*Myotis daubentonii*)

Bats observed:
20.21 1 bat came from the S and flew N, then occasional foraging nearby for 20 minutes.
20.42 1 bat came from the W and flew E

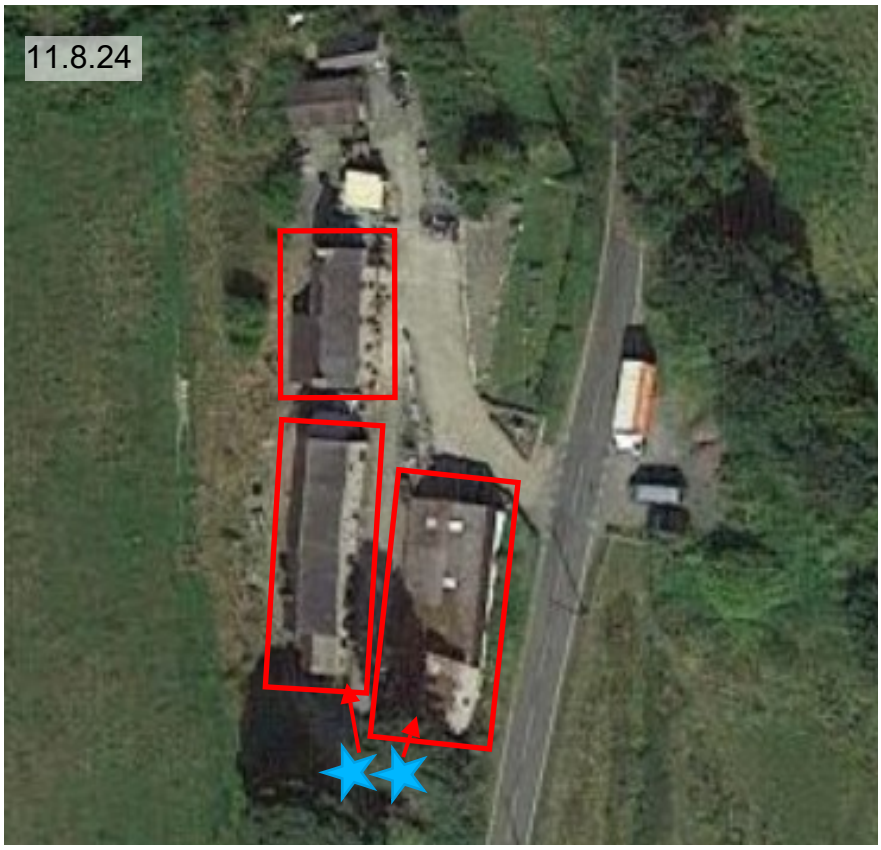
9/9/24

Observer or area	*Equipment*
Sue Worsfold (SW) south east corner house	Peersonic RPA3 + Nightfox Whisker
Carole Jones (CJ) north east corner outbuilding	Peersonic RPA3 + Canon XA20

Bats recorded:
Externally:
20.08 Common pipistrelle (*Pipistrellus pipistrellus*)
Also Myotis, proably Daubenton's (*Myotis daubentonii*)

