

ECOLOGICAL ASSESSMENT REPORT

19th March 2021

7 Ambleside Close, Felpham, West
Sussex PO22 8NG

On behalf of: Chapman Lily Planning Ltd

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Report version: Final version 1.0

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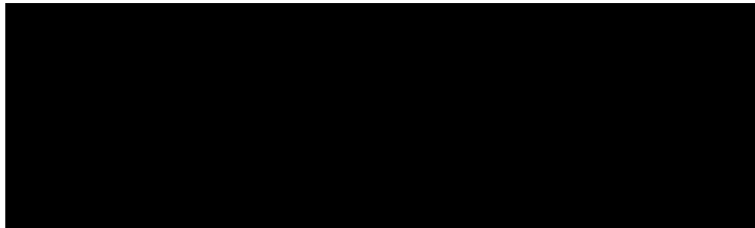
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SURVEY DATA VALIDITY

Information and data provided within this report is
considered accurate at the time of writing. Negative bat survey data is considered
valid for three years from the survey date, although more up-to-date survey
data may be required for a planning application dependent on conditions and impacts.

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Executive summary

- ABR Ecology Ltd were commissioned by Chapman Lily Planning Ltd on behalf of Mr Edward Baker to produce an Ecological Assessment report informed by Preliminary Ecological Appraisal (PEA) and Preliminary Roost Appraisal (PRA) surveys at 7 Ambleside Close, Felpham, West Sussex PO22 8NG to advise on the presence/absence of bats within the property and any other ecological constraints associated with the prospective development of the site. This report was requested to support a full planning application for land severance and the erection of a new dwelling.
- The PEA and PRA were conducted on the 1st March 2021 by Class 2 licensed bat ecologist Amy Parsons and assistant ecologist Kris Pedrosa.

Habitats:

- The application site consists of a garden to the side of an existing property which comprises a garage and shed, amenity grassland, ornamental planting, cleared/bare ground, scrub, scattered trees and hardstanding. No UK BAP Priority Habitats were identified within the site.

Badgers:

- No evidence of badgers was recorded on site and no further action has been recommended.

Bats:

- The detached garage and shed held 'negligible potential' for roosting bats due to a lack of suitable roosting provisions and access points and the trees to be removed were not considered to hold bat roosting potential. No further action has been recommended in relation to roosting bats and the proposed works.
- A sensitive 'bat-friendly' lighting strategy has been detailed in Section 5 to ensure commuting and foraging bats are not adversely affected by the proposals.

Dormice:

- The site was not considered to be suitable for dormice and no further action has been recommended for this species.

Great crested newts:

- A small pond within the site ownership (just off-site) is present and received a HSI score of 0.38 'poor suitability' for great crested newts (GCN). An off-site pond is

present 237m southeast however, was not accessible during the survey. A GCN record was identified 504m north of the site on the opposite side of the A259 and this A road is considered to be a barrier to the dispersal of terrestrial GCN. For these reasons, GCN are considered highly unlikely to be present on site and no further action has been recommended for this species.

Nesting birds:

- No evidence of nesting birds was identified. However, there is potential for nesting birds to be present in the ornamental planting, scrub and scattered trees. A mitigation strategy for vegetation clearance has been detailed in Section 5.

Reptiles:

- The majority of the site comprised short-mown grassland and hardstanding which is considered to be of limited value for reptiles. The site is situated within a built-up location with poor connectivity to off-site habitats. For these reasons, reptiles are not considered to be impacted by proposals and no further action has been recommended.

Ecological enhancements:

- To ensure the proposed development is compliant with Policy 15 of the National Planning Policy Framework (NPPF) and local planning policy, ecological enhancements will be provided as part of the scheme including one bat roosting tube, three swift bricks, two solitary bee bricks and a new mixed native hedgerow with tree planting in the new garden. Further information is provided in Section 5.

1. Introduction

ABR Ecology Ltd were commissioned by Chapman Lily Planning Ltd on behalf of Mr Edward Baker to produce an Ecological Assessment report informed by Preliminary Ecological Appraisal (PEA) and Preliminary Roost Appraisal (PRA) surveys at 7 Ambleside Close, Felpham, West Sussex PO22 8NG (central grid reference: SU 95671 00525) to advise on the presence/absence of bats within the property and any other ecological constraints associated with the prospective development of the site. This report was requested to inform a full planning application for land severance and the erection of a new dwelling.

The Preliminary Ecological Appraisal (PEA) and Preliminary Roost Appraisal (PRA) were conducted on the 1st March 2021 by ecologist Amy Parsons and assistant ecologist Kris Pedrosa. An existing site layout and location plan is provided in Appendix 1 and current proposals are provided in Appendix 2.

Site context

The application site comprises a residential garden to the side of a two-storey semi-detached property in Felpham, West Sussex. The site is located within a built-up area of residential housing with residential gardens and trees. Approximately 500m north on the opposite side of the A259 arable land with ponds, pasture and hedgerow networks are present, offering optimal habitats for wildlife. The immediate areas were considered to offer opportunities for urban wildlife.

Aims and scope of this report

This report is based on the results of the Preliminary Ecological Appraisal (PEA) and data search from the Local Records Centre, 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 Preliminary Roost Appraisal (PRA) which aimed to determine if a bat roost is present within any of the buildings or whether the building(s) had 'potential' to support roosting bats in line 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 whether there is a requirement for further detailed surveys, which may inform the need for a European Protected Species (EPS) licence to allow the works to proceed lawfully.

2. Legislation and policy

Legislation and UK BAP priority habitats/species

Legislation

In England, bats, dormice (*Muscardinus avellanarius*), otters (*Lutra lutra*), great crested newts (*Triturus cristatus*), smooth snakes (*Coronella austriaca*) and sand lizards (*Lacerta agilis*) 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. Nightjars (*Caprimulgus europaeus*) are protected under the above Regulations under Annex I (as originated from the EC Birds Directive).

