

LUTTERWORTH ROAD,
BURBAGE, LEICS.

Construction Ecological Management
Plan



Client:

Davidsons Developments Ltd.

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1 INTRODUCTION AND BACKGROUND

1.1 Purpose and Scope of this Report

- i RammSanderson Ecology Ltd was commissioned by Davidsons Developments to produce a Construction Ecological Management Plan for a granted planning application in relation to a residential development, with all associated public open space and infrastructure, be constructed on land at Lutterworth Road, Burbage, Leicestershire.
- ii This management plan was produced with reference to existing ecological data for the site and the client's site proposal plan (Appendix 1). This CEMP and its accompanying survey and mitigation schedule (Appendix 2) has been produced to discharge Condition 19 relating to Appeal APP/K2420/W/20/3265143 of (planning ref 19/01405/OUT) for residential development of up to 135 dwellings with recreational areas, retention and enhancement of existing wildflower grassland and creation of attenuation features.
- iii The preparation and submission of this CEMP is required to build on the existing ecological documentation produced for this scheme since 2019 by Focus Environmental Consultants (Focus). A Grassland Turf Translocation Methodology & Management Plan (Focus, November 2022) was submitted pursuant to the discharge of Condition 19 previously, and field compartment reference numbers set out in that document are used herein, to maintain coherence.
- iv The Focus reports culminate in the recommendation for several large areas of grassland within the application boundary to be translocated to a receptor area, within blue-line land within Davidsons control (not ownership however).
- v Having walked the site with the Client and Sarah Postlethwaite, Ecologist at Leicestershire County Council, it was judged that translocation of the habitats was not required, due to their quality, and diversity, both of which factors having potentially declined since Focus' habitat assessments were completed, potentially as a result of intensive management practices and nutrient enrichment.
- vi Instead, it has been agreed in principle that, no translocation of the two main translocation areas (detailed further below) is now required. An area where a record of adder's tongue fern had been recorded by LLERC Ecologists in 2020 will be fenced off and retained intact until May 2024, at which point it will be surveyed for any presence of adders tongue fern. Any individual plants will be translocated with surrounding turves (1m² x up to 300mm depth) to the receptor area.
- vii As an enhancement, and as a means of reducing the amount of soils removed from the site, thereby reducing landfill burden and the environmental impacts of such operations, a scheme of ridge and furrow grassland enhancement will be carried out, utilising the arisings of topsoil from the site clearance. The ridges and furrows will be seeded (separately) with suitable seed mixes and managed as lowland meadow grassland, as detailed in the following sections.
- viii Remaining areas of LWS designated grassland, in particular, the compartment to the south, will be managed to improve its value.

1.2 Background Information

- i Due to the potential for negative effects on the Burbage, Land East of Lutterworth Road candidate Local Wildlife Site (cLWS) to the north and south of the site boundaries (F2 and F5, using Focus' field compartment referencing nomenclature) mitigation and the longer-term management of the site with regard to native flora and fauna was recommended. It is noted that the Planning Layout (February 2023) retains both of these field compartments as Public Open Space, with a mown footpath through them. From our walkover assessment it is doubtful as to whether F2 still meets the LWS designation criteria however

- and further detailed assessment of this is recommended in the botanical survey season, prior to any hay cut in 2024. Retention and protection of the hedgerows that separate the development from the field compartments F2 and F5 is required. Tree protection fencing at a standoff as per the RPA's given in the tree report (or if not provided, 2m from hedgerow edge, or 3m from centres) would be highly advantageous for this site and the wider area by maintaining ecological connectivity within the landscape.
- ii The submitted and approved biodiversity metric (Focus, 10/11/2022) produced for the reserved matters application yielded a loss of -22.99% in habitat units, and -6.51% in hedgerow units, despite the submitted turf translocation strategy. As the resulting planning appeal has been allowed, the baseline assessment and details of this metric are not disputed here, however, we acknowledge that any changes we make to the strategy i.e. to not translocate turf, need to be balanced and at least deliver the same or less of a loss than the submitted and approved metric. It is noted however, that the metric as produced, includes development in parcels F2 & F3, and the planning layout provided to us from Davidsons, shows all of these compartments as retained POS. A revision of this metric has been completed and is submitted with this document, in order to demonstrate this transparently. If F2 & F3 form a future phase of development, the application proposal will be assessed against the prevailing site conditions at that time. In the meantime, grassland in parcels F2 and F3 will be retained and protected and enhanced as per the supporting BIA Metric to this document.

1.3 Responsibilities

- i The responsibility for implementing this management plan will be the principal contractors Davidsons Developments and any associated groundworks contractors, and sub-contractors. A copy of this document should be kept on site and referred to where necessary.

1.4 Site Context and Location

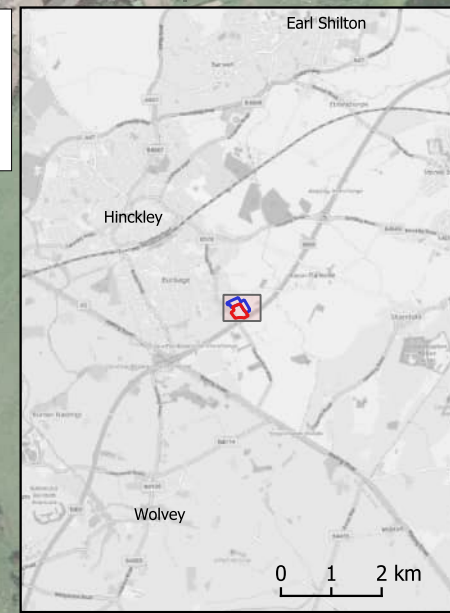
- i The site was located to the east of Lutterworth Road, Burbage, Leicestershire (central grid reference SP 44753 92019). It is situated within a semi-rural, urban edge context, with arable and pasture land, to the east, the M69 corridor to the south, and the town of Burbage to the west and north.
- ii The site, as surveyed by Focus, was split into nine field compartments, all of which are grassland, as classified by them as Other Neutral Grassland in varying condition states. As stated above parts of the overall site, but outside the development envelope, have been assessed by Leicester, Leicestershire & Rutland Environmental Record Centre ecologists and judged to meet LWS criteria for mesotrophic grasslands. A citation for this is included in the Appendices. Figure 1 overleaf shows the site location and context.



