LIZARD
Landscape Design and Ecology

PRELIMINARY ECOLOGICAL APPRAISAL

Land off Folders Lane, Burgess Hill

On behalf of: Jones Homes (Southern) Ltd

Client:	Jones Homes (Southern) Ltd			
Project:	Land off Folders Lane, Burgess Hill			
Reference:	LLD2765-ECO-REP-001-01-PEA			
Revision:	**Date:**	**Author**	**Proof**	**Approved**
02	16/11/22	Sam Hall MSc	Catherine O'Reilly MCIEEM	Catherine O'Reilly MCIEEM

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Validity:

This report is valid for 18 months from the date of the site visit. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

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SUMMARY

Lizard Landscape Design and Ecology has been commissioned by Jones Homes (Southern) Ltd to undertake a Preliminary Ecological Appraisal of Land off Folders Lane, Burgess Hill (*Grid Reference: TQ 32962 17935 – hereafter referred to as 'the site'*). A preliminary ecological appraisal (*PEA*) was undertaken on 15th September 2022, to appraise the existing ecological resource within the land and the surrounding area.

The site is an unmanaged matrix of tussocky grassland and scrub with a boundary made up of trees and shrub understory. The site covers c. 1.7 hectares and is located within the town of Burgess Hill, West Sussex. Habitats on site may provide suitable habitat for bats, breeding birds, amphibian and reptile species. The following additional surveys are therefore recommended:

- Reptile surveys to ascertain the presence/absence of reptiles on site;
- 5no. ponds within 500.0 metres of the site have been assessed as providing 'average' or above habitat suitability. Due to the proximity of some of these ponds (<100m), GCN surveys should be undertaken to ascertain the presence/absence of this species;
- A number of the trees within the site boundary have been assessed as offering some bat roost suitability. Should removal of these trees be required, additional inspections (aerial and/or emergence surveys) will be required to ascertain presence/absence of bat roosts within trees;
- Bird nests were noted within areas of scrub and in trees. Clearance of trees/scrub should be done outside of the nesting season (nesting season: March – August inclusive) or following inspection to ensure no active nests are present.
- Should proposals require removal of over 50% of the mixed scrub habitat, dormouse surveys and bat activity surveys should be carried out.

Subject to the results of the above surveys, any relevant mitigation must be prescribed and implemented to avoid impacts upon protected species. Mitigation for this site is likely to involve controlled and/or supervised vegetation clearance and the use of buffer zones to protect boundary vegetation. The floral community on site is dominated by common and widespread species. With a suitable design, any future proposals could ensure the retention and enhancement of higher value features, and compensatory planting, resulting in an overall benefit to local wildlife. Due to the scale and nature of the proposals, impacts upon local habitats will be negligible.

Ecological enhancements should be included within any future scheme to ensure compliance with local and national planning policy. Recommendations for enhancement which should be included within the scheme are detailed in section 7.0 below.

1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned by Jones Homes (Southern) Ltd to undertake a Preliminary Ecological Appraisal (PEA) of Land off Folders Lane, Burgess Hill (*Grid Reference: TQ 32962 17935 – hereafter referred to as 'the site'*).

1.2 The purpose of this report is to establish the site's suitability for development, inform the design process for future proposals, record the ecological baseline and identify key ecological features within and around the proposal site.

1.3 This report has been compiled in accordance with current guidelines, including British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2017 and 2018.

Site Information

1.4 The survey area is located immediately south of Folders Lane, Burgess Hill and covers c. 1.7 (ha). The site consists of a mosaic of tussocky grassland and scrub bordered on all sides by overgrown hedge/treeline. A public footpath provides access to the site, running from the northwest corner along the length of the western boundary.

1.5 The site is bordered by grassland to the east, and residential properties to the south, west and north. Soil on site is described as slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils. There are no waterbodies on site but 13no. ponds within 500.0m of the proposed construction zone; 4no. of which are located within 250.0m and directly connected to the site.

Surrounding Landscape

1.6 The built-up area of Burgess Hill extends for over 1.0km to the northwest of the site. In all other directions land use is predominantly rural, dominated by pastoral farmland and hay meadows delineated by mature hedgerows and tree lines.

1.7 Significant areas of Lowland Mixed Deciduous Woodland (classified as ancient woodland) exist to the east of the site, including Blackbrook Wood

(31.04 ha) and West Wood (42.74 ha), 1.1km to the east and 1.5km to the northeast of the site, respectively.

Development Proposals

1.8 It is understood that the proposals include the construction of 40no. new residential properties with associated gardens, access, and car parking.

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 surveys of protected species where necessary;
- To list ecological constraints present on the site;
- To highlight any ecological opportunities and list potential enhancements for inclusion within the scheme.

