

Habitat Management Plan

Wendover Cricket Club

July 2023

Ecology | Green Space | Community | GIS

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Report Produced for **Solve Planning Ltd**

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EXECUTIVE SUMMARY

- The site is located at Land to the North West of Tring Road, Wendover (Central Grid Reference SP 87504 08934) and is subject to plans for relandscaping of the site for conversion to a cricket ground with associated clubhouse, access, parking, drainage and ecological mitigation.
- This Habitat Management Plan (HMP) has been produced to provide details of the habitat creation and management actions for the site in order to enhance the site for biodiversity as part of the development.
- Habitat creation and management options for the site are set out in order to achieve the objectives of the HMP. Ecological management constraints to management actions are also detailed.
- Details of ecological provisions to be installed as part of the development are included.
- A 5-year work schedule capable of being rolled out over a 30-year period is set out.
- Remedial measures potentially required alongside responsibilities for implementing the HMP.
- This HMP can be used to discharge Condition 14 of the approved planning permission (Planning Reference 21/04122/APP).
- Section 4 relates to soft landscaping and should be signed off by the Local Planning Authority as identified by Condition 8 of the approved planning permission.
- Sections 8 and 9 relate to monitoring and remedial measures and set out management requirements as specified in Condition 9 of the approved planning permission.

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1 INTRODUCTION

1.1 Site Location

1.1.1 Ethos Environmental Planning (Ethos) have produced this Habitat Management Plan (HMP) for Land to the North West of Tring Road, Wendover (Central Grid Reference SP 87504 08934), hereafter referred to as the 'site' and shown in Figure 1 below.

1.1.2 The total area surveyed was approximately 2.97 hectares and habitats included cereal crop, arable field margins, species-poor native hedgerow with trees and a line of trees.

Figure 1 Site location



1.1.3 This HMP has been written by Ethos Environmental Planning (Ethos) in response to an approved Full Planning permission (21/04122/APP) for development at Land to the North West of Tring Road, Wendover. Specifically, this HMP relates to Planning Conditions 8, 9 and 14:

Condition 8

No development shall take place on the building(s) hereby permitted until full details of both hard and soft landscape works have been submitted to and approved in writing by the Local Planning Authority. For hard landscape works, these details shall include; proposed finished levels or contours; means of enclosure; car parking layouts; other

vehicle and pedestrian access and circulation areas; hard surfacing materials; where relevant. For soft landscape works, these details shall include new trees and trees to be retained showing their species, spread and maturity, planting plans; written specifications (including cultivation and other operations associated with plant and grass establishment); schedules of plants, noting species, plant sizes and proposed numbers/densities. These works shall be carried out as approved prior to the first occupation of the development so far as hard landscaping is concerned and for soft landscaping, within the first planting season following the first occupation of the development or the completion of the development whichever is the sooner.

Reason: To ensure a satisfactory appearance to the development and to comply with policy BE2 of the Vale of Aylesbury Local Plan September 2021 and the National Planning Policy Framework.

Condition 9

Any tree or shrub which forms part of the approved landscaping scheme which within a period of five years from planting fails to become established, becomes seriously damaged or diseased, dies or for any reason is removed shall be replaced in the next planting season by a tree or shrub of a species, size and maturity to be approved by the Local Planning Authority.

Reason: To ensure a satisfactory appearance to the development and to comply with policy BE2 of the Vale of Aylesbury Local Plan September 2021 and the National Planning Policy Framework.

Condition 14

Before any construction works hereby approved are commenced, a Construction Environment Management Plan (CEMP) and Habitat Management Plan (HMP) detailing, in full, measures to protect existing habitat during construction works and the formation of new habitat to secure a habitat compensation and biodiversity net gain of no less than 1.35 habitat units and 3.55 hedgerow units, shall be submitted to and approved in writing by the Local Planning Authority. Within the CEMP/HMP document the following information shall be provided:

- a) Current soil conditions of any areas designated for habitat creation and detailing of what conditioning must occur to the soil prior to the commencement of habitat creation works (for example, lowering of soil pH via application of elemental sulfur);*
- b) Descriptions and mapping of all exclusion zones (both vehicular and for storage of materials) to be enforced during construction to avoid any unnecessary soil compaction on area to be utilised for habitat creation;*
- c) Details of both species composition and abundance where planting is to occur;*
- d) Proposed management prescriptions for all habitats for a period of no less than 30 years;*
- e) Assurances of achievability;*
- f) Timetable of delivery for all habitats; and*

g) A timetable of future ecological monitoring to ensure that all habitats achieve their proposed management condition as well as description of a feed-back mechanism by which the management prescriptions can be amended should the monitoring deem it necessary. All ecological monitoring and all recommendations for the maintenance/amendment of future management shall be submitted to and approved in writing by the Local Planning Authority.

The HMP shall also detail the proposed biodiversity features (quantity, location, and model) from the Ecological Impact Assessment section 6 (Lizard Landscape Design and Ecology, 23rd July 2021). These enhancements include:

- *Variety of bird nesting boxes*
- *Bat boxes*
- *Invertebrate boxes*
- *Hedgehog hole*

The development shall be undertaken and thereafter maintained in accordance with the approved CEMP and HMP.

Reason: in order to secure and to enhance biodiversity in accordance with policy NE1 of the Vale of Aylesbury Local Plan September 2021 and paragraphs 118, 170 and 175 of the National Planning Policy Framework 2021.