Key

Site Boundary - development area

Offsite Boundary - receptor area



		
Title: Site Context Plan		
Project: Extension of Lutterworth Road, Burbage - grassland translocation		
Davidsons Developments Ltd		
Date: 16/10/2023	Fig:	Author: LG
A4 Scale: 1:2500	ID: RSE_5861c_STC_1023_V1R1	
EPSG:27700 OSGB36 / British National Grid		

This site boundary has been created from a supplied plan that was limited in geographic referenceability. Every effort has been made to reduce discrepancy, however scale, positioning and accuracy is not guarantee.

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2 LEGISLATION AND PLANNING POLICY

2.1 General & Regionally Specific Policies

- i Articles of British legislation, policy guidance and both Local Biodiversity Action Plans (BAPs) and the Natural Environment and Rural Communities Act, 2006 are referred to throughout this report. Their context and application is explained in the relevant sections of this report. The relevant articles of legislation are:
 - The National Planning Policy Framework (2021)
 - The Conservation of Habitats and Species (EU Exit) Regulations 2019;
 - The Wildlife and Countryside Act 1981 (as amended);
 - EC Council Directive on the Conservation of Wild Birds 79/409/EEC;
 - National Parks and Access to the Countryside Act 1949;
 - The Protection of Badgers Act 1992;
 - The Countryside and Rights of Way Act 2000;
 - The Hedgerow Regulations 1997;
 - The Natural Environment and Rural Communities (NERC) Act 2006;
 - Leicester, Leicestershire and Rutland Biodiversity Action Plan;
 - Hinckley & Bosworth Local Plan 2006-2026

2.2 Bats and Great Crested Newts

- i Great Crested Newt (GCN) and species of British bats are fully protected within UK Law under *Wildlife and Countryside Act 1981* (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from:
 - Intentional or reckless killing, injury, taking;
 - Damage to or destruction of or, obstruction of access to any place of shelter, breeding or rest;
 - Disturbance of an animal occupying a structure or place;
 - Possession or control (live or dead animals); and
 - Selling, bartering or exchange of these species, or parts of.
- ii This law is reinforced by the UK's transposition of the EU Habitats Regulations under *The Conservation of Habitats and Species (EU Exit) Regulations 2019*. These Regulations also prohibit:
 - the deliberate killing, injuring or taking of great crested newt or bats;
 - the deliberate disturbance of any great crested newt or bat species in such a way as to be significantly likely to affect:
 - their ability to survive, hibernate, migrate, breed, or rear or nurture their young; or
 - the local distribution or abundance of that species.
 - damage or destruction of a breeding site or resting place;
 - the possession or transport of great crested newt or bats or any other part of.
- iii Under certain circumstances a licence may be granted by Natural England to permit activities that would otherwise constitute an offence. In relation to development, a scheme must have full planning permission before a licence application can be made.
- iv In addition, seven British bat species are listed as Species of Principal Importance (SPI) under the NERC Act (2006). These are barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), noctule (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), greater horseshoe (*Rhinolophus ferrumequinum*) and lesser horseshoe (*Rhinolophus hipposideros*).
- v Under the National Planning Policy Framework 2021, the presence of any protected species is a material planning consideration. The Framework states that impacts arising from development proposals must be avoided where possible or adequately mitigated/compensated for and that opportunities for ecological enhancement should be sought.

2.3 Birds

- i The Wildlife and Countryside Act 1981 (as amended) is the principle legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to recklessly or intentionally:
 - Kill, injure or take any wild bird
 - Take, damage or destroy the nest of any wild bird while it is in use or being built.
 - Take or destroy the egg of any wild bird.
- ii For the birds listed on Schedule 1 of the Act, it is an offence to disturb any bird while it is building a nest, is at or near a nest with young; or disturb the dependant young of such a bird.
- iii Species listed in Annex 1 of the EU Birds Directive 1994 (e.g. barn owl) are required to have special conservation measures taken to preserve their habitats and site to be classified as Special Protection Areas where appropriate.

2.4 Reptiles

- i All Reptile species are partially protected under Schedule 5 (Sections 9(1) and 9(5)) of the Wildlife and Countryside Act 1981 (as amended).
 - Reckless or intentional killing and injury;
 - Selling, offering for sale, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species.

2.5 Badgers

- i Badgers are protected under the Protection of Badgers Act 1992. This act makes it an offence to:
 - Wilfully kill, injure, take possess or cruelly ill-treat a badger, or attempt to do so
 - To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes
- ii A sett is defined as:

“Any structure or place which displays signs indicating current use by a badger”.
- iii Works that disturb badgers whilst occupying a sett is illegal without a licence, badgers may be disturbed by work near the sett even if there is no direct interference or damage to the sett.
- iv Licences only allow works to be carried out between July and November inclusive.

2.6 White-clawed Crayfish

- i White-clawed crayfish *Austropotamobius pallipes* are protected under the following UK and European legislation:
 - Bern Convention 1979: Appendix III
 - IUCN Red Data List – “Endangered”
 - Wildlife & Countryside Act (as Amended) 1981: Schedule 5
 - > Intentionally take white-clawed crayfish from the wild
 - > Sell, or attempt to sell, any part of a white-clawed crayfish, alive or dead, or advertise that one buys or sells, or intends to buy or sell any part of a white-clawed crayfish.
 - EC Habitats Directive: Annex II and V(a)
 - The Prohibition of Keeping of Live Fish (Crayfish) Order 1996 (implemented under the Import of Live Fish (England and Wales) Act 1980)

2.7 Common Toad and Hedgehog

- i Common toad (*Bufo bufo*) and west European hedgehogs (*Erinaceous europaeus*) are protected under Section 41 of the NERC Act (2006). This act recognises species of principle biodiversity importance. All public bodies must have regard to the conservation of biodiversity, in in relation to this species.
- ii Common toads are protected under schedule 5 and schedule 9 sub-section (5) of the WCA (Wildlife and Countryside Act 1981 (as amended)). These prohibit the sale, offering for sale, transporting for sale and advertising for sale or to buy this species.