Some 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, stag beetle (*Lucanus cervus*) and otter.

The above-named species and adders (*Vipera berus*), slow worms (*Anguis fragilis*), grass snakes (*Natrix natrix*), common lizards (*Zootoca vivipara*), common frog (*Rana temporaria*), palmate newt (*Lissotriton helveticus*), smooth newt (*Lissotriton vulgaris*), water voles (*Arvicola amphibius*) and several invertebrate species are also protected under Schedule 5 of the Wildlife and Countryside Act (WCA) (1981) (as amended). Barn owls (*Tyto alba*) are protected under Schedule 1 of the WCA (1981). Schedule 9 of the WCA (1981) includes non-native, invasive species including (but not limited to) Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*).

Some sites that have been designated for nature conservation are legally protected 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).

Following the exit of the European Union, several changes have occurred to the above legislation under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This has adopted these European laws into UK legislation, referring to the previous Natura 2000 sites as the 'national site network' which includes existing and newly designated SACs and SPAs. Ramsar sites do not form part of the national site

network however, these are still protected in the same way and many overlap with SACs and SPAs. 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.

Hedgerows that qualify as ‘important’ under The Hedgerows Regulations (1997) are legally protected under the Regulations and badgers (*Meles meles*) are protected under The Protection of Badgers (1992).

UK BAP

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 NERC Act (2006) and Section 40 places a duty to conserve biodiversity on all public authorities.

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*), noctule (*Nyctalus noctula*) and otter.

National and local policy

NPPF – The National Planning Policy Framework

The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government, 2019) sets out the Government’s planning policies for England and how these should be applied. In the context of this report, Policy 15 of NPPF is relevant and applicable, Policy 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 Policy 15 of NPPF, wildlife/habitat enhancements will be required to demonstrate a biodiversity net gain as an outcome of the project/development.

Policy 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 Policy 15, this application should be accompanied by a suitable arboricultural report to assess the presence of potential ancient or veteran trees, where appropriate.

The Arun Local Plan 2011-2031

The Arun Local Plan 2011-2031 (Arun District Council, 2018) Policy ENV DM5 ‘Development and biodiversity’ states:

‘Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habits on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces which serve to reconnect isolated sites and facilitate species movement.

Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of the year and shall be undertaken by qualified and, where appropriate, suitably licenced person.

All developments shall have regard to Natural England’s standing advice for protected species’.

It is the applicant’s/landowner’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) website. Sussex Biodiversity Records Centre (SXBRC) were contacted to provide records of any protected, vulnerable and notable species and any locally designated sites such as Sites of Nature Conservation Interest (SNCIs) within a 1km radius of the application site.

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.

Phase 1 Habitat survey

The Phase 1 Habitat survey was conducted on the 1st March 2021 by experienced ecologist Amy Parsons and assistant surveyor Kris Pedrosa.

The survey was conducted in accordance with the 'Handbook for Phase 1 habitat survey – a technique for environmental audit' (JNCC, 2010) methodology. The survey involved the mapping of broad habitat types within the application site boundary using colour codes alongside a comprehensive species list, categorising flora species in order of abundance under the DAFOR scale. 'Target notes' were made where ecological features of interest were identified.

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.

Bats

Preliminary Roost Appraisal (PRA)

Natural England Class 2 licensed bat ecologist Amy Parsons and assistant Kris Pedrosa undertook the PRA of the property on site; the trees to be removed were also assessed for their ability to support roosting bats. Timing and weather conditions are provided in the table below:

Survey date	Time of survey	Surveyor(s)	Equipment used	Weather conditions		
01/03/2021	11:30am	Amy Parsons and Kris Pedrosa	High-powered torch and binoculars	Temp:	Okta cloud cover:	Beaufort wind force:
				8°C	2/8	1/12

The assessment 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 any internal loft spaces or voids and on any external features of the buildings, notably any sills, walls, floors and flat surfaces. A ground based assessment was undertaken of the trees using close focusing binoculars to identify any access points within the trees to be removed. Evidence of roosting bats include:

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

The building was 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, soffits and behind lead flashing, to name a few examples. Areas known to support bats in trees are tear outs, split or broken limbs, cracks, flaking bark, woodpecker holes, within dead trees and within cavities within the trunk. 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 building or tree, as well as the quality/availability of surrounding bat habitat, was conducted. The building or tree was 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 or 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 or 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 or 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 or tree are negligible and are highly unlikely to be used by roosting bats.

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, 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.

Nesting birds

A search for evidence of nesting birds was conducted during the initial site visit. Birds will nest in buildings, hedgerows, scattered trees, scrub and planting to nest and forage among these habitats.

Reptiles

An assessment was undertaken on the suitability of the habitats on site for supporting reptiles. Reptiles are found in 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

The site visit provides a 'snapshot' of the site and does not take into account seasonal variation. Species and habitats 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, with botanical species likely to be restricted to the time of year.

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 building, where possible.

A ground based tree survey looking for evidence of bats is constrained by the visibility of the foliage and by the angle of the viewer. Where a tree meets a certain age and size this makes tree roosts much more likely, however, the majority of trees on site are of a young age/small and not considered likely to support roosting bats due to the relative health of the trees.

The data within this report should not be seen as comprehensive. Data obtained from the SXBRC 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.

Vegetation clearance had occurred prior to the site visit and this hindered the identification of species within the ornamental planting. However, due to the residential nature of the site it is considered highly unlikely that any notable or vulnerable species are present within the site.