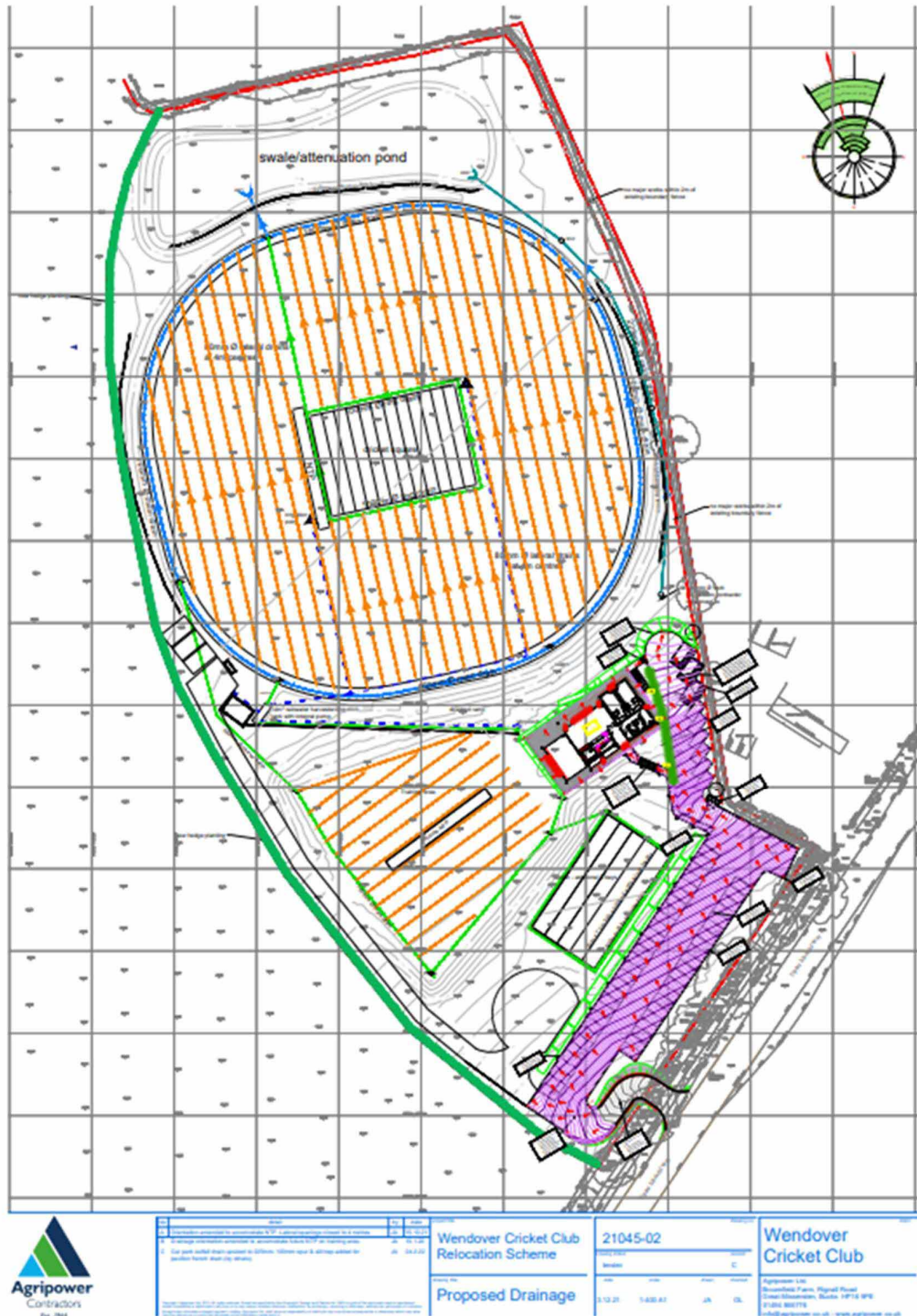
1.1.4 This HMP has therefore been produced to allow the discharge of Condition 14 and should be read in accordance with the Landscape Planting Plan (Bidwells, 2023). The CEMP has been provided separately.

1.2 Development Proposals

1.2.1 The development proposals, shown in Figure 2, include:

- Creation of a cricket ground and training area with associated clubhouse.
- Creation of Sustainable Drainage System (SuDS).
- Construction of access road with associated parking.
- Installation of associated utility infrastructure (including gas, electricity, water sewerage, telecommunication).

Figure 2 Development proposals (Drawing number 21045-02/revision C)



2 DESCRIPTION OF THE SITE

2.1.1 This HMP has drawn on information in the Ecological Impact Assessment (EclA) produced by Lizard Landscape and Design in July 2021. A summary of key issues from the EclA relevant to this report are summarised below:

- The site consists of 2.97 hectares of arable land with boundary hedgerows to the east and south. There is an area of offsite woodland adjacent to the northern boundary of the site.
- The proposed development includes the creation of a cricket pitch, pavilion, and wildlife enhancement areas with a SuDS basin to the north.
- The proposals include the provision of a 2m ecological buffer along the eastern boundary and a 5m buffer along the northern boundary.
- The perimeters of the site provide potential habitat for reptiles.
- The adjacent woodland and boundary features provide potential for nesting birds, hazel dormouse and foraging/commuting bats.

Figure 3 Phase 1 Habitat survey (Lizard Landscape and Design, 2021^b)



3 HABITAT CREATION AND MANAGEMENT

3.1 Objectives of the HMP

3.1.1 Objectives of the HMP are as follows:

- To protect and enhance biodiversity and landscape elements of the site, for the first five years following completion of development, capable of being rolled out over a 30-year period.
- To provide prescriptions for ongoing management to meet the stated objectives and shown as applicable on plans and drawings for individual areas.
- To fulfil the legal requirements in relation to the protection and enhancement of the ecological features of the site.
- To provide prescriptions for management actions including a 30-year timetable of works to achieve the objectives set out within the BNG assessment (Lizard Landscape Design and Ecology, 2021^a).
- Providing a list of persons responsible for undertaking specific duties.

3.2 Management Constraints

3.2.1 Management cannot be undertaken that would result in offences under protective legislation. As such, management would ensure conformity with the Wildlife and Countryside Act (WCA) 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 and the Natural Environment and Rural Communities (NERC) Act 2006.

3.2.2 The following provides a list of the key faunal groups that have been identified at the site through ecological surveys undertaken to date, along with consideration for how management prescriptions for the habitats at the site should take account of the presence of these species:

- Birds –maintain suitable foraging and nesting habitat for birds, namely the existing boundary hedgerows and trees on site as well as the created attenuation basin and planted hedgerow. Management of hedgerows and trees should be timed to avoid the bird nesting season (March - September inclusive).
- Bats –maintain suitable commuting and foraging habitat for bats, namely the boundary hedgerows and trees. Where possible, enhance retained habitat features to benefit bats.
- Reptiles –maintain suitable reptile habitat within the 2m ecological buffer along the eastern boundary. Where possible, enhance retained habitat features to benefit reptiles.
- Hazel dormouse –maintain and protect suitable hazel dormouse habitat in proximity to the site, namely the offsite woodland and boundary hedgerow, via provision of ecological buffers along the northern and eastern boundaries. Where possible, enhance retained habitat features to benefit hazel dormouse.