2.8 Hedgerows

- i All native hedgerows (including species-poor ones) are listed under Section 41 of the NERC Act (2006) and are a Local Biodiversity Action Plan (LBAP) habitat. All native hedgerows are considered to be of high conservation value.
- ii The Hedgerow Regulations (1997) classifies a hedgerow as 'important' if it:
 - Satisfies at least 1 of the criteria listed in Part II of Schedule 1
 - Has existed for 30 years or more
- iii Any person wishing to remove a hedgerow is required to submit a hedgerow removal notice to the LPA
- iv Items of Legislation that are pertinent regarding hedgerows include:
 - Hedgerow Regulations 1997
 - The Countryside Rights of Way Act 2000
 - NERC Act (2006)
 - The UK Biodiversity Action Plan (UK BAP)
 - The Conservation of Habitats and Species (EU Exit) Regulations 2019

3 RISK ASSESSMENT AND MANAGEMENT OBJECTIVES

- i In order to inform this section of the plan, a desktop review of all background data including reports and local policies has been undertaken. In addition to this, RammSanderson ecologists completed a site walkover in September 2023, and will be completing further, detailed botanical surveys during April/May 2024, and monitoring as required throughout the construction phase and beyond as required by the Environment Act 2021.

3.2 Biodiversity Targets

- i In compiling this document, consideration is given to the local and national targets of;
 - NERC Act (2006)
 - Leicester, Leicestershire and Rutland Local Biodiversity Action Plan (LLRBAP)
- ii The Leicester, Leicestershire and Rutland LBAP targets specific habitats and species that are relevant to the site as outlined below;
 - Broadleaved woodland
 - Field margins
 - Hedgerows
 - Neutral grassland
 - Mature trees
 - Bats

3.3 Bats

- i The Ecological Impact Assessment produced for the outline planning application and ensuing planning appeal case, along with the Arboriculture Survey (FPCR, 2019) highlighted a mature ash tree on the eastern boundary of F8, which has Potential (bat) Roosting Features. The tree is to be retained within the scheme design, and should be protected in accordance with the arboriculture report with appropriate fencing at the assessed root protection radius.
- ii As the site contains features suitable for roosting bats, there is considered a potential risk from construction and demolition activities that could contravene legislation described in Section 2. These risks include reckless killing and/or injuring of bats, damage, destruction or, obstruction of access to any place of shelter, breeding or rest and disturbance of bats whilst using a place of rest or shelter. The objective is therefore to prevent risks that contravene the above. As the tree is to be retained, there is no requirement for detailed surveys, or licensing to facilitate the works, with details provided in this review in respect of the necessary mitigation requirements that will form the licence document once planning permission is in place.

3.4 Nesting Birds

- i The potential risk from damaging construction activities in relation to nesting birds is active nest destruction when removing or felling any vegetation on site. The proposed works are likely to span several bird nesting seasons, however vegetation removal and site preparation shall be completed in Autumn – Winter 2023-24, to avoid the bird nesting season and therefore, to meet the objective in light of this risk, to prevent adverse impacts during the construction period to active nesting birds, and to avoid contravening legislation detailed in Section 5 of this report.

3.5 Hedgehogs and Common Toads

- i The habitats on site have the potential to support hedgehog and common toad populations. There is therefore a risk that harm could be caused to these species, both passing through the site during the construction phase, and during any vegetation clearance. As such, consideration will be given to these species to prevent any risk to their conservation status.

3.6 Landscape and Hedgerows

- i There is a potential risk, without due care and attention, that all retained habitat, including the hedgerows which are classified as Priority Habitat under the provisions of the NERC Act (2006) and are also considered to be important within the Leicester, Leicestershire and Rutland Local Biodiversity Action Plan (LBAP), will be damaged, destroyed or removed from the ponds site and it is understood that the field margins will be removed as part of the proposals. The LBAP aims to retain and increase the extent of these habitats. The loss of these habitats will decrease and limit the biodiversity of the site. The objective in light of this risk is to protect and retain the hedgerows where possible and to manage them, and retained habitat areas of Public Open Space for maximum biodiversity gains going forward.

3.7 Local Wildlife Site (LWS) Qualifying Grassland

- i Following botanical assessment as part of an update ecological appraisal completed by Focus Environmental Consultants to inform the appeal, and reserved matters application (Focus amended EclA 2020), and a survey completed by Leicester, Leicestershire & Rutland Environmental Records Centre ecologists in 2020, showed F2 and F5 to contain sufficient species abundance to meet the LWS selection criteria for Leicestershire. This resulted in the Land East of Lutterworth Road candidate LWS being put forward for designation. This is a non-statutory designation, afforded material consideration status in the planning process, in the same way a fully designated LWS is. Compartments F2 and F5 are scheduled for retention and enhancement. There is however a potential risk that without due care and attention, the LWS-qualifying grassland within the cLWS would be damaged or destroyed by the proposals. The objective in light of this risk is to protect and enhance the retained areas to provide an ecologically valuable habitat formed of native species going forward.
- ii Images taken from the Focus Environmental Consultants 2022 Grassland Translocation Strategy below, set out the field compartment locations, and the locations of the more diverse grassland in compartments F2, F3 and F5. Also marked is the area with the Adders Tongue Fern record (LLERC 2020) the strategy for dealing with this area specifically is set out in section 3.9 below.

Figure 1: plan showing field numbers and condition assessments for the habitats at Land East of Lutterworth Road.



Figure 2: plan showing an assessment of grassland habitats against Local Wildlife Site criteria for the Land East of Lutterworth Road.



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3.8 Ridge & Furrow Enhancement

3.8.1 Principles

- i There is now no requirement for grassland turf translocation due to the apparent decline in quality and diversity of the grassland across the majority of the development envelope area.
- ii In order to achieve the level requirements for the build, and to construct infrastructure including attenuation facilities, a significant volume of top soils would be removed from the site. Davidsons would have had to cart away to landfill the majority of this soil, keeping only that which could have been used in landscaping and any bunds, in a soil storage area, which had been proposed to be located in compartment F8, adjacent to the planning site compound location.
- iii Instead of forming a single high soil storage bund, we have collaboratively developed a bespoke solution to retain as much of this cut & fill generated soil on site, which will also serve to enhance the ridge and furrow grassland present in compartment F8. This area will be prepared and seeded with appropriate seed mixes and be managed for the long term alongside the developed 'estate', and its Public Open Spaces.

