



Biodiversity Enhancement Scheme at -

Goitre Coed Fach Farm, Goitre-coed Road, Treharris, CF46 5BB

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**Prepared by
Wendy J Larcombe on behalf of I&G Ecological Consulting Ltd**

Contact:

Glyn Lloyd-Jones glyn.igecol@gmail.com 07973 685423
Iestyn Evans iestyn.igecol@gmail.com 07733 214829
Office office.igecol@gmail.com

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Summary

I & G Ecological Consulting Ltd were commissioned to produce a Biodiversity Enhancement Scheme (BES) in support of a planning application for conversion of a barn to dwellings and other associated alterations.

The BES is to include key impacts and mitigation measures to comply with the general principals set out in *Policy 9 of Future Wales (2040)*.

The site is approximately 0.03ha and principally consists of a range of barns/outbuildings with associated yard. Boundary treatments include low stone walls

1. INTRODUCTION

1.1.1 I & G Ecological Consulting were commissioned to produce a Biodiversity Enhancement Scheme in relation to Planning Permission for a barn conversion.

1.1.2 This report is to satisfy requirements for Biodiversity Enhancement and to ensure no detrimental impact on local ecology.

1.1.3 A desk-top study shows the habitats on site as consisting of bare ground, hard-standing, poor semi-improved grassland, amenity grassland, introduced and native shrubs and trees, with small areas of woodland leading to the Afon Taf. See Fig. 1 for Location.

1.1.4 This report presents a Biodiversity Enhancement Scheme to provide habitat and forage for the following:

- Nesting Birds
- Bats
- Hedgehogs
- Invertebrates

1.1.5 The site is located towards the right upon entrance to Goitre Coed Fach Farm, which lies in a wooded area with housing to the north, east and south. See Fig.1 for location plan.