4 APPROPRIATE CREATION AND MANAGEMENT OPTIONS FOR ACHIEVING OBJECTIVES

4.1.1 The following section contains information relating to habitat creation and enhancement on site, in order to achieve the management objectives. The Landscape Planting Plan is shown in Appendix 1.

4.2 Grassland - Enhancement Area

4.2.1 A mixture suitable for wet soil will be sown within the northern section of the site, around the SuDS. EM8 Meadow Mixture for Wetlands contains species suitable for seasonally wet soils and is based on the vegetation of traditional floodplain and water meadows. Soils in wet meadows may flood for short periods in winter but are usually well-drained in summer.

4.2.2 Soil samples were taken from the area of land proposed for planting of EG8 Meadow Grass Mixture for Wetlands and the results of the soil analysis can be found in Appendix 2. The results were applied to the key to the botanical enhancement potential of species-poor grassland (Magnificent Meadows, 2023) to determine the potential for the soil to support other neutral grassland. The key can be found in Appendix 3.

Soil

- There is a 'moderate' level of phosphorus in the soil and the pH is 7.9. Based on these results, no fertilisers have been recommended.
- Based on the results of the soil analysis and the application of the key to the botanical enhancement potential of species-poor grassland, the soil has 'low potential' for enhancement. This is due to the lack of long-term management options, namely cattle grazing.
- The definition of other neutral grassland is as follows: "perennial ryegrass (*Lolium perenne*) is likely to be present at <30% with between 9 and 15 further species (m²) also present" (The UK Habitat Classification Working Group, 2018).
- EM8 Meadow Mixture for Wetlands contains 25 species. Therefore, whilst the soil has low potential for enhancement, it currently contains suitable levels of phosphorus and it is considered that via the management techniques described below, a sufficient number of species will become established to meet the requirements for other neutral grassland.
- To ensure this habitat reaches moderate condition, species indicative of sub-optimal conditions, such as creeping thistle, common nettle and broad-leaved dock will be removed.
- Based on the results of the soil analysis and the overall composition of existing habitat and topography it is considered that other neutral can be achieved in a moderate condition within this area.

Creation

- The cropland in the north of the site will be removed for creation of the SuDS.
- The soil should be raked and rolled to produce a seedbed with a medium tilth ready for seeding.
- Sowings on ground prone to winter flooding are safest either in the early autumn or in spring once the land has drained. Most plants need time to grow mature enough to withstand flooding.
- The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

Management

- 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 bugs, and they will die before the year is out. Therefore, resist cutting the annual weeds until mid to late summer, especially as the mixture contains Yellow Rattle.
- Cut in early August. This will reveal the young meadow and then maintain short by mowing through to the end of March of the following year. Cuttings should be piled within the buffer zone in north-eastern corner of the site. The grass dump should have a structured base, such as criss-crossed branches, to provide refugia for reptiles.
- Dig out any perennial weeds such as docks and creeping thistle.
- In the second and subsequent years EM8 sowings 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.
- 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 petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days. The grass cuttings should then be removed from the area and piled within the buffer in the north-eastern corner of the site.
- Mow the regrowth through to late autumn/winter to c 50mm and again in spring if needed.

4.3 Grassland - Cricket Playing Areas and Surrounds

4.3.1 The cricket pitch and surrounding amenity areas of grassland will be created as described in 'Sports Pitch Detailed Design Specification Ref: 21045' (Agripower Ltd, 2021).

4.3.2 The grassland will also be managed in line with the specifications described by Agripower (2021). Grass cuttings should be removed from the cricket square and piled within the buffer in the north-eastern corner of the site. The grass dump should have a structured

base, such as criss-crossed branches, to provide refugia for reptiles. Grass cuttings from the outfields can remain in situ.

4.4 Grassland –Northern Buffer Zone

4.4.1 The northern boundary will support a buffer zone of 5m. A seed mixture suitable for woodland edges will be sown within this buffer zone. This will comprise 50% Emorsgate Seeds EH1 Hedgerow Mixture and 50% EW1 Woodland Mixture. These seed mixes contain wildflowers and grasses that are tolerant of semi-shade and are suitable for sowing beneath established hedges and on woodland edges.

Creation

- Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing. To prepare a seed bed, first remove weeds using repeated cultivation. Cultivation close to established trees and shrubs can be damaging to their root systems so take care not to dig too deep, keeping disturbance to the minimum required to expose fresh soil.
- Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

Management

- 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 bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer. Then cut and dump cuttings in the north-eastern corner of the site. Early August is a good time. This will reveal the young meadow, which can then be kept short by mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.
- Once established, zoned management of the woodland margin will produce the best diversity of habitat structure: areas closest to the woodland boundary and those which are more shaded are left uncut in most years. Areas that are further from the margin and more open can be managed as grassland habitat. For example, in a 5 metre sown margin the 2 metres against the boundary could be left uncut, the next 3 metres cut once a year.

4.5 Grassland –Eastern Buffer Zone

4.5.1 The eastern boundary will support a buffer zone of 2m. A seed mixture suitable for hedgerow edges will be sown within this buffer zone. Emorsgate Seeds EH1 Hedgerow

Mixture contains wildflowers and grasses that are tolerant of semi-shade and is suitable for sowing beneath newly planted or established hedges.

Creation

- Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing. Overgrown hedgerows which have been recently cut back or laid sometimes offer up a strip of open bare ground ready for seeding.
- To prepare a seed bed, first remove weeds using repeated cultivation. Cultivation close to established trees and shrubs can be damaging to their root systems so take care not to dig too deep, keeping disturbance to the minimum required to expose fresh soil.
- Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

Management

- 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 bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer. Then cut and dump cuttings in the north-eastern corner of the site. Early August is a good time. This will reveal the young meadow, which can then be kept short by mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.
- Once established, zoned management of the hedgerow margin will produce the best diversity of habitat structure: areas closest to the hedgerow boundary and those which are more shaded are left uncut in most years. Areas that are further from the margin and more open can be managed as grassland habitat. Given the width of the buffer zone (2m), it is recommended that the zone be left uncut.

4.6 Existing Trees

4.6.1 Retained trees will be protected throughout the construction period, as detailed in the Construction Environment Management Plan.

