
9th May 2018

Proposed Dementia
Care Centre at Land to
the Rear of Baird's Farm
Shop, Crookthorn Lane,
Climping

Preliminary Ecological
Appraisal and
Preliminary Bat Roost
Assessment

Report Number: 11423_R02d_MB_AL

Author: Misho Baxendale GradCIEEM

Checked: Aaron Grainger MCIEEM



Tyler Grange

Birmingham • Cotswolds • Exeter • London • Manchester

Contents

Summary	
Section 1: Introduction, Context and Purpose.....	1
Section 2: Methodology.....	2
Section 3: Ecological Features and Evaluation	6
Section 4: Preliminary Bat Roost Assessment.....	21
Section 5: Considerations in Respect of Future Development.....	23
Section 6: Conclusions.....	28
References	

Appendices

Appendix 1:	Legislation and Planning Policy
Appendix 2:	Tyler Grange Survey Planner
Appendix 3:	Habitat Suitability Index

Plans

Site Location Plan by Hunters M9316/APL001
Habitat Features & Preliminary Bat Roost Assessment Plan 11423/P10a
Proposed Site Plan by Hunters M9316/APL003

The contents of this report are valid at the time of writing. Tyler Grange shall not be liable for any use of this report other than for the purposes for which it was produced. Owing to the dynamic nature of ecological, landscape, and arboricultural resources, if more than twelve months have elapsed since the date of this report, further advice must be taken before you rely on the contents of this report. Notwithstanding any provision of the Tyler Grange LLP Terms & Conditions, Tyler Grange LLP shall not be liable for any losses (howsoever incurred) arising as a result of reliance by the client or any third party on this report more than twelve months after the date of this report.



Bairds Care Home, Littlehampton
Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment

11423_R02d_9 May 2018_MB_AL

Summary

- S.1. This report has been prepared by Tyler Grange LLP on behalf of Brackley Investments. It sets out the findings of a Preliminary Ecological Appraisal (PEA) and Preliminary Bat Roost Assessment (PBRA) of land at the rear of Bairds Farm Shop, Crookthorn Lane, Climping, West Sussex (OS Grid Reference SU 999 017), hereinafter referred to as 'the site'.
- S.2. The site primarily comprises a field of poor semi-improved grassland, improved grassland, areas of scrub, and native species-rich hedgerows. To the east the site is bordered by arable fields; to the west a residential property, Climping road, and two ponds; to the north the Bairds Farm Shop building and associated hardstanding; and to the south an area of retained land and off-site buildings.
- S.3. This report identifies further work required to inform a future planning application to develop the site as a proposed dementia care centre, to be submitted to Arun District Council.
- S.4. No protected sites are likely to be affected by future development of the site.
- S.5. Most of the site supports grassland and linear features, namely hedgerows and tree-lines, of some ecological value. The loss of these habitats would require compensation which, where possible, should form the basis of the development's green infrastructure design.
- S.6. The site also supports arable land, improved grassland, scrub, tall ruderal, and buildings, all of little ecological value, the loss of which would pose little constraint to future development (though note below in respect of potential supporting value to protected and/or priority¹ fauna).
- S.7. The site has the potential to support a number of protected and/or priority species of fauna, namely;
- Great crested newts (GCN);
 - Bats;
 - Common reptiles; and
 - Nesting birds.
- S.8. Detailed fauna surveys will be necessary to inform the requirement for any mitigation and detailed development designs.
- S.9. Recommendations for green infrastructure and lighting design are made within the report to mitigate effects of the development, with a view to deliver biodiversity gain.
- S.10. In conclusion, those valuable ecological features that exist, or could exist, at the site could be accommodated by the adoption of relatively simple design principles. These would need to be informed by further detailed survey work prior to submission of a planning application. The potential to improve the biodiversity of the site also exists, and recommendations are made that should contribute to local BAP targets.
- S.11. With the implementation of appropriate mitigation and enhancement, informed by protected species surveys, the proposed development should be in conformity with relevant planning policy and legislation, as set out in **Appendix 1**.

¹ UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed at Section 41 [42 in Wales] of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs



Section 1: Introduction, Context and Purpose

Introduction

- 1.1. This report has been prepared by Tyler Grange LLP on behalf of Brackley Investments. It sets out the findings of a Preliminary Ecological Appraisal (PEA) and Preliminary Bat Roost Assessment (PBRA) of land at the rear of Bairds Farm Shop, Crookthorn Lane, Climping, West Sussex (OS Grid Reference SU 999 017), hereinafter referred to as 'the site', to inform a full planning application for development of the site as a dementia care centre.

Context

- 1.2. A full planning application for the development of a dementia care centre at the site will be submitted to Arun District Council.

Purpose

- 1.3. This report:
- Uses available background data and results of field surveys, to describe and evaluate the ecological features present within the likely 'zone of influence' (Zoi)² of the proposed development;
 - Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's future development;
 - Where appropriate, makes recommendations for mitigation of adverse effects and ecological enhancement, to ensure conformity with policy and legislation listed in **Appendix 1**; and
 - Identifies further work required to inform a future planning application.
- 1.4. It is not intended that this report should be submitted with a planning application for development of the site, unless supported by the results of further surveys and a detailed assessment of the effects of the proposed development.
- 1.5. This assessment and the terminology used are consistent with the 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2016).

² Defined as the area over which ecological features may be subject to significant effects as a result of activities associated with a project and associated activities (CIEEM 2016).



Section 2: Methodology

Definitions

- 2.1. The 'site' is defined by the red line boundary as shown by the Site Location Plan by Hunters (Drawing Number M9316/APL001).

Data Search

- 2.2. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.
- 2.3. The data search has been undertaken for a 10km radius around the site for European statutory protected sites, a 2km radius for national statutory and non-statutory protected sites, and a 2km radius for protected and priority³ species records.
- 2.4. The following organisations and individuals have been contacted and, where relevant, the information provided has been incorporated with acknowledgement within this report:
- Sussex Biodiversity Record Centre (SBRC) for details of protected and priority species and non-statutory sites; and
 - West Sussex Badger Trust (BTWS) for details of badger and badger sett records.
- 2.5. The Multi-Agency Geographic Information for the Countryside website⁴ (MAGIC) was accessed for information on the location of statutory designated nature conservation sites within a 10km radius for sites of European designation and 2km for sites of national designation.
- 2.6. The Arun District Council website was consulted for details of relevant local planning policies and supplementary planning guidance.
- 2.7. The Sussex Wildlife Trust BAP (LBAP) was consulted for priority habitats and species subject to conservation action, to assist with the evaluation of ecological features and to inform site enhancement strategies.

Extended Phase I Habitat Survey

- 2.8. An 'extended' Phase I habitat survey was undertaken on 8th March 2018 by Misho Baxendale and Nathan Jenkinson, both experienced field ecologists and members of the Chartered Institute of Ecology and Environmental Management (CIEEM) at Graduate and Associate grades respectively. The technique was based upon Phase I survey methodology (JNCC, 2010). This 'extended' Phase I technique provides an inventory of the habitat types present and dominant species.
- 2.9. The weather conditions for the survey were sunny, light wind, and a temperature of 7°C.
- 2.10. Using the above method, the site was classified into areas of similar botanical community types with

³ UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed at Section 41 [42 in Wales] of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs.

⁴ <http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>



a representative sample of those species present at the time of the survey being described.

- 2.11. Additionally, incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected and priority species.

Preliminary Bat Roost Assessment

- 2.12. A Preliminary Bat Roost Assessment (PBRA) was undertaken on all the buildings and trees present within the site, and buildings directly adjacent to the site boundary, to assess their potential to support roosting bats. This survey was undertaken alongside the 'extended' Phase 1 habitat survey on the 08th March 2018 and followed standard methodologies (Mitchell-Jones, A.J., 2004; Mitchell-Jones, A.J. and McLeish, A.P., 2004; Collins, 2016) which are summarised below. Several factors were considered; including the presence of features suitable for use by crevice dwelling bats, proximity to foraging habitats or cover, and potential for disturbance from lighting and other sources.
- 2.13. For buildings, this is an external inspection survey, the purpose of which is to assess the likelihood of bats being present and the need for further survey and/or mitigation. A systematic search was made of the buildings for features that provide protection from the elements and are known to be used by roosting bats, especially below potential access points. Such features include:
- Window sills;
 - Window panes;
 - Gaps in brickwork;
 - Lead flashing;
 - Weather boarding;
 - Eaves;
 - Behind peeling paintwork or surfacing material; and
 - Under tiles.
- 2.14. There was no access into the onsite buildings at the site of the initial scoping survey, therefore no internal inspections were carried out.
- 2.15. The PBRA for trees comprised a ground level inspection to determine the potential of all trees on site to support roosting bats. The survey aimed to identify Potential Roost Features (PRFs) that may be used by bats, as identified within the BCT Good Practice Guidelines (Collins, 2016). These included the following:
- Woodpecker holes, rot holes, knot holes arising from naturally shed branches and man-made holes;
 - Hazard beams and other vertical or horizontal cracks and splits (such as frost cracks) in stems or branches;
 - Partially detached bark plates;
 - Cankers;
 - Other hollows or cavities, including butt-rots;
 - Partially detached ivy with stem diameters exceeding 50mm; and
 - Bird, bat, or dormouse boxes.



2.16. Evidence of the presence of bat roosts was also sought. These signs include:

- Bat droppings in, around, or below a PRF;
- Odour emanating from a PRF;
- Audible squeaking at dusk or in warm weather; and
- Visible staining below a PRF.

2.17. The potential of each building at the site to support roosting bats has been categorised against the criteria described in **Table 2.1**.

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	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 be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure 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
High	A structure 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.

Table 2.1: Roost Assessment Criteria (adapted from Collins, 2016)

Habitat Suitability Index Assessment

2.18. OS mapping and aerial imagery identified three ponds within 500m of the site (English Nature, 2001). During the site visit, a Habitat Suitability Index (HSI) assessment of two of the three ponds was undertaken to determine the suitability of the pond for great crested newt (GCN) *Triturus cristatus* in line with published guidance (Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M., 2000). Further information about the method used are given in **Appendix 3**.

Limitations

2.19. Owing to the timing of the surveys, some plant species may not have been visible. This may have an impact on the classification of habitat areas on the site, but is not considered to be a significant constraint given the context of the type of habitats identified.

Evaluation

2.20. The evaluation of habitats and species is defined in accordance with published guidance (CIEEM, 2016). The level of importance of specific ecological features is assigned using a geographic frame of reference, with international being most important, then national, regional, county, district, local and lastly, within the site boundary only.

2.21. Evaluation is based on various characteristics that can be used to identify ecological features likely



to be important in terms of biodiversity. These include site designations (such as SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages. Where further surveys are required, the valuation may be subject to change following the interpretation of survey results.

Quality Control

- 2.22. All ecologists at Tyler Grange LLP are members of CIEEM and abide by the Institute's Code of Professional Conduct.



Section 3: Ecological Features and Evaluation

Context

- 3.1. The site is located off the A259 road, west of Littlehampton, West Sussex. The site is 0.787 hectares in size, see **Figure 3.1** for the indicative site boundary, and includes access paths to the rear of the Bairds Farm Shop, portacabin buildings, agricultural land, and grassland fields. Boundary features include native hedgerows, mature tree lines, and fencing.
- 3.2. The surrounding landscape is primarily mixed agricultural which contains a network of field boundary hedgerows, tree lines, and woodland. To the north lies the unlit A259 road, 1.8ha of mixed deciduous woodland, and Bairds Farm Shop and associated hardstanding. To the north-west lies a small area of arable allotments. The western side of the site is bordered by a tree line, beyond which lies Climping street, two ponds, and a residential building. To the south lies agricultural land and buildings. The eastern side of the site is bordered by an arable field.