Bats observed:
None

Appendix 13.2: Aerial Photograph Showing Position of Observers



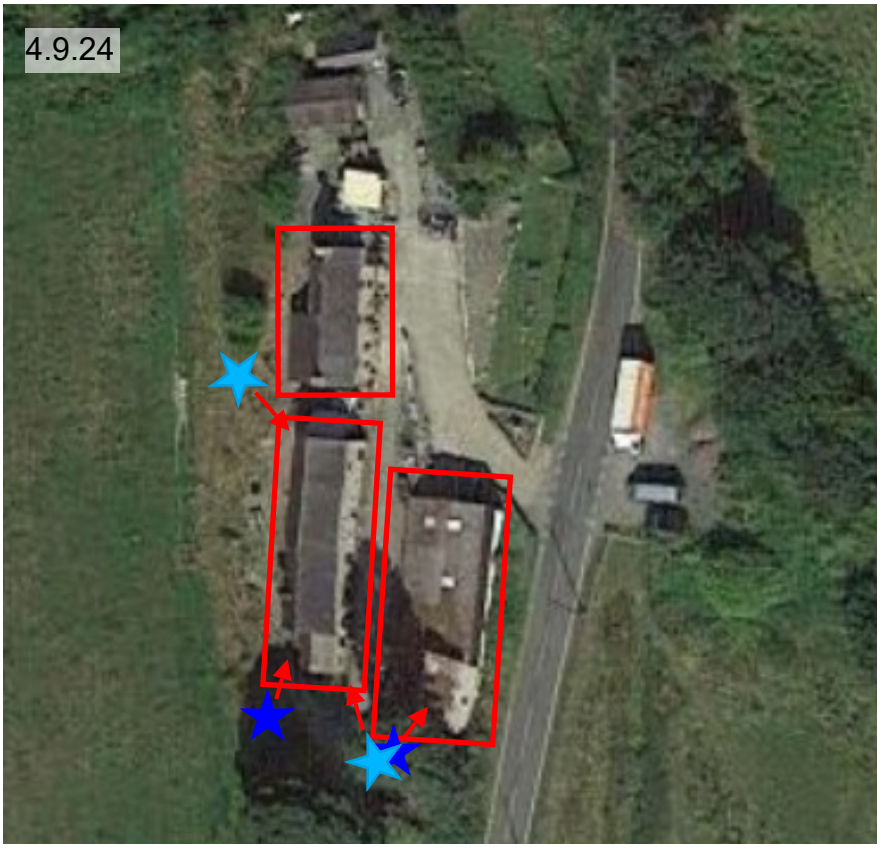
N

NVA

Bat detector, NVA and observer

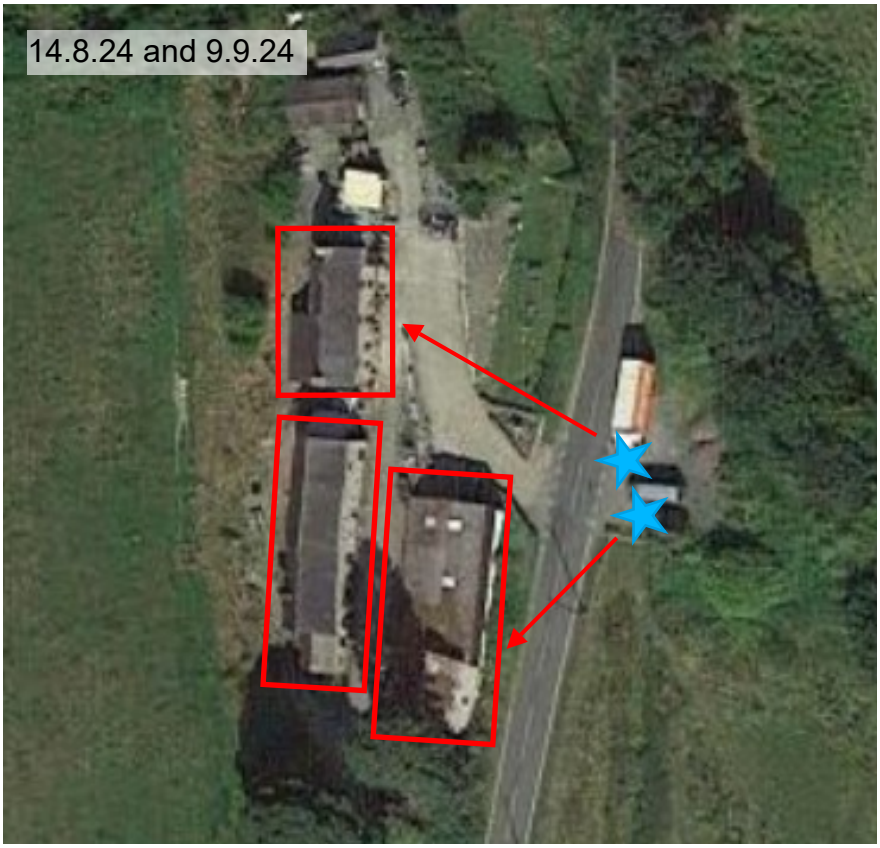


