



Hillier Ecology

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## **Preliminary Ecological Appraisal at 1 Park Villa, Thornham Parva, Suffolk**



**Prepared for Geoffrey Hunter**

**October 2021**

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<b>Site Name</b>	1 Park Villa, Thornham Parva
<b>Report Type</b>	Preliminary Ecological Appraisal
<b>Client</b>	Geoffrey Hunter

	<b>Name</b>	<b>Position</b>
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## **VALIDITY**

Due to the dynamic nature of ecological conditions the results of the survey(s) and related conclusions and recommendations as contained within this report should only be considered valid for up to 24 months from the date the last survey was undertaken.

Any alterations to the site proposals may invalidate the recommendations contained within this report.

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## 1.0 Summary

1.1 A Preliminary Ecological Appraisal has been carried out at 1 Park Villa, Thornham Parva, Suffolk covering bats *Chiroptera sp.*, birds *Aves*, Badger *Meles meles*, reptiles, Hedgehog *Erinaceus europaeus* and Great Crested Newt *Triturus cristatus*.

1.2 The trees within the site boundary were assessed as having negligible potential to support roosting bats; the barn on the site was assessed as having negligible potential to support roosting bats.

1.3 The site is of moderate suitability for foraging and commuting bats.

1.4 No further bat surveys are required but use by foraging and commuting bats will need to be protected.

1.5 No birds were recorded during the survey; suitable nesting habitat is offered by the trees.

1.6 No further bird surveys are required but any loss of habitat will need mitigating.

1.7 The survey for Badger produced a negative result with no Badger setts and no evidence of Badger using the site or surrounds.

1.8 No further badger surveys are required.

1.9 The habitat assessment for reptiles considered the site unsuitable for sustaining a population of reptiles.

1.10 No further reptile surveys are required.

1.11 A habitat assessment of the site was carried out to look at its suitability to support Hedgehog, it was thought that the site and surrounds were suitable for supporting Hedgehog.

1.12 No further Hedgehog surveys are required but enhancements for Hedgehog are recommended.

1.13 Habitat Suitability Index (HSI) assessments of the two ponds on the site were carried out; Pond 1 resulted in an HSI of 0.58 and Pond Suitability (PS) of Below Average, Pond 2 had an HSI of 0.48 and a PS of Poor.

1.14 Overall the site is of low ecological value and will benefit from the opportunity for enhancement offered by development.

## 2.0 Introduction

2.1 Hillier Ecology Limited were commissioned by Geoffrey Hunter to carry out a Preliminary Ecological Appraisal at 1 Park Villa.

2.2 The survey was carried out to assess the impact the proposed renovation and change of use to the barn would have on the biodiversity of the site.

## 3.0 Site Details

3.1 The site is located at NGR TM1070272398 (Appendix 1).

3.2 The site and surrounds comprise of the following habitats.

- Amenity Grassland
- Semi-improved Grassland - abundant wildflowers and herbs
- Scrub - Bramble scrub
- Shrubs
- Scattered mature trees
- Seasonal Pond in the garden of 1 Park Villa
- Pond with standing water in the garden of 2 Park Villa
- Dwellings
- Gardens
- Assorted buildings

3.3 The diversity of habitats is thought to be capable of supporting protected and notable species.

3.4 The building surveyed is constructed as follows and shown in the table and photographs below.

<b>Building Name/Number</b>	1			
<b>Building Grid Reference</b>	TM1066572241			
<b>Type of Building</b>	Barn			
<b>Age of Building</b>	Circa 1800's			
<b>Condition of Building</b>	Poor			
<b>Wall Construction</b>	Wattle and Daub			
<b>Roof Construction</b>	Pantile			
<b>Roof Type</b>	Gable			
<b>Potential Access Points for Bats</b>	Holes in the roof			
<b>Roof Void</b>	<b>Yes</b>		<b>No</b>	X
<b>Insulation</b>	<b>Yes</b>		<b>No</b>	X

<b>Structure of Roof</b>	Collar beam
<b>Roof Lining</b>	None
<b>Estimated Dimensions of Roof Void</b>	Not applicable
<b>Suitable Roosting Features</b>	None
<b>Evidence of Bats</b>	None
<b>Evidence of Birds</b>	None
<b>Evidence of Barn Owl</b>	Not applicable
<b>Potential to Support Roosting Bats</b>	Negligible
<b>Suitable for Hibernating Bats</b>	No



**Plate 1 Building - External**



**Plate 2 Building - Internal**



**Plate 3 Building - Internal**





**Plate 4 Building - Internal**



**Plate 5 Building - Internal**



**Plate 6 Roof Area**

3.5 The survey area is shown in the photographs below and (Appendix 2).



**Plate 7 Survey Area**



**Plate 8 Location of Proposed Garage**



**Plate 9 Pond 1**



**Plate 10 Pond 1 October 2021**



**Plate 11 Pond 2**



**Plate 12 Pond 2**

## **4.0 Survey Methodologies**

### **Bats (Trees)**

4.1 The survey involved a thorough search of all the trees looking for potential roost sites, which are the following:

- Cracks
- Cavities
- Loose Bark
- Broken Limbs
- Ivy

4.2 A search was made for the following signs:

- Faeces
- Urine staining
- Fur rubbing
- Live bats

4.3 The trees were categorised using the criteria below.

<b>Assessment of Potential to Support Roosting Bats - Categories for Trees</b>	
Negligible potential	Tree contains no suitable features for roosting bats. These can include young trees without ivy and without loose bark and obvious cracks / fissures. Usually saplings, semi-mature specimens with a small girth or mature trees which do not tend to form fissures as readily such as sycamore.
Low potential	Tree contains limited features suitable for roosting bats. Usually young (sapling or semi-mature) trees with some ivy or some loose bark but no obvious cracks or fissures. No evidence of bats found (e.g. droppings / staining).
Moderate potential	Tree contains some features suitable for roosting bats. Trees with some cracks or fissures and/or large amounts of ivy / loose bark. Usually semi-mature or mature specimens. Trees tend not to have large splits, hollow trunks or woodpecker holes. No evidence of bats found.
High potential	Tree contains features that are highly desirable for roosting bats. Trees with woodpecker holes / large cracks and/or crevices. Often with a hollow trunk. May support very dense ivy. No evidence of bats found.
Confirmed roost	Bats discovered roosting within the tree or recorded emerging / entering a tree at dusk / dawn. Trees found to contain conclusive evidence of occupation by bats, such as bat droppings. A confirmed roost record (as supplied by an established source such as the local bat group) would also fall into this category.

## **Bats (Buildings)**

4.4 The building was assessed as to its potential to hold bat roosts.

4.5 The building survey involved a thorough external and internal search of all suitable cavities, holes and crevices, all suitable areas and floors were inspected for the following signs:

- Bat droppings
- Stains around roosting places and entrance points
- Urine marks
- Prey remains
- Areas devoid of cobwebs
- Live or dead bats
- Suitable cracks and crevices for bats to enter

4.6 The building was categorised using the criteria below.

<b>Assessment of Potential to Support Roosting Bats - Categories for Buildings</b>	
Negligible potential	Buildings with no features capable of supporting roosting bats. Often these buildings are of a 'sound' well-sealed nature or have a single skin and no roof void. They tend to have high interior light-levels, and little or no insulation. Buildings without any roofs may also fall into this category.
Low potential	Buildings with limited features for roosting bats (e.g. shallow crevices where mortar is missing between building blocks/bricks). They may have open locations which may be subject to large temperature fluctuations and bat-access points may be constrained. No evidence of bats found (e.g. droppings / staining). Buildings may be surrounded by poor or sub-optimal bat foraging habitat. No evidence of bats found.
Moderate potential	Buildings with some features suitable for roosting bats. Buildings usually of brick or stone construction with a small number of features of potential value to roosting bats e.g. loose roof / ridge tiles, gaps in brickwork, gaps under fascia boards, and/or warm sealed roof-spaces with under-felt. Evidence of bats found a small scattering of droppings or urine staining. Could be suitable for summer day roost.
High potential	Buildings with a large number of features or extensive areas of obvious potential for roosting bats. Generally, they have sheltered locations, with a stable temperature regime and suitable bat-access points. Evidence of bats found droppings/urine staining. Could be suitable for a maternity roost or summer day roost.
Confirmed roost	Bats discovered roosting within the building or recorded emerging / entering the building at dusk / dawn. A confirmed record (as supplied by an established source such as the local bat group) would also apply to this category.

