

ECOLOGICAL ASSESSMENT REPORT

17th November 2023

Plot 1, Fir Tree Farm, Pamber Road,
Charter Alley, Tadley, RG26 5PZ

On behalf of: Mr D Simpson & Ms S Bryant-
Jones

Agent: Fowler Architecture and Planning

REPORT ISSUE SHEET:

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Survey data lifespan


Information and data provided within this report is considered accurate at the time of writing. Bat survey data is considered valid for 18 months from the survey date for planning purposes only. However, as bats are a highly mobile species, update survey(s) will likely be required if (but not limited to):

- a) The condition of the building(s) and/or general site changes; and/or*
- b) If the nature and/or extent of the proposed works change.*

If a Natural England bat licence is required, update bat survey(s) will likely be required for the bat licence application. Preliminary Roost Appraisal (PRA) (i.e., building inspections) data is considered valid for 3 months prior to a bat licence application; and bat activity survey data (emergence/re-entry surveys) is considered valid within the then 'current' bat survey season.

Reporting and data validity

This report has been produced using all reasonable skill and care, and a Quality Assurance (QA) review process has been conducted prior to issue of this report. However, ABR Ecology Ltd cannot accept responsibility for any inaccuracies and/or discrepancies with third-party data supplied within this report.

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Executive summary

- ABR Ecology Ltd were commissioned by Fowler Architecture and Planning on behalf of Mr D Simpson & Ms S Bryant-Jones to produce an Ecological Assessment informed by a Preliminary Ecological Appraisal (PEA), Preliminary Roost Appraisal (PRA), static monitoring and eDNA sampling at 'Plot 1', Fir Tree Farm, Pamber Road, Charter Alley, Tadley, RG26 5PZ. These surveys were conducted to advise on the presence/absence of bats at the property and identify any other ecological constraints associated with the prospective development of the site. This report was requested to support a planning application for the demolition of two barns and the erection of one new dwelling which will include a new access road involving the removal of hedgerow.
- The PEA and PRA were undertaken on the 13th January 2023 by Natural England class 2 licensed bat ecologist Phil Smith ACIEEM, class 1 licensed bat ecologist Sophie Morris, and graduate ecologist Georgia Linter. Static monitoring for bats was undertaken between 17th May and 4th June 2023, inclusive.

Habitats, protected sites, and invasive species:

- Habitats within the application site boundary include two wooden outbuildings, an area of modified grassland, bramble scrub, scattered trees, a line of trees, a native species-rich hedgerow and a non-native hedgerow.
- Habitats within the wider ownership boundary include a farmhouse with associated outbuildings, modified grassland, bramble scrub, a pond, treelines, ditches, non-native hedgerows, scattered trees, lowland mixed deciduous woodland (a Hampshire core non-statutory network) and developed land; sealed surface. The northeast section of the blueline boundary is classed as a Broad habitat 'Broadleaf Mixed and Yew Woodland', a Hampshire Core non-statutory network and is a priority habitat 'Lowland Mixed Deciduous Woodland'.
- Rhododendron was recorded on site and wall cotoneaster was recorded within the wider ownership boundary and are invasive species listed under Schedule 9 of The Wildlife and Countryside Act (1981) (as amended). Recommendations for the eradication of these species from the site are detailed in Section 5 of this report where removal is possible.

Badgers:

- There are mammal 'push-throughs' within the hedgerow on site and within the wider ownership boundary; badgers are considered likely foraging on site and a mitigation plan is provided in section 5.

Barn owls:

- A barn owl roost is present within 'Building 3'; a mitigation and compensation strategy is provided in Section 5.

Bats:

- The PRA revealed no evidence of bats and 'Buildings 2' and '3' and the onsite trees are considered to hold 'negligible potential' for roosting bats. Roosting bats are not considered to be impacted by the proposed development; further information is provided in Section 5 regarding the validity of this report.

Commuting and foraging bats:

- A total of four species of bat were recorded on site including common pipistrelle, soprano pipistrelle, Nathusius's pipistrelle and noctule. As bats are using the site for commuting and foraging purposes, a lighting strategy is detailed in Section 5 of this report.

Dormice:

- It is considered possible that dormice are present within the bramble scrub and hedgerows on site and therefore supervision of the hedgerow and vegetation removal is required by a class licensed dormouse ecologist. A mitigation strategy is detailed in Section 5.

Great crested newts (GCN):

- A pond present within the wider ownership boundary and this pond received a HSI score of 'good'; eDNA sampling was conducted upon the pond and returned a 'negative' result. Based on a 'negative' eDNA outcome, this species is not considered to be present on site and no further action is recommended for GCN.

Nesting birds:

- No evidence of nesting birds was identified within the site, however, there is potential for nesting birds to be present within the trees, hedgerows and buildings. A mitigation and enhancement strategy for birds is detailed in Section 5.

Reptiles:

- There are suitable reptile habitats on site including longer grassland margins, hedgerow bases, scrub, and log piles. A reptile mitigation and compensation strategy is detailed in Section 5.

Biodiversity enhancements:

- To ensure the proposed development is compliant with the National Planning Policy Framework (NPPF) and the local plan, biodiversity enhancements are detailed in Section 5 of this report.

1. Introduction

ABR Ecology Ltd were commissioned by Fowler Architecture and Planning on behalf of Mr D Simpson & Ms S Bryant-Jones to produce an Ecological Assessment informed by a Preliminary Ecological Appraisal (PEA), Preliminary Roost Appraisal (PRA), static monitoring and eDNA sampling at 'Plot 1', Fir Tree Farm, Pamber Road, Charter Alley, Tadley, RG26 5PZ (central grid reference: SU 59738 57778). These surveys were conducted to advise on the presence/absence of bats at the property and identify any other ecological constraints associated with the prospective development of the site. This report was requested to support a planning application for the demolition of two barns and the erection of one new dwelling which will include a new access road.

The PEA and PRA were undertaken on the 13th January 2023 by Natural England class 2 licensed bat ecologist Phil Smith ACIEEM, class 1 licensed bat ecologist Sophie Morris and graduate ecologist Georgia Linter. Static monitoring for bats was undertaken between 17th May and 4th June 2023, inclusive, and eDNA sampling was conducted on 18th April 2023. Existing plans are provided in Appendix 1 and proposals in Appendix 2.

Site context

The application site is situated within the village of Charter alley. The immediate surrounding areas include arable farmland and pockets of woodland with well-connected mature treelines and hedgerows. Areas of grassland, woodland and hardstanding are present within the wider site ownership, with residential buildings to the east and west of the site. The wider landscape consists of additional residential buildings to the west and open grassland, arable farmland and woodland in all directions with connected hedgerows and mature scattered trees. The surrounding areas offer excellent potential for wildlife.

Aims and scope of this report

This report is based on the results of the PEA, PRA and data search supplied by Hampshire Biological Information Centre (HBIC, 2023), which were principally aimed at determining the ecological value of the site and any constraints associated with the development. This report is also based on the results of the PRA, bat activity static monitoring and GCN surveys which aimed to determine use of the site by these species and to determine the use of the site by the local bat population in accordance with The BCT Good Practice Survey Guidelines (Collins, 2016).

This report aims to establish whether the proposed works will impact on any protected or vulnerable species and/or habitats and identifies the need for any ecological mitigation and/or compensation requirements, which may inform the

need for European Protected Species (EPS) licence(s) to allow the works to proceed lawfully.

2. Legislation and planning policy

Legislation and UK BAP priority habitats/species

Legislation

In England, all bats, dormice (*Muscardinus avellanarius*) and great crested newts (*Triturus cristatus*) are legally protected under Annex IV of the EC Habitats and Species Directive (1992), which is transposed into domestic law via the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

A number of species are also listed under Annex II of the EC Habitats and Species Directive (1992), including barbastelle (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteinii*), greater horseshoe (*Rhinolophus ferrumequinum*), lesser horseshoe (*Rhinolophus hipposideros*), great crested newt, and stag beetle (*Lucanus cervus*).

The above named species and adders (*Vipera berus*), slow worms (*Anguis fragilis*), grass snakes (*Natrix natrix*), common lizards (*Zootoca vivipara*), water voles (*Arvicola amphibious*), common frog (*Rana temporaria*), palmate newt (*Lissotriton helveticus*), smooth newt (*Lissotriton vulgaris*) and several invertebrate species are also protected under Schedule 5 of The Wildlife and Countryside Act (WCA) (1981) (as amended). Schedule 9 of The WCA (1981) (as amended) also includes non-native, invasive species including (but not limited to) Himalayan balsam (*Impatiens glandulifera*) and Japanese knotweed (*Fallopia japonica*). Badgers (*Meles meles*) are legally protected under The Protection of Badgers Act (1992).

All birds, their nests and eggs are protected under Section 1 of The WCA (1981) (as amended) and it is thus an offence, to intentionally kill, injure or take any wild bird; intentionally take, and damage or destroy the nest of any wild bird while it is in use or being built. Barn owls are also afforded additional protection under Part 1 of The WCA (as amended) from disturbance.

A number of sites designated for nature conservation are afforded legal protection due to being of European importance. These include Special Areas of Conservation (SACs) (protected under the EC Habitats and Species Directive (1992), Special Protection Areas (SPAs) for birds (protected under the EC Birds Directive) and Ramsar (Ramsar Convention, 1975). Other protected sites include Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) Local Nature Reserves (LNRs) and Protected Road Verges which are designated under the WCA (1981) and strengthened by The Natural Environment and Rural Communities Act (NERC) (2006).

SPAs and SACs were previously included in the Natura 2000 sites and following amendments to the legislation, are now included under the 'National Site Network'. Ramsar sites do not form part of the 'National Site Network' however, are afforded the same protection. These changes allow the Government to continue commitment

to the protection of the environment along with fulfilling the international commitments under the Bern Convention, the Oslo and Paris Conventions (OSPAR), Bonn and Ramsar Conventions.

'Important' hedgerows are legally protected under The Hedgerow Regulations (1997).

UK BAP priority species and habitats

Several species and habitats are listed under the UK Biodiversity Action Plan (UK BAP) (JNCC, 2016) as priority habitats/species due to their vulnerability or rarity as listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006) and Section 40 places a duty on all public authorities to conserve biodiversity.

These include several terrestrial and freshwater habitats, including some hedgerows and streams, and several species such as hedgehogs (*Erinaceus europaeus*), barbastelle, Bechstein's bat, both species of horseshoe bat, brown long-eared bat (*Plecotus auritus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and noctule (*Nyctalus noctula*).

National and local planning policy

NPPF – The National Planning Policy Framework

The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government, 2021) sets out the Government's planning policies for England and how these should be applied. In the context of this report, Section 15 of NPPF is relevant and applicable, Section 15 states:

'Planning policies and decisions should contribute to and enhance the natural environment by, minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

New developments and projects are supported where plans promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue measurable net gains for biodiversity.

To ensure this application is compliant with Section 15 of NPPF, wildlife/habitat enhancements will be required to demonstrate a biodiversity net gain as an outcome of the project/development.

Section 15 of NPPF also gives consideration to sites with potential to impact on irreplaceable habitats, and states:

'Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists'

To ensure this application is compliant with Section 15, this application should be accompanied by a suitable arboricultural report to assess the presence of potential ancient or veteran trees, where appropriate.

The Basingstoke and Deane Local Plan

The Basingstoke and Deane Local Plan (2016) (Basingstoke and Deane Borough Council, 2016) Policy EM4 'Biodiversity, Geodiversity and Nature Conservation' states:

'Development proposals will only be permitted if significant harm to biodiversity and/ or geodiversity resulting from a development can be avoided or, if that is not possible, adequately mitigated'; 'Applications for development must include adequate and proportionate information to enable a proper assessment of the implications for biodiversity and geodiversity'; and 'In order to secure opportunities for biodiversity improvement, relevant development proposals will be required to include proportionate measures to contribute, where possible, to a net gain in biodiversity, through creation, restoration, enhancement and management of habitats and features including measures that help to link key habitats'.

Policy EM4 also states that development will only be permitted where it can be demonstrated that there will be no adverse impact on the conservation status of the key species.

It is the developer/applicant's responsibility to ensure that the proposed development proceeds in full compliance with this report and/or any update version report thereafter, that works are undertaken lawfully, in compliance with national and local policy, and in accordance with all conditions of the obtained planning consent.

