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& environmental services

**Gardeners Farm,  
Flowers Lane,  
Plaitford, Romsey,  
SO51 6HH**

Ecological Assessment

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## 1.0 Summary

The proposals are:

to convert the existing Stables into a residential house

The stables have many access points and its internal roof structure offer lots of suitable roosting locations for bats. During the initial inspection hundreds of bat droppings were found throughout the building. This led to the building being noted to have a high suitability for roosting bats. Two bird nests were also observed inside the stables at the northern end.

During the first emergence survey, common pipistrelle was observed emerging from the stables. Many social calls were recorded and due to the time of year the area may be used as a mating roost by this species. Barbastelle were also regularly recorded on the survey and due to the timing of those recordings, it is likely that they are also roosting nearby. The site has been checked for hibernating bats and none were found.

At least two more emergence surveys are required to properly categorize the roost and which species are using the stables, these will take place in May – August and will be required to apply for a European Protected Species licence to undertake the works. An attic roosting area will be created for bats to roost in and this will have suitable access points into it under tiles, suitable materials will be used to construct the building and where possible trusses will be retained along with crevices to enable bats to roost.

Outline measures and recommendation have been set out in this report in relation to bats, birds and habitats in order that there is no net loss of biodiversity.

## 2.0 Introduction

### ***Background***

- 2.1 Peach Ecology was commissioned in September 2023 to carry out an Ecological Assessment of the proposed residential developments at Gardeners' Farm, Flowers Lane, Plaitford, SO51 6HH (Appendix A), central Grid Reference: SU 2820 6188, laid out as shown in Appendix B. This report will be submitted to Test Valley Borough Council for permission to convert the existing Stables and Barns into residential houses (Appendix C).
- 2.2 This report describes the existing ecology on site based on the findings of several site visits from September 2023 to January 2024, protected species and habitats data searches, a review of local and national policies and a single bat emergence surveys.

### ***Description of site and surrounding area***

- 2.3 The old Stables are empty, as are the open barns adjacent. The small, dilapidated building in the northwest of the parcel has been left as an old wood store. The small courtyard of modified grassland is in a poor state and parts are transitioning to scrub. Surrounding the east, south and west of the site is a hedge of mixed native woody species and punctuated with large Oaks. Connected by a track, to the west of the site, is a small group of commercial buildings on an old traditional Orchard. The site is situated amongst a mosaic of arable and grazing farmland, paddocks and copses – these are all separated by mature hedgerows with trees. There are several solar farms to the south and east within 1km.

### ***Brief***

- 2.4 To carry out an Ecological Assessment of the site and inform the clients of any ecological implications associated with the current proposals.

## 3.0 Methodology

### *Desk Study*

- 3.1 This involved gathering ecological data relating to statutory nature conservation sites from within 2km, the results of which are shown in **Appendix D**. A search was undertaken using Multi-Agency Geographic Information for the Countryside (MAGIC), a DEFRA run website, to check for European Protected Species licenses nearby. Ordnance Survey maps and aerial images were assessed to check for other relevant data on notable habitats and species nearby including ponds and wildlife corridors where the site connects into the surrounding area.

### *Site Assessment*

- 3.2 The site was originally assessed on the 12<sup>th</sup> September 2023 by Angus Layton although repeat visits were undertaken of the site during the emergence survey (Davog McCloskey was present) and a further internal inspection was undertaken in January 2024. The initial survey employed techniques based on standard Phase I Habitat Survey (JNCC) methodology and the CIEEM Guidelines for Ecological Impact Assessment (ECIA: CIEEM, 2016). Habitat types on and adjacent to the site were identified according to standard habitat definitions (UKHabs). The site survey included an assessment of the habitats immediately adjacent to the site, where possible, to look at the value of the site within the local landscape and to see whether these sites supported protected species. Indicative methodologies for the most likely protected and notable species that could occur on site and be impacted by the proposals are set out below.