- The line of trees will be enhanced via planting of native shrub within the understory.
- All works to trees will be carried out between October and February, when deciduous trees are dormant and in order to avoid the breeding bird season.
- Any works to trees with potential features suitable for bats must be approved by a qualified ecologist to safeguard potential bat habitat.

- Retained trees will be inspected at each visit and any deadwood considered dangerous will be removed in accordance with the recommendations set out in BS 3998: 2010 'Tree work recommendations.
- Any deadwood in trees will be retained on site in the form of deadwood refugia along the eastern boundary where possible, to provide suitable habitat reptiles.

4.7 Tree and Shrub Planting

Creation

- New tree planting across the site will comprise a mixture of native species, such as hornbeam, crab apple and wild cherry. New trees will be planted with a mixture of bare root stock and root balls, as per the planting specifications described in the Landscape Planting Plan (Bidwells, 2023). New trees will be planted when the trees are dormant between November and February.
- Trees guards will be required to protect newly planted trees as they become established.
- New scrub planting will comprise ornamental species such as silver dogwood, Russian sage and shrubby cinquefoil. Shrubs will be planted alongside ground cover species such as lesser white periwinkle. The new shrub planting will be located adjacent to the car park, as per the Landscape Planting Plan (Bidwells, 2023).

Management

- All works to trees and shrubs will be carried out between October and February, when deciduous trees are dormant and in order to avoid the breeding bird season.
- Any works to trees with potential features suitable for bats must be approved by a qualified ecologist to safeguard potential bat habitat.
- Trees will be inspected at each visit and any deadwood considered dangerous will be removed in accordance with the recommendations set out in BS 3998: 2010 'Tree work recommendations.
- Any deadwood in trees will be retained on site in the form of deadwood refugia along the eastern boundary where possible, to provide suitable habitat reptiles.

4.8 Existing Hedgerows

- All gaps within the hedgerows will be planted with whips of native woody species such as hawthorn, blackthorn, field maple, privet, and hazel.
- The hedgerows will be maintained with high basal density –this will be achieved by allowing bramble and other scrub species to grow at the base of the hedgerows. 'Neat' hedgerows will be avoided. This will provide foraging and nesting habitat for birds.
- Infrequent cutting of hedgerows to allow fruit and nut production which will benefit a wide range of faunal species. Cutting will be undertaken on a three-year rotation.
- The hedgerow will be cut between January –February to avoid impacts on wildlife and to ensure high fruit production.

4.9 Hedgerow Planting

4.9.1 A new hedgerow will be created along the western boundary of the site and the eastern boundary hedgerow will be extended.

Creation

- New hedgerow planting will take place between November and February when the trees are dormant.
- Vegetation at the ground level will be cleared before the hedgerows are planted.
- The new hedgerows will be planted with bare root stock and will include a mix of native species such as field maple, hawthorn and blackthorn, as detailed within the Landscape Planting Plan (Bidwells, 2023).
- The hedgerows will be planted in zig zag lines with a 50mm mulch layer. Protective fencing will be used to protect the new hedgerow during establishment.

Management

- The hedgerows will be frequently trimmed within the first 5 years to ensure dense structure.
- The hedgerows will be cut on rotation once every three years on alternate sides (left/top/right), where accessible, to ensure high fruit production.
- The hedgerows will be cut between January –February to avoid impacts on wildlife and to ensure high fruit production.
- It is recommended to cut the hedgerows in dry conditions or if the ground is frozen to avoid damaging the adjacent grassland.
- The hedgerows must be watered if there are periods of drought within the first few years to ensure that the hedgerows establish.
- Within the first five years the hedgerows will be gapped up with new plants if whips do not take.

5 ECOLOGICAL PROVISIONS

5.1.1 As part of the development, various provisions will be installed on site to enhance the site for birds, invertebrates, and bats. Enhancing the site for invertebrates will in turn support the species which feed on them, such as bats, birds and reptiles.

5.1.2 The approved Full Planning permission (21/04122/APP) includes the following condition relating to ecological provisions:

Condition 14

The HMP shall also detail the proposed biodiversity features (quantity, location, and model) from the Ecological Impact Assessment section 6 (Lizard Landscape Design and Ecology, 23rd July 2021). These enhancements include:

- *Variety of bird nesting boxes*
- *Bat boxes*
- *Invertebrate boxes*
- *Hedgehog hole*



Reason: in order to secure and to enhance biodiversity in accordance with policy NE1 of the Vale of Aylesbury Local Plan September 2021 and paragraphs 118, 170 and 175 of the National Planning Policy Framework 2021.

5.1.3 This section of the HMP therefore covers the locations of ecological provisions to be provided to the LPA for approval, as well as including details of ecological enhancements to allow discharge of Condition 14 of the approved planning permission. The proposed locations of provisions are shown below in Figure 4 and the provisions are described in Table 1. If the provision suggested is unavailable, a suitably qualified ecologist will suggest alternatives.

5.1.4 The external fencing to the proposed cricket club will comprise 50mm x 50mm welded mesh roll. 130mm x 130mm holes should be cut at the base of the wire mesh fencing to ensure the site is permeable to hedgehog. These should be regularly positioned at intervals of 50m along the length of the fencing.

5.1.5 Because of the number of bird and bat boxes proposed within the initial assessment by Lizard, it is recommended that half of the provisions should be installed within land outside of this application boundary. The client will ask permission to install half of the bat and bird boxes within the boundary of the northern woodland. If permission is not granted, it is deemed appropriate to install half of the number of provisions previously recommended in the assessment due to the limited value of the habitats within the site boundaries.

