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PRELIMINARY ECOLOGICAL APPRAISAL

CROXTON COTTAGE

Arbor Vitae Environment Ltd, Lower Betton Farm, Cross Houses, Shrewsbury, Shropshire, SY5 6JD

Project name: **CROXTON COTTAGE**

Grid Reference: SJ45734106

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Prepared by: William Prestwood BSc Director

Reviewed by: Phillipa Stirling BSc MSc ACIEEM

Requested by: ROGER PARRY AND PARTNERS

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the erection of a stable and workshop on land adjacent to Croxton Cottage.

Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

1.2 SCOPE OF SURVEY

The survey is primarily designed to:

- Identify and record habitats and important ecological features on site;
- Evaluate the potential of the proposed development site to provide opportunities for protected species;
- Determine any likely impact which the development and landscape proposals may have on these.
- Identify opportunities for the enhancement of habitats and biodiversity features on site.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

Croxton Cottage is a detached and relatively isolated cottage in a rural location 1.5 kms north of the village of Hanmer. The cottage lies adjacent to a minor road but is otherwise surrounded by agricultural fields. These are largely down to grass, including several small fields which are associated with the cottage and which lie to its east and north.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

An initial desk study was composed to gain background information regarding any protected species or designations within the area. The main sources of information were MagicMap and NBN Atlas.

3.2 SITE SURVEY

A site visit was made on 08/04/2024. The survey was carried out in accordance with CIEEM (2017) best practice guidelines. The objective of the survey was to find and record any signs of use by protected species and to note the habitat features present.

An assessment of the available habitats both on and adjacent to the site led to consideration of the potential of the site for the following protected species:

- Badger
- Bats
- Breeding birds
- Great Crested Newt

The survey methodology was tailored to evaluate the area for these species in the following ways:

Badger

An area within 50 metres of the site was closely searched for the following signs of badger activity:

- Setts,
- Tracks and footprints,
- Latrines,
- Snuffle holes.

Bats

The site was assessed in terms of its suitability to support bat species. Hedgerow habitat and nearby potential habitat were assessed and recorded and potential impacts from the proposals considered.

Breeding birds

The site was assessed in terms of its suitability to support breeding bird populations. Hedgerow habitat and nearby potential habitat were assessed and recorded.

Great crested newt

A desk study and a ground search were conducted to search for any areas of open water within 250 metres. Waterbodies were then assessed based on the Habitat Suitability Index for great crested newts (Oldham et al., 2000 and ARG UK, 2010).

3.3 PERSONNEL

The survey was carried out by William Prestwood BSc Ecologist with 35 years' experience.

3.4 CONSTRAINTS

Breeding birds would not necessarily have been present at the time of the survey but previous nesting and appropriate nesting sites would have been apparent.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that within 1km of the site there were the following designations:

Name	Designation	Distance from site
HANMER MERE	SSSI	1.5 KMS
LLYN BEDYDD	SSSI	1.7KMS
The search included Ramsar, SSSI, SAC, SPA, LWS, NNR and LNR. [1]		

[1] **SSSI**: Site of Special Scientific Interest, **SAC**: Special Area of Conservation, **SPA**: Special Protection Area, **LWS:** Local Wildlife Site **NNR:** National Nature Reserve, **LNR**: Local Nature Reserve.

Results from the desk study revealed that within a 1km radius of the proposed development site, no following protected species have been recorded other than a number of red and amber-listed bird species:

Species	Distance	Protection
Birds		
Kestrel Redwing Fieldfare Bullfinch Starling House sparrow Song thrush House martin Mistle thrush	0.3-1km	Wildlife and Countryside Act 1981.

4.2 HABITATS ON SITE

All habitats are classified using JNCC's Phase 1 Habitat Survey Handbook (JNCC, 2010).

Improved grassland

The new building will impinge marginally on an area of improved grassland, this being the lower edge of a sloping pasture field. The grass is improved with few herbaceous species other than creeping buttercup, dandelion and ragwort.

Disturbed ground

Much of the building will occupy an area of disturbed ground near to the cottage. This is currently used as car park and storage area. The vegetation reflects it disturbed condition and includes many ruderal species including nettle and dock species.