3. Methodology

Desktop data search

Internationally, nationally and locally protected sites including Ramsar, SPAs, SACs, SSSIs, NNRs and LNRs were identified within a 5 kilometre (km) radius of the application site using the Multi-Agency Geographical Information for the Countryside (MAGIC, 2023) website. Hampshire Biological Information Centre (HBIC, 2023) were contacted to provide records of any protected, vulnerable and notable species and any locally designated sites such as Sites of Importance for Nature Conservation (SINCs) within a 1km radius of the application site.

Hampshire Biological Information Centre (HBIC, 2023) were contacted to determine if any 'Ecological Networks' are present within 1km of the site. A search was also conducted on MAGIC (MAGIC, 2023), looking for the presence of nearby priority habitats.

This information was used to inform the assessment of the site and its potential to support protected/vulnerable species and habitats and to assess whether the proposed works hold potential to impact on protected sites designated for nature conservation.

Botanical survey (UKHab)

The habitat survey was conducted on the 13th January 2023 by ecologists Phil Smith ACIEEM, Sophie Morris and graduate ecologist Georgia Linter. The survey was conducted in accordance with the UK Habitats (UKHabs) Classification System (UKHAB Working Group, 2020) for coding habitats onsite and offsite.

The survey involved a detailed flora survey of habitats, and each flora species was allocated an abundance in accordance with the DAFOR scale, using local (L) as a prefix where a species was restricted in distribution across the habitat:

- D – Dominant
- A – Abundant
- F – Frequent
- O – Occasional
- R – Rare

Habitats on site were classified and coded in accordance with the UKHab Classification System, using the Habitat Definitions Version 1.1 document (UKHab Working Group, 2020¹) and UKHab Field Key Version 2.1 (UKHab Working Group, 2020²). Other features of ecological interest were identified using 'target notes.'

Badgers

A direct search was conducted looking for signs of badgers and their setts. Any setts encountered were classed as main, annexe, subsidiary or outlier, dependent upon the number of holes and apparent extent of their use. A search was also conducted for any other evidence of badger including faeces or latrines, pathways, scratching posts at the base of trees, snuffle holes, day nests, hair or footprints.

Barn owls

A thorough search for evidence of barn owl was conducted on the 13th January 2023 by Sophie Morris barn owl licenced ecologist. The ecologist conducted a thorough search of the trees/buildings that were accessible for feeding remains, feathers, splashing/droppings, pellets, nesting material and the presence of barn owls.

Bats

Preliminary Roost Appraisal (PRA)

Natural England class 2 licensed bat ecologist Phil Smith ACIEEM, class 1 licensed bat ecologist Sophie Morris and graduate ecologist Georgia Linter undertook the PRA of the buildings and trees on site. Timing and weather conditions for the survey are provided in the table below:

Survey date	Time of survey	Surveyor(s)	Equipment used	Weather conditions		
13/01/2023	11:00am	Phil Smith ACIEEM, Sophie Morris and Georgia Linter	High-powered torch, extendable ladder, and binoculars	Temp:	Okta cloud cover:	Beaufort wind force:
				9°C	4/8	3/12

The survey was undertaken in accordance with the Bat Conservation Trust (BCT) Good Practice Survey Guidelines (Collins, 2016). A thorough search for evidence of bats was undertaken in the buildings including any internal loft spaces or voids and on any external features, notably any windowsills, walls, floors and flat surfaces. Where possible, evidence for bats was searched for around trees, and Potential Roosting Features (PRFs) were identified where visible such as knot holes, tear outs, woodpecker holes and limb breaks. Evidence of roosting bats can include:

- The presence of live/dead bats;
- Bat droppings - distinguished from rat/mouse droppings by their crumbly texture;
- Staining from oily fur around access points; and
- The presence of feeding remains, such as insect wings and casings.

The buildings/trees were identified as a ‘confirmed’ bat roost if evidence of roosting bats was recorded. To confirm the species of bat present, a sample of any bat droppings recorded was made and sent to Swift Ecology Ltd for DNA analysis.

Most native bats in the UK are crevice-dwelling species, with bats roosting in remote areas such as between tiles and membrane, behind cladding, at wall tops, in cavities, tear outs, woodpecker holes, soffits and behind lead flashing, to name a few examples. Evidence of these species is often concealed and/or inaccessible due to the remote nature of the roost. Therefore, where no evidence of roosting bats was recorded, an assessment on the availability of potential roosting areas and bat access points around the buildings, as well as the quality/availability of surrounding bat habitat, was conducted. The buildings or trees were then assigned a category based on a sliding scale of negligible to high, in accordance with the BCT Guidelines (Collins, 2016):

Bat roosting potential	Description
‘High potential’	A building/tree with one or more potential roosting sites that are highly suitable for use by many bats on a regular basis and for a longer period of time.
‘Moderate potential’	A building/tree with one or more potential roosting features that could be used by bats due to appropriate conditions but are unlikely to support a bat roost of important conservation status (roost type only, not species).
‘Low potential’	The building/tree features one or more potential roosting features that could be used by bats opportunistically. These features do not provide the appropriate conditions to be used on a regular basis by large numbers of roosting bats. A tree of sufficient age or size to contain roosting features but none of which can be observed from the ground.
‘Negligible potential’	The features of the building/tree are negligible and are highly unlikely to be used by roosting bats.

Static monitoring

One ‘Wildlife Acoustics Song Meter (SM4) static monitoring device was deployed in the southwest of the application site (see Appendix 5 for location of device). Static monitoring was conducted for 19 consecutive nights between 17th May 2023 and 4th June 2023, inclusive.

Bat activity data was analysed using Kaleidoscope Pro V. 4 Analysis Software (Wildlife Acoustics, 2021). The total number of bat passes for each species on each night were tallied to provide a representation of the use of the site.

Dormice

Dormice are small, nocturnal mammals which occupy habitats such as hedgerows, woodland and scrub. The dormouse requires good arboreal connectivity with a good range of food sources such as fruit, nuts, flowers or insects. Plant species such as hazel, oak, bramble and honeysuckle are favoured in particular, as well as hornbeam, blackthorn, sweet chestnut and sycamore supporting dormice within woody connective habitat. The habitats on site and immediately adjacent to the site was assessed for the potential to support dormice.

Great crested newts

Great crested newts occupy both aquatic and terrestrial habitats throughout their life cycle, spending a short period of the year breeding and egg-laying in waterbodies such as ponds, standing water and ditches. Throughout the remainder of the year, newts will spend their time foraging and commuting within terrestrial habitats such as longer grassland, woodland, hedgerow bases and scrub. Newts will hibernate within features such as log piles, tree roots and rubble piles. Great crested newts are known to forage up to 500 metres (m) from their breeding sites.

An aerial assessment was made prior to the site visit to determine if any waterbodies such as ponds were present within 250m of the site. Any accessible waterbodies were assessed under the Habitat Suitability Index (HSI) (Oldham et al, 2000, 2008) to determine the suitability of the waterbody to support great crested newts.

eDNA sampling

eDNA sampling was conducted on the pond onsite to determine if great crested newts were present/absent in the pond. The technique involved taking 20 water samples from around the pond margins and these were then transferred into sterilised sample tubes. The sample was collected on 18th April 2023 and sent to SureScreen Scientifics Ltd to determine if great crested newt DNA was present in the pond.

Nesting birds

A search for evidence of nesting birds was conducted on the 13th January 2023. Birds will nest in buildings, hedgerows, scattered trees, scrub and planting and forage amongst these habitats.

Reptiles

A habitat suitability assessment was undertaken on the habitats on site to determine their likelihood in supporting reptiles. Reptiles occupy habitats with a

varied vegetative structure, offering opportunities for foraging and basking, such as areas of unmanaged grassland with shorter vegetation margins, heathland and woodland. An assessment was also made of potential sites suitable for hibernation such as log and brash piles, rubble, rockery or tree roots.

Survey limitations

PEA and PRA

Potential evidence of crevice-dwelling bats may have been missed due to the nature and remote location of potential roosting areas. However, binoculars were used to identify any potential bat droppings on the exterior features of the buildings, where possible.

A ground-based tree survey looking for evidence of bats can be constrained by canopy cover and by the angle of the viewer. Where a tree meets a certain age and size this is considered to increase the probability of bat roosts in trees due to declining tree health and the likelihood of disease/rot offering cavities for bats.

An aerial search for waterbodies is constrained by the accuracy of online mapping resources. Several maps were accessed to minimize the changes of missing waterbodies which may support great crested newts however, garden ponds and waterbodies within residential properties are often unmapped and it is possible that waterbodies have been missed as part of this assessment.

The site visit provides a 'snapshot' of the site and does not take into account seasonal variation. Species may have been overlooked due to the constraints of the season and time in which the survey was undertaken. A lack of evidence of a species does not confirm its absence from site, rather there was no indication of its presence at the time of survey.

Static monitoring

Bat activity transects were not undertaken and were deemed disproportionate due to the small size of the application site. It was not considered that transect surveys would provide supplementary information, as it was assumed the local area would support high numbers of bats due to the availability of good invertebrate abundance and diversity. However, it is noted that static monitoring surveys do have their limitations such as bat behaviours cannot be directly observed, and bats cannot be counted (i.e. one hundred bat passes could represent one bat passing 100 times or 100 bats each passing once). Results from the static monitoring surveys are therefore interpreted with caution due to this limitation.

Data validity and survey data lifespan

The data within this report should not be seen as comprehensive. Data obtained from the HBIC (HBIC, 2023) data search is unlikely to provide a complete record of habitats and species within the search area. It is therefore possible that a protected species may occur within the vicinity that has not previously been identified within the data search.

Survey data within this report is considered valid for 18 months for planning purposes; and is only intended for the plans outlined in this report. If 18 months pass and no works have been undertaken and/or if conditions on-site change such as the condition of the buildings and vegetation, an update site visit with appropriate surveys must be conducted to re-evaluate the potential of the site to support protected/vulnerable species and habitats.

4. Results

Internationally, nationally and regionally protected (statutory) sites

MAGIC (MAGIC, 2023) was used to identify any statutory sites located within 5km of the application site and the results of which are provided in the table below:

Site name	Distance from site	Designation	Size (ha)	Site description
North Wessex Downs	882m southwest	Area of Outstanding Natural Beauty (AONB)	1731.05	One of the largest tracts of chalk downland in southern England. It includes the bright, bare uplands of the Marlborough, Berkshire and North Hampshire Downs and sweeps on its western edge to a crest above the White Horse Vale. In the east, the AONB's chalk ridge meets the Thames and the Chilterns AONB along the wooded reaches of Goring Gap. It loops south round the Kennet Valley, to fall gently away to the Test Valley. The AONB's richly farmed valley landscapes are a pleasing foil to the chalk uplands. They include the Vale of Pewsey's meadows and beech avenues and oak-fringed glades of Savernake Forest.
Pamber Forest	2.5km northeast	LNR	190.13	Pamber Forest is a large ancient woodland site traditionally managed by coppicing and grazing. The site was notified as a SSSI for its diverse invertebrate populations and flora. 70 ancient woodland indicator plant species are present, along with small pearl bordered fritillary, purple emperor and white admiral butterflies.
Pamber Forest and Silchester Common	2.5km northeast	SSSI	341.72	The site consists of an extensive ancient oakwood, Pamber Forest; two heathland Commons and a series of unimproved wet

				meadows. This association of ancient woodland, heath and grassland supports a diverse range of plants and animals, including many nationally rare species of bird listed in Annex 1 of the EC Directive on the Conservation of Wild Birds.
Ron Ward's Meadow with Tadley Pastures	2.7km north	SSSI	11.15	The main meadow comprises an unimproved, herb-rich grassland, managed traditionally as a hay meadow with after-math cattle grazing: adjacent meadows have been included within the boundary, as they support grasslands managed by grazing alone and are thus markedly different in terms of species composition. There are 28 species indicative of ancient grassland present, of which a number are regionally uncommon, making it one of the finest surviving hay meadow/pasture complexes in Hampshire.
Ashford Hill Woods and Meadows	4.3km northwest	SSSI	141.55	Ashford Hill Woods and Meadows Site of Special Scientific Interest comprises an extensive and varied complex of woodlands and agriculturally unimproved meadows lying in a broad shallow valley on the London Clays and Lower Bagshot Beds. The site is remarkable in its habitat quality, diversity of communities and number of rare and threatened species and is without comparison in central southern England. It embraces ancient species-rich coppice woodland, secondary woodland on former common land, hay meadows, grazed meadowland and peaty

				flushed areas, drained by a clear unpolluted small river.
West's Meadow, Aldermaston	4.8km north	SSSI	1.2	West's Meadow comprises two small fields of unimproved pasture bounded by hedgerows and a small stream. The meadows consist of neutral to acidic herb-rich grassland including both well-drained areas and wetter areas of base-poor marsh.