### *Bats*

- 3.3 Buildings and trees within the footprint of the site and any areas potentially impacted by the proposals were inspected in accordance with current survey guidance (BCT, 2016) for potential access points and roosting features which could support bats. Trees were checked for ivy cover, crevices and rotten sections from ground level and using a ladder and binoculars where necessary. Buildings were checked internally and externally for any signs of roosting bats or bat activity including droppings, insect feeding remains, worn entrances and staining. Ladders were used to check on top of gable and dividing walls along with an endoscope, this took place in September 2023 and January 2024.
- 3.4 One bat emergence survey took place, with two more scheduled for the 2024 season. The dusk survey started at least 15 minutes before sunset and continued until 1.5 hours after sunset. 4 surveyors were present during the survey positioned at different points giving good coverage of the areas with bat roosting potential. Equipment used included hand-held Elekon Bat Logger M bat detector/recorders and Infra-red cameras and lights. Sounds were analysed on Elekon Bat Explorer Software. Details on the environmental conditions were taken at the time of survey. Davog McCloskey (Licence number 2015-11951-CLS-CLS) was present during the emergence survey and other surveyors included Angus Layton, Carla Broom and Lisa Malter.

## 4.0 Results and Discussion

### *Desk study*

4.1 There is only one statutory site located within 2km of the site:

**New Forest** (RAMSAR, SPA, SAC, SSSI) - The New Forest embraces the largest area of “unsown” vegetation in lowland England and includes the representation on a large scale of habitat formations formerly common but now fragmented and rare in lowland western Europe. They include lowland heath, valley and seepage step mire, or fen, and ancient pasture woodland, including riparian and bog woodland. Nowhere else do these habitats occur in combination and on so large a scale.

4.2 Due to the relatively small scale and extent of the proposals it is unlikely that the development will impact directly upon any site of importance to nature conservation. The proposals will result in additional dwellings and therefore this has been shown to have an impact on the New Forest SPA due to recreational pressure. A contribution will be made to off-site mitigation per dwelling in line with the New Forest SPA Mitigation – Interim Framework.

4.3 It is important that the proposals follow appropriate pollution prevention and drainage guidelines. The habitats and flora associated with waterways and ground water are sensitive to changes cumulatively from different impacts locally so every development should consider and mitigate for their own impact with regards drainage and pollution.

### *Protected Species*

4.4 Eight Bat EPS mitigation licenses have been granted within 2km of the proposals (Table 1):

Case reference of granted application	Species on the licence	Licence Start Date	Licence End Date	Impact on a breeding site	Damage of a resting place	Destruction of breeding site	Destruction of a resting place
EPSM2012-4667	C-PIP;S-PIP;BLE;SER	17/10/2012	30/09/2015	Y		Y	Y
2018-34285-EPS-MIT	BLE C-PIP S-PIP	26/04/2018	23/04/2028	Y	N	Y	Y
EPSM2012-4159	C-PIP;BLE	05/03/2012	31/12/2014	N		N	Y
EPSM2011-2771	C-PIP;BLE	30/08/2011	31/08/2014	N		N	Y
2016-25627-EPS-MIT	C-PIP S-PIP	20/09/2016	31/12/2016	N	Y	N	N
2014-3934-EPS-MIT	C-PIP	28/10/2014	27/10/2019	N	N	N	Y
2015-13750-EPS-MIT	BLE C-PIP S-PIP	07/09/2015	30/09/2025	N	N	N	Y
2014-3934-EPS-MIT-1	C-PIP	09/03/2015	09/03/2020	N	N	N	Y

**Table 1:** Bat EPS mitigation licenses granted within 2km of the proposals

## **Site Assessment**

### **Building**

#### **Open Barn in the West (Target Note 1, Appendix B)**

- 4.5 This building is part of a separate application.
- 4.6 The Open Barn on the northwest edge of the site (Photo 1) is constructed of breezeblocks with a corrugated iron roof. The building offers very little opportunity for roosting bats and as such, during the initial inspection was deemed negligible.
- 4.7 One poorly formed nest was evident along a roof truss, likely to belong to a pigeon. The north side of the building has an excessive covering of Ivy (photo 2), this offers an excellent opportunity for other species of bird to nest. Below this ivy a noticeable patch of bird faeces was evident, further enhancing the likelihood that the ivy is used by nesting birds.