Bat survey data within this report is considered valid for three years, and Phase 1 Habitat survey data considered valid for 18 months. 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

Desktop data search

Statutory (internationally, nationally and regionally protected) sites

MAGIC 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
Solent and Dorset Coast	1km south	SPA	89,075.34	Solent and Dorset Coast Special Protection Area supports 4.01% of the sandwich tern population, 4.77% of the common tern population, and 3.31% of the little tern population.
Felpham	1.37km southwest	SSSI	0.97	Felpham is designated due to its geological importance. It is one of the only three sites in the country where Palaeocene aged flora is present.
The Brooks	1.92km northwest	LNR	19.11	The Brooks comprises meadows, reedbeds, ditches, ponds and a newly planted floodplain woodland.
Bognor Reef	2.85km southwest	SSSI	39.73	Bognor Reef is of geological interest due to the significant presence of London Clay. Vegetative shingle is also present, a rare habitat type in Britain. Sand dunes are also present, where flora listed on Schedule 8 of the Wildlife and Countryside Act 1981 have been recorded.

Non-statutory (locally) designated sites

SXBRC was consulted to identify any non-statutory sites within 1km of the application site however, no sites were present within the search area.

The proposed development is not considered to hold the potential to impact on the other above designated sites due to distance and the localised nature of the proposed works. No further action has been recommended.

Protected and vulnerable species of interest

SXBRC 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
Mammals (including bats)			
Brown long-eared bat	1	2008	820m south
European rabbit	1	2002	Within 1km of the site
European water vole	1	2003	833m northeast

West European hedgehog	16	2020	436m southeast
Western barbastelle	2	2015	Within 1km of the site
Whiskered bat	2	2015	Within 1km of the site
Amphibians and reptiles			
Common frog	8	2002	187m southwest
Common toad	1	2002	940m south
Grass snake	2	2017	800m northeast
Great crested newt	1	2016	504m north
Palmate newt	3	2016	470m north
Smooth newt	5	2016	187m southwest
Invertebrates			
Common darter	3	2017	712m south
Birds			
Black tern	3	2016	Within 1km of the site
Black-tailed godwit	16	2018	Within 1km of the site
Cetti's warbler	35	2018	Within 1km of the site
Common house martin	4	2015	294m northeast
Common loon	1	2017	Within 1km of the site
Common reed bunting	10	2015	Within 1km of the site
Common sandpiper	1	2012	Within 1km of the site
Common scoter	4	2019	Within 1km of the site
Corn bunting	4	2018	Within 1km of the site
Cuckoo	6	2019	890m northwest
Curlew	3	2009	Within 1km of the site
Eurasian skylark	21	2019	Within 1km of the site
European green woodpecker	10	2015	Within 1km of the site
Grey partridge	7	2018	Within 1km of the site
Hawfinch	2	2017	Within 1km of the site
Hobby	5	2016	Within 1km of the site
Kestrel	13	2020	570m northeast
Kingfisher	5	2015	Within 1km of the site
Lapwing	10	2018	Within 1km of the site
Linnet	8	2015	Within 1km of the site
Little egret	4	2013	Within 1km of the site
Little grebe	17	2015	Within 1km of the site
Little ringed plover	6	2018	Within 1km of the site
Merlin	5	2019	Within 1km of the site
Mistle Thrush	1	2018	Within 1km of the site
Mute swan	11	2010	Within 1km of the site
Red kite	4	2015	Within 1km of the site
Redshank	2	2017	Within 1km of the site
Redstart	6	2016	Within 1km of the site
Red-throated loon	4	2017	Within 1km of the site
Ring ouzel	7	2019	Within 1km of the site
Ruff	9	2017	Within 1km of the site
Shelduck	3	2016	Within 1km of the site
Short-eared owl	1	2014	Within 1km of the site
Slavonian grebe	4	2015	Within 1km of the site
Snipe	1	2003	Within 1km of the site
Song thrush	8	2015	Within 1km of the site
Spotted flycatcher	1	2014	Within 1km of the site
Stock dove	7	2015	Within 1km of the site

Swallow	4	2010	Within 1km of the site
Swift	8	2013	588m southeast
Tawny owl	3	2002	945m northwest
Western barn owl	8	2019	Within 1km of the site
Western yellow wagtail	2	2014	Within 1km of the site
Wheatear	5	2018	Within 1km of the site
Whinchat	1	2014	Within 1km of the site
Whooper swan	1	2014	Within 1km of the site
Willow warbler	12	2010	Within 1km of the site
Woodlark	1	2008	Within 1km of the site
Yellowhammer	3	2016	Within 1km of the site
Plants			
Autumn lady's-tresses	1	2004	Within 1km of the site
Bluebell	4	2010	Within 1km of the site
Carlisle thistle	2	2002	Within 1km of the site
Chicory	1	2008	Within 1km of the site
Chives	1	2014	253m southwest
Common cudweed	2	2010	Within 1km of the site
Corn parsley	2	2013	177m north
Corn spurrey	1	2006	Within 1km of the site
Curved hard-grass	4	2013	989m south
Early meadow-grass	1	2012	736m southeast
Field scabious	1	2005	Within 1km of the site
Ivy broomrape	2	2011	696m south
Musk stork's-bill	1	2009	245m southeast
Sea heath	10	2015	187m southwest
Spreading hedge-parsley	1	2005	Within 1km of the site
Stinking hellebore	2	2012	732m southeast
Strawberry clover	1	2005	Within 1km of the site
Wild strawberry	3	2013	Within 1km of the site
Yellow horned-poppy	2	2009	Within 1km of the site

The above records will be used to inform the assessment of the site in its likelihood to support protected and vulnerable species.