The proposed development is not considered to hold the potential to impact on the other above designated sites due to the localised nature of the proposed works.

Locally designated (non-statutory) sites

HBIC (HBIC, 2023) were consulted to provide results of any locally designated sites within 1km of the site and the results of which are provided below:

Site name	Distance from site	Designation	Area (ha)	Site description
Charter Alley Copse	203m southeast	SINC	2.50	Ancient semi natural woodland and wet woodlands such as alder or willow woods and birch bog woods which support a good diversity of woodland and/or marsh/swamp/mire species.
Fish Weir Copse	336m northeast	SINC	9.15	Other woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland and wet woodlands such as alder or willow woods and birch bog woods which support a good diversity of woodland and/or marsh/swamp/mire species.
Gully, Withers, Six Acre Copses & Outlier	369m southwest	SINC	10.52	Ancient semi natural woodland and wet woodlands such as alder or willow woods and birch bog woods which support a good diversity of woodland and/or marsh/swamp/mire species.
Hogpark Copse Complex	554m north	SINC	10.52	Other woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland. Ancient semi natural woodland and wet woodlands such as alder or willow woods and birch bog woods which support a good diversity of woodland and/or marsh/swamp/mire species.

Clapper Hill Copse	640m northeast	SINC	2.42	Ancient semi natural woodland.
Grove Croft Copse	745m southeast	SINC	14.12	Ancient semi natural woodland.
Privett, Privett Green & Highpath Copses	895m south	SINC	7.34	Ancient semi natural woodland and site supports dormice.

The proposed development is not considered to hold the potential to impact on the above non-statutory designated sites due to the localised nature of the proposed works.

UK BAP priority habitats

HBIC (HBIC, 2023) identified a parcel of land within the wider ownership boundary to the northeast of the site to be 'Broadleaf Mixed and Yew Woodland' priority habitat and classed as a UK BAP Priority habitat 'Lowland deciduous woodland', however, the botanical survey revealed that the area is half of what is represented, and the species composition is not indicative of priority habitat (See Photo 22 - Appendix 3).

Ecological Networks

HBIC (HBIC, 2023) revealed that the northeast area within the wider ownership boundary is classed as a Hampshire Core Non-Statutory Network and that the pond to the north is a Network Opportunities area. However, as these habitats are outside of the application site boundary, no impacts are anticipated upon these Networks.

Protected, rare and vulnerable species of interest

HBIC (HBIC, 2023) was consulted to provide any records of protected/vulnerable species of interest and the results of which are presented in the table below:

Species	Number of records	Most recent record	Closest record to site
<i>Birds</i>			
Barn owl	19	2020	211m northeast
Barnacle goose	1	2018	712m northeast
Black redstart	2	2020	133m southeast
Common tern	1	2020	702m north
Fieldfare	4	2020	84m east
Golden plover	2	2013	Within 1km
Peregrine	3	2018	Within 1km
Red kite	14	2020	84m east
Redwing	6	2020	84m east
Woodlark	1	2016	84m east
<i>Mammals (including bats)</i>			
Brown long-eared bat	6	2011	244m southwest
Common pipistrelle	7	2015	Within 1km
Eurasian badger	1	2009	855m northeast
Pipistrelle bat species	6	2011	244m southwest

Soprano pipistrelle	5	2011	Within 1km
West European hedgehog	1	2018	290m southwest

The above protected and vulnerable species records will be used to inform the assessment of the site. Brown long-eared bats have been recorded within 244m of the property (HBIC, 2023). These bats are extremely light-sensitive; therefore a ‘bat-friendly’ lighting strategy is provided in Section 5.

Botanical survey (UKHab)

Habitats within the application site boundary include two outbuildings, an area of modified grassland, bramble scrub, scattered trees, a line of trees, a native species-rich hedgerow and a non-native hedgerow.

Habitats within the wider ownership boundary (blue line) were also surveyed and include a farmhouse with associated outbuildings, modified grassland, bramble scrub, a pond, treelines, ditches, non-native hedgerows, scattered trees and developed land; sealed surface. The northeast area comprises other coniferous woodland and is classed as a Hampshire Core Non-Statutory Network.

Application site boundary

Modified grassland

An area of modified grassland is present within the centre of the site. The grassland is mown to a short sward height. The following species were recorded within the grassland:

Species	Abundance
Bramble	Locally occasional
Common field speedwell	Locally occasional
Common nettle	Locally occasional
Common sorrel	Locally occasional
Creeping bent	Locally abundant
Creeping buttercup	Frequent
Dove’s-foot cranesbill	Locally occasional
Lesser celandine	Locally occasional
Perennial rye-grass	Frequent
Red dead-nettle	Locally frequent
Red fescue	Locally occasional
Spear thistle	Locally rare
Springy turf-moss	Locally frequent
Thyme-leaved speedwell	Locally occasional
Wavy bittercress	Locally occasional
White clover	Frequent
Yarrow	Rare
Yorkshire-fog	Locally abundant

Bramble scrub

A large area of bramble scrub is present along the southern and western borders of the site. The following species were recorded within the bramble scrub:

Species	Abundance
Bramble	Dominant
Cherry laurel	Locally rare
Cleavers	Frequent
Cock's-foot	Frequent
Common nettle	Frequent
Creeping bent	Locally frequent
Creeping thistle	Locally occasional
Dandelion sp.	Locally occasional
Hazel	Locally occasional
Knapweed	Locally occasional
Lesser celandine	Occasional
Lords-and-ladies	Locally occasional
Male fern	Locally occasional
Moss sp.	Locally occasional
Red campion	Occasional
Red dead-nettle	Occasional
Spear thistle	Frequent
St. John's-wort sp.	Rare
Wild strawberry	Locally rare
Wood avens	Occasional
Yorkshire-fog	Occasional

Native hedgerow with trees

A native species-rich hedgerow ('H1') is present along the southern border of the site. The hedgerow comprises dominant hawthorn and measures approximately 1.5m in width, 2m in height and 64m long. The following species were recorded within 'H1':

Species	Abundance
Ash	Locally frequent
Box	Locally occasional
Bramble	Locally abundant
Cleavers	Abundant
Cock's-foot	Occasional
Common nettle	Locally frequent
Cow parsley	Locally frequent
Dandelion sp.	Locally occasional
False brome	Rare
Fescue sp.	Frequent
Garlic mustard	Locally occasional
Hawthorn	Dominant
Hazel	Locally frequent
Holly	Locally frequent
Honesty	Locally occasional
Honeysuckle	Locally occasional
Ivy	Locally frequent
Lilac	Locally rare
Lords-and-ladies	Rare
Privet sp.	Locally rare
Ribwort plantain	Locally occasional
White clover	Locally frequent
Yew	Locally occasional

Yorkshire-fog	Frequent
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'H1' qualifies as a UK BAP priority hedgerow due to the presence of 80% native woody species (hawthorn).

A Hedgerow Regulations Assessment (1997) was conducted, and the hedge does not qualify as 'important' under the Regulations due to a lack of features and/or species:

Hedgerow regulations assessment:

Criteria	'H1'
Bridleway/footpath	No
No of woody species per 30m stretch	4
+/- 30m	Yes
3 ground flora spp	No
Trees	Yes
Rare trees (Pn, Sot, Tic and Tip)	No
Bank/wall	No
Intact	Yes
Ditch	No
Parallel hedge	Yes
+ 4 connection points	No
Result =	Not 'important'

A section of the hedgerow will be removed to allow for a new access point to the new dwelling. A replacement native species-rich hedgerow will be required to offset the partial loss of 'H1'. Replacement hedge planting and a hedgerow protection plan is detailed in Section 5.

Ornamental non-native hedgerow

An ornamental hedgerow ('H2') is present in the east of the application site. The hedgerow comprises dominant cherry laurel. No other species of interest were noted within 'H2'.

Line of trees

Treeline 2 ('Tr2') is situated along the western boundary of the application site. The treeline comprises dominant holly and measures approximately 2m in width, 17m in height and 97m long. The treeline extends into the western edge of the wider ownership boundary. The following species were recorded within 'Tr2':

Species	Abundance
Ash	Locally occasional
Beech	Locally occasional
Cherry laurel	Locally rare
Hawthorn	Locally rare
Hazel	Locally occasional
Holly	Dominant
Rhododendron (WCA Sch. 9 invasive species)	Rare
Yew	Locally occasional

Rhododendron (Target Note 'T4' – Appendix 4) was recorded within 'Tr2', this species is listed under Schedule 9 of The Wildlife and Countryside Act (1981) (as amended); it is an offence to allow this species to spread 'in the wild'. Therefore, recommendations for its removal from site are provided in Section 5 of this report.

Scattered trees

Several scattered trees are present along the fringes of the site and include occasional ash, hazel, elder, cherry, beech, pedunculate oak and holly.

Wider ownership (blue line) boundary- offsite habitats

Modified grassland

Large areas of modified grassland are present within the north and the east. The grassland is mown to a short sward height. The following species were recorded within the grassland:

Species	Abundance
Bramble	Locally occasional
Common field speedwell	Locally occasional
Common nettle	Locally occasional
Common sorrel	Locally occasional
Creeping bent	Locally abundant
Creeping buttercup	Frequent
Dove's-foot crane's-bill	Locally occasional
Lesser celandine	Locally occasional
Perennial rye-grass	Frequent
Red dead-nettle	Locally frequent
Red fescue	Locally occasional
Rhododendron (WCA Sch. 9 invasive species)	Locally rare
Spear thistle	Locally rare
Springy turf-moss	Locally frequent
Thyme-leaved speedwell	Locally occasional
Wavy bittercress	Locally occasional
White clover	Frequent
Yarrow	Rare
Yorkshire-fog	Locally abundant

Rhododendron (Target Note 'T4' – Appendix 4) was recorded within the modified grassland; recommendations for its removal from site are provided in Section 5.

Pond

An area of standing water is present in the form of a pond in the north of the site. The pond measures 23m in length and 7m in width. The following species were recorded within / around the pond:

Species	Abundance
Box	Locally rare
Bramble	Rare
Butcher's broom	Locally occasional
Daffodil sp.	Rare
Hawthorn	Locally rare

Pondweed sp.	Frequent
Reedmace sp.	Locally occasional
Soft rush	Locally occasional
Water dock	Locally occasional
Wilson's honeysuckle	Rare
Yellow flag-iris	Occasional

Other coniferous woodland (offsite)

A small area of woodland is present in the northeast of the offsite blue line boundary. The woodland is dominated by western red cedar and Norway spruce. The following species were recorded within the woodland:

Species	Abundance
Beech	Rare
Butterfly bush	Locally occasional
Elder	Locally occasional
Holly	Frequent
Norway spruce	Abundant
Poplar	Occasional
Stinking iris	Locally frequent
Sweet chestnut	Rare
Wall cotoneaster (WCA Sch. 9 invasive species)	Locally occasional
Western red cedar	Dominant
Yew	Frequent

Wall cotoneaster (Target Note 'T9' – Appendix 4) was recorded within the woodland this species is listed under Schedule 9 of The Wildlife and Countryside Act (1981) (as amended); it is an offence to allow this species to spread 'in the wild'. Therefore, recommendations for its removal from site are provided in Section 5 of this report.

Native species-rich hedgerow associated with a ditch

A species-rich native hedgerow associated with a ditch ('H3') is present within the centre of the site. The hedgerow is dominated by hawthorn and hazel and measures approximately 2m in width 2m in height and 20m in length. The following species were recorded within 'H3':

Species	Abundance
Ash	Rare
Hawthorn	Dominant
Hazel	Dominant
Ivy	Frequent
Cherry laurel	Locally occasional
Tutsan	Locally rare
Honeysuckle	Locally rare
Holly	Locally occasional
Field maple	Locally rare

'H3' qualifies as a UK BAP priority hedgerow due to the presence of 80% native woody species (hawthorn).

A Hedgerow Regulations Assessment (1997) was conducted, and the hedge does not qualify as 'important' under the Regulations due to a lack of features and/or species.