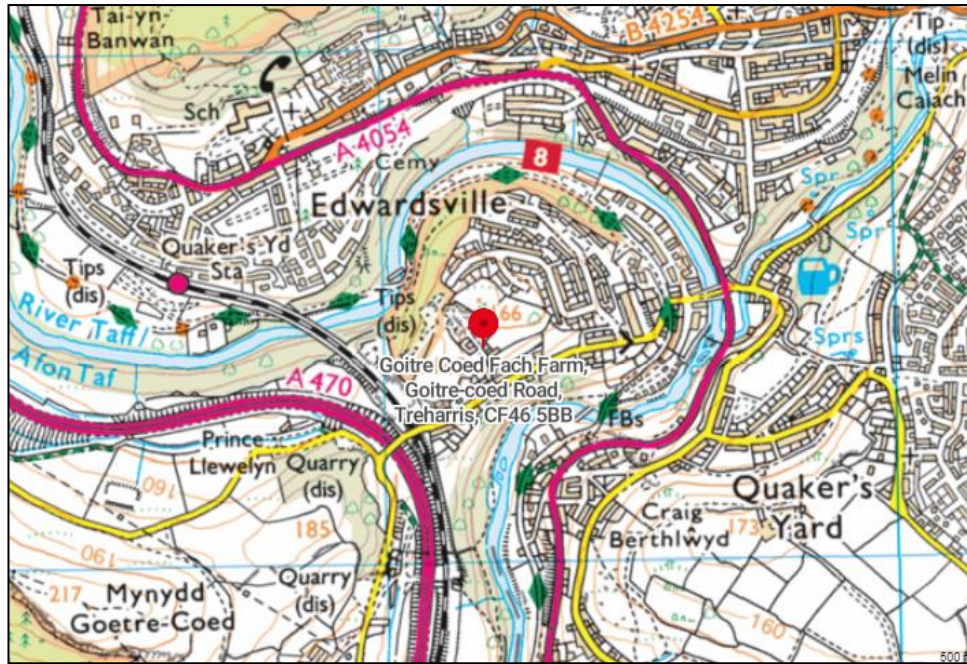


Figure 1. Location of the site. Grid Ref: SS 1429 95753

2. SCOPE FOR ENHANCEMENT

2.1 Proposed Site Layout shows location of the barn, parking area and lawn. See Fig. 2.

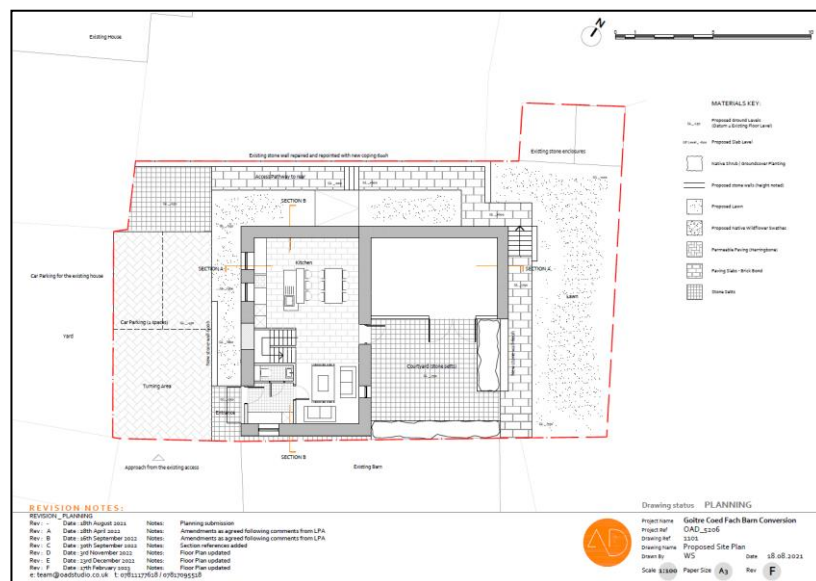


Figure 2. Proposed Site Layout Plan

2.2. Habitats within and adjacent to the site can be seen at Fig. 3 below.



Figure 3. Aerial image of site (approximate site boundary)

3. ENHANCEMENTS FOR SPECIES (see ENHANCEMENT PLAN AT APPENDIX 3)

3.1 The current site layout utilises the majority of the land available, however there are small areas of lawn, areas for shrub planting, and new/repared stone walls allowing some scope for enhancement.

3.2 Nesting Birds

3.2.1 Provision for bird nesting can be achieved by incorporating a mix of open-fronted and small hole fronted boxes suitable for Woodland and Garden birds. See Appendix 1 for suggested designs and products.

Additional wildflower and tree planting will benefit birds, providing food, nesting and shelter. Such planting will also benefit a range of other animal groups such as invertebrates and small mammals.

3.2.2 Proposed Enhancement Provision:

- **Evidence of nesting birds** was found (during a bat survey conducted by I&G Ecological Consultants July 2021) and mitigation measures will need to be implemented. Recommendations are as follows (see Appendix 1 for examples and siting advice):
- Any nests to be confirmed vacant prior to any works commencing.

- **Recommendation 1:** 2 x Swallow nest cups to be installed at the property. They need to be constructed of FSC sustainable materials or 'woodcrete' for longevity and be within a building on site that has sufficient access or a recessed wall with an overhang of eaves (Ca. 200mm minimum).
 - **Recommendation 2:** 1 x small-holed nest box and x 1 open-fronted nest box to be affixed to N/NW facing side of mature trees, at a minimum height of 2m from the ground, within the curtilage of the property.
 - **Recommendation 3:** Woodstone Swift box to be affixed the southern elevation. See appendix 1 for examples and siting advice.
 - **Recommendation 4: 1 Tawny Owl box** – 1 box to be fixed to a mature tree towards the edge of the site, with unobstructed access point. Ensure chosen tree will be retained i.e., is not affected by *Chalara* (Ash Die Back). Use a removable fixing (not nails), to securely attach the boxes, so that they can be brought down for annual cleaning/maintenance.
- 3.2.3 Positioning of bird boxes will be based on advice from on-site ecologist and supplier support (E.g., WildCare.co.uk or another specialist provider).
- 3.2.4 Annual maintenance (e.g., cleaning out, checking attachment is secure) will be undertaken by site occupant.
- 3.2.5 Management of new and existing trees will be minimal and only as necessary to maintain the health of trees and prevent unacceptable encroachment onto property/public areas, where it may present a safety risk. All such management will be undertaken outside of the bird breeding season (1st March to 31st August).
- 3.2.6 Management of wildflower planting will depend on the species/mix used. Advice for species choice, planting location and management can be sought from local suppliers such as Celtic Wildflowers based in Gorseinon (<https://celticwildflowers.co.uk/>).