Figure 3.1: Aerial photo of the site and the indicative site boundary

Protected Sites

Statutory Sites

- 3.3. A search of the Multi-Agency Geographic Information for the Countryside (MAGIC) website identified no records of sites of European designation within 10km, and one site of National designation within 2km of the site; Climping Beach SSSI, which lies approximately 1.5km south-east of the site. This stretch of coast comprises a vegetated shingle beach and sand dune system with an intertidal zone, which supports important populations of wintering birds.

- 3.4. By their designation for resources of importance at a national level, SSSIs are of **National value**.

Non-Statutory (Local) Sites

- 3.5. The nearest non-statutory designated nature conservation sites within 2km of the site are as follows:

- Littlehampton Golf Course & Atherington Beach LWS, which lies approximately 1.5km south-east. The site is of outstanding importance botanically, including an area of dry dune grassland which is an exceedingly rare habitat in West Sussex; and
- Elmer Rocks LWS, which lies approximately 1.5km south-west. This beach is a fine example of vegetated shingle, an international rare habitat, and intertidal areas supporting shore birds.

- 3.6. Local Wildlife Sites (LWS) are selected on the basis that they meet the criteria for local wildlife sites selection for sites of importance at a county level. They are therefore of **County Value**.

Habitats and Flora

- 3.7. The site supports the following habitats:

- Arable;
- Buildings;
- Ephemeral/Short Perennial;
- Grassland;
- Hedgerows;
- Scrub;
- Tall Ruderal; and
- Trees.

- 3.8. For ease of reference, habitat types have been described alphabetically, below. All the features described are shown on the habitat features plan **11423/P10a**.

Arable

- 3.9. Adjacent to the offsite Bairds Farm Shop building (B1) there is a small area of arable horticultural beds (see **Photograph 1**), comprising planted shrubs of raspberry *Rubus spp.*, rosemary *Rosmarinus officinalis*, and buddleia *Buddleja spp.*

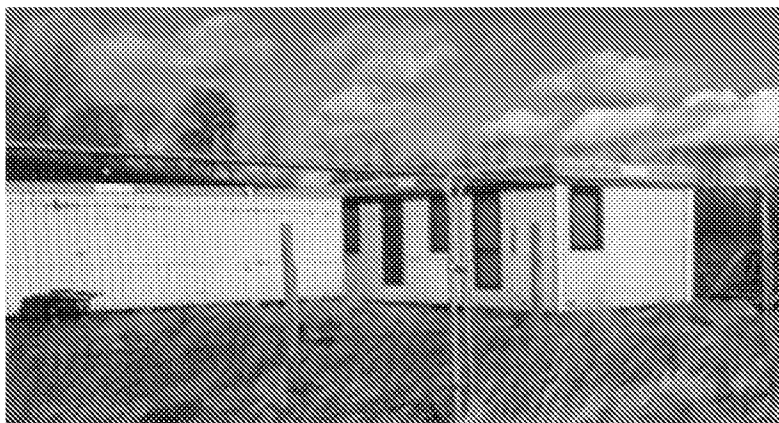


Photograph 1: Horticultural planted beds

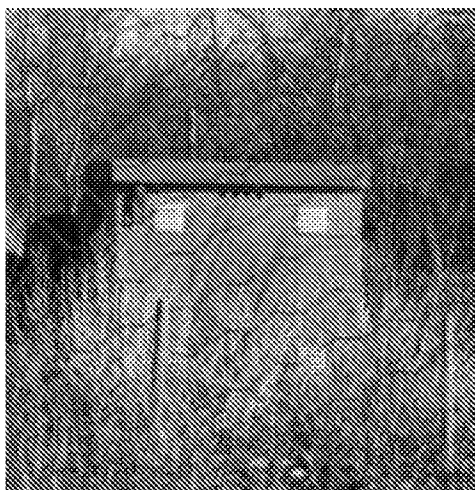
- 3.10. Given the low species diversity of this small area the planted arable horticultural beds are considered to be of **negligible ecological value**.

Buildings

- 3.11. All onsite buildings (B2, B3, and B4) are scheduled for removal/demolition, and as such were subject to external inspections to assess their potential to support roosting bats and birds. B2 and B3 are both portacabins and B4 is a small brick outbuilding (see **Photographs 2 and 3**). It should be noted that buildings B2 and B3 fall beyond the site boundary, however due to their close proximity to the site may be impacted by the site proposals. Their potential for use by bats and birds is described under the Preliminary Bat Roost Assessment, section 4 of this report.



Photograph 2: External view of B3 (left) and B2 (right), south aspect

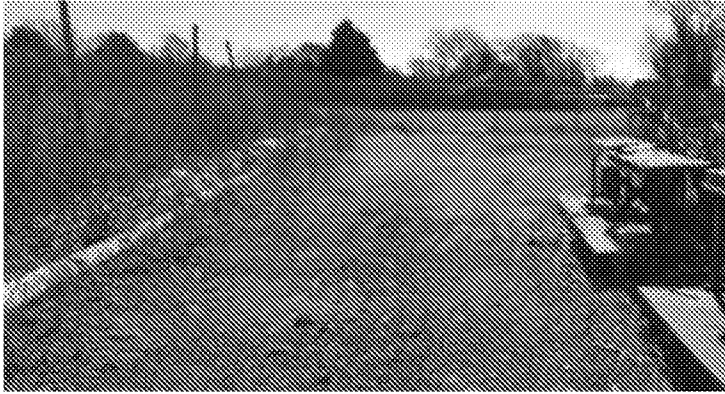


Photograph 3: External view of B4, west aspect

- 3.12. The buildings and outbuildings within the site boundary are of **negligible ecological value**, although these may offer some supporting value to roosting bats and birds (see section 4 below).

Ephemeral/Short Perennial

- 3.13. Adjacent to B1 there is an area of bare ground colonised by ephemeral/short perennial vegetation (see **Photograph 4**). The area is laid with gravel and used for outdoor storage and access to the grassland field, but is otherwise relatively undisturbed. Species include sparse germander speedwell *Veronica chamaedrys*, and oxeye daisy *Leucanthemum vulgare*.



Photograph 4: Ephemeral/Short Perennial habitat

- 3.14. The botanical species present are common and widespread locally and nationally. Ephemeral/short perennial habitats are likely to have value for invertebrate species, but due to the small scale of this habitat it is considered to be of **negligible ecological value**.

Grassland

- 3.15. To the south of Building B1 there is a large field of species poor semi-improved grassland, dominated by perennial rye grass *Lolium perenne*, yorkshire fog *Holcus lanatus*, and cock's foot *Dactylis glomerata*. Other species identified include white clover *Trifolium repens*, mouse-ear *Cerastium fontanum*, chickweed *Cerastium spp.*, meadow buttercup *Ranunculus acris*, common thistle *Cirsium vulgare*, ragwort *Jacobaea vulgaris*, bristly oxtongue *Helminthotheca echioides*, and broad-leaved dock *Rumex obtusifolius*.
- 3.16. The grassland is separated into two distinct areas, defined by sward length (see **Photograph 5**). A large area of poor semi-improved grassland with a short sward makes up the centre of the site. Directly south of the Bairds Farm Shop and portacabins (B) is a smaller area of poor semi-improved grassland that has been left to grow tall and tussocky.



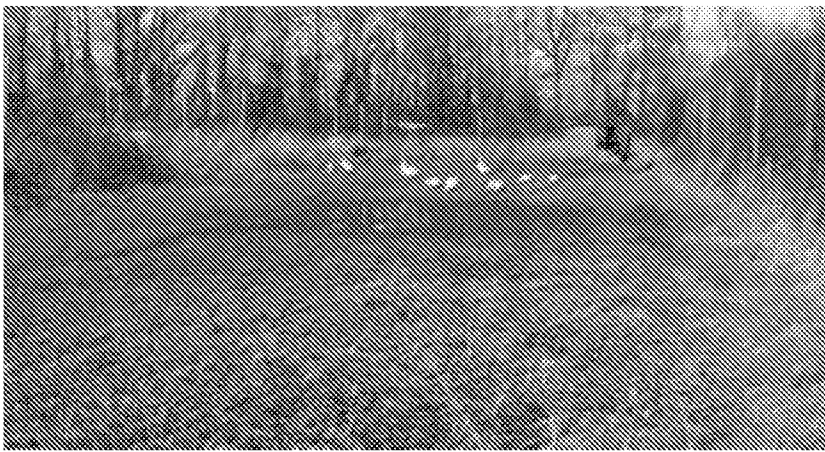
Photograph 5: Poor semi-improved grassland with short (left) and tall (right) swards

- 3.17. A margin of poor semi-improved tussocky grassland, approximately 0.5–1m wide, is present along the perimeter of the ephemeral/short perennial habitat, comprising tall fescue *Festuca arundinacea*, common thistle, and broad-leaved dock (see **Photograph 6**).



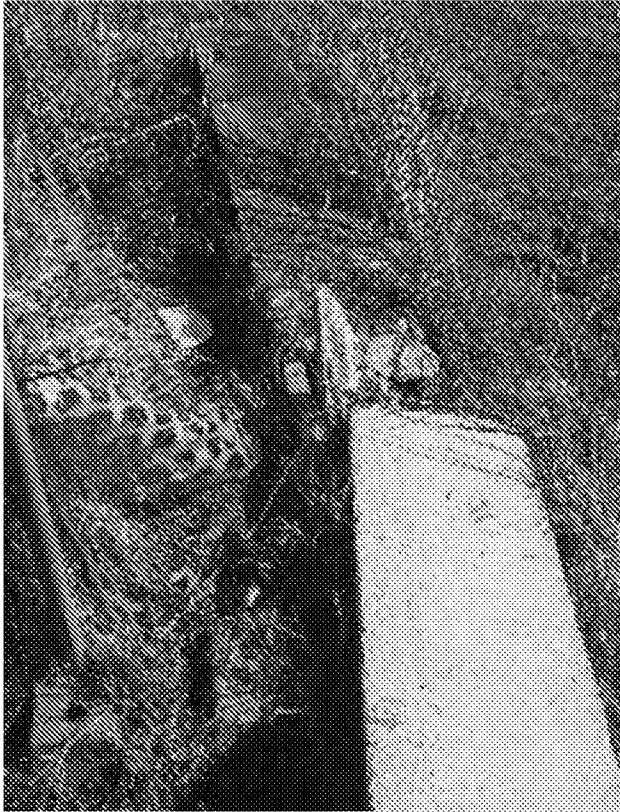
Photograph 6: Tussocky semi-improved grassland margin

- 3.18. To the north of the site there is a fenced livestock area containing improved grassland with a very short sward, comprising common species including perennial rye grass, broad-leaved dock, and plantain *Plantago* spp.



Photograph 7: Improved grassland sward in fenced livestock area

- 3.19. There are scattered areas of bare rubble, stone, and building materials throughout the site (see **Photographs 8 and 9**, habitat and features plan 114123/P10a **Target Note 2**) that could have supporting value to protected species of fauna as refugia (notable reptiles).



Photograph 8: Refugia piles in the centre of the site



Photograph 9: Refugia piles to the north of the site

- 3.20. The poor semi-improved grassland is considered to be of **site ecological value**, being common, widespread, and of relatively low botanical diversity. The improved grassland is considered to be of **negligible ecological value**, being species poor and offering little to the local biodiversity resource.

Hedgerows

- 3.21. A continuous native species-rich hedgerow borders the east boundary of the site, separating the site from the arable fields (see **Photograph 10**). This hedgerow predominantly consists of blackthorn *Prunus spinose* and hazel *Corylus avellane*. Other species include field maple *Acer campestre*, ash *Fraxinus excelsior*, pedunculate oak *Quercus robur*, common lime *Tilia x europaea*, dogwood *Cornus sanguinea*, and bramble *Rubus fruticosus agg.* Ancient woodland indicator ground flora species were also identified, including hart's tongue *Asplenium scolopendrium* and scaly male fern *Dryopteris affinis*.