Hedgerow regulations assessment:

Criteria	'H3'
Bridleway/footpath	No
No of woody species per 30m stretch	5
+/- 30m	No
3 ground flora spp	No
Trees	Yes
Rare trees (Pn, Sot, Tic and Tip)	No
Bank/wall	No
Intact	Yes
Ditch	Yes
Parallel hedge	No
+ 4 connection points	No
Result =	Not 'important'

Ornamental non-native hedgerow

An ornamental non-native hedgerow ('H4') is present along the southeastern boundary. The hedgerow comprises dominant cherry laurel. No other species of interest were noted within 'H4'.

Line of trees

Treeline 1 ('Tr1') is situated along the eastern border of the application site. The treeline comprises dominant western red cedar and measures approximately 2m in width, 15m in height and 21m long. The following species were recorded within 'Tr1':

Species	Abundance
Holly	Locally rare
Norway spruce	Locally abundant
Scot's-pine	Locally rare
Western red cedar	Dominant
Yew	Locally rare

Treeline 2 ('Tr2') is situated along the western boundary of the site and continues from the treeline within the red line boundary; the treeline comprises the same species as listed under 'Tr2' above.

Treeline 3 ('Tr3') is situated along the northern boundary and is associated with a ditch. The treeline comprises abundant pedunculate oak and measures approximately 2m in width, 17m in height and 100m long. The following species were recorded within 'Tr3':

Species	Abundance
Ash	Rare
Blackthorn	Locally frequent
Bramble	Locally occasional
Cherry laurel	Locally occasional
Dog-rose	Locally occasional

Goat willow	Rare
Gorse	Locally occasional
Hawthorn	Locally occasional
Holly	Locally frequent
Honeysuckle	Locally occasional
Leylandii sp.	Locally abundant
Pedunculate oak	Abundant
Scot's -pine	Locally occasional

Scattered trees

Several scattered trees are present along the fringes of the site and include occasional ash, hazel, elder, cherry, beech, pedunculate oak and holly.

Introduced shrub

Small areas of introduced shrub are present in the southeast of the site. No species of interest were noted within the introduced shrub.

Allotment

An allotment is present in the southeast of the site. No species of interest were noted within the allotment.

Ditch

A ditch is present along the centre of the site and along the northern boundary. No species of interest were noted within the ditch.

Developed land; sealed surface

Areas of developed land; sealed surface are present in the south of the site in the form of tarmac and gravel surrounding the buildings. No species of interest were noted within these areas.

Badgers

No evidence of badgers such as setts, entrance holes, foraging signs, latrines, hair, or footprints was identified during the survey. However, three mammal 'push-throughs' were identified within the southern hedgerow ('H1') (two within the wider ownership boundary and one within the application site boundary) (see Target Note 'T1' – Appendix 4) and one badger record is present approximately 855m from the site (HBIC, 2023). It is considered likely that badgers would be utilizing the site for foraging and commuting purposes; a mitigation strategy is provided in Section 5 of this report.

Barn owl

Evidence of barn owl was identified within the northwest building ('Building 3') including white splashing (droppings), feathers, and owl pellets. Photographs of the

evidence are provided in Appendix 3 and an evidence map is provided in Appendix 6. A summary of the evidence found is provided below:

- Approximately 10 owl pellets were recorded in the centre of the building.
- Splashing was recorded across the collar beam at the centre of the building.
- Two feathers were found on the floor in the centre of the building.

As evidence of barn owls was recorded within 'Building 3', a mitigation and compensation strategy for barn owls is detailed in Section 5 of this report.

Bats

Preliminary Roost Appraisal (PRA)

Building descriptions

Descriptions of the buildings surveyed for roosting bats are provided in the table below, photographs of the buildings are provided in Appendix 3 and building locations provided in Appendix 4:

Building name	Description
Outbuilding ('B2')	<ul style="list-style-type: none"> • A wooden built outbuilding is present in the west of the site. • A cement fibre roof is present. • No internal loft void is present.
Outbuilding ('B3')	<ul style="list-style-type: none"> • A wooden built outbuilding is present in the west of the site. • A corrugated metal pitched roof is present. • Wooden window and door frames are present. • No internal loft void is present.

'Building 1' ('B1') was surveyed as part of another application but is excluded from this report; and 'Buildings 4', '5', '6' and '7' within the wider ownership boundary were not surveyed due to no works occurring to these buildings.

Evidence of bats recorded

No evidence of bats was recorded within/around the two buildings on site, despite a thorough inspection.

Assessment of potential for bats

An inspection of the internal and external features of the buildings were undertaken to identify any potential bat access points and potential areas where bats could roost, and these are summarised in the table below:

Building name	Potential bat access points	Potential roosting provisions	Potential of the building
Outbuilding ('B2')	<ul style="list-style-type: none"> • No potential ingress points and no suitable gaps or 	<ul style="list-style-type: none"> • No potential roosting provisions were present, 	'Negligible potential' for roosting bats

	roosting provisions were noted.	no external crevices were noted.	
Outbuilding ('B3')	<ul style="list-style-type: none"> Access is present around the building. 	<ul style="list-style-type: none"> No potential roosting provisions were present, no suitable crevices were noted. 	'Negligible potential' for roosting bats

The buildings on site were not considered to hold bat roosting potential and were deemed to hold 'negligible potential' for roosting bats due to a lack of potential roosting provisions and access points. Roosting bats are not considered to be impacted by the proposed works. Further details are provided regarding the validity of this report are detailed in Section 5.

Roosting bats in trees

The scattered trees on-site were assessed for their potential to support roosting bats; all trees within the application site boundary were considered to hold 'negligible potential' for roosting bats due to a lack of Potential Roost Features (PRFs) and/or due to their smaller size. No further action is recommended in relation to roosting bats and trees.

Static monitoring

One static monitoring device was deployed in the southwest of the site (Static 1 – Appendix 5) for a period of 19 consecutive nights in May and June 2023. To summarise, at least four species of bat were recorded using the site including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle, Nathusius's pipistrelle (*Pipistrellus nathusii*), and noctule bats. Raw counts presenting the species and total number of bat passes on each night are presented in Appendix 5; the total number of passes for each species are represented in the table below:

SOUTHWEST STATIC - TOTAL PASSES AT FIR TREE FARM				
Month and species	C.pip	Noc.	N.pip	S.pip
May/June 2023	170	95	2	39

The site supports an assemblage of foraging and commuting bats with the treelines and hedgerows used as commuting corridors. The proposals will result in a net increase in artificial lighting; therefore, a lighting strategy to minimize obtrusive lighting on bats and other nocturnal wildlife is detailed in Section 5.

Dormice

The hedgerows and bramble scrub onsite are considered to provide suitable habitats for dormice. There are no known records for dormice within the local area (HBIC, 2023) and the closest European Protected Species (EPS) licence for dormice is located approximately 2.9km southwest of the site (MAGIC, 2023). As there is a low

possibility that dormice are present on site, a precautionary works method statement will be implemented for vegetation clearance works. The method statement is detailed in Section 5.

Great crested newts

The application site features suitable terrestrial habitats for great crested newts (GCN), this includes longer grassland margins, hedgerow bases, scrub and log/brush piles. There are no records for GCN within the local area (HBIC, 2023), and the nearest known breeding pond for GCN is approximately 3.1km southeast of the site (MAGIC, 2023). An aerial search revealed the presence of four ponds within 500m of the site, however, these ponds were inaccessible due to no land access permission. One pond was present within the wider ownership boundary and a description of the pond is provided below.

Pond 1 (offsite within Blue line boundary)

The pond is located to the north within the wider ownership boundary; the pond measures approximately 161m². A Habitat Suitability Index (HSI) assessment was conducted on 'Pond 1' and the results of which are provided in the table below:

Variable	Pond 1
SI1 – Location	1
SI2 - Pond area	0.3
SI3 - Pond drying	0.9
SI4 - Water quality	0.67
SI4 – Shade	1
SI6 – Fowl	0.67
SI7 – Fish	1
SI8 - Ponds	0.975
SI9 – Terrestrial habitat	1
SI10 - Macrophytes	0.5
HSI SCORE =	0.7536

Pond 1 scored 'good' suitability for GCN. eDNA sampling was subsequently conducted upon the pond, however, returned a 'negative' result. Based on the likely absence of GCN from the pond, this species is not considered likely to be present on site and therefore no further action is recommended for GCN.

Hedgehogs

The site was assessed for its suitability to support hedgehogs. Due to the rural nature of the site and woodland present to the adjacent north, the site is considered likely to support hedgehogs. There is one hedgehog record within 290m of the site (HBIC, 2023). Whilst no evidence of this species was noted on site during the surveys,

hedgehogs are considered likely to be on site. Hedgehogs are a UK BAP Priority Species due to their continued population decline (Wilson, 2018). Therefore, mitigation for hedgehogs is provided in Section 5 of this report.

Nesting birds

No evidence of nesting birds was noted within the site. However, there is potential for nesting birds to be present within the buildings, hedgerows, scrub and trees on site. Therefore, a mitigation strategy for any tree removal / vegetation clearance and demolition works is detailed in Section 5.

Reptiles

There are suitable reptile habitats on site including longer grassland margins, hedgerow bases, scrub and log/brush piles for common reptiles, such as slow worm. Reptile presence/absence survey were deemed disproportionate due to the size of the site and a 'low population' of slow worms is assumed to be present because suitable habitats are present onsite. A mitigation strategy for this sized population is detailed in Section 5.

5. Ecological mitigation and enhancement strategy

Schedule 9 invasive species

Rhododendron is present within the bramble scrub onsite and wall cotoneaster is present within the wider ownership boundary and are listed under Schedule 9 of The Wildlife and Countryside Act (1981) (as amended). Although it is not mandatory to remove these species from site, it is recommended that these species are removed or controlled to prevent any further spread, as this species can outcompete local biodiversity in the long-term. This must be complied with within the confines of the Wildlife and Countryside Act (1981) (as amended), which makes it an offence to allow these species to spread into the wild. The following methods can be used to remove these species from site:

- **Herbicides:** The upper foliage of the plants should be cut back to a stump and holes drilled into the stems. A suitable herbicide may then be applied to the 'drilled wells' in the cut stumps (may require multiple applications) with all arisings being cut, burned, chipped or mulched.
- **Manual cutting and digging:** Top growth is manually removed, and the root system dug out. The resulting cut woody material and stumps can be removed to a safe area for burning or chipped on site (away from the stream and southern boundary).

For either of the above methods, all foliage should be burnt on site as soon as possible to reduce the likelihood of germination. Freshly cut material is difficult to ignite and benefits from being allowed to dry first.

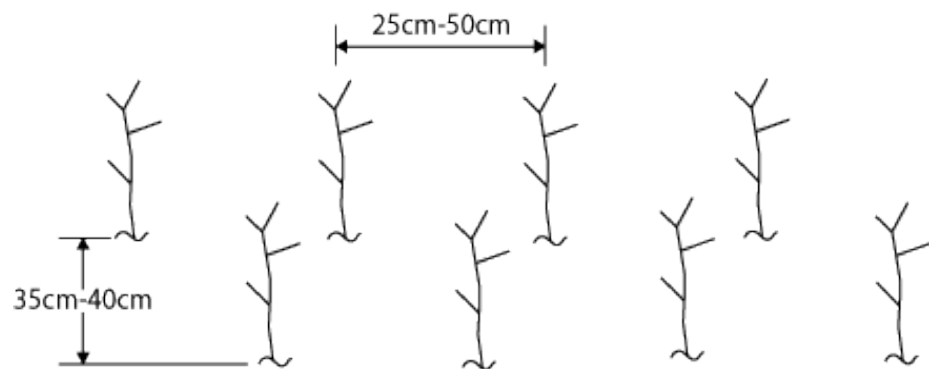
UK BAP Hedgerows: Replacement hedge planting

All hedgerows onsite are considered to provide potential habitat for bats, birds, badgers and other local wildlife, and must be protected during the demolition and construction phases. A total of 3m of hedgerow will be lost and 45m replacement hedge planting will be provided to ensure no net loss of hedgerow habitat and provide an overall gain in hedgerow habitat. The below specifications for the new hedge planting will be followed (see Appendix 9 for location of new hedgerow):

Planting specifications for hedgerow planting:

- A new hedgerow measuring minimum of 9m (based upon 3m of species rich hedgerow being lost at a multiplier of 3) will be planted along the northern boundary of the site and comprise a mixture of at least eight native, woody species to provide nesting and foraging habitat for wildlife from the following list:

- Hawthorn (*Crataegus monogyna*)
 - Spindle (*Euonymus europaeus*)
 - Field maple (*Acer campestre*)
 - Dogwood (*Cornus sanguinea*)
 - Oak (*Quercus sp.*)
 - Hazel (*Corylus avellana*)
 - Elder (*Sambucus nigra*)
 - Crab apple (*Malus sylvestris*)
 - Guelder-rose (*Viburnum opulus*)
- The new hedgerow whips will be sourced from British-grown stock and will be planted between November and March. The whips will be planted in two rows at a density of six plants per 1m approximately 35cm apart. The roots must be kept damp throughout the planting process.



