



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PRELIMINARY ECOLOGICAL APPRAISAL

CORNER COTTAGE, SMOKEY LANE

Project address: Corner Cottage, Smokey Lane
Date: 16/06/2023
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Requested by: Peter Richards & Co.

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the demolition of an existing outbuilding, construction of a replacement structure and change of access point and driveway.

Arbor Vitae were commissioned by Peter Richards & Co. Ltd to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

The original survey was carried out on 07/01/2021. An updated survey was therefore carried out on 08/06/2023.

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

Corner Cottage is located on Smokey Lane, Tybroughton near Whitchurch (Figure 1). The surrounding landscape is dominated by agricultural land including arable and pasture immediately adjacent to Corner Cottage (Figure 2).

The proposals will include a new driveway and reinstatement of an old access point, demolition of a redundant stable block and construction of a replacement structure to form a garage, home office and gym (Figure 3).

Wrexham Borough Council have requested a bat and breeding bird survey in relation to the demolition of the stable block and the preparation of an avoidance measures method statement in relation to great crested newt.

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 07/01/2021. 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 updated survey was carried out on 08/06/2023 to check for any significant changes to the habitats or their condition on or off-site.

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:

- Bats
- Breeding birds
- Great Crested Newts

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

Bats

The objective of the survey was to find and record any signs of use by bats, for example:

- Droppings, sometimes in concentrations below roost sites,
- Feeding signs such as butterfly and moth wings,
- Staining of timber, brickwork around access points.

The general structure of the building was assessed for its potential to provide bats with roosting opportunities. 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 newts

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 Phillipa Stirling MSc ACIEEM: Ecologist. Natural England bat licence number: 2021-52205-CLS-CLS and GCN licence number: 2019-42631-CLS-CLS.

3.4 CONSTRAINTS

Out of the five ponds mapped within 250m of the site, only three were accessible at the time of the survey (Figure 4).

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
Iscoyd Wood	Restored Ancient Woodland	1km
The search included Ramsar, SSSI, SAC, SPA, LWS, NNR and LNR. ¹		

4.2 HABITATS ON SITE

The updated survey in 2023 confirms that all information herein remains accurate and correct.

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

Building

A single storey stable block with two small additions to the north and south gable. The roof of the main stable block is slate with clay ridge tiles and the verges are cemented. The roof of the small addition at the north is slate and the roof of the addition at the south is fibre cement. The eaves of the stable are sealed entirely with timber soffits and there are three stable doors present along the west elevation.

Internally the main stable block has a chipboard ceiling in place and the extension to the north is open to the rafters and fully lined throughout. There is a small loft space above the chipboard ceiling which was inspected.

Amenity grassland

The land immediately to the east of the stable block is shortly mown amenity grassland which continues in part throughout the property's curtilage.

Hardstanding

The land to the north, south and west of the stable is part of the driveway and therefore loose stone.

4.3 ADJACENT HABITATS

Arable

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.

Several field surrounding the property are arable including the immediate east boundary.

Grassland

Agricultural grassland also makes up a large proportion of the surrounding land use.

Buildings

There are several other residential properties and farm yards within the areas surrounding the site with associated hardstanding and amenity outdoor space.

4.4 PROTECTED SPECIES

Bats

The internal inspection of the stable block did not reveal any evidence of bats having been present nor were there any potential access points identified. The roof, ridges, eaves and verges are very well sealed with no gaps or crevices present. The small loft space above part of the stable was inspected and no evidence of bats was found, nor potential access points or roosting features.

The small addition at the north gable is open to the rafters within and lined, with modern timbers and no potential roosting features. The single storey lean-to at the south gable does not provide any potential roosting features.

There is limited connectivity to substantial woodland although a small collection of trees exists immediately to the north of the stable block. There is a hedgerow system present within the landscape but overall, the site is fairly isolated from potential bat colonies.

Breeding birds

There was one disused swallow's nest present within the north addition of the stable block and no other nests or potential features were identified.