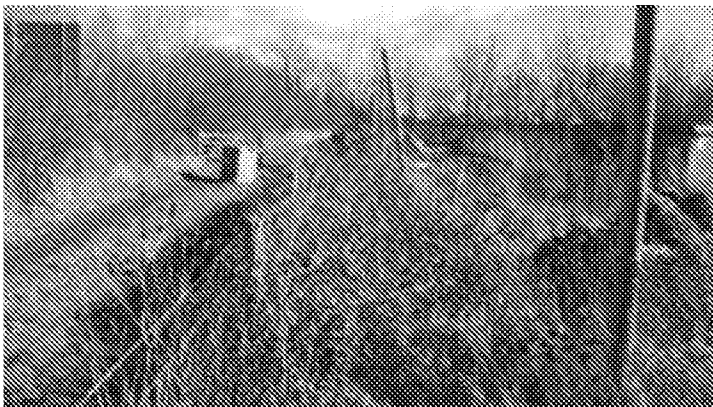


Photograph 10: Native species-rich hedgerow on the eastern site boundary

- 3.22. The eastern hedgerow is species rich, with associated woody species and a diverse ground flora containing ancient woodland indicator species, including hart's tongue and scaly male fern. The hedgerows are likely to qualify as a Habitat of Principal Importance (HoPI) and are therefore considered to be of **local ecological value**.

Scrub

- 3.23. The dense scrub at the site is found in a narrow strip along the northern boundary of the site (see **Photograph 11**), bordering the fenced livestock area, comprising bramble, and hogweed *Heracleum spp.* The fenced livestock area and southern boundary of the site are also bordered by scattered bramble scrub.



Photograph 11: Dense scrub along northern site boundary

- 3.24. The dense scrub is common, widespread, and considered to be of **site ecological value**, however, it could have supporting value to some faunal species (such as birds). The hogweed identified in the dense scrub (see habitat and features plan 11423/P10a **Target Note 1**) requires further survey to ascertain if it is giant hogweed *Heracleum mantegazzianum*, which is an invasive species listed on Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and is a risk to public health and safety (see **Invasive Species** below).

Tall Ruderal

- 3.25. Scattered stands of tall ruderal species dominated by broad-leaved dock and common thistle are located to the north of the site (see **Photograph 12**) and the south-west corner of the site adjacent to the tree line.



Photograph 12: Scattered stands of tall ruderal habitat

- 3.26. The tall ruderal habitat within the site is of **site ecological value**, being common and widespread in the surrounding landscape.

Trees

- 3.27. To the west, the grassland field is bordered by a line of mature and semi-mature trees (see **Photograph 13**) comprising black poplar *Populus nigra*, ash, evergreen oak *Quercus ilex*, sycamore *Acer pseudoplatanus*, and a willow *Salix spp.*



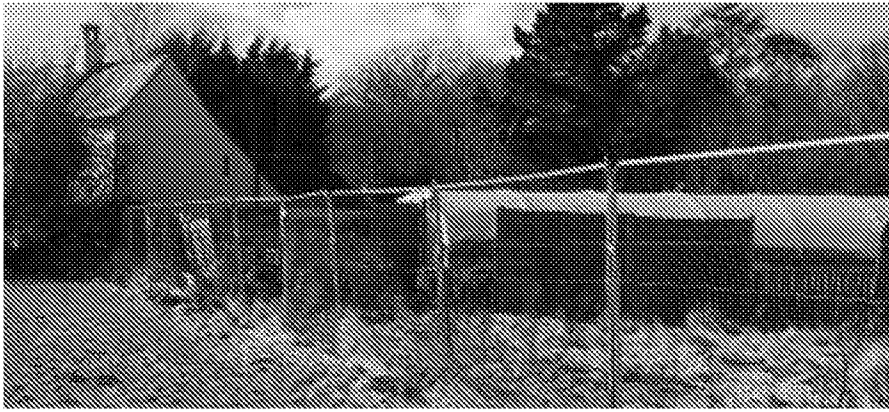
Photograph 13: Tree-line on the western site boundary

- 3.28. The tree line is considered to be of **local ecological value**, the majority being mature and semi-mature trees. The more mature specimens are not replaceable in the short to medium term, these may also offer value to roosting bats and nesting birds (see below).
- 3.29. The following habitats fall within 10m beyond the site boundary, and are described in more detail below:
- Arable;
 - Buildings;
 - Hedgerows; and
 - Scrub.

Arable

- 3.30. A small garden allotment falls adjacent to the site boundary to the north-west (see **Photograph 14**). The area is actively managed, with areas of scattered bramble *Rubus fruticosus* and a young field

maple *Acer campestre*.



Photograph 14: Active allotment adjacent to the north-west of site boundary

- 3.31. This area could have supporting off-site value to some faunal species (such as reptiles), as well as offering foraging, sheltering and commuting opportunities for local wildlife populations.

Building

- 3.32. The building which lies offsite (B1) is not scheduled for demolition but may be impacted by construction and operation phases of the proposed development through light, noise, and air pollution. As such, it was subject to an external inspection on its south and east aspects to assess its potential to support roosting bats and birds (see **Photograph 15**). It is a corrugated metal building with flat sloped roof and wooden cladding on the eastern aspect.



Photograph 15: External view of offsite building (B1), south-east aspect

- 3.33. The offsite buildings which lie to the south of the site boundary (B5 and B6, see **Photographs 16 - 18**) were observed externally from public access land using binoculars only. B5 appears to be an old agricultural building in poor condition. B6 appears to be a residential building in good condition.



Photograph 16: Offsite building (B5), north aspect



Photograph 17: Offsite building (B5), north-west aspect



Photograph 18: Offsite building (B6), west aspect

- 3.34. The buildings adjacent to the site boundary may offer some supporting value to roosting bats (see section 4 below).

Hedgerow

- 3.35. A native species-poor hedgerow that displays evidence of coppicing lies adjacent to the north boundary of the site, bordering the A259 road (see **Photograph 19**), comprising common species such as hawthorn *Crataegus monogyna*, ash *Fraxinus excelsior*, bramble *Rubus Fruticosus agg.*, and a cherry tree *Prunus spp.* The ground flora comprises common nettle *Urtica dioica*, broad-leaved dock *Rumex obtusifolius*, ground ivy *Glechoma hederacea*, vetch *Vicia spp.*, yorkshire fog *Holcus lanatus*, perennial rye grass *Lolium perenne*, and dandelion *Taraxum officinale*.



Photograph 19: Native species-poor hedgerow to the north of the site

- 3.36. A recently planted native species-poor hedge borders the southern boundary of the site (see **Photograph 20**), separating the site from agricultural land and buildings, consisting of hawthorn *Crataegus monogyna* and sparse ground flora, including common nettle *Urtica dioica*.



Photograph 20: Native species-poor hedgerow to the south of the site

- 3.37. The offsite hedgerows are a HoPI habitat, offering foraging, sheltering and commuting opportunities for local wildlife populations.

Waterbodies

- 3.38. Two ponds and a drainage ditch were identified within 250m to the west of the site boundary and are shown on the habitat features plan **11423/P10a**:
- P1, located adjacent to the south-west corner of the site boundary, contained water at the time of the survey, with its east bank enclosed by scrub and vegetation (see **Photograph 21**);
 - P2, located across Climping Street approximately 15m to the west of the site, contained water

at the time of the survey, with its banks enclosed by vegetation. P2 is linked to a wet drainage ditch overgrown with bramble scrub that runs parallel to the road for approximately 25m (see **Photograph 22**);

- 3.39. One pond was identified approximately 500m to the north of the site boundary site off Horsemere Green Lane, this pond was not accessible during the survey as it lies within private property.



Photograph 21: Pond (P1) adjacent to the south-west corner of the site



Photograph 22: Pond (P2) to the west of the site, with linked wet ditch to the south

- 3.40. The offsite ponds and wet ditch support common and widespread terrestrial flora species. It is considered likely that they contain water throughout the year and therefore would add to the local biodiversity resource and have potential to support protected and priority fauna.

Invasive Species

- 3.41. Plants identified as *Heracleum* spp. were found in the area of dense scrub to the north of the site (see habitat and features plan 11423/P10a **Target Note 1**). Owing to the suboptimal time of year for plant identification and desiccated nature of the plant leaves, stem, and fruiting bodies, it could not be identified to species level (see **Photograph 23**). As such this requires further survey prior to any vegetation removal to ascertain whether this is giant hogweed *Heracleum mantegazzianum*, which is an invasive species listed on Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and is a risk to public health and safety.



Photograph 23: Sample of *Heracleum spp.* found onsite

Fauna

- 3.42. For ease of reference, descriptions of the fauna have been described alphabetically, below.

Amphibians

- 3.43. SBRC returned thirty-two records of GCN within 2km, the closest lying adjacent to the site.
- 3.44. An HSI assessment (Oldham et al. 2000) of Ponds P1 and P2 was undertaken during the site survey, with both ponds found to possess '**Average**' **Habitat Suitability** for GCN (see **Appendix 3** for full HSI methodology and results).
- 3.45. Potential terrestrial habitat for GCN is present onsite and on land within 250m of the site. This includes hedgerows, tree lines, scrub, areas of unmown poor semi-improved grassland, ditches, bare earth banks, rock rubble, and ponds. At the time of the survey the offsite ponds and ditch were wet and could be used as breeding habitat.
- 3.46. SBRC returned fourteen records of common toad *Bufo bufo* (Species of Principal Importance³) within 1km, the closest lying 80m south of the site. This species could utilise the hedgerows, scrub, bare earth bank, and tree line understorey vegetation present on the site in low numbers and could use the offsite ditches and ponds as breeding habitat.

Badgers

- 3.47. BTWS returned one record of a disused badger sett approximately 400m south of the site and road traffic fatality records from 2006-2009 on the A259 in the location of Bairds Farm Shop adjacent to the site.
- 3.48. The Hedgerows surrounding the site provide suitable habitat and commuting opportunities for badgers, however no conclusive evidence of badgers (such as snuffle holes, badger hairs, or latrines) was recorded during the survey and as such it is considered unlikely that this species would be present onsite.

Bats

- 3.49. SBRC returned records of six species of bat within 2km of the site:
- An unidentified bat species *Chiroptera spp.* – 2 records, closest recorded within 1km of the site;
 - Daubenton's bat *Myotis daubentonii* – 1 record 650m east;
 - Serotine *Eptesicus serotinus* – 1 record 700m north-east;

- Whiskered/Brandt's bat *Myotis mystacinus/brandtii* – 1 record 1.5km east;
 - Common pipistrelle *Pipistrellus pipistrellus* – 3 records, closest recorded within 1km of the site; and
 - A long-eared bat *Plecotus spp.* – 1 record 600m east.
- 3.50. Buildings and trees onsite were identified as having bat roosting potential (see Preliminary Bat Roost Assessment Section 4).
- 3.51. Surrounding habitats include woodland, and ponds, all of which provide foraging and commuting opportunities for bats. The hedgerows bordering the site provide an element of connectivity between the survey site and potential foraging/roosting habitat further afield.