Table 1 Ecological provisions

Provision	Description	Location
<p>4 x WoodStone® Estella House Sparrow nest box (double chamber)</p> 	<p>This house sparrow nest box is manufactured from woodstone - a mix of concrete and FSC wood fibres. This material is strong and highly insulating which helps to provide a thermally stable environment within the box. It also protects against damage from predators such as cats, woodpeckers and squirrels. It is available with one or two breeding chambers, which can be particularly suitable for house sparrows as they prefer to nest in colonies. It is recommended that the double chambered model is utilised for this project.</p> <p>The boxes should be installed under the eaves of the new pavilion using strong screws and wall plugs (not included). If possible, it should be positioned near to vegetation and at a minimum of 2m above ground.</p>	<p>The boxes should be installed under the eaves of the new pavilion using strong screws and wall plugs (not included). If possible, it should be positioned near to vegetation (eastern elevation) and at a minimum of 2m above ground.</p>
<p>4 x WoodStone® Seville 28mm Nest Box (Green)</p> 	<p>This 28mm hole nest box will be used by Tree Sparrows, Blue Tits, Coal Tits and Great Tits. Constructed from a mix of concrete and wood fibres, WoodStone® nest boxes safeguard against attacks from predators including woodpeckers, cats and squirrels. The material insulates the nest which creates a more consistent internal temperature than an ordinary wooden box. This is especially important during the breeding season and ensures that young birds have a greater chance of survival.</p>	<p>The nest boxes should be installed on the southern elevations of the mature trees to the north of the site.</p> <p>Aluminium nails should be used to hang the nest boxes due to their weight and to limit any damage caused to trees.</p>
<p>6 x Eco Bat Box –crevice box</p>	<p>The Eco Bat Box is made of a waterproof recycled plastic shell which contains a wooden internal roost chamber. The clever design of this box means that it is highly thermally efficient: the box is coloured black to capture heat from the sun and the gap between the internal</p>	<p>Three of the bat boxes should be installed on the southern aspects of the trees along the southern boundary and three should be attached to the</p>


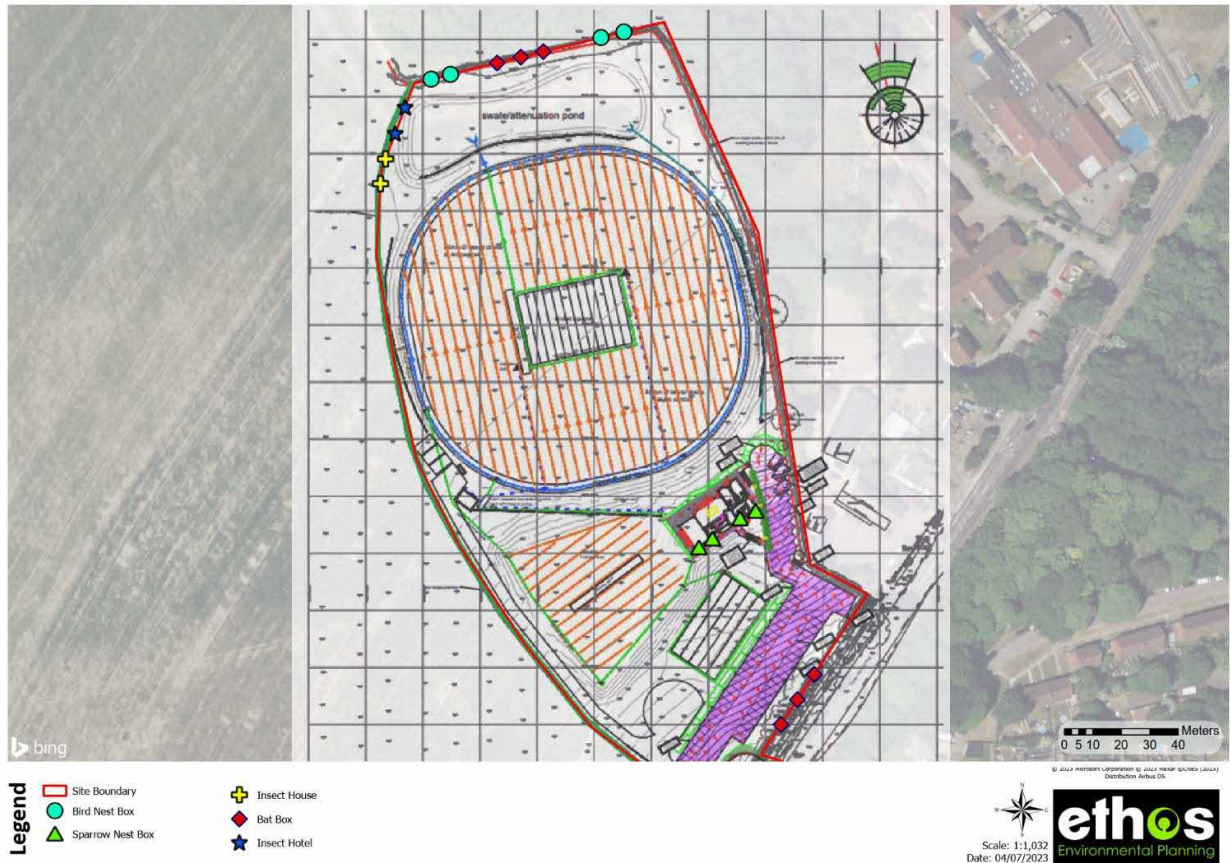
Provision	Description	Location
	<p>wood and external plastic shell provides excellent insulation.</p> <p>The crevice box has two internal chambers which are each 22mm wide and have rough internal walls and ceiling that is suitable for bats to hang from – this box is ideal for crevice dwelling species such as pipistrelles.</p> <p>The Eco Bat Box has 3 holes at the top of the box and a single hole at the base through which a nail or screws and wall plugs can be fitted. Boxes should be positioned as high as possible in a sheltered place.</p>	<p>southern aspects of some of the mature trees to the north of the site.</p>
<p>2 x Pinta Apex Insect House</p>	<p>The Pinta Apex Insect house is constructed from FSC timber. Solitary bees, wasps, and other invertebrates will use the box to lay eggs in providing a great opportunity for children to watch and learn about the lifecycle of these important and beneficial creatures.</p>	<p>These insect houses should be installed on fence posts in a sunny location near vegetation, preferably no higher than 2m.</p>
<p>2 x Alboran Insect Hotel</p>	<p>This insect hotel is ideal as a shelter for insects. Solitary bees, among other things, like to use an insect hotel. After collecting enough pollen into the bamboo tubes they will then lay their eggs and cover with more pollen. When the eggs hatch, the pollen forms food for the young bee and works its way out to fly out.</p>	<p>These insect hotels should be installed on fence posts in a sunny location near vegetation, preferably no higher than 2m.</p>

Figure 4 Locations of ecological provisions



6 WORK SCHEDULE

6.1.1 This section sets out the work schedule for establishing the habitats on site and the subsequent schedule for management for the first five years. Table 2 contains details of habitat creation and management, with Table 3 detailing monitoring requirements.