Great Crested Newt

Three ponds were assessed for their suitability to provide breeding sites to GCN, the results of which can be seen.

GCN HSI Calculator				
	Pond Name	Pond 1	Pond 2	Pond 3
	Position	SJ48464208	SJ48254205	SJ48304224
SI No	SI Description			
1	Geographic location	0.5	0.5	0.5
2	Pond area	0.05	0.05	0.05
3	Pond permanence	0.9	0.9	0.9
4	Water quality	0.67	0.67	0.67
5	Shade	0.2	0.6	0.2
6	Water fowl effect	0.67	0.67	0.67
7	Fish presence	0.33	0.67	0.67
8	Pond Density	1	1	1
9	Terrestrial habitat	0.33	0.33	0.67
10	Macrophyte cover	0.3	0.3	0.3
HSI Score		0.38	0.46	0.44
Pond suitability (see below)		Poor	Poor	Poor

5 POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

The proposals will result in the loss of a redundant stable block which does not appear to currently provide places of rest to breeding birds, bat species or other animals.

The proposed structure will impact an area of hardstanding and amenity grassland, both habitats of very little ecological value.

Overall, the proposed development will have no impact on habitats of importance or any nearby habitats.

5.2 PROTECTED SPECIES ASSESSMENT

Bats

The existing stable block showed no sign of being in use by bat species nor were there any potential roosting features found during the survey. Overall, the building has 'negligible' potential as a bat roost and no further survey work is needed. The proposals will have no impact on bat species.

Breeding birds

One disused swallow's nest was found within the stable block at the north gable. The nest does not appear to have been recently used and access into the building is now limited. The proposals will have no impact on active nesting or breeding birds.

Great crested newt

The three ponds assessed all appear to provide 'poor' breeding sites for GCN. Two additional ponds within 250m of the site were not accessible, however, given that the proposed development will take place exclusively on amenity grassland and hardstanding, the proposals are highly unlikely to have any impact on this species. The development will not result in the loss of any suitable terrestrial habitat nor areas which are likely to be in use by amphibians.

In order to remove any residual risk to GCN or other small animals, works will proceed following a Reasonable Avoidance Measures Method Statement which can be found in Appendix 2.

6 AVOIDANCE, MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

The proposals will have no impact on habitats of value and therefore mitigation will not be necessary.

6.2 PROTECTED SPECIES MITIGATION

Bats

The stables provide 'negligible' potential as a bat roost and the proposals will have no impact on bat species. No further survey work or mitigation is required.

Breeding birds

A thorough ground and internal inspection should be completed prior to works commencing on site if works start between 1st March and 31st August (inclusive) in any given year. If breeding birds are found, an exclusion zone of 5 metres should be implemented and maintained until breeding is complete and the fledglings have left the nest.

Two swallow cups should be placed under the eaves of the new dwelling in order to provide nesting opportunities for swallows which may have otherwise used the existing building.

If any hedgerow removal is necessary this should be carried out between September and February in any given year. A thorough inspection of the section of hedgerow should be carried out to check for breeding between 1st March and 31st August (inclusive) when working within 5m of a hedgerow.

Great crested newt

See Appendix 2.

6.3 ECOLOGICAL ENHANCEMENT

The existing access point to be decommissioned should be sealed and planted with a native species hedgerow in order to contribute to the immediate surroundings. The planting should include at least: hawthorn, hazel, holly, dog rose, wild privet and guelder rose.

In order to provide opportunities for wildlife, we recommend the following:

- One Woodcrete general purpose bat box, suitable for crevice-dwelling species should be installed into a mature tree on site. No lighting should be installed in the vicinity of the boxes. The box should be at least 3m from the ground and face south or south west.
- One Woodcrete cavity nesting bird box with 28mm access holes. This should be positioned within a mature tree on site and the access should face away from the prevailing wind.

7 SUMMARY

Planning permission will be sought for the demolition of an existing outbuilding, construction of a replacement structure and change of access point and driveway. Arbor Vitae were commissioned by Peter Richards & Co. Ltd to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

The stables provide 'negligible' potential as a bat roost and the proposals will have no impact on bat species. No further survey work or mitigation is required.