Phase 1 Habitat survey

Habitats within the application site boundary comprised hardstanding, amenity grassland and ornamental planting, a low number of scattered trees, cleared/bare ground and scrub. Just off-site to the northwest a small ornamental pond is present to the rear of the property. A Phase 1 Habitat map has been provided in Appendix 3 and photographs of the site in Appendix 4. Habitat descriptions have been provided below:

Amenity grassland

Areas of short-mown amenity lawn are present in the northeast and the southwest of the site. A list of the species encountered is provided in the table below:

Species	Abundance
Annual meadow-grass	Locally rare
Black medic	Locally occasional
Bristly ox-tongue	Locally rare

Common feather-moss	Abundant
Common ragwort	Rare
Creeping bent	Dominant
Creeping buttercup	Locally occasional
Daisy	Frequent
Dandelion	Occasional
Green alkanet	Locally rare
Groundsel	Rare
Pendulous sedge	Locally rare
Perennial rye-grass	Occasional to locally abundant
Perennial sow thistle	Locally rare
Red fescue	Locally dominant to abundant
Ribwort plantain	Occasional
Rough-stalked feather-moss	Locally abundant
Self-heal	Frequent
Soft rush	Locally rare
Springy turf-moss	Locally abundant
Violet sp.	Locally rare
Wavy bittercress	Locally occasional
White clover	Occasional
Yarrow	Locally frequent
Yorkshire-fog	Locally occasional

Ornamental planting

Small areas of ornamental planting are present in the south and southeast, a small area is present in the lawn and an ornamental shrubbery is present along the north of the site. Some areas of ornamental planting had been cleared/strimmed down and comprised ornamental non-native species (see bare/cleared ground below).

Bare/cleared ground

Bare/cleared ground is present along the eastern boundary and in the southwest of the site. Species encountered within these areas included locally occasional to rare bramble, rare green alkanet, ivy and locally rare annual meadow-grass.

Scattered trees

Scattered trees are present around the site within the ornamental borders, with several tree stumps present due to clearance works. A yucca tree is present in the north, and holly and euonymus sp. trees are present to the east.

Scrub

Small areas of scrub are present in the southeast and northeast of the site. Species encountered are listed in the table below.

Species	Abundance
Bramble	Dominant
Elder	Rare to locally dominant
Pendulous sedge	Locally occasional

Birch sapling	Locally rare
Green alkanet	Locally rare
Ivy	Locally frequent

Hardstanding

Areas of hardstanding are present including paved pathways around the property, an area of concrete forming a driveway to the garage and a slabbed area in the north. No species of interest were noted within these areas.

Badgers

No evidence of badgers was recorded on site or along the site boundaries such as badger hair, latrines, 'snuffle' marks or setts. No further action is recommended as badgers are not considered to be impacted by the proposed development.

Bats – Preliminary Roost Appraisal (PRA)

Building descriptions

An assessment of the buildings to support roosting bats was conducted, including a search for evidence of bats. Photographs of the buildings are provided in Appendix 4, whilst building descriptions have been provided below:

Building name	Description
Detached garage	- The detached garage is single-storey and constructed from pre-fabricated concrete elevations. - The former garage door on the west is missing. - Wooden fascia boards are present. - The roof is flat and constructed from corrugated fibre cement/asbestos. - Windows are present on the northern and eastern elevations, with wooden frames present. - No enclosed voids are present.
Shed	- The shed is single-storey and constructed from pre-fabricated timber. - The roof is pitched with bituminous felt. - A wooden door is present on the northern elevation. - No enclosed voids are present.

PRA results

A thorough external search was undertaken in the detached garage and shed. Despite a thorough inspection, no evidence of bats was recorded during the survey around the detached garage and shed.

Assessment of bat roosting potential and potential bat access points

The detached garage and shed were assessed against national survey guidelines (Collins, 2016) and were both considered to hold 'negligible potential' for roosting bats. The detached garage was exposed to the elements due to the absent door and no crevices

were present internally. No access points or potential roosting provisions were noted within the shed. The detached garage and shed were not considered to support roosting bats and no further action has been recommended in relation to bats and the demolition/removal of these buildings.

Roosting bats: trees

The trees on site were assessed for their potential to support roosting bats; all trees were assessed, and no Potential Roosting Features (PRFs) were identified, either due to the relative health of the tree or due to young age. The trees were not considered to support bat roosts and so no further recommendations have been made with regards to bats in trees.

Dormice

The scattered trees and ornamental planting were assessed for their potential to support dormice. The ornamental planting lacked a variety of suitable food plants used by dormice and there is poor habitat connectivity to the wider landscape. There are no records of dormice identified within the data search, with the closest European Protected Species (EPS) licence located 5.5km north (MAGIC, 2021). For the above reasons, dormice are not considered to be present on site and no further action has been recommended for this species.

Great crested newts

The majority of the site comprised hardstanding and short-mown amenity grassland which are considered to be of limited value for great crested newts (GCN). However, the ornamental borders and scrub do provide suitable cover for this species. One record for GCN is present 504m north of the site on the opposite side of the A259 road.

One pond was identified by aerial maps approximately 237m southeast within a private property and no access was possible to the pond during the visit. One small ornamental pond is present just off-site within the rear garden of 7 Ambleside Close. A Habitat Suitability Index (HSI) assessment was conducted on this pond and the results of which are provided in the table below.

Variable	Score
SI1 – Location	1
SI2 - Pond area	0.05
SI3 - Pond drying	0.9
SI4 - Water quality	0.67
SI4 – Shade	1
SI6 – Fowl	1
SI7 – Fish	0

SI8 - Ponds	1
SI9 – Terrestrial habitat	0.67
SI10 - Macrophytes	0.35
HSI SCORE =	0.38

The pond scored 0.38 and is of 'poor' suitability for GCN, this is largely due to the abundance of fish within the pond. The landscape connectivity from the GCN record towards the site is fragmented, with several roads and built form present, and there is a lack of any substantial habitats within the immediate area surrounding the site, being limited to residential gardens. For these reasons, GCN are considered highly unlikely to be present within the site and no further action has been recommended for this species.