### **Bats (Foraging and Commuting)**

4.7 The site was assessed as to its potential suitability for bats based on habitat features and professional judgement.

4.8 The site was categorised using the criteria below.

<b>Assessment of Potential to Support Bats - Categories for Commuting and Foraging</b>	
Negligible potential	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low potential	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e., not very well connected to the surrounding landscape by other habitat.  Suitable, but isolated habitat, that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.



Moderate potential	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
High potential	<p>Continuous, high-quality, habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p>

## Birds

4.9 An assessment of the sites suitability to support breeding birds has been carried out.

4.10 All birds seen and heard were recorded.

## Badger

4.11 A walkover survey of the site has been carried out to search for the following signs (Harris et al 1989):

- Setts
- Latrines
- Dung
- Badger Hair
- Footprints
- Pathways

4.12 Evidence of Badger activity, if found, was recorded.

## Reptiles

4.13 A walkover of the site has been carried out to assess if the habitat is suitable to sustain a population of reptiles. The following habitats were looked for:

- Bare Ground
- Variety of Sward Heights
- Natural Refugia

- Basking Areas

## **Hedgehog**

4.14 A habitat assessment of the site was carried out to look at its suitability to support Hedgehog.

4.15 Favoured habitats are shown below:

- Gardens
- Hedgerows
- Woodlands
- Grasslands
- Parkland

## **Great Crested Newt**

4.16 A Habitat Suitability Index (HSI) assessment has been carried out on the ponds to assess their suitability to support amphibians.

4.17 The HSI for Great Crested Newt was developed by (Oldham et al 2000).

4.18 The HSI is a numerical index, between 0.01 and 1, 0.01 indicates unsuitable habitat, 1 represents optimal habitat.

4.19 The HSI for Great Crested Newt incorporates ten suitability indices, all of which are factors thought to affect Great Crested Newt. The ten suitability indices are as follows:

- Location
- Pond area
- Pond drying
- Water quality
- Shade
- Fowl
- Fish
- Ponds
- Terrestrial habitat
- Macrophytes

4.20 Table 1 shows the categorisation of the HSI scores and PS.

**Table 1 Categorisation of HSI Scores and Pond Suitability**

<b>HSI</b>	<b>Pond Suitability</b>
<0.5	Poor
0.5 - 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

## **5.0 Survey Results**

5.1 The survey was carried out on 21<sup>st</sup> October 2021; the weather conditions at the time of the survey were sun with a Beaufort Windscale of 4 and a temperature of 8°C.

5.2 The Preliminary Ecological Appraisal was carried out by Howard Hillier, who holds Natural England Bat Survey Licence 2016-21564-CLS-CLS, assisted by Joe Hillier.

### **Bats**

5.3 The tree assessment for potential bat roosts recorded the trees as having negligible potential to support roosting bats with an absence of suitable roosting features and no evidence of bat usage.

5.4 The building assessment for potential bat roosts recorded the building as having negligible potential to support roosting bats with an absence of suitable roosting features and no evidence of bat usage.

5.5 The habitats present on site are of moderate suitability for foraging and commuting bats.

### **Birds**

5.6 No birds were recorded during the survey but it was noted that the scrub, building and trees could offer suitable nesting habitat.

### **Badger**

5.7 No Badger setts were present on site and no evidence of Badger using the site or surrounds was recorded.

## Reptiles

5.8 The habitat did not meet the criteria as suitable reptile habitat; the habitats do not offer bare ground or basking areas.

## Hedgehog

5.9 A habitat assessment of the site was carried out to look at its suitability to support Hedgehog; the site and surrounds were considered suitable Hedgehog habitat.

## Great Crested Newt

5.10 The ponds were subject to a Habitat Suitability Index assessments the results of which are summarised in the table below.

**Table 2 Habitat Suitability Index Assessment Results**

<b>Indices</b>	<b>Pond 1</b>	<b>Pond 2</b>
Location	1.0	1.0
Pond area	0.5	1.0
Pond drying	0.1	0.9
Water quality	0.67	0.33
Shade	0.2	0.6
Fowl	1.0	1.0
Fish	1.0	0.01
Ponds	1.0	1.0
Terrestrial habitat	1.0	1.0
Macrophytes	0.6	0.4
<b>HSI</b>	<b>0.58</b>	<b>0.48</b>
<b>Pond suitability</b>	<b>Below average</b>	<b>Poor</b>
<b>Predicted pond occupancy</b>	<b>0.2</b>	<b>0.03</b>

## 6.0 Desk Study

6.1 A search of the Magic Map application identified that Major Farm Site of Special Scientific Interest is approximately 1.3km from the survey site; the survey site is in the impact zone for the SSSI but the scale of work proposed is not likely to have any direct or indirect impact.

6.2 There were no records for European Protected species licences within the search area; there was a record for Great Crested Newt in the Magic datasets but this was approximately 1.2km from the site and the site ponds have been found to be of Below Average and Poor suitability.

6.3 Mapping of habitats within the search area identified areas of priority and notable habitat comprising mostly of grassland and woodland habitats; the site itself and habitats directly adjacent to the site are not indicated as Priority Habitat and the scale of work is not expected to impact beyond this point.

6.4 The search of Magic Map does not suggest any additional considerations are needed; the findings of the field survey in terms of habitats and species are supported, specifically the site is of low ecological value with no protected or notable species present.

6.5 Through a search of the NBN Atlas 1746 species records were obtained including records for insects, amphibians, birds, bats and flora.

6.6 None of the records relate to the site; the closest records to the site are for birds and flora; amphibian records do not relate to the site or immediate surrounds; the records do not flag anything that has not already been considered by the field survey; suitability for birds and foraging or commuting bats has already been noted.

6.7 Other species records or those further afield warrant little consideration due to the small scale of works.

6.8 The findings of the desk study are included in (Appendix 5).

## **7.0 Conclusions**

### **Bats**

7.1 The site does not offer potential to support roosting bats.

7.2 The habitats present are of moderate suitability for foraging and commuting bats and care will need to be taken to protect the use of the site in this way.

7.3 Enhancements should also provide roosting opportunities to enhance biodiversity.

### **Birds**

7.4 No birds were recorded during the survey which was completed outside of the breeding season; it is highly likely that the site would support nesting birds and therefore care should be taken to avoid disturbance and mitigation will be required for any habitat lost.

## **Badger**

7.5 The survey for Badger produced a negative result with no Badger setts and no evidence of Badger using the site.

## **Reptiles**

7.6 The habitat did not meet the criteria as suitable habitat for sustaining a population of reptiles, it was lacking in a bare ground and basking areas.

## **Hedgehog**

7.7 The habitat assessment found the site and surrounds to be suitable for supporting Hedgehog; measures to enhance the site for Hedgehog are recommended.

## **Great Crested Newt**

7.8 The Habitat Suitability Index assessments suggested that Great Crested Newt are unlikely to be using the ponds on and adjacent to the site; the site pond dries annually and the off-site pond supports dense populations of fish, both factors have a significant impact on actual presence of Great Crested Newt beyond the HSI scores and in combination the likelihood of Great Crested Newt being present is negligible.

## **General**

7.9 Overall the site is of low ecological value and will benefit from the opportunity for enhancement offered by this development.

## **8.0 Recommendations**

### **Bats**

8.1 Two built in bat boxes should be installed, these will be best located in a south facing position in the new garage at heights not less than three metres.

8.2 Any external lighting should be kept to a minimum and directed downwards using hoods and cowls; particular care must be taken to avoid lighting newly created roost features.

## **Birds**

8.3 To avoid disturbing nesting birds any work to the trees and scrub should be completed outside of nesting season which is March to August inclusive; where this is not possible an inspection must be completed by an experienced ecologist who will denote appropriate buffer zones until young have fledged the nest as required.

8.4 A variety of nest boxes catering for House Sparrow and Swift should be installed in the new garage facing between north and east and at heights of two to five metres; one House Sparrow nest box and a group of three Swift nests are suitable for the proposals.

## **Hedgehog**

8.5 To offer enhancements a Hedgehog home should be installed in the garden.

8.6 Recommendations are shown in (Appendix 6).

## **Amphibians**

8.7 When working close to suitable amphibian habitat it is best practice to store construction materials on pallets to avoid use as refugia.

## **9.0 Legal Protection**

### **Bats**

9.1 The Conservation of Habitats and Species Regulations 2017 transpose into UK law Council Directive 92/43/EEC of 1992 (often referred to as the Habitats Directive). All bats are listed under Annex IV and some (horseshoe bats, Bechstein's and Barbastelle) are also listed under Annex II which relates to Special Areas of Conservation. These Regulations make it an offence to:

- Deliberately capture, injure or kill a bat.
- Deliberately disturb bats in a way as to be likely significantly to affect the ability of any significant groups of bats to survive, breed, rear or nurture their young, or to affect the local distribution of abundance of that species.
- Damage or destroy a breeding site or resting place of a bat.