**Photo 1:** The front of the open barn, the south-east aspect



**Photo 2:** Pigeon nest found on roof truss inside the barn.



### Corrugated Metal Shed (Target Note 2, Appendix B)

- 4.8 This building is part of a separate application.
- 4.9 The corrugated metal shed is a long semi-circular shape, similar to an Anderson air raid shelter. It has become completely covered with bramble and ivy (photo 3). Internally the shed has been insulated with spray on foam.
- 4.10 There is evidence of rats burrowing in and behind the insulation. Like these gaps are breaks in the ceiling which present opportunities for bats and birds. Due to the height of the building and the limited gaps internally, the building was deemed as having low-negligible suitability for bats. One gap (photo 4) did show signs of having been used by nesting birds with a substantial pile of bird faeces below.



**Photo 3:** Corrugated metal shed covered in bramble and ivy.



**Photo 4:** Internal break in the insulation having been used by nesting birds.

### Open Barn (Target Note 3, Appendix B)

- 4.11 This building is part of a separate application.
- 4.12 This open barn (photo 5), in the southeast corner of the site, is of the same construction as the one in the northwest. It also had limited to no opportunities for roosting bats and as such its suitability was deemed as negligible.
- 4.13 No signs of nesting birds were noted at the time of inspection but, it is as likely as the other barn to be used by birds to nest. A juvenile blackbird was found deceased in the barn though, this is likely to have been left there by a domestic cat.



**Photo 5:** Open barn in the southeast corner of the site, northeast aspect

### Stables (Note 4, Appendix B)

- 4.14 The old stable block (photo 6) is a long L shaped building, constructed of red brick along its western side and breezeblock along the north. The roof is clad in corrugated metal supported by old untreated wood. The roofs cladding is in a state of disrepair creating lots of access point for bats and birds. The internal construction of the roof offers lots of roosting/nesting opportunities (photo 7 and 8). This building was deemed to have moderate to high suitability for roosting bats.
- 4.15 During both inspections, bat droppings were noted throughout the barn without any notable piles indicating a preferred bat roost.
- 4.16 All identified gaps suitable for hibernating bats were checked in January 2024 with no bats found. Two nests used in the previous season were observed in the north corner (photo 9)



**Photo 7:** The old stables showing the brick-built construction, southern aspect



**Photo 8:** Internal view of the old stables showing the variety of old untreated wood used in the roof construction.



**Photo 8:** A gap between the brickwork and the roof timber with a bat faeces stuck to the wall.



**Photo 9:** One of two nests found in the northern end of the stables.

### Habitats

- 4.17 The grass on site (immediately to the south and west of the barn) is dominated by broad leaf species (*Holcus Lanatus*, *Anthoxanthum odoratum*, *Pleum pratense*, etc.) due to the courtyard having lower levels of use currently (photo 10). Large parts of the grassland have previously had gravel and hard core laid to aid farm traffic through the site, this has led to patches of bare ground (photo 11) and areas dominated by pioneer species (*Plantago lanceolata*, *Taraxacum officinale*, *Bellis perennis*, etc.). The grassland on site is therefore considered to have limited ecological value.



**Photo 10:** Grassland dominated by broadleaf species.



**Photo 11:** Large patches of bare ground showing the gravel that has been historically laid

- 4.18 Bounding part of the east and the whole of the south is a hedge of varying quality. Along the south, the hedge is predominantly made up of tall (>5m) Elm with an understory of bramble (photo 12). The hedge along the southern end of the site is largely defunct and punctuated by large Oak trees (photo 13).

- 4.19 Both hedges have significant ecological value for the site. They offer connectivity to the wider landscape, important foraging opportunities and roosting/nesting sites. It would be best to avoid any impact but if any of the plans require work to these hedges, a CEMP would need to be in place to avoid potential impacts to EPS (European protected species) and appropriate mitigation for the loss of habitat would need to be designed. The Elm are proposed to be removed and these will be replaced with a range of native hedgerow species.



