



ECOLOGICAL IMPACT ASSESSMENT

Brookview Nursery, Eastergate Lane, Walberton

On Behalf of: Mr P. Sowden

Planning Issue

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SUMMARY

Lizard Landscape Design and Ecology has been commissioned to undertake an Ecological Impact Assessment of land at Brookview Nursery, Eastergate Lane, Walberton (*Centred on Grid Reference: SU 96020 06041 – hereafter referred to as 'the site'*).

A preliminary ecological appraisal (*PEA*) and Bat Roost Assessment (*BRA*) was undertaken on the 31st August 2021, to appraise the existing ecological resource within the land and the surrounding area. This baseline data was then used to produce an ecological impact assessment.

No further surveys for protected species were recommended, as no suitable habitat for protected species will be affected as part of the proposals.

The existing site is formed predominantly of hard standing made of concrete and gravel. In the southern and northern most areas are small patches of amenity grassland. The southernmost patch is surrounded by a moderate sized area of dense tall ruderal vegetation which thins towards the site boundaries. Running along the southern half of the eastern and western boundary lines as well as the southern boundary line are a mix of trees of varying age and value. A biodiversity corridor, Wandleys Copse, which is designated within the Walberton Neighborhood Plan (*Policy VE10 2020 Biodiversity Corridors NEW*) runs along the western and southern site boundary.

No impact will be had on the Singleton and Cocking Tunnels SAC. No flight lies or commuting corridors for bats will be affected by the proposals.

Once avoidance and mitigation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible, non-significant** with proposed ecological enhancements resulting in a **net gain** and a **long-term positive increase** in biodiversity in line with national planning policy guidance.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned by Mr P. Sowden to undertake an Ecological Impact Assessment of land at Brookview Nursery, Eastergate Lane, Walberton (*Centred on Grid Reference: SU 96020 06041 – hereafter referred to as ‘the site’*).
- 1.2 A Preliminary Ecological Appraisal (*PEA*) was undertaken on the 31st August 2021, to appraise the existing ecological resource within the land and the surrounding area. The *PEA* comprised a baseline survey conforming broadly to the *JNCC Ecology Phase 1 Habitat Survey* protocol, to identify the existing habitats. In addition, a protected species assessment was undertaken to identify the potential for European and nationally protected species within and adjacent to the site. A full EclA was then undertaken using the baseline data.
- 1.3 A summary of the results and potential impacts of the proposals, and details of avoidance, mitigation and compensation measures have been detailed within this report. This report has been prepared by Alex Rosenfeld (*Assistant ecologist; Lizard Landscape Design and Ecology*). The report has been reviewed by George Sayer (*Senior Ecologist; MCIEEM; Lizard Landscape Design and Ecology*).

Site Information

- 1.4 The survey area covers c. 0.6 (ha). The existing site is formed predominantly of hard standing made of concrete and gravel. In the southern and northern most areas are small patches of amenity grassland. The southernmost patch is surrounded by moderate sized area of dense tall ruderal vegetation which thins towards the site boundaries. Running along the southern half of the eastern and western boundary lines as well as the southern boundary line are a mix of trees of varying age and value. A biodiversity corridor, Wandleys Copse, which is designated within the Walberton Neighborhood Plan (*Policy VE10 2020 Biodiversity Corridors NEW*) runs along the western and southern site boundary.

- 1.5 The site is located immediately south of Eastergate Lane on the western edge of the village of Walberton. The site is surrounded by low sward height improved grassland used for grazing to the south and east. To the west is a plant nursery covered solely in concrete hardstanding.

Surrounding Landscape

- 1.6 The site is located on the western edge of the village of Walberton and in the immediate area surrounded by agricultural fields predominantly used for grazing. In the wider area are a small number of villages in the form of Fontwell located 1km to the west, Barnham, located 1km to the south and Slindon Common located 1.6km to the northwest. The A27 is located 0.8km to the northeast of the site.
- 1.7 Within 250 metres of the site is a single small pond located 225 metres to the west and has an area of 250 sq. Meters. Three further ponds are located within a 500metre radius of the site. The ponds are found 275 meters to the southwest, 307 meters to the east and 337 meters to the south.

Development Proposals

- 1.8 The proposals include the development of new commercial units within the site area.

Aims and Objectives

- 1.9 The aim of this ecological appraisal survey has been:
- *To identify habitats and protected species present, and any other features of ecological value;*
 - *Identify any potential ecological constraints;*
 - *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures.*
 - *To provide suggestions for enhancements to be incorporated into the scheme.*

2.0 PLANNING POLICY AND LEGISLATION

Legislation

2.1 Legislation relating to wildlife and biodiversity of particular relevance to this EclA includes:

- *The Conservation of Habitats and Species Regulations 2017;*
- *The Wildlife and Countryside Act 1981 (as amended);*
- *The Natural Environment and Rural Communities (NERC) Act 2006;*

2.2 This above legislation has been addressed, as appropriate, in the production of this report.

National Planning Policy

2.3 The National Planning Policy Framework (NPPF) 2021 sets out the government planning policies for England and how they should be applied. '*Chapter 15: Conserving and Enhancing the Natural Environment*' states that development should be '*minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.*'

2.4 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

2.5 The Arun District Local Plan (adopted 2018) Policy ENV DM5 (Development and biodiversity) states:

- *Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing 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.*