- Keep, transport, sell or exchange, or offer for sale or exchange a live or dead bat or any part of a bat.

9.2 In addition the Wildlife & Countryside Act 1981 (as amended) makes it an offence to:

Intentionally or recklessly;

- Disturb any bat whilst it is occupying a structure or place which it uses for shelter or protection.
- Obstruct access to any structure or place which any bat uses for shelter or protection.

9.3 Penalties are fines of up to £5000 per bat and up to a 6 month custodial sentence.

## **Birds**

9.4 All common wild birds are protected under The Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.

9.5 Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

## **Badger**

9.6 The Badger receives legal protection under The Protection of Badgers Act 1992.

9.7 The following is a summary of the offences contained in the act. It is a criminal offence to commit any of the following:

- To interfere with a sett by damaging or destroying it.
- To obstruct access to, or any entrance of a Badger sett.
- To disturb a Badger when it is occupying a sett.



9.8 A Badger sett is defined by the legislation as “any structure or place, which displays signs indicating current use by a Badger” and this is taken by Natural England to include seasonally used setts.

## **Reptiles**

9.9 Common Lizard, Slow Worm, Adder and Grass Snake are all protected under Section 9 of the Wildlife and Countryside Act, 1981 (as amended) against injuring, killing or selling.

9.10 For developers in England, Wales or Scotland to reduce the risk of prosecution under the Wildlife and Countryside Act, 1981 (as amended), wherever works may impact on reptiles there must be evidence that reasonable effort was made to avoid breaking the law, including proof of adequate surveys.

## **Hedgehog**

9.11 Hedgehog are afforded limited protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) making it illegal to capture or kill them using certain methods. They are also protected from cruelty through the Wild Mammals Protection Act 1996.

## **Great Crested Newt**

9.12 Great Crested Newt are fully protected under the Wildlife and Countryside Act 1981 (as amended), through inclusion in Schedule 5. Great Crested Newt are also included in Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

9.13 Taken together the Act and Regulations make it illegal to:

- Intentionally or deliberately kill, injure or capture Great Crested Newt.
- Deliberately disturb Great Crested Newt or intentionally or recklessly disturb them in a place used for shelter or protection.
- Damage or destroy a breeding site or resting place.
- Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.
- Possess a Great Crested Newt, or any part of it, unless acquired legally.
- Sell, barter, exchange or transport or offer for sale Great Crested Newt or parts of them.

## **The Natural Environment and Rural Communities Act (2006)**

9.14 Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006) sets out a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The list (including 56 habitats and 943 species) drawn up in consultation with Natural England, provides a guide to local and regional authorities when implementing their duty as defined in Section 40 of the NERC Act 2006;

- “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.” - Section 40(1).
- “Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat”. - Section 40(3).

## **National Planning Policy Framework (2019)**

9.15 National Planning Policy Framework (NPPF) (2019) sets out Government Policy on Biodiversity and Nature Conservation and places a duty on planners to give material consideration to the effect of a development on legally protected species when considering planning applications. NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within the development.

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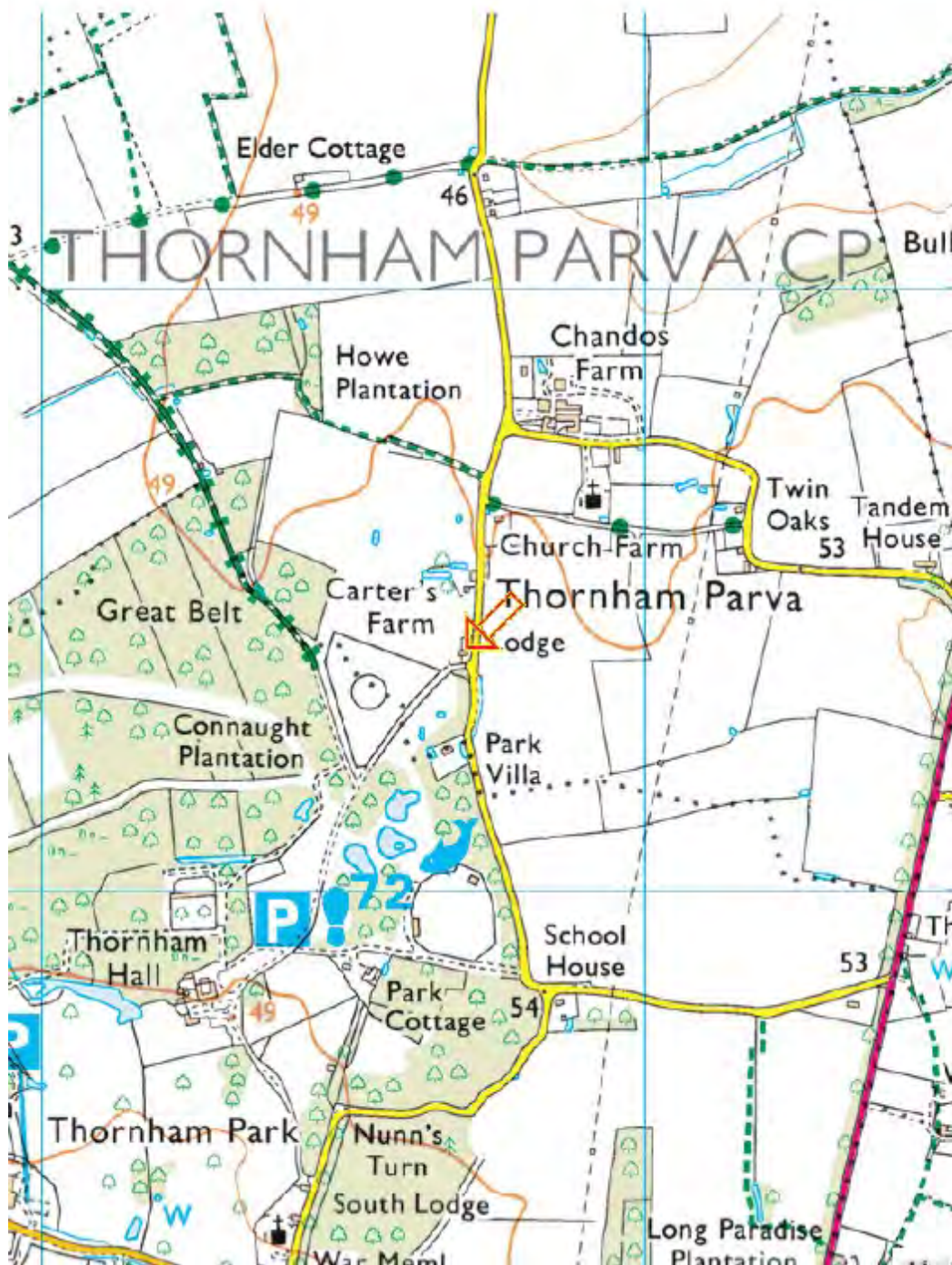
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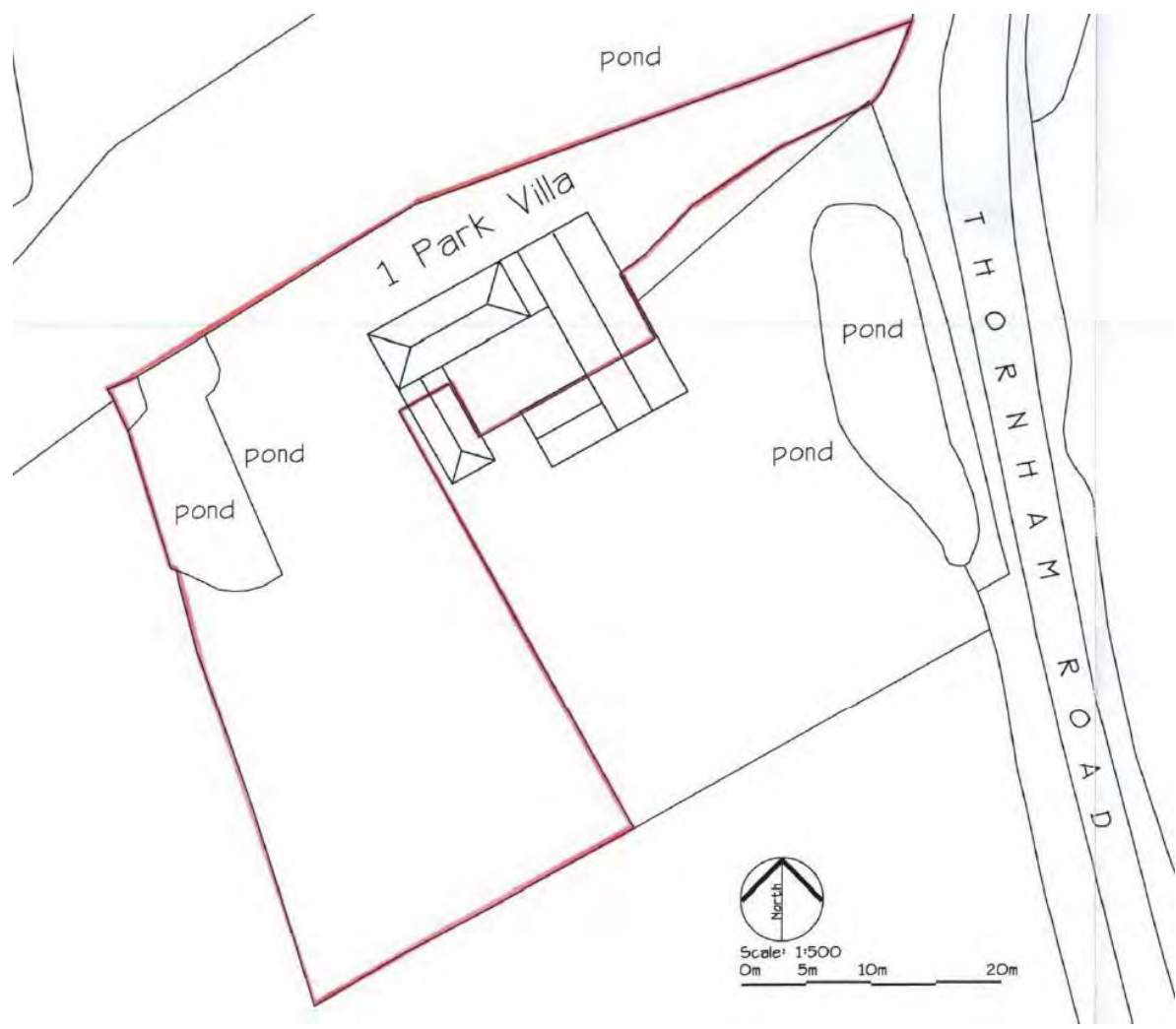
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## 10.0 Appendices