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 A desk study was conducted to establish the presence of priority habitats, protected species and statutory designated sites within the Zone of Influence (ZoI) of the proposed development site. Details of all protected and notable species within 2.0km of the site was provided by Sussex Biodiversity Records Centre (SxBRC).

3.2 Preliminary Ecological Appraisal

Field Survey

3.2.1 The field survey was undertaken on 15th September 2022 by a Suitably Qualified Ecologist (Sam Hall MSc, 3 years professional experience). Weather conditions were mild (c.16°C), with a light wind (Beaufort Scale 1), 60% cloud cover and no rain.

3.2.2 The field survey comprised a walkover inspection of the land and covered all accessible parts of the site, including boundary features. Habitats were recorded according to the UKHabs Classification System as described within the UK Habitats Manual (Butcher *et al*, 2020).

3.2.3 A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale (*Table 05*). In addition, Target notes (*Table 06*) were used to provide supplementary information on features which were particularly interesting or significant, or too small to map.

3.2.4 The survey methodology was extended to provide more detail in relation to the sites potential to support rare or protected fauna, as described by the *Chartered Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017b)*. The assessment of habitat suitability for protected, rare or priority species is based on current good practice guidance such as that presented in the *Herpetofauna Workers' Manual (Gent and Gibson, 2003)* and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collin (ed.), 2016*).

Evaluation Criteria

3.2.5 The importance of ecological features have been evaluated in relation to a geographical frame of reference, i.e. international/European value, national, regional, county, local, site or negligible value (based on CIEEM, 2018).

3.3 Preliminary Bat Roost Assessment

3.3.1 A Preliminary Bat Roost Assessment was undertaken on 15th September 2022 by Sam Hall (Accredited agent under 2016-20460-CLS-CLS) who undertook a ground-level assessment of trees and buildings within and adjacent to the proposed construction zone.

3.3.2 The bat surveyor assessed the trees and buildings visually and searched for direct evidence such as:

- Grease Marks;
- Urine Stains;
- Bat Droppings;
- Feeding Remains;
- Dead or Live Bats.

3.3.3 Potential Roost Features (PRF's) in trees were also recorded, such as:

- Woodpecker Holes;
- Knot Holes;
- Tear-outs;
- Flush Cuts;
- Double Leaders.

3.3.4 Once features had been assessed the trees and buildings were then categorised in accordance with *Table 4.1 of the Bat Conservation Trust's Good Survey Guidelines (2016):*

Table No. 01 – Summary of Categorisation Criteria

Category	***Trees***	***Buildings***
`Negligible`	*No suitable features identified.*	*No suitable features identified.*
`Low`	*Tree of sufficient size / age to support bat roost features; but with none identified from the ground.*	*A structure with one or more potential sites that could be used by individual bats opportunistically.*
`Moderate`	*Tree with features which, may support a bat roost of low conservation status.*	*Structure with features which, may support a bat roost of low conservation status.*
`High`	*A tree with several potential bat roost sites that are suitable for use by a large number of bats.*	*A structure with several potential bat roost sites that are suitable for use by a large number of bats.*

3.4 Great Crested Newt Habitat Suitability Index Assessment

3.4.1 The *Habitat Suitability Index (HSI)* was developed by *Oldham et al (2000)* as a way of providing a numerical index allowing a direct comparison to be made between different water bodies. This index assesses ponds against 10no. different criteria, each of which have a bearing on the likely presence of great crested newts (*Triturus cristatus*) in the pond under consideration.

3.4.2 The 10 no. attributes against which ponds can be assessed are:

- *Geographic Location;*
- *Pond Area (at its highest level);*
- *Permanence;*
- *Water Quality;*
- *Perimeter Shading;*
- *Numbers of Wildfowl;*

- *Numbers of Fish Present;*
- *Pond Count (within a 1.0 km radius);*
- *Terrestrial Habitat (within 250.0 m);*
- *Macrophyte Coverage.*

3.4.3 The *HSI* results in a score between 1 and 0; with 1 being optimal conditions and 0 being unlikely to support a population. However, the index merely gives an indication as to whether a pond has the potential to support great crested newts and is not a substitute for more detailed presence / absence surveys for protected species of amphibian.

3.5 Badger Walkover Survey

3.5.1 The site was systematically searched during the site visit for any evidence of badger such as:

- Setts
- Latrines
- Snuffle Holes
- 'Push-unders' through boundary fencing
- Hair
- Prints
- Mammal tracks

3.5.2 All areas within the site, and where possible in the immediate surroundings were searched. Any evidence was then mapped to allow the status and distribution of badger activity to be assessed.

3.6 Constraints and Limitations

3.6.1 Due to the field survey consisting of only one site visit, certain species, particularly some of the 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 Survey Methodology.