3.3 Bats

- 3.3.1 Bats may utilise the site for foraging and roosting. Additional capacity can be provided by incorporating suitable artificial roosts/Bat Boxes within/on new buildings and on trees within the site boundary trees, at a minimum height of two meters, and without obstruction (clear flight line to front of box). Any site lighting will be kept to a minimum and be low level, down facing lights.
- 3.3.2 Proposed Enhancement Provision:
- **Recommendation 1:** Prior to works commencing, 2 x Harlech Woodstone Bat Boxes (or similar) to be affixed to a mature tree/trees within the curtilage of the property. To be affixed in a sheltered, elevated (2–7m and ideally 4m) position away from

artificial light and potential predation, and ideally facing different directions to provide a variety of roosting opportunities.

- **Recommendation 2:** 1 x Harlech Woodstone Bat Box (or similar) to be affixed to the side (south) elevations of the property. To be affixed in a sheltered, elevated (2–7m and ideally 4m) position away from artificial light and potential predation, and ideally not above any windows or doors.

3.3.3 If it is evident that the boxes are in use by bats, they must not be disturbed and only moved/cleaned under the supervision of or by a licenced bat ecologist.

3.3.4 Examples of suitable boxes can be seen at Appendix 1.

3.3.5 See examples of soffit gaps and gaps in stone walls for bats in Appendix 1.

3.4 Hedgehogs

3.4.1 Any boundary structures will be of a style that will allow Hedgehogs free access throughout the site, ensuring they can benefit from habitat and forage resources found both on and off site, e.g., surrounding gardens, open habitats, hedge-banks and ponds.

3.4.2 Proposed Enhancement Provision:

- All property boundaries will allow free movement of animals, particularly Hedgehogs. Stone-built boundary wall to the rear of the barn will include a purpose made access gap to allow commuting to the surrounding habitat. Gaps should be 13cm x 13cm with no sharp protrusions.
- If available space can be identified within the site layout, then it is recommended that a purpose-built Hedgehog refuge can be built in a secluded/undisturbed location within the site. Simple designs using bricks can be constructed or purpose-made wooden boxes are readily available. See Appendix 2 for construction design and ready-made examples.

3.5 Invertebrates (pollinator provision)

3.5.1 The forage and habitat provision lost from the development will be minimal, however, resources can be enhanced by additional planting of native flowers, trees and shrubs to benefit invertebrates.

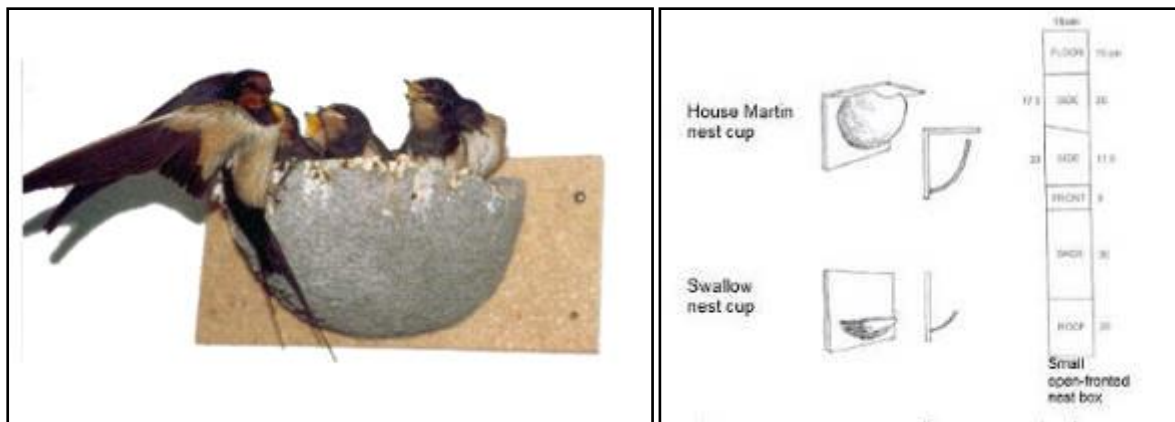
3.5.2 Proposed Enhancement Provision:

- Additional resources will be provided by native shrub/tree planting and wildflower seeding to augment the existing habitats.