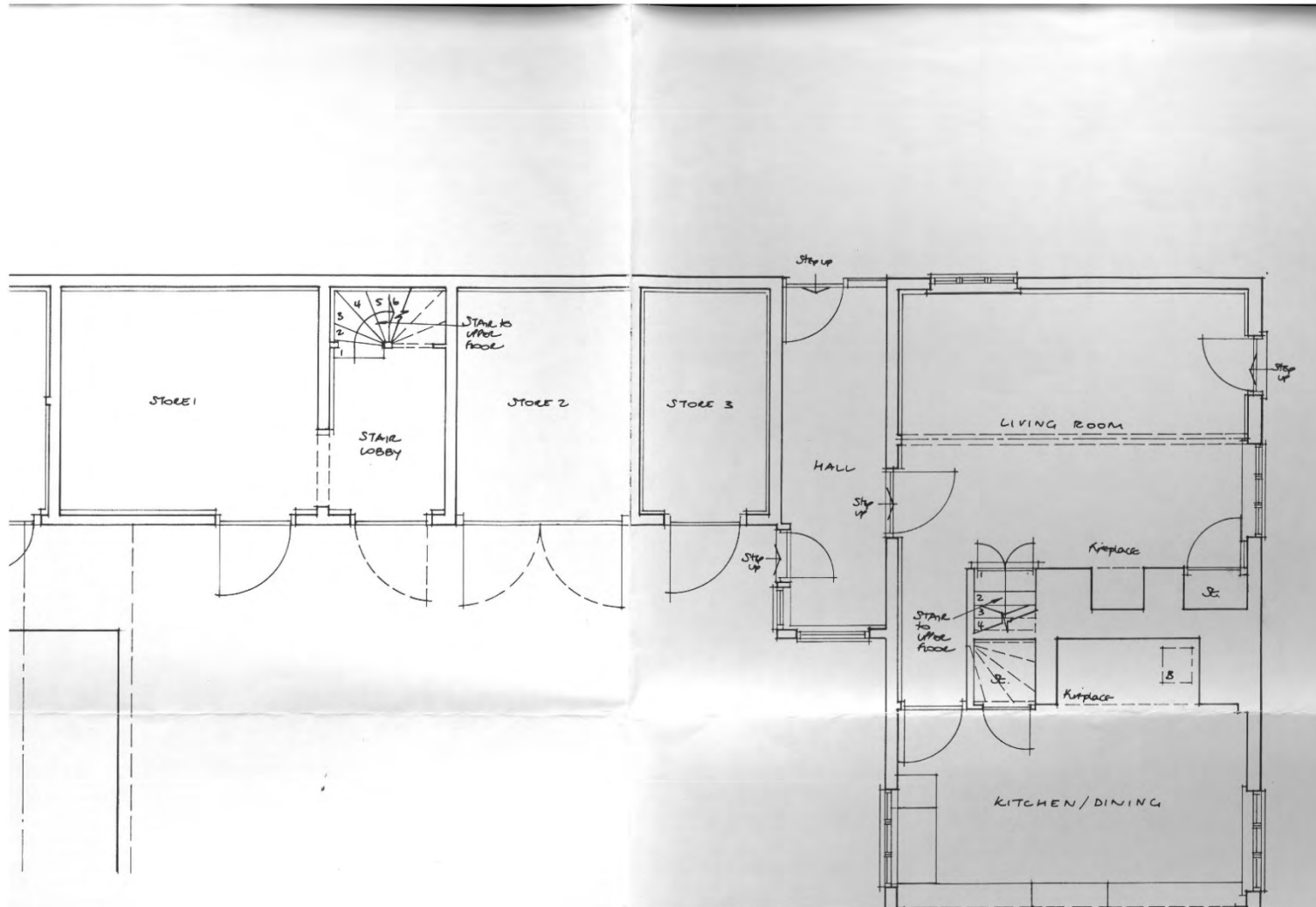
### Appendix 1 Site Location

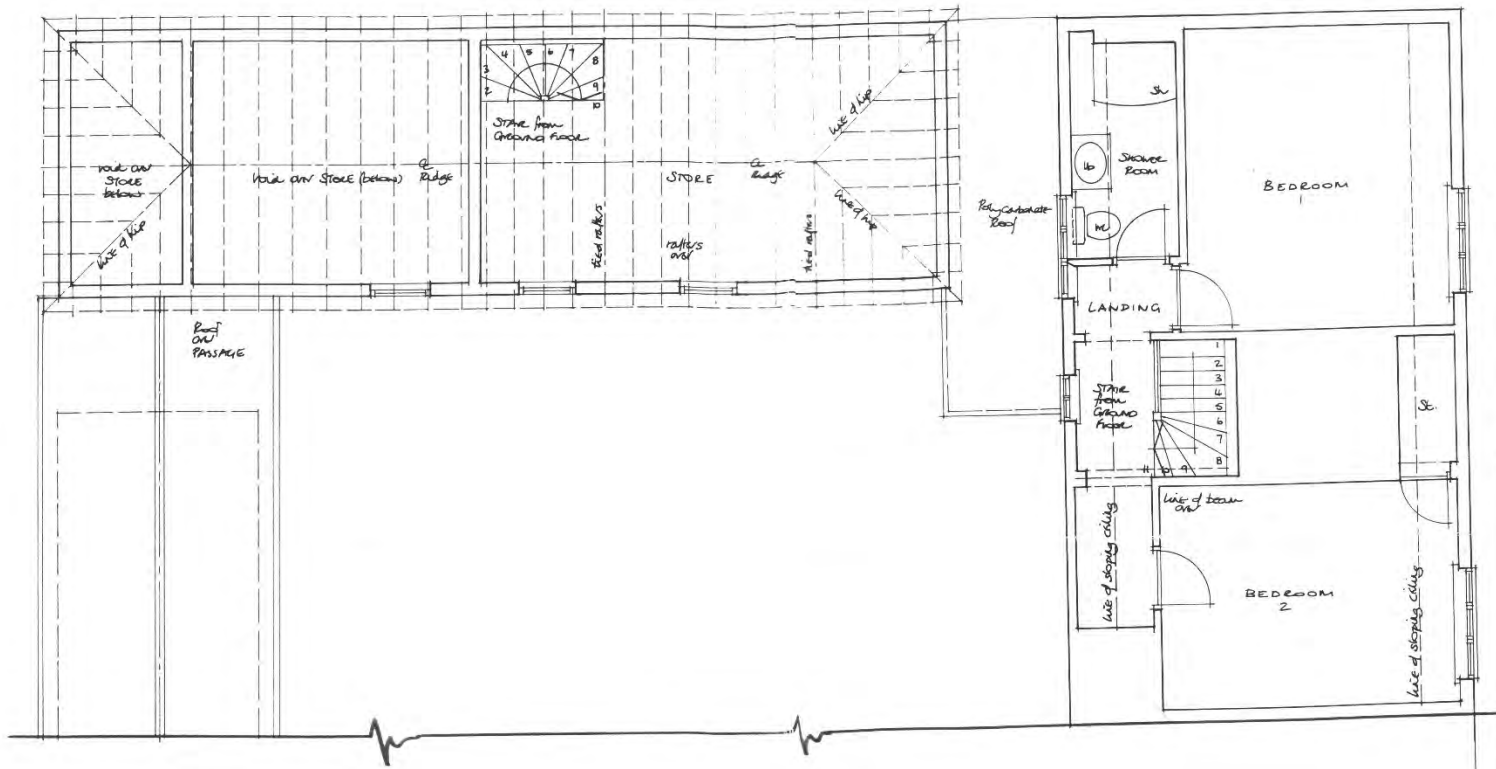


## Appendix 2 Survey Area

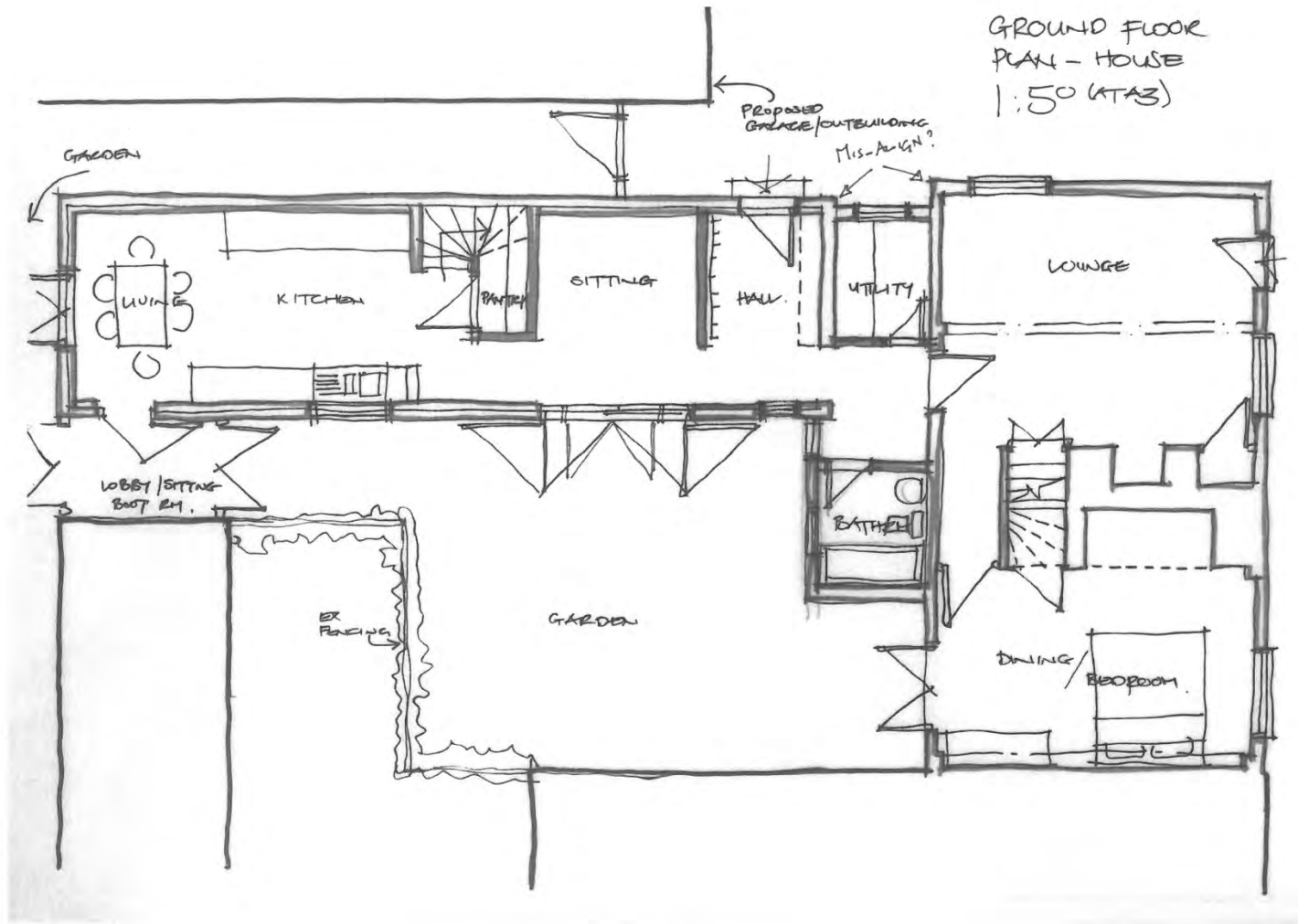