Birds

- 3.52. SBRC returned fifty-two bird species records within 1km of the site. Those that might be expected to use habitats onsite that are Birds of Conservation Concern (BoCC, **Ref 8.**) and Species of Principal Importance (SoPI) are as follows:
- Red Listed⁵ species: house sparrow *Passer domesticus*, mistle thrush *Turdus viscivorus*, skylark *Alauda arvensis*, spotted flycatcher *Muscicapa striata*, starling *Sturnus vulgaris*, tree pipit *Anthus trivialis*, turtle dove *Streptopelia turtur*, whinchat *Saxicola rubetra*, yellow wagtail *Motacilla flava*, and yellowhammer *Emberiza citrinella*.
 - Amber Listed⁶ species: dunnoek *Prunella modularis*, house martin *Delichon urbicum*, kestrel *Falco tinnunculus*, meadow pipit *Anthus pratensis*, stock dove *Columba oenas*, swift *Apus apus*, tawny owl *Strix aluco*, and willow warbler *Phylloscopus trochilus*.
 - Species of Principal Importance⁷ (SoPI): corn bunting *Emberiza calandra*, cuckoo *Cuculus canorus*, grasshopper warbler *Locustella naevia*, grey partridge *Perdix perdix*, and song thrush *Turdus philomelos*.
- 3.53. The buildings, hedgerows, scrub, and trees onsite provide likely foraging and nesting opportunities for a range of common and farmland bird species.
- 3.54. Given the relatively small area of the poor semi-improved grassland present onsite and the short sward of the fields, it is considered unlikely that breeding or nesting birds would be present onsite.
- 3.55. The hedgerows and tussocky grassland habitats would provide favourable habitat for small mammal species and the site could have some value for foraging owl and raptor species, with barn owl and common kestrel being recorded within 1km of the site. However, given the small size of the site (0.79 ha) with limited foraging habitat present and availability of good habitat in the wider landscape, the site is not considered to be important in maintaining local sub-populations.

Dormouse

- 3.56. SBRC returned no records of dormouse within 1km of the site. Whilst suitable habitat in the form of hedgerows (with fruiting species), bramble, scrub, and tree lines exist onsite, given the lack of records and the relatively small area of the site these habitats make up, it is considered unlikely that this species would be present onsite.

⁵ Red Listed bird species are those identified as having suffered major population declines over the last 25 years (Ref 8)

⁶ Amber Listed bird species are those identified as having sufficient moderate population declines over the last 25 years (Ref 8)

⁷ SoPI species are those identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UKBAP)



Invertebrates

- 3.57. SBRC returned forty-nine records of protected and SoPI invertebrates within 2km of the site, none of which are recorded within 100m of the site. Given the habitats present and the lack structural diversity within and between habitats at the site, it is considered highly unlikely that significant numbers of rare or notable invertebrates utilise the site. As such, the invertebrate assemblage at the site is considered likely to be of **negligible ecological importance** and invertebrates are not considered further within this report

Reptiles

- 3.58. SBRC returned six records of slow-worm *Anguis fragilis* (a SoPI) within 1km of the site, the closest being recorded 250m south of the site.
- 3.59. Habitats within the boundaries and fields, including the grassland, bare earth banks (see plan 11423/P10a **Target Note 3**), rubble (see plan 11423/P10a **Target Note 2**), and scrub have the potential to support common reptile species. Further survey will be required to determine presence/likely absence of reptile species (Froglife 1999).

Water Vole

- 3.60. SBRC returned seven records of water vole within 1km of the site, the closest being recorded 900m east of the site in Ryebank River. Given the lack of suitable habitat (lakes, watercourses, and ditches) onsite it is considered unlikely that this species would be present onsite.

Hedgehogs

- 3.61. SBRC returned seventeen records of west European hedgehog *Erinaceus europaeus* (a SoPI) within 2km of the site, the closest being recorded 280m south of the site. Habitats offsite, including the allotments to the north-west, and habitats onsite, including; scrub, hedgerows, and refugia piles (see plan 11423/P10a **Target Note 4**) have the potential to support hedgehogs. The hedgehog population potentially present throughout the site is therefore considered to be of **local ecological importance**.



Section 4: Preliminary Bat Roost Assessment

- 4.1. A Preliminary Bat Roost Assessment (PBRA) was undertaken on all the buildings and trees present within the site, and buildings directly adjacent to the site boundary, to assess their potential to support roosting bats.
- 4.2. Two of the existing onsite buildings (B3, and B4, see **Photographs 2 and 3**) are considered to offer **negligible potential roosting habitat**. Portacabin building B2 is considered to offer **low potential roosting habitat** due to gaps behind the roof fascia.
- 4.3. Internal access into the buildings was not possible during the initial survey, however it is assumed that building B4 and the portacabins (B2 and B3) do not have enclosed roof voids. The onsite buildings are listed below along with a summary of potential features/opportunities present within the buildings which may be utilised by bat species for roosting. Each building has also been given a score for its potential to support roosting bats:

Building	Potential Bat Roost Features	Bat Roost Potential
B2	A gap behind the plastic roof fascia runs along all sides of this portacabin, it is unlikely this provides access to an enclosed roof-void space; however, the gap could provide potential roosting habitat for crevice-dwelling bats, such as <i>Pipistrellus spp.</i>	Low
B3	No suitable bat roost features.	Negligible
B4	Upon inspection with binoculars the ventilation holes in the bricks of this building do not likely lead to any roof void space and the open doorway of this small construction would be expected to render the conditions relatively light internally.	Negligible

Table 4.1: Evaluation of bat potential of existing onsite buildings

- 4.4. The existing offsite building (B1, see Photograph 1) has security lighting installed on the east and south aspects which may deter the more light-sensitive bat species from utilising this area. It is unknown if this building has an enclosed roof void. It is in a good state of repair and is considered to offer negligible potential roosting habitat.
- 4.5. The existing offsite buildings (B5 and B6, see **Photographs 16 - 17**) are adjacent to the south site boundary and were observed externally from public access land using binoculars only, it is therefore unknown if these buildings have enclosed roof voids. B5 is considered to offer **high potential roosting habitat**, B6 is considered to offer **negligible potential roosting habitat**.

Building	Potential Bat Roost Features	Bat Roost Potential
B1	No suitable bat roost features.	Negligible
B5	There are numerous potential access points for bats visible on the north and west aspect of this building, including gaps under loose tiles and the roof ridge tiles, and crevices in loose brickwork.	High
B6	There appears to be no suitable bat roost features.	Negligible

Table 4.2: Evaluation of bat potential of existing offsite buildings

- 4.6. There are also eleven semi-mature and mature trees (T1 - T10, and T14, see habitat features plan **11423/P10a**) on site with features such as holes, small cracks, ivy cover, and fissures that could also be used by small numbers of bats for roosting. Due to their species and the relatively low abundance of potential roost features, these trees are all considered to be of **low potential roost habitat**.



Section 5: Considerations in Respect of Future Development

Proposed Development

- 5.1. Planning proposals for the site comprise development of the site to provide a dementia care centre, as shown by the Proposed Site Plan by Hunters (Drawing Number M9316/APL003).
- 5.2. The potential impacts with respect to development of the site are set out below, with reference to relevant legislation and planning policy, which is summarised in **Appendix 1**.

Likely Zone of Influence of Future Development

- 5.3. Planning proposals comprise development of the site to provide a dementia care centre. This would affect habitats within the site and direct effects arising from both the construction and operation of future development may extend beyond the boundary of the site. Offsite building B5 should be taken into consideration due to its high bat potential with regards to lighting and noise.
- 5.4. In the absence of suitable ecological design and mitigation, development may have the potential to indirectly affect linkages between habitats in the immediate locality (for example through the loss of hedgerows).

Protected Sites

- 5.5. The distance between the site and Climping Beach SSSI involves a 1.2km drive to Atherington beach and a 1km walk along the shore to Climping beach. Whilst other footpaths exist with informal access to the protected sites, given the distance involved and the nature of the proposed land-use, no adverse effects as a result of the proposed development are likely and hence no mitigation is required.

Habitats and Flora

- 5.6. The arable habitats, improved grassland, and buildings onsite are of negligible ecological value, the loss of which would pose little constraint to future development (though note below in respect of potential supporting value to important and/or protected fauna).
- 5.7. The ephemeral/short perennial, poor semi-improved grassland, tall ruderal, and dense scrub habitats are of site ecological value, and were they to be lost then suitable compensation through the retention and the establishment of areas of meadow grassland within the development would be required.
- 5.8. The linear features, namely hedgerows and tree-line, are of local ecological value, and were they to be lost then suitable compensation would be required.

Fauna

Amphibians

- 5.9. In England and Wales, GCN and their habitats are predominantly protected under the Conservation of Habitats and Species Regulations (2010), with other complimentary legislation comprised of the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000;



and the Natural Environment and Rural Communities Act (NERC, 2006).

- 5.10. Given that there are records of GCN within the area, and considering the habitats present within and around the site (rough grassland, scrub, hedgerow, and refugia habitats) it is recommended that further surveys with regard to this species are conducted to determine presence/likely absence. Where GCN presence is confirmed, two further surveys will need to be conducted to estimate population size. These surveys will be undertaken at the appropriate time of year by two suitably competent surveyors and in-line with current guidelines (English Nature 2001).
- 5.11. Three ponds were identified within 500m of the site. Ponds P1 and P2 (see habitat features plan **11423/P10a**) were identified and assessed for their suitability to support GCN according to current HSI guidelines (Oldham, R.S et al. 2000), with both ponds deemed to be of adequate quality (see **HSI Appendix 3**).
- 5.12. One pond approximately 500m north of the site off Horsemere Green Lane was inaccessible during the survey due to lying within private property and therefore was not subject to a habitat suitability assessment (HSI). Due to poor connectivity to the site and multiple barriers to dispersion (including residential buildings, an arable field, and the A259 road) between this pond and the site, it has not been considered further in this report.
- 5.13. GCN are a protected species, and if present it will be necessary to retain suitable breeding habitats (ponds) and terrestrial habitats, the latter of which may affect the quantum of development the site can support (English Nature 2001). Connections to the off-site habitats will also be required.

Badgers

- 5.14. Badgers are protected from killing/injury and disturbance of their setts from damage or destruction under the Protection of Badgers Act 1992.
- 5.15. The grassland, hedgerows, and scrub onsite offer potential foraging habitats that could be used by local badger populations.
- 5.16. Given that it is considered the habitats on site are suitable to be utilised by badgers for foraging and dispersal, during the construction phase of the proposed development precautionary mitigation measures sympathetic to badger should be employed. These mitigation measures are as follows:
 - Securely storing chemicals overnight; and
 - Covering trenches/excavations or leaning a piece of wood inside the trench/excavation so that, should any badger fall into the hole, they do not become trapped.

Bats

- 5.17. In England and Wales, bats and their roosts are predominantly protected under the Conservation of Habitats and Species Regulations (2010), with other complimentary legislation comprised of the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; and the Natural Environment and Rural Communities Act (NERC, 2006).
- 5.18. During the survey it was noted that a building (B2) immediately south of the Bairds Farm Shop has **low potential** to support roosting bats. This building falls beyond the site boundary and is not planned for removal as part of the proposed development. However, given its close proximity to the site boundary and its potential to support roosting bats, further survey with regards to roosting bats will be required. These surveys would comprise a single dusk emergence or dawn re-entry survey between May-August carried out by two suitably competent surveyors, according to current guidelines (Collins, J. (ed.) 2016). If roosts are found, then compensation should be possible within the proposed development.



- 5.19. Of the trees on site, eleven were found to have **low potential** to support roosting bats (T1 – T10 and T14, see section 4 for details). No further survey is required for these trees as precautionary soft felling of any that are to be removed or modified is considered to be sufficient.
- 5.20. Offsite buildings were identified with bat roost potential to the south of the site boundary. Bats are sensitive to light pollution (Jones, J. 2000) and as such, during the construction phase of the development suitable buffers and screening designed to mitigate any impacts of lighting, noise, and air pollution on potential roosts should be possible within the proposed development. During operation, screening of the southern boundary should be possible to avoid impacts of light and noise pollution on potential roosts by the proposed development.
- 5.21. Commuting and foraging bat activity would also be expected along linear features such as the hedgerows and tree-line. Given the relatively small size of the site and potential for suitable retention of these features within the proposed development it is not considered necessary to carry out detailed bat activity surveys.
- 5.22. Suitable provision of green infrastructure, retention of linear features, and an informed lighting design to mitigate any impacts of light pollution on these features should be possible within the proposed development. Where possible, this mitigation should be in accordance with guidance set out by the Bat Conservation Trust & Institute of Lighting Engineers (2009).