Nesting birds

No evidence of nesting birds was noted, however, the scattered trees, small areas of scrub and ornamental planting on site were noted to be of suitability for nesting birds. Therefore, a mitigation strategy for vegetation clearance has been detailed in Section 5 to ensure nesting birds are not impacted upon during the works.

Reptiles

The majority of the site comprised hardstanding and short-mown grassland which is of limited value for reptiles. The ornamental borders and scrub may provide sub-optimal habitat for reptiles; however, it is considered unlikely reptiles are present due to the isolated nature and urban location of the site, with fragmented habitat connectivity to the wider landscape. Therefore, impacts on reptiles are not anticipated and no further action has been recommended.

5. Ecological mitigation and enhancement strategy

Commuting and foraging bats

The majority of habitats within the site are considered to be sub-optimal for foraging bats. However, the surrounding area may be used by bats. Bats are highly light-sensitive and will actively avoid lit areas, therefore a permanent change in site lighting may result in the loss of foraging opportunities on site. The following lighting strategy based on current national guidance (BCT & ILP, 2018) will be followed to ensure lighting disturbance is minimised:

- Any external lighting will be kept to a minimum and only erected where it is required for health and safety purposes.
- Any new external light fixtures will be hooded/cowled to avoid upward light spill and will be on a motion-sensor with short (1 min) timers.
- Any luminaires must lack UV elements, when manufactured. Metal halide, florescent sources must not be used.
- LED luminaries will be used, due to their sharp cut-off and lower intensity and any light fixtures will be on bollards or at a maximum head-height to ensure bats are not deterred from using the site.

Nesting birds

The ornamental planting, scrub and scattered trees within the site were considered suitable for nesting birds. Vegetation clearance will be required to facilitate the works and the following strategy will be applied to mitigate for potential disturbance or harm to nesting birds:

- Clearance works will be undertaken in the winter months outside of the nesting bird season, where possible. Works will take place between the 1st September and 28th February.
- Should any removal of ornamental planting/trees/scrub take place between the 1st March and 31st August then clearance must be undertaken by a suitably experienced ecologist. Pre-works checks for signs of nesting birds will be undertaken by the ecologist. If an active nest is encountered, all 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.

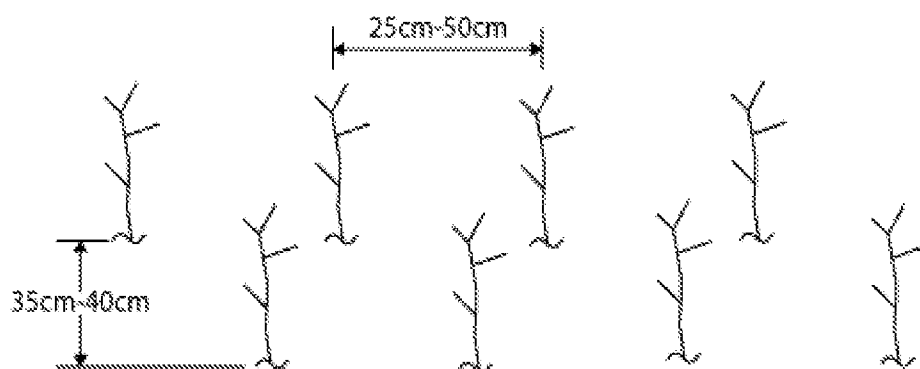
- If a bird's nest is encountered at any other unsupervised time, all works in the area must cease immediately the ecologist must be contacted immediately to provide further advice.

Ecological enhancements

To ensure the proposed development is compliant with policy 15 of the NPFF and local planning policy, the following ecological enhancements will be included as part of the scheme (see Appendix 5 for locations and design – nest boxes/tubes/bricks may be purchased from websites such as www.nhbs.com or www.wildcare.co.uk):

- A total of two bee bricks for solitary bees will be installed in the masonry of the new building. The bricks are designed to accommodate solitary bees (non-aggressive/non-swarming types).
- Three 'Model S Swift Bricks' will be installed at eaves level on the eastern elevation. The nest boxes are designed to be integrated into the masonry of the buildings, leaving a more inconspicuous finish whilst also being built in and secure to ensure health and safety.
- One 'Schwegler 1FR bat tube' will be installed at the eastern gable apex and will provide roosting opportunities for crevice-dwelling bats.
- A total of five new native trees will be planted including a minimum of one fruit tree such as apple, plum or pear. The trees must be from British sourced stock, the fruit tree will provide foraging opportunities for the local invertebrate, bat and bird population.
- A mixed native hedgerow measuring approximately 28m will be planted along the northern and eastern boundaries of the garden to provide shelter for small mammals including hedgehogs and will support foraging bats and birds. The following planting method and specifications will be followed to ensure the new hedgerow is successful and ecologically resilient:
 - The new hedgerow will comprise native, woody species to provide nesting and foraging habitat for wildlife. The hedgerow will comprise a diverse mixture from the following species:
 - . Blackthorn
 - . Hawthorn
 - . Spindle
 - . Field maple
 - . Dogwood

- . Elm
 - . Oak
 - . Hazel
 - . Elder
 - . Crab apple
 - . Dog-rose
- The new hedgerow whips should be sourced from British-grown stock and will be planted between November and March. The whips should be planted in two rows at a density of six plants per 1m feature approximately 35cm apart. The roots should be kept damp throughout the planting process.



- Spiral guards will be required to protect the whips and will be removed after 4 years. A management regime will be required for the new hedgerow which will result in a 3-year cutting plan to result in a tall, bushy hedgerow providing maximum wildlife value.
- Any new fencing proposed as part of the scheme will be 'hedgehog-friendly'. Gravel boards/holes will be installed every 5m of any new fencing and will measure a minimum of 13cm x 13cm.

6. References

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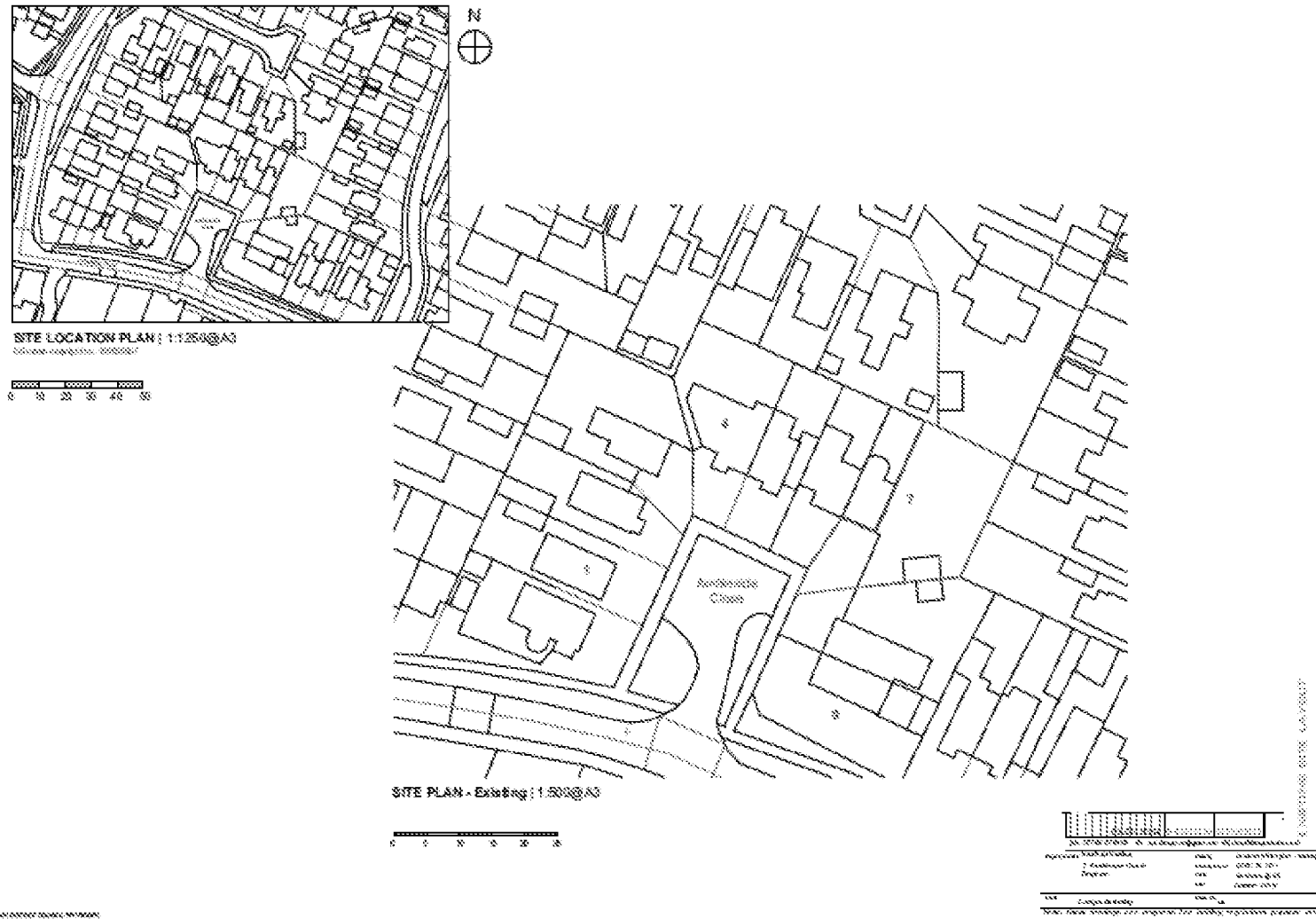
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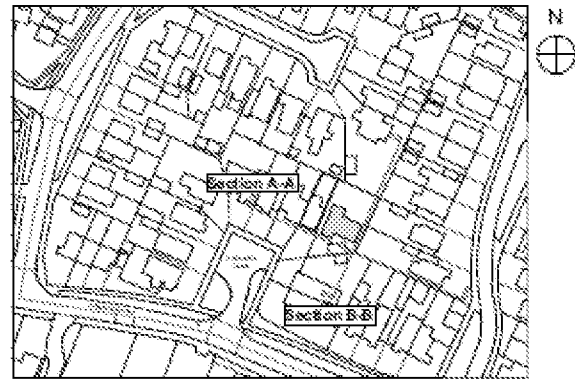
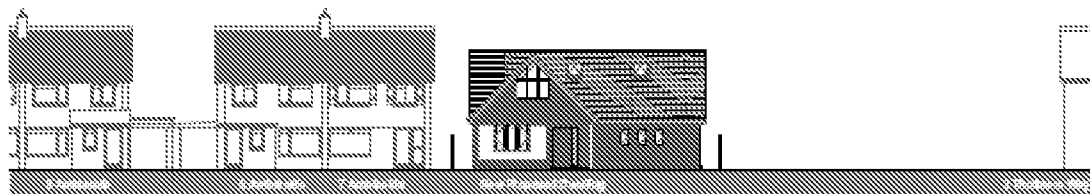
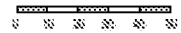
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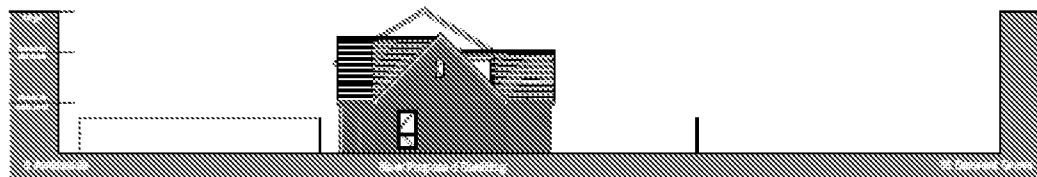
Appendix 1: Site location plan



Appendix 2: Proposals

SITE LOCATION PLAN: 1-02869-00
XXXXXXXXXXXX XXXXXX

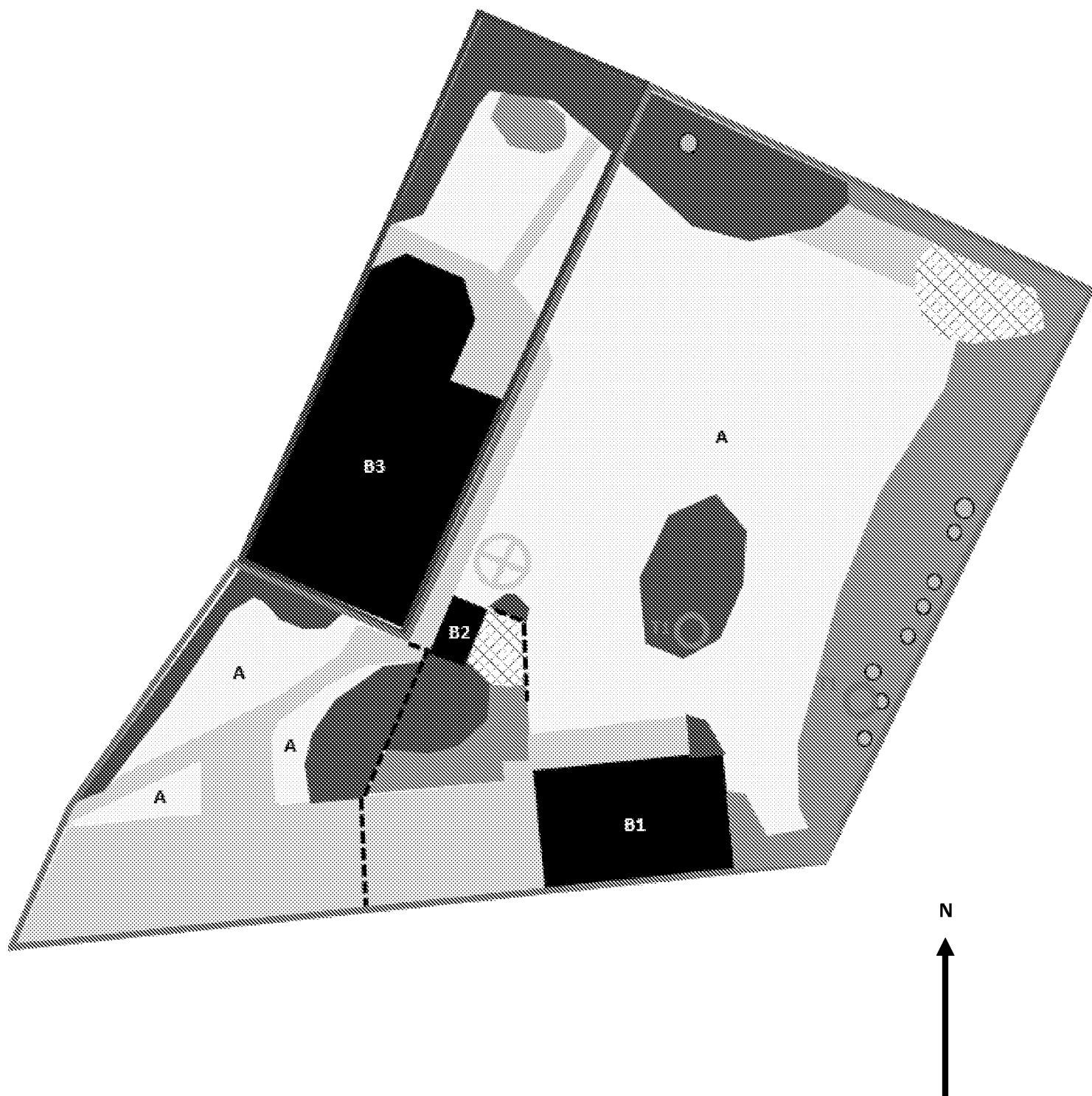
SECTION A-A STREET SCENE / SITE SECTION 0-200



SECTION 3-5 STREET SCENE / SITE SECTION 1206

[illegible]

Appendix 3: Phase 1 Habitat map



Phase 1 Habitat map key

Habitat code	Description
	Amenity grassland
	Hardstanding
	Building
	Ornamental planting
	Scrub
	Cleared/bare ground
	Scattered trees
	Ornamental pond (off-site)
	Fencing/gates
	Application site boundary
	Site ownership boundary (off-site)
B1	Detached garage
B2	Shed
B3	7 Ambleside Close (off-site)
	Tree stumps

Appendix 4: Photographs



Photo 1: West of the detached garage.



Photo 2: Driveway along the southern boundary.



Photo 3: Cleared ground in the south of the site.



Photograph 4: Site looking towards the south.



Photo 5: Site looking towards the east.



Photo 6: Ornamental planting in the south.



Photo 7: Cleared ground in the southeast corner.



Photo 8: Cleared/bare ground along the east.



Photo 9: Amenity grassland looking west.



Photo 10: Ornamental planting along the north.



Photo 11: Internal of the detached garage.



Photo 12: Internal of the detached garage.



Photo 13: Shed.



Photo 14: Pond in the northwest (off-site).



Photo 15: Southeast of the site to front of No. 7.

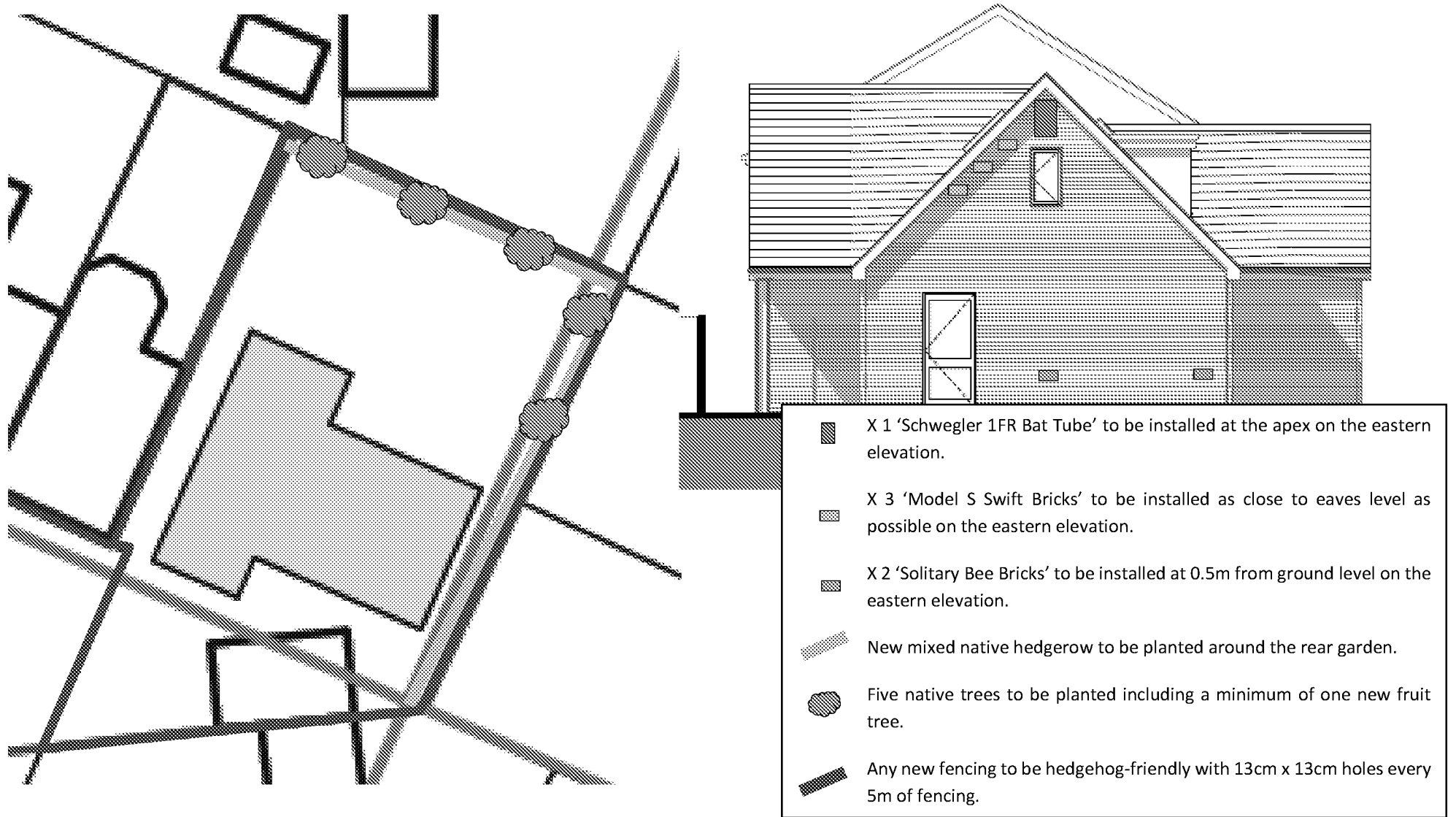


Photo 16: Amenity lawn and ornamental planting.

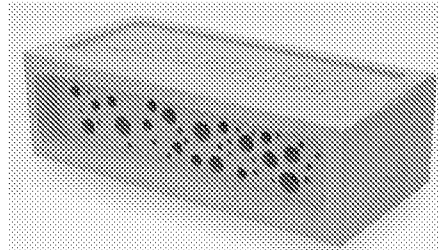


Photo 17: Southeast of the site to front of No. 7.

Appendix 5: Ecological enhancements



Two solitary bee bricks to be installed at 0.5m from ground level (bricks may be purchased from www.nhbs.com):

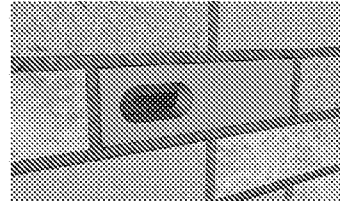
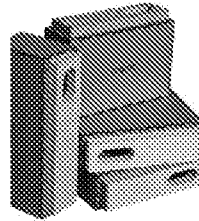


Hedgehog-friendly fencing design:

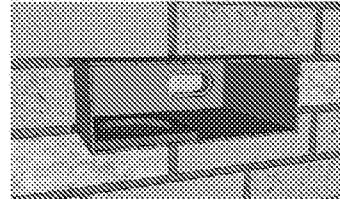


Three 'Model S Swift Bricks' to be installed at eaves level (nest boxes may be purchased from www.nhbs.com):

**Model S
Swift Brick**



Occupies the space of one course of bricks.



Empty side with the track removed, creating the built-in nest for a swift.

One 'Schwegler 1FR bat tube' to be installed (bat tubes may be purchased from www.nhbs.com):