Appendix 13.2: Aerial Photograph Showing Position of Observers



NVA

Bat detector, NVA and observer



Appendix 13.3: Photographs













Appendix 13.3: Photographs







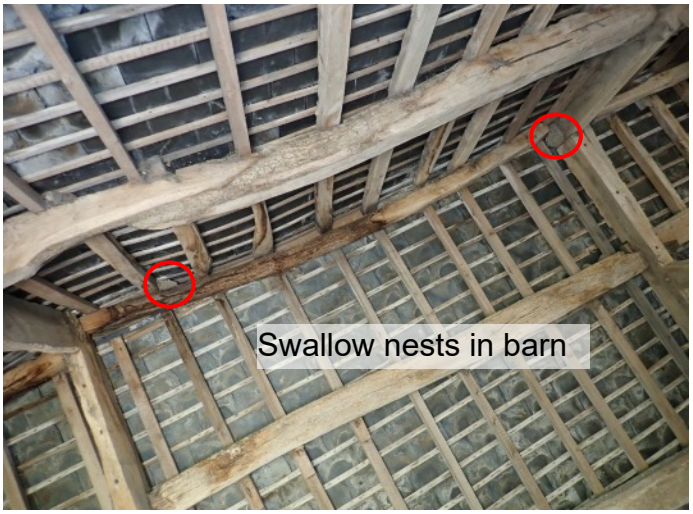
Swallow nests in outbuilding