**Photo 12:** Line of tall Elm trees making up the eastern hedge



**Photo 12:** Largely defunct hedge along the southern boundary

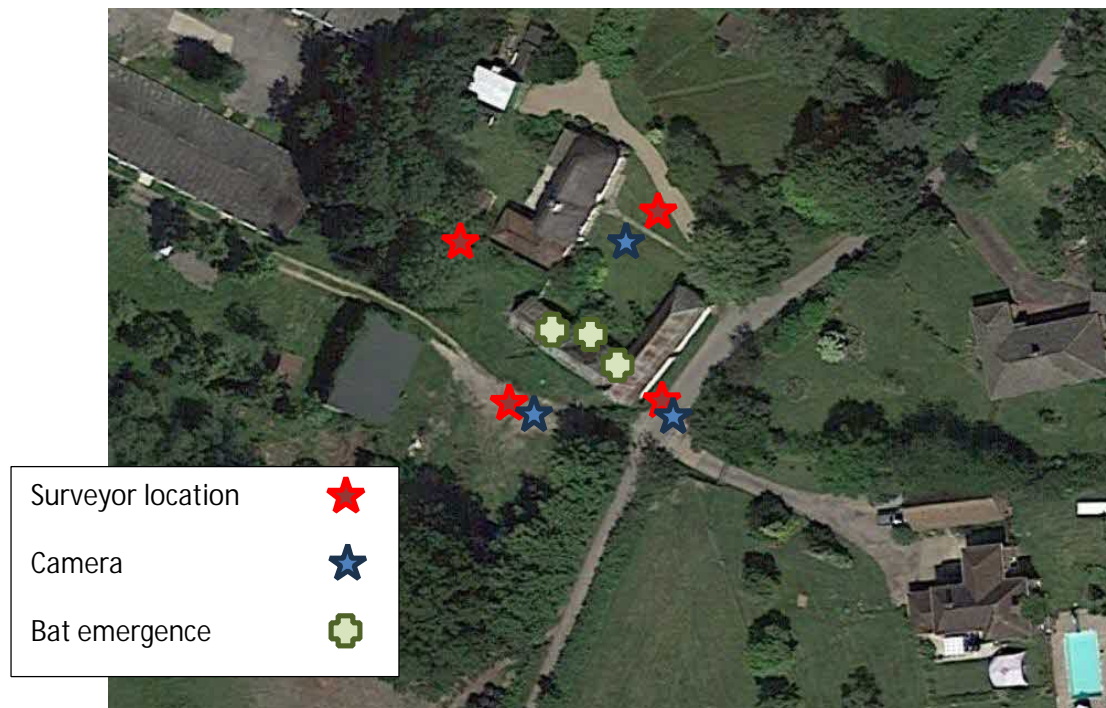
Phase 2 bat survey

4.20 Table 1 below shows a summary of the conditions, equipment and personnel present during the bat survey.

Survey Date	Survey type	Surveyors	Equipment used	Duration	Weather	Sunset /sunrise time	Building focus
14 <sup>th</sup> September 2023	Dusk	DM, AL, CR, LM	Elekon Batlogger M, Infrared cameras	1908 - 2053	10% cloud cover, wind force 0, no rain, 21°C at start of survey and 15°C at end	1923	Old Stables

**Table 1:** Environment conditions and surveyors present during bat surveys.

- 4.21 During the first survey Common Pipistrelle were the most commonly recorded bat species, first recorded at 1938 (15 mins after sunset). CR recorded a bat emerging at 1943 and this coincides with Common Pipistrelle recordings. At times it was clear that two bats were present at the same time. A large proportion of the recordings contained social calls. Due to the high number of social calls and the time of the survey, it seems likely that the site is being used for mating.
- 4.22 The next most common species recorded was Barbastelle, first recorded at 1949 (26 mins after sunset). Barbastelle are recorded emerging a mean 24mins after sunset and staying within close proximity for a further 60 minutes. It is likely that there is a Barbastelle roost nearby or onsite – the species is known to use trees and sometimes old barns to roost in.
- 4.23 Brown Long Eared were also recorded on the site at 2029 (66 mins after sunset). These bats echolocation calls are exceptionally quiet and they on average emerge 54 mins after sunset so given the time and number of calls, these bats may also use the site as a day roost.
- 4.24 Two more potential emergences were recorded but remain unconfirmed by the IR cameras.



**Plan 1:** Results of first survey

## 5.0 Requirements and Recommendations

### *Bats*

- 5.1 A European Protected Species licence will be required to proceed with the works on the Stables including any work on the roof or internal timbers. An ecologist will be present to oversee any works on the roof, gables, weather boarding, soffits etc.
- 5.2 A minimum of 2 further emergence surveys will be carried out during the 2024 season during the period May to August to fully establish the roosting potential of the Stables – this will be required to support the EPS licence application.
- 5.3 An outline mitigation plan is set out below:

An ecologist will undertake a 'toolbox talk' with the site contractors before they start any work so areas of interest with bat and bird potential can be highlighted and any specific actions which need to take place.