3.6.2 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological value has been made.

4.0 RESULTS

4.1 Desk Study

4.1.1 The following designated sites are not necessarily representative of the existing site's ecology but are indicative of the ecological context of the surrounding area; a factor that may be important when assessing the presence / absence potential of certain species groups.

Statutory Protected Sites

4.1.2 The desk study identified Local Nature Reserves and Sites of Special Scientific Interest within 2.0km of the site and European Designated sites including SAC's and SPA's within 10km of the site. Where SAC's designated for their bat interest are present, this ZoI has been extended to 12km in accordance with recent guidance (SDNP, 2020). Statutory protected areas in the ZoI of the site include:

Table No. 02 – Statutory Protected Sites

Site	Description	Location
South Downs National Park	*Covers over 1600km^2 which encompasses a plethora of habitats including chalk grassland and woodland which supports a range of flora and fauna.*	*250m S*
Ditchling Common SSSI	*A large area of acidic heathland and scrub, woodland and streams. The site is of importance for its moth, butterfly and breeding bird populations*	*300m NE*

4.1.3 The site is located within the *Impact Risk Zone* of *Ditchling Common SSSI,* however development proposals are unlikely to meet the criteria which would require consultation with Natural England.

Non-Statutory Protected Areas

4.1.4 *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* (Ministry of Housing, Communities & Local Government, 2021) and as such are material considerations when assessing planning applications. The following SNCIs were identified within 2.0km of the site:

Table No. 03 – Non-Statutory Protected Sites

Site	Location
Brambleside Meadow	*300m SE*
Blackbrook Wood & The Plantation	*1.1km E*
Keymer Tile Works	*1.3km N*
Ditchling Common Meadow	*1.5km NE*
St Georges Retreat	*1.5km NE*
Burgess Hill Railway Lands	*1.8km NW*
Purchase Wood	*1.8km NE*

Priority Habitats

4.1.5 Within 2.0 km of the site there are *Priority Habitats* of Lowland Mixed Deciduous Woodland (Including some ancient woodland), Woodpasture and Parkland and Lowland Dry Acid Grassland. The site itself does not contain nor is it adjacent to any areas of priority habitat.

4.2 Habitats

Site Assessment

4.2.1 Habitats within and adjacent to the site include:

- g4 - Modified Grassland
- h3d – Bramble Scrub
- w1g – Other Woodland; Broadleaved
- h3h – Mixed Scrub

g4 - Modified Grassland

4.2.2 The majority of the site is occupied by a mosaic of tussocky grassland and dense bramble dominated scrub. There is no evidence of recent active management, and the grassland has formed tussocks. The sward of the grassland has a composition typical of nutrient enrichment; dominated by Yorkshire fog (*Holcus lanatus*) and sweet vernal grass (*Anthocanthum*

adoratum). Cocks-foot (*Dactylis glomerata*) is also locally abundant throughout. Forbes include ribwort plantain (*Plantago lanceolate*), creeping buttercup (*Ranunculus repens*) and curled dock (*Rumex crispus*) and many oak (*Quercus robur*) saplings were noted throughout. This common, widespread habitat is of **site value**.

h3d – Bramble scrub

4.2.3 Dense scrub extends from all site boundaries towards the centre of the site making up a significant proportion of site vegetation. This scrub is dominated by bramble (*Rubus fruticosus*) with frequent ruderals such as common nettle (*Urtica dioica*), curled dock (*Rumex crispus*) and spear thistle (*Cirsium vulgare*). This common, widespread habitat is of **site value**.

w1g – Other woodland: broadleaved

4.2.4 Mature native tree species line the majority of the site boundary. oak (*Quercus robur*) is dominant in this habitat with frequent ash (*Fraxinus excelsior*) and occasional hornbeam (*Carpinus betulus*). The species composition, maturity and connectivity with the wider environment qualify this habitat as of **local value**.

h3h – Mixed scrub

4.2.5 A mixed scrub, dominated by Blackthorn (*Prunus spinosa*) and Hawthorn (*Crataegus monogyna*) runs along the inside of the majority of the site boundary connecting the mature boundary trees and the bramble scrub. Much of this scrub habitat is over 3m in height. Other less frequent species include field maple (*Acer campestre*) and elder (*Sambucus nigra*). This habitat along the western boundary was previously categorised as hedgerow but is now overgrown due to lack of management. This common, widespread habitat is of **site value**.

4.3 Protected Species Assessment

Amphibians

Desk Study

4.3.1 Sussex Biological Records Centre returned 35no. records of GCN within 2.0km of the site (and other common species), the closest found at c. 500m S of the site.