Policy ENV DM3 (Biodiversity Opportunity Areas) states:

- *Development shall: Retain and sympathetically incorporate locally valued and important habitats, including wildlife corridors and steppingstones.*
- *Be designed in order to minimise disturbance to habitats.*
- *Development proposals that do not reasonably address opportunities for enhancing these 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 will be proposed as part of the proposed scheme and such measures agreed with the Local Planning Authority prior to the determination of any planning application. Within Biodiversity Opportunity Areas (BOAs) identified on the Policies Maps or where 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 impact(s) that development may have on the BOA.*

3.0 METHODOLOGY

3.1 Desk Study

- 3.1.1 The Multi-Agency Geographic Information for the Countryside (*MAGIC*) was consulted for all designated sites, priority habitats and protected species licence records within 2.0km of the site. The desk search was conducted on the 1st September 2021. Due to the small scale of the proposals a full data search was not considered proportionate.

3.2 Field Survey

- 3.2.1 A preliminary ecological appraisal was undertaken on the 31st August 2021 and the site subjected to an ecology survey using guidelines set out in the *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit (JNCC, 2010)*. This has resulted in a Site Habitat Plan (*Figure No. 01*) and Species Lists for Habitat Parcels (*Table No. 04*).
- 3.2.2 Habitats within the land were classified and the presence, or potential presence, of certain protected and / or notable species of flora and fauna were identified. This involved identifying features that may be used by protected species, potential foraging areas and other signs of use. Water bodies were recorded wherever possible, within 500m of the proposed development site.
- 3.2.3 Due to the field survey consisting of only one site visit, certain species, particularly some of the flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of the survey and hence overlooked. These are accepted constraints associated with the standard *Phase 1 Habitat Survey Methodology*.
- 3.2.4 The results are summarised and accompanied in large part by photographic evidence contained in *Appendix A – Site Photographs*.

Preliminary Bat Roost Assessment

- 3.2.5 A Preliminary Bat Roost Assessment was undertaken on 31 August 2021 by an experienced, bat surveyor who undertook an internal and external assessment of all buildings and a ground floor assessment of all trees within and around the proposed construction zone.
- 3.2.6 The bat surveyor assessed the existing buildings visually and searched for evidence such as:
- Grease Marks;
 - Urine Stains;
 - Bat Droppings;
 - Feeding Remains;
 - Dead or Live Bats.
- 3.2.7 Trees were visually identified from the ground, using binoculars where necessary, for features that could be used by bats such as:
- Woodpecker Holes;
 - Knot Holes;
 - Tear-outs;
 - Flush Cuts;
 - Double Leaders.
- 3.2.8 Once features had been assessed the trees were then categorised in accordance with *Table 4.1 of the Bat Conservation Trust's Good Survey Guidelines (2016)*:

Table No. 01 – Categorisation Criteria

Category	Buildings	Trees
Negligible	<i>No suitable features identified.</i>	<i>No suitable features identified.</i>
Low	<i>A structure which could be used opportunistically, however, are not likely to be used on a regular basis / by a large number of bats.</i>	<i>Tree of sufficient size / age to support bat roost features; but with none identified from the ground.</i>
Moderate	<i>A building with features which, could be used regularly by a small number of bats.</i>	<i>Tree with features which, may support a bat roost of low conservation status.</i>
High	<i>A building with features suitable for use by a large number of bats on a regular basis.</i>	<i>A tree with several potential bat roost sites that are suitable for use by a large number of bats.</i>

3.3 Ecological Impact Assessment

3.3.1 The methodology for Ecological Impact Assessment (EcIA) follows best practice guidelines set by the Chartered Institute of Ecology & Environmental Management (CIEEM): 'Guidelines for Ecological Impact Assessment' (CIEEM, 2018). This includes identifying the baseline conditions on the site and subsequently rating the potential effects of the development based on the sensitivity and value of the resource affected, combined with the magnitude, duration and scale of the impact (or change). This is initially assessed without mitigation measures, and then assessed again after allowing for the proposed mitigation measures; this provides the residual effects. The assessment is divided into construction effects and longer-term operational effects.

3.3.2 Each ecological feature within the site has been considered within a defined Geographic context such as:

- *International and European*
- *National*
- *Regional*
- *County*
- *District*
- *Local*
- *Site Level*

- *Negligible*

3.3.3 Based upon CIEEM guidance, value was determined with reference to the following factors:

- *Its inclusion as a Designated Site or other protected area;*
- *The presence of habitat types of conservation significance, e.g. Habitats of Principal Importance (NERC 2006);*
- *The presence (or potential presence) of species of conservation significance e.g. Species of Principal Importance (NERC 2006);*
- *The presence of other protected species e.g. those protected under The Wildlife and Countryside Act 1981;*
- *The sites social and economic value.*

3.3.4 The ecological impacts resulting from the proposals were then described according to a defined set of characteristics as defined within ‘*Guidelines for Ecological Impact Assessment in the UK and Ireland*’ (CIEEM, 2018). This assessment considers residual impacts (once all mitigation has been taken into account), with any significant effects highlighted. A significant effect is defined as “*an effect which either supports or undermines biodiversity conservation objectives for ‘important ecological features’ or for biodiversity in general*”.