- Biodegradable spiral guards will be required to protect the whips and canes will be used to support the whips and will be removed after 3-5 years. Any new whips will be replaced where they become diseased/die and replaced with plants of the same species and size.
- The hedgerow will be retained and managed by the occupiers. This will include watering where necessary. Once the hedgerow has become established, hedgerow laying and cutting will be required to result in good hedge structure.

Vegetation clearance – dormice, nesting birds and reptiles

The following strategy will address the protection of the hedgerow/treeline, and any potential dormice, nesting birds, and reptiles within the application site.

The hedgerow and some areas of scrub on site are considered to provide potential habitat for dormice, however, the potential for dormice is considered to be low due to a lack of nearby records. The removal of approximately 3m hedgerow and scrub will be required as part of the works. There is also potential for nesting birds and small numbers of common reptiles to be present in the hedgerow base and scrub on site. A

works method statement will be followed and is considered appropriate due to the limited amount of habitat impacted upon (see Appendix 8):

Works method statement for hedge/tree removal:

- Supervision of the works will be undertaken by an experienced dormouse licensed worker which will be provided alongside a 'toolbox talk' on dormouse, reptile and nesting birds ecology. The talk will inform the site contractors on when to stop at signs of hibernating dormice, what to do if a reptile/dormouse is found (which will include leaving a 5m buffer around the nest and receiving advice from the licensed ecologist) and measures of best practice to reduce any harm to dormice and reptiles within the area.
- A section to the north of the site within the wider ownership boundary measuring approximately 245m² (provided for both plots 1 and 2) will form a permanent reptile receptor area. The ecologist will ensure the area features suitable vegetation cover for reptiles before site clearance works; and therefore, this area should not be mown or topped prior to works commencing. If oversowing of areas is required, a suitable seed mixture such as 'EM10 Tussock Mixture' at a rate of 4g/m² (seed can be purchased from www.wildseed.co.uk). The seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. The seed must not be incorporated or covered, but firmed in with a roll, or by treading, to give good soil/seed contact. Where required small foot paths can be cut into the grassland for access purposes.
- One reptile hibernaculum will be installed in the west of the receptor area comprising a small stone/log pile prior to vegetation clearance commencing to provide an alternative refuge for reptiles. Once these works are completed, 'Heras' fencing will be installed around the receptor site to ensure no machinery/plant tracks into this area. Prominently displayed signs stating 'Reptile receptor site – no access permitted' will be displayed on the fencing.
- The licensed worker will undertake a pre-works survey of the area which will include a fingertip search of any holes in trees and careful checks of the stumps looking for dormice. If a dormouse is recorded at this stage works must stop and a licence must be sought from Natural England, following any required survey work.
- To prevent harm to any dormice within the local area, the hedge and scrub will be felled to 0.5m stumps between the months of **November and February** (to also avoid the nesting bird season) when the low temperatures are at least 5°C.

This will also ensure protection of any potential reptiles leaving the stumps in situ.

- As dormice/reptiles will be hibernating at ground level during the winter period, the trees will be felled to 0.5m stumps to ensure the dormice (and reptiles/amphibians) have safe hibernation sites throughout the winter. To prevent harm to hibernating dormice and reptiles this will be done by hand where possible with limbs being removed in sections and lowered to the ground rather than by machine which can kill any hibernating animals.
- The stumps will be removed in the spring, from April onwards when the temperatures are between 10°C – 18°C (until October only) by machine following a direct search of the stumps for dormice nests and reptiles by a licensed worker. The dormice, if present, will then be active and will have moved from the area to suitable adjoining habitat. Any reptiles during this period will be active and will be encouraged into the adjoining hedgerow section.
- Any areas of longer vegetation/grassland will be strimmed to a height of 20cm followed by a cut down to 2cm and will take place in one direction towards the nearest area of retained habitat. Once vegetation has been cleared, the topsoil will then be removed under the supervision of the ecologist. Any reptiles found will be relocated to the receptor site in the north.
- If an active bird's nest is encountered, works will cease immediately, and the nest will be left undisturbed. The ecologist will instate a minimum 5m works exclusion buffer zone marked out with red/white hazard tape and a second site visit by the ecologist to check the status of the nest will be required before works can continue in this area. Works may only continue when the nest is deemed to be unoccupied/no longer active by the ecologist.
- The remaining hedgerow and treeline along the west will be retained and will be protected by use of 'Heras' fencing. This will ensure machinery does not accidentally track into hedge/treeline potentially disturbing/damaging nests. The 'Heras' fencing will allow for a minimum 2m construction buffer (to be increased where necessary in line with BS 5837:2012 Trees in relation to design, demolition and construction (British Standards Institution, 2012) to ensure Root Protection Zones) and will remain in place throughout the duration of the works. This fencing will only be removed post-construction once both plats have been completed.
- The vegetation within the works areas outside of the receptor site, hedgerow and treeline protection areas must then be maintained short (below 5cm) the duration of the works.

- Once works start no pallets or stored materials will be stacked near the site boundaries and/or within the receptor area where reptiles could potentially utilize the stored materials as hibernacula. All stored material must be raised off the ground on pallets or in a skip.
- Once construction is completed, the receptor site area will be permanently fenced off from the residential curtilage of the new dwelling ensuring the long-term retention of this area for reptiles. The retention of this area as a permanent reptile area must be secured by legal mechanism.

Nesting birds in buildings:

- Building demolition should preferably be conducted outside of the nesting season which is considered to run from 1st March to 31st August to avoid the time of year when birds are most likely to be nesting.
- If building demolition takes place within the nesting season, a pre-works check by a suitably experienced ecologist will be required prior to demolition commencing. If an active nest is present, a minimum 5m works buffer will be created using red/white hazard tape and no works will commence until the chicks have fledged the nest and the nest is no longer active. A second check by the ecologist will be required to confirm nesting has ceased before works continue.
- **A completion statement detailing the findings from the tree/hedge/vegetation removal works and site clearance (and demolition works if conducted within the nesting season) must be provided to the Local Planning Authority by the project ecologist following the works.**
- **If a bird's nest, dormouse and/or reptile is encountered at any other unsupervised time, all works in the area must cease immediately the ecologist must be contacted immediately to provide further advice.**

Badgers and hedgehogs

Badgers and hedgehogs are considered likely to be foraging and/or commuting on site. Therefore, the following mitigation strategy will be fully implemented to ensure protection of hedgehogs and badgers:

- To prevent mammals from becoming entrapped, any trenches must have a ramp installed / covered over in order to prevent overnight entrapment.
- To ensure badgers/hedgehogs can cross the site post-development, any new fencing on-site will feature a minimum of one specialised 'mammal gravel board' or a minimum of one custom-made hole within every boundary that will measure 30cm x 15cm.

Barn owls

Barn owls are known to be roosting within 'Building 3'. The following mitigation strategy will be implemented to ensure barn owls are protected during works and replacement roosting facilities are provided in the long-term (see Appendix 7):

- Prior to any works commencing, one barn owl nest box (<https://www.barnowltrust.org.uk/barn-owl-nestbox/barn-owl-nestboxes/>) will be erected on a suitable mature tree within the blue line boundary as there is no mature trees within the red line boundary. The box will be erected at a minimum height of 4m from ground level with no limbs/vegetation obstructing the entrance, which will be kept completely clear.
- Prior to works commencing, a suitable experienced and licensed ecologist will undertake a pre-works check of 'Building 3' for the presence of barn owls. Should barn owls be nesting then no works for demolition will then proceed (taking into account potential reptiles which may be residing within the site – see below for reptile mitigation). If a barn owl is present, no works will take place and a secondary check by the licensed barn owl ecologist will be undertaken before works can continue.
- One replacement barn owl roosting space will be created within the roof space of the new dwelling (see Appendix 7 for design). The roosting space will be provided within the northern area of the roof void with a dormer style entrance. An access door within the roosting space may be provided for maintenance purposes, however, details indicating the area is a barn owl roosting space and details for the Barn Owl Conservation Trust must be prominently displayed at the entrance.
- The barn owl roosting space within the roof void will measure a minimum of 1m x 1m plus an access point measuring at least 12cm in width x 25cm in height.
- No lighting will be erected within 3m of either barn owl box and roosting space (on the tree and within the dwelling).

Roosting bats

The PRA of the buildings and trees was undertaken, and the buildings/trees were considered to hold 'negligible potential' for roosting bats due to a lack of suitable bat roosting provisions and potential access points. Roosting bats are not considered to

be impacted as part of the proposed works and therefore no further action is recommended in relation to the proposed works.

It must be noted that the PRA provides a 'snapshot' of the conditions at the time of survey and does not account for seasonal changes. It is always possible for bat species to ingress at any point in the future, and therefore it is recommended that if 18 months pass and no works have been undertaken, and/or if the condition of the building/site changes, an update PRA is undertaken to assess whether the potential of the building/trees to support roosting bats has altered.

In the unlikely event bat(s) are encountered at any stage, work will cease and Natural England or a suitably qualified bat ecologist must be sought for advice by the applicant/landowner. The applicant must be aware of the severe penalties associated with bat crimes and their legal obligation to report this information.

In the event a bat is discovered, the nature of the advice will concern allowing the bat(s) to leave on their own accord or waiting for a licensed person to remove the bat(s). A bat licence may then be deemed necessary following the necessary survey work. **All building contractors/roofers are explicitly forbidden from handling bats or interfering with bats in any way.**

Commuting and foraging bats

The site is used by commuting and foraging bats. As such, a considerate lighting scheme is required to ensure the local bat population is not impacted upon. The following strategy will be adhered to and will be agreed with the project ecologist:

- Any external lighting required as part of the scheme (e.g. security lighting) will be motion-triggered, set on timers (1 minute) and directional towards the ground to avoid upward light spill.
- All luminaires must lack UV elements when manufactured. Metal halide, fluorescent sources should not be used.
- LED luminaires will be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700Kelvin) must be adopted to reduce blue light component.
- Luminaires must feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires will be recessed where installed in proximity to windows to reduce glare and light spill.
- The use of specialist bollard or low-level downward directional luminaires to reduce upwards lighting spill can be considered, however, should be used as a final resort.

- Column heights should be carefully considered to minimise light spill. Only luminaires with an upward light ratio of 0% and with good optical control must be used.
- No bollard/column lighting will be erected within 5m of the treeline and hedgerow.
- Luminaires must always be mounted on the horizontal, i.e., no upward tilt.
- No external lighting will be permitted within 5m of the bat roosting tube as detailed under 'Biodiversity enhancements' below.

Biodiversity enhancements

To ensure the proposed development is compliant with NPPF and the local plan, biodiversity enhancements will be required as part of the scheme. The following enhancements will be included as part of the scheme to support local biodiversity (see Appendix 9 for locations and designs):

- One 'Woodstone Build-In Bat Roosting Tube' (<https://www.nhbs.com/ib-vl-05-vivara-pro-build-in-woodstone-batbox>) will be installed in the new property the tube will be installed in the western elevation to provide opportunities for crevice-dwelling bat species, such as pipistrelle (*Pipistrellus sp.*) bats. The tubes are completely self-contained/self-cleaning and must be incorporated into the masonry of the building and faced with matching materials to leave an inconspicuous finish. The materials directly below the entrances to the tube must not be glossy/shiny.
- One new cherry will be planted and must be from British sourced stock. The cherry tree will provide foraging opportunities for local birds and support invertebrates.
- Any remaining landscaping and planting will comprise native British species only and sourced from British-grown stock. Species such as hazel, rowan, elder, hawthorn, blackthorn, beech and hornbeam will be used.
- Two 'Bee Bricks' (<https://www.nhbs.com/bee-brick>) will be installed within the new dwelling in the southern elevation. The bricks are designed to accommodate solitary bees (non-stinging/non-swarming types) and must be erected at a minimum height of 1m from ground level with no upwards height limit, in a sunny location.
- Two 'PRO UK Rendered Build-In Swift Boxes' (<https://www.nhbs.com/vivara-pro-rendered-build-in-swift-box-uk-brick>) will be installed in the new dwelling in the western elevation and must be installed as close to eaves level as possible and are maintenance-free with an integrated design, ensuring the boxes are secure in the long-term. These boxes will benefit species such as swifts (and have been shown to be used by other species such as house sparrows) and will be installed between

60cm to 1m apart per brick; swifts are colony nesters and therefore the boxes must be installed within the same area to benefit this species.