Birds

- 5.23. In England and Wales, birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.24. The site has potential to support nesting birds within the hedgerows, trees, and scrub. Additionally, the buildings at the site have the potential to support nesting birds. As such, should any vegetation clearance or building demolition be scheduled to occur during the nesting bird season (March – August inclusive), a pre-works check by an Ecological Clerk of Works (ECOW) should be undertaken to determine if any nesting birds are present. Should any nests be observed, the nests must be retained with an appropriate buffer until the chicks have been confirmed as fledged by an ECOW.
- 5.25. The surrounding farmland and woodland would provide breeding and wintering opportunities for birds, and foraging opportunities for owl and raptor species, and therefore the loss of the onsite grassland would not be considered to impact on the sub-populations of these species locally. Given the relatively limited habitats present and small size of the site (0.79ha), it is considered that further survey with regard for breeding and wintering birds are not necessary.
- 5.26. Ideally the loss of features suitable for birds (scrub, grassland, hedgerows, and trees) should be retained, or their loss compensated for within the design of the green infrastructure of the development. The site could be enhanced for nesting birds through the erection of bird boxes on new buildings and retained trees. The locations and orientation of bird boxes should be determined once a detailed site masterplan is available.

Hedgehogs

- 5.27. The poor semi-improved grassland, hedgerows, and piles of refugia offer potential habitats that could be used by local hedgehog populations. Prior to commencement of construction, any piles of refugia onsite should be sensitively removed to prevent killing or injuring hedgehogs. The development design should, wherever possible, include the retention of suitable habitat, including unmown grassland and hedgerows for hedgehogs.

Reptiles

- 5.28. In England and Wales, the common reptile species (grass snake *Natrix helvetica*, slow worm, common lizard *Zootoca vivipara* and adder *Vipera berus*) are protected under the Wildlife and Countryside Act (1981) (as amended).



- 5.29. Given that there are records of slow-worm within the area, and considering the habitats present on site (rough grassland, scrub, and refugia habitats) it is recommended that further surveys with regards to this species are conducted to determine reptile presence onsite.
- 5.30. As such, it is recommended that as a minimum, a seven-visit presence/likely absence is undertaken to determine if reptiles are present at the site. The survey would require the distribution of artificial reptile refugia (0.5m x 0.5m in size) at a density of 10ha⁻¹ of suitable habitat, with survey visits undertaken once a week during days with suitable temperatures (9-18 °C) and suitable weather conditions (no windy/rainy conditions); (Froglife, 1999)
- 5.31. Should reptiles be found to be present, mitigation will be guided by the size of the reptile population at the site and the species present.
- 5.32. Upon completion of construction, where possible the development should retain or provide suitable rough grassland and scrub habitats. This should be possible around the periphery of the site boundary within the proposed development.

Ecological Design Principles and Enhancement Opportunities

- 5.33. Given the site comprises habitats of predominantly site ecological importance, there is the opportunity to both enhance and mitigate for the loss of biodiversity of the site by adopting design principles informed by local conservation strategies, notable the Local Biodiversity Action Plan (Sussex LBAP). Delivery of such biodiversity gain would be in accordance with the NPPF and Policy ENV SP1 (Natural environment) and Policy ENV DM5 (Development and biodiversity) of the Arun District Council Local Plan.
- 5.34. The detail of the development design will be informed by further ecological surveys, opportunities for mitigation and enhancement onsite include:
 - Creation of green infrastructure within the development, which can be multi-functional; delivering biodiversity, amenity, aesthetic, and drainage benefits to the site, in line with Policy GI SP1 (Green Infrastructure and development) of the Arun Local Plan. Where possible this should form continuous corridors for wildlife movement and should include retained and newly created habitats, such as those listed below, which should be managed appropriately and monitored post construction;
 - The most valuable habitats, namely hedgerows, mature trees, scrub, and poor semi-improved grassland, should be retained and enhanced through the design of the development where possible in line with Policy ENV DM5 (Development and biodiversity) of the Arun Local Plan;
 - Habitat creation and enhancement could include ponds (of benefit to amphibians, birds, and invertebrates), species-rich grassland, rough grassland, scrub, and native species-rich hedgerows (of benefit to reptiles, invertebrates, terrestrial mammals, bats, and birds), and native trees. Any surface water attenuation features and amenity areas could be designed using ecological design principles so that they can be valuable for wildlife;
 - Newly created and retained habitats should be subject to an appropriate management regime to ensure continued biodiversity benefit;
 - Use of native species of local provenance where possible in the landscape design to provide new opportunities for fauna;
 - Provision of new roosting opportunities for bats where possible, through adoption of specific designs within buildings and erection of roost boxes on retained trees; and
 - Explore opportunities to increase the interpretative/educational importance of the site, for



instance by involving the care home in monitoring and management works of habitat enhancements, or by providing better access to nature for the care home residents.

Further Work to Inform a Future Planning Application

- 5.35. To inform future development designs and mitigation strategies, and in accordance with ODPM Circular 06/05 and BS 42020:2013 'Biodiversity – Code of practice for planning and development', it will be necessary to undertake surveys to confirm whether legally protected and/or priority species would be affected by proposed development of the site. These surveys are summarised below:
- **Bats (emergence/re-entry surveys):** If building B2 (identified as having low bat roosting potential) is to be disturbed to facilitate development, additional surveys will be required to determine the presence or likely absence of roosting bats. Should roosting bats be present, an EPSL is likely to be required to facilitate works;
 - **Nesting Birds (pre-works check):** If building demolition or vegetation/tree removal is to occur between March-August, a pre-works check by an ECoW should be undertaken to determine whether active birds' nests are present. If nest(s) are present, no nests, eggs or young should be destroyed and an appropriate buffer must be instated until the chicks have been confirmed as fledged by an ECoW;
 - **GCN (detailed pond surveys to determine presence and population size):** Due to the close proximity of the site to Ponds P1 and P2, prior to the construction phase of the development further GCN presence/absence and population estimate survey should be undertaken to ascertain the presence of this protected species onsite;
 - **Reptiles (presence/likely absence surveys):** Prior to the removal of tall ruderal, grassland, and scrub vegetation onsite, a reptile presence/absence survey should be undertaken to determine whether common reptile species are present at the site. Should reptiles be present, mitigation will be required through techniques such as directional strimming; and
 - **Invasive Species (pre-works check):** Prior to the removal of tall ruderal and scrub vegetation in the north of the site, a check by an ECoW should be undertaken to identify the species of *Heracleum* spp. found onsite to ascertain whether this is giant hogweed *Heracleum mantegazzianum*, which is an invasive species listed on Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and is a risk to public health and safety.
- 5.36. The timings of surveys should be informed by the Tyler Grange survey planner in **Appendix 2**.



Section 6: Conclusions

- 6.1. In conclusion, those valuable ecological features that exist, or could exist, at the site could be accommodated by the adoption of relatively simple design principles, albeit these would need to be informed by further detailed survey work at a later stage as detailed above. The potential to improve the biodiversity of the site also exists, and recommendations are made that should contribute to local BAP targets and are in accordance with the NPPF and Policies; GI SP1 (Green Infrastructure and development), ENV SP1 (Natural environment), and ENV DM5 (Development and biodiversity) of the Arun Local Plan. As such, it is likely that future development of the site would accord with relevant planning policy that seeks to protect and enhance ecological features if the recommendations in this report are followed.



References

- Bat Conservation Trust & Institute of Lighting Engineers. (2009). Bats and Lighting in the UK: Bats and the Built Environment Series. [online] Available at:
<http://www.bats.org.uk/data/files/bats_and_lighting_in_the_uk__final_version_version_3_may_09.pdf> [Accessed 15th January 2018]
- Chartered Institute of Ecology and Environmental Management (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland, 2nd Edition. <http://www.cieem.net/ecia-guidelines-terrestrial->. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. The Bat Conservation Trust, London.
- Eaton M, Aebischer N, Brown A, Hearn R, Lock L, Musgrove A, Noble D, Stroud D and Gregory R (2015) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*, 108: 708 - 746.
- English Nature (2001). Great crested newt mitigation guidelines. English Nature, Peterborough.
- English Nature (2004). Reptiles: Guidelines for Developers. English Nature, Peterborough.
- Entwistle, A.C., Harris, S., Hutson, A.M., Racey, P.A., Walsh, A., Gibson, S.D., Hepburn, I. and Johnston, J. (2001) Habitat management for bats: A guide for land managers, land owners and their advisors. JNCC, Peterborough.
- Froglife (1999). Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.
- Jones, J. (2000) Impact of Lighting on Bats. Bat Conservation Trust, London.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Mitchell-Jones, A.J. and McLeish, A.P. (2004). Bat Workers' Manual. 3rd Edition. JNCC, Peterborough.
- Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *Herpetological Journal*, **10**: 143-155.



Appendix 1: Legislation and Planning Policy



Appendix 1: Legislation and Planning Policy

- A1.1. This section summarises the legislation and national, regional and local planning policies, as well as other reference documents, relevant to the baseline ecology results.

Legislation

- A1.2. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:
- The Wildlife and Countryside Act 1981 (as amended)
 - The Conservation of Habitats and Species Regulations 2010
 - The Countryside and Rights of Way Act 2000
 - The Natural Environment and Rural Communities Act 2006
 - The Hedgerows Regulations 1997
 - The Protection of Badgers Act 1992
- A1.3. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2010 (as amended).
- A1.4. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
- A1.5. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Planning Policy

National Planning Policy Framework

- A1.6. The relevant adopted policy at the national level is set out in The National Planning Policy Framework (NPPF; 2012), which replaces Planning Policy Statement 9 (PPS9) Biodiversity and Geological Conservation (2005). The NPPF aims to make the planning system less complex and more accessible, to protect the environment and to promote sustainable growth. It sets out the key principles of ensuring that development is sustainable and that the potential impacts of planning decisions on biodiversity and geological conservation are fully considered (although the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined).



A1.7. Outline principles state that planning should:

- Contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this Framework; and
- Promote mixed use developments and encourage multiple benefits from the use of land in urban and rural areas, recognising that some open land can perform many functions (such as for wildlife, recreation, flood risk mitigation, carbon storage, or food production).

A1.8. Chapter 11, Conserving and Enhancing the Natural Environment, sets out a number of planning protocols, as follows:

- The NPPF provides guidance as to the protection of statutorily designated sites, including international sites, National Nature Reserves (NNR) and Sites of Special Scientific Interest (SSSIs), as well as non-statutory regional and local sites. The NPPF also addresses development and wildlife issues outside these sites and seeks to ensure that planning policies minimise any adverse effects on wildlife;
- The NPPF places emphasis on local authorities to further the conservation of those habitats of principal importance, or those habitats supporting species of principal importance, which are identified in Section 41 of the NERC Act 2006;
- The NPPF requires that adverse effects of development on species of principal importance should be avoided through planning conditions or obligations and that planning permission should be refused where harm to these species, or their habitats, may result, unless the need for and benefits of the development clearly outweigh the harm;
- The NPPF requires that opportunities for improving biodiversity within developments should be maximised. It states that development proposals where the primary objective is to conserve or enhance biodiversity should be permitted and that opportunities to incorporate biodiversity in and around developments should be encouraged; and
- The NPPF states that by encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

A1.9. The Government Circular 06/2005⁸ accompanies the National Planning Policy Framework and sets out the application of the law in relation to planning and nature conservation in England.