3.3.5 The confidence that a certain activity will result in a significant adverse effect has been ranked as follows:

- *Highly probable;*
- *Probable;*
- *Unlikely;*
- *Highly unlikely;*

3.3.6 Where initial impacts have been identified as significant, avoidance, mitigation and compensation measures have been proposed to avoid, prevent or offset such effects. Enhancement has been proposed to ensure that the development represents a net gain in biodiversity in accordance with National Policy.

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 Designated Sites

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

Statutory Protected Sites

- 4.1.2 The following potential zones of influence have been utilised when identifying designated sites in the local area: Local Nature Reserves, National Nature Reserves and Sites of Special Scientific Interest (*within 2.0km of the site*) and European Designated sites including SAC's and SPA's (*within 10km of the site*). Statutory protected areas in the vicinity of the site include:

Table No. 02 – Statutory Protected Sites

Site	Reason for Designation	Location
South Downs National Park	The South Downs National Park covers the chalk hills of the South Downs and is designated for its important chalk grassland and heavily wooded sandstone and clay hills and vales.	1.08km N
Singleton and Cocking Tunnels SAC, SSSI	Designated as the site supports nationally important numbers of 1308 barbastelle (<i>Barbastella barbastellus</i>) and 1323 bechsteins bat (<i>Myotis bechteminii</i>)	11.7km NW

- 4.1.3 The site is within the *Impact Risk Zones (IRZ)* of Fairmile Bottom SSSI (located 3.2km NE) and *Bognor Reef SSSI* (located 7.6 KM SW). Due to the nature of the development, the LPA will not have to consult with Natural England.

Non-Statutory Protected Areas

- 4.1.4 *Sites of Nature Conservation Importance (SNCIs)* are designations applied to the most important non-statutory nature conservation sites. They are recognised by the *National Planning Policy Framework (2019)* and as such are material considerations when assessing planning applications. There are no conservation areas within 2km. The nearest are outlined below.

Table No. 03 – Non-Statutory Protected Sites

Name	Distance
<i>Slindon Wood SNCI</i>	<i>1.35km NW</i>
<i>Fontwell Racecourse SNCI</i>	<i>1.37km W</i>
<i>Rewell, Danes, Binsted, Dalesdown and Screens Wood SNCI</i>	<i>1.79km NW</i>

4.2 Habitats

- 4.2.1 Within 2.0 kilometres of the site there are Priority Habitats of Lowland Fens, Lowland Meadows, Deciduous Woodland, Traditional Orchards and Woodpasture and Parkland. The nearest priority habitat to the site is Lowland fens. The habitats found onsite are distinctly separate from this priority habitat and the development will not interfere with any priority habitats.

- 4.2.2 Habitats within and adjacent to the site include:

- *Amenity Grassland;*
- *Existing Buildings;*
- *Hardstanding;*
- *Intact Species Poor Hedgerow;*
- *Tall Ruderal Vegetation;*
- *Dry Ditch;*
- *Existing Trees*

Amenity Grassland

- 4.2.3 In the north of the site is an area of amenity grassland by the entrance to the site next to Eastergate lane. This small section appeared well maintained by regular mowing. Species found include perennial ryegrass (*Lolium perenne*) and annual meadow grass (*Poa annua*). In the south of the site is a section of amenity grassland measuring approximately 360 meters Sq. This area is less well maintained with a taller sward height than that of the amenity grassland in the north of the site (see photograph 01 in Appendix A). This habitat is of **site value only**.

Existing Buildings

- 4.2.4 Scattered around the site are a number of buildings and storage containers used as workshops. The buildings are all of metal construction and no loft/roof spaces existed. A small number of metal shipping containers were also noted. This habitat is of **negligible value**.

Hardstanding

- 4.2.5 The majority of the site is covered in hard standing of gravel and concrete construction used partly for car parking, storage (see photograph 02 in Appendix A). This habitat is of **negligible value**.

Intact Species-Poor Hedgerow

- 4.2.6 At the entrance to the site is a beech (*Fagus sylvatica*) hedgerow (See photograph 03 in Appendix A). As the hedgerow is under 20 meters long, it does not qualify as a priority habitat. Within the site running down a section of the eastern boundary is a species poor hedgerow consisting predominantly of privet (*Ligustrum sp.*) and occasional Silverberry (*Elaeagnus sp.*). This habitat is of **site value only**.

Tall ruderal

- 4.2.7 Towards the back of the site in the south is an area of dense ruderal vegetation surrounding the amenity grassland (see photograph 04 in Appendix A). This area is thick with vegetation and species found including thistle (*Cirsium sp.*), teasle (*Dipsacus fullonum*), common catsear (*Hypochaeris radicata*) and bristly oxtongue (*Helminthotheca echioides*). The vegetation is thicker at the centre and thins towards the site boundaries. This habitat is of **site value only**.

Dry Ditch

- 4.2.8 Along the western and southern perimeter boundary runs a dry ditch with scattered ruderal vegetation which is designated as a biodiversity corridor (See photograph 05 in Appendix A). A low number of rabbit holes were noted at the southern boundary. Vegetation consisted primarily of ivy and young brambles (*Rubus fruticosus agg.*) with areas of red deadnettle (*Lamium purpureum*). Proposals will avoid impact on this and enhance it. This habitat is of **local value**.