Site Assessment

4.3.2 The mosaic of grassland, scrub and tree lines on site provide suitable terrestrial habitat for amphibian species.

4.3.3 9no. ponds were identified within 500.0m of the site. Those, that were accessible at the time of survey were appraised for their potential to support protected species. P2 and P3 were not accessible and P5 and P8 were dry. The HSI assessment of these ponds is summarised in table no. 05 below:

Table No. 04 – Summary of HSI Results

HSI Criteria	***P1***	***P2***	***P4***	***P6***	***P7***	***P9***
Location	1	1	1	1	1	1
Pond Area	1	0.2	0.2	0.4	0.2	1
Permanence	1	0.5	0.1	0.9	0.5	0.5
Water Quality	0.67	0.67	0.33	0.67	0.33	0.33
Shade	0.8	0.6	0.5	1	1	1
Waterfowl	0.67	1	1	1	1	0.67
Fish	0.67	1	1	1	1	0.67
Pond Count	1	1	0.9	0.7	0.6	0.9
Terrestrial Habitat	0.67	0.67	0.33	0.33	0.33	0.33
Macrophyte	0.9	0.5	0.5	0.7	0.3	0.3
HSI Score	**0.82**	**0.65**	**0.55**	**0.79**	**0.63**	**0.61**
Suitability	**'Excellent'**	**'Average'**	**'Below Average'**	**'Good'**	**'Average'**	**'Average'**

4.3.4 Other waterbodies were identified but not considered in this assessment. 2no. large fishing lakes to the west of the site were excluded due to high densities of fish present, and those located north of the nearby railway line (considered a significant obstruction to amphibians).

4.3.5 Given the abundance of suitable waterbodies in the surrounds, as well as multiple records of GCN within 2km, the habitats on site are of potentiall **site value/local value** to this species.

Reptiles

Desk Study

4.3.6 Sussex Biological Records Centre returned records of grass snake, slow-worm, common lizard and adder within 2.0km of the site. Some of these records are within 100m of the site.

Site Assessment

4.3.7 The mosaic of grassland, scrub and tree lines on site provide suitable reptile habitat. A few tracks worn into the grassland also provide opportunities for basking close to cover. This habitat is potentially of **site / local value.**

Bats

Desk Study

4.3.8 Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Nathusius' Pipistrelle (*Pipistrellus nathusii*) Daubenton's (*Myotis daubentonii*), Whiskered (*Myotis mystacinus*), Natterer's (*Myotis nattererii*), Noctule (*Nyctalus noctula*), Serotine (*Eptesicus serotinus*), Brandt's (*Myotis brandtii*) and Long-eared (*Plecotus sp*) bats have been recorded within 2.0km of the site area.

Preliminary Roost Assessment

4.3.9 Various trees throughout the boundary vegetation were identified as offering some level of bat roost suitability during the ground level assessment. A summary of findings is detailed below.

Table no. 05 – Preliminary Roost Assessment of Trees

Ref.	Description	Category
TG01	*Group of 4no. mature oak trees with moderate ivy throughout.*	*Low/Moderate*
T02	*Mature oak with light ivy coverage and deadwood throughout.*	*Low/Moderate*
T03	*Oak with tear-out to southern aspect at 9m.*	*Low*
TG04	*2no. mature oak trees of a size and age that could support a bat roost and some minor deadwood.*	*Low/Moderate*
T05	*Mature oak tree with knot hole to southeast aspect*	*Low/Moderate*
T06	*Mature oak of a size and age that could support a bat roost with moderate ivy coverage.*	*Low*
T07	*Semi-mature oak with moderate ivy cover.*	*Low*
T08	*Semi-mature oak with small cavity at 2m on southern aspect.*	*Low*
T09	*Semi-mature oak tree with 4no. woodpecker holes to the southern and northern aspects between 2 and 6m.*	*Moderate*
T10	*Mature ash tree of a size and age that could support a bat roost and knot hole at 7m to eastern aspect.*	*Low*
TG11	*Mature oak trees with shedding collars apparent*	*Moderate*

	although access was limited for inspection.	
T12	*Multi-stem ash tree with small knot holes and cavities throughout.*	*Moderate*
T13	*Mature oak tree with abundant deadwood throughout*	*High*

Foraging and commuting Suitability

4.3.10 The different habitats within the site are likely to support a range of invertebrates and as such provide foraging opportunities for bats, although the grassland itself is likely to be of limited vale due its homogenous nature and lack of forbs. The treelines to the boundaries of the site also provide connectivity to the wider environment and may provide commuting value to bats. Habitats on site are therefore of potentially **site / low local value**.

Dormouse

Desk Study

4.3.11 Sussex Biological Records Centre returned a total of 10no. records for Dormouse within 2.0km of the site, the closest located c. 1.1km to the west.