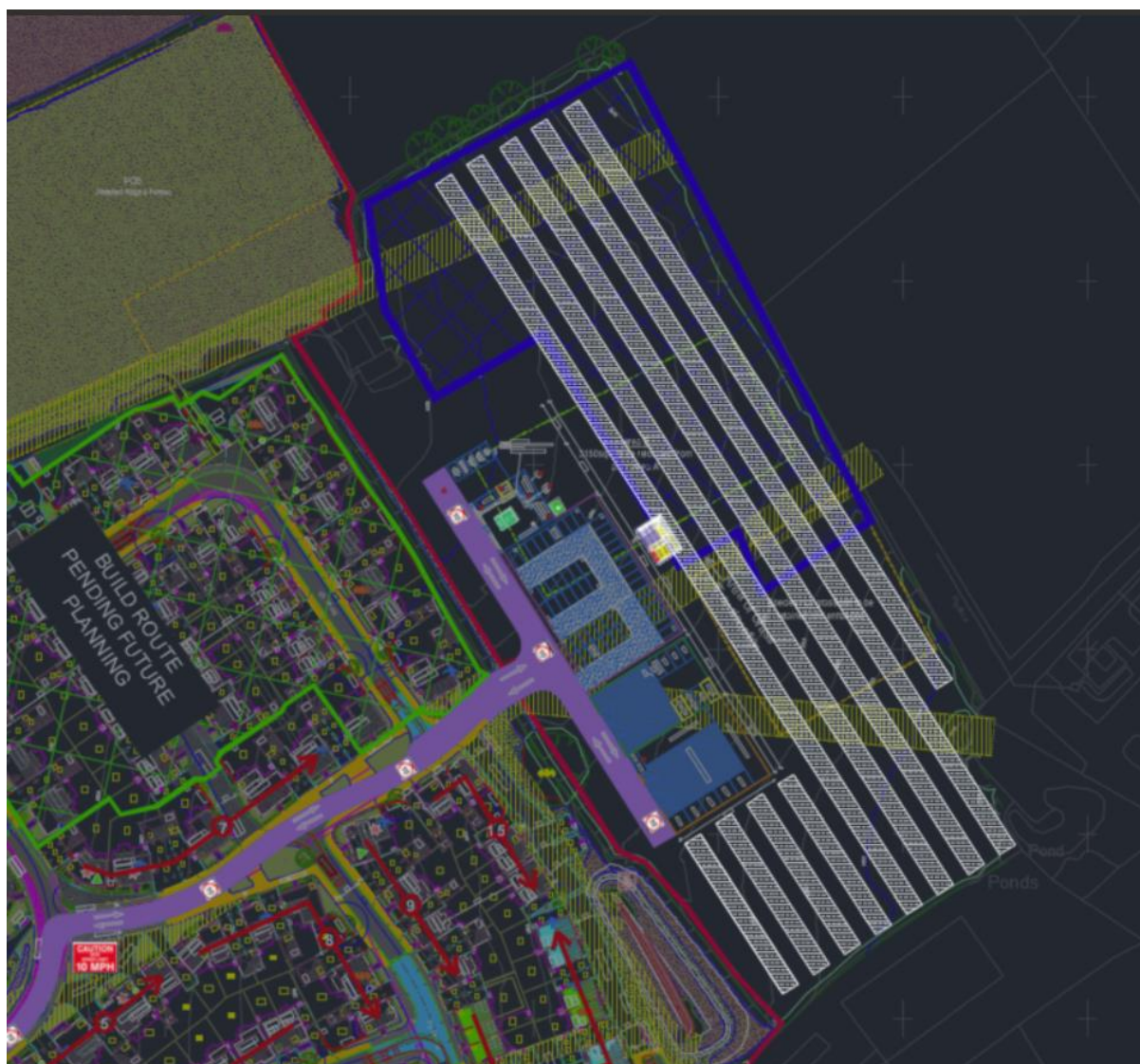
3.8.2 Setting out

- i 'Donor' areas within the development envelope will be marked out as 'ridge soils' or 'furrow soils' with coloured flags /stakes, and corresponding markers set out at the top and bottom of each ridge and furrow in the receptor area (F8). Surface vegetation including top 100-200mm of soil can be stripped and set aside (or taken to landfill) to ensure the highest nutrient laden soil and majority of weeds in the seedbank are not transferred to the receptor area.

3.8.3 Soil Transfer

- i Soils will be excavated to depths of approximately 200-300mm by the civils contractor, under supervision of an ecological clerk of works, from ridges to ridges, and from furrows to furrows, as per 3.8.2 to maintain seedbanks, which will differ slightly between ridges and furrows. Receptor ridges in F8 will receive a peak of 0.6m of new soils, which will be smoothed out into the furrows either side, creating a typically rolling system of ridges and furrows. Receptor furrows will receive minimal donor soils, 200mm at most, to increase the ridge heights from the currently quite levelled out and flattened features they have become over time, to a more pronounced landscape feature. Transported soils will be smoothed out with the back of a 360° excavator flat blade attachment, or a box blade attachment rear mounted on a tractor, and compacted to prevent undue soil mobilisation and washout during rainfall events.
- ii To reduce nutrient loading, nutrient poor subsoils will be used for the final 200mm of soils transferred, and prepared and dressed for seeding.
- iii The receptor area showing the enhanced ridges & furrows are shown on the diagram below.

Figure 2: Ridge and furrow area



3.8.4 Preparation and Seeding

- i Once compacted and stabilised, ridges and furrows will be lightly harrowed to prepare a fine tilth ready for seeding. Ridges will be seeded with Emorsgate EM5 Loamy meadow mix. EM5 is a complete mix composed of 20% native wild flowers and 80% slow growing grasses (by weight).

Ratio	Scientific Name	Common Name
Wild Flowers – 20%		
1.60%	<i>Achillea Millefolium</i>	Yarrow
1.20%	<i>Galium verum</i>	Lady's Bedstraw
1.60%	<i>Leucanthemum vulgare</i>	Oxeye Daisy
3.40%	<i>Malva moschata</i>	Musk Mallow
3.00%	<i>Plantago lanceolata</i>	Ribwort Plantain
0.40%	<i>Ranunculus acris</i>	Meadow Buttercup
0.20%	<i>Daucus carota</i>	Wild carrot

0.20%	<i>Primula veris</i>	Cowslip
0.20%	<i>Lotus corniculatus</i>	Birdsfoot Trefoil
0.30%	<i>Silene vulgaris</i>	Bladder Campion
1.40%	<i>Knautia arvensis</i>	Field Scabious
1.00%	<i>Rumex acetosa</i>	Common Sorrel
0.40%	<i>Agrimonia eupatoria</i>	Agrimony
0.20%	<i>Betonica officinalis</i>	Betony
0.10%	<i>Leontodon hispidus</i>	Rough Hawkbit
0.40%	<i>Vicia cracca</i>	Tufted Vetch
1.40%	<i>Rhinanthus minor</i>	Yellow Rattle
0.60%	<i>Ranunculus bulbosus</i>	Bulbous Buttercup
2.40%	<i>Centaurea nigra</i>	Common Knapweed
0.40%	<i>Lathyrus pratensis</i>	Meadow Vetchling
Grasses – 80%		
1.60%	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass (w)
3.20%	<i>Briza media</i>	Quaking Grass (w)
56.00%	<i>Cynosurus cristatus</i>	Crested Dogstail
10.40%	<i>Festuca rubra</i>	Red Fescue
8.00%	<i>Agrostis capillaris</i>	Common Bent
0.80%	<i>Trisetum flavescens</i>	Yellow Oat-grass (w)

Furrows will be planted with EM8 Meadow Mixture for Wetlands:

Ratio	Scientific Name	Common Name
Wild Flowers 20%		
2.00%	<i>Achillea millefolium</i>	Yarrow
2.40%	<i>Galium verum</i>	Lady's Bedstraw
1.20%	<i>Leucanthemum vulgare</i>	Oxeye Daisy
3.60%	<i>Plantago lanceolata</i>	Ribwort Plantain
0.80%	<i>Rumex acetosa</i>	Common Sorrel
0.20%	<i>Primula veris</i>	Cowslip
0.60%	<i>Silene flos-cuculi</i>	Ragged Robin
1.00%	<i>Ranunculus acris</i>	Meadow Buttercup
0.80%	<i>Lotus pedunculatus</i>	Greater Birdsfoot Trefoil
0.50%	<i>Lathyrus pratensis</i>	Meadow Vetchling
0.10%	<i>Succisa pratensis</i>	Devil's-bit Scabious
1.00%	<i>Sanguisorba officinalis</i>	Great Burnet
0.10%	<i>Vicia cracca</i>	Tufted Vetch
3.60%	<i>Centaurea nigra</i>	Common Knapweed

1.00%	<i>Filipendula ulmaria</i>	Meadowsweet
1.00%	<i>Rhinanthus minor</i>	Yellow Rattle
0.10%	<i>Taraxacum officinale</i>	Dandelion
Grasses 80%		
2.0%	<i>Agrostis capillaris</i>	Common Bent (w)
2.0%	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass (w)
4.0%	<i>Briza media</i>	Quaking Grass (w)
48.0%	<i>Cynosurus cristatus</i>	Crested Dogstail
2.0%	<i>Deschampsia caespitosa</i>	Tufted Hair-grass (w)
22.0%	<i>Festuca rubra</i>	Red Fescue

3.8.5 First Year Management

- i Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for invertebrates, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially as this mixture contains Yellow Rattle. Then cut, remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out (or spot treat with herbicide) any residual perennial weeds such as docks and nettles.

3.8.6 Management once established

- i In the second and subsequent years the receptor area can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.
- ii Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed.
- iii Loamy soils tend to be more fertile, encouraging the growth of grasses. Increasing the frequency of mowing or grazing to remove surplus grass can help to maintain a balanced sward structure with a good flower content.

4 PRE AND MID CONSTRUCTION MITIGATION

- i Each area requiring ecological mitigation is addressed below with suggested timings of works and where necessary, identification of any supplementary pre-commencement surveys, pre-construction and mid-construction mitigation requirements and where ecological clerk of works will be required. Section 6, provides a summary table of the species-specific recommendations provided below,
- ii Section 5 and 6 of this document should be used within any site briefing document and be controlled by the site foreman and a nominated site 'biodiversity champion'. It is recommended that this document is briefed to all managers on site and any operatives working within the east of the site. This should also form part of the site diary and the biodiversity champion should record all actions taken on site that are within the remit of this CEMP.

4.2 Bats

4.2.1 Tree Roosts

- i Ten trees with the potential to support roosting bats are present within the area of the site to undergo residential development. Current proposals indicate that these are to be retained as they occur within hedgerows which are being incorporated into the development.
- ii Artificial lighting upon retained trees with bat potential should be avoided or mitigated for as per recommendations set out in 5.2.2 below.

4.2.2 Foraging and Commuting Habitats

- i The site offers some potential for local foraging/commuting bats, with the hedgerows and tree lines providing suitable foraging and commuting features, the majority of which are to be retained within the proposals. Current proposals indicate the retention of the majority of hedgerow and tree habitats on site, with losses of sections of the hedgerows for roads throughout the development required. Wherever possible, gaps created in hedgerows will not extend more than 20m. Existing gaps in hedges will be filled with native species, and new native planting will be added to open space areas within the site. Full details of these additions are described in Section 7.
- ii It is therefore recommended that these habitats are retained and protected where possible on site. In addition, it is recommended that lighting within the site, during construction and post-development is sensitive to the needs of foraging and commuting bats.
- iii Artificial lighting can affect the way that bats use habitats in a number of ways, depending on the species and proximity to a roost. Direct bright lighting of a roost can cause bats to delay emergence from a roost and could even cause them to desert the roost or become entombed within it (BCT and ILP, 2018). The prey items for British bats are flying insects, and many flying insects are attracted to certain types of artificial light sources, especially those that emit light with an ultraviolet component or have a high blue spectral component (BCT and ILP, 2018). Some species of bat recorded are known to be attracted to insects gathered around light sources (such as pipistrelle, noctule, Leisler's and serotine), whereas other species actively avoid lit areas (such as long-eared bats, *Myotis* species, barbastelle and greater and lesser horseshoe bats). Lighting within the site could therefore be expected to affect the ways that the bats in the area are able to use the site. As a result, it is recommended that construction works are to be undertaken in daylight hours only with no night hours work permitted and the following precautions be put in place in regards to lighting:

- Lighting of or light spill onto retained hedgerows and surrounding trees to be avoided and lighting in general should only be used where necessary.
 - Luminaires should lack UV elements and metal halide; fluorescent sources should not be used.
 - LED luminaires should be used where possible, owing to their sharp cut-off, lower intensity, good colour rendition and dimming capability. A warm white spectrum (<2700Kelvin) to reduce the blue light component should also be utilised and luminaires should feature peak wavelengths higher than 550nm.
 - Any external security lighting should be set on motion-sensors and short (1 minute) timers.
 - Lamps should be fitted with light spill accessories directing light downwards and avoiding upward spill and spill onto site boundaries and buildings.
- iv All new lighting will meet the current environmental standards of good practice in order to reduce potential light pollution and will use the lowest intensity for its purpose. This will minimise light spill onto dark corridors along woodland and hedgerow boundaries.

4.3 Nesting Birds

- i Vegetation clearance works should be programmed to avoid the main nesting bird season (March to September inclusive) as the site is likely to support nesting birds. However, if works fall within the nesting period, in order to protect any nesting birds present within the site, As such, the following method will therefore be adopted;
- A detailed site walkover recording nesting activity will be required 24 hours prior to works starting on site by the nominated onsite ecologist. It is proposed that the nesting bird survey is completed over c. 2 hours to accurately record the location of any active nests. Any active nests or suspected active nests will be marked with barrier tape providing a 10m exclusion (more if considered appropriate), GPS recorded and highlighted on a plan and discussed during tool box talks with operatives before works commence.
 - Should contractors subsequently observe or suspect nests during their works then work should immediately stop in that area and the site ecologist should be notified. The nest area will then be marked with barrier tape and GPS recorded as above. Clearance works will only be permitted to recommence within excluded nesting zones once an ecologist has reassessed the area and confirmed all birds and dependant young have fledged.
 - Prior to works starting, telephone numbers will be exchanged between the nominated site ecologist and site manager to provide a clear line of communication.
- ii Soil scrapes should not be left over winter as this will increase the risk of these areas becoming attractive to ground nesting species such as lapwing. Should this prove unavoidable, then the above method will also be required in relation to ground nesting birds.

4.4 Hedgehog

- i During the construction phase of the development, any excavations should not be left open overnight, these will require covering or a mammal ladder (planks) or a sloped edge to allow fauna to escape should they fall in. Any pipework should also be capped at the end of each day, night working should be avoided and any security lighting should be placed away from hedgerows and the residential garden area where nocturnal mammals are likely to forage. Any chemicals on site should be stored in secure compounds and away from any access from animals.
- ii In order to ensure hedgehogs can continue to traverse the site following completion of the development, access holes should be provided where full board fencing panels are proposed to provide corridors through the development. These access holes should be 15cm x15cm in size, located at the base of garden fencing panels (in every garden).
- iii A precautionary method of working should be followed as detailed below:

- Any vegetation clearance works should be conducted outside of the hedgehog hibernation and breeding seasons and should therefore be carried out between mid March-June or September-November.
- Any log or brash piles should be removed by hand and the area to be cleared should be checked by a suitably qualified ecologist prior to works commencing.
- Any tall grassland/arable vegetation should be checked prior to cutting by an ecologist to allow brown hares to disperse
- Vegetation should be cleared in a systematic manner, using hand tools only.
- Any hedgehogs sighted should be left to disperse of their own accord. If the animal does not disperse it should be moved by an ecologist to an area of scrub/vegetation which is to be retained.

5 ENHANCEMENTS

5.1 SWIFT BOXES

- i Swift are a colonial nesting species, and as such, swift boxes should be installed on detached garages in clusters of 3 No. boxes on every 5th garage.

5.2 BIRD (OTHER) NEST BOXES

- i Nest boxes suitable for house sparrows, tits, robins and other species shall be installed on other detached garages. Boxes shall be varied in type and installed on every 5th garage (not on garages with swift boxes).

5.3 BAT BOXES

- i A range of bat boxes shall also be installed on detached garages. Boxes shall be varied in type and installed on every 5th garage (not on garages with swift or other bird nest boxes).

Figure 3: Bat boxes



Schwegler 1FF bat box Schwegler 2FR bat tube Habibat bat box example

Figure 4: Bird boxes



Schwegler 1B nest box

Schwegler robin box

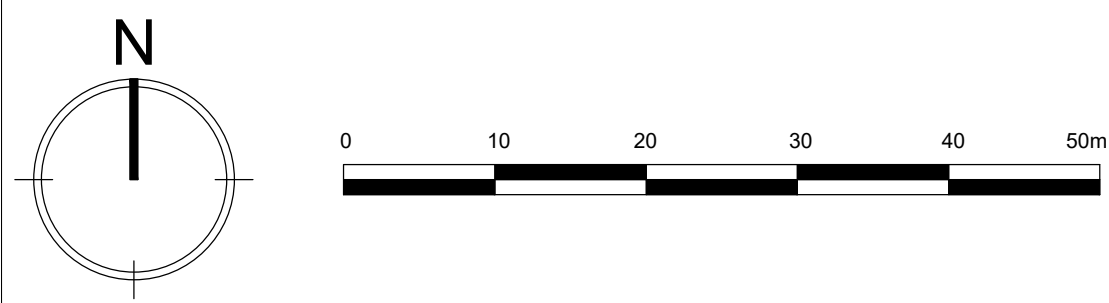
6 MANAGEMENT PLAN FOR NEWLY CREATED HABITATS

i This management plan is designed as year 1 to 5 (per phase), year 1 being the year of construction of that phase.

Objective	Prescription	Year 1	Year 2	Year 3	Year 4	Year 5
New grassland and marginal planting	Scrape and sow with seed mix	•				
	Monitor and treat undesirable species		• Once every two months during summer	• As required	• As required	• As required
	Mow annually, removing arisings from site	• August - September	• Sept	• Sept	• Sept	• Sept
New trees and hedgerows	Plant (water for the first 6 weeks)	•				
	Monitor and remove & replace dead specimens		•		•	
	Remove undesirable species / control weed encroachment		•	•	•	•
Bird and bat boxes	Install	•				
	Monitor and replace damage / lost			•		•

7 REFERENCES

- i Amphibian and Reptile Groups of the United Kingdom, 2010. ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. s.l.:s.n.
- ii BS 42020:2013 Biodiversity – Code of Practice for Planning and Development 2013: The British Standards Institution.
- iii BS 5837:2012 Trees in Relation to Design, Demolition and Construction 2012: The British Standards Institution.
- iv Clements, D. & Tofts, R., 1992. Hedgerow Evaluation and Grading Systems (HEGS). s.l.:s.n.
- v Collins J eds. 2016. Bat Surveys: Good Practice Guidelines, 3rd Edition. London: Bat Conservation Trust.
- vi Davidsons Group, 2022. Planning Layout (Sheet 1) P02. Land East Of Lutterworth Road, Burbage. BURB_100.
- vii Department of Communities & Local Government, 2012. National Planning Policy Framework, London: DCLG.
- viii Focus Environmental Consultants, 2020. DEFRA Metric 2.0. Land North of Deepdale Farm, Lutterworth Road, Burbage, Leicestershire.
- ix Focus Environmental Consultants, 2020. Grassland Turf Translocation Methodology & Management Plan: Land East of Lutterworth Road, Burbage, Leicestershire.
- x Institute of Ecology and Environmental Management, 2018. Guidelines for Ecological Impact Assessment in the UK. 2nd ed. Winchester: IEEM.
- xi Institute of Ecology and Environmental Management, 2017. Guidelines for Preliminary Ecological Appraisal. 2nd ed. Winchester: IEEM.
- xii Institute of Environmental Assessment, 1995. Guidelines for Baseline Ecological Assessment. London: E & FN Spon.
- xiii Institution of Lighting Professionals and Bat Conservation Trust, 2018. Bats and Artificial Lighting in the UK – Bats and the Built Environment Series Guidance Note.
- xiv Joint Nature Conservancy Council, 2010. Handbook for Phase 1 habitat survey. Peterborough: JNCC.
- xv Office of the Deputy Prime Minister, 06/2005. Government Circular: Biodiversity and Geological Conservation - Statutory Obligations and their impact within the planning system. London: ODPM.



POS
(Retained Ridge & Furrow)

Area B
3150sqm to be relocated from
area 'Area A'

Species rich grassland to be
retained and enhanced

ECOLOGY KEY

All in accordance with Ecological Mitigation & Enhancement Strategy - Final Environment Consultants, Rev 03, 10th Nov 22

- Traditional Nest Boxes
- Integrated Swift Bricks
- Tree Mounted Vivara Pro Woodstone Bat Box
- Integrated Bat Box
- Hedgehog Dome
- Habitat Pile (Logs / Brush and Deadwood)
- Invertebrate / Pollinator home

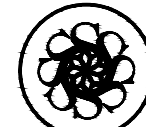
House Type Schedule:

Housetype	No. of Bedrooms	No.
PRIVATE:		
2 Bedroom		
DH200GE/GI	2 Bedroom Semi Detached	19
DH201BSF	2 Bedroom Semi Detached	2
DH202B	2 Bedroom Semi Detached	2
3 Bedroom		
DH301GE	3 Bedroom Semi Detached	6
DH302RE/RI	3 Bedroom Semi Detached	7
DH312G	3 Bedroom Detached	1
DH313B	3 Bedroom Detached	1
DH314V	3 Bedroom Detached	15
DH318B	3 Bedroom Detached	1
DH320R	3 Bedroom Detached	3
DH330G	3 Bedroom Detached	4
DH342G	3 Bedroom Detached	
4 Bedroom		
DH402R	4 Bedroom Detached	1
DH408RS	4 Bedroom Detached	1
DH409GG/GH	4 Bedroom Detached	5
DH420V	4 Bedroom Detached	1
DH422G/GR	4 Bedroom Detached	4
DH425G	4 Bedroom Detached	5
DH427B	4 Bedroom Detached	3
DH430B/R	4 Bedroom Detached	5
5 Bedroom		
DH501G/GR	5 Bedroom Detached	5
DH526B	5 Bedroom Detached	1
DH552G	5 Bedroom Detached	2
DH532B/R	5 Bedroom Detached	6
Sub Total:		108
AFFORDABLE:		
AH17G	1 Bedroom Semi Detached	8
AH21GE/GI	2 Bedroom Semi Detached	9
AH31GE	3 Bedroom Semi Detached	6
AH32GE	3 Bedroom Semi Detached	3
AH41GE	4 Bedroom Semi Detached	1
Sub Total:		27
Total:		135

LEGEND -

- Proposed Trees
- Existing Trees/Hedgerow to be Removed
- RPA
- Screen Wall (SW) - 1.8m High.
- Screen Fence (SF) - 1.8m High Close Boarded.
- Indicates standard GRP chimney (Same brick as the house)
- Indicates Standard Chimney Removed
- Indicates Traditional Chimney (Same brick as the house)
- Brick Pier (BP)
- BCP : Bin Collection Points.
- 2m Vis Splays
- Affordable Rent
- Shared Ownership
- Key Buildings
- EV Charger
- Mains Lit Bollard
- Solar Bollard
- Proposed Site Boundary
- Easement

P03	Landscaping updated. Ecology items added to layout and Legend. Construction references (4) removed from layout and Schedule.	28.02.2023
P02	Drawing amended to reflect consultee comments.	23.09.2022
P01	Drawing finalised.	16.06.2022
Rev	Description	Date



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Development:
Land East Of Lutterworth Road
Burbage

Drawing Ref:
Planning Layout (Sheet 1)

Drawing Status:	Planning	Drawn:	CS	Checked:	MS
Date:	June 2022	Scale:	1:500	Signed Off:	IP
Rev:				Rev:	P02
Job Ref:	BURB_100				

Bat Boxes

Recommended locations of bat boxes to be placed on buildings/trees. Ideally they should be in a location that allows them to receive sunlight for most of the day (ideally 6-12 hours). Placing the boxes between southeast and southwest and sheltered from prevailing winds and rain is recommended. To be placed at a 3-6m height to protect from predators/interference. Entrances should be kept clear of clutter for a clear flight path.

Recommended boxes:
Schwegler 1FF bat box,
Schwegler 2FR bat tube, or
habitat bat box

Bird Boxes

Recommended locations for bird boxes should be placed to avoid prevailing wind and rain, ideally between north and east. They should be placed higher than 2m to avoid predators/interference. Entrances should be kept clear from clutter to allow birds a clear flight path. Siting the boxes close to vegetation will provide a source of invertebrate.

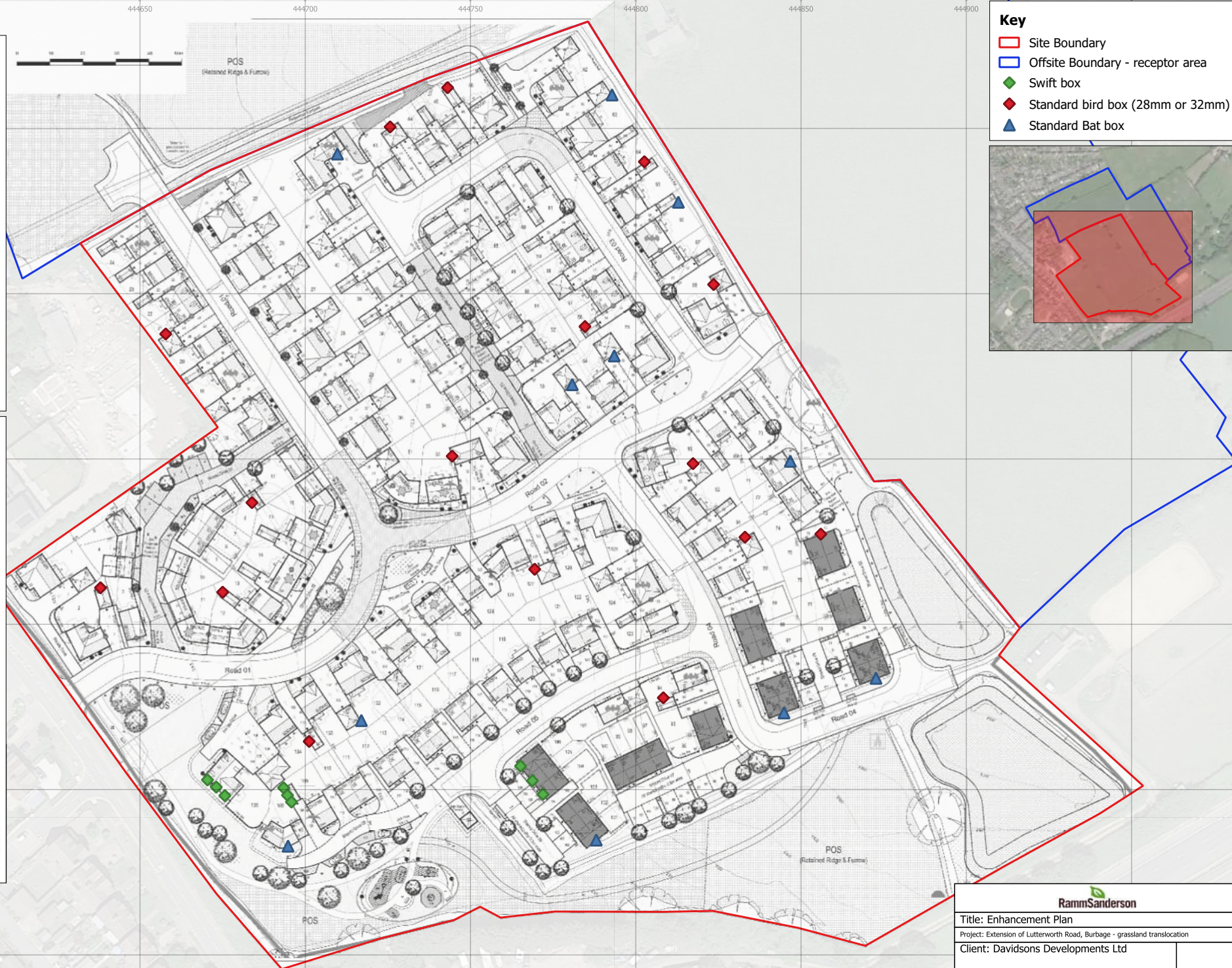
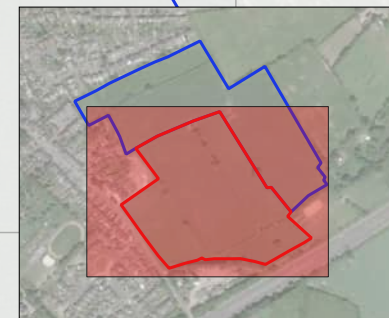
Recommended boxes:
Schwegler 1B nest box or
Schwegler robin box and
Schwegler 17 swift box

Swift box



Key

- Site Boundary
- Offsite Boundary - receptor area
- Swift box
- Standard bird box (28mm or 32mm)
- Standard Bat box



Title: Enhancement Plan		
Project: Extension of Lutterworth Road, Burbage - grassland translocation		
Client: Davidsons Developments Ltd		
Date: 17/10/2023	Fig:	Author: LG
A4 Scale: 1:1500	ID: RSE_5861c_BBOX_1023_V1R2	