# Appendix 3 Existing Building Plan

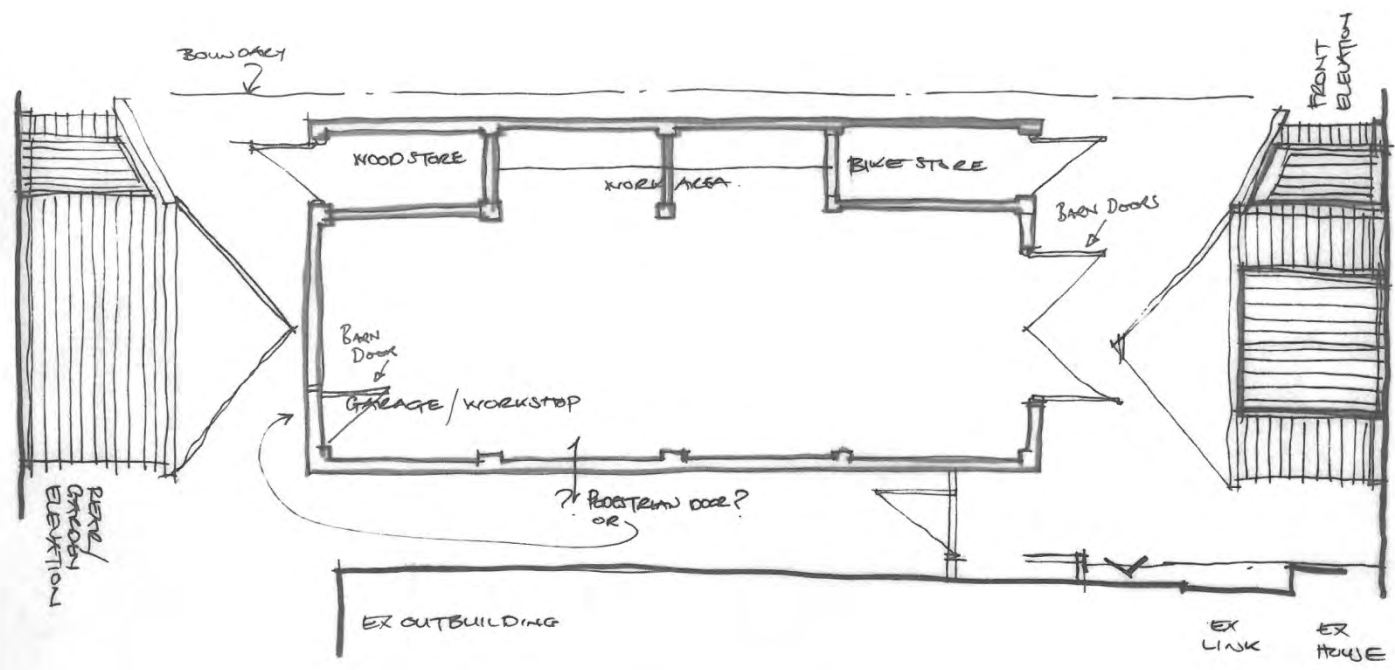




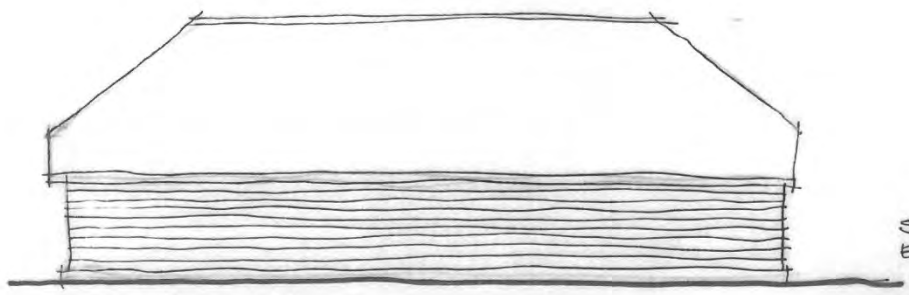
# Appendix 4 Proposed Site Plan