6. References

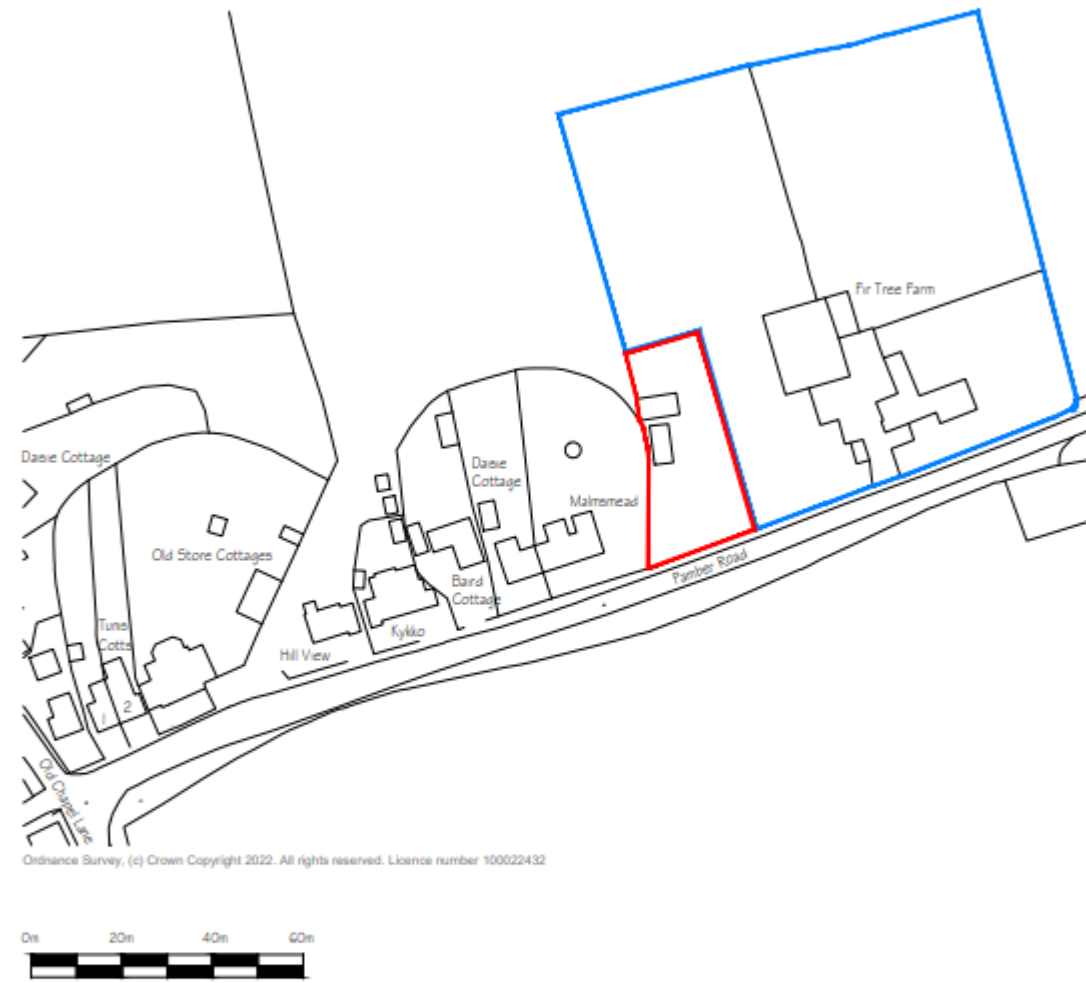
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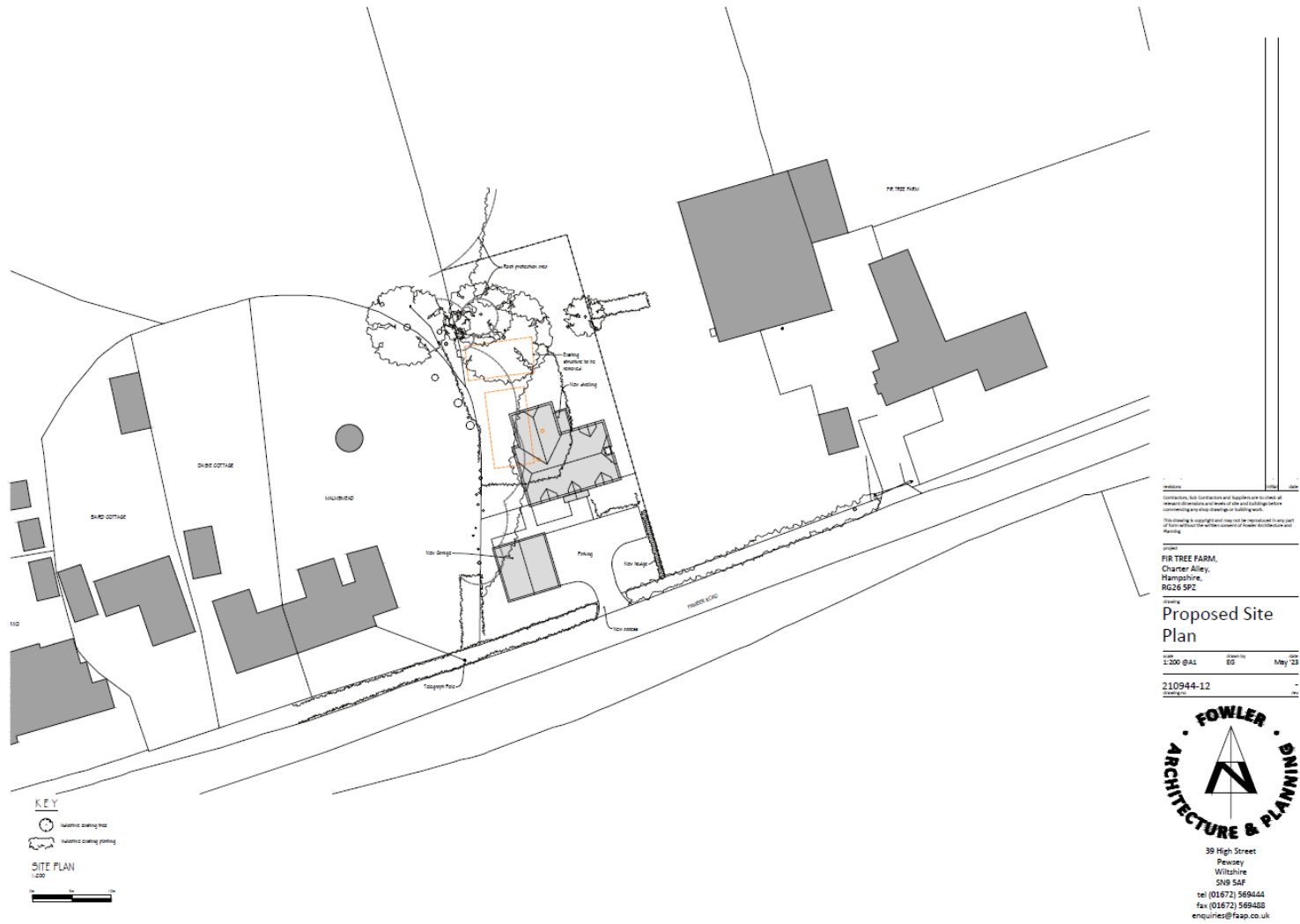
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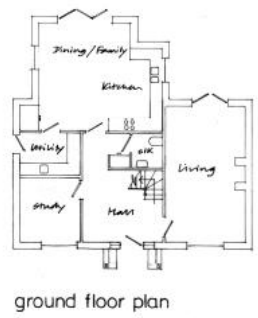
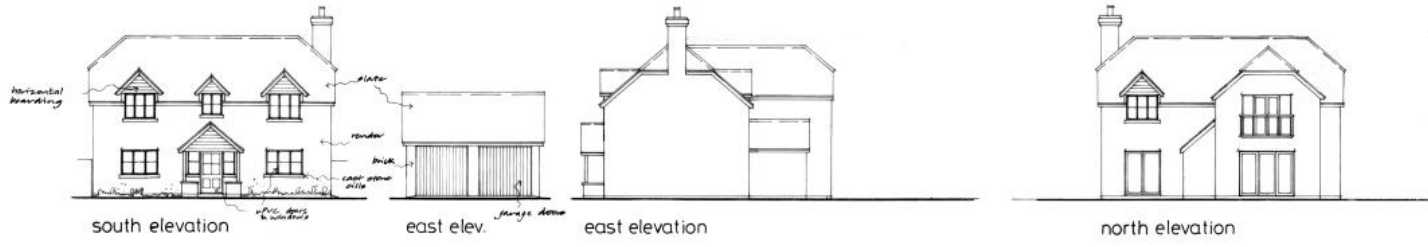
Appendix 1: Existing site and location plan



	Contractors, Sub Contractors and Suppliers are to check all relevant dimensions and levels of site and buildings before commencing any stop drawings or building work.	project FIR TREE FARM Charter Alley	
	This drawing is copyright and may not be reproduced in any part of form without the written consent of Fowler Architecture & Planning	drawing Location Plan	
	39 High Street Pewsey Wiltshire SN9 5AF tel (01672) 569444 enquiries@faap.co.uk	scale 1:1250 @ A4	drawn by EG
		date Mar '23	drawing no 210944-10

Appendix 2: Proposed plans and elevations





ground floor plan



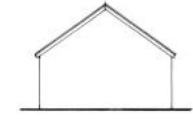
first floor plan



floor plan



north elev.



south elev.



Contractors, Sub Contractors and Suppliers are to check all relevant dimensions and levels of site and buildings before commencing any site drawings or building work.
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project
FIR TREE FARM
CHARTER ALLEY

drawing
design scheme
PLOT ①
scale
1:100 @ A1 MAR 2023
drawing no. 210544-03



39 High Street
Pewsey
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Appendix 3: Photographs



Photo 1: Western elevation of 'Building 1'.



Photo 2: Internal area of 'Building 1'.



Photo 3: Eastern elevation of 'Building 3'.



Photo 4: Internal area of 'Building 3'.



Photo 5: Barn owl pellets found within 'Building 3'.



Photo 6: Splashing found on the centre floor of 'Building 3'.



Photo 7: Southern elevation of 'Building 2'.

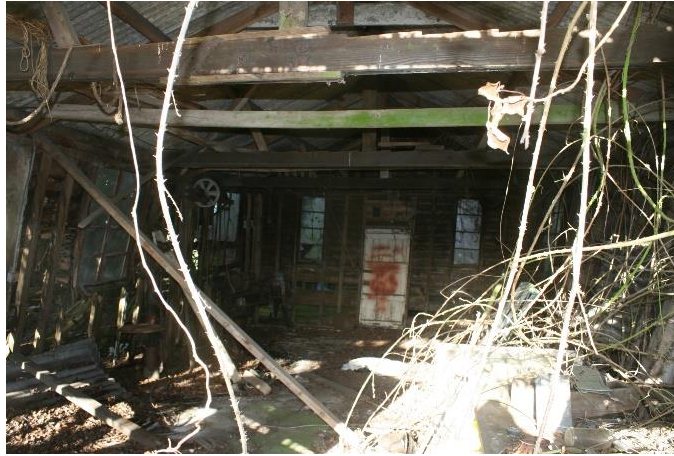


Photo 8: Internal area of 'Building 2'.



Photo 9: Area of bramble scrub to the west.



Photo 10: Hedgerow 1 ('H1') along southern boundary.



Photo 11: Area of modified grassland in the south of the site.



Photo 12: Wood chippings with old conifer laid over ('T3').



Photo 13: Area of grassland within the blue line boundary to the north.