Site Assessment

4.3.12 The boundary treelines and hedges are formed of mixed species which would provide a suitable habitat for dormouse foraging and nest building. In addition, the mixed scrub that runs along the boundary of the site contain some species that offer suitable habitat for dormice, with connectivity to further woodland in the local surrounds. Habitats on site are therefore of potential **site value**.

Badger

Desk Study

4.3.13 Badger records are confidential and were therefore not included within the data search.

Site Assessment

4.3.14 Suitable habitat exists within and adjacent to the site to support badgers. Previous surveys identified potential snuffle holes close to the east boundary however no evidence of this species was noted in the current survey. The site is therefore of potential **site value** to commuting individuals.

Water Vole

Desk Study

4.3.15 Sussex Biological Records Centre returned 2No. records for water vole within 2.0km of the site. The most recent record is dated 1997.

Site Assessment

4.3.16 No habitat exists on site that is suitable to support water vole, and as such the site is of **negligible value** to this species.

Other Mammals

Desk Study

4.3.17 Numerous records of hedgehog and common mammals including rabbit exist within 2.0km of the site area.

Site Assessment

4.3.18 Small mammal tracks and holes as well as rabbit droppings were noted on site. The habitats present are of **site value** to common and widespread mammals.

Birds

Desk Study

4.3.19 Numerous bird species have been recorded within 2.0km of the site, including Schedule I species such as white-tailed eagle and species listed on the BoCC Red List such as Cuckoo and Song Thrush

Site Assessment

4.3.20 Although not an extensive area, the site offers moderate nesting and foraging opportunities for a range of bird species within the scrub and the trees on and adjacent to the site. The site is of **site value** to breeding birds.

Invertebrates

Desk Study

4.3.21 The data search returned records of numerous common and widespread species of invertebrates within 2.0km of the site. Records for the Sussex rare Purple Emperor were returned located within Ditchling Common SSSI, 300m NE of the site.

Site Assessment

4.3.22 The site provides suitable habitat for invertebrates throughout the habitats present. The floral diversity present on the site is likely to support no more than a low range of invertebrates. The site is therefore of potential **site value** to invertebrates.

Others

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

5.0 EVALUATION AND RECOMMENDATIONS

5.0.1 The following section evaluates the value of the habitats within and adjacent to the site, assessed where further survey is requires and details any avoidance and mitigation measures. Wherever possible potential adverse effects should be avoided by avoidance / mitigation embedded in scheme design, as this gives increased certainty over successful delivery and ensures adhesion to the 'Mitigation Hierarchy' (BSI, 2013) (CIEEM, 2018).

5.1 Designated Sites

5.1.1 The nearest statutory designated and non-statutory sites are South Downs National Park, Ditchling Common SSSI and Brambleside Meadow SNCI. The site is located within the *Impact Risk Zone* of Ditchling Common SSSI, however proposals do not meet the criteria which would require consultation with Natural England.

5.2 Habitats

5.2.1 Lowland Mixed Deciduous Woodland exists 80m to the south and 220m to the east of the site. With much of the boundary tree lines remaining intact, the nature and scale of this development is unlikely to cause significant adverse impacts upon these local woodlands. A minimum 5m semi natural buffer should be retained along the site boundary, outside of private ownership to ensure retention of these boundary features in perpetuity. All retained trees should be protected in accordance with BS5837 during construction.

5.2.2 In order to facilitate proposals, vegetation clearance would be focused on the grassland and scrub throughout the main body of the site. Floral species recorded here were common and widespread and no rare or notable species were noted. The habitats which are likely to be directly affected by future development proposals are of **low value within the site area** only.

5.2.3 Floral loss within the development should be compensated for with native planting on site. The existing mature trees on site are of moderate to high ecological value and should be retained and protected within any future scheme proposals.

5.3 Protected Species

Amphibians

5.3.1 Ponds within 500.0m of the site (on the near side of major barriers) were subject to a full HIS assessment. Ponds that scored 'average' or above (P1, 2, 6, 7, 9) have potential to support populations of Great Crested Newts. Further to this, habitats such as the scrub and grassland on site provide suitable terrestrial habitat for GCN. Further surveys, therefore, are recommended to ascertain the presence / likely absence of this species. Surveys can be completed between mid-March and mid-June, with the eDNA survey season running from 15th April to 30th June.

Reptiles

5.3.2 Vegetation on site is not subject to regular management and provides suitable habitat for reptiles. Previous surveys identified the presence of low numbers of slow worms and grass snakes within the (now developed) site adjacent to the west. Reptile surveys should be completed between mid-March and September, to assess the presence / absence of reptiles. Further survey on site will allow for informed mitigation strategies, if required, to be formulated. Mitigation would be likely to include sensitive/supervised vegetation clearance and incorporation of buffer zones around the margins of the site as receptor areas for translocated individuals.