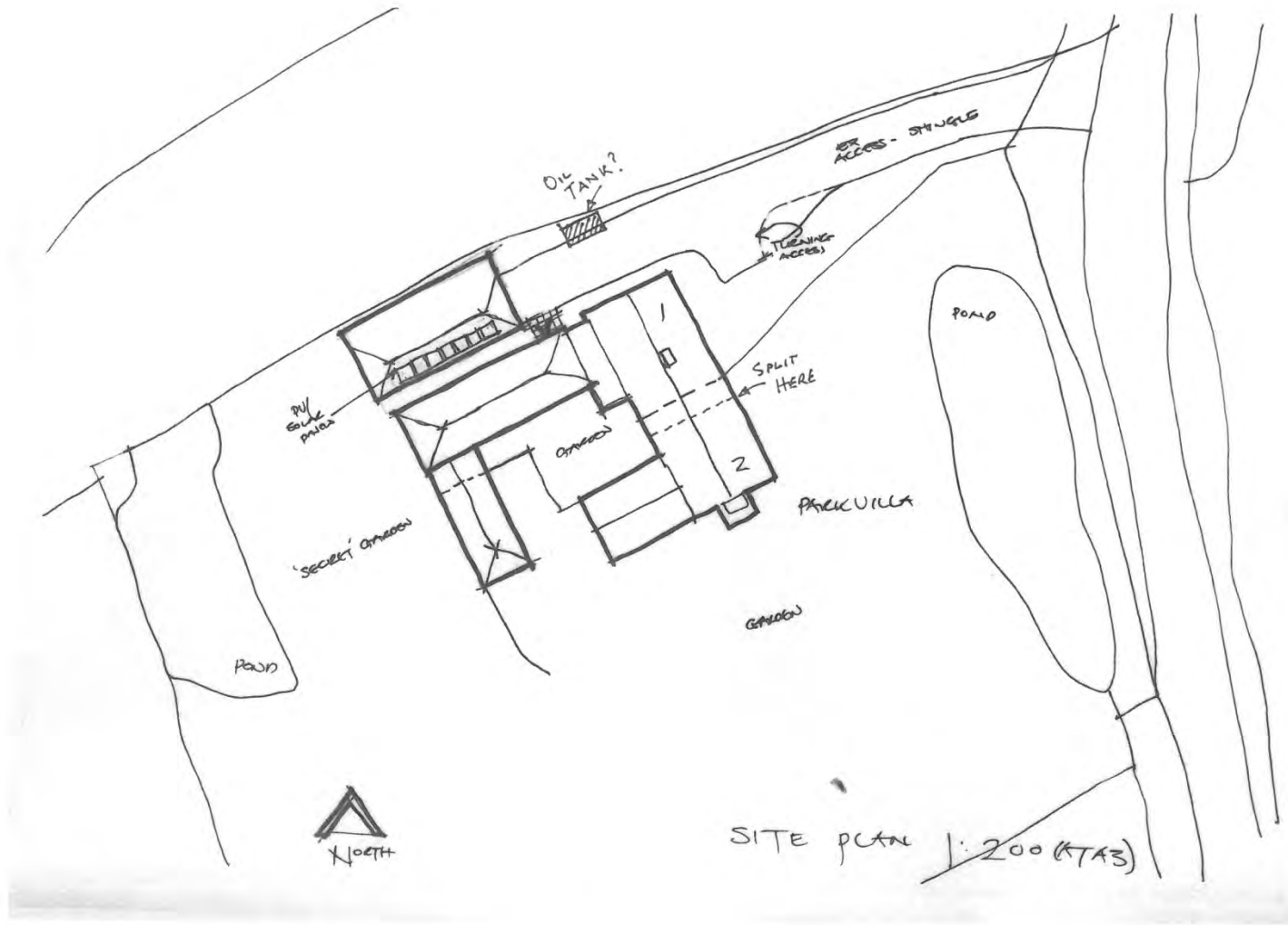


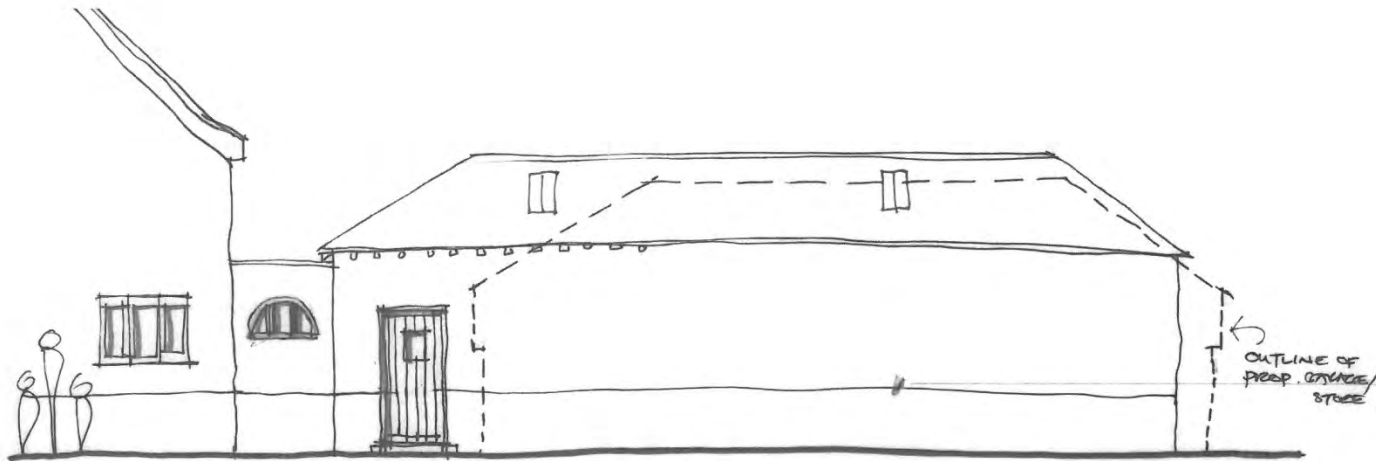


PLAN AND ELEVATIONS  
1:50 (A3)

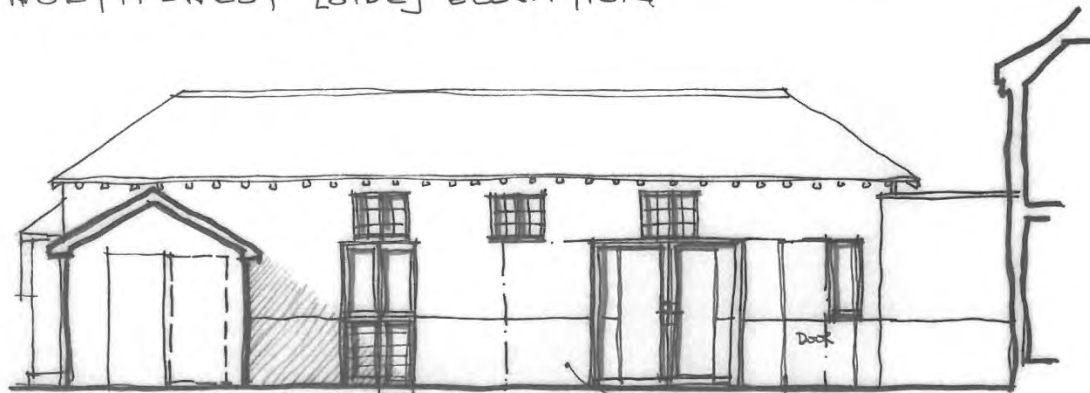


SIDE/BOUNDARY ELEVATION.