Bat boxes (4 x crevice bat boxes) will be erected in trees as temporary mitigation prior to any work taking place on site.

A large attic area of minimum dimensions 5mx5m and 2m high from base to apex will be retained in the Stables and this will have suitable access points for bats under six tiles which lead directly into the roost. The attic space along with the current wood supporting the roof will be retained if possible although this will need to be checked for rot by a specialist.

If the Ivy growing on the southern gable end cannot be retained then new vegetation will be planted to compensate.

All windows would likely require low transition coatings to reduce light spillage on site.

1F Bitumen-style roofing felt will be used internally on the roof of any buildings being reroofed or retiled.

Any new external lighting must be avoided wherever possible. If required, then lighting will need to be downlighting, on a timer and/or movement sensor and kept to an absolute minimum. A lighting plan will be reviewed by an ecologist. A single down lighter will be used per building maximum.

The site will be monitored during construction works (when any work is undertaken on roof, gables, timbers, internally or externally) and afterwards to ensure mitigation and enhancements are undertaken properly.

### *Birds*

- 5.4 Impacts on the roofs of the buildings internally or externally will avoid the bird nesting from March – August inclusive, unless it can be shown by an ecologist that there are no nesting birds present. Similarly, all vegetation removal will be undertaken outside the bird nesting season or alternatively under ecological supervision.
- 5.5 A feature for nesting swifts and sparrows will be integrated into the building.

### *Habitats*

- 5.6 A minimum of 8 fruit trees to be planted on site.



*Pollution prevention and drainage*

- 5.7 It is important that the proposals follow appropriate pollution prevention guidelines (PPG 6) and drainage guidelines (Defra guidelines for Sustainable Urban Drainage) to protect habitats connected hydrologically.

*New Forest Special Protection Area (SPA)*

- 5.8 The site is located within 13.6km of the New Forest SPA and because there will be a net gain in dwellings a contribution will be paid towards off-site mitigation measures to offset this impact.

*Construction Environment Management Plan (CEMP)*

- 5.9 A CEMP will be required, this will set out:

Protection measures for trees

Storage of materials and equipment on site

Protective fencing

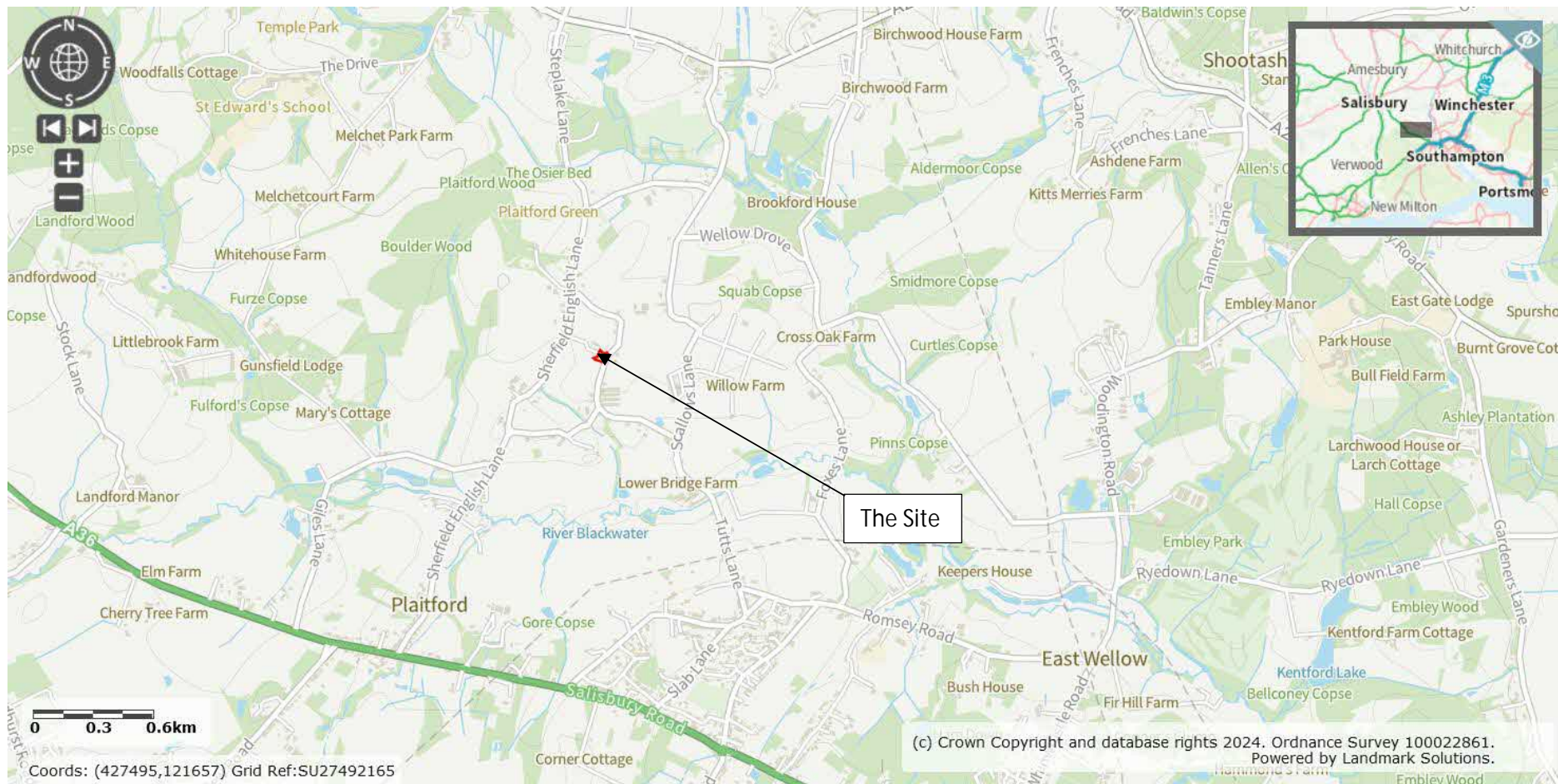