Photo 14: Tree stumps within bramble scrub within the blue line boundary ('T5').



Photo 15: Non-native ornamental hedgerow in the northeast of the application site.



Photo 16: Native hedgerow with a ditch ('H3') within the center of the blue line boundary.



Photo 17: Pond within the blue line boundary.



Photo 18: Treeline 3 ('Tr3') in the north of the blue line boundary with a ditch.



Photo 19: Bird box within the woodland ('T8').



Photo 20: Area of modified grassland in the northwest of the blue line boundary.



Photo 21: Area of modified grassland in the north of the site.



Photo 22: Other coniferous woodland in the northeast of the blue line boundary.



Photo 23: Allotment in the southeast of the blue line boundary.



Photo 24: Area of developed land; sealed surface in the south of the blue line boundary.

Appendix 4: Habitat maps

Application site:



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Blue line boundary:



Blue line boundary legend

- Blue line boundary
- Red Line boundary
- Target notes
- URBAN TREES**
- Urban Trees Baseline
 - Existing Large
 - Existing Medium
 - Existing Small
- HEDGEROWS**
- Hedgerow Baseline
 - Hedge Ornamental Non Native (h2NE3)
 - Line of Trees (w1g6NE2)
 - Native Hedgerow - Associated with bank or ditch (h2NE9)
- RIVERS**
- Rivers Baseline
 - Ditches
- HABITATS**
- Habitats Baseline
 - Allotments
 - Artificial unvegetated, unsealed surface
 - Developed land; sealed surface
 - Introduced shrub
 - Modified grassland
 - Other coniferous woodland
 - Ponds (Priority Habitat)

Project name:	Fir Tree Farm, Tadley
Client:	Fowler Architecture and Planning
Produced by:	GL
Scale:	1:260 @ A3
Date produced:	01/03/23
Drawing no:	001-010323FTF

Target note	Description
T1	Mammal push through
T2	Pile of grass cuttings
T3	Brash pile
T4	Rhododendron (WCA Sch 9 invasive sp.)
T5	Tree stump
T6	Log pile
T7	Corrugated metal sheeting
T8	Bird Box
T9	Wall cotoneaster (WCA sch 9 invasive sp.)

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Appendix 5: Static location and results

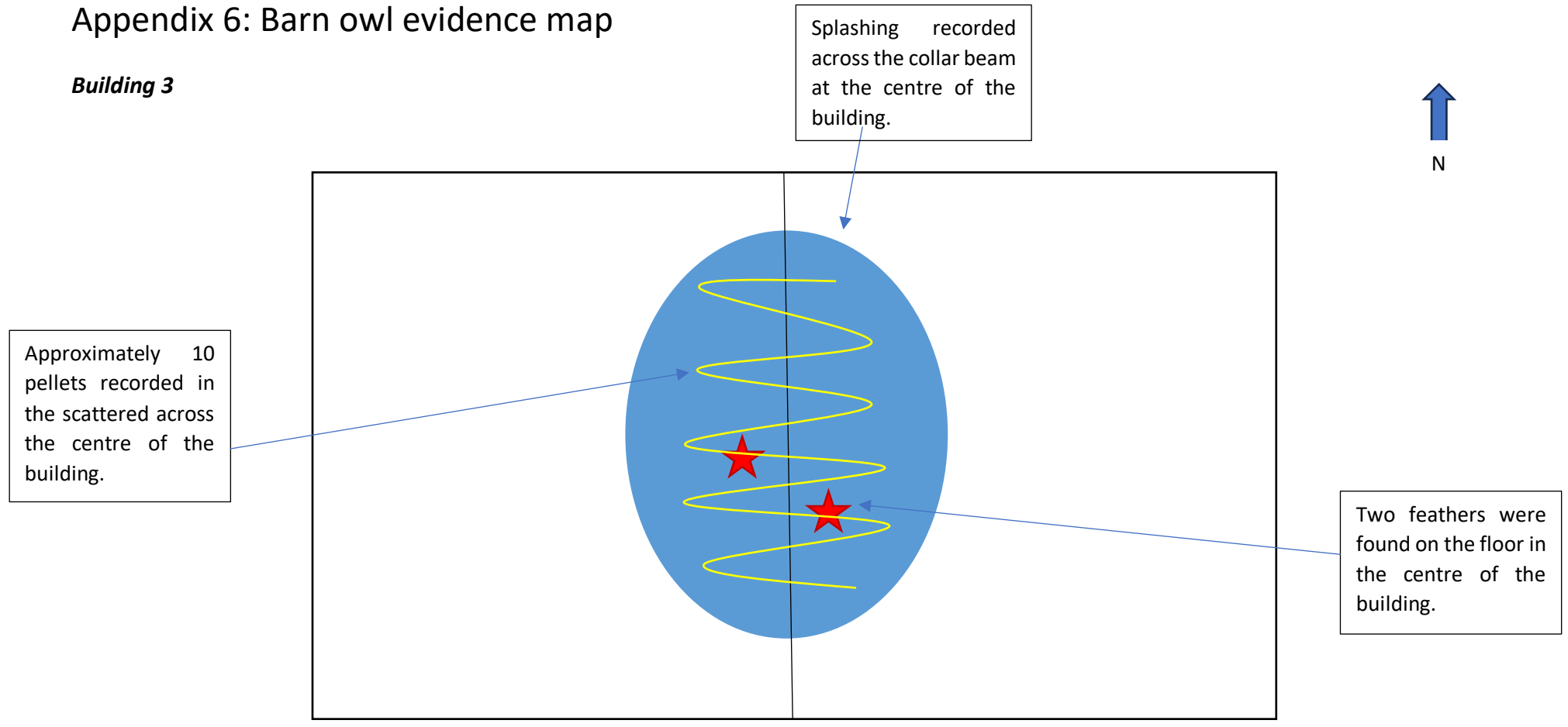


Raw static data:

May/June 2023 MONITORING DATES	Noc.	C.pip	N.pip	S.pip
17 th -18 th	4	20	0	3
18 th -19 th	4	5	0	2
19 th -20 th	4	10	0	1
20 th -21 st	0	14	0	3
21 st -22 nd	5	11	1	6
22 nd -23 rd	2	5	0	2
23 rd -24 th	2	13	0	3
24 th -25 th	9	8	0	2
25 th -26 th	8	10	0	0
26 th -27 th	3	7	0	1
27 th -28 th	7	2	1	2
28 th -29 th	5	3	0	2
29 th -30 th	4	2	0	2
30 th -31 st	7	6	0	0
31 st -1 st	2	9	0	1
1 st -2 nd	3	2	0	1
2 nd -3 rd	10	0	0	2
3 rd -4 th	9	5	0	5
4 th -5 th	7	38	0	1
Total number of passes=	95	170	2	39

Appendix 6: Barn owl evidence map

Building 3



Appendix 7: Barn owl mitigation



Taken from the Barn Owl Conservation Trust



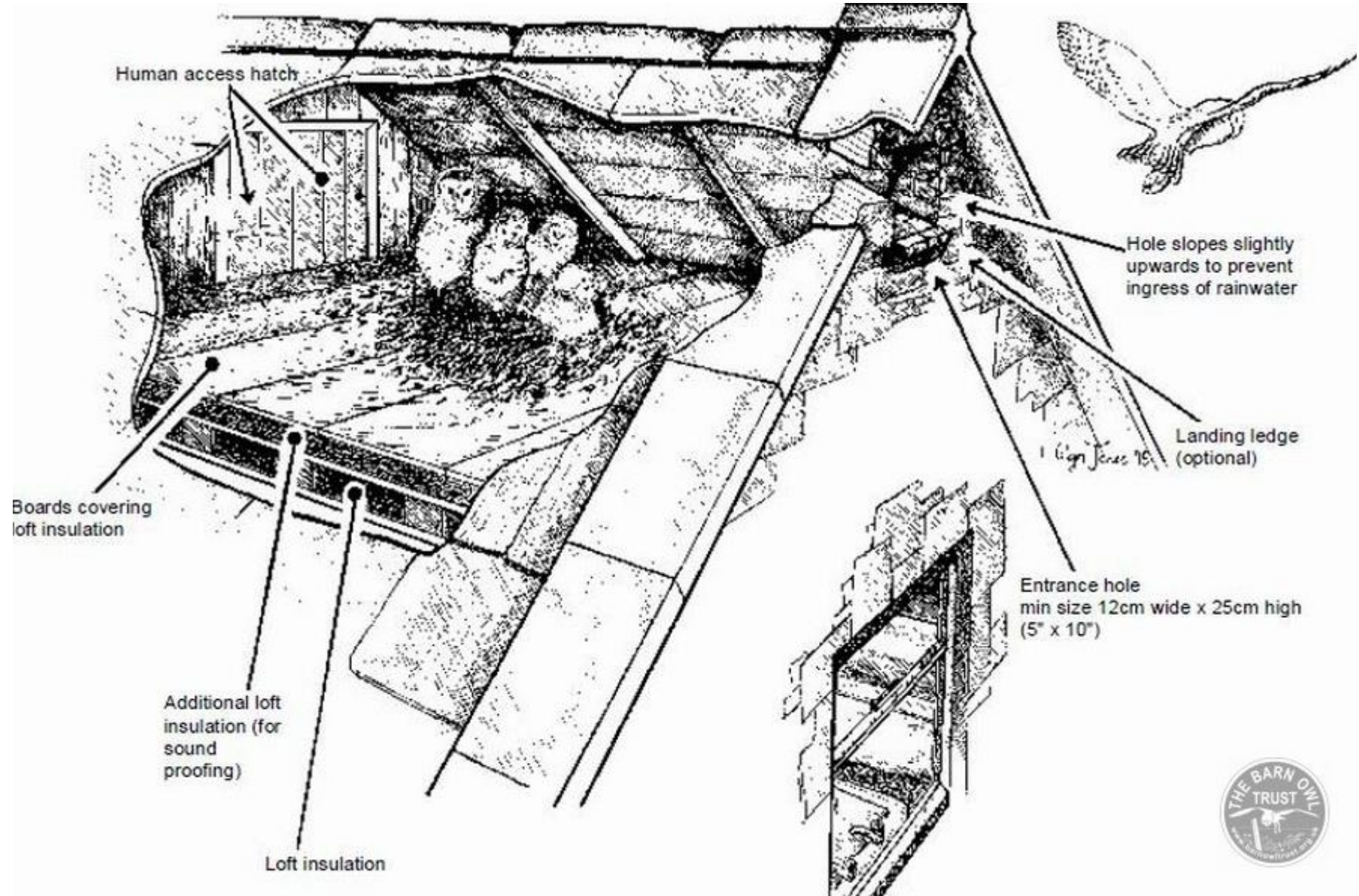
north elevation

One replacement barn owl roosting space will be created within the roof space of the new dwelling. The roosting space will be provided within the northern area of the roof void with a dormer style entrance (see left image). An access door within the roosting space may be provided for maintenance purposes, however, details indicating the area is a barn owl roosting space and details for the Barn Owl Conservation Trust must be prominently displayed at the entrance (see diagram overleaf). The barn owl roosting space within the roof void will measure a minimum of 1m x 1m plus an access point measuring at least 12cm in width x 25cm in height.