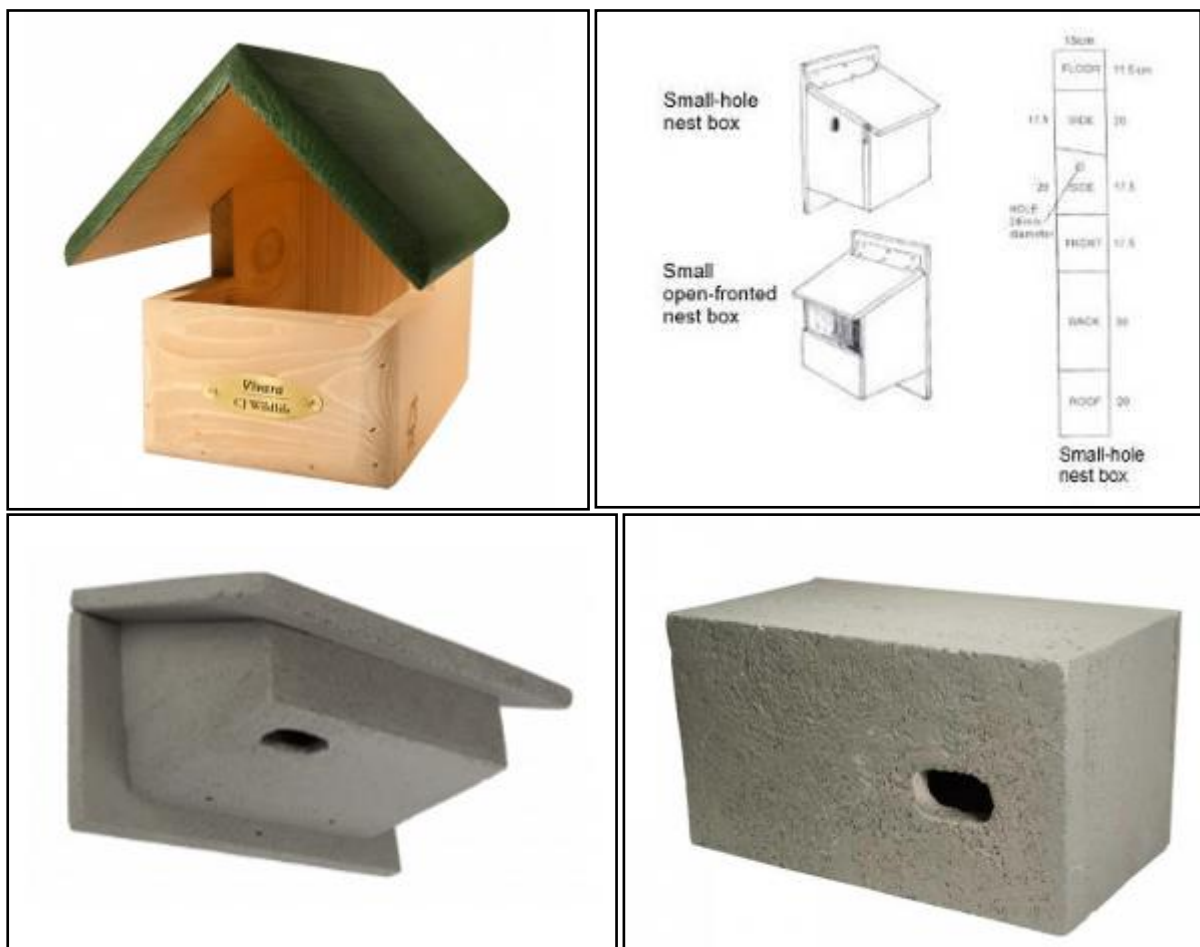
- Planting of native wildflowers – either by seed, turf, bulb and/or plug planting into lawn to the rear and sides of the property, as indicated on the proposed Site Layout Plan.
- Native shrub and groundcover planting to courtyard areas, as indicated on the proposed Site Layout Plan.
- Provision of invertebrate refugia will be incorporated into the scheme: A minimum of 1 Insect Hotel to be positioned in a warm, sheltered spot away from human activity.