Existing Trees

- 4.2.9 Along the southern half of the western boundary ran a line of mature poplars (*Populus sp.*) which all appeared to be in good condition with limited deadwood (see photograph 06 in Appendix A). Along the base of the poplars ran a screen of young ash (*Fraxinus excelsior*) which appeared to lack vigour. Interspersed were single hawthorn (*Crataegus monogyna*) and oak (*Quercus robur*). This habitat is of **site value only**.
- 4.2.10 Along the southern half of the eastern boundary ran a line of immature trees acting as a screen to the neighbouring property. These were low in vigour with some appearing to be dying and are scheduled to be removed. Species include rowan (*Sorbus aucuparia*) and fir (*Abies sp.*).
- 4.2.11 Along the southern boundary was a mix of ash, sycamore (*Acer pseudoplatanus*) poplar and oak. These trees appeared to be in good condition with varying degrees of maturity.

4.3 Protected Species Assessment

Amphibians

Desk Study

- 4.3.1 No records of great crested newt have been recorded within a 2km radius of the site. The only amphibian records within a 2km radius of the site consist of smooth newt (*Lissotriton vulgaris*), common frog (*Rana temporaria*) and common toad (*Bufo bufo*). Anecdotal evidence also shows that there are good numbers of great crested newts present within the surrounds of Binsted Wood.

Site Assessment

- 4.3.2 Within 250 metres of the site is a single small pond located 225 metres to the west and has an area of 250 sq. Meters. Three further ponds are located within a 500metre radius of the site. The ponds are found 275 meters to the southwest, 307 meters to the east and 337 meters to the south.
- 4.3.3 No ponds area found onsite. Due to the nature of the majority of the site (hard standing) it does not present good opportunities for commuting amphibians. The ruderal vegetation at the south of the site may provide some potential for amphibians to commute. However, due to the nature of the surrounding land parcels (improved grassland with low sward height used for grazing) to the south and east and hard standing to the west there is very little opportunity for commuting across the wider area. In addition, there are no records of great crested newt within a 2 km radius. Therefore, it is thought the site is of 'negligible' value to amphibians in particular great crested newts and this species group will not be considered further in this report.

Reptiles*Desk Study*

- 4.3.4 Very limited numbers of slow worm (*Anguis fragilis*), adder (*Vipera berus*) and common lizard (*Zootoca vivipara*) have been recorded within a 2km radius of the site.

Site Assessment

- 4.3.5 The majority of the site consisting of hardstanding provides extensive basking opportunities. The ruderal vegetation in the south of the site provided good habitat for reptiles to commute and forage. However as this is limited in size and isolated the site is considered to have a 'low' potential to support reptiles.

Bats*Desk Study*

- 4.3.6 Records of bats are numerous, with species noted including Common Pipistrelle and soprano pipistrelle (*Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*), Daubenton's (*Myotis daubentonii*), Natterer's Bat (*Myotis nattereri*), Western Barbastelle (*Barbastella barbastellus*) and Whiskered/Brandt's Bat (*Myotis mystacinus/brandtii*) all of which have been recorded within 5.0km of the site area.

Site Assessment

- 4.3.7 The body of the site provides no foraging potential due to its nature (hard standing and amenity grassland). However, the perimeter trees and hedgerows provide good foraging habitat, these trees are relatively open and isolated. Therefore, they are mainly of value to light tolerant species. The tree line acted as a potential commuting corridor for bats. No potential bat roosting features were noted within the trees, generally the trees were too young, with no cracked bark or had a bark structure which was not conducive to bats roosting. The areas of ivy were not considered dense enough to support roosting bats. No areas of cracked or flaking bark were seen. Due to the size of some of the trees, it was not possible to gain a full view of the upper reaches, therefore small areas suitable for roosting may have been missed. The large poplar trees are therefore considered to offer 'low' bat roost potential.
- 4.3.8 Due to the nature of the buildings being of metal construction with no roof space there were no opportunities for bats to roost. Overall, the site had a 'negligible' potential to support roosting bats within the trees and a 'moderate' potential to support foraging and commuting bats.

Dormouse*Desk Study*

- 4.3.9 Numerous records of dormouse exist within 2km of the site. Hazel Dormice are protected under *The Wildlife and Countryside Act 1981 (as amended)* through their inclusion on *Schedule 5 and The Conservation of Habitats and Species Regulations 2017*.

Site Assessment

- 4.3.10 Connectivity is low across the site due to the gaps between sections of hedgerows and space between some of the trees. The nearest area of woodland is located approximately 435 meters to the northwest and is cut off from the site. Overall, the site provides a 'low' potential for dormice to commute and a 'negligible' potential for dormouse to breed. It is considered highly unlikely that dormice would be encountered during the proposals.

Badger*Desk Study*

- 4.3.11 There are numerous records of badger (*Meles meles*) within a 2km radius of the site.

Site Assessment

- 4.3.12 During the survey no signs of badger were noted including setts, fur caught on fencing and latrines were found. The hard standing covering the majority of the site provided no suitable habitat for badgers. The amenity grassland and ruderal vegetation in the south of the site provide limited foraging opportunities, and some limited potential for sett building within the dry ditch. The dry ditch which may act as a commuting corridor connects the site to other areas of foraging and potential breeding ground to the south of the site. Overall, the site is of 'low' value to foraging badgers and 'low' value to breeding badgers.