Noise and vibration

Access to the site

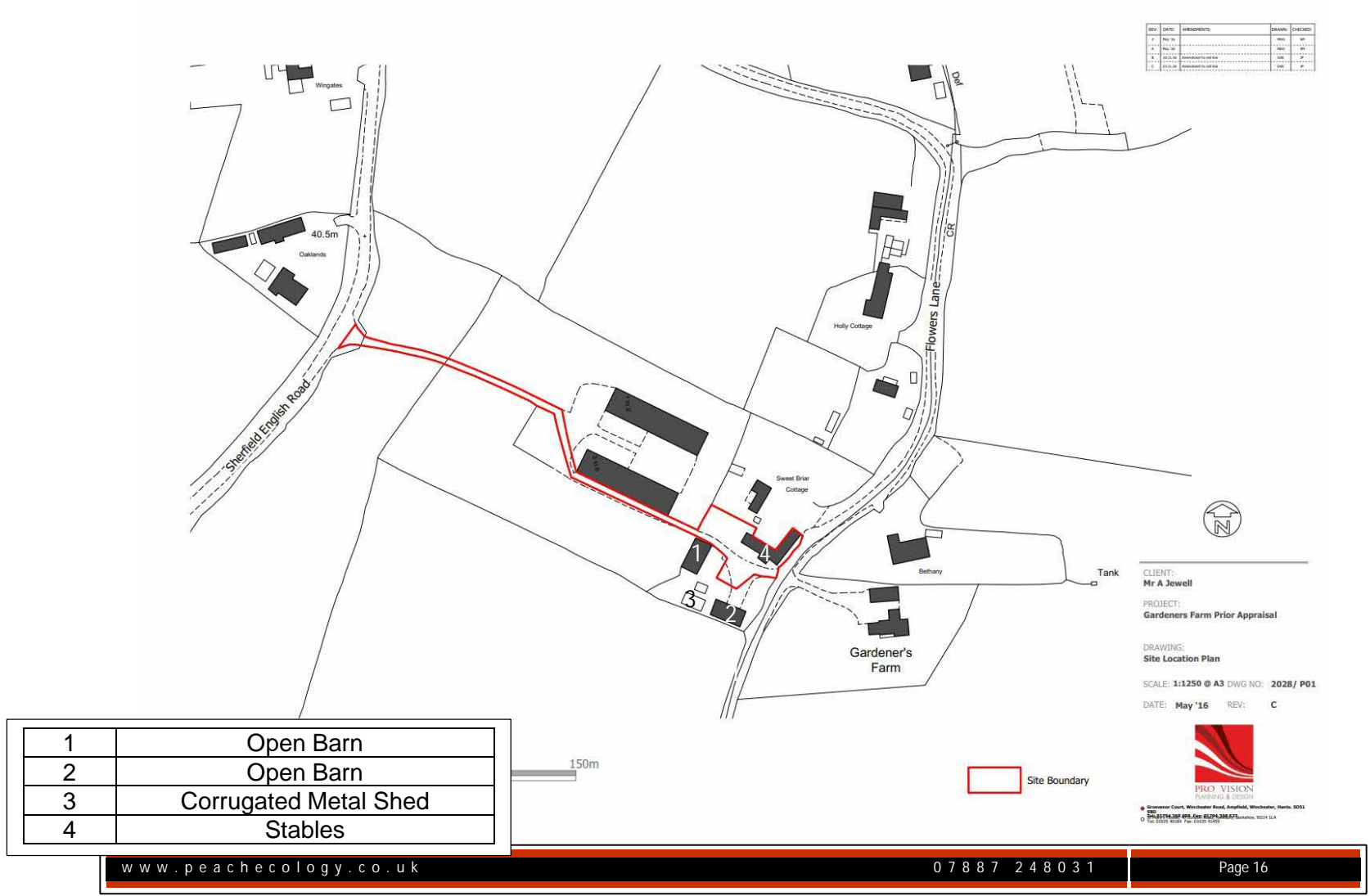
Sensitive ecological features including bat roosts and nesting birds