APPENDIX 1

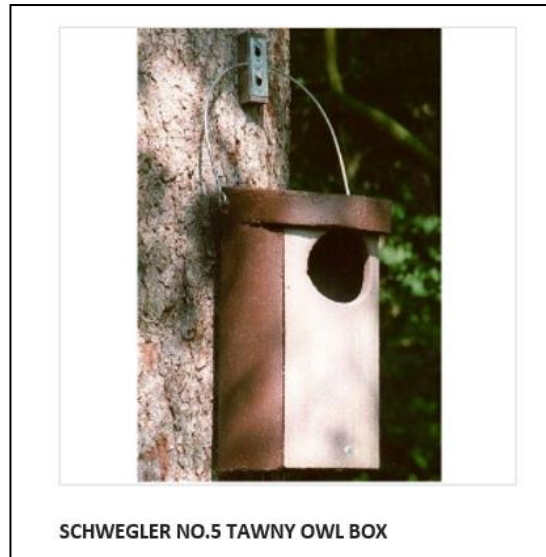
Artificial Bird Nesting products



Above: Examples of Swallow nest cups. **Below left:** Example of an open-fronted nest box. **Below right:** Examples of small-holed and open-fronted nest boxes. Bottom: Examples of Swift nest boxes. Siting advice can be found at [Where To Put A Bird Box | Nestboxes - The RSPB](#)



Below: an example of Tawny Owl Box

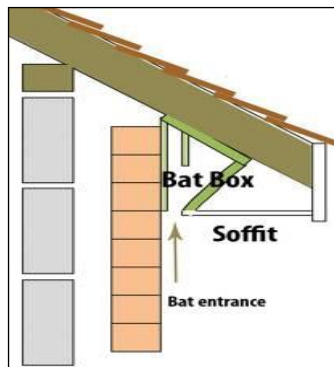


Artificial Bat Roots

External



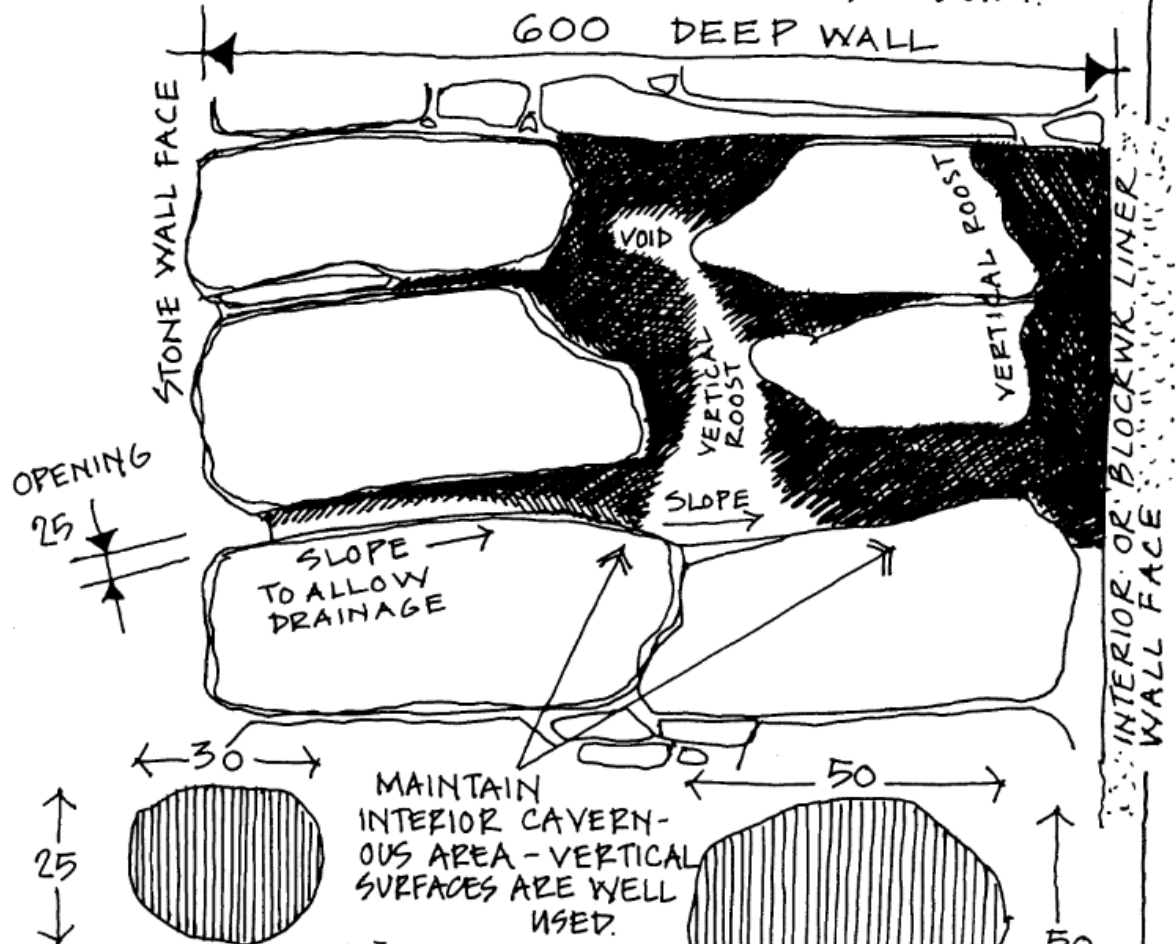
The Harlech WoodStone bat box offers excellent insulation with a minimum of condensation for roosting bats. WoodStone® is a mixture of sawdust from FSC wood sources and concrete, and it is designed to last for years. It is breathable so there will be no problems with condensation and Woodstone maintains a consistent temperature inside, providing excellent insulation for roosting bats. Height 24cm x width 19cm x depth 18cm; Weight 4.4kg; Colour: Black with White front panel; Hook for hanging; Removable front panel for inspection/cleaning; and 10 Year Manufacturers Guarantee.