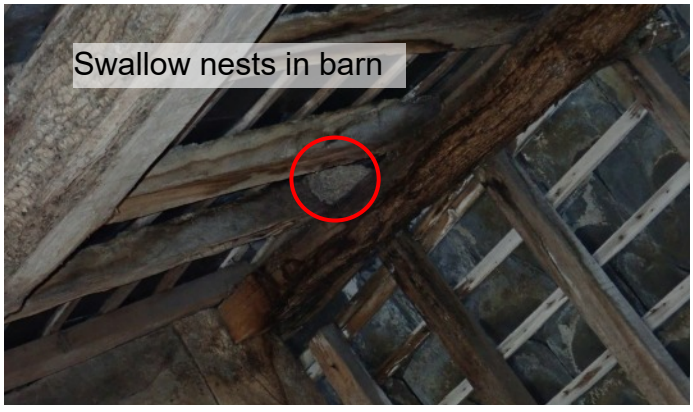












Appendix 13.3: Photographs


Barn


Barn


Barn


Swallow nests in barn




Barn


Barn

Appendix 13.3: Photographs





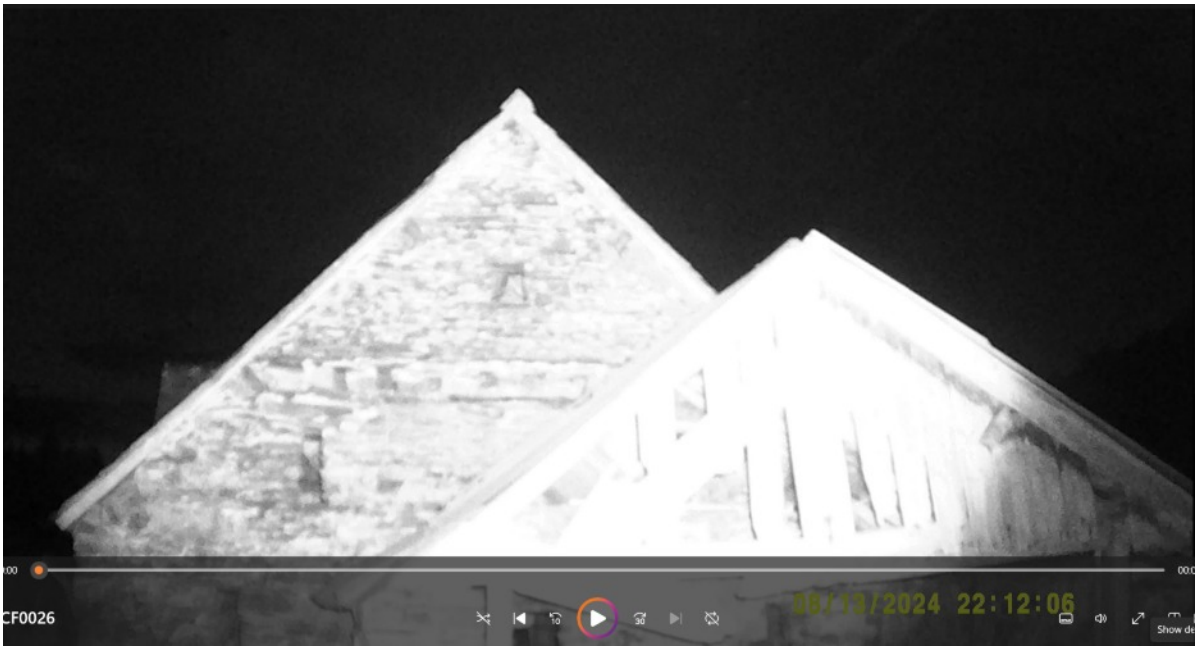




Appendix 13.3: Photographs From NVAs