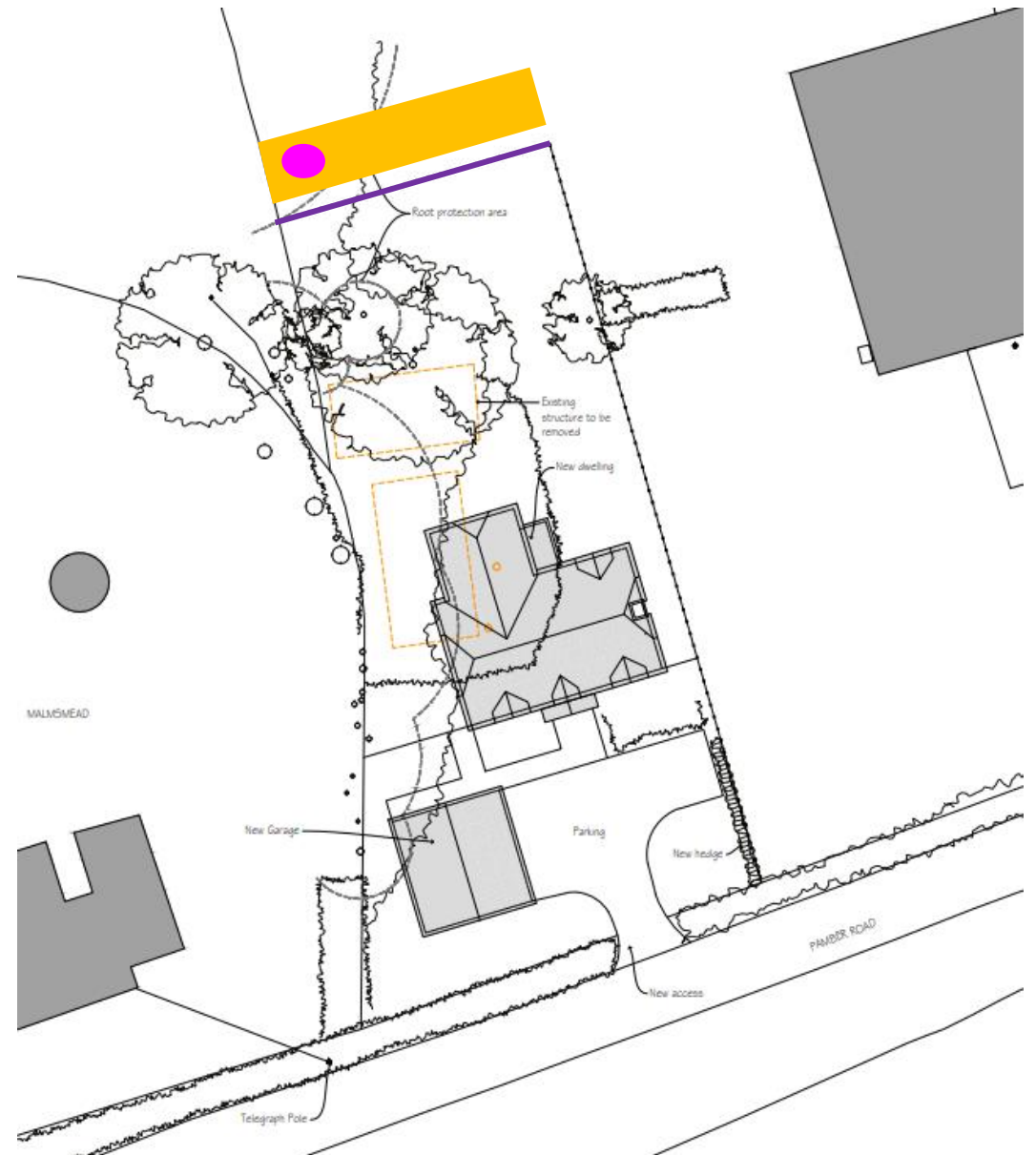
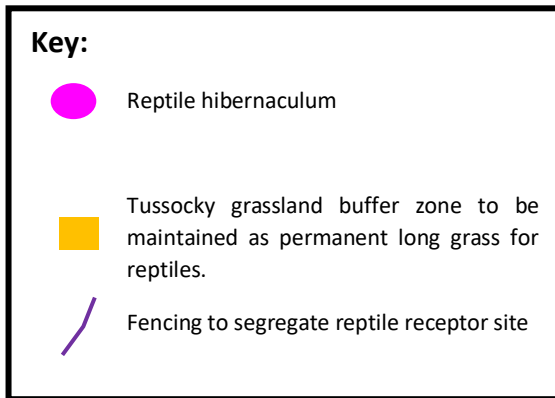


A barn owl nest box will be erected onto a suitable mature tree in the north of the site. This will be sited in an area free from clutter to allow flight in and out of the box and where possible resting upon a horizontal branch to support the base and strapped to the trunk.

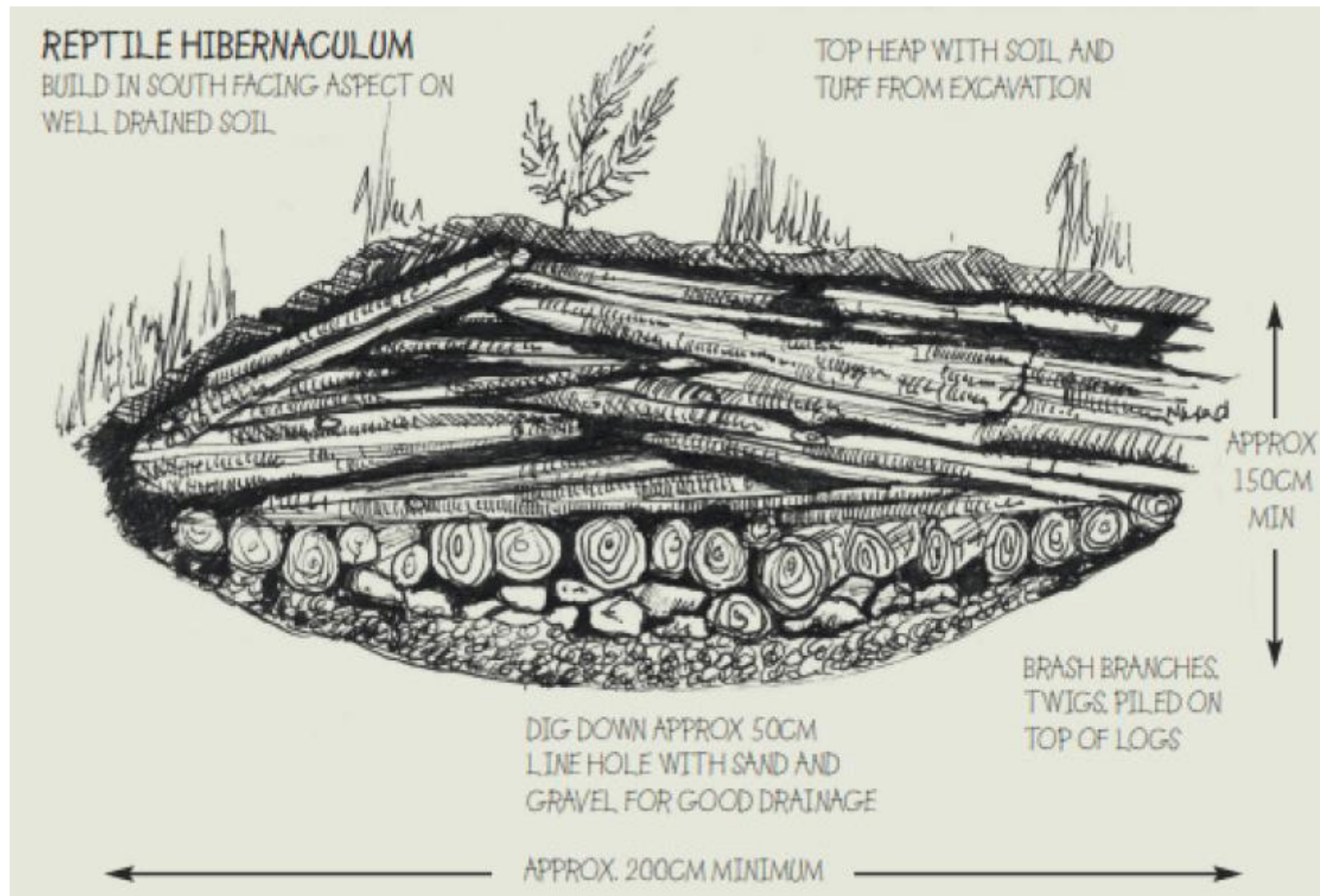




Appendix 8: Reptile mitigation



Reptile hibernaculum design:



Appendix 9: Biodiversity enhancement plan

One 'Vivara Pro Build-in Woodstone Bat Box' will be installed in the new dwelling at eaves level on the western elevation and away from external light sources.



Two 'Solitary Bee Bricks' will be installed in the new dwelling in the southern elevation. The bricks are designed to accommodate solitary bees (non-stinging/swarming types) and must be erected at least 1m from ground level with no upwards limit.



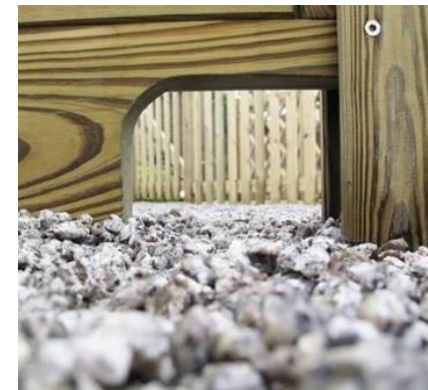
Two integrated 'PRO UK Rendered Build-In Swift Boxes' or similar will be installed in the western elevation of the new dwelling at eaves level.



One new fruit tree will be planted and must be from British sourced stock, such as apple (*Malus spp.*), crab apple (*Malus sylvestris*), plum (*Prunus domestica*) or pear (*Pyrus spp.*). The fruit tree will provide foraging opportunities for local birds and support invertebrates.



Any new fencing on-site will feature badger and hedgehog gravel boards or custom-made holes within every boundary that will measure 15cm x 30cm.



Key:



1x fruit tree



1x 'Vivara Pro Build-in Woodstone Bat Box'



2x 'Solitary Bee Bricks'



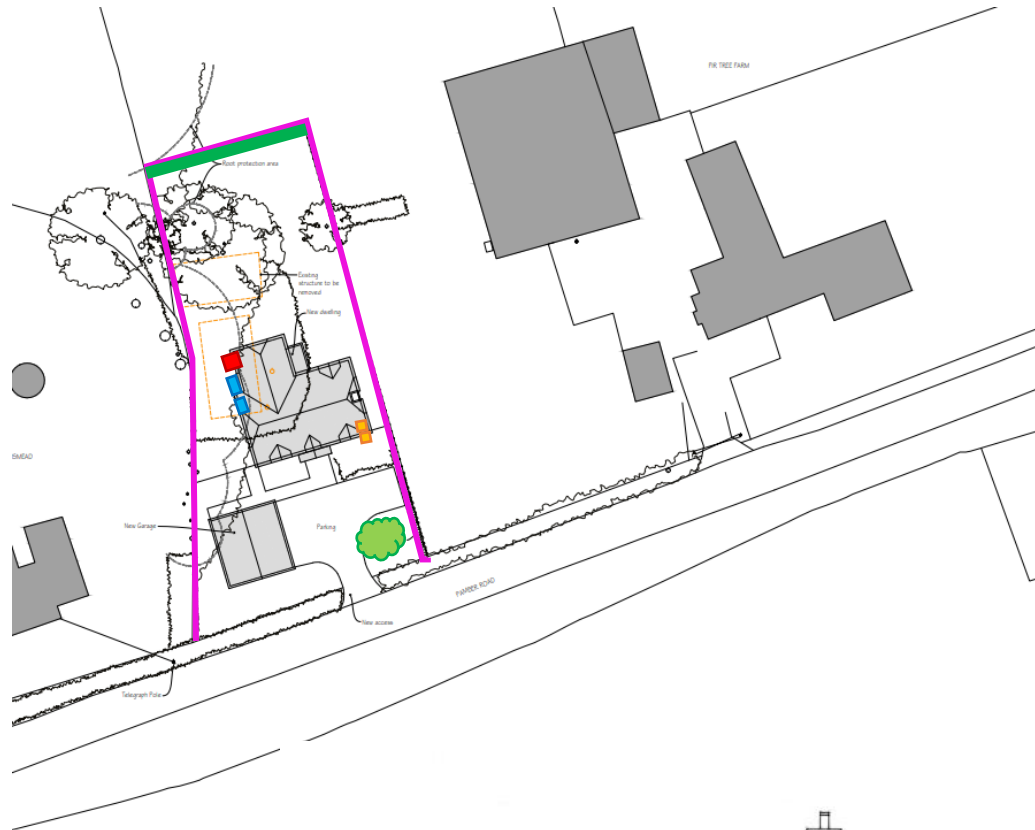
2x integrated 'PRO UK Rendered Build-In Swift Box'.



Badger and Hedgehog gravel boards or custom-made holes within every boundary that will measure 15cm x 30cm.



Replacement hedgerow to be planted which will increase overall hedgerow habitat post-development



Construction, Sub-Contractors and Suppliers are to check all relevant dimensions and levels of site and buildings before commencing any site drawings or building work.
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Project
FIR TREE FARM,
Charter Alley,
Hampshire,
RG26 5PZ

Drawing
Proposed Site Plan

Scale	Drawn by	Date
1:200 @A1	EG	May '23

210944-12
Drawing No.



west elevation



south elevation