



LIZARD

Landscape Design and Ecology

PRELIMINARY ECOLOGICAL APPRAISAL

The Grange, Westergate Street, Woodgate, Arun

On behalf of Smith Simmons & Partners Ltd.

Prepared by	CF
Checked by	GS
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The Old Bank, 34 South Street, Torridge, Wexham, West Sussex, BN14 7JH

SUMMARY

Lizard Landscape Design and Ecology has been commissioned by Smith Simmons & Partners Ltd. to undertake a Preliminary Ecological Appraisal (PEA) of The Grange, Westergate Street, Woodgate in Arun (*Grid Reference: SU 94003 04386 – hereafter referred to as 'the site'*). The preliminary ecological appraisal survey was undertaken on 15th October 2020, to appraise the existing ecological resources of the site, to highlight any potential ecological constraints and opportunities to inform scheme design, and to highlight the need for any further ecological assessment prior to application.

The proposed site is accessed via a track off Lidsey Road which provides access to the south of the site. The site is mostly comprised of existing buildings and areas of hardstanding of negligible ecological value. Towards the north of site areas of ephemeral / short perennial vegetation are present, alongside tall ruderal vegetation and a narrow woodland strip which bounds the north of site. Existing properties bound the site to the east and west, and a rough grassland field lies to the north. The habitats which comprise the site are limited in extent and likely to be of low ecological value, valuable at the site level only. Further Phase 2 surveys are recommended in relation to reptiles to meet national planning requirements.

A summary of recommendations is as follows:

- Consultation with the Local Planning Authority to advise on the need for a Biodiversity Net Gain Assessment and to confirm that development will account for allocated windfall development within the local plan, so the further HRA work will not be required
- Protect, retain and enhance the northern woodland boundary of site in line with BSI standards (BSI, 2012) (BSI, 2013) and TPO area, for the wider benefit of biodiversity, and specifically in relation to bats and nesting birds.
- Provision of a sensitive lighting strategy which limits light spill into the surrounding environs and is line with guidance (BCT & ILP, 2018).
- Reptiles survey to identify the need for a Reptile Mitigation Strategy.
- Precautionary working practices in relation to badgers, to include a pre-commencement check and safe working practices.
- Provision of enhancements in line with local plan Policies ENV SP1, DM3 & DM5 (Arun District Council, 2018. Recommendations are provided in Chapter 6 of this report.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned by Smith Simmons Partners Ltd. to undertake a Preliminary Ecological Appraisal of The Grange, Westergate Street, Woodgate, Chichester (*Grid Reference: SU 94003 04386 – hereafter referred to as 'the site'*).
- 1.2 A preliminary ecological appraisal (PEA) was undertaken on 15th October 2020 to appraise the existing ecological resource within the site and the surrounding area. The PEA comprised a baseline survey conforming broadly to the JNCC Extended Phase 1 Habitat Survey methodology (JNCC, 2010), to identify and map existing habitats. In addition, a protected species assessment was undertaken to identify the potential for European and nationally protected species to be present within and adjacent to the site.
- 1.3 The field survey data and analysis contained in this report was undertaken and prepared by Caleb Fry (*BSc (Hons) ACIEEM, Project Ecologist; Lizard Landscape Design and Ecology*). The report has been reviewed by George Sayer (*MCIEEM, Senior Ecologist; Lizard Landscape Design and Ecology*).

Site Information

- 1.4 The site covers an area of c. 0.2ha and consists of an irregular shaped plot. An access track at the south of site connects the site to Lidsey Road to the west. The site contains areas of hardstanding used for car parking and access, as well as buildings associated with the current occupant, used for vehicle maintenance and storage. The north of the site is bounded by a dry ditch and a narrow strip of woodland, directly south lies an area of ephemeral / short perennial vegetation, towards the east of this area tall ruderals proliferate. To the north of sites lies an unmanaged field where rank grasses, scrub and ruderal vegetation proliferate. To the east and west of site lies existing properties with associated gardens. The site lies within a Tree Preservation Order area, TPO Reference: TPO/AL/2/16. No other Landscape or Ecological designations for this site exist, and the site is not in a *Conservation Area*.

Surrounding Landscape

- 1.5 The site is located on the eastern edge of Woodgate. The surrounding landscape is comprised of the built mass of Woodgate which lies to the west and south, whereas agricultural fields and associated hedgerows lie to the east and north. A tributary of the River Arun lies c. 320m to the east. A railway line extends east-west c. 10m south of the site. Barnham train station lies c. 1.8km to the east.

Development Proposals

- 1.6 It is understood that proposals are for the removal of the existing structures for the construction of two new residential housing units.

2.0 SCOPE OF THE SURVEY

2.1 The aim of the preliminary ecological appraisal survey has been:

- To identify the main habitat types present on site
- To assess the likely importance of the habitats present
- To assess the likely presence of protected species
- To provide recommendations for further Phase 2 surveys of protected species where necessary
- To advise on the requirement to complete a Habitats Regulation Assessment if it is not possible to rule out the likelihood of a significant effect to any internationally designated sites, alone or in-combination with other plans scheduled to be brought forward
- To list ecological constraints present on site; and
- To highlight any ecological opportunities and list potential enhancements for inclusion within the scheme

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 The Multi-Agency Geographical Information Centre (*MAGIC*) was consulted for information regarding priority habitats, statutory designated sites and permitted European Protected Species Licences (EPSL's) within a potential zone of influence of the development site.

3.1.2 In accordance with Natural England's GCN Mitigation Guidelines (English Nature, 2001) a desktop search was undertaken to identify ponds within 500m and 250m of the site, which may have the potential to support breeding great crested newts (GCN) *Triturus cristatus*, using Ordnance Survey mapping, the *MAGIC* database and aerial photography.

3.2 Site Visit

3.2.1 A PEA was undertaken on 15th October 2020 and the site subjected to an ecology survey using guidelines set out in the *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit (JNCC, 2010)*. This has resulted in a Site Habitat Plan (*Figure No. 01*) and Species Lists for Habitat Parcels (*Table No. 05*).