Timing for works on site to not impact on ecological receptors

## Appendix A: Site location



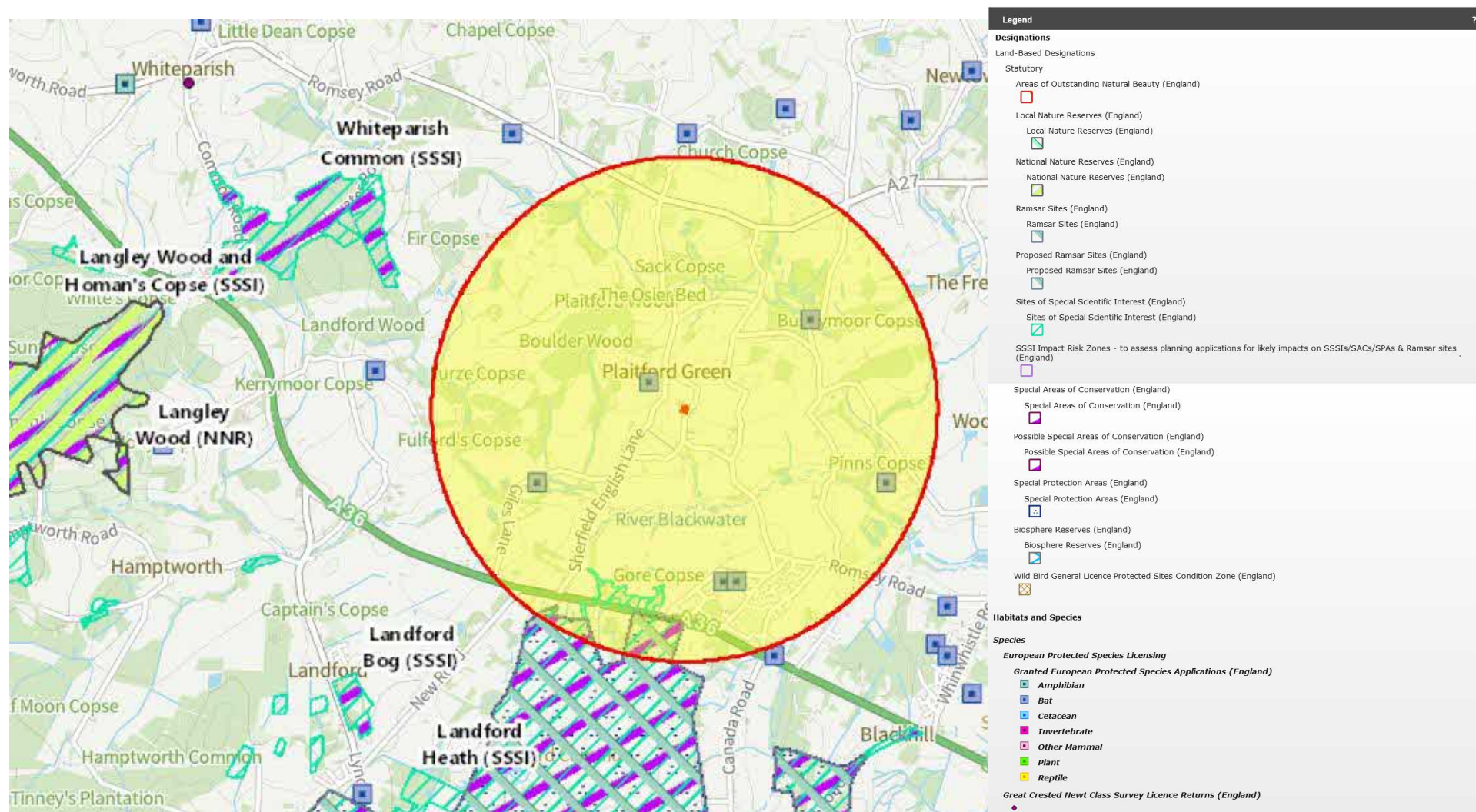
# Appendix B: Existing site plan



# Appendix C: Proposals



## Appendix D: Protected sites, habitats, and species data from MAGiC database



# Appendix E: Mitigation and Enhancements

House Sparrow box located in each new dwelling



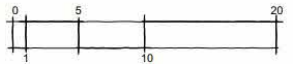
8 x apple trees planted

Swift box located in each new dwelling



A large attic area of minimum dimensions 5m x 5m and 2m high from base to apex will be retained in the Stables and this will have suitable access points for bats under six tiles which lead directly into the roost. The attic space along with the current trusses will be retained or if this is unsuitable then trusses with similar crevices will be created in the space. Bitumen roofing felt will be used in the attic space.

Elm trees removed to new replaced with new native woody species



Proposed residential curtilage

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CLIENT:	The Clydesdale Group Ltd
PROJECT:	Gardeners Farm
DRAWING:	Proposed Site Plan
NUMBER:	51532-XX-P1-02
ISSUE:	v6
	1:200
	A2
	21.02.24



## Appendix F: Protected species legislation

### European Protected Species

#### Bats

These species are listed in Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and Schedule 2 of the *Conservation of Habitats and Species Regulations 2010*. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence, *inter alia*, to:

deliberately capture, injure or kill any such animal;

deliberately disturb any such animal, including in particular any disturbance which is likely:

- o to impair its ability to survive, breed, or rear or nurture their young;
- o to impair its ability to hibernate or migrate;
- o to affect significantly the local distribution or abundance of that species; or

damage or destroy a breeding site or resting place of any such animal; or

intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or

intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

Greater horseshoe bat (*Rhinolophus ferrumequinum*);

Lesser horseshoe bat (*Rhinolophus hipposideros*);

Bechstein's bat (*Myotis bechsteinii*);

Barbastelle (*Barbastella barbastellus*);

Greater mouse-eared bat (*Myotis myotis*).

In certain circumstances where these species are found the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favorable conservation status. Outside SACs, the level of legal protection that these species receive is the same as for other bat species.

### Nationally Protected Species

#### Breeding Birds

With certain exceptions<sup>1</sup>, all wild birds, their nests and eggs are protected by section 1 of the *Wildlife and Countryside Act 1981* (as amended). Therefore, it is an offence, *inter alia*, to:

intentionally kill, injure or take any wild bird;

intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or

intentionally take or destroy the egg of any wild bird.

These offences do not apply to hunting of birds listed in Schedule 2 subject to various controls.

Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or

intentionally or recklessly disturb the dependent young of any such bird.

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<sup>1</sup> Some species, such as game birds, are exempt in certain circumstances