Local Planning Policy

Arun Local Plan 2011-2031

A1.10. Relevant Local Plan policies relating to ecology and nature conservation are presented in detail below, but are summarised as follows:

- Policy GI SP1 relates to the protection and enhancement of existing Green Infrastructure assets.
- Policy ENV SP1 relates to the promotion of conservation and enhancement of biodiversity.

⁸ Office of the Deputy Prime Minister (2005). *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. [Online]. Available at: <
<http://www.communities.gov.uk/documents/planningandbuilding/pdf/147570.pdf>> Accessed: 21st March 2018.



- Policy ENV DM1 relates to development within or adjoining Sites of Biodiversity Importance.
- Policy ENV DM3 relates to non-designated Biodiversity Opportunity Areas (BOAs).
- Policy ENV DM4 relates to the protection of trees and Ancient Woodland.
- Policy ENV DM5 relates to developments and biodiversity.

A1.11. Relevant Supplementary Planning Documents relating to ecology and nature conservation are summarised as follows:

- Green Infrastructure Network Map is supplementary to Policy GI SP1.

A1.12. Relevant Local Plan policies relating to ecology and nature conservation are given in full detail below.

- **Policy GI SP1 Green Infrastructure and development**

The existing Green Infrastructure Network, as shown on the Green Network Maps (provided in the Technical Appendix) for each parish and town, must be considered at an early stage of the design process for all major development proposals.

All major development must be designed to protect and enhance existing Green Infrastructure assets, and the connections between them, in order to ensure a joined up Green Infrastructure Network.

Where compatible with nature conservation objectives, development proposals must identify opportunities to connect existing Green Infrastructure assets with the coast, the South Downs National Park or to the District's inland villages. Opportunities to enhance the network should take account of the multiple functions of Green Infrastructure assets and should be based upon those opportunities set out in the supporting text.

Gaps between settlements should also be considered as important Green Infrastructure assets and should be protected from inappropriate development and enhanced to ensure that they provide high quality environment and multi-functional benefits for the District.

- **Policy ENV SP1 Natural environment**

Arun District Council will encourage and promote the conservation and enhancement of biodiversity and the natural environment through the development process and particularly through policies for the protection of both designated and non-designated sites. Where possible it shall also promote the creation of new areas for habitats and species. In relation to designated sites, development will be permitted where it protects sites listed in Tables 17.1-17.6 that are recognised for the species and habitats contained within them.

- **Policy ENV DM1 Designated sites of biodiversity or geological importance**

1. Proposed development likely to have an adverse effect on land within or adjoining a Site of Biodiversity or Geological Importance as listed in Tables 17.1 - 17.6 (either individually or in combination with other developments), will not normally be permitted. Exceptions will only be made where the following can be demonstrated:

- a. There is no alternative solution (which shall be adequately demonstrated by the developer) and
- b. There are reasons of public health or public safety or
- c. There are benefits of primary importance to the environment or
- d. There are imperative reasons of overriding public interest. Notwithstanding the above however,

Bairds Care Home, Littlehampton
Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment

11429_R02d_9 May 2018_MB_AL

Appendix 1, Page 9



the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined.

2. In determining any planning application affecting Sites of Biodiversity or Geological Importance the Council will ensure that the intrinsic natural features of particular interest are safeguarded or enhanced having regard to;
 - a. The European, National or Local status and designation of the site;
 - b. The nature and quality of the site's features, including its rarity value;
 - c. The extent of any adverse impacts on the notified features of interest;
 - d. The need for compensatory measures in order to re-create remaining features of habitats on or off the site.
3. Where appropriate the Council will ensure the effective management of designated sites through the imposition of planning conditions or Section 106 agreements as appropriate.
4. Developments shall also be consistent with all other Local Plan policies.

• **Policy ENV DM3 Non-designated sites**

Within Biodiversity Opportunity Areas (BOAs) (see Policies Map), development shall:

- e. Retain and sympathetically incorporate locally valued and important habitats, including wildlife corridors and stepping stones
- f. Be designed in order to minimise disturbance to habitats

Where development proposals are likely to have an impact on species or habitats within the BOAs, any application for planning permission shall include a properly conducted survey of the presence of that species and habitat and any impact that development may have on the BOA. Development proposals that do not reasonably address opportunities for enhancing BOAs through their design, layout and landscaping or access/management shall not be permitted. Where a development scheme would result in a habitat loss, mitigation measures shall be proposed as part of the proposed scheme and such measures agreed with the Planning Authority prior to the determination of any planning application.

Developments shall also be consistent with all other Local Plan policies

• **Policy ENV DM4 Protection of trees**

Development will be permitted where it can be demonstrated that trees protected by a Tree Preservation Order(s), (TPO) identified as Ancient Woodland, in a Conservation Area or contributing to local amenity, will not be damaged or destroyed now and as they reach maturity, unless:

- a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or
- b. Would enhance the survival and growth prospects of other protected trees;



- c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodlands especially ancient woodland.

Where planning permission is granted in any of the above instances, conditions shall be used to ensure that, for any trees which are removed as part of a development, at least an equivalent number of a similar species and age (where practical) are planted on the proposed development site. Sufficient space for replacement trees to mature without causing future nuisance or damage shall be provided. The planting of new trees shall form an integral part of the design of any development scheme.

Proper provision must be made for the protection and management of trees or areas of woodland on-site when undertaking development. A management plan shall be provided as part of a planning application in accordance with BS 5837 (2012) in order to ensure that trees are adequately protected during development and appropriately maintained in the future. Conditions for the continued protection of trees on sites shall be included in any planning consent given.

Where there are existing trees on or adjacent to a development site, developers shall be required to provide:

- d. Land and tree surveys
- e. A tree constraints plan
- f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement

These will ensure that development is planned to take a comprehensive view of tree issues at an early stage in the design process and that development works do not have a negative impact on existing trees.

Developments shall also be consistent with all other Local Plan policies.

- **Policy ENV DM5 Development and biodiversity**

Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats 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 year and shall be undertaken by a qualified and, where appropriate, suitably licensed person.

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

Developments shall also be consistent with all other Local Plan policies.



Biodiversity Action Plans

- A1.13. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species and Habitats agreed under the UKBAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A Strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been succeeded, Species Action Plans (SAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.
- A1.14. Priority Species and Habitats identified under the UKBAP are also referred to as Species and Habitats of Principal Importance for the conservation of biodiversity in England and Wales within Sections 41 (England) and 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

Local Biodiversity Action Plan

- A1.15. The Sussex species and habitat action plans are summarised below and are available on the Biodiversity Action Reporting System (BARS) website:

Habitats:

Lowland Farmland and Grassland

Arable Field Margins, Hedgerows, Lowland Calcareous Grassland, Lowland Dry Acid Grassland, Lowland Heathland, Lowland Meadows, Purple Moor Grass and Rush Pastures, Traditional Orchards

Woodland

Wood-pasture and Parkland, Woodland

Coastal

Coastal Sand Dunes, Coastal Vegetated Shingle, Coastal Saltmarsh, Intertidal Mudflats, Maritime Cliff and Slope, Saline Lagoons

Freshwater and Wetlands

Coastal and Floodplain Grazing Marsh, Eutrophic Standing Waters, Lowland Fens, Ponds, Reedbeds

Species:

Birds

Aquatic Warbler, Marsh Warbler, Skylark, European White-fronted, Greenland White-fronted Goose, Tree Pipit, Scaup, Bittern, Dark-bellied Brent Goose, Stone-Curlew, Nightjar, Lesser Redpoll, Linnet, Twite, Hawfinch, Corn Crake, Cuckoo, Bewick's, Lesser Spotted, Corn Bunting, Cirl Bunting, Yellowhammer, Reed Bunting, Black-throated Diver, Wryneck, Red-backed Shrike, Herring Gull, Black-tailed Godwit, Savi's Warbler, Grasshopper Warbler, Common Scoter, Yellow Wagtail, Spotted Flycatcher, House Sparrow, Tree Sparrow, Grey Partridge, Red-necked Phalarope, Wood Warbler, Willow Tit, Marsh Tit, Dunnock, Balearic Shearwater, Bullfinch, Arctic Skua, Roseate Tern, Turtle Dove, Starling, Song Thrush, Ring Ouzel, Lapwing

Terrestrial Mammals

Water Vole, Barbastelle, Hedgehog, Brown Hare, European otter, Pine Marten, Harvest Mouse, Hazel Dormouse, Polecat, Bechstein's Bat, Noctule Bat, Soprano Pipistrelle, Brown Long-eared Bat, Greater Horseshoe Bat, Lesser Horseshoe Bat, Red Squirrel



Amphibians and Reptiles

Slow-worm, Common Toad, Smooth Snake, Natterjack Toad, Sand Lizards, Grass Snake, Pool Frog, Great Crested Newt, Adder, Common Lizard



Appendix 2: Ecology Survey Planner



Bairds Care Home, Littlehampton
Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment

11429_R02d_9 May 2018_MB_AL



Ecology Survey Planner

Birmingham
t. 0121 773 0770

Cotswolds
t. 01285 831 804

Exeter
t. 01392 447 588

Manchester
t. 01625 525 731

London
t. 0207 620 2710

e. info@tylergrange.co.uk
w. tylergrange.co.uk

¹ Internal building searches for evidence of bats can be undertaken at any time; winter is the best time for assessing trees for roosting potential, with further work to confirm potential undertaken in spring / summer.

² The timing of detailed flora surveys is dependent on the specific habitat type to be investigated. Lower plants should be surveyed in winter.

³ Timing is dependent on target species/group.

⁴ Surveys are required in both the early and late seasons.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Badgers												
Bats activity												
Bats roost identification												
Birds breeding												
Birds winter												
Crayfish												
Dormouse												
Great Crested Newts breeding ponds												
Habitats / Detailed Flora²												
Hedgerows												
Otter												
Reptiles												
Terrestrial / Freshwater Invertebrates³												
Water Voles⁴												

 Surveys optimal

 Surveys sub-optimal

 Surveys cannot be undertaken / results unreliable

Appendix 3: Habitat Suitability Index



Appendix 3: Habitat Suitability Index

Methodology

Habitat Suitability Index (HSI)

- A3.1. OS mapping and aerial imagery identified two ponds and a drainage ditch within 25m adjacent to the west of the site boundary and are shown on the habitat features plan 11423/P10a:
- P1, located adjacent to the south-west corner of the site boundary, contained water at the time of the survey, with its east bank enclosed by scrub and vegetation;
 - P2, located across Climping Street approximately 15m to the west of the site, contained water at the time of the survey, with its banks enclosed by vegetation. P2 is linked to a wet drainage ditch overgrown with bramble scrub that runs parallel to the road for approximately 25m;
- A3.2. One pond was identified approximately 500m to the north of the site boundary site off Horsemere Green Lane, this pond was not accessible during the survey as it lies within private property.
- A3.3. A Habitat Suitability Index (HSI) assessment of P1 and P2 were undertaken on 08th March 2018 to determine the suitability of the pond for great crested newt (GCN) *Triturus cristatus*, by Tyler Grange Ecologists Misho Baxendale (GCN Class License No. 2017-28614-CLS-CLSCL08) and Nathan Jenkinson (GCN Class License No. 2015-16404-CLS-CLS) in line with published guidance (Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M., 2000).
- A3.4. The National Amphibian and Reptile Recording Scheme HSI guidance (based on the Oldham et al. methods) was used whereby a number of factors including pond size and location, proximity to other ponds, water quality, macrophyte cover and shading were assessed. A score is given to each water-body between 0 and 1, with scores closer to 0 having lower probability of GCN occurrence. Although the HSI cannot be used as confirmation of GCN presence or likely absence, it can be used as a guide to assess the habitat in terms of its potential to support GCN. It also provides useful information that can inform pond management and enhancement programmes.
- A3.5. The HSI classifications are provided below:
- < 0.5 Poor;
 - 0.5 – 0.59 Below average;
 - 0.6 – 0.69 Average;
 - 0.7 – 0.79 Good; and
 - ≥ 0.8 Excellent.