Water Vole

- 4.3.13 Although no records of water vole are present within a 2km radius of the site, they are known to be present in many of the ditches within the Binsted area.
- 4.3.14 The ditch which was dry on inspection provides no suitability for water vole. No reeds or marginal vegetation was present, the only vegetation being predominantly ivy with areas of bramble. The shallow angled banks and lack of streams or wet ditches within a 500-meter radius further reduce the potential for water vole to be present due to poor connectivity. No signs of water vole were noted, including feeding signs, faeces, vegetation runs or burrows. Therefore, this species group will not be considered further in the report.

Other Mammals

- 4.3.15 Numerous records of common mammals including rabbit (*Oryctolagus cuniculus*) have been reported within a 2km radius. A low number of holes believed to be used by rabbit were noted within the dry ditch at the southern end of the site. No holes that are considered suitable for fox or badger were seen.

Birds*Desk Study*

- 4.3.16 A total of 191 no. bird species have been returned within 2.0km of the site, including a number of *Schedule 1* species and species listed on the *BoCC Red List* such as Lesser Redpoll, Yellowhammer and Barn Owl; as well as *BoCC Amber List* species including Nightjar.

Site Assessment

- 4.3.17 The bulk of the site provides no nesting potential for birds, with opportunities limited to the surrounding hedgerows and tree lines. There is also a very low potential for nesting birds within the tall ruderal vegetation. Foraging opportunities presented themselves within the amenity grassland and along the tree lines. Overall, the site had a 'moderate' potential for nesting birds and a 'moderate' potential for foraging birds.

Invertebrates*Desk Study*

- 4.3.18 The data search returned records of numerous species of invertebrates within 2.0km of the site including stag beetle (*Lucanus cervus*).

Site Assessment

- 4.3.19 The habitats are limited in extent and diversity so therefore likely only support for common species. The tall ruderal is unlikely to be sufficiently large to support large populations of invertebrates such as butterflies and moths.

Others

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

4.4 Survey Constraints / Considerations

- 4.4.1 No major constraints which would cast doubt on these results were encountered, full access was available to all areas of the site.

5.0 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES

5.1 Designated Sites

Potential Impacts

- 5.1.1 The nearest designated site is the South Downs National Park located 1.08km to the north. Due to the nature of the proposals being minor in magnitude and affecting predominantly areas of hard standing and some low value trees it is thought the impacts will be minor in magnitude. No other European designated protected sites are to be affected.
- 5.1.2 The nearest non-statutory site is Slindon Wood SNCI located 1.35km to the northwest. Due to the intervening distance and disparity of habitats between the protected site and the construction site, it is thought no impacts will be had.
- 5.1.3 Singleton and Cocking Tunnels SAC located 11.7km to the northwest, designated for supporting nationally important numbers of barbastelle and Bechstein's bat will not be affected in any way during the course of Construction. No major impacts are predicted to bats as commuting routes along the site boundaries will not be affected and flight lines will be maintained. A number of low value trees are to be removed during the course of works.

Mitigation and Compensation

- 5.1.4 Lighting proposals will be designed to comply with BCT/ILP Guidance Note. 08/18.
- 5.1.5 A number of trees and native shrubs will be planted along the site boundary to replace those lost which will uphold and strengthen the foraging value of the site and maintain all flight lines for bats.

Residual Impacts

- 5.1.4 **No likely significant effect** upon surrounding European designated sites will arise from the proposed development.

5.2 Habitats*Potential Impacts*

- 5.2.1 Development will result in the loss of some low value trees along the site boundary. The trees to be removed are of little ecological importance. As part of the scheme the mature, more high value trees are to be retained. Given the scale of the development the potential impacts would be of minor impact magnitude.
- 5.2.2 No impacts will be had upon the biodiversity corridor which runs down the western and southern boundaries of the site.

Mitigation and Compensation

- 5.2.3 All construction will be undertaken in accordance with best practice guidelines with regards to control of dust, noise and emissions. All light spill onto surrounding hedge lines will be avoided. Storage of fuel etc during the construction phase will be avoided adjacent to hedge rows and trees.
- 5.2.4 Trees shall be retained and protected where possible in accordance with BS:5837. A full tree package accompanies this application.
- 5.2.5 To compensate for the removal of trees, new native hedgerows and trees will be planted within the scheme including fruit and/or berry producing shrubs along the biodiversity corridor running along the western and southern site boundary.

Residual Impacts

- 5.2.6 Once mitigation is taken into account, the impacts will be **negligible, non-significant**. New tree species of ecological value may increase the habitat value above the existing baseline.

5.3 Reptiles

Potential Impacts

- 5.3.1 In the absence of mitigation, impacts could include killing or injuring of common reptile species such as slow worm during vegetation clearance and site operations. The habitat offers 'low' potential and as such the impact would be unlikely to occur but of moderate magnitude.

Mitigation and Compensation

- 5.3.2 To ensure any reptiles onsite are kept safe and allowed to thrive the tall ruderal vegetation will be maintained in the southern area as far as possible and enhanced with log piles and hibernacula. Should the removal of any ruderal vegetation to the south of the site be necessary, it will be undertaken in stages. A first cut will reduce the vegetation to no less than 150mm and shall be cut directionally to encourage any reptiles present to disperse into suitable adjacent habitat. The area shall then be checked before a final cut reduces vegetation to <50mm. Following construction, boundary areas shall be planted with wildflower and hedges to compensate for lost reptile habitat.