Bats

5.3.3 Multiple trees on site have been identified as offering bat roost suitability. It is understood that the majority of these trees will be retained and protected within proposals. Should the removal of any of these trees be necessary,

further survey should be used to detect and characterise any bats and roosts present. Further survey may consist of aerial inspection and/or emergence surveys completed between May and August.

5.3.4 The woodland and mixed scrub to the boundary of the site represents suitable foraging habitat for bats. A sensitive lighting scheme should be employed with light spill upon the boundary woodland areas avoided. All lighting should comply with ILP Guidance Note 08 / 18 where possible. If proposals require removal of over 50% the mature boundary scrub within the site and/or significant lighting of boundary vegetation, bat activity surveys should be undertaken.

Dormice

5.3.5 The scrub habitats and tree lines offer some potential opportunities for dormice as well as connectivity with local blocks of Lowland Mixed Deciduous Woodland. With limited local and recent records, retention of some scrub and utilisation of risk avoidance measures has been deemed acceptable for this species. If proposals require removal of over 50% of the mature boundary scrub (Mixed scrub) within the site, dormouse surveys should be undertaken.

5.3.6 Risk avoidance measures would include a visual search for nests and opened hazelnuts followed by a 2no. stage method for vegetation clearance:

Phase 1 – Clearance of vegetation to a height of c. 30cm, carried out with manual methods between November and February (inclusive).

Phase 2 – Clearance of the remaining stumps and root plates between May and October (inclusive).

Badgers

5.3.7 No signs of badgers were detected on site, but suitable habitat exists on site and in the local surrounds, and previous survey (2020) detected potential snuffle holes toward the northeast of the site. If holes that may be part of a badger sett are found during site clearance, then works within a 30m radius should cease and an ecologist consulted. Construction should be avoided on site between dusk and dawn when badgers are most active, and ramps should be used in excavations of more than 1m to allow escape of any individuals.

Water Vole

5.3.8 No constraints with regards water vole have been identified and no further survey or mitigation measures are required.

Breeding Birds

5.3.9 Damage / destruction of active bird nests is prohibited by *The Wildlife and Countryside Act 1981 (as amended)*. Removal of suitable nesting habitat (*trees/dense scrub*) should be undertaken outside the nesting season (*avoiding March-August*) or following inspection by a suitability qualified ecologist to ensure no active nests are present. Compensation for the loss of any suitable nesting habitat on site must be provided in the form of new shrub planting and installation of nest boxes to suit a variety of species to trees and buildings.

Invertebrates

5.3.10 All mature trees should be retained where possible.

Summary of Survey Recommendations / Avoidance Measures

5.3.11 A summary of recommendations is as follows:

- Presence / absence reptile survey consisting of 7no. visits during the optimal survey season (Mid-March – September).
- Further survey (Emergence / aerial inspection) of trees with potential roost features for bats, **only** if they are to be removed or disturbed by the proposals.
- If proposals require removal of over 50% the mature boundary scrub within the site and/or significant lighting of boundary vegetation, bat activity surveys should be undertaken.
- Retain the mature boundary trees as part of any future proposals, with a sensitive lighting scheme which avoids light spill upon these trees. All lighting should comply with ILP Guidance Note 08 / 18 where possible.
- GCN surveys between mid-March and June to ascertain the presence / likely absence of this species in local waterbodies.
- Removal of suitable bird nesting habitat (trees/dense scrub) should be undertaken outside the nesting season (avoiding March-August) or following inspection by a suitability qualified ecologist to ensure no active nests are present.

- Should less than 50% of the mixed scrub be removed, a visual search for nests and opened nuts and 2no. phase clearance of mixed scrub to be carried out.
- Should more than 50% of the mixed scrub be removed, Dormice surveys to be carried out monthly between April and September.

6.0 ECOLOGICAL ENHANCEMENTS / OPPORTUNITIES

6.1 The design of the proposed development must include ecological enhancements to ensure compliance with *Local Planning Policy* and the emerging *Environment Act 2021* which mandates a minimum 10% net gain in biodiversity across all development sites. Recommendations for ecological enhancements that should be considered as part of development proposals include:

- Creation of landscape buffer zones and reptile receptor areas to the development site boundaries for the translocation of low numbers of amphibian / reptile species and habitat creation areas.
- Incorporation of flowering shrubs into the soft landscaping on site, as listed in the RHS 'plants for pollinators' list.
- Incorporation of floral species that will increase bat foraging potential; pale and night-scented species.
- Wildflower seeding, scrub and native trees should be used to provide a matrix of habitats on site.
- Bat boxes suitable for a range of species to be incorporated into the southern aspect of mature trees and/or integrated into buildings;
- The provision of nesting boxes/bricks for a variety of bird species within trees and/or integrated into buildings.
- Installation of invertebrate boxes in both sunny and sheltered locations to cater for a range of species.
- Use of a sympathetic lighting scheme across the site, with lighting angled down and away from hedge / tree lines and bat boxes.
- Incorporation of hedgehog holes in garden fences and hedgehog houses in shared areas.