Results

- A3.6. The HSI calculations for each pond are shown in **Table A3.1** and **Table A3.2**, below:



Indices	Pond 1
Grid Reference	SU 99971 01652
Distance to Site	Adjacent
Photograph	
SI ₁ - Location	A
SI ₂ - Pond area	150m ²
SI ₃ - Pond drying	Never
SI ₄ - Water Quality	Moderate
SI ₅ - Shade	80%
SI ₆ - Waterfowl	Absent
SI ₇ - Fish	Possible
SI ₈ - Ponds	1 Pond
SI ₉ - Terrestrial habitat	Good
SI ₁₀ - Macrophyte cover	10%
HSI Score	0.65
HSI Classification	Average

Table A3.1: HSI Assessment Results (Pond P1)

Indices	Pond 2
Grid Reference	SU 99925 01663
Distance to Site	<25m
Photograph	
SI ₁ - Location	A
SI ₂ - Pond area	200m ²
SI ₃ - Pond drying	Never
SI ₄ - Water Quality	Moderate
SI ₅ - Shade	90%
SI ₆ - Waterfowl	Absent
SI ₇ - Fish	Possible
SI ₈ - Ponds	1 Pond
SI ₉ - Terrestrial habitat	Good
SI ₁₀ - Macrophyte cover	10%
HSI Score	0.64
HSI Classification	Average

Table A3.1: HSI Assessment Results (Pond P2)

Plans

Site Location Plan by Hunters M9316/APL001

M9316_APL001_Site Location Plan_Bairds Farm_1-1250@A3

Habitat Features & Preliminary Bat Roost Assessment Plan 11423/P10a

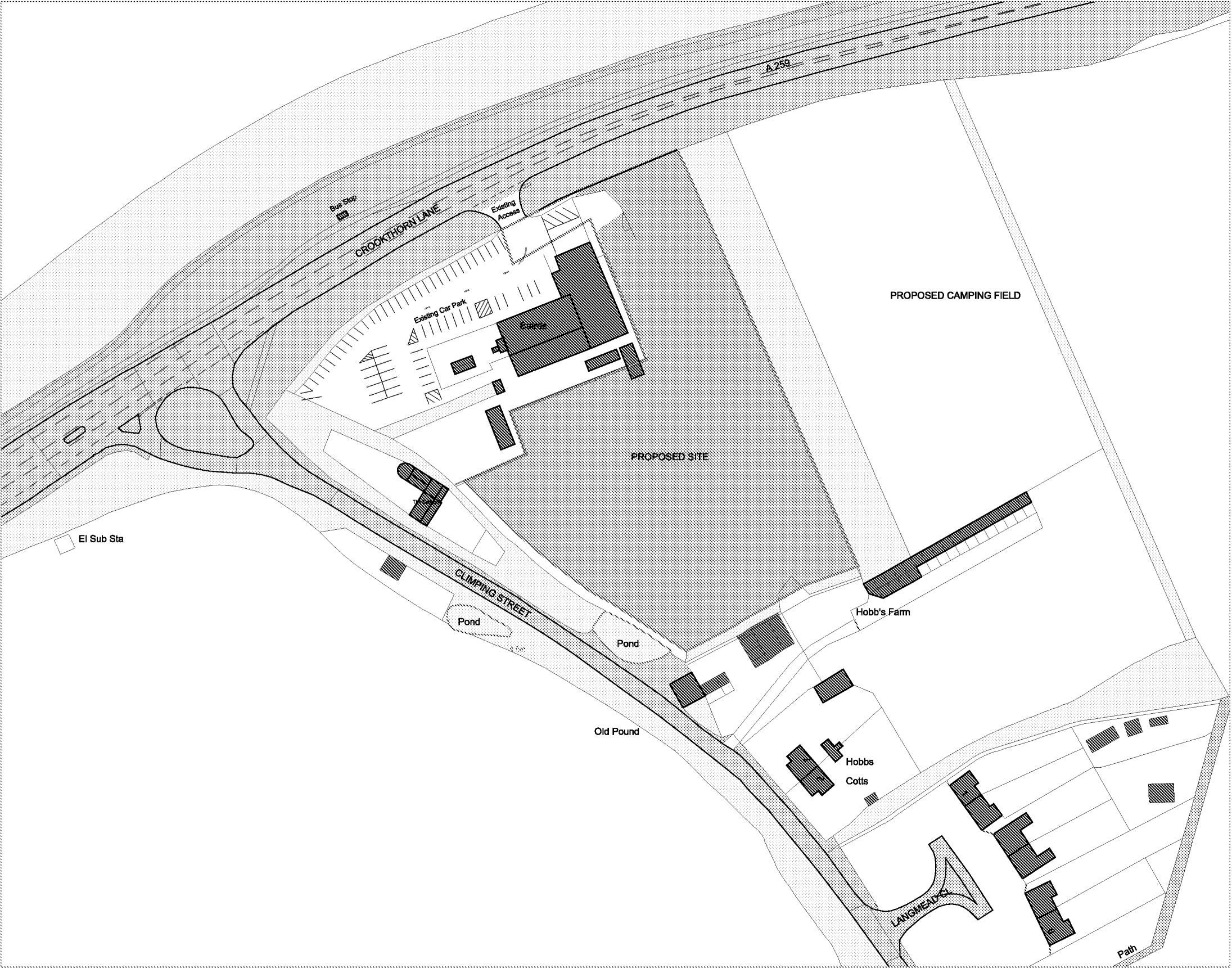
11423_P10a_Habitat Features & Preliminary Bat Roost Assessment Plan_140318_MB

Proposed Site Plan by Hunters M9316/APL003

M9316_APL003_Proposed Site Plan_Bairds Farm_1-200@A0

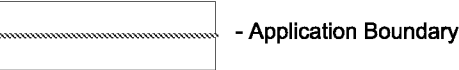


Bairds Care Home, Littlehampton
Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment
11423_R02d_9 May 2018_MB_AL

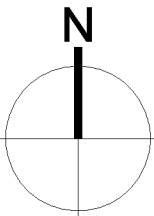


Application Site Address:

Baird's Farm
Crookthorn Lane
Climping
Littlehampton
BN17 5SN



Revision

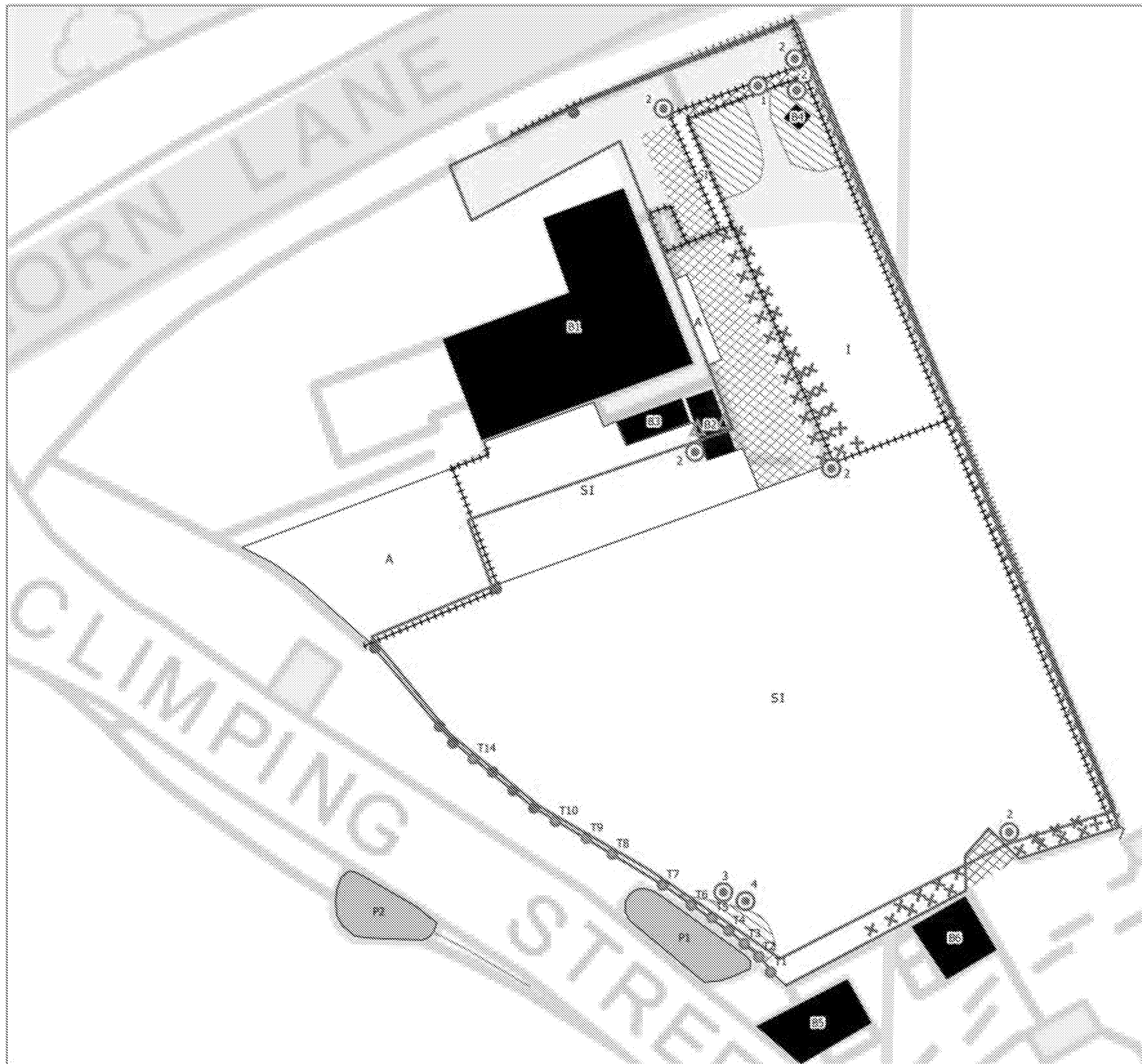


project name: **DEMENTIA CARE CENTRE, CLIMPING**
drawing reference: **LAND TO THE REAR OF BAIRDS FARM SHOP**
SITE LOCATION PLAN
job number: **M9316**
status: **PLANNING**
cad ref: **M9316_APL001_Site Location Plan_Bairds Farm_1-1250.dwg**

date: **MAY 2018**
sheet: **1:1250@A3**
scale: **1:1250@A3**
drawing number: **APL001**
revision:
drawn: **JW**
checked:

Use figured dimensions only. All levels and dimensions to be checked on site. This drawing is to be read in conjunction with all other relevant drawings and specifications. Hunters is a trading name of Hunter & Partners Limited. © Hunter & Partners Limited. All rights reserved.

hunters
Space One Beadon Road
London W6 0EA
T 020 8237 8200
F 020 8741 2814
mail@hunters.co.uk
www.hunters.co.uk