Residual Impacts

- 5.3.3 The impacts will be negligible and **non-significant**.

5.4 Bats

Potential Impacts

- 5.4.1 In the absence of mitigation impacts may include habitat fragmentation and loss of foraging areas. Impacts would be of minor impact magnitude and unlikely to occur. Should any trees need to be felled there is a low potential for any bats present to be injured or killed as the onsite trees provided a 'low' bat roost potential, as a full view of the upper reaches of the trees was not possible during the ground floor inspection.

Mitigation and Compensation

- 5.4.2 Light spill onto the adjacent hedgerows and trees will be avoided to allow their continued use as commuting corridors and foraging areas. New hedgerows will be planted, and existing ones enhanced to maintain a foraging and commuting corridor.
- 5.4.3 To ensure no bats are injured during the felling of any trees, a 'soft fell' approach should be undertaken. Trees shall be section-felled under ecological supervision, with any cavities or crevices being inspected prior to removal and once on the ground. Should a bat be found, works shall cease whilst a course of action is determined.

Residual Impacts

- 5.4.4 The overall impact of the scheme will be **negligible**.

5.5 Dormouse*Potential Impacts*

- 5.5.1 In the absence of mitigation, impacts could include habitat fragmentation, habitat removal and disturbance through an inappropriate lighting scheme. The impacts would be of moderate magnitude but unlikely to occur.

Mitigation and Compensation

- 5.5.2 The hedgerows along the site boundary will be retained and enhanced. Significant lighting spill on the hedgerows will be avoided.

Residual Impacts

- 5.5.3 The overall impact of the scheme will be **negligible, non-significant**. Gapping up of the hedgerows may result in a small enhancement for dormice.

5.6 Badgers

Potential Impacts

- 5.6.1 In the absence of mitigation, impacts would include the trapping of badgers in footings/trenches, fragmentation of habitat and disruption of commuting corridors. Impacts would be of low impact magnitude and relatively unlikely to occur.

Mitigation and Compensation

- 5.6.2 Any trenches during the construction phase will be covered or have a ramp installed overnight to prevent any mammals becoming trapped. Commuting corridors around the margins of the site will be retained. The western and southern boundary will remain untouched and enhanced so should badgers be present; they will still have a means by which to move around the local area.

Residual Impacts

- 5.6.3 The overall impact of the scheme will be **negligible, non-significant**.

5.7 Breeding Birds

Potential Impacts

- 5.7.1 In the absence of avoidance / mitigation, the development could result in the damage / destruction of a bird nest and disturbance of foraging birds. Impacts would be of minor impact magnitude and unlikely to occur as ruderal vegetation and hedgerows will be retained.

Mitigation and Compensation

- 5.7.2 Clearance of any ruderal vegetation and removal of trees will be undertaken outside the bird nesting season (*season: March-August inclusive*). Should this not be possible, vegetation will be checked prior to removal by a Suitably Qualified Ecologist to ensure no active nests are present.

Residual Impacts

- 5.7.3 The overall impact of the scheme will be **negligible, non-significant**.

5.8 Invertebrates

Potential Impacts

- 5.8.1 The impacts will be limited as the majority of the vegetation on and around the site is to be retained. The removal of some trees will reduce foraging habitat. The impact is unlikely to be of more than low magnitude at the site level.

Mitigation and Compensation

- 5.8.2 The majority of the ruderal vegetation in the south of the site will be retained and new trees and hedgerows will be planted and enhanced to compensate for the loss of any vegetation that is removed.

Residual Impacts

- 5.8.3 The overall impact of the scheme will be **negligible, non-significant**.

6.0 ECOLOGICAL ENHANCEMENTS

6.1 The design of any proposed development should consider ecological enhancements for the benefit of wildlife in line with the *National Planning Policy Framework* and *Local Planning Policy*. Given the scale and nature of the site, significant enhancement is not viable or proportionate. Ecological enhancements which will be included as part of development proposals include:

- The use of night-scented species and pale flowers to increase bat foraging potential across site, such as evening primrose (*Oenothera fruticosa*); cornflower (*Centaurea cyanus*); knapweed (*Centaurea nigra*); yarrow (*Achillea millefolium*); honeysuckle (*Lonicera*); and lavenders (*Lavandula*);
- The provision of nesting boxes for a variety of bird species and the incorporation of open fronted areas / access holes to the northern aspect of buildings post construction to allow swallow access;
- Increased roost opportunities will be provided through the installation of bat boxes to the southern aspect of mature trees along the site boundary;
- Native fruit and nut producing species will be utilised within the scheme to increase the foraging resource for birds and mammals;
- A sensitive lighting scheme must be employed with the aim of reducing any potential light spill onto surrounding trees and hedgerows.
- New native species will be planted within the existing hedgerows.