4.3 ADJACENT HABITATS

Native hedgerow

A roadside hedgerow lies adjacent to the site but will remain undisturbed by the proposals. This is a mixed, native species hedgerow which includes holly, hazel, hawthorn, blackthorn and sycamore.

4.4 PROTECTED SPECIES

Badgers

There are no historical records of badger at the site and no field signs were found within the search area.

Bats

No potential bat foraging habitat will be affected.

Breeding birds

There are no opportunities for birds to breed on site. It is possible that the adjacent hedgerow will be used for nest sites but these would remain undisturbed.

Great crested newts

One pond was identified 260 metres to the east of the site. Access to this pond was not possible. However, the distance to the site from the pond makes it highly unlikely that GCN, even if present in the pond, would use this very small plot of land as terrestrial habitat.

The site developers are recommended to refer to General Avoidance Measures for amphibians as set out in Section 6.2.

5 POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

No habitats of ecological interest will be lost as a result of the development.

5.2 PROTECTED SPECIES ASSESSMENT

Badger

The proposals pose no risk to this species.

Bats

The proposals pose no risk to these species.

Breeding birds

The proposals pose no risk to these species.

Great crested newts

Studies have demonstrated that 95% of all summer refuges of GCN fall within 63m of their summer breeding pond (Jehle, 2000). Subsequent studies also found that capture rates of GCN were at their highest within 50m of a breeding site with a significant reduction in capture rates beyond 100m (Cresswell and Whitworth, 2004). The risk to this species, even assuming that the nearest pond provides suitable breeding habitat, is assessed as negligible. No GCN have been recorded within 1km of the site in the past.

6 AVOIDANCE, MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

No specific habitat mitigation will be necessary, given that no habitats of interest will be impacted.

6.2 PROTECTED SPECIES MITIGATION

Great crested newts

Any small residual risk too this species will be avoided by adopting avoidance measures:

General Avoidance Measures

The following measures should be implemented to decrease the likelihood of killing/injuring small animals such as amphibians and hedgehogs:

- If piles of rubble, logs, bricks, other loose materials or other potential refuges are to be disturbed, this should be done by hand and carried out during the active season (March to October) when the weather is warm to allow animals to disperse naturally.
- The grassland areas should be kept short prior to and during construction to avoid creating attractive habitats for wildlife.
- All building materials, rubble, bricks and soil must be stored on raised platform (e.g. wooden pallets) to prevent their use as refuges by wildlife.
- Where possible, trenches should be opened and closed in the same day to prevent any wildlife becoming trapped. If it is necessary to leave a trench open overnight then it should be provided with a means of escape in the form of a shallow ramp.
- Any open pipework should be capped overnight. All open trenches and pipework should be inspected at the start of each working day to ensure no animal is trapped.

- Any common reptiles or amphibians discovered should be allowed to naturally disperse. Advice should be sought from an appropriately qualified and experienced ecologist if large numbers of common reptiles or amphibians are present.
- If a great crested newt is discovered at any stage, then all work must immediately halt and an appropriately qualified and experienced ecologist and Natural Resources Wales should be contacted for advice.

6.3 ECOLOGICAL ENHANCEMENT

In order to provide shelter, breeding and hibernating opportunities for a range of wildlife, we recommend that a nest box scheme is adopted as follows:

- One Woodcrete general purpose bat box, suitable for crevice-dwelling species should be installed onto the east elevation of the proposed stable into mature trees within the boundary hedgerows. No lighting should be installed in the vicinity of the box. It should be at least 3m from the ground and face south or south west.
- One Woodcrete cavity nesting bird box with 28mm or 32mm access hole should be positioned on the west elevation of the proposed stable and the access should face away from the prevailing wind.
- One swallow nest cup should be installed inside the stable, assuming that access for birds is possible.

7 SUMMARY

Planning permission will be sought for the erection of a stable and workshop on land adjacent to Croxton Cottage.

Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

The new building will occupy an area of improved grassland and disturbed ground of no ecological interest. No significant ecological impact on habitats will therefore result.

Consideration was given to the following protected species: badger, bats, breeding birds and great crested newts. There will be no impact on badgers or bats. It is possible that birds utilise the adjacent hedgerow for nesting but this will remain undisturbed.