SOLID STONE WALL BAT ROOST

DETAIL G

SECTION THROUGH WALL
IE: BARN CONVERSION
WHERE THICK STONE
WALLS ARE BEING
KEPT/RE-BUILT.



SECTION THRO'
ENTRANCE
(ACTUAL SIZE)



SECTION
THROUGH BAT
NICHE
(ACTUAL SIZE)

PROVIDE A SERIES OF THESE BAT NICHES
THROUGHOUT THE WALLS OF YOUR BARN
CONVERSION - HATCHED AREAS ARE IDEAL
LOCATIONS - AWAY FROM WINDOWS + DOOR.



SP

The above information is for guidance only and may not be appropriate in all circumstances, if in doubt seek professional advice.
English Nature Cumbria Team, Juniper House, Murley Moss, Oxenholme Road, Kendal LA9 7RL. Tel: 01539 792800 Fax: 01539 792830 Email: cumbria@english-nature.org.uk

Insect Box/hotel



Insect box externally mounted



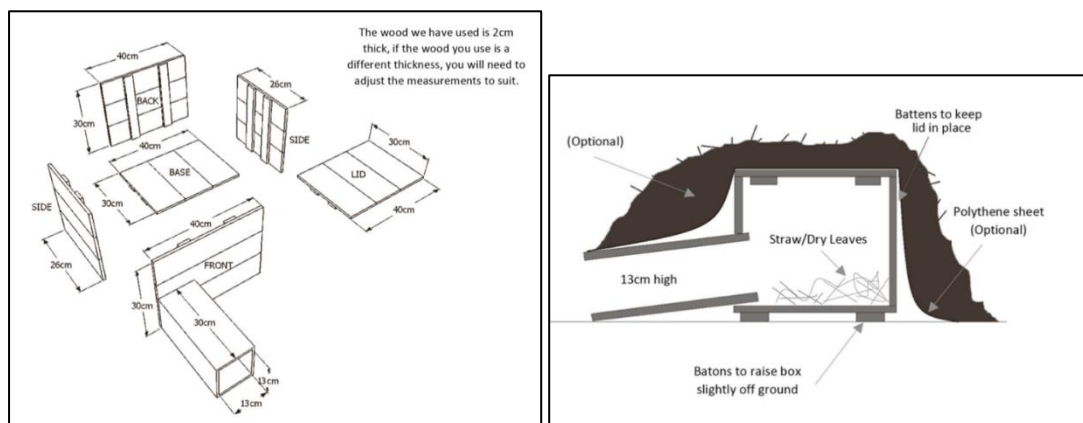