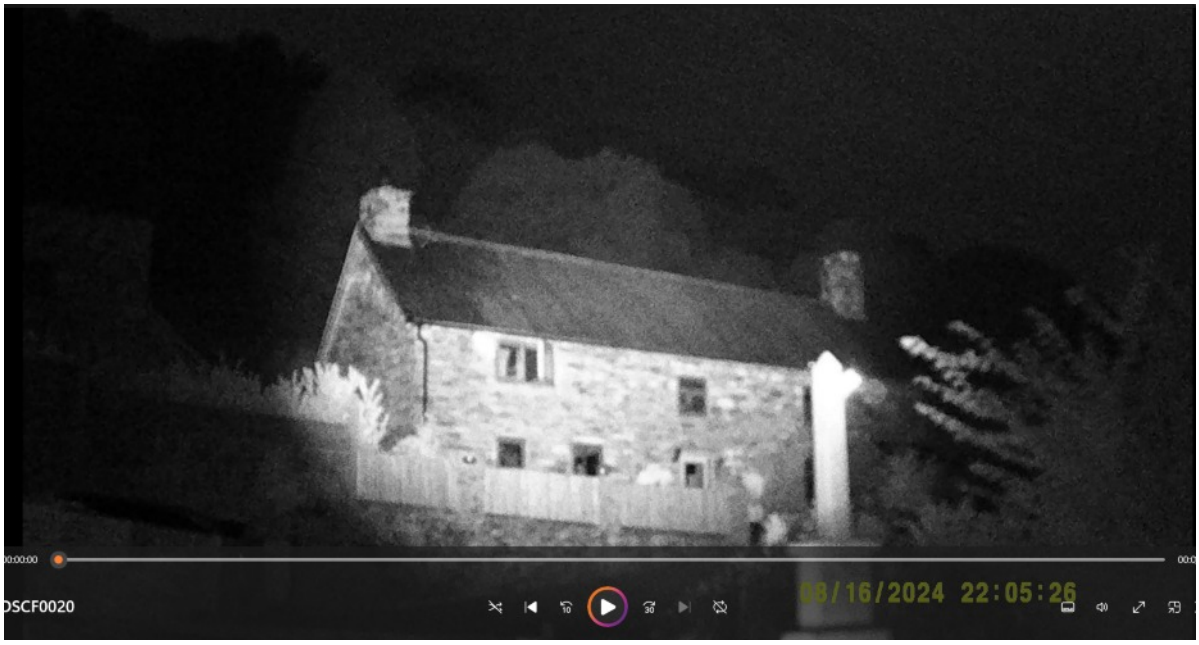






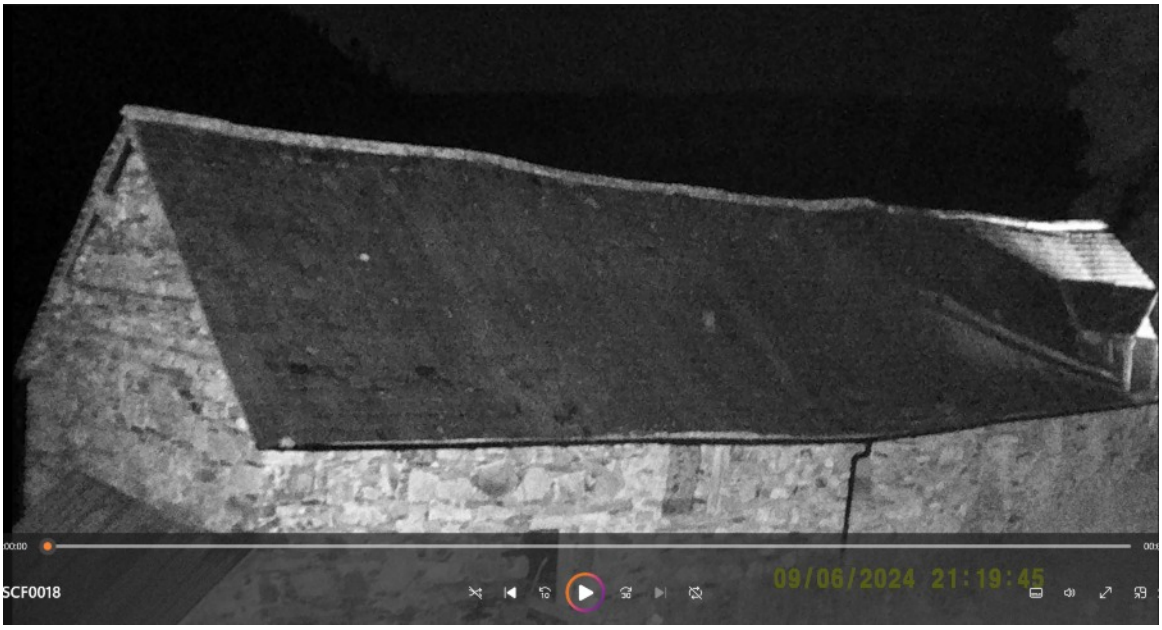
Appendix 13.3: Photographs From NVAs







Appendix 13.3: Photographs From NVAs



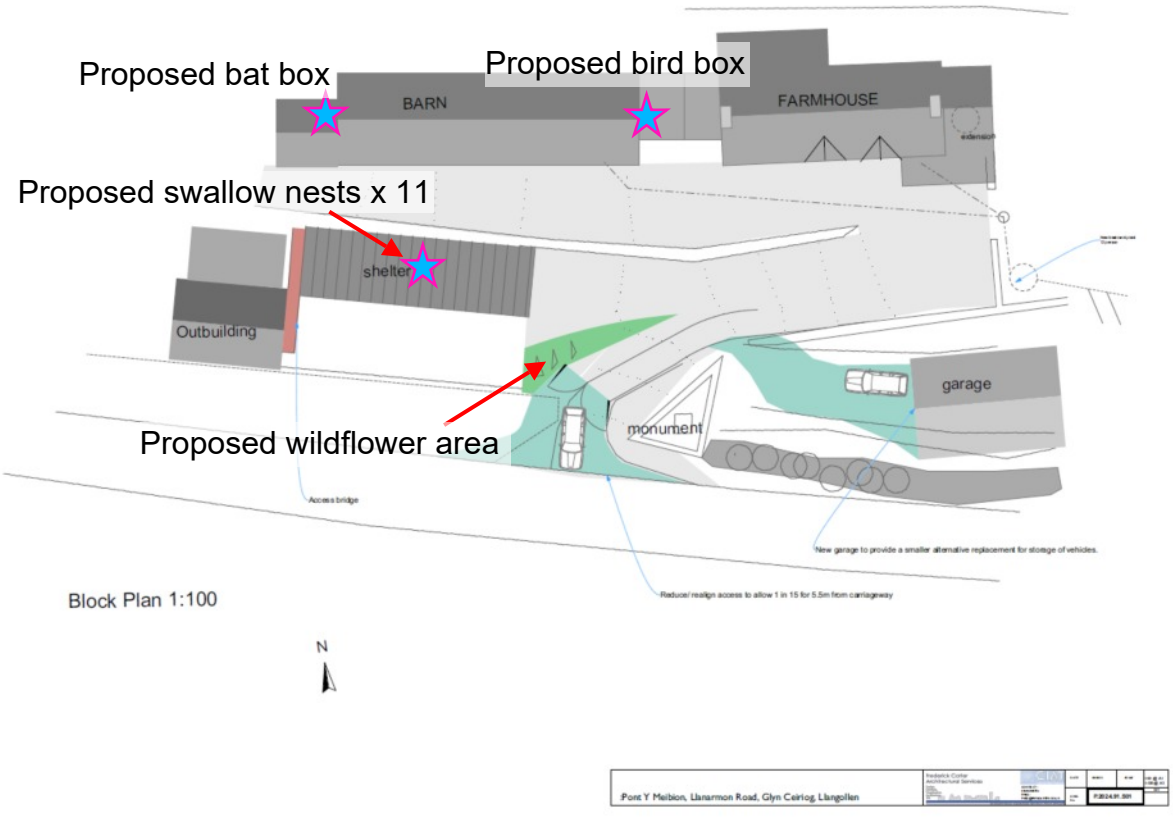