7.0 CONCLUSIONS

7.1 The site is dominated by a scrub / grassland mosaic with a hedge / scrub / tree line boundary and the development proposals are concentrated within this central mosaic. The habitats on site provide potential habitat for amphibians, reptiles, bats and breeding birds.

7.2 To avoid and mitigate against adverse impacts to protected species, initial measures have been recommended (for birds, dormice and bats) and further ecological survey is required to investigate the presence / absence of other protected species (reptiles and amphibians). Should most of the mature mixed scrub to the boundary require removal, further ecological survey focused on dormice and bat activity is recommended. Subject to the results of further survey, full mitigation / avoidance measures will be devised to ensure this development does not contravene any UK or European legislation.

7.3 The proposals are unlikely to adversely impact any surrounding statutory or non-statutory designated site.

7.4 Ecological enhancements should be included within any future scheme to ensure compliance with local and national planning policy. Given that the site is currently dominated by habitats of generally low ecological value, it is envisaged that any future scheme would be able to achieve the required levels of Biodiversity Net Gain.

8.0 REFERENCES

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Table No. 06 – Species Lists for Habitat Parcels

g4 – Modified Grassland

Common Name	Scientific Name	DAFOR
Chickweed	*Stelleria media*	**O**
Clover	*Trifolium repens*	**O**
Cock's-foot	*Dactylis glomerata*	**LA**
Creeping Buttercup	*Ranunculus repens*	**F**
Creeping cinquefoil	*Potentilla reptans*	**F**
Curled Dock	*Rumex crispus*	**O**
Dandelion	*Taraxacum officinale*	**O**
Ribwort Plantain	*Plantago lanceolata*	**LF**
Rye-Grass	*Lolium perenne*	**D**
Silverweed	*Potentilla anserina*	**A**
Soft Brome	*Bromus hordaeceus*	**O**
Sorrel	*Rumex acetosa*	**LA**
Sweet Vernal Grass	*Anthoxanthum odoratum*	**D**
Timothy Grass	*Phleum pratense*	**R**
Tufted Vetch	*Vicia cracca*	**O**
Wavy Hair-grass	*Deschampsia flexuosa*	**R**
Yorkshire Fog	*Holcus lanatus*	**O**

h3d – Bramble scrub

Common Name	Scientific Name	DAFOR
Bramble	*Rubus fruticosus*	**D**
Common Nettle	*Urtica dioica*	**F**
Curled Dock	*Rumex crispus*	**F**
Fleabane	*Pulicaria dysenterica*	**O**
Spear Thistle	*Cirsium vulgare*	**F**

w1g6 – Line of trees

Common Name	Scientific Name	DAFOR
Common Ash	*Fraxinus excelsior*	**F**
Field Maple	*Acer campestre*	**O**
Hornbeam	*Carpinus betulus*	**O**
English Oak	*Quercus robur*	**D**

h3h – Mixed scrub

Common Name	***Scientific Name***	***DAFOR***
Blackthorn	*Prunus spinosa*	***D***
Bracken	*Pteridium aquilinum*	***O***
Bramble	*Rubus fruticosus*	***LD***
Elder	*Sambucus nigra*	***O***
Hawthorn	*Crataegus monogyna*	***O***