3.2.2 Habitats within the site were classified and the presence, or potential presence, of certain protected and/or notable species of flora and fauna were identified. This involved identifying features that may be used by protected species, potential foraging areas and other signs of use. Water bodies were recorded wherever possible, within 500m of the proposed development site.

3.2.3 Due to the field survey consisting of only one site visit, certain species, particularly flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of the survey and hence overlooked. These are accepted constraints associated with the standard *Phase 1 Habitat Survey Methodology* (JNCC, 2010).

3.2.4 The results are summarised and accompanied in large part by photographic evidence contained in *Appendix A – Site Photographs*. Recommendations for further investigation and survey are made herein where necessary.

Preliminary Bat Roost Assessment

- 3.2.5 A Preliminary Bat Roost Assessment was undertaken on 15th October 2020 by an experienced bat surveyor who undertook a ground-level assessment of all trees and buildings within the proposed development site.
- 3.2.6 The bat surveyor assessed the existing buildings visually and searched for evidence such as:
- Grease Marks;
 - Urine Stains;
 - Bat Droppings;
 - Feeding Remains;
 - Dead or Live Bats.
- 3.2.7 Trees were visually identified from the ground, using binoculars where necessary, for features that could be used by bats such as:
- Woodpecker Holes;
 - Knot Holes;
 - Tear-outs;
 - Flush Cuts;
 - Double Leaders.
- 3.2.8 Once features had been assessed the trees were then categorised in accordance with *Table 4.1 Bat Surveys for Professional Ecologists; Good Practice Guidelines (Collins, 2016)*:

Table No. 01 – Categorisation Criteria

<i>Category</i>	<i>Building</i>	<i>Tree</i>
<i>Negligible</i>	No suitable features identified.	No suitable features identified.
<i>Low</i>	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to	Tree of sufficient size and age to support bat roost features; but with none identified from the ground, or with only very limited roosting potential.

	be used on a regular basis or by large numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only)	
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	

- 3.2.9 The surrounding habitat within and directly adjacent to the site was assessed for its suitability to support foraging and commuting bats which may influence the likelihood of bats roosting within on-site trees and buildings.

4.0 RESULTS

4.1 Desk Study

Statutory Protected Sites

- 4.1.1 The following potential zones of influence have been used when identifying designated sites in the local area: Local Nature Reserves (LNRs) and Sites of Special Scientific Interest (SSSIs) within a 2.0km radius of the site, and internationally designated sites including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsars (Wetlands of International Importance) within a 10km radius of the site. Statutory protected sites within a potential zone of influence of the site include:

Table No. 02 – Statutory Protected Sites

Site	Description	Location
<i>International Statutory Designated Sites within 10.0km</i>		
Pagham Harbour Ramsar	The Ramsar is designated under the Convention on Wetlands (1971) as it qualifies under criterion 6, for supporting important populations of wintering dark-bellied brent geese <i>Branta bernicla</i>	c. 8.3km south-west
Pagham Harbour SPA	The SPA is primarily designated under article 4.1 of the Birds Directive (79/409/EEC) for regularly supporting over 1% of the British population of the Annex I species of breeding common tern <i>Sterna hirundo</i> and little tern <i>Sternula albifrons</i> , and non-breeding populations of dark bellied brent goose and ruff <i>Calidris pugnax</i>	c. 8.3km south-west
Duncton to Bignor Escarpment SAC	The SAC is primarily designated under article 4(4) of the Directive (92/43/EEC) for hosting the Annex I habitat; <i>Asperulo-Fagetum</i> beech forests	c. 9.3km north by north-east
Chichester and Langstone Harbours Ramsar	The site is designated for meeting three criteria of the Ramsar convention; criterion 1, 5 and 6. For supporting two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline; the site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes. For supporting a	c. 9.9km west

	waterfowl assemblage of international importance, and for supporting important populations of ringed plover, black-tailed godwit <i>Limosa limosa islandica</i> , dark-bellied brent goose, shelduck, grey plover and dunlin, respectively.	
Chichester and Langstone Harbour SPA	The SPA is designated under Annex II of Directive 92/43/EEC for supporting important populations of species listed under Article 4 of Directive 2009/147/EC, including northern pintail <i>Anas acuta</i> , northern shoveler <i>Anas clypeata</i> , teal <i>Anas crecca</i> , wigeon <i>Anas Penelope</i> , ruddy turnstone <i>Arenaria interpres</i> , dark-bellied brent goose <i>Branta bernicla bernicla</i> , sanderling <i>Calidris alba</i> , dunlin <i>Calidris alpina</i> , ringed plover <i>Charadrius hiaticula</i> , bar-tailed godwit <i>Limosa lapponica</i> , red-breasted merganser <i>Mergus serrator</i> , curlew <i>Numenius arquata</i> , grey plover <i>Pluvialis squatarola</i> , little tern <i>Sterna albifrons</i> , common tern <i>Sterna hirundo</i> , sandwich tern <i>Sterna sandvicensis</i> , shelduck <i>Tadorna tadorna</i> and redshank <i>Tringa tetanus</i>	c. 9.9km west
Singleton and Cocking Tunnels SAC	The SAC is designated under article 4(4) of the Directive (92/43/EEC) for hosting the Annex II species: Barbastelle bat <i>Barbastella barbastellus</i> and Bechstein's bat <i>Myotis bechsteinii</i> . The site is in the wider conservation area for the SAC.	c. 11.7km north-west

4.1.2 No results for LNRs or SSSIs were returned within 2km of the site.

Non-Statutory Protected Areas

4.1.3 *Sites of Nature Conservation Importance (SNCIs)* are designations applied to the most important non-statutory nature conservation sites. They are recognised by the *National Planning Policy Framework (2019)* and as such are material considerations when assessing planning applications.

4.1.4 No SNCIs were identified within 2km of the site.

- 4.1.5 The site lies within a Tree Preservation Order area, TPO Reference: TPO/AL/2/16. No works to or removal of trees shall be undertaken without prior written consent from the local planning authority.

4.2 Habitats

- 4.2.1 Within 2.0km of the site there are priority habitats of *Coastal and Floodplain Grazing Marsh, Deciduous Woodland, Ancient Woodland, Traditional Orchards and Woodpasture and Parkland*. However, none exist on or directly adjacent to the site.

- 4.2.2 Habitats within the site include:

- *Hardstanding,*
- *Existing buildings,*
- *Ephemeral / Short Perennial,*
- *Tall Ruderal,*
- *Woodland; and*
- *Scattered Trees.*

Hardstanding

- 4.2.3 The main body of the site is comprised of hardstanding, currently used for car parking and storage and as such is of **Negligible** ecological value.

Existing building

- 4.2.4 Three buildings are present on site. The first is a large single storey incomplete build located towards the centre of site. The building covers an area of c. 200m² and has roofing timbers and associated joists and perkins, but no physical roof or associated roofing tiles or roofing membrane etc. The building has outer walls on its western and eastern aspect, but the northern and southern aspects are open, providing access into the internal structure which is currently used for storage. The second building is a corrugated metal shed, which covers an area of c. 70m². The building is located towards the north-east of site and is of a modern construction with doors opening on its eastern aspect. The third building is a small wooden garden shed present towards the north of site with felt roof and flush wood board walls. The existing buildings are of **Negligible** ecological value.

Ephemeral / Short Perennial

- 4.2.5 Towards the northern aspect of the site an area of ephemeral / short perennial vegetation dominates and species including zigzag clover *Trifolium medium*, greater plantain *Plantago major*, eyebright *Euphrasia sp.*, scentless mayweed *Tripleurospermum inodorum* and spotted medick *Medica arabica* are present. Towards the north-east of this area some of the ground is wet, leading to the presence of mints *Mentha sspp.* ground ivy *Glechoma hederacea* and other plants tolerant of wet ground. Towards the north of this area some species associated with woodland, such as black nightshade *Solanum nigrum* and hedge woundwort *Stachys sylvatica* are occasionally found (A full species list is present in Table No. 05). To the east of this area tall ruderals start to dominate. Although this area is reasonably diverse in flora, it is limited in extent and likely to be valuable at the **Site** level.

Tall Ruderal

- 4.2.6 Towards the north and east of site areas of stinging nettle *Urtica dioica*, bristly oxtongue *Helminthotheca echinodes*, burdock *Arctium sp.*, Canadian fleabane *Erigeron canadensis* and fat hen *Chenopodium album* start to proliferate and extend above the ephemeral / short perennial vegetation. The assemblage of ruderal vegetation noted is ubiquitous in the wider surrounds and on site is likely to be valuable at the **Site** level only.

Woodland

- 4.2.7 A narrow strip of woodland runs east to west and bounds the north of the site. The woodland is composed of a dry ditch with two treelines running parallel either side of the ditch. The ditch delineates the site boundary. The ground flora is dominated by ivy *Hedera helix* and in towards the centre bramble *Rubus fruticosus* scrub is present amongst stinging nettles and hedge bindweed *Calystegia sepium*. The ditch hosts several plants more tolerant of damp environments, including male fern *Dryopteris filix-mas*, hart's-tongue fern *Asplenium scolopendrium* and stinking iris *Iris foetidissima* but no plants that would suggest that the ditch permanently holds water for any prolonged period of time. Age diversity of the trees in this strip is limited; a single ash *Fraxinus excelsior* seedling was noted alongside young / semi-mature hazel *Corylus avellana*, hawthorn *Crataegus monogyna* and elder *Sambucus nigra* shrub as well as two mature crack willow trees *Salix fragilis* which are close to the centre of the woodland strip. Towards the eastern aspect of the woodland strip two mature and a semi-mature ash tree are

present and there is dead wood in the crown of one of these trees, possibly as a result of ash dieback *Hymenoscyphus fraxineus*. This woodland closely resembles a tree line, is small in extent and the trees lack a diversity of age and structure. However, the woodland strip does provide connectivity to the wider environment and, therefore, this habitat it is likely to be valuable at the **Local** level only.

Scattered Trees

- 4.2.8 A young ash tree is present to the north-west of the incomplete building, and a small elder shrub is present just north-east of this within the ruderal area. These trees are limited in extent, valuable at the **Site** level only.

4.3 Protected Species Assessment

Amphibians

Desk Study

- 4.3.1 Great crested newts (GCN) and their resting / breeding sites are protected under *The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981 (as amended)*. No records were returned for existing EPSL's within the search area, and no records for ponds were return from within a 500m radius of the site.

Site Assessment

- 4.3.2 No waterbodies are present on site and the dry ditch, which bounds the north of site did not hold water at the time of survey, and based on the vegetation found there, is not likely to hold water for any prolonged period of time throughout the year. Suitable terrestrial habitat is present in the form of the woodland at the north of site, however, given that there are no suitable waterbodies within 500m of the site, this is unlikely to support GCN and therefore, it is determined that the site offers **Negligible** potential to support the species. The potential for GCN to occur on site is not considered further in this report.

Reptiles

Desk Study

- 4.3.3 Population of common and widespread reptiles, such as grass snake *Natrix helvetica*, common lizard *Zootoca vivipara* and slow worm *Anguis fragilis* are likely to exist within areas of suitable habitat throughout the landscape. All species of UK reptile are protected against reckless or intentional killing or injury, under *The Wildlife and Countryside Act 1981 (as amended)*.

Site Assessment

- 4.3.4 The mix of ephemeral / short perennial and scrub vegetation found at the north of site is of excellent suitability for reptiles as it offers basking, cover and hunting opportunities. Many invertebrates were observed within the sward and refugia opportunities are likely to be present within areas of scrub in the woodland at the north of site. Furthermore, the field north of site also looks suitable for reptiles and so could have colonized the area. Therefore, the site was determined to offer **High** potential to support reptiles.

Bats

Desk Study

- 4.3.5 All species of bat and their roosts are protected under *Regulation 41* of the *Conservation of Habitats and Species Regulations 2017* and *Section 9* of the *Wildlife and Countryside Act 1981*. It is an offence to kill, injure or handle a bat and to disturb a roosting bat intentionally or recklessly. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.
- 4.3.6 A single record for an existing EPSL was returned from the search area. The record is centred c. 1.5km east by north-east of site, is active 2016-2021, and allows for the destruction of a common pipistrelle *Pipistrellus pipistrelle* bat roost.

Site Assessment - Trees

- 4.3.7 The existing trees on and directly off site were assessed for their potential to support roosting bats, a summary of the assessment is shown below:

Table No. 03 – Tree Assessment

Ref.	Description	Category
T01	<i>Semi-mature oak present towards the north-west of site, outside of site boundary, on other side of ditch. No suitable roosting features observed and generally, too young to present features of roosting suitability.</i>	<i>Negligible</i>
T02	<i>Semi-mature crack willow present towards the centre of the woodland towards the north of site. Base of the willows heavily shrouded by scrub and limbs spread prostrate over the small shed at the north of site. No suitable roosting features were observed.</i>	<i>Negligible</i>
T03	<i>A second semi-mature crack willow exists directly east of T02. The willow extends out of the shrub at the north of site and has low hanging limbs. No features suitable for use by roosting bats were observed</i>	<i>Negligible</i>
T04	<i>A line of ash trees is present towards the north-east of site. The first of these is semi-mature and without observable features suitable for use by roosting bats</i>	<i>Negligible</i>
T05	<i>The second ash tree east of the line of ash trees is likely mature and a protruding knot hole is viewable at its southern aspect. It is possible to view dead-wood and a downward facing hole in the knot hole. Although not possible to completely view the hole from ground level it is likely to be of limited roosting suitability as it is small and downward facing.</i>	<i>Low</i>
T06	<i>The final, most easterly of the ash trees is also mature, and offers a similar feature to T05; a knot hole with a downward facing hole, likely to be of limited roosting suitability. There is some dead wood in the crown of this tree, possibly due to Ash dieback.</i>	<i>Low</i>

- 4.3.8 Photographs of potential roosting features are presented in Appendix A – Site photographs.

Site Assessment - Building

- 4.3.9 The existing buildings on site was assessed for their potential to support roosting bats. A summary of the assessment is shown below:

Table No. 04 – Building Assessment

Ref.	Description	Category
B01	<i>A large single storey incomplete build is present towards the centre of site. The building is without a roof, soffit and barge boards which are often associated with bat roosts in buildings, due to the buildings open construction no features were assessed as suitable to support roosting bats.</i>	<i>Negligible</i>
B02	<i>The metal corrugated shed towards the north-east of site is of a modern design and recently installed. The metal sheeting results in a lack of features. Where the walls meet the roof some gaps are present, but these are too large and unsheltered to be likely to be used by bats and overall no suitable features were noted.</i>	<i>Negligible</i>
B03	<i>A small wooden shed is present at the north of site beneath a crack willow. The shed had a felt roof and no gaps between the roof and the walls were observed which could offer suitable roosting potential or ingress for bats.</i>	<i>Negligible</i>

Site Assessment – Commuting and Foraging

- 4.3.10 The woodland strip at the north of site leads into a treeline which heads north and east of site, providing access to the wider surrounds, including the river Arun tributary and therefore is likely to have some commuting value for bats in the area. The ephemeral / short perennial vegetation at the north of site was rich in invertebrates and this could act as a foraging resource. However, the site is located on the edge of the urbanised area of Woodgate and likely to be subject to background disturbance such as light pollution. Overall, the site is likely to offer commuting and foraging habitat of **Low** suitability, with the greatest bat interest associated with the north of site.

Dormouse

Desk Study

- 4.3.11 Hazel Dormice *Muscardinus avellanarius* are protected under *The Wildlife and Countryside Act 1981 (as amended)* through their inclusion on *Schedule 5* and *The Conservation of Habitats and Species Regulations 2017*. A single record for a permitted EPSL in relation to dormouse was returned from within the search area. The record is centred c. 1.4km north of site, is active

2017-2022 and allows for the damage and destruction of a resting site.

There is little observable connective habitat between the EPSL records and the site.

Site Assessment

- 4.3.12 Several food plants associated with dormice, e.g. hazel, bramble and ash (English Nature, 2006) are present within the woodland at the north of site, alongside some shrubs and scrub which could provide arboreal connections for dispersal through the landscape. An impromptu nut search was undertaken around hazel stands and no nuts opened by dormice were identified. The site is likely to be subject to background disturbance due to the existing residential properties which already back onto the treeline. Although the woodland provides connectivity to habitats to the north of site, the eastern aspect of the woodland terminates after c. 10m and if used at all by dormice, would be likely to be used for dispersal and not breeding. Overall, the site is likely offer **Low** potential to support dormice.

Badger

- 4.3.13 Badgers *Meles meles* are common and widespread species and are likely to be present in low numbers in agricultural fields throughout the surrounds. However, no evidence of badger was found during the initial survey, and the site offers some limited habitat suitable to support sett building, e.g. the dense scrub at the north of site by the willow trees, but this was inspected and no evidence of badger was observed. However, there remains the potential for badgers to wander through or use the site for foraging occasionally and so the site is determined to offer **Low** potential to support badger.

Water Vole

Site assessment

- 4.3.14 Water vole *Arvicola amphibius* require reedbed habitat to persist in a landscape. As there is no such habitat on site or within a dispersible range of the site based on aerial mapping, and the ditch does not look suitable to support water for any prolonged period of time, their potential to occur is severely limited and the site is determined to be of **Negligible** suitability for the species. Their potential to occur will not be considered further in this report.

Birds

Desk Study

- 4.3.15 Wild birds are protected under the *Wildlife and Countryside Act (1981)(as amended)*, making it an offence to intentionally kill, injure or take any wild bird, to intentionally take, damage or destroy the egg of any wild bird, or to intentionally or recklessly disturb any wild birds listed on Schedule 1 while it is nest building, or at a nest containing eggs or young.

Site Assessment

- 4.3.16 The site is small in extent and does not offer the potential to support any Schedule 1 birds in perpetuity, although wintering thrushes, such as fieldfare *Turdus pilaris* and redwing *Turdus iliacus* could pass through the site to forage on winter fruits occasionally. The ephemeral / short perennial vegetation is too limited in extent to support ground nesting birds, and too disturbed due to the neighbouring gardens. However, suitable nesting habitat is provided by the woodland for widespread species. Overall, the site is considered to be of **Site** value to nesting and wintering birds. Measures to ensure the potential presence of nesting birds are considered is discussed herein.

Invertebrates

Site Assessment

- 4.3.17 The assemblage of flora presented by the ephemeral / short perennial vegetation is reasonably diverse and so offers potential to support multiple host specific invertebrate species, and many invertebrates were seen amongst the sward. However, as this area is small in extent it is unlikely to offer enough habitat to support any notable populations of individual species and therefore overall, is likely to be of **Local** value to invertebrates.

Others

- 4.3.18 No suitable habitat for any other protected species was recorded on site.

4.4 Survey Constraints / Considerations

- 4.4.1 The survey was conducted outside of the main growing season, when presence of certain species is likely to be restricted. However, it is considered that the survey was sufficiently robust for the purpose of this assessment.

5.0 EVALUATION, CONSTRAINTS AND RECOMMENDATIONS

5.1 Habitats

- 5.1.1 The majority of the site is comprised of hardstanding and the existing buildings of negligible ecological value. The ephemeral / short perennial vegetation at the north of site offers a diverse flora but is small in extent and the potential to support protected or notable assemblages of species are limited. The greatest ecological interest at the site is associated with the northern boundary woodland. Therefore, in line with Policy ENV DM4 & DM5 of the Adoption Arun Local Plan 2011-2018 (Arun District Council, 2018). efforts should be made to protect, retain and enhance this feature where possible, and this recommendation is strengthened by the presence of the TPO area which covers the site. Recommendations for tree retention are provided by the British Standards Institution (BSI, 2012) (BSI, 2013).
- 5.1.2 Emerging policy within the Environment Bill mandates the need for 10% calculable Biodiversity Net Gain (BNG) compared to pre-existing site levels. Should the Environment Bill reach royal assent a Biodiversity Net Gain Assessment will be legally required to ensure that proposals comply with 10% BNG mandate. Therefore, consultation with the local planning authority is recommended to advise on the need for a Biodiversity Net Gain Assessment should the Environment Bill be forthcoming. However, dependent on timescales for submission / determination of planning proposals, legally, this may / may not be required.

5.2 Nature Conservation Designations

- 5.2.1 As the site is small, mostly covered by hardstanding and buildings, and subject to anthropogenic disturbance due to proximity to Woodgate, the habitats on site are unsuitable to support birds designated by Ramsar or SPA designations within the zone of influence of the site and therefore not functionally linked. Policy ENV DM2 of the local plan (Arun District Council, 2018) is in relation to Pagham Harbour and states that where major developments take place outside of 5km from the Pagham Harbour Ramsar & SPA the need for Habitats Regulation Assessment (HRA) will be considered on a case by case basis. As this development is for small residential proposals, and the site is well outside 5km from Pagham harbour,

further investigation into potential effects, and therefore HRA, is unlikely to be required.

- 5.2.2 The HRA of the South Downs National Park Authority (SDNPA) Local Plan (Aecom, 2015) considers the in-combination effect of the Arun District Local Plan and screens out any likely significant effects to the Duncton to Bignor Escarpment SAC as no impact pathways were identified. As the Arun District Local Plan makes allowance for 847 units of residential windfall development, it is assumed that these proposals would account for 2 of the 847 units and therefore be considered during the SDNPA Local Plan HRA. However, consultation with the council is recommended in to confirm this approach. Similarly, regarding in-combination impacts to the Singleton and Cocking Tunnels SAC, the HRA of the SDNPA Local Plan notes that “the SDNPA Local Plan contains sufficient protection to ensure no likely significant effects result from other projects or plans, either alone or in-combination” and therefore it is possible to screen out impacts to the Singleton and Cocking Tunnels SAC as well, on this basis.
- 5.2.3 The Chichester Local Plan (Chichester District Council, 2015) identifies a 5.6km ‘zone of influence’ around the Chichester and Langstone Harbour SPA and Ramsar designations, for which if a development falls within this area mitigation in relation to HRA impacts will be required. The plan does state that there may be exceptions to this rule, for example large schemes which will have a larger quantum of impacts. As the scale of development proposed is small, and the site lies c. 9.7km away from the designation further assessment will not be required and the potential for the development to result in any significant effects to internationally designated sites, alone or in-combination with other plans and proposals may be ruled out at this stage.

5.3 Protected Species

Bats

- 5.3.1 In accordance with good practice guidance (Collins, 2016) the two low suitability potential roosting features identified within ash trees during the preliminary roost assessment will not require further assessment providing a precautionary approach to design, construction and operation is adopted. This should include measures to retain, protect and enhance the trees during proposals, and avoid disturbing or illuminating at night. Should the trees be scheduled to be directly or indirectly impacted by proposals, e.g. directly through felling, or indirectly through disturbance such as illumination or noise levels, then further survey or soft felling precautions will be required.
- 5.3.2 Low potential to support common and widespread species of bat has been identified. However, survey is unlikely to be required providing the northern wood boundary is protected from development in line with BSI standards. As bats are likely to commute and forage in the area and so the potential for bats to occur should be considered during all stages of development. This should include devising a lighting strategy sympathetic to bats, in line with current guidance (BCT & ILP, 2018) which should include PIR and downward facing external lights if any are required. Particularly, efforts should be made to retain and enhance the northern boundary woodland strip for bats and in line with the TPO area. Furthermore, enhancements should be provided where possible in line with local plan Policies ENV SP1, DM3 & DM5 (Arun District Council, 2018), which could include the provision of bat roosting boxes within the woodland strip area, and there is scope to incorporate flora of known value to bats within the planting scheme, such as night-scented flowers.

Dormice

- 5.3.3 Initial assessment identified low potential for dormice to use the strip of woodland at the north of site. As such, providing the woodland is protected from development in line with BSI standards impacts are unlikely to occur and further survey unlikely to be required. However, if impacts are predicted then a licence may be required from Natural England. In order to apply for the licence further survey will be required.

- 5.3.4 Dormice survey requires the provision of dormouse nesting tubes to be deployed within suitable vegetation across the site for c. 8 months of the year. Dormouse tubes would then be checked by an ecologist for evidence of dormice on at least 5 months throughout the year, dependent on the month, with survey possible from April to November.

Reptiles

- 5.3.5 Although the ephemeral / short perennial vegetation is a small habitat in area, it offers highly suitable habitat to support reptiles, and the habitat stands to be lost to development. Therefore, further survey will be required to identify the potential impacts of development on reptiles and to plan any necessary mitigation works. Survey will entail the deployment of artificial monitoring refugia and seven subsequent survey visits, in suitable conditions during the active season for reptiles (mid-March to mid-October inclusive) to identify the assemblage of reptile's present. This data will be used to estimate the reptile populations present and develop a Reptile Mitigation Strategy.

- 5.3.6 Should part of the site be retained for the benefit of reptiles, e.g. a hibernacula and suitable habitat including scrub and open grassland / ephemeral vegetation, then the Reptile Mitigation Strategy could entail using precautionary working practice to push reptiles into this area, and then removing suitable habitat from the works area / providing reptile exclusion fencing, to prevent reptiles from re-entering the site. If the scheme does not allow for the provision of reptile habitat then a trapping and translocation exercise will need to be undertaken, which would involve fencing the site off to prevent reptiles from entering, then capturing on-site reptiles daily and moving them to suitable off-site habitat, and would require agreement with the reptile receptor site landowner.

Badger

- 5.3.7 As low potential to support badger was identified during the survey visit it is recommended that prior to construction, a pre-commencement check is made to ensure badger are absent from the site. Precautionary working practices in relation to badger should be incorporated into any construction management plan, and should include providing broad planks to act as ramps in any trenches which are left overnight, and ensuring all site equipment is safely packed away at night.

Breeding Birds

- 5.3.8 It is recommended that the northern woodland strip boundary site is protected, retained and enhanced wherever possible for the benefit of wild birds. Where the removal of suitable nesting habitat is necessary (e.g scattered trees and scrub), this should be undertaken outside the main bird nesting season (avoiding March-August inclusive) or where this is not possible, following inspection by a suitability qualified ecologist to ensure no active nests are present. Furthermore, enhancements should be provided where possible in line with local plan Policies ENV SP1, DM3 & DM5 (Arun District Council, 2018), which could include the provision of bird boxes and a planting scheme which incorporates plants of known value to birds.

Invertebrates

- 5.2.9 In order to maintain and enhance local wildlife, in line with local plan Policies ENV SP1, DM3 & DM5 (Arun District Council, 2018) provision for invertebrates should be taken into account during scheme design. This should include forming a planting scheme with flora of known value to invertebrates and pollinators, the inclusion of insect boxes where possible, and any felled timber should be cut into short lengths and piled on the northern boundary of the site to provide habitat for invertebrates and for the benefit of wider wildlife in general.

Summary of Recommendations

5.2.10 A summary of recommendations is as follows:

- Consultation with the Local Planning Authority to advise on the need for a Biodiversity Net Gain Assessment and to confirm that development will account for allocated windfall development within the local plan, so the further HRA work will not be required.
- Protect, retain and enhance the northern woodland boundary of site in line with BSI standards (BSI, 2012) (BSI, 2013) and TPO area, for the wider benefit of biodiversity, and specifically in relation to bats and nesting birds. No works to or removal of trees shall be undertaken without prior written consent of the LPA.
- Provision of a sensitive lighting strategy which limits light spill into the surrounding environs and is in line with guidance (BCT & ILP, 2018).
- Reptiles survey to identify the need for a Reptile Mitigation Strategy.
- Precautionary working practices in relation to badgers, to include a pre-commencement check and safe working practices.
- Provision of enhancements in line with local plan Policies ENV SP1, DM3 & DM5 (Arun District Council, 2018). Recommendations are provided in Chapter 6 of this report.

6.0 ECOLOGICAL ENHANCEMENTS / OPPORTUNITIES

6.1 The design of the proposed development should consider ecological enhancements for the benefit of wildlife in line with the *National Planning Policy Framework* and *Local Planning Policy* in order to achieve Biodiversity Net Gain. Recommendations for ecological enhancements that should be considered as part of development proposals include:

- The use of flowering plants as listed within the RHS 'Plants for Pollinators' plant list, within the soft landscape scheme to provide year-round value for invertebrates¹;
- The provision of nesting boxes for a variety of bird species to be placed in suitable locations. Positioning guidance is provided by the RSPB²;
- The provision of a bat box, suitable for a range of species to be incorporated in the design stage. Boxes may be situated facing south / south-west, positioned 3-5m above ground and out of reach of cats.
- The provision of log piles and/or insect box, for which a wide variety of models are available, to be located within an area of site subject to the minimal disturbance, such as the northern woodland boundary.
- Creation of a pond for wildlife. Guidance for designing such a pond is provided by the RSPB³

¹ <https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators>

² <https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/nestboxes/nestboxes-for-small-birds/making-and-placing-a-bird-box/>

³ <https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/water-for-wildlife/planning-a-pond/>

7.0 CONCLUSIONS

- 7.1 The site consists of existing buildings and areas of hardstanding of negligible ecological value. Towards the north of site areas of ephemeral / short perennial vegetation are present, alongside tall ruderal vegetation and a narrow woodland strip which bounds the north of site. Existing properties bound the site to the east and west, and an unmanaged field lies to the north. The habitats which comprise the site are limited in extent and likely to be of low ecological value, valuable at the site-local level only. Further Phase 2 surveys are recommended in relation to reptiles to meet local and national planning requirements.
- 7.2 Consultation with the Local Planning Authority (LPA) is recommended in the first instance to confirm that the scheme would provide 2 of the 847 units of allocated windfall development in the local plan, and therefore that no further work in relation to Habitats Regulation Assessment will be required. Furthermore, planning submission deadlines should be considered and discussed with the LPA to determine the requirement for a Biodiversity Net Gain Assessment in relation to the Environment Bill.
- 7.3 No evidence was recorded on site which would preclude the provision of a well-designed scheme which takes into account the sensitivity of ecological receptors. However, efforts should be made to enhance the ecological value of the site in line with local plan Policies ENV SP1, DM3 & DM5 (Arun District Council, 2018) and emerging Biodiversity Net Gain policy.

8.0 REFERENCES

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www.magic.gov.uk.

Table No. 05 – Species List for Habitat Parcels**Ephemeral / Short Perennial**

Common Name	Scientific Name	DAFOR
Zigzag clover	<i>Trifolium medium</i>	F
White clover	<i>Trifolium repens</i>	F
Bristly oxtongue	<i>Helminthotheca echiodes</i>	F
Ribwort plantain	<i>Plantago lanceolata</i>	F
Greater plantain	<i>Plantago major</i>	O
Ground ivy	<i>Glechoma hederacea</i>	F
Scentless mayweed	<i>Tripleurospermum inodorum</i>	F
Broad-leaved spurge	<i>Euphorbia platyphyllos</i>	R
Dandelion	<i>Taraxacum officinale</i>	O
Daisy	<i>Bellis perennis</i>	O
Mint	<i>Mentha sp.</i>	F
Spear thistle	<i>Cirsium vulgare</i>	O
Dog rose	<i>Rosa canina</i>	R
Perennial rye grass	<i>Lolium perenne</i>	F
Yorkshire fog	<i>Holcus lanatus</i>	F
Barren brome	<i>Anisantha sterilis</i>	O
Hedge woundwort	<i>Stachys sylvatica</i>	R
Red campion	<i>Silene dioica</i>	R
Eyebright	<i>Euphrasia sp.</i>	R
Everlasting pea	<i>Lathyrus latifolius</i>	O
Spotted medick	<i>Medicago arabica</i>	R
Shepherds purse	<i>Capsella bursa-pastoris</i>	O
Scarlet pimpernel	<i>Anagallis arvensis</i>	R
Creeping buttercup	<i>Ranunculus repens</i>	O
Wall barley	<i>Hordeum murinum</i>	R
Dwarf mallow	<i>Malva neglecta</i>	O
Black nightshade	<i>Solanum nigrum</i>	O

Tall Ruderal

Common Name	Scientific Name	DAFOR
Stinging nettle	<i>Urtica dioica</i>	A
Hogweed	<i>Heracleum sphondylium</i>	O
Nipplewort	<i>Lapsana communis</i>	O
Rosebay willowherb	<i>Chamerion angustifolium</i>	O
Broad-leaved dock	<i>Rumex obtusifolius</i>	O
Spear thistle	<i>Cirsium vulgare</i>	O
Canadian fleabane	<i>Erigeron canadensis</i>	O
Fat hen	<i>Chenopodium album</i>	F
Burdock	<i>Arctium sp.</i>	F
Teasel	<i>Dipsacus fullonum</i>	O

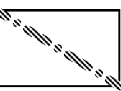
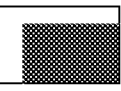
Woodland & Scattered Trees

Common Name	Scientific Name	DAFOR
Ivy	<i>Hedera helix</i>	D
Stinging nettle	<i>Urtica dioica</i>	O
Bramble	<i>Rubus fruticosus</i>	F
Hedge bindweed	<i>Calystegia sepium</i>	O
Dog rose	<i>Rosa canina</i>	R
Male fern	<i>Dryopteris filix-mas</i>	O
Hart's-tongue fern	<i>Asplenium scolopendrium</i>	R
Stinking iris	<i>Iris foetidissima</i>	R
Ash	<i>Fraxinus excelsior</i>	F
Hawthorn	<i>Crataegus monogyna</i>	F
Elder	<i>Sambucus nigra</i>	R
Crack willow	<i>Salix fragilis</i>	O
Hazel	<i>Corylus avellana</i>	O

D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally

Figure No. 01 - Site Habitat Plan

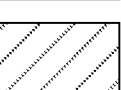
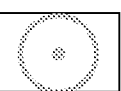
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-  Site Boundary.
-  Buildings.
- B1

 Building Number.
-  Hardstanding.
-  Tall Ruderal
- +

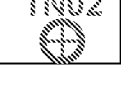
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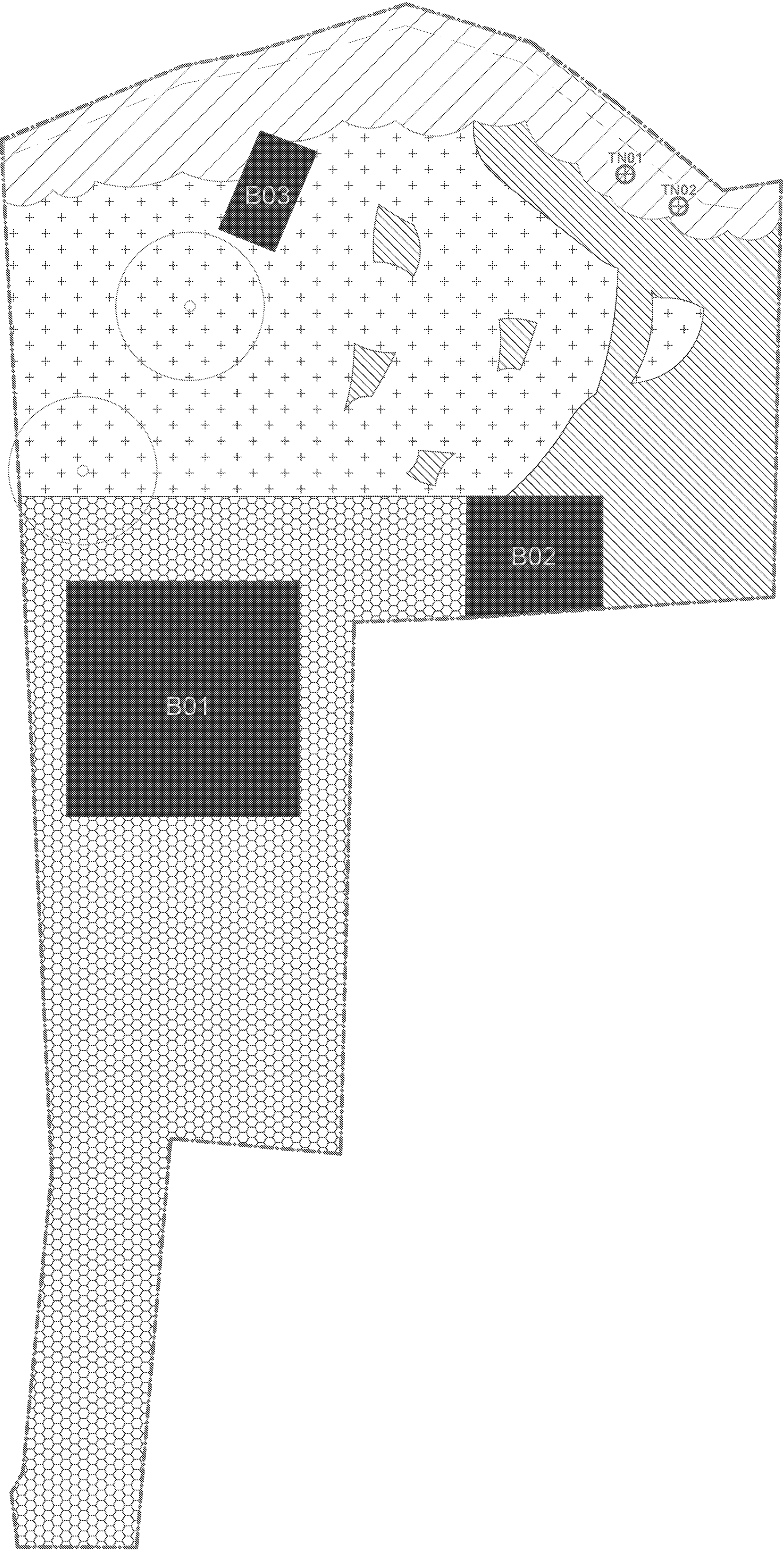
 Ephemeral / Short Perennial.
-  Woodland.
-  Scattered Trees.
-  Dry Ditch.
- TN01



 Ash Tree With Low Bat Roost Potential.
- TN02

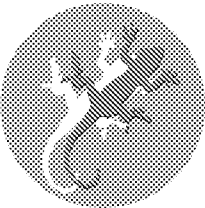


 Ash Tree With Low Bat Roost Potential.



Planning Issue

Rev	Description	Date	Initials
00	Planning Issue	27.10.20	LB



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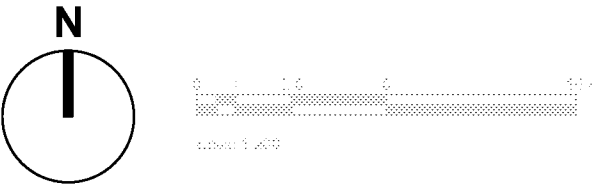
Project Title and Location
The Grange
Westergate Street, Woodgate Arun

Drawing Title
Figure No.1 - Site Habitat Plan

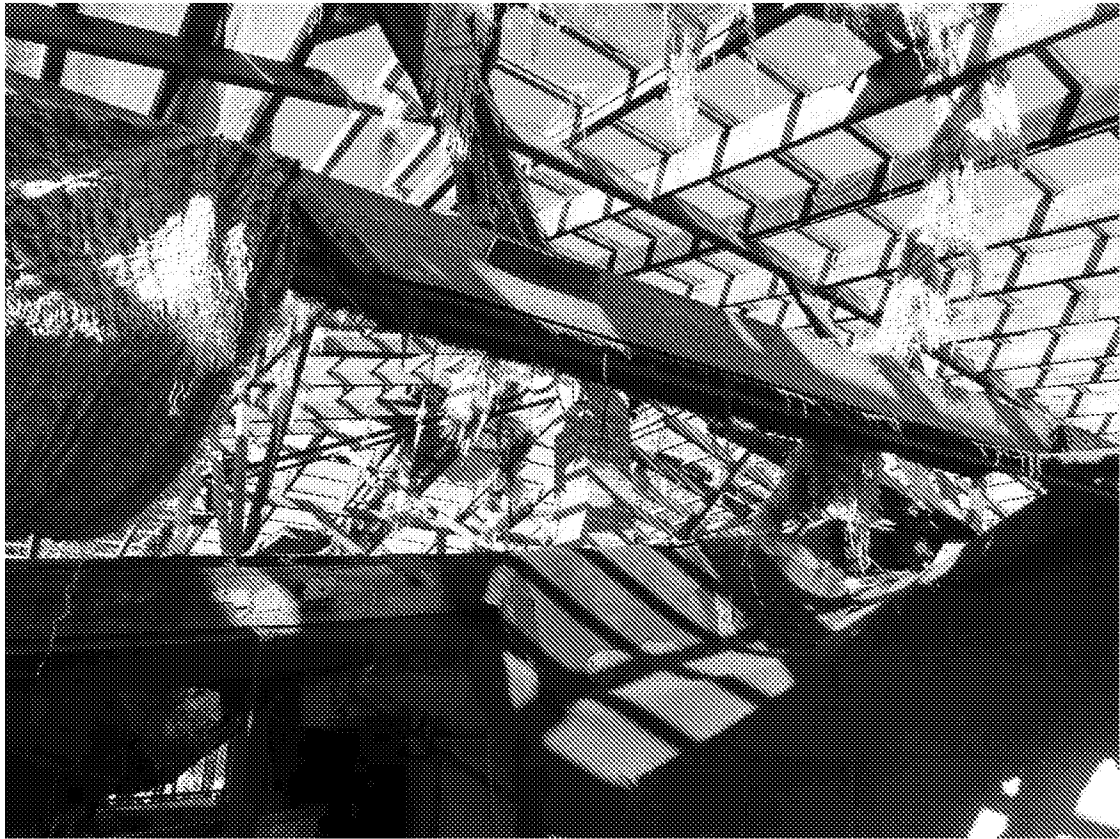
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Figure No.1- Site Habitat Plan
The Grange, Westergate Street, Woodgate, Arun



Appendix A – Site Photographs



Photograph No: 1 - Existing incomplete build on site without roof



Photograph No: 2 - Area of ephemeral / short perennial vegetation



Photograph No: 3 - Dry ditch which bounds the north of site



Photograph No: 4 - T05 potential roosting feature of low suitability



Photograph No: 5 - T06 potential roosting feature of low suitability



Photograph No: 6 - Tall ruderals start to dominate toward the east of site



Photograph No. 7 - B02 - Metal shed in north-east of site with negligible roosting potential



Photograph No: 8 - B03 - Wooden shed amongst woodland scrub understorey at north of site