A pond is located within 260 metres but, due to lack of available access, it is uncertain whether it could provide a suitable breeding habitat for great crested newts. Given that the construction site is very small and at a significant distance from the pond, it is considered that the risk to GCN is negligible.

It is recommended that avoidance measures are employed to ensure that any small risk to amphibians is removed.

Biodiversity enhancements in the form of wildlife boxes for bats, hole-nesting birds and swallows are recommended.

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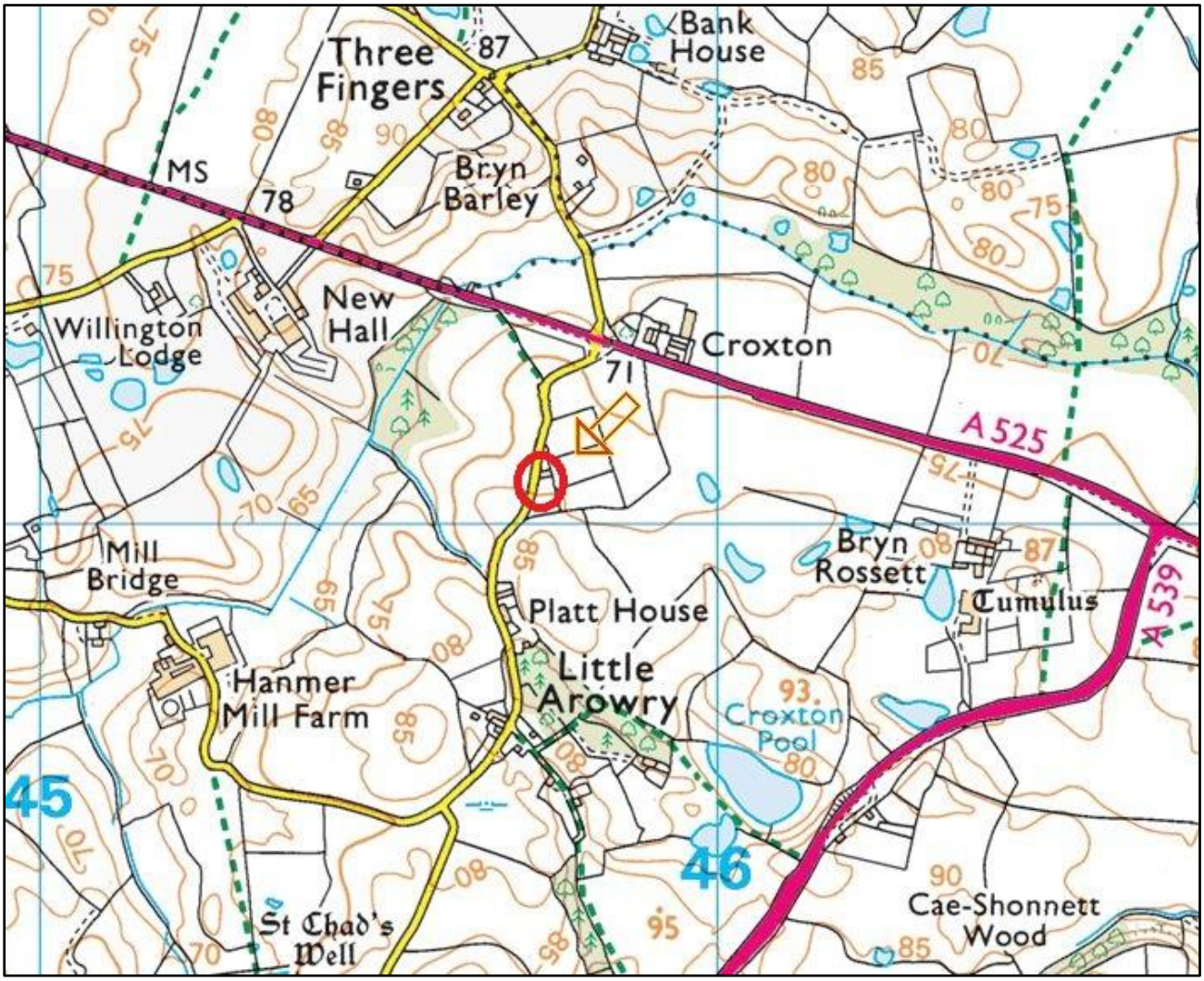
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FIGURE 1 LOCATION