7.0 CONCLUSIONS

- 7.1 The majority of the site consists of hard standing with areas of amenity grassland and tall ruderal vegetation. Along the perimeter of the site is a mix of trees and hedgerows of varying species, maturity and value.
- 7.2 During the survey reptile suitable habitat was found in the southern section of the site within the ruderal vegetation. In order to protect any reptiles present, this area of tall ruderal vegetation will be retained and enhanced with log piles and hibernacula.
- 7.3 The boundary line trees and hedgerows provide suitable habitat for foraging bats with no potential roosting features noted, however this doesn't rule out their existence. Should any trees need to be removed, they should 'soft felled' to ensure no bats are present prior to removal. No further habitat which supports other protected species was noted.
- 7.4 There will be no effect on any flight lines for bats along the site boundary and the development is predicted to have no impact on the Singleton and Cocking Tunnels SAC located 11.7km to the north west.
- 7.4 The boundary line hedgerows and tree lines will be enhanced to ensure any commuting animals have an ability to move freely along the perimeters of the site along the biodiversity corridor which will not be affected by proposals.
- 7.5 Once avoidance and mitigation measures have been taken into account, the impacts of the planned development upon biodiversity will be **negligible, non-significant** with proposed ecological enhancements resulting in a **net gain** and a **long-term positive increase** in biodiversity in line with national planning policy guidance.

8.0 REFERENCES

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Table No. 04 – Species List for Habitat Parcels

Amenity Grassland

Common Name	Scientific Name	DAFOR
Annual Meadow Grass	<i>Poa annua</i>	D
Broad leaved Dock	<i>Rumex obtusifolius</i>	O
Daisy	<i>Bellis perennis</i>	F
Dandelion	<i>Taraxacum sp.</i>	L/D
Perennial Ryegrass	<i>Lolium perenne</i>	D
Red Fescue	<i>Rubra festuca</i>	D
Whiet Clover	<i>Repens trifolium</i>	F
Yarrow	<i>Achillea millefolium</i>	O

Existing Trees

Common Name	Scientific Name	DAFOR
Ash	<i>Fraxinus excelsior</i>	D
Cherry sp.	<i>Prunus sp.</i>	O
English Oak	<i>Quercus robur</i>	O
Field Maple	<i>Acer campestre</i>	R
Fir sp.	<i>Aibes sp.</i>	O
Hornbeam	<i>Carpinus betulus</i>	F
Poplar sp.	<i>Populus sp.</i>	D
Rowan	<i>Sorbus aucuparia</i>	R

Tall Ruderal Vegetation

Common Name	Scientific Name	DAFOR
Bindweed	<i>Convolvulus sp.</i>	F
bramble (Immature)	<i>Rubus fruticosus agg.</i>	O
Bristly Oxtongue	<i>Helminthotheca echioides</i>	O
Buddleia	<i>Budleja sp.</i>	R
Cleavers	<i>Galium aparine</i>	O
Creeping Buttercup	<i>Ranunculus repens</i>	F
Daisy	<i>Bellis perennis</i>	F
Dandelion	<i>taraxacum sp.</i>	O
Datura	<i>Datura sp.</i>	R
Great Willowherb	<i>Epilobium hirsutum</i>	D
Ivy	<i>Hedera helix</i>	F
Nettle	<i>Urtica dioica</i>	D

Red Deadnettle	<i>Lamium purpureum</i>	O
Rosebay Willowherb	<i>Chamaenerion angustifolium</i>	D
Spurge	<i>Euphorbia peplus</i>	O
Thistle	<i>Cirsium sp.</i>	D
Water Mint	<i>Mentha aquatica</i>	L/F

Intact Species-Poor Hedgerow

Common Name	Scientific Name	DAFOR
Beech	<i>Fagus sylvatica</i>	D
Clematis	<i>Clematis sp.</i>	F
Elder	<i>Sambucus nigra</i>	O
Honeysuckle	<i>Lonicera sp.</i>	O
Privet	<i>Ligustrum sp.</i>	D
Silverberry	<i>Elaeagnus sp.</i>	F

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

Appendix A – Site Photographs

MR P. SOWDEN
BROOKVIEW NURSERY, EASTERGATE LANE, WALBERTON
ECOLOGICAL IMPACT ASSESSMENT
LLD2442-ECO-REP-00



Photograph 01 – The unkept amenity grassland can be seen at the south of the site, the fringe of tall ruderal is just visible in the rear ground and a number of trees along the southern and western boundaries are visible.



Photograph 02 – Photograph showing the hardstanding area covering the majority of the site. On the right-hand side an example of the onsite buildings can be seen, the lack of roof space is obvious.



Photograph 03 – A section of the beech hedgerow at the northern end of the site and the area of well-maintained amenity grassland can be seen.



Photograph 04 – The dense ruderal vegetation is small in size, the main section covering what appeared to be a rubble pile and thins out towards the site boundary.