Table 2 Work schedule for establishing and managing habitats on site

Habitat	Management Tasks	Timing
Grassland – enhancement area	<u>Creation</u> <ul style="list-style-type: none"> Prepare seed bed. Sow with EM8 Meadow Mixture for Wetlands. 	Year 1 autumn or spring
	<u>First year management</u> <ul style="list-style-type: none"> If sown in autumn, avoid cutting until early August. Dump cuttings in grass pile in north-eastern corner of site to provide habitat for reptiles. Dig out perennial weeds. 	Year 1 August onwards
	<u>Management once established</u> <ul style="list-style-type: none"> Main summer hay cut in combination with autumn and possibly spring mowing. 	Annually from July onwards
Grassland – cricket playing	<u>Creation and management</u> <ul style="list-style-type: none"> To be created and managed in line with Agripower’s Sports Pitch Detailed Design Specification (2021). 	As specified (Agripower, 2021)

Habitat	Management Tasks	Timing
areas and surrounds	<ul style="list-style-type: none"> Dump cuttings from cricket square in grass pile in north-eastern corner of site to provide habitat for reptiles. 	
	<p><u>First year management</u></p> <ul style="list-style-type: none"> Lightly roll or tread once seedling grasses are established to prepare for first cut. A few days later, mow to a height of 50mm. Thereafter, reduce mowing height to desired height over the first spring/summer. 	Three to four weeks after sowing
Grassland – northern buffer zone	<p><u>Creation</u></p> <ul style="list-style-type: none"> Prepare seed bed, taking care not to damage root systems of nearby trees and shrubs. Sow with 50% EH1 Hedgerow Mixture and 50% EW1 Woodland Mixture. 	Year 1 autumn or spring
	<p><u>First year management</u></p> <ul style="list-style-type: none"> If sown in autumn, avoid cutting until early August. Dump cuttings in grass pile in north-eastern corner of site to provide habitat for reptiles. Dig out perennial weeds. 	Year 1 August onwards
	<p><u>Management once established</u></p> <ul style="list-style-type: none"> Zoned management –2m closest to woodland left uncut and the next 3m cut once per year. 	Annually from July onwards
Grassland – eastern buffer zone	<p><u>Creation</u></p> <ul style="list-style-type: none"> Prepare seed bed, taking care not to damage root systems of nearby trees and shrubs. Sow with EH1 Hedgerow Mixture. 	Year 1 autumn or spring
	<p><u>First year management</u></p> <ul style="list-style-type: none"> If sown in autumn, avoid cutting until early August. Dump cuttings in grass pile in north-eastern corner of site to provide habitat for reptiles. Dig out perennial weeds. 	Year 1 August onwards
	<p><u>Management once established</u></p> <ul style="list-style-type: none"> This habitat can be left uncut. 	N/A
Existing trees	<p><u>Management</u></p> <ul style="list-style-type: none"> Retained trees inspected, deadwood removed as required and retained on site as log piles if suitable and possible. 	October - February
New trees and shrubs	<p><u>Creation</u></p> <ul style="list-style-type: none"> Locations and specifications as shown on the Landscape Planting Plan (Appendix 1). 	Year 1 November - February
	<p><u>Management</u></p> <ul style="list-style-type: none"> Trees inspected, deadwood removed as required and retained on site as log piles if suitable and possible. 	October - February
Existing hedgerows	<p><u>Management</u></p> <ul style="list-style-type: none"> Existing hedgerow infill planted with whips of native species, as per the Landscape Planting Plan (Appendix 1). Infrequent cutting on a 3-year rotation to allow fruit and nut production. 	January - February
Hedgerow planting	<p><u>Creation</u></p> <ul style="list-style-type: none"> Vegetation cleared at ground level prior to planting. 	Year 1 November - February

Habitat	Management Tasks	Timing
	<ul style="list-style-type: none"> Planted with bare root stock, species and specifications shown on the Landscape Planting Plan (Appendix 1). Planted in zig-zag lines with a 50mm mulch layer. Chestnut post and wire fencing to be used to protect new hedgerow during establishment. 	
	<p><u>Management</u></p> <ul style="list-style-type: none"> Frequently trimmed for first five years, then rotational management to allow high fruit production. Hedgerows to be watered during periods of drought within the first few years. Within the first five years the hedgerows will be gapped up with new plants if whips do not take. 	January - February

Table 3 Habitat and protected species monitoring

Feature	Monitoring tasks	Timing
Habitats	<p>Five-year monitoring of habitats to ensure establishment in line with HMP objectives and Landscape Plan.</p> <p>UKHab classification and condition assessment of the habitats delivered within the scheme.</p>	<p>Annually for the first five years, then once every five years.</p> <p>To be undertaken in June-July to allow for grassland flowering period.</p>

7 ROLES AND RESPONSIBILITIES

- 7.1.1 The Client will be responsible for establishing the habitats and protected species provision detailed within this HMP, as detailed in the previous sections. Following habitat creation, the site will then be managed by a dedicated management company selected by the Client, who will be responsible for implementing the annual work plan.
- 7.1.2 All work will be carried out by experienced and qualified operatives holding the necessary training certificates to undertake the prescribed works. All works shall be carried out in accordance with good horticultural practice, using materials, plant and machinery appropriate to the task, undertaken in such a manner that avoids damage to the site and its surroundings.
- 7.1.3 The Client will be responsible for monitoring the site for 30 years in line with the BNG requirements, appointing appropriate professionals (ecology, arboriculture) and producing the five-year monitoring report.
- 7.1.4 Updates to the HMP following the first five years of monitoring will be the responsibility of the Client.

8 MONITORING AND REMEDIAL MEASURES

- 8.1.1 The Client will be responsible for establishing the habitats on site which will then be managed by a dedicated management company. The key aim of monitoring is to assess the success of the management prescriptions against the management objectives. The Management Company will take responsibility for monitoring and will liaise with the Client to report on the successes and any changes proposed to management, this will comprise a 5-year review of management to be provided as a monitoring report and updates made to the HMP if required.
- 8.1.2 If the results of post-creation monitoring highlighted the need for management changes, the HMP would be amended accordingly. A formal review of the HMP would take place after five years following the completion of habitat creation. The revised HMP would contain management prescriptions for a further five to ten years.
- 8.1.3 In line with Condition 9 of the granted planning application, any tree or shrub which forms part of the approved landscaping scheme which within a period of five years from planting fails to become established, becomes seriously damaged or diseased, dies or for any reason is removed shall be replaced in the next planting season by a tree or shrub of a species, size and maturity to be approved by the Local Planning Authority.
- 8.1.4 This section sets out how monitoring will be implemented. Table 4 provides a list of monitoring actions with appropriate methods.

Table 4 Monitoring plan

Habitat	Target conditions	Monitoring methods	Timing/frequency of monitoring	Remedial actions
Grassland – enhancement area	Other neutral grassland in moderate condition	UKHab survey and condition assessment	June –July Annually for first five years then once every five years	Change management regime, additional grassland sowing, more frequent perennial weed management
Grassland – northern buffer zone	Modified grassland in moderate condition	UKHab survey and condition assessment	June –July Annually for first five years then once every five years	Change management regime, additional grassland/wildflower sowing, more frequent perennial weed management
Grassland – eastern buffer zone	Modified grassland in moderate condition	UKHab survey and condition assessment	June –July Annually for first five years then once every five years	Change management regime, additional grassland/wildflower sowing, more frequent perennial weed management
New trees and shrubs	Scattered trees and shrubs	Visual survey	October –February, first year post planting and then every five years	Change management regime, removal and replacement of any trees/shrubs which don't become established within first five years
Existing hedgerow	Native species-rich hedgerow with trees in good condition	Visual survey and condition assessment	October –February, every five years	Change management regime, additional basal planting
New hedgerow	Native species-rich hedgerow in moderate condition	Visual survey and condition assessment	October –February, first year post planting and then every five years	Change management regime, removal and replacement of any trees/shrubs which don't become established within first five years

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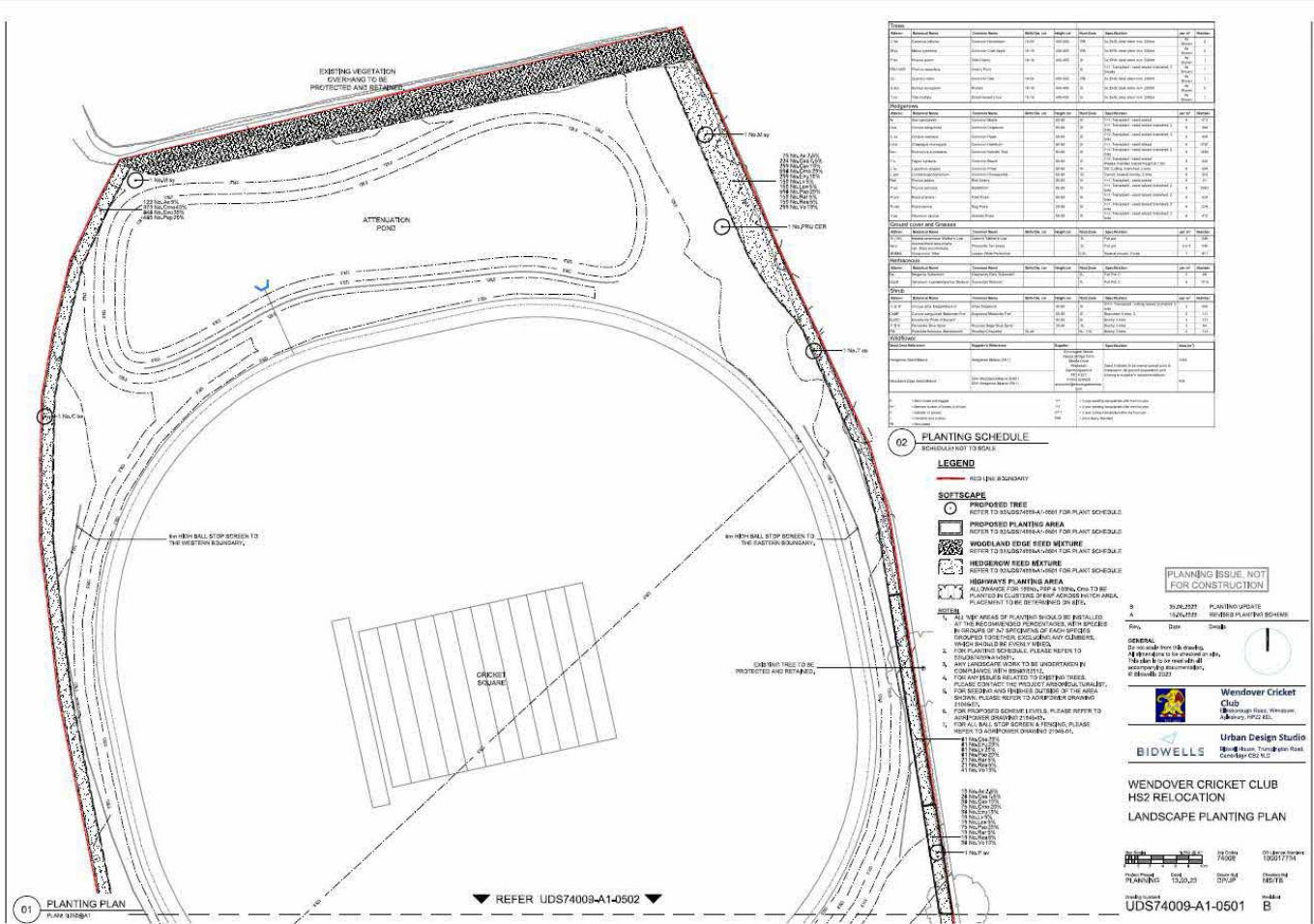
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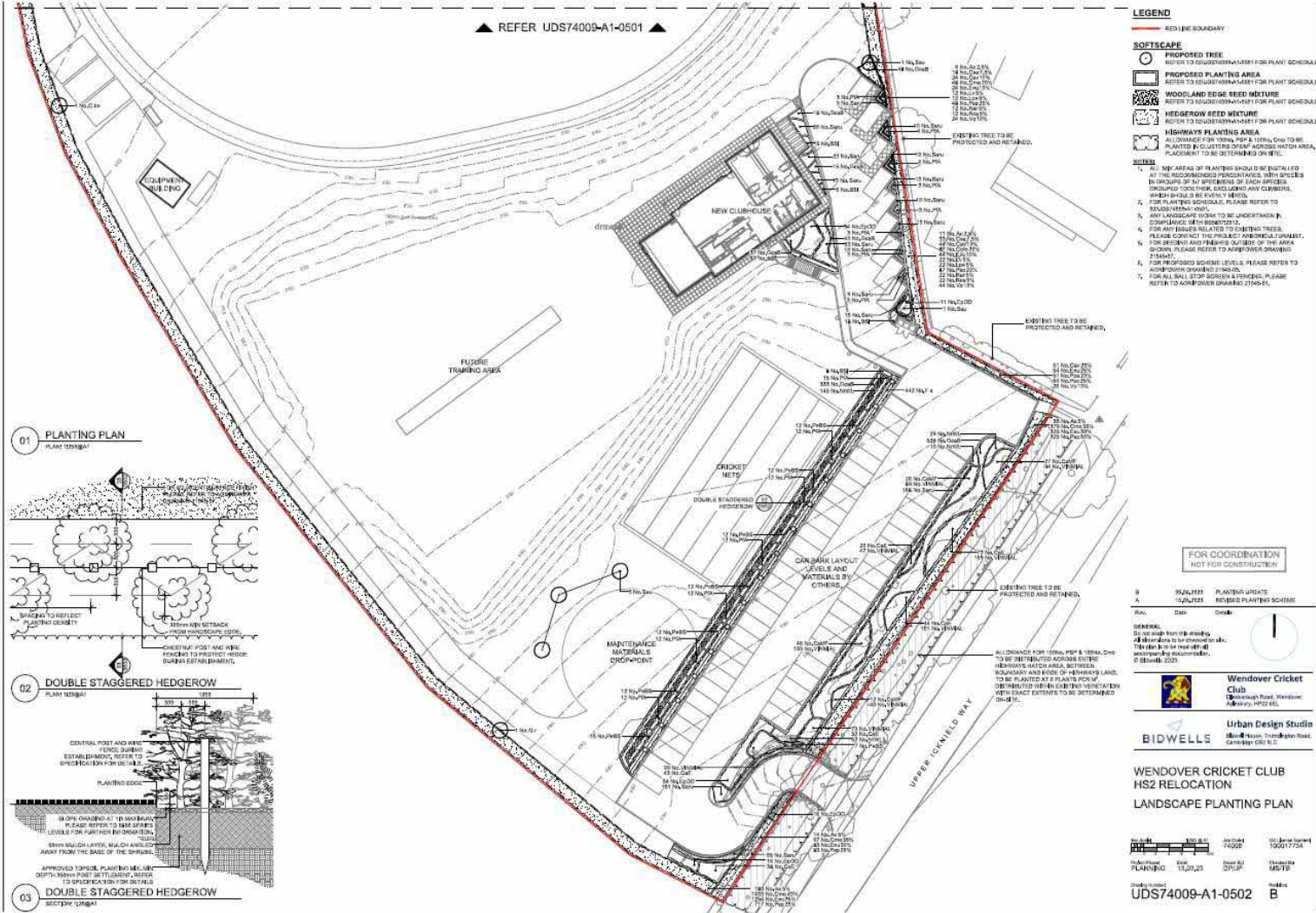
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Wildlife and Countryside Act 1981. Available at: <http://www.legislation.gov.uk/ukpga/1981/69> [Accessed 11th January 2022].

APPENDIX 1 LANDSCAPE PROPOSALS





01 PLANTING PLAN
PLAN 1205841

02 DOUBLE STAGGERED HEDGEROW
PLAN 102841

03 DOUBLE STAGGERED HEDGEROW
SECTION 120841

APPENDIX 2 SOIL ANALYSIS RESULTS

ANALYSIS REPORT



Contact : ANALYSIS SERVICES DIRECT NRM LABORATORIES COOPERS BRIDGE BRAZIER'S LANE BRACKNELL BERKS Tel. : 01344 886338	Client : MARTIN SMITH UNIT 1 BRASSMILL ENTERPRISE CENTRE BATH BA1 3JN				
R600					
Please quote the above code for all enquiries					
Sample Matrix : Agricultural Soil	Laboratory Reference Card Number 01834/23				
	<table border="1"> <tr> <td>Date Received</td> <td>06-Feb-23</td> </tr> <tr> <td>Date Reported</td> <td>08-Feb-23</td> </tr> </table>	Date Received	06-Feb-23	Date Reported	08-Feb-23
Date Received	06-Feb-23				
Date Reported	08-Feb-23				

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details		Soil pH	Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details		P	K	Mg	P	K	Mg
8590/23	1	WENDOVER 3.0 hectares From Ploughed/Fallow	7.9	2	2+	2	19.0	239	56

*If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
 The analytical methods used are as described in DEFRA Reference Book 427
 The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.*

Released by Sandy Cameron On behalf of NRM Date 08/02/23



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ANALYSIS REPORT



DATE 8th February 2023
 SAMPLES FROM MARTIN SMITH, UNIT 1 BRASSMILL,
 ENTERPRISE CENTRE
 SAMPLED BY
 Report reference 01834/23

ANALYSIS SERVICES DIRECT
 NRM LABORATORIES
 COOPERS BRIDGE
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 BERKS
 Tel: 01344 886338
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.

The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.

All recommendations are given for the mid-point of each Index.

Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.

Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.

For visual evaluation of soil structure (V.E.S.S.), a score on 1 or 2 would be considered adequate.

Don't forget to deduct nutrients applied as organic manures.

For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.

Target Indices:

Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-

(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)

Vegetables and Bulbs: P Index 3, K Index 2+

(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)

Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2

(Note: Cider apples respond to K Index 3, Mg Index 3)

A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.

For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.

In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	Last Crop / Next Crop	P2O5	K2O	MgO	Lime (Arable)	(Grass)
WENDOVER	Ploughed / Not Given	Units/Acre			T/Ac	0
008590 /		Kg/Ha			Te/Ha	0

Fertiliser recommendations are based on AHDB RB209 (Ninth Edition). If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
 NRM is a UKAS accredited laboratory to ISO/IEC 17025



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APPENDIX 3 BOTANICAL ENHANCEMENT POTENTIAL KEY