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FIGURE 2 PROPOSED BLOCK PLAN

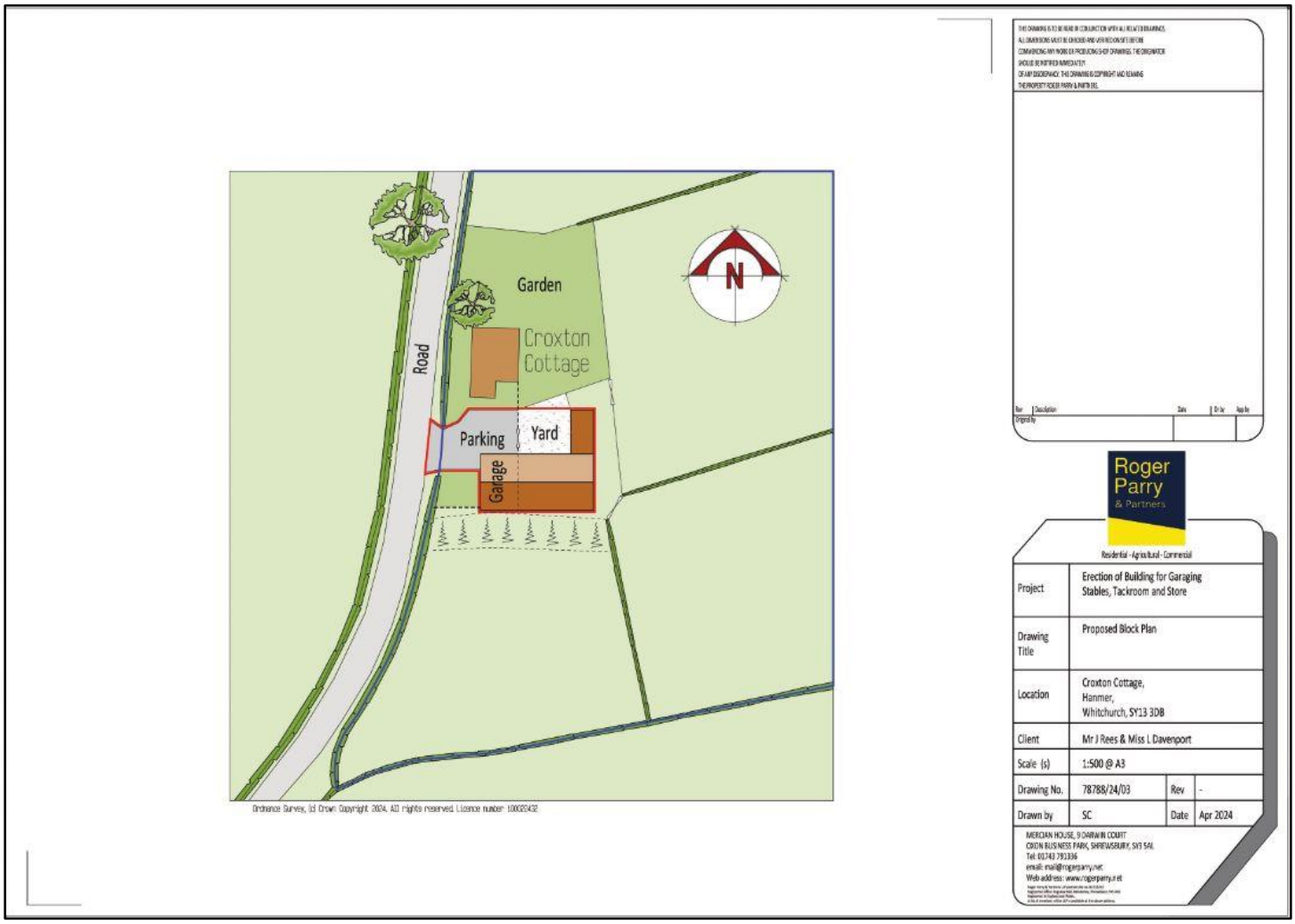