A thorough ground and internal inspection should be completed prior to works commencing on site if works start between 1st March and 31st August (inclusive) in any given year.

Two swallow cups should be placed under the eaves of the new dwelling in order to provide nesting opportunities for swallows which may have otherwise used the existing building.

A thorough inspection of the section of hedgerow should be carried out to check for breeding between 1st March and 31st August (inclusive) when working within 5m of a hedgerow.

The three ponds assessed all appear to provide 'poor' breeding sites for GCN. Given that the proposed development will take place exclusively on amenity grassland and hardstanding, the proposals are highly unlikely to have any impact on this species.

In order to remove any residual risk to GCN or other small animals, works will proceed following a Reasonable Avoidance Measures Method Statement.

The existing access point to be decommissioned should be sealed and planted with a native species hedgerow in order to contribute to the immediate surroundings.

One Woodcrete bat box and one Woodcrete bird box should be installed on site following completion of the works in order to enhance opportunities for wildlife.

8 REFERENCES

ARG UK (2010). ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. Amphibian and Reptile Groups of the United Kingdom

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Mitchell-Jones, T. (2004) Bat mitigation guidelines. External Relations Team, English Nature.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10(4), 143-155.

FIGURE 1 LOCATION. 1:50,000

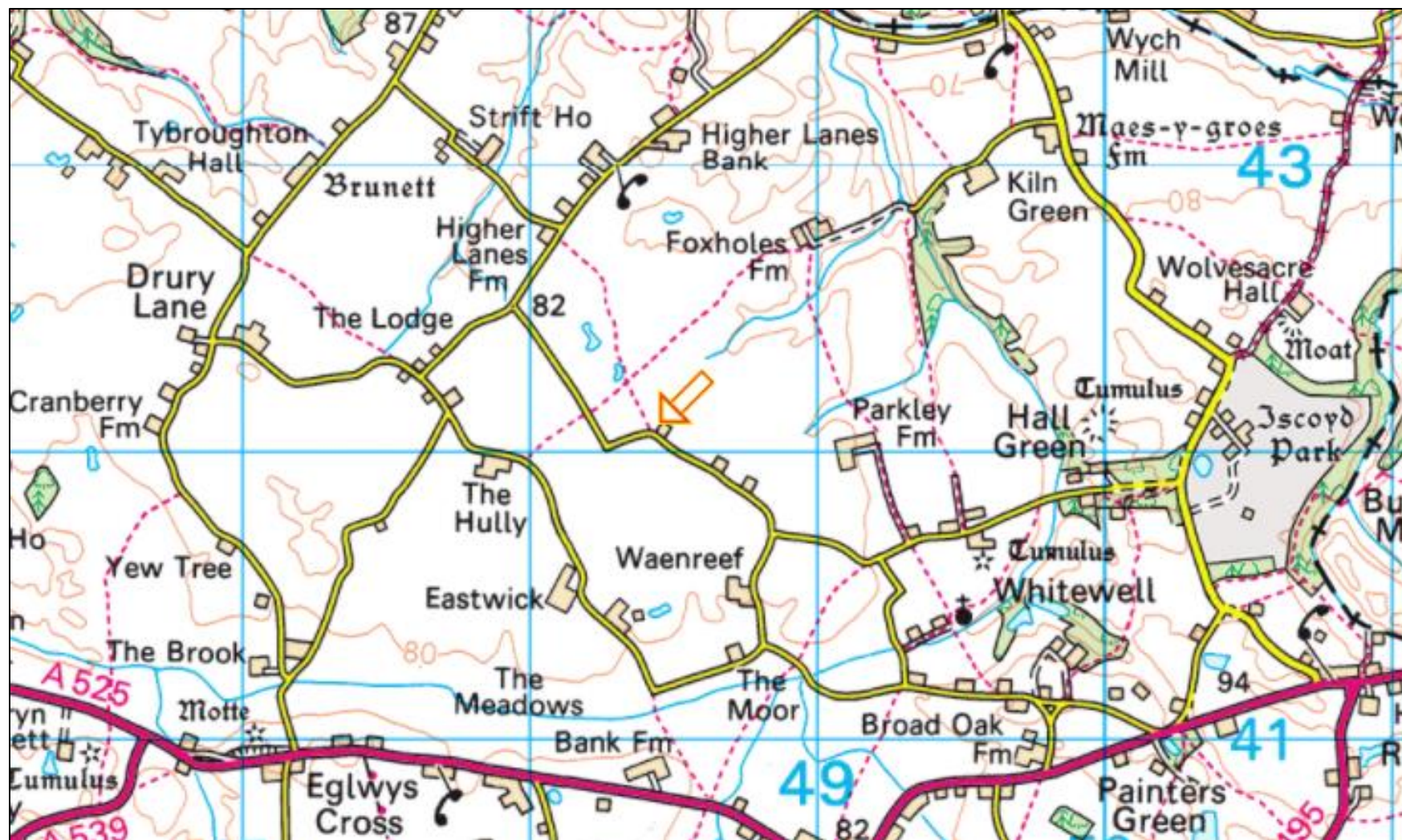


FIGURE 2 AERIAL PHOTOGRAPH



FIGURE 3 PROPOSED SITE LAYOUT

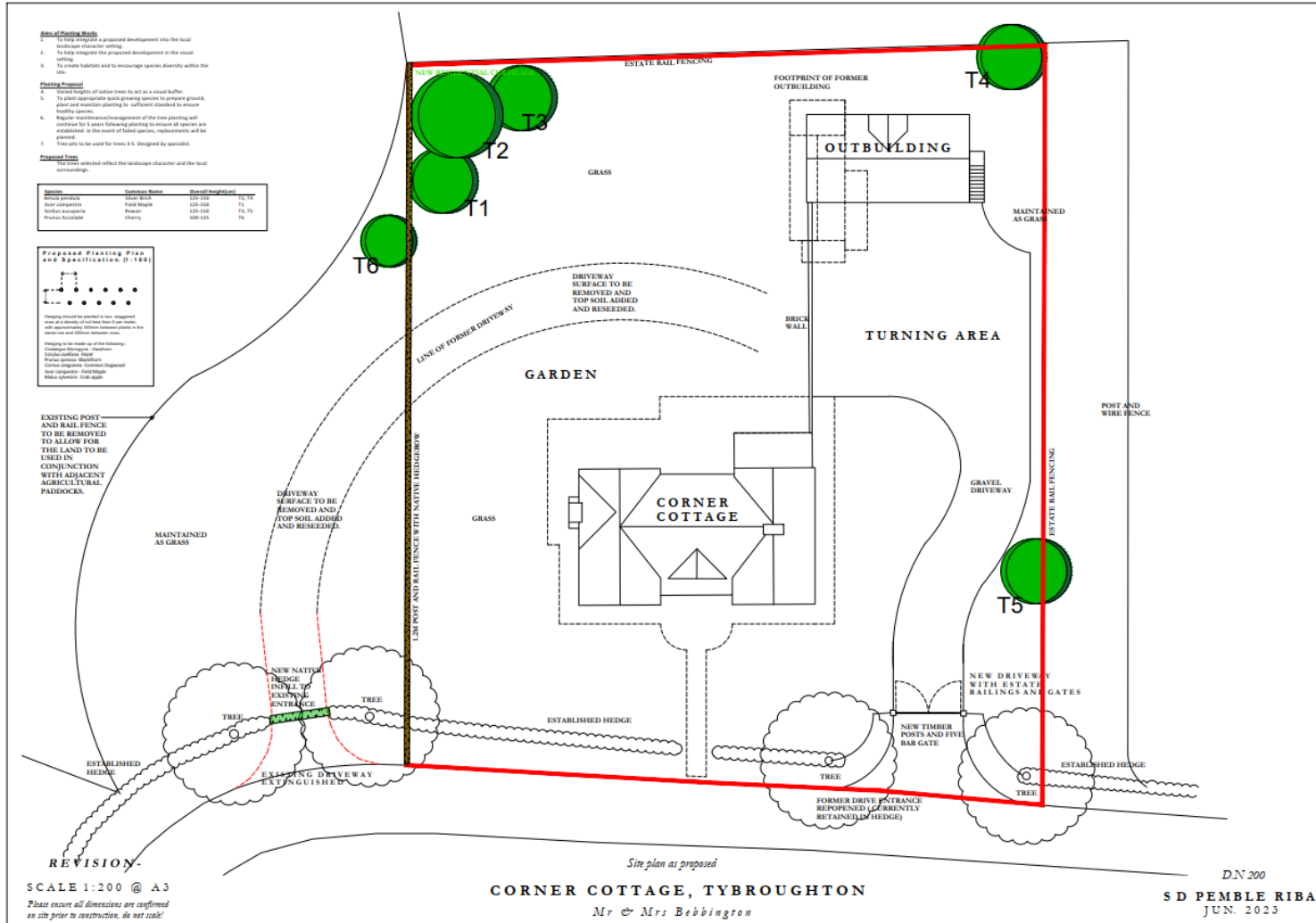
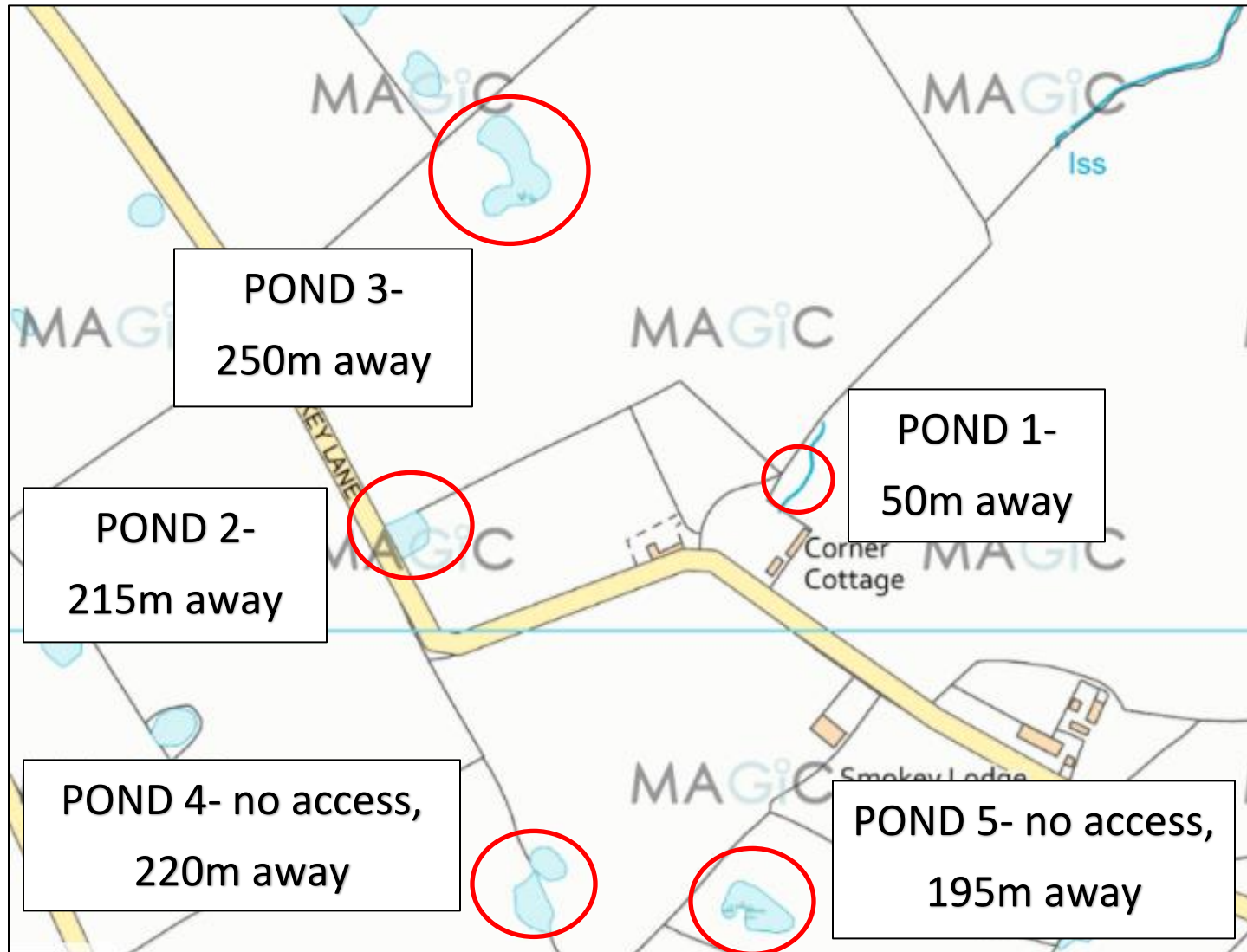


FIGURE 4 PONDS WITHIN 250M



APPENDIX 1 PHOTOGRAPHS



Existing access to be closed.



Disused access point to be reinstated.



Interior of stable block.



Stable block to be removed.



Gable ends sealed and eaves boxed in with timber soffits.



Slate roof and clay ridge on stable block.



Interior of single storey lean-to at south gable.



Eaves around the stable block are sealed with timber soffits.



Pond 1



Pond 2



Pond 3

APPENDIX 2. REASONABLE AVOIDANCE MEASURES METHOD STATEMENT

Great Crested Newts (GCN) are a European Protected Species (EPS) and they and their habitats are fully protected under national (Wildlife & Countryside Act 1981 (as amended)) and European law (The Habitats and Species Regulations 2010 (as amended)). The combined legislation makes it illegal to:

- intentionally or deliberately capture, kill or injure a great crested newt;
- intentionally or recklessly damage, destroy or obstruct access to any place used for shelter and protection including resting and breeding places, whether occupied or not;
- deliberately, intentionally or recklessly disturb a great crested newt when in a place of shelter;
- possess a great crested newt, or any part of it, unless acquired lawfully;
- sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

If GCN are found at any point during the development or activities outlined below, works must stop and an appropriately qualified ecologist should be contacted for advice, as well as Natural England.

Contractors are prohibited from handling GCN.

Induction of contractors

- A toolbox talk will be given to all site personnel in order to make them aware of the possible presence of GCN, how to identify this species and the avoidance measures to be used on site.
- A hard copy of the avoidance measures will be retained on site together with the contact details of the GCN licensed ecologist.

Timing & duration

- Any work which will not disturb potential hibernation habitat (hedgerow base, tree roots, old walls, mammal burrows, rubble piles) may be carried out during the winter period, when GCN are rarely active above ground. Ground work and excavation for this project may proceed during winter months.
- All works should take place during daylight hours when GCN are unlikely to be moving around the area.

Site clearance

- Any grassland to be disturbed on site should be cut to, and maintained at, a height of 20cm before March (in any given year) in order to reduce the number of potential resting/feeding opportunities on site.

Site compound

- The site compound should be situated on an area of hard-standing to avoid creating GCN resting places beneath stored materials etc.
- All site materials should be stored on pallets or other raised objects to avoid creating resting places/refuges for GCN.
- Any toxic or poisonous materials should be safely stored within a locked container.

Construction methods and special precautions

- All excavations on site will be covered at night or ramps will be provided to allow amphibians to exit excavations. All excavations will be checked for amphibians each morning prior to the re-commencement of works.
- All exposed new pipework and drains will be capped at night so as to avoid trapping amphibians.
- All excavated materials/waste will be stored in skips or similar and not on the ground where it could be used as a refuge/resting area by amphibians. Alternatively, all waste will be removed from site daily.
- All stored building materials that might be used as temporary resting places by amphibians will be stored off the ground on pallets or similar.