Free-standing Insect Hotel

**Courtesy of Wildcare – Nationwide Ecology Supplies – see www.wildcare.co.uk For full details*

APPENDIX 2

Hedgehog Hibernaculum/Shelter design

<https://www.britishhedgehogs.org.uk/hedgehog-homes/>



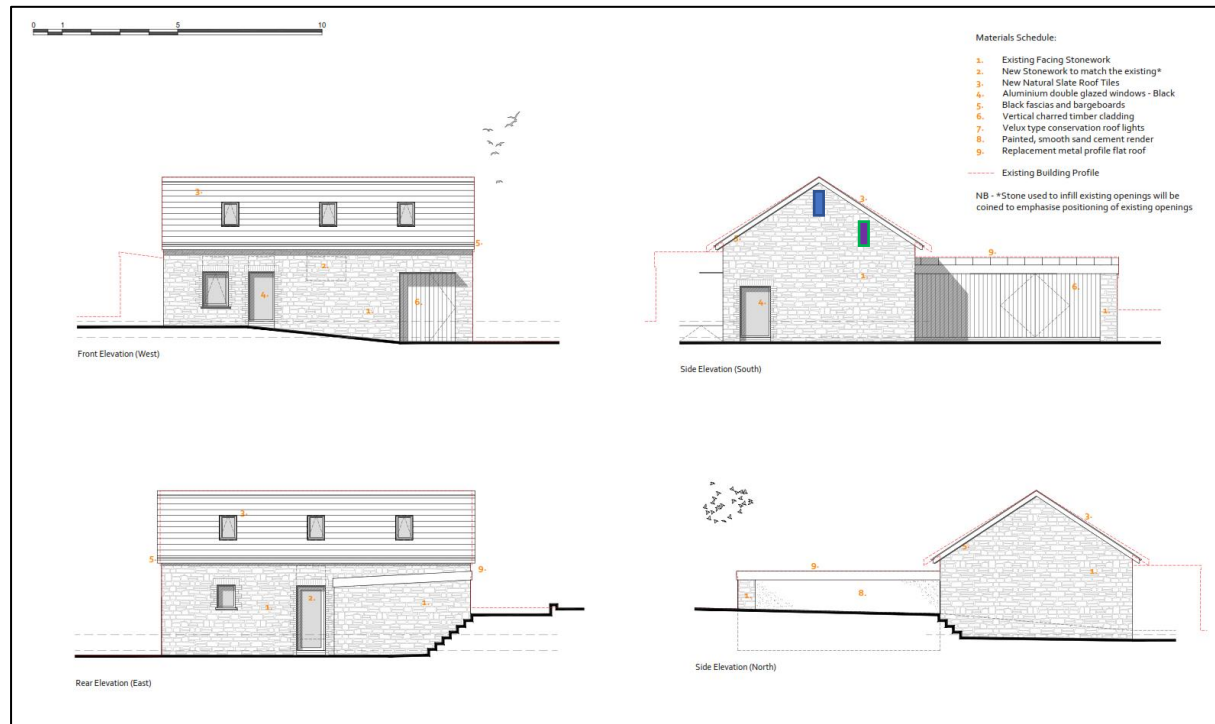
Brick built Hedgehog home - <https://wildlifegadgetman.com/project-wildpatch/how-to-guides/make-a-hedgehog-home-using-bricks/>

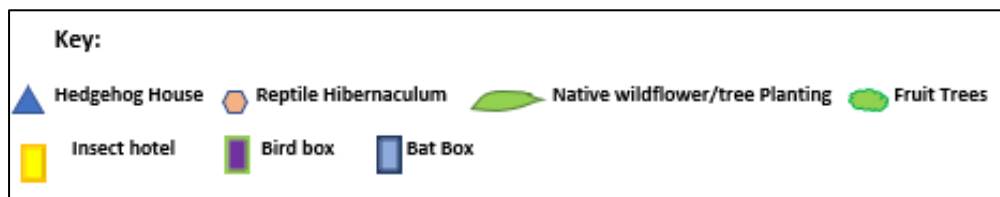


APPENDIX 3

Recommended Enhancements Plans (suggested approx. locations)

The position of Bat and Bird Boxes will be agreed with the advice of I&G Ecological Consulting Ltd. Planting lists and locations to be detailed on final Landscape Plan if required by LPA.





APPENDIX 4

TIMING OF ENHANCEMENT ACTIONS

[illegible]