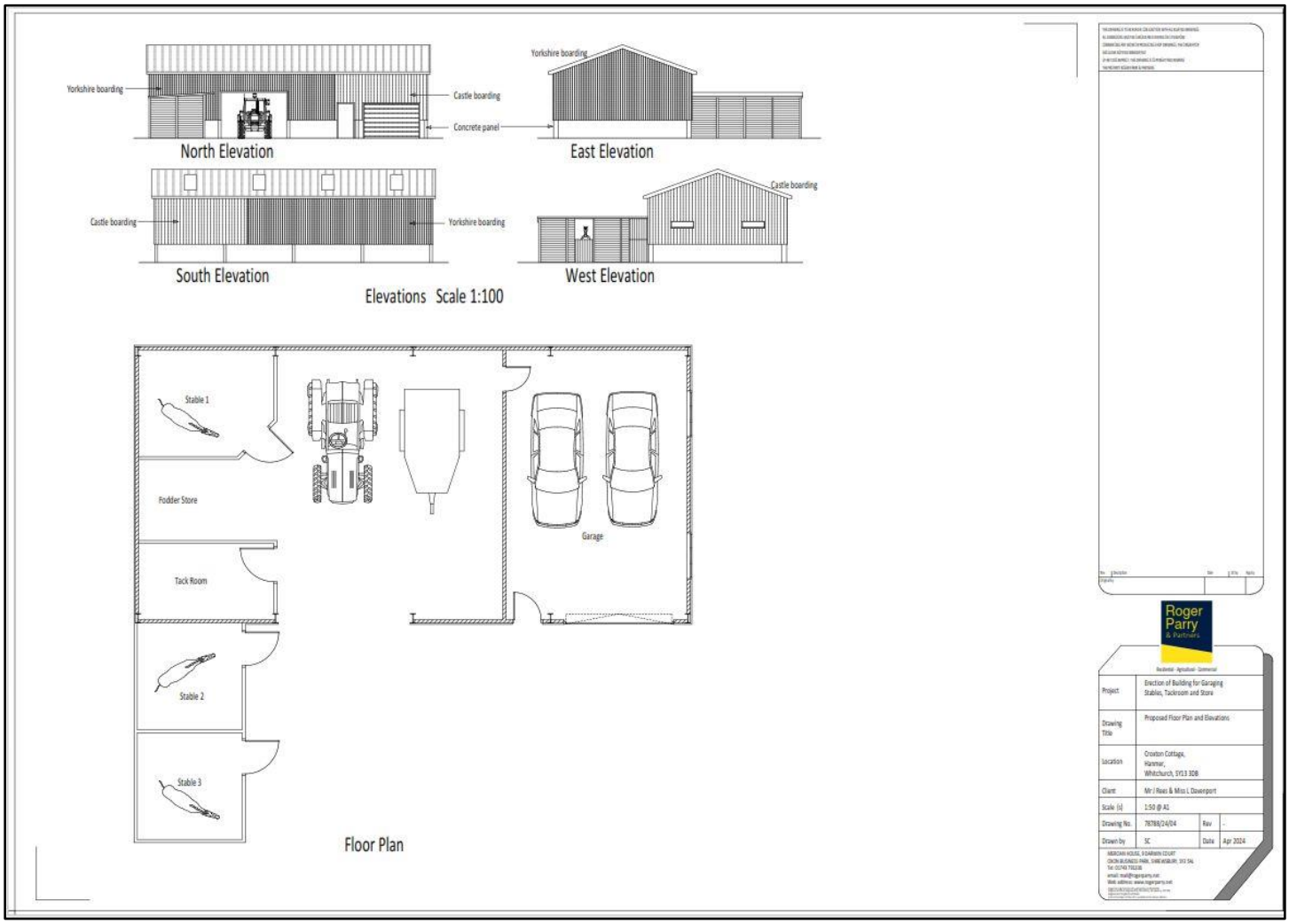


FIGURE 2 PROPOSED BUILDING PLAN



APPENDIX 1 PHOTOGRAPHS

	PROPOSED CONSTRUCTION SITE FOR STABLE
	ADJACENT HEDGEROW