NORTH - WEST [SIDE] ELEVATION




SOUTH - EAST [GARDEN] ELEVATION


ELEVATIONS  
1:50 (TAB)

## **Appendix 5 Desk Study**



### Legend

 Sites of Special Scientific Interest (England)

 SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

Projection = OSGB36

xmin = 605800

ymin = 270100

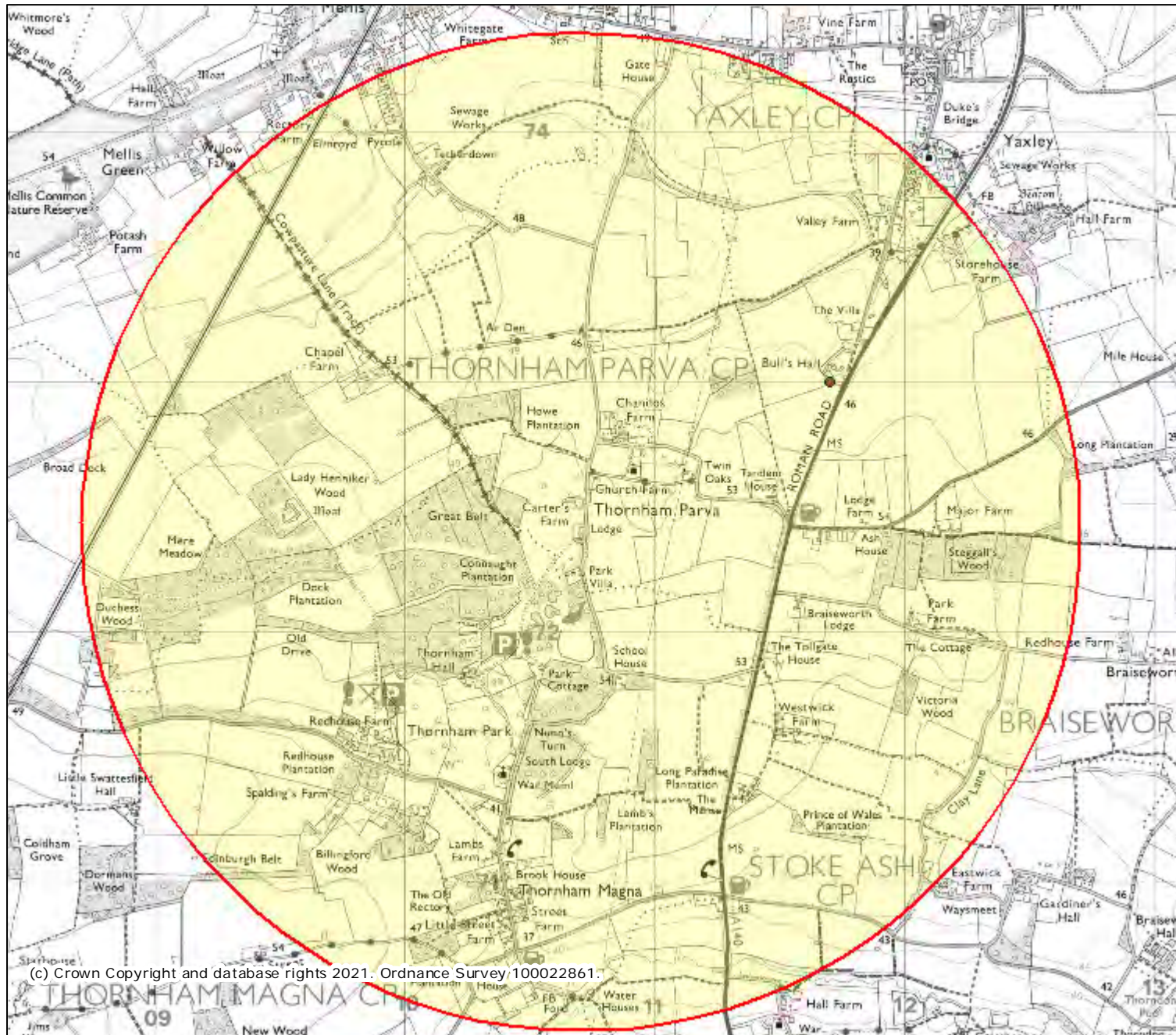
xmax = 615700

ymax = 274800



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### Legend

Great Crested Newt Class  
 ● Survey Licence Returns (England)

### Great Crested Newt Pond Surveys 2017 - 2019

- 10 FIG present
- 10 FIG absent
- 10 FIG inconclusive
- 8 FIG present
- 6 FIG present
- 4 FIG present
- 4 FIG absent
- 4 FIG inconclusive

Projection = OSGB36

xmin = 605800

ymin = 270100

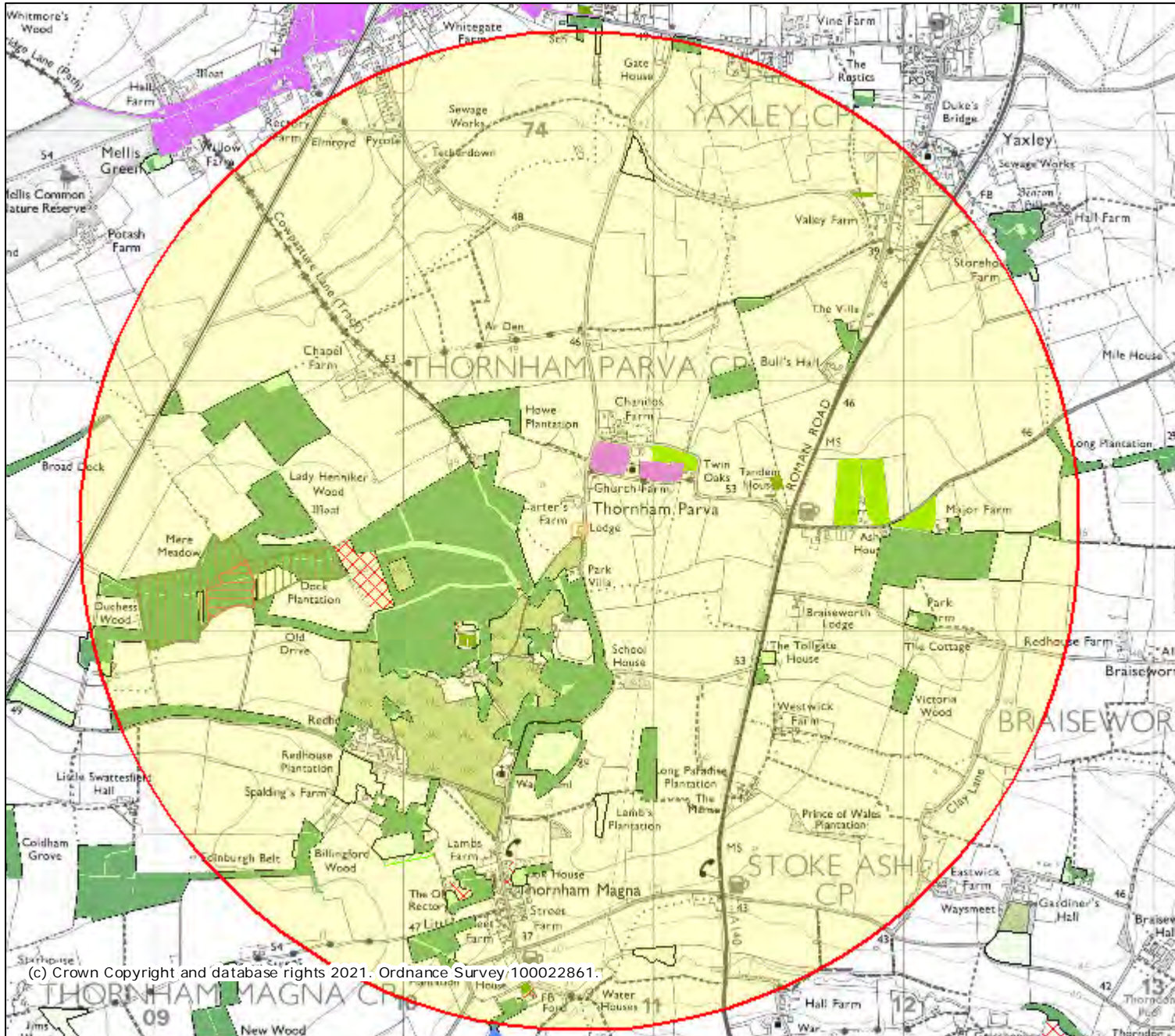
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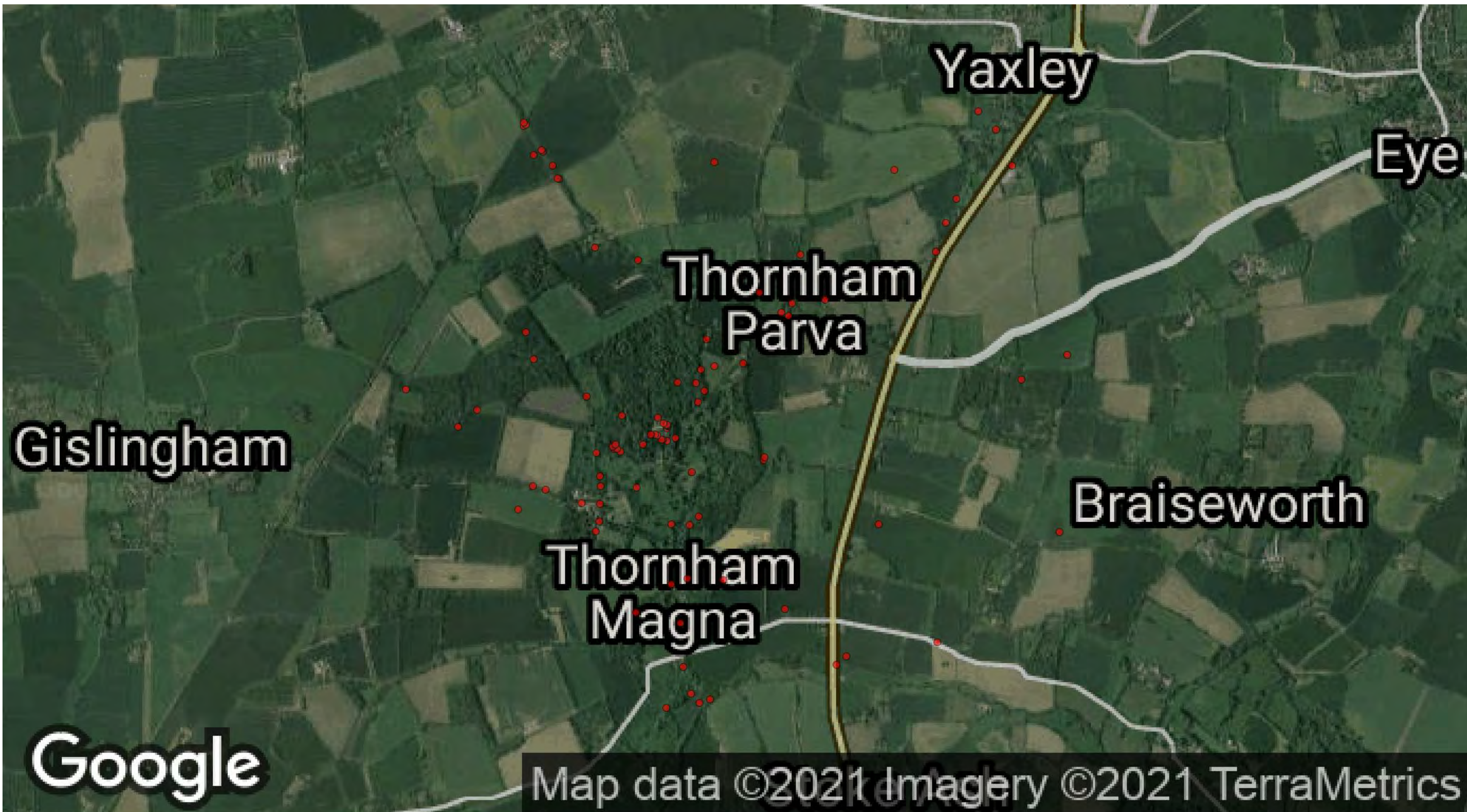
**Legend**

- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Ancient Woodland (England)
- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland
- Priority Habitat Inventory - Deciduous Woodland (England)
- National Forest Inventory (GB)
- Assumed woodland
- Broadleaved
- Cloud \ shadow
- Conifer
- Coppice
- Coppice with standards
- Failed
- Felled
- Ground prep
- Low density
- Mixed mainly broadleaved
- Mixed mainly conifer
- Shrub
- Uncertain
- Windthrow
- Young trees
- Priority Habitat Inventory - Traditional Orchards (England)
- Woodpasture and Parkland BAP Priority Habitat (England)
- Priority Habitat Inventory - No main habitat but additional habitat exists (England)

Projection = OSGB36  
 xmin = 605800  
 ymin = 270100  
 xmax = 615700  
 ymax = 274800

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## Appendix 6 Biodiversity Enhancements

### Bat Boxes



#### Habibat Built In Bat Box

The Habibat Bat Box is a large, solid box made of insulating concrete which provides an internal roost space, and can be seamlessly integrated into the fabric of a building as it is built or renovated. Suitable for most species commonly found in the UK, this single chambered unit features an integrated V system to increase the surface for bats to roost against, whilst allowing them to move around. The Habibat Bat Box can be faced with a number of products to suit the design build. This includes, brick, block, stone, wood or a rendered finish, ensuring the box is unobtrusive and aesthetically pleasing.

Unfaced- There are a choice of 3 plinth colours are available: smooth blue, smooth red, or buff.

Standard Facing- This box is faced in standard smooth blue or red brick and is ideal for new builds.

Bespoke Facing- This box is made to order with a choice of finishes. Please get in touch with us to request a quote

Dimensions: 215 x 440 x 102 mm plus facing bricks

Material: Concrete plus facing



**Vincent Pro Bat Box (May be installed on trees in addition to built in options)**

A highly effective bat box which has been proven through usage of at least 7 different bat species: Barbastelle, Leisler's, Common pipistrelle, Soprano pipistrelle, Brown long-eared, Natterer's and Whiskered (confirmed) and possibly Brandt's.

- Comparative trials proved excellent performance and bat occupancy rates
- This bat habitat has 3 vertical chambers of varying sizes for attracting different species of bat
- Rough landing surface with bat access ladder
- Reduced cleaning requirements, bat droppings fall to the ground
- Dark roof / front elevation to absorb heat. *Please note that wood joints may move / expand with heat and dry/wet weather conditions, this is quite normal*
- FSC certified timber with recycled plastic chamber top

## Bird Boxes



### Woodstone Sparrow Nest Box

The House Sparrow Nest Box is from the Vivara Pro range and is manufactured from WoodStone - a mix of concrete and FSC wood fibres. This material is strong and highly insulating which helps to provide a thermally stable environment within the box. It also protects against damage from predators such as woodpeckers, squirrels and cats. It has two breeding chambers making it particularly suitable for house sparrows as they prefer to nest in colonies.

The House Sparrow Nest Box can be integrated into the masonry of a new house or fixed onto an external wall using strong screws and wall plugs (not included). If possible, it should be positioned near to vegetation and at a minimum of 2 m above ground.



### **Cambridge Swift Nest Box System**

The Cambridge Swift Nest Box system comprises a nesting block built into a standard block or brick wall and faced with either a red or buff brick entrance. The nesting block has two nesting depressions and a large space for the young to exercise. Cost-effective concrete construction.



A completely redesigned hedgehog nest that incorporates all the best features of previous nests, is far safer for the hedgehog, and eliminates loose entrance tunnels and plastic pipes by building all these features into one robust design.

This nest box has been designed and ultimately tested extensively with great success over a period of 12 months by the Hedgehog Preservation Society and their hedgehog "carers", whose help is much appreciated. The final nest design has also been approved by Dr Pat Morris of London University who has contributed to its development.

### **Features:**

- \* Fully built-in tunnel with 5" square access for even the largest hedgehog to avoid unwanted visitors.
- \* Raised 'step' at entrance to enable the box to be partly buried.
- \* Totally safe nesting area well away from the tunnel entrance.
- \* Lower roof to enable the hedgehog to build a snug nest.
- \* Specially designed inbuilt "unlockable" ventilation to provide just the right temperature and humidity without draughts.
- \* Totally removable roof for easy inspection and cleaning.
- \* Underfloor runners letting air to the underside of the box but allowing the box to be pushed easily into place in undergrowth, etc.
- \* Reinforced and strengthened corners making a sturdy nest box.
- \* One compact unit easy to position.

### **Specification**

Exterior quality 12mm resin bonded ply. The box remains untreated on the inside. Best situated in a quiet corner of the garden and covered with leaves and other garden debris. Removable lid for cleaning purposes and reinforced corners, manufactured with surface sunk nails to resist rusting.

Nest box size: Height 22cm x Width 38cms x Length 47cm