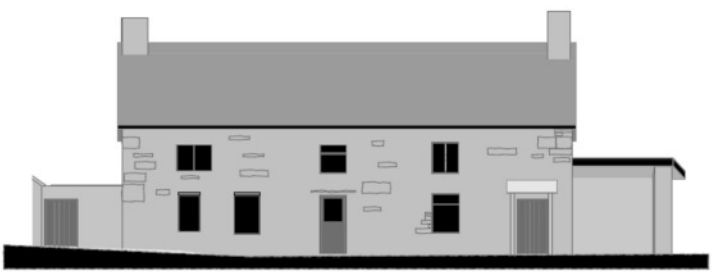
Appendix 13.4: Site Plan as Existing



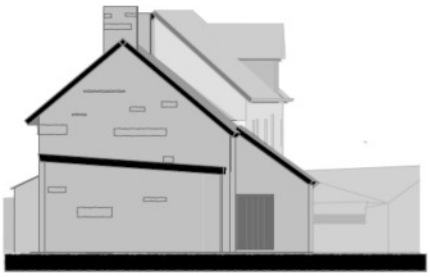
Appendix 13.4: Site Plan as Proposed



Appendix 13.4: Elevations as Existing



Farmhouse Elevation

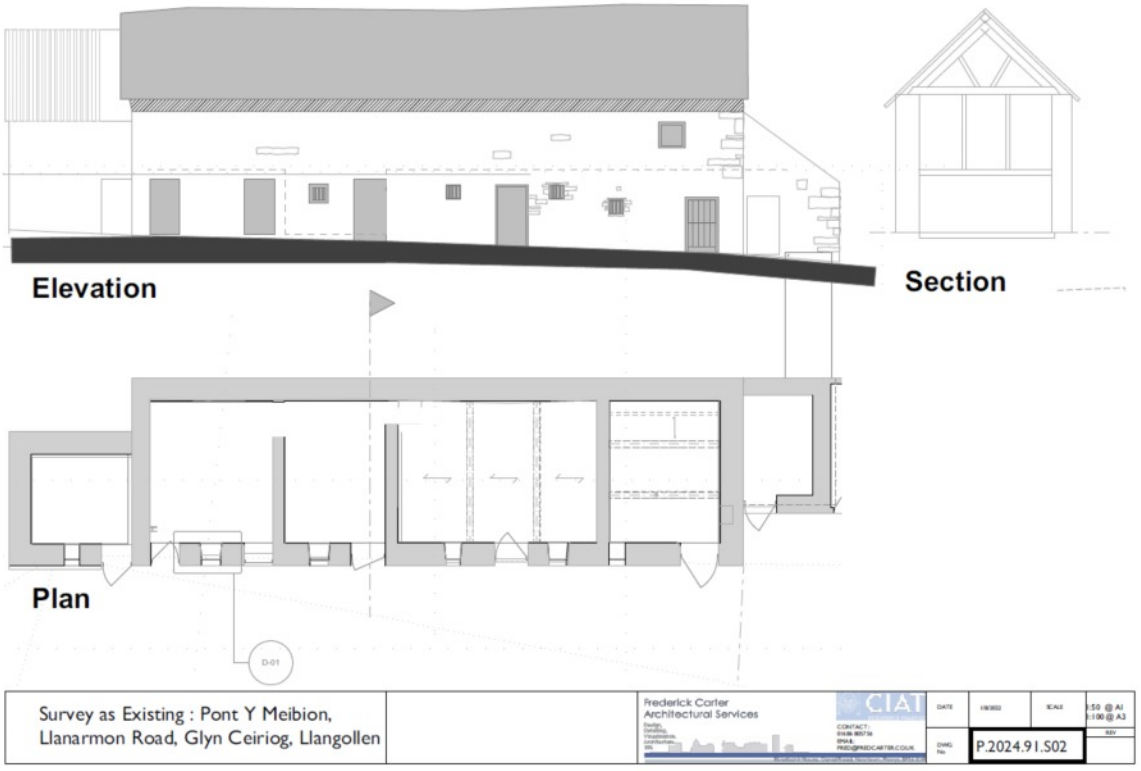


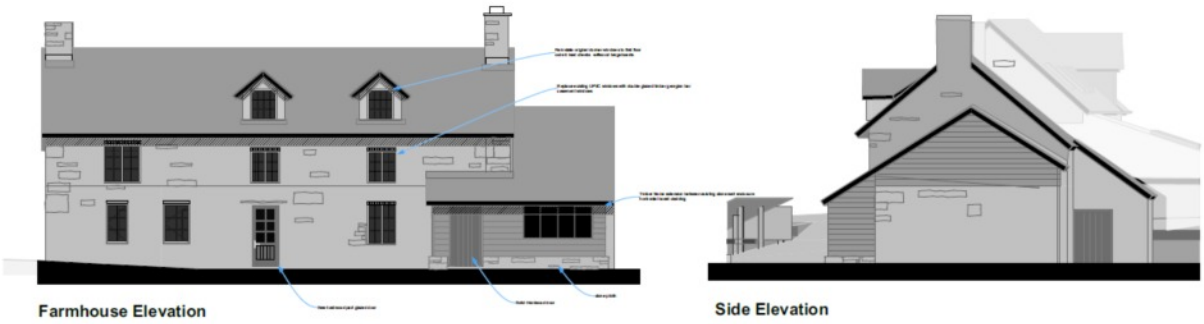
Side Elevation



Roadside Elevation

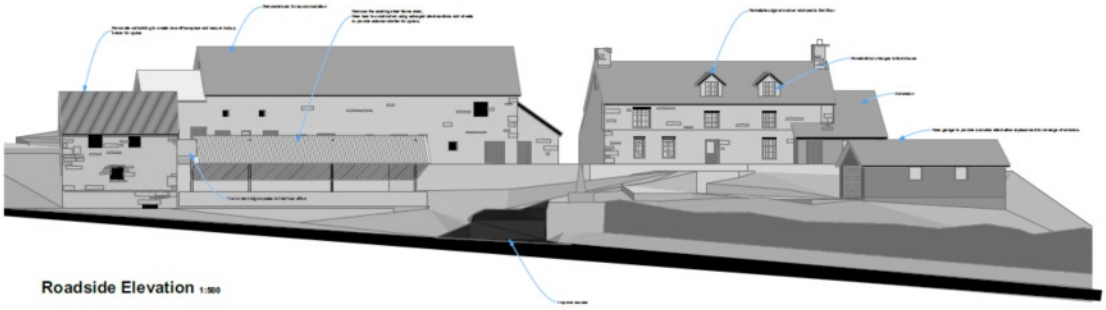
Survey as Existing
Pont Y Meibion, Llanarmon Road, Glyn Ceiriog, Llangollen