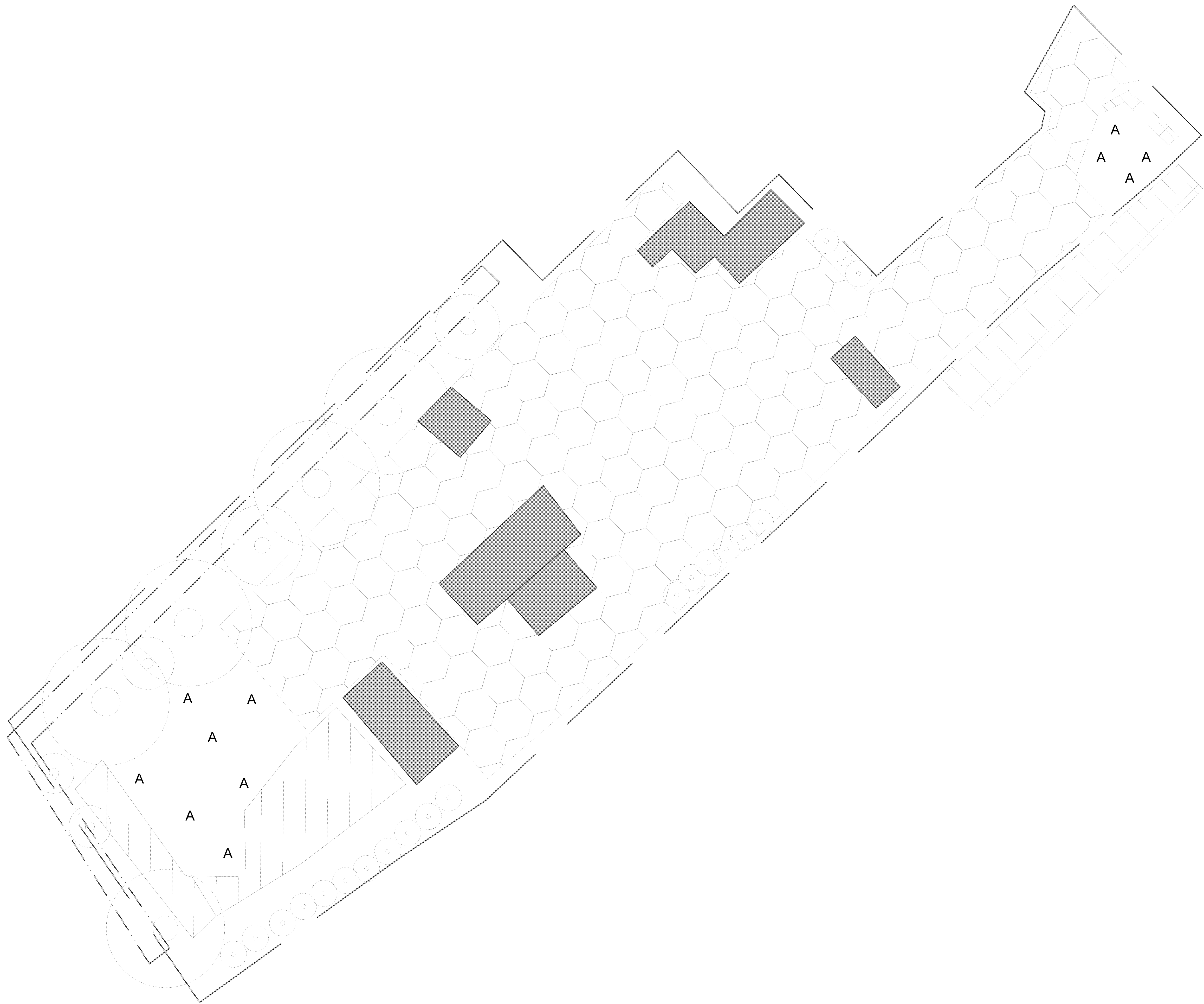
Photograph 05 – The dry ditch on the western site boundary and part of the southern site boundary. The ditch is designated as a biodiversity corridor. It is not to be affected by proposals.



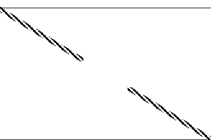
Photograph 06 – The western tree line consists of mature poplars, field maple and a screen of immature ash trees. A number of the storage containers are also visible.

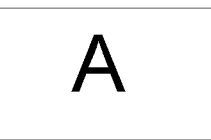
Figure No.01 – Site Habitat Plan

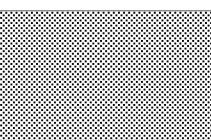
MR P. SOWDEN
BROOKVIEW NURSERY, EASTERGATE LANE, WALBERTON
ECOLOGICAL IMPACT ASSESSMENT
LLD2442-ECO-REP-00

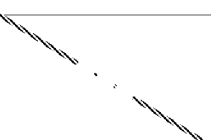


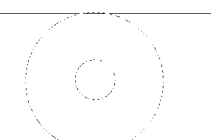
Legend

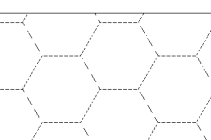
 Site Boundary

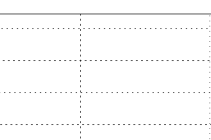
 Amenity Grassland

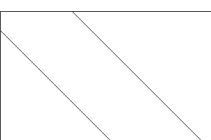
 Buildings

 Dry Ditch

 Existing Trees

 Hard-standing

 Intact Species-Poor Hedgerow

 Tall Ruderal

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

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

Planning Issue

Rev	Description	Date	Initials
00	Planning Issue	02.09.21	AR

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Client
Neame Sutton Chartered Town Planners
Project Title and Location
Brookview Nursery
Eastergate Lane, Walberton
Drawing Title
Figure No.1 - Site Habitat Plan

Scale: 1:250@A1
Drawn: AR
Approved: GS
Date: 02.09.21

Drawing No: LLD2442-ECO-FIG-001
Revision: 00

Figure No.1- Site Habitat Plan
Brookview Nursery, Eastergate Lane, Walberton