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

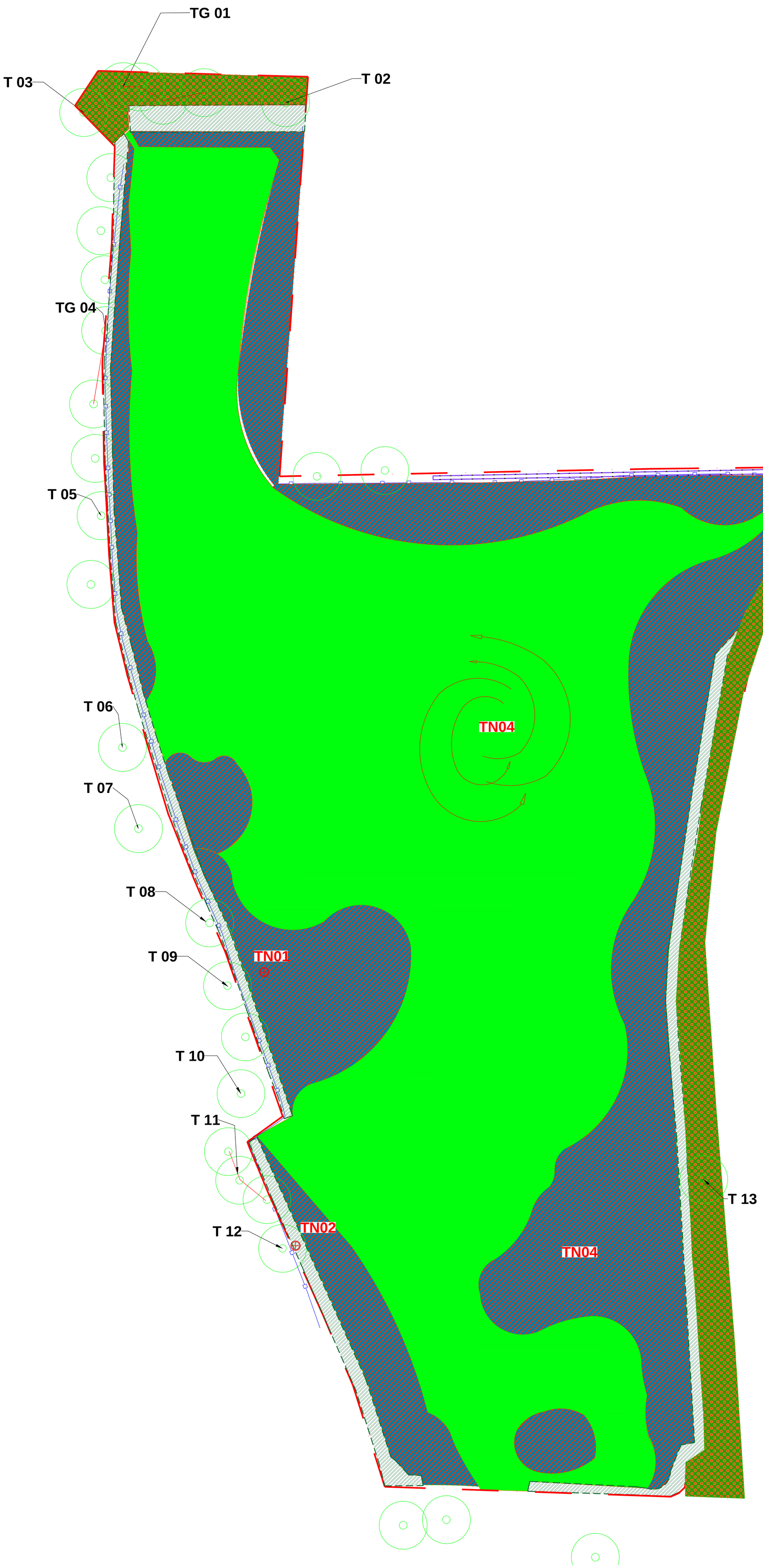
Appendix A – Site Photographs

Image 01 – View towards northeast from central point on western boundary.

Image 02 – View towards southeast from central point on western boundary.

Image 03 – P6 – assessed as 'good' within the HSI assessment.

Image 04 – P9 assessed as 'average' within the HSI assessment.



Legend

- Site Survey Boundary.
- g4 - Modified Grassland
- h3d - Bramble Scrub.
- w1g - Other Woodland: Broadleaved
- u1e - Built Linear Feature
- h2a - Hedgerow (Priority Habitat)
- h3h - Mixed Scrub
- Scattered Trees.
- T 02 — Trees With Bat Roost Potential.
- TN04 — Target Notes.

N

0 1 2.5 5 10 m

Scale 1:250

Figure No.1 - Site Habitat Plan

Land off Folders Lane, Burgess Hill

Planning Issue

Rev	Description	Date	Initials
02	Planning Issue	16.11.22	SH

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Client
Jones Homes (Southern) Ltd

Project Title and Location
Land off Folders Lane, Burgess Hill

Drawing Title
Site Habitat Plan

Scale	*Drawn*	*Approved*	*Date*
1:250	SH	GS	16.11.22

Drawing No LLD2765-ECO-FIG-001

Revision 02

Legend

- Site Boundary
- Ponds
- Commercial Fishing Lakes
- Ponds Not Accessible
- Pond Number (P1)

Notes: *The original of this drawing was produced in colour - a monochrome copy should not be relied upon.*

Habitat areas are indicative and for information only - please do not scale from this drawing.

Final Issue

Rev	Description	Date	Initials
00	Final Issue	14.10.22	SH

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Project Title and Location
Land off Folders Lane

Drawing Title
Figure No.2 - Pond Locations

Scale	*Drawn*	*Approved*	*Date*
	SH	CO	14.10.22

Drawing No **LLD2765-ECO-FIG-002** *Revision* 00

Figure No.2- Pond Locations
Land off Folders Lane, Burgess Hill