Farmhouse Elevation

Side Elevation



Roadside Elevation 1:100





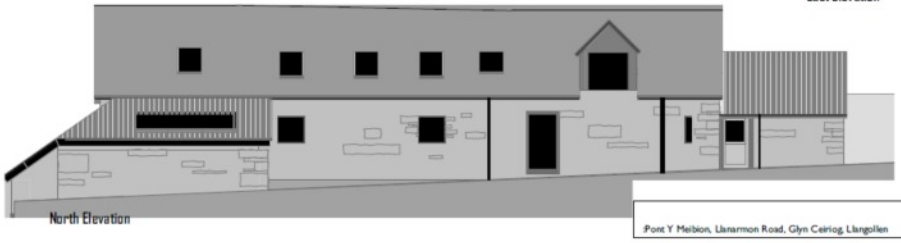
South Elevation



West Elevation



East Elevation



North Elevation



Appendix 13.5: Legislation Relating to Bats

All species of bats in the UK are European Protected Species (EPS). It is against the law to damage or destroy a bat's breeding site or resting place (known as a roost), or deliberately to capture, kill, injure or disturb a bat

Bats are the only mammals which can fly. They are warm blooded, they suckle their babies and are intelligent, social animals. British bats feed only on insects, of which they consume vast numbers to sustain their energetic lifestyles. A pipistrelle bat can eat up to 3000 midges in a single night!

We have 12 species of bat breeding in Wales. Many of these have suffered severe declines, not just in Britain but throughout Europe.

All British bat species are protected under the Conservation of Habitats and Species Regulations 2017, known as the 'Habitats Regulations'. Bats have a unique relationship with humans, sometimes sharing our homes for part of the year. For this reason, Natural Resources Wales (NRW) deals with many hundreds of bat enquiries each year from householders.

Under the Habitats Regulations, it is an offence if you:

deliberately capture, injure or kill any wild animal of an EPS
deliberately disturb wild animals of any such species
damage or destroy a breeding site or resting place of such an animal
Disturbance includes, but is not limited to, any disturbance which is likely:

1. to impair their ability –
to survive, to breed or reproduce, or to rear or nurture their young, or
in the case of animals of a hibernating or migratory species, to hibernate or migrate; or

2. to affect significantly the local distribution or abundance of the species to which they belong.

Defra and the Welsh Government will publish a joint guidance document on the interpretation of the offences relating to disturbance, and to damage and destruction of breeding sites and resting places.

There are other offences relating to possession, transport and sale.

NRW issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

If you are a householder and have concerns about bats at your property (other than queries related to planning applications or a development), contact the NRW Enquiry Line for advice, telephone 0300 065 3000

Appendix 13.6: Legislation Relating to Birds

All wild birds, their nests and eggs are protected. It is an offence to intentionally:

- kill, injure or take any wild bird,
- take, damage or destroy the nest of a Golden Eagle, White-tailed Eagle or Osprey (even if disused),
- take, damage or destroy the nest of any wild bird whilst it is in use or being built,
- take, damage or destroy an egg or any wild bird,
- possess any live or dead wild bird or the egg of any wild bird, or any derivative

Many rare birds are listed on Schedule 1, which makes it an offence to intentionally or recklessly:

- disturb a Schedule 1 bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturb dependent young of such a bird

Natural Resources Wales (NRW) issues licences for specific purposes, so that you can undertake legitimate work without breaking the law. See ‘Bird licensing’ for more information.