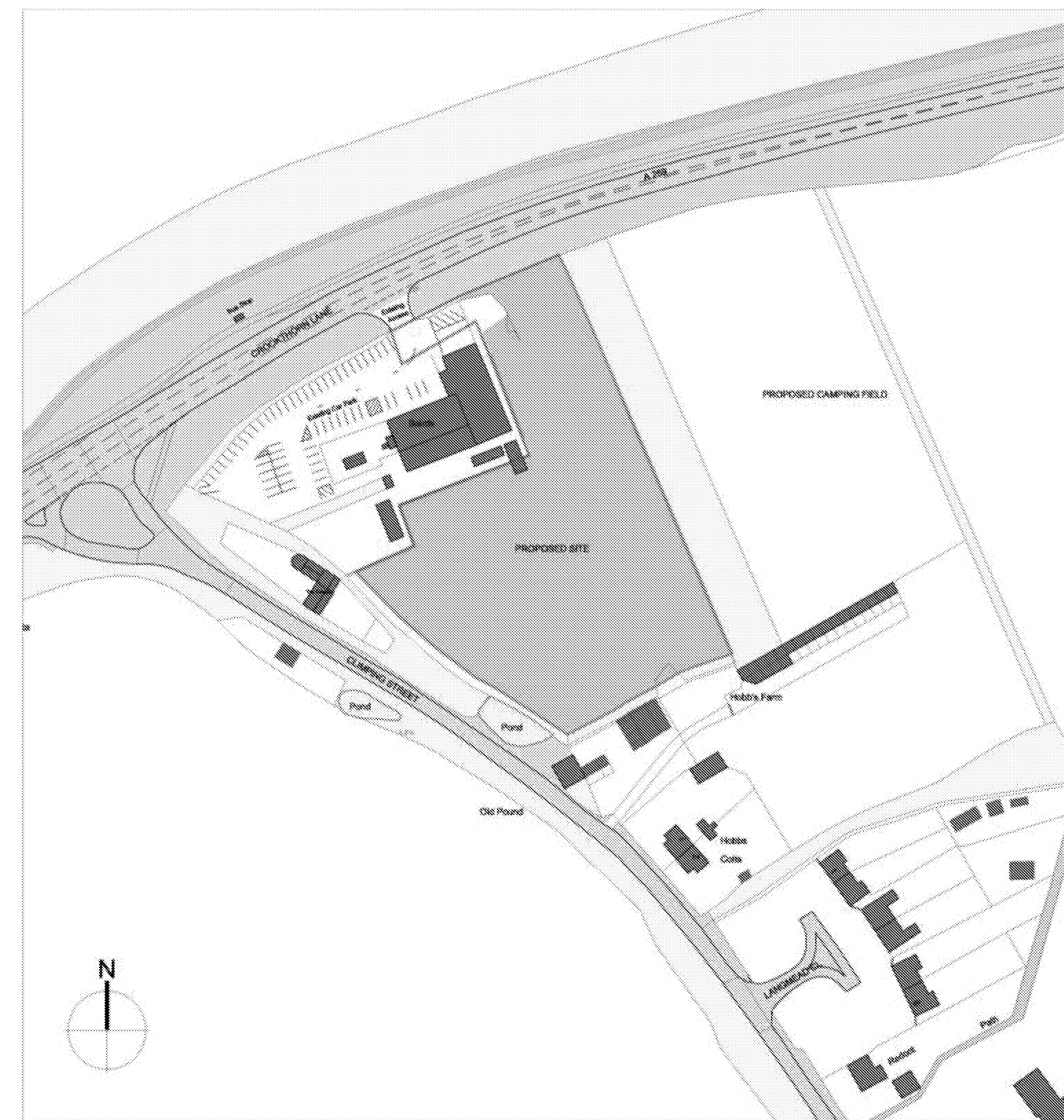
- Site boundary
- Target note
- Gap behind roof fascia
- Tree with low roosting potential
- Arable
- Bare ground
- Building
- Ephemeral/short perennial
- Fence
- Improved grassland
- Native species-rich hedge
- Native species-rich hedge and trees
- Pond
- Poor semi-improved grassland
- Scattered broad-leaved trees
- Scattered scrub
- Scrub
- Species-poor hedge
- Species-poor hedge and trees
- Tall ruderal
- Treeline
- Wet ditch



Project Balde Farm Care Home, Littlehampton
 Drawing Title **Habitat features & Preliminary Bat Roost Assessment Plan**
 Scale As Shown (Approximate)
 Drawing No. 11423_P10
 Date March 2018
 Checked MB/SC/NL

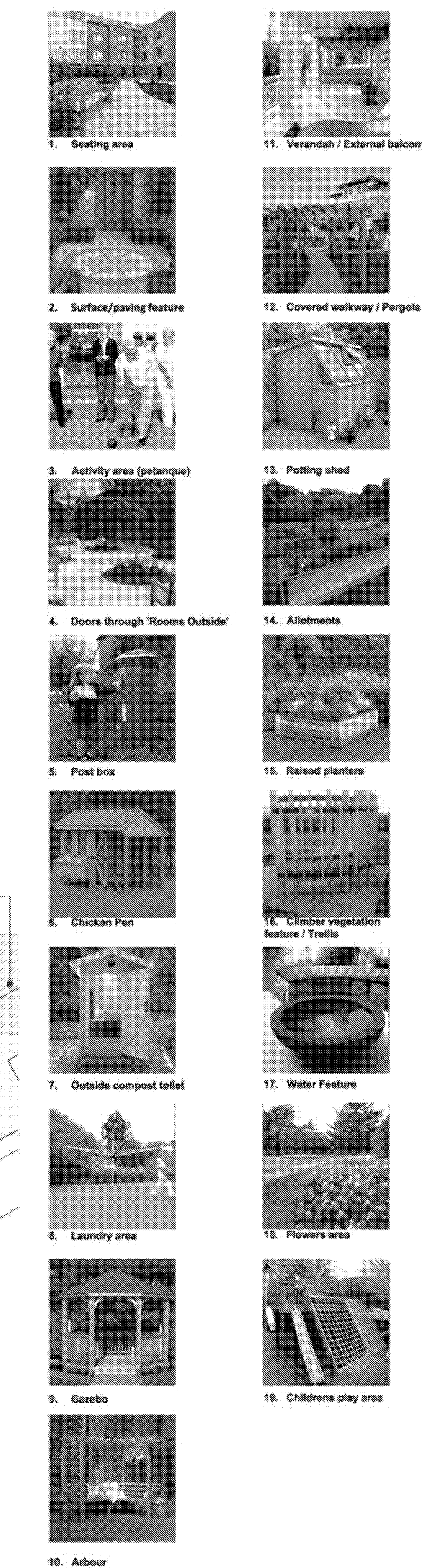


Tyler Grange, 40 Woburn Street, London, SE1 8UG
 T: 0201 400 0710 E: info@tylergrange.co.uk W: www.tylergrange.co.uk



SITE LOCATION PLAN 1:1250

DEMENTIA GARDEN FEATURES



Legend:

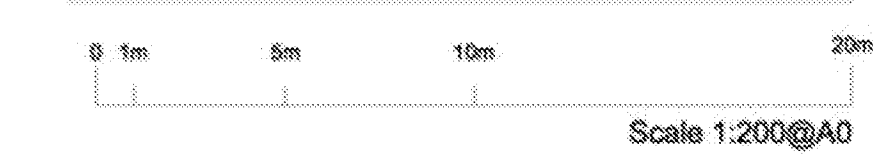
- 1800mm high close boarded fence with 400mm trellis over
- 1500mm high metal railings
- 1500mm metal railing with hedge
- Raised Allotments planters
- Amenity Grass
- Raised planter
- Mixed species hedgerows
- Shrubs / Bedding Plant
- Informal Meadow Grass
- Herringbone block paving parking and resin coloured smooth paving path flush with concrete edging
- Path / Resident terrace with 450 x 450mm flush paving
- M.O.E pedestrian path: Macadam smooth surface finish flush with concrete edging
- Vehicular Access / Activity Areas: Light Buff Coloured Asphalt with concrete edging
- Childrens Play Area: Wet Pour Rubber Surface

1. Illustrative New Tree

2. Existing tree retained with Root Protection Zone

ACCOMMODATION SCHEDULE :

Residential Care Home Key:
Site Area (RED Boundary): 0.8427 Hectares
Total Number of Residential Care Beds: 64 No. Beds
Number of Parking: 28 (4 No. disabled)
Number of Cycle Spaces: 12 (6 No. Sheffield Stands)



BIODIVERSITY CHECKLIST

Please complete this form having regard to the Biodiversity Checklist Notes, which can be found at:
<http://www.arun.gov.uk/biodiversity-checklist>

If you tick Yes, you must provide supporting information/statement with the application. If you do not the application will be held as invalid until you do so.

Site Address/Application Reference Number:

Baird's Farm, Cookham Lane, Littlehampton
BN17 5SN

Bats

YES

NO

Has the site been surveyed for bats?

☐
☒

Are there any structures on site which have the potential to support roosting bats?

☐
☒

Structures with high potential include all agricultural buildings, buildings with weather boarding, tunnels, mines, ice houses, bridges, cliff faces with crevices and woodland. Further guidance can be found in 'Bat Surveys: Good Practice Guidelines' available from www.bats.org.uk and the Bat Mitigation Guidelines available from:

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/bats.aspx>

Are there any trees on the site which have the potential to support roosting bats?*

☒
☐

Trees with high potential to support roosting bats include old and veteran trees and any tree with cracks or crevices. Where appropriate, foraging and commuting routes should be incorporated into the design of the scheme. Further guidance can be found in 'Bat Surveys: Good Practice Guidelines'.

Barn Owls

YES

NO

Has the site been surveyed for barn owls?*

☐
☒

Is there any evidence of barn owls nesting on or near the site or are there suitable nesting areas on the development site?*

☐
☒

Barn owls often nest in farm buildings, dovecotes, bale stacks, hollow trees and a wide variety of derelict buildings. Barn owls require habitat which supports high number of small mammals including pasture, hedgerows and woodland. Further information can be found at <https://www.gov.uk/guidance/construction-near-protected-areas-and-wildlife>

Breeding birds

YES

NO

Has the site been surveyed for breeding birds?*

☐
☒

Will areas of hedgerow/scrub/woodland/trees or other features likely to be used by nesting birds be affected by the proposal?*

☒
☐

If 'Yes' then mitigation measures to ensure occupied nests are protected should be included with the application.

Badgers

YES

NO

Has the site been surveyed for badgers?*

☐
☒

Is there any evidence of badgers on or near the application site?*

☐
☒

Are badgers commuting through the site to foraging areas?*

☐
☒

Badgers use a wide variety of habitats and setts can be found in hedgerows, woodlands, scrub and field margins. Where appropriate, safe routes to foraging areas should be incorporated into the development proposals. Further information can be found in 'Badgers and Development' available at:

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/badgers.aspx>

Updated 11/05/16

	YES	NO
Dormice		
Has the site been surveyed for dormice?*	☐	☒
Is there suitable habitat for dormice on, or close to the application site?*	☐	☒
Dormice are found in a variety of habitats including ancient semi-natural woodland, scrub, young plantations (both broadleaved and coniferous) and hedgerows. Occasionally they are recorded in gorse scrub, heathland and alder trees in reedbeds.		
https://www.gov.uk/guidance/hazel-dormice-protection-surveys-and-licences		

	YES	NO
Great crested newts		
Has the site been surveyed for great crested newts?*	☐	☒
Is there suitable habitat for great crested newts on, or close to the application site?*	☒	☐
Great crested newts are often recorded in ponds, reedbeds, ditches and mineral workings. Terrestrial habitat used by newts is varied and includes semi-natural grassland, woodland, hedgerows and pasture and are often found in urban sites including gardens. Further guidance on great crested newts can be found in the Great Crested Newt Mitigation Guidelines from:		
https://www.gov.uk/guidance/great-crested-newts-protection-surveys-and-licences		

	YES	NO
Reptiles		
Has the site been surveyed for reptiles?*	☐	☒
Is there suitable habitat on the site for reptiles?*	☒	☐
Reptiles use a variety of habitats including rough grassland, heathland, allotments, scrub, brownfield sites, field margins and abandoned gardens. Further information can be found at:		
https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences		