

ENVIRONMENT

Avant Homes
Hay Green Lane
Birdwell
Biodiversity Enhancement and
Management Plan

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CONTENTS

1.	INTRODUCTION.....	1
	Instruction	1
	Site Description	1
	The Project	2
	Scope of Works	3
	Planning Policy and Legislative Requirements.....	4
	Aims and Objectives	5
2.	SPECIES ENHANCEMENT, MITIGATION AND COMPENSATION	7
	Bats	7
	Birds	7
	Hedgehogs.....	8
	Invertebrates	9
	Other Species.....	9
3.	EXTERNAL LIGHTING SPECIFICATIONS	11
4.	HABITAT CREATION	13
	Hedgerow Creation	13
	Wildflower Grassland Creation	13
	Tree Planting.....	14
	Orchard Creation	14
5.	HABITAT MANAGEMENT	15
	Hedgerows	15
	Retained Hedgerows	15
	Wildflower Grassland.....	15
	General Grassland Management – Year 1	15
	General Grassland Management - Years 2+	15
	Trees and Traditional Orchard	16
	Biodiversity Net Gain Habitat Management.....	16
	Schedule of Habitat Monitoring	22
	Monitoring Report.....	23
6.	REFERENCES	25

FIGURES

Figure 1.1: Site Location Plan

Figure 3.1: Site Illuminance

TABLES

Table 5.1: Habitat Types, Target Conditions and Management

Table 5.2: Timetable of Delivery

Table 5.3: Timetable of Key Indicators

APPENDICES

Appendix 1: Bat, Bird, Invertebrate and Hedgehog Highway Plan

Appendix 2: Landscape Masterplan

Appendix 3: External Lighting Layout Plan

1. INTRODUCTION

Instruction

- 1.1 This Biodiversity Enhancement and Management Plan (BEMP) has been produced on behalf of Avant Homes in respect of the Site at Hay Green Lane, Birdwell. It has been produced to discharge the outstanding ecological planning conditions at the Site.

Site Description

- 1.2 The Site is located to the south of Hay Green Lane in the village of Birdwell, which itself lies approximately 7km south of Barnsley. The Site comprised a number of fields, likely grazed grassland, hedgerows, scattered trees, scrub, buildings and allotments.
- 1.3 It is located adjacent to residential properties, within a wider arable landscape. The Site is centred on grid reference SE 34775 01331. The location of the Site is shown below in **Figure 1.1**

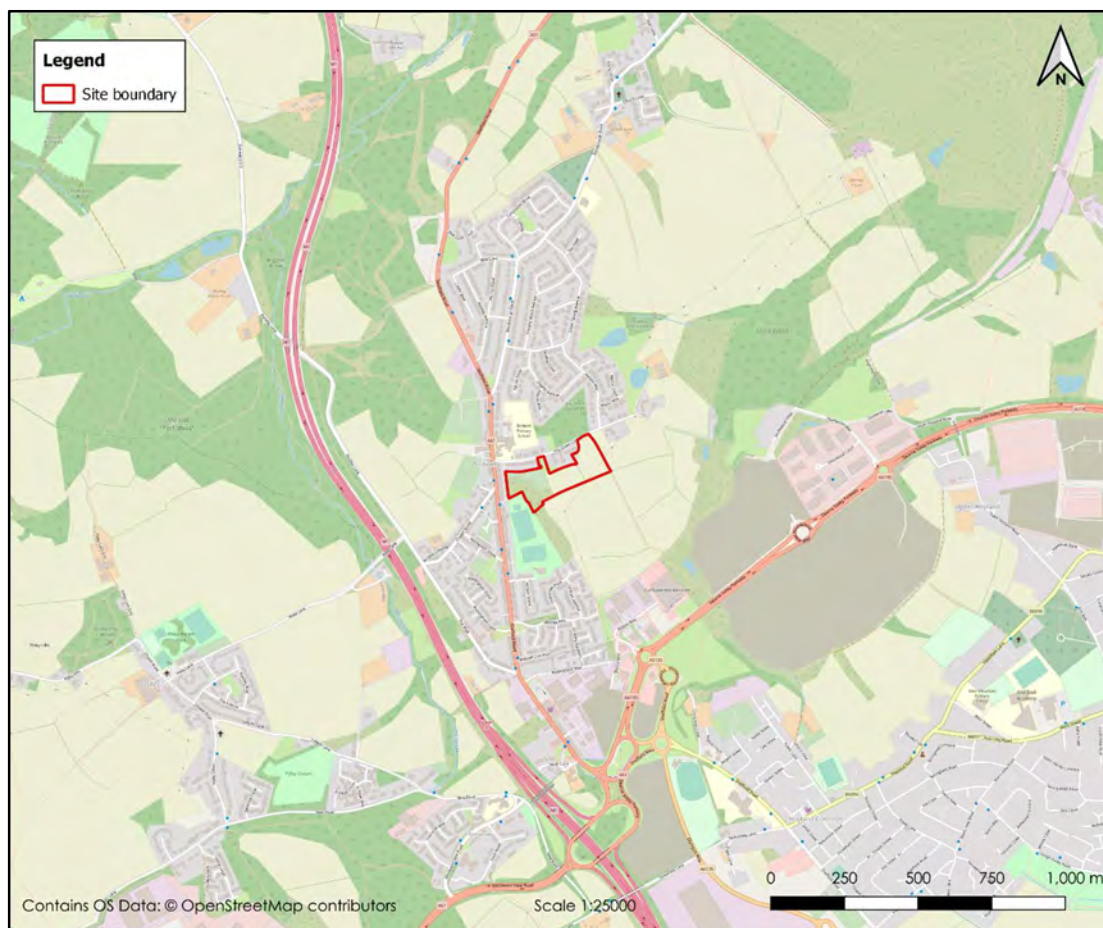


Figure 1.1: Site Location Plan

The Project

1.4 This document has been produced to provide details relating to planning conditions 4, 5 and 6 of Planning Application 2022/0680 for a *Reserved Matters* application for residential development up to 113No. dwellings, associated infrastructure and public open space.

1.5 Planning condition 4 states:

'The development shall be carried out in accordance with the following biodiversity, mitigation and enhancement measures. The measures listed below shall be implemented in full, prior to first occupation of each dwelling. Full details including photographic evidence along with plans showing the location of the enhancement measures should be submitted to the Local Planning Authority prior to occupation of the final dwelling, unless otherwise agreed in writing by the Local Planning Authority; the features shall thereafter be permanently retained.

- *25% of the dwellings on site to comprise integrated bat roosting boxes and bee bricks, to be installed in suitable locations within the new dwellings;*
- *100% of the dwellings to comprise integrated swift boxes, to be installed in suitable locations within the new dwellings; and*
- *Hedgehog highways to be installed in all boundary fencing, including fences between dwellings. The hedgehog highways will be signposted to prevent residents blocking the gaps.'*

1.6 Planning condition 5 states:

'A Biodiversity Enhancement Management Plan (BEMP), completed by a suitably qualified ecologist will be submitted to the Local Planning Authority prior to the commencement of works on site. The BEMP will include the following:

- *A recent landscape plan detailing the location of mitigation works and the size of each habitat/linear feature to be enhanced and/or created;*
- *Management aims and prescriptions detailing the methods required to create and/or enhance each habitat/linear feature at the required quality for a period of 30 years;*
- *A timetable of delivery for each habitat/linear feature created and/or enhanced;*
- *A schedule of ecological monitoring for a minimum 30 year period, identifying when key indicators of habitat/linear feature maturity should be achieved;*
- *Details on the monitoring of habitats and linear features and the provision of a report, which shall be provided to the LPA on the 1st November of each year of monitoring (years one-three after creation, years five, ten and every ten years thereafter), which will assess the condition of all habitats and linear features created and/or enhanced and any necessary management or replacement/remediation measures required to deliver the Net Gain values set out in the BEMP;*

- *A schedule of actions to be undertaken in case signs of failing are identified; the schedules must include details of technique(s) to be used, equipment to be used, roles and relevant expertise of personnel and organisations involved and timing of actions including submission of monitoring report to the Council.'*

Planning condition 6 states:

- 1.7 *'Notwithstanding the submitted details, prior to first occupation of the site, details of external lighting shall be submitted to and approved in writing by the Local Planning Authority. The details shall be provided by a suitably qualified ecologist and clearly demonstrate that lighting will not adversely impact wildlife using key corridors, foraging and commuting features and roosting sites. The details shall include, but are not limited to, the following:*

- *A drawing showing sensitive areas, dark corridors and buffer areas;*
- *Technical description, design or specification of external lighting to be installed including shields, cowls or blinds where appropriate;*
- *A description of the luminosity of lights and their light colour;*
- *A drawing(s) showing the location and where appropriate the elevation and height of the light fixings;*
- *Methods to control lighting control (e.g. timer operation, Passive Infrared Sensors (PIR)); and*
- *Lighting contour plans, both horizontal and vertical where appropriate, taking into account hard and soft landscaping.*
- *All external lighting shall be installed in accordance with the specifications and locations set out in the approved details. They shall be maintained thereafter in accordance with these details'.*

Scope of Works

- 1.8 This document has been produced to provide details relating to the discharge of planning conditions 4, 5 and 6, as provided above, to include details of:

- Details of the bat, bird, invertebrate boxes;
- Management aims required to create and /or enhance each habitat/linear features.
- A timetable of delivery for each habitat/linear feature created and/or enhanced.
- A schedule of ecological monitoring for a minimum of a 30-year period.
- Details on the monitoring of habitats and linear features and the provision of a report.
- A schedule of actions to be undertaken in case signs of failing are identified.
- A drawing showing sensitive areas, dark corridors, and buffer areas.
- Information relating to the lighting scheme at the Site.

- 1.9 This document does not contain the Construction Environmental Management Plan (CEMP (B)) for the discharge of condition 14 which will be provided as a separate document.

Planning Policy and Legislative Requirements

- 1.10 The National Planning Policy Framework (NPPF, 2021) provides guidelines for development within paragraphs 174, 175, 197 and 180 which focus on promoting conservation, restoration and enhancement of habitats, ecological networks and the protection and recovery of priority species, as well as maintain and enhance networks of habitats and green infrastructure.
- 1.11 Barnsley Council Local Plan (2019) contains the following planning policies which are directly relevant to biodiversity:

"POLICY GI1: GREEN INFRASTRUCTURE

We will protect, maintain, enhance and create an integrated network of connected and multi functional Green Infrastructure assets that:

- Provides attractive environments where people want to live, work, learn, play, visit and invest;*
- Meets the environmental, social and economic needs of communities across the borough and the wider City Regions;*
- Enhances the quality of life for present and future residents and visitors; Helps to meet the challenge of climate change;*
- Enhances biodiversity and landscape character; Improves opportunities for recreation and tourism;*
- Respects local distinctiveness and historical and cultural heritage; Maximises potential economic and social benefits; and*
- Secures and improves linkages between green and blue spaces;*

At a strategic level Barnsley's Green Infrastructure network includes the following corridors which are shown on the Green Infrastructure Diagram:

- River Dearne Valley Corridor.*
- River Dove Valley Corridor.*
- River Don Valley Corridor.*
- Dearne Valley Green Heart Corridor.*
- Historic Landscape Corridor.*

The network of Green Infrastructure will be secured by protecting open space, creating new open spaces as part of new development, and by using developer contributions to create and improve Green Infrastructure.

We have produced a Green Infrastructure Strategy for Barnsley which is informed by the Leeds City Region and South Yorkshire Green Infrastructure Strategies."

"POLICY BIO1 Biodiversity and Geodiversity

'Development will be expected to conserve and enhance the biodiversity and geological features of the borough by:

- Protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife and geological sites of international, national and local significance, ancient woodland and species and habitats of principal importance identified via Section 41 of the Natural Environment & Rural Communities Act 2006 (for list of the species and habitats of principal importance) and in the Barnsley Biodiversity Action Plan.*
- Maximising biodiversity and geodiversity opportunities in and around new developments.*
- Conserving and enhancing the form, local character and distinctiveness of the boroughs natural assets such as the river corridors of the Don, the Dearne and Dove as natural floodplains and important strategic wildlife corridors.*
- Proposals will be expected to have followed the national mitigation hierarchy (avoid, mitigate, compensate) which is used to evaluate the impacts of a development on biodiversity interest.*
- Protecting ancient and veteran trees where identified.*
- Encouraging provision of biodiversity enhancements.*

Development which may harm a biodiversity or geological feature or habitat, including ancient woodland and aged or veteran trees found outside ancient woodland, will not be permitted unless effective mitigation and/or compensatory measures can be ensured.

Development which adversely effects a European Site will not be permitted unless there is no alternative option and there are imperative reasons of overriding public interest (IROPI)".

Aims and Objectives

1.12 This BEMP has been produced to provide details relating to, and to inform the discharge of Conditions 4, 5 and 6 of the reserved matters planning permission, following a review of the most recent ecological reports for the Site including:

- Ecological Appraisal (FPCR October 2020).
- Great Crested Newt Report (FPCR, May 2020). and
- Biodiversity Net Gain Assessment (BWB, 2023).

1.13 This document has the following objectives:

- Provide details of the bat boxes including number, types, recommended locations and positions.
- Provide details of the bird boxes including number, types, recommended locations and positions.

- Detail the location of the hedgehog highway to allow wildlife movement across the Site.
- Provide details of the habitats to be created at the Site including habitat management, maintenance and creation.
- Detail how the habitats will be managed across the Site to meet the Biodiversity Net Gain Condition Assessments for each habitat over a period of 30 years.
- Provide details of the external lighting to be implemented at the Site including retained dark corridors for commuting and foraging bats.
- Provide a recent landscape plan detailing the location of mitigation works and the size of each habitat/linear feature to be enhanced and/or created.
- Provide a schedule of ecological monitoring for a minimum 30-year period, identifying when key indicators of habitat/linear feature maturity should be achieved;
- Provide a schedule of actions to be undertaken in case signs of failing are identified.
- Include a timetable of implementation for the mitigation measures outlined within this document; and,
- Provide details on when a report will be submitted to the LPA provision of a report.

2. SPECIES ENHANCEMENT, MITIGATION AND COMPENSATION

- 2.1 The following enhancement, mitigation and compensation measures will be included within the development to provide opportunities for other species potentially present on-Site and within the area.

Bats

- 2.2 At least 25% of new buildings on-Site will have integrated bat boxes, totalling 28 boxes, which will be positioned as close to the eaves as possible and should face south to southwest with the flight paths to the entrance unobstructed. The locations are as indicated in **Appendix 1**.
- 2.3 The following bat boxes will be installed:
- 14 Habitat Bat Boxes either model 001 or 003, which can be sourced from:
<https://www.nhbs.com/habibat-bat-box-staffordshire-smooth-red-brick>
<https://www.nhbs.com/habibat-bat-box-003-blended-facing>
 - 14 2FR Schwegler Bat Tube boxes and/or combination of Ibstock Enclosed Bat Box 'C', which can be sourced from:
<https://www.nhbs.com/2fr-schwegler-bat-tube>
<https://www.nhbs.com/ibstock-enclosed-bat-box-c>
- 2.4 Bat droppings do not typically accumulate within these types of boxes to a level likely to cause problems for future habitation, therefore, cleaning is not a necessity. As bats and their habitats receive legal protection, if cleaning of the boxes is required, this should not be undertaken without the presence of a suitably licensed bat ecologist.

Birds

- 2.5 Condition 4 requires 100% of the new dwellings to have integrated swift boxes. However, the requirement for each new dwelling to have these boxes focused on one species is not considered to provide any additional opportunities for other species of birds across the development. Also, many of the swift boxes will be necessarily positioned inappropriately on some of the new dwellings and will not be utilised due to the positioning of the dwellings across the development i.e., if 100% of the dwellings contain boxes, the majority of the boxes will not face north to east and therefore offer unfavourable conditions for nesting.
- 2.6 We therefore propose that a total of 25% of all new dwellings will feature integrated swift boxes with a further 25% of all new dwellings featuring other types of integrated bird boxes. In addition, 10 bird boxes will also be installed on retained trees along the development boundaries.
- 2.7 The following will be therefore installed at the development:
- 25% of new dwellings on-Site will have integrated swift bricks, totalling 28 boxes.

- 25% of new dwellings will include startling and house sparrow boxes totalling 28 boxes; and.
 - 10 boxes suitable for installation onto trees will be installed around the boundaries of the development.
- 2.8 Integrated bird boxes will be installed 2m to 4m above ground and will offer unobstructed fly-in access. The boxes will face between north and east, avoiding full sun and prevailing wind. Where possible the boxes will be installed under the eaves of the dwellings. See **Appendix 1** for locations.
- 2.9 Swift boxes will be installed in groups across the development, as this species nest in colonies. Boxes to be installed on the trees will also be installed at least 2m to 4m above ground level and face between north and east. See **Appendix 1** for locations.
- 2.10 The following types of boxes will be installed:
- 28 WoodStone Swift Nest Boxes and/or/combination WoodStone Build-in Swift Nest Box B, which can be sourced from:
<https://www.nhbs.com/woodstone-swift-nest-box>
<https://www.nhbs.com/woodstone-build-in-swift-nest-box-b>
 - 14 Vivara Pro WoodStone House Sparrow Nest Box and/or/combination of Schwegler Brick Nest Boxes, which can be sourced from:
<https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box>
<https://www.nhbs.com/schwegler-brick-nest-boxes>
 - 14 Ecosurv Starling Boxes for similar, which can be sourced from:
<https://www.nhbs.com/starling-box-smooth-brick>
 - Five Vivara Pro Barcelona WoodStone Open Nest Box or similar, which can be sourced from:
<https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box>
 - Five Vivara Pro Seville WoodStone Nest Box with 32mm Oval Hole or similar, which can be sourced from:
<https://www.nhbs.com/vivara-pro-seville-32mm-oval-woodstone-nest-box>

- 2.11 Cleaning and maintenance should be undertaken from October to January, outside of the nesting bird season (March to August inclusive). The old nesting material which accumulates after every breeding season and the droppings from earlier in the season should be removed. This can be undertaken without a specific licence, although in the unlikely event that active nests are encountered, these should remain unaffected until all chicks have fledged.

Hedgehogs

- 2.12 A hedgehog 'highway' will be created within the new development to facilitate movement of this species. The following will be created across the development in the locations as indicated in **Appendix 1**:

- New garden fences will have 13cm by 13cm holes cut into the bases, which will include holes within any gravel boards.
 - Where possible fences and gates will be raised off the ground, to provide a 10-13mm gap for hedgehogs or have suitable holes cut into them. and
 - Native hedgerows and planting will be created where possible along boundaries to allow access through areas for hedgehogs.
- 2.13 The design of the hedgehog 'highway' will provide maximum opportunities and centrality for hedgehogs and holes should be located as indicated in **Appendix 1**.
- 2.14 In addition, all holes should have suitable 'hedgehog highway' signs to inform residents of their purpose. These can be sourced from the British Hedgehog Preservation Society from the link below:
- <https://shop.britishhedgehogs.org.uk/product/hedgehog-highway-sign/>
- 2.15 Suitable leaflets with information on the hedgehog highways, general hedgehog ecology and ways to help hedgehogs should also be provided with every new home. Suitable leaflets can be obtained from specialist charities such as the British Hedgehog Preservation Society or Hedgehog Street.

Invertebrates

- 2.16 At least 25% of the dwellings will have bee bricks integrated installed totalling 28 bricks. The bricks will be installed in positioned in a warm, sunny spot, south facing, with no vegetation in front, ideally at least 1m from the ground. Locations have been provided in **Appendix 1**.
- 2.17 The following will be installed:
- 28 Bee Bricks or similar which can be sourced from:
<https://www.greenandblue.co.uk/products/bee-brick>
<https://www.nhbs.com/bee-brick>

Other Species

- 2.18 The Ecological Appraisal (FPCR, 2020) identified the Site to have some suitability for common amphibians and reptiles. Therefore to benefit other species, including hedgehogs, invertebrates, other small mammals, reptiles and amphibians, brash and log piles should be created from any vegetation clearance undertaken during the site clearance phase and created in suitable locations across the Site.
- 2.19 A total of six brash and log piles will be created and will be positioned within Public Open Spaces across the Site. Recommended locations have been provided in **Appendix 1**.
- 2.20 The brash and log piles should comprise the following, in line with the Reptile Habitat Management Handbook (Edgar, Foster & Baker, 2010) and the Amphibian Habitat Management Handbook (Baker et al, 2011):

- Contain a mix of both logs and brash.
- A range of different sized logs including thickness and length.
- The central core compacted, while the outer layers are looser providing gaps for species to shelter within; and,
- At least 2m by 2m in size and at least 1m high.

2.21 These brash and log piles will not require any maintenance but should be checked on a yearly basis and 'topped up' when required.

3. EXTERNAL LIGHTING SPECIFICATIONS

- 3.1 The external lighting at the Site has been designed with bats in mind to maintain dark corridors across the Site for use by commuting and foraging bats. This document should be read in conjunction with the Lighting Strategy Produced for the Site (BWB, 2023a). The lighting scheme was designed in line with the current bats and artificial lighting guidelines: Bat Conservation Trust (2018) Bats and Artificial Lighting in the UK – Guidance Note 08/18.
- 3.2 Dark corridors will feature along the northern, eastern, southern and western Site boundaries as well as no lighting proposed within the areas of open public space.
- 3.3 Two further dark corridors running across the central area of the Site as part of retained hedgerows from north to south will also be created. One of these dark corridors features lighting, but with lower levels as to not impact more common light tolerant species such as pipistrelles as it runs alongside the public footpath. The other dark corridor across the site does not contain any lighting. Both of the dark corridors cross the main development road; however, the lighting columns have been positioned to provide space for bats to cross the road with as little lighting impacts as possible. See **Figure 3.1** for the Site illuminance provided in false colour to show where the proposed lighting will impact.

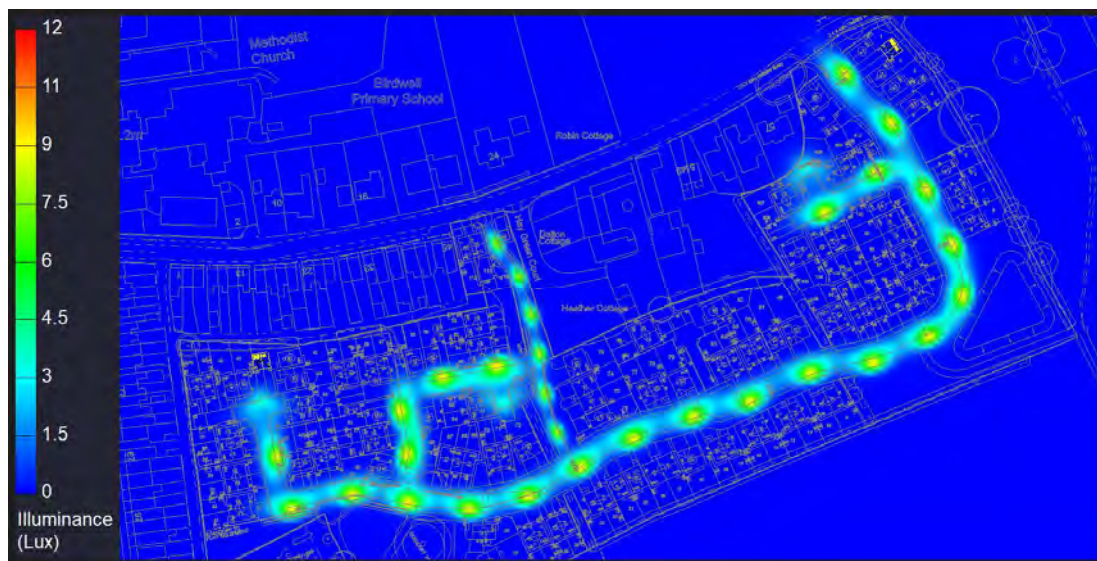


Figure 3.1: Site Illuminance

- 3.4 The lighting scheme is considered to offer continued foraging and commuting opportunities for bats at the Site and will feature the following:
- All luminaires 2700K warm white colour temperature.
 - 6m columns to light the roads.
 - 3m columns to light the path.
 - Dimming factors applied to achieve the minimum acceptable levels.
 - Specific optics used to control light spill.
 - 100% downward light only, no tilt on heads.

- 3.5 See **Appendix 3** for the detailed External Lighting Layout Plan which provides the lighting contour plan.

4. HABITAT CREATION

Hedgerow Creation

- 4.1 New native hedgerow planting will be undertaken along selected residential boundaries, which will comprise a single row of plants to form ornamental hedgerows, with native species rich hedgerow creation also featured across the Site. The locations of the hedgerow planting can be found on the landscaping plan provided as **Appendix 2**. Native species rich hedgerows will comprise at least 7 native species per 30m.
- 4.2 Hedgerow creation will include a range native hedgerow species which provide nuts, berries, fruits and flowers which will attract a range of different species including invertebrates, birds and mammals. The following species will be utilised:
- Hawthorn *Crataegus monogyna*
 - Blackthorn *Prunus spinosa*
 - Hazel *Corylus avellana*
 - Goat Willow *Salix caprea*
 - Guelder Rose *Viburnum opulus*
 - Holly *Ilex aquifolium*
 - Field maple *Acer campestre*
 - Beech *Fagus sylvatica*
 - Hornbeam *Carpinus betulus*
 - Common beech *Fagus sylvatica*
- 4.3 Any new hedgerows will be planted with native species to form species rich hedgerows containing least seven species per 30m and should include the species listed above or similar. The locations of the species rich hedgerows should be shown on an updated finalised landscaping layout of the development.
- 4.4 Any new hedgerow planting should be undertaken between November and March, although they should not be planted into waterlogged or frozen ground.
- 4.5 If bare rooted plants are to be used, care must be taken to ensure the roots are not exposed for long periods during planting as this can impact the success of the plants.
- 4.6 The base of hedgerows should be kept free from weeds until the hedgerow is established. This can be achieved with the use of a thick mulch or matting.

Wildflower Grassland Creation

- 4.7 Wildflower grassland will be created at the Site, with the locations of this habitat creation provided on the landscaping plan in **Appendix 2**. The following seed mixes will be utilised:
- Emorsgate EL1- Flowering lawn mixture— Sowing rate 4g/m²

- Emorsgate EM8- Meadow Mixture for Wetland -Sowing rate 4g/m²
- 4.8 Appropriate machinery such as 360 excavators and dumper trucks will be used to strip the soil from the proposed areas in which new grasslands or planting are to be established. Topsoil will be stripped to a depth of approximately 30cm and either removed from the Site or used in other areas on-Site. This will reduce recolonisation of the area by pernicious weeds.
- 4.9 The grassland creation should be undertaken in Spring (March/April), as warm and damp conditions will maximise germination. The seed must be surface sown and can be applied by machine or broadcast by hand. The seed should then be firmed in with a roll, or by treading, to give good soil/seed contact.

Tree Planting

- 4.10 Tree planting including both native and ornamental species will be planted at the Site. The native trees will be planted as heavy standards or selected standards as indicated on the landscaping plan provided in **Appendix 2**.
- 4.11 The following tree species will be utilised within the development:
- Field maple *Acer campestre*
 - Juneberry *Amelanchier lamarckii*
 - Amur maple *Acer tataricum ginnala*
 - Silver birch *Betula pendula*
 - Copper beech *Fagus sylvatica 'purpurea'*
 - Sweet cherry *Prunus avium*
 - Double flowered wild cherry *Prunus avium 'Plena'*
 - Callery pear *Pyrus calleryana 'Chanticleer'*
 - Bird cherry *Prunus padus*
 - Sessile oak *Quercus petraea*
 - Rowan *Sorbus aucuparia*
 - Small leaved lime *Tilia cordata*
 - Japanese barberry *Berberis thunbergii 'Atropurpurea Nana'*
 - California lilac *Ceanothus 'Blue Mound'*
 - Mexican orange *Choisya ternata*
- 4.12 Trees will be planted during an appropriate time of year to allow maximum survival rates.

Orchard Creation

- 4.13 The orchard to be created offsite will feature native fruit and nut bearing species. Trees will be planted at appropriate times of the year and tree guards will be used to protect the trees until they have established.

5. HABITAT MANAGEMENT

Hedgerows

5.1 General hedgerow management will include:

- The hedgerows be maintained as thick and bushy as reasonably practicable to give the best benefits for wildlife.
- Cutting should be conducted every other year in early February, allowing some trees to develop as standards within the hedgerow (roughly every 10m).
- Where possible, a wide, undisturbed margin adjacent to the hedge should be left (ideally at least 2m wide). The margins can be sown with a mixture of native grasses and wildflower seeds to encourage invertebrates and create habitat for multiple species. The margins should be subject to the same cutting regime as the wildflower meadow areas.

5.2 See **Biodiversity Net Gain Habitat Management** Section below for more specific details on how the new hedgerows will be managed to meet the condition of moderate.

Retained Hedgerows

5.3 The retained hedgerows will be managed so they continue to meet their current biodiversity condition of good and moderate. **Biodiversity Net Gain Habitat Management** Section below for more specific details.

Wildflower Grassland

General Grassland Management – Year 1

5.4 Most sown meadow wildflower and grass species are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. These annual weeds should be controlled by topping or mowing.

5.5 The newly sown meadows should be regularly mown throughout the first year of establishment to a height of 40-60mm, removing cuttings. This will control annual weeds and help maintain balance between faster growing grass species and slower growing wildflower species.

5.6 Residual perennial weeds such as docks *Rumex* sp. should be carefully dug out.

General Grassland Management - Years 2+

5.7 After flowering in July or August the grassland should be mown once to 50mm with the arisings left *in situ* for approximately 1 week to allow seeds to shed, then removed from site.

- 5.8 Pernicious weed species such as nettles *Urtica dioica*, thistles *Cirsium sp.*, ragwort *Jacobaea vulgaris* and docks are a sign of high nutrient levels, and these species can out-compete desirable wildflower species. However, the need for ongoing weed control is considered unlikely to be required as the topsoil stripping will significantly deplete soil nutrient levels.
- 5.9 See **Biodiversity Net Gain Habitat Management** Section below for more specific details on how the new grasslands will be managed to meet the condition of moderate.

Trees and Traditional Orchard

- 5.10 The trees within the development and orchard will be checked on a yearly basis and any failing will be replaced. See **Biodiversity Net Gain Habitat Management** Section below for more specific details on how the trees will be managed to meet the target conditions of moderate.

Biodiversity Net Gain Habitat Management

- 5.11 The Biodiversity Net Gain Assessment undertaken by BWB in 2023 provides the type of habitats and target conditions of the habitats to be created at the Site, based on the landscape masterplan. Each of these habitats have been provided within the table below with the management aims of each habitat type in order to meet each target condition. These habitats will be maintained at their target condition for a 30-year period, once established.
- 5.12 Habitats with pre-designated conditions such as the developed land; sealed surface, introduced shrub and vegetated gardens have been excluded from the table as these do not have conditions targetable through management.

Table 5.1: Habitat Types, Target Conditions and Management

Habitat to be Created	Target Condition	Achieving the Target Condition	
Modified Grassland	Moderate	Areas of amenity grassland will be seeded with a standard seed mix or turfed . The grassland will be managed to meet four of the seven criteria with a requirement of always meeting criteria 1, as outlined on Biodiversity Metric 3.1 Condition Assessment Sheet: Grassland – Low Distinctiveness, provided below.	
		Criteria 1	There must be 6-8 species per m2.
		Criteria 2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.

Habitat to be Created	Target Condition	Achieving the Target Condition	
		Criteria 3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.
		Criteria 4	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.
		Criteria 5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).
		Criteria 6	Cover of bracken less than 20%.
		Criteria 7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).
Other Neutral Grassland	Moderate	The wildflower grasslands will be seeded with Emorsgate EM8 – Meadow Mixture for Wetlands or Emorsgate E11 – Flowering lawn mix. These grasslands will be managed to meet a least three of the five criteria, to give an overall score of moderate condition outlined on Biodiversity Metric 3.1 Condition Assessment Sheet: Grassland – Medium Distinctiveness. Criteria 1 must be met as per the condition sheet requirements.	

Habitat to be Created	Target Condition	Achieving the Target Condition	
		Criteria 1	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. NB - This criterion is essential for achieving moderate condition for non-acid grassland types only.
		Criteria 2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
		Criteria 3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.
		Criteria 4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.
		Criteria 5	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of species indicative of sub-optimal condition ¹ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area

Habitat to be Created	Target Condition	Achieving the Target Condition	
Urban Tree	Moderate	Native trees will be planted within the final landscaping design for the Site. The trees will be planted as heavy standards or selected standards. The trees will be managed so that they meet at least three of the six condition criteria as outlined on Biodiversity Metric 3.1 Condition Assessment Sheet: Urban Trees.	
		Criteria 1	The tree is a native species (or more than 70% within the block are native species).
		Criteria 2	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).
		Criteria 3	The tree is mature or veteran
		Criteria 4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.
		Criteria 5	Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark.
		Criteria 6	More than 20% of the tree canopy area is oversailing vegetation beneath.
Native Species Rich Hedgerows	Moderate	Native species rich hedgerows will be planted at the Site. The hedgerows will be managed so that they meet at least 4 of the condition criteria with the following criteria to be targeted: A, A2, B1, B2, C2, D1, D2, as outlined on Biodiversity Metric 3.1 Condition Assessment Sheet: Hedgerows. The retained hedgerows will also be managed so they continue to meet their target condition of good. For these hedgerows 6 of the condition criteria below will be met.	

Habitat to be Created	Target Condition	Achieving the Target Condition	
		Criteria A1	Height is >1.5 m average along length The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. A newly planted hedgerow does not pass this criterion (unless it is > 1.5 m height).
		Criteria A2	>1.5 m average along length with the average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g., blackthorn suckers) are only included in the width estimate when they >0.5 m in height.
		Criteria B1	Gap between ground and base of canopy <0.5m for >90% of length
		Criteria B2	Gaps make up <10% of total length and No canopy gaps >5m
		Criteria C2	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground. The indicator species used are nettles <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, should not exceed the 20% cover threshold.
		Criteria D1	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species. Neophytes are plants that have naturalised in the UK since AD 1500
		Criteria D2	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities e.g., excessive hedge cutting.

Habitat to be Created	Target Condition	Achieving the Target Condition	
Traditional Orchard	Moderate	Off-site a fruit and nut tree orchard will be planted over the existing area of modified grassland. The orchard will be managed so that it meets at least four of the eight condition criteria with the following criteria to be targeted: 2, 3, 5, 6 and 8 as outlined on Biodiversity Metric 3.1 Condition Assessment Sheet: Orchards.	
		Criteria 2	Less than 5% of fruit trees are smothered by scrub. Small patches of dense scrub and/or scattered scrub growing between trees can be beneficial to biodiversity, however these should occupy less than 10% of ground cover.
		Criteria 3	There is evidence of formative and/or restorative pruning to maintain longevity of trees.
		Criteria 4	Presence of standing and/or fallen dead wood: all mature trees have standing or fallen branches, stems and stumps greater than 10 cm diameter associated with them.
		Criteria 5	At least 95% of the trees are free from damage caused by humans or animals e.g., browsing, bark stripping or rubbing on non-adjusted ties.
		Criteria 6	Sward height is varied (between 5 cm and 30 cm) and small patches of bare ground are present creating structural diversity. Up to 10% cover of patches of tall herb vegetation may be present.
		Criteria 8	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species of sub-optimal condition make up less than 10% of ground cover.

Schedule of Habitat Monitoring

- 5.13 For each of the habitats to be created at the Site regular monitoring will be undertaken on the following years after habitat establishment:
- Year 1
 - Year 2
 - Year 3
 - Year 5
 - Year 10
 - Year 20
 - Year 30
- 5.14 The monitoring will be undertaken to ensure that the habitats meet their target conditions over the 30-year management period, based on the table above. Monitoring will be undertaken by a suitably experienced Ecologist and a report detailing the current condition of each habitat and a schedule of remedial actions to be undertaken for each habitat will be submitted to the management company for immediate action as well as the LPA on the 1st of November of each year the monitoring has been undertaken.
- 5.15 **Table 5.2** below provides a timetable of each habitats condition for delivery over the 30-year period with **Table 5.3** below providing a timeframe for each habitat to meet its target condition. These tables can be utilised with the habitat monitoring to determine the success and levels of remediation measures as well as the remediation requirements during the monitoring surveys.

Table 5.2: Timetable of Delivery

Habitat Type	Creation of Habitat	End of Establishment Period	Target Condition Delivery Year
Modified Grassland	Year 1	Year 3	Year 4
Other Neutral Grassland	Year 1	Year 3	Year 5
Urban Trees	Year 1	Year 5	Year 27
Native Species Rich Hedgerows	Year 1	Year 3	Year 5
Traditional Orchard	Year 1	Year 5	Year 20

Table 5.3: Timetable of Key Indicators

Habitat Type	Year 2	Year 10	Year 14	Target Condition Delivery Year
Modified Grassland	Habitat should be on target to meet at least 2 of the 4 target criteria	Habitat should meet at least four of the target criteria including condition 1 and be maintained at its target condition	Habitat should meet at least four of the target criteria including condition 1 and be maintained at its target condition	Habitat should meet at least four of the target criteria including condition 1 and be at its target condition
Other Neutral Grassland	Habitat should be on target to meet at least 2 of the 3 target criteria	Habitat should meet at least three of the target criteria including condition 1	Habitat should meet at least three of the target criteria including condition 1	Habitat should meet at least three of the target criteria including condition 1
Urban Trees	Habitat should be on target to meet at least 1 of the 3 target criteria	Habitat should be on target to meet at least 2 of the 3 target criteria	Habitat should meet at least 2 of the 3 target criteria	Habitat should meet at least three of the target criteria
Native Species Rich Hedgerows	Habitat should be on target to meet at least 2 of the 4 target criteria.	Habitat should meet at least 4 of the condition criteria and be maintained at its target condition	Habitat should meet at least 4 of the condition criteria and be maintained at its target condition	Habitat should meet at least 4 of the condition criteria and be at its target condition
Traditional Orchard	Habitat should be on target to meet at least 1 of the 4 target criteria	Habitat should meet at least 2 of the 4 target criteria	Habitat should meet at least 3 of the 4 target criteria	Habitat should meet at least 4 of the condition criteria and be at its target condition

Monitoring Report

5.16 For each monitoring year a schedule of remedial actions to be undertaken for each habitat will be submitted to the management company for immediate action as well as the LPA on the 1st of November of each year the monitoring has been undertaken.

5.17 The monitoring report will feature the following information:

- A summary of the current habitats and condition assessment survey result.
- An overview of each habitats current condition and whether the habitat is meeting its target condition.

- A schedule of actions to be undertaken in case signs of failing are identified.
- Technique(s) to be used.
- Equipment to be used.
- Roles and relevant expertise of personnel and organisations involved; and
- Timing of actions.

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APPENDICES

Appendix 1: Bat, Bird, Invertebrate and Hedgehog Highway Plan





- Notes
1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
 2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
 3. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
 4. Any discrepancies noted on site are to be reported to the engineer immediately.

- Key
- ▲ Hedgehog hole
 - ★ Log and brush pile
 - ◆ Bee brick
 - Bat boxes**
 - Habitat Bat Box
 - Schwegler Bat Tube
 - Bird boxes**
 - WoodStone House Sparrow
 - WoodStone Open Nest Box
 - WoodStone Nest Oval Hole
 - Ecosurv Starling
 - WoodStone Swift Nest

P01	10.03.2023	PRELIMINARY ISSUE	AD	CG
Rev	Date	Details of issues/ revision	Drw	Rev
Issues & Revisions				
BWB A CAF GROUP COMPANY ☐ Birmingham 0121 233 3322 ☐ Leeds 0113 233 8000 ☐ London 0207 407 2879 ☐ Manchester 0161 233 4260 ☐ Nottingham 0115 924 1100 www.bwbconsulting.com				

Client

**Avant Homes
(England) Ltd**

Project Title

**Hay Green Lane,
Birdwell, Barnsley**

Drawing Title

**Bat, Bird, Invertebrate
and Hedgehog Highway
Plan
Page 2 of 2**

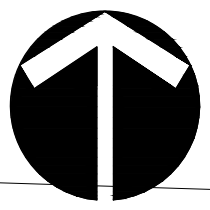
Drawn:	AD	Reviewed:	CG
BWB Ref:	220746	Date:	10.03.23
Drawing Status		Scale@A3:	1:1150

Final

Project - Originator - Zone - Level - Type - Role - Number Status Rev

HGL-BWB-ZZ-XX-DR-LE-0002 S2 P01

Appendix 2: Landscape Masterplan



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This drawing has been prepared for the purpose of planning approval.

Planting Notes

Topsoil: shall be a minimum of 400mm depth over planting beds and graded to fall. Imported topsoil must be BS3882:2015 compliant and existing topsoil must be cultivated in accordance with BS3882:2015. No cultivation should take place in wet waterlogged conditions.

Herbicide and cultivation: Topsoil to be treated with two applications of herbicide prior to planting, where necessary, strictly in accordance with the Control of Pesticides Regulations 1986 (as amended 1997, or, otherwise, updated/superseded legislation) and following manufacturer's instructions by qualified staff. The topsoil shall then be cultivated to 150mm depth.

Planting: All planting and turfing shall conform to BS3306:1992 and BS4428:1989.

Trees: All tree planting should conform to BS5854:2014. Standard trees to be planted in pits 800x800x450mm or dimensions of rootball, whichever is greater. Heavy and Extra Heavy Standard trees to be planted in pits 1000x1000x600mm or dimensions of rootball, whichever is greater. Align soil improver and 150g Enmag (or equivalent) to be incorporated into the soil of all new tree pits. Trees to be planted centrally within a tree pit. Tree stakes shall be of hazel, chestnut or other approved timber. They shall be round, rough sawn, straight, free from projections, large or edge knots and other defects and be pointed at the lower end. They shall be strong enough not to split when driven into the ground and when ties are nailed to them (both initially and when adjusted). For Feathered trees use 2N stakes (1.4m by 15mm) to be driven into ground 800mm, leaving 600mm above ground. For Selected Standard Trees 2N stakes (1.7m by 100mm) and cross bars are required: stakes to be driven 500mm below ground leaving 800mm above ground. For Heavy Extra Heavy trees use 2N stakes (2.2m x 100mm) with a 40x100x15mm cross bar. Stakes to be driven into ground 1m leaving 1.2m above ground. Semi-mature/Multi-stemmed trees greater than 5m to be underground guied. Tree ties shall consist of a solid rubber spacer, hollowed on both sides and twice slotted of such a width that the tie is held away from the stake and/or cross bar, and such that it does not rub against the stake and/or cross bar in any location and fixed so that nails do not scar tree and 50mm wide rubber or rubber covered canvas strap of such a length to allow 50mm overlap after securing. The strap shall be flexible, slightly elastic and adjustable. The Fixing Nails shall be galvanised and not less than 38mm long with 10mm diameter heads.

Container grown shrubs, transplants and whips: Shrubs and transplants shall be planted in pits 300x300x400mm depth, and the backfill shall include 3 litres of peat-free tree and shrub compost. Where two or more shrub species are indicated within a single bed each species shall be randomly mixed throughout the bed in groups of 3/5.

Herbicide: Spot treat with herbicide throughout the maintenance period in accordance with the manufacturer's instructions.

Mulch: Planting beds to receive 75mm depth pulverised ornamental bark mulch. Native woodland/edge plants to be planted with 500g flow fibre mulch mat pinned to soil. Native hedgerow to be planted through 500g flow fibre mulch roll, edges tucked. Ensure the top of the mulch layer is a minimum of 15mm below adjacent pavements and other surfaces, to prevent spillage.

Plant position: Final position of trees and shrubs subject to confirmation of service location and approval of statutory undertakers.

Protection to planting: Native hedgerow plants to be protected by spiral shelters. Native trees and shrubs within mixes to be protected by shelter guards as supplied by Acorn Planting Products Ltd (01508 528763), or equivalent.

Ornamental hedging: Hedges to comprise a single row of plants, 400mm wide trench excavated to take plants and topsoil cultivated to 400mm depth prior to application of fertiliser.

Grass: All turf/seeded areas to be cultivated and levelled as required removing any stones, rubble, subsoil, general construction waste.

Planting Season: Bare-root shrubs to be planted between mid-November and mid-March dependent upon the planting season.

LEGEND

Site boundary

Existing vegetation to be retained

Proposed tree Heavy (Standard)

Proposed tree Selected (Standard)

Proposed Native Hedge Mix

Proposed hedge

Proposed shrub bed

Proposed grass

Proposed wildflower mix Emorsgate EL1 - Flowering lawn mixture Sown @ 4g/m² www.wildseed.co.uk

Proposed wildflower mix Emorsgate EM8 - Meadow Mixture for Wetland Sown @ 4g/m² www.wildseed.co.uk

Rev G: Revised to new Avant Homes 'Planning Layout' drawing number 4203-04-J - 02Feb23 (RP)

Rev F: Revised to client comments - 31Jan23 (RP)

Rev E: Revised to new Avant Homes 'Planning Layout' drawing number 4203-04-I - 31Jan23 (RP)

Rev D: Revised to client comments - 05Dec22 (BP)

Rev C: Revised to Avant Homes drawing SK01-G - 01Dec22 (RP)

Rev B: Revised to Avant Homes 'Planning Layout' amended attenuation basin - 23Jun22 (RP)

Rev A: Revised to Avant Homes 'Planning Layout' SK01-D - 26Apr22 (BP)

Base: Avant Homes 'Planning Layout' SK01-C received 13Apr22

PROJECT Hay Green Lane, Birdwell

TITLE Detailed Landscape Proposals (1 of 2)

CLIENT Avant Homes Yorkshire

DATE 20 Apr 22 SCALE 1 : 250 SHEET A0

DRAWN BP DRAWING NO 3903/1

CHECKED BP REVISION G



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Planting Schedule

Proposed Trees				Grth		Height	
Nr	Code	Tree Name	Specification				
1	Ac	Acer campestre	Heavy Standard - Clear Stem 175-200 - C	12-14cm	350-425cm		
4	Al	Aureo-oleum laurifolium	Selected Standard - Clear Stem 175-200 - RB	10-12cm	300-350cm		
6	Alg	Acer glaberrimum	Selected Standard - Clear Stem 175-200 - RB	10-12cm	300-350cm		
6	Bp	Betula pendula	Selected Standard - Clear Stem 175-200 - RB	10-12cm	300-350cm		
5	Fsp	Fagus sylvatica 'Purpurea'	Heavy Standard - Clear Stem 175-200 - RB	12-14cm	350-400cm		
3	Pa	Prunus avium	Heavy Standard - Clear Stem 175-200 - RB	10-12cm	300-350cm		
2	Pa	Prunus avium	Heavy Standard - Clear Stem 175-200 - RB	12-14cm	350-425cm		
9	Psp	Prunus spinosa 'Pinn'	Heavy Standard - Clear Stem 175-200 - C	12-14cm	350-425cm		
21	Pvc	Prunus coccinea 'Cheridier'	Heavy Standard - Clear Stem 175-200 - C	12-14cm	350-425cm		
4	Py	Prunus padua	Selected Standard - Clear Stem 175-200 - RB	10-12cm	300-350cm		
5	Qp	Quercus petraea	Heavy Standard - Clear Stem 175-200 - RB	12-14cm	350-425cm		
6	Safr	Sorbus aucuparia 'Joseph's Coat'	Selected Standard - Clear Stem 175-200 - RB	10-12cm	300-350cm		
14	Sau	Sorbus aucuparia	Selected Standard - Clear Stem 175-200 - RB	10-12cm	300-350cm		
6	Tc	Tilia cordata	Heavy Standard - Clear Stem 175-200 - C	12-14cm	350-400cm		
Total 99							

Proposed Shrubs

Nr	Code	Plant Name	Height	Curr (l)	Wid (l)
154	BBN	Betula hibernica 'Virescentissima'	40-60cm	3l	3in
82	CBM	Ceanothus Blue Mound	30-40cm	3l	3in
74	Cl	Choisya ternata	30-40cm	3l	3in
40	ESQ	Euonymus fortunei 'Solei'	40-60cm	3l	3in
139	ESQ	Euonymus fortunei 'Silver Queen'	20-30cm	2l	4in
26	HMW	Hale 'Mrs Winder'	20-30cm	2l	4in
128	HRE	Hieracium 'Red Edge'	20-30cm	2l	4in
89	LAM	Lonicera xylosteum 'Munstead'	20-30cm	2l	4in
147	LAMG	Lonicera xylosteum 'May Green'	30-40cm	3l	4in
175	PIOL	Prunus laurocerasus 'Obo Luyker'	40-60cm	3l	4in
38	PSY	Pyracantha coccinea 'Yakal'	40-60cm	3l	3in
11	SPU	Spiraea japonica 'Rubra'	30-40cm	2l	4in
69	SoT	Salvia officinalis 'Tirocin'	20-30cm	2l	4in
9	Vd	Viburnum davidii	30-40cm	3l	3in
55	Vib	Viburnum	20-30cm	2l	4in
27	Vt	Viburnum tinus	30-40cm	3l	3in
Total 125					

Proposed Native Hedge Mix (5m)

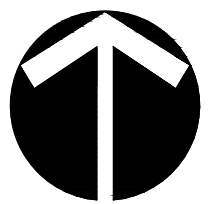
Nr	Code	Plant Name	Root	%
45	Ac	Acer campestre	BR	5%
184	Car	Corylus avellana	BR	20%
277	Om	Crataegus monogyna	BR	30%
94	la	Ilex aquifolium	BR	10%
184	Pa	Prunus spinosa	BR	20%
94	Sc	Sedum spectabile	BR	10%
49	Vt	Viburnum opulus	BR	5%
Total 931				

Proposed Hedges

Nr	Code	Tree Name	Specification	Grth	Height
159	Qz	Quercus petraea	C	60-80cm	
376	Pa	Prunus sylvatica	C	60-80cm	
63	Fsp	Fagus sylvatica 'Purpurea'	C	60-80cm	
812	Cl	Choisya ternata	C		
182	PvR	Philadelphus x 'Royal Red Robin'	C		
Total 1592					

Proposed Grasses

Nr	Code	Plant Name	Height	Curr (l)	Wid (l)
126	MaRC	Miscanthus sinensis 'Red Chief'	4m		
182	PvR	Perennisetum villosum	4m		
Total 31					



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Herbicide and cultivation: Topsoil to be treated with two applications of herbicide prior to planting, where necessary, strictly in accordance with the Control of Pesticides Regulations 1986 (as amended 1997, or, otherwise, updated/superseded legislation) and following manufacturer's instructions by qualified staff. The topsoil shall then be cultivated to 150mm depth.
Planting: All planting and turfing shall conform to BS3306:1992 and BS4428:1989.
Trees: All tree planting should conform to BS5854:2014. Standard trees to be planted in pits 800x800x450mm or dimensions of rootball, whichever is greater. Heavy and Extra Heavy Standard trees to be planted in pits 1000x1000x600mm or dimensions of rootball, whichever is greater. Align soil improver and 150g Enmag (or equivalent) to be incorporated into the soil of all new tree pits. Trees to be planted centrally within a tree pit. Tree stakes shall be of hazel, chestnut or other approved timber. They shall be round, rough sawn, straight, free from projections, large or edge knots and other defects and be pointed at the lower end. They shall be strong enough not to split when driven into the ground and when lashed to them (both initially and when adjusted). For Feathered trees use 2N stakes (1.4m by 15mm) to be driven into ground 800mm, leaving 650mm above ground. For Selected Standard Trees 2N stakes (1.7m by 100mm) and cross bars are required: stakes to be driven 500mm below ground leaving 800mm above ground. For Heavy Extra Heavy trees use 2N stakes (2.2m x 100mm) with a 400x100x15mm cross bar. Stakes to be driven into ground 1m leaving 1.2m above ground. Semi-mature/Multi-stemmed trees greater than 5m to be underground guyed. Tree ties shall consist of a solid rubber spacer, hollowed on both sides and twice slotted of such a width that the tree is held away from the stake and/or cross bar, and such that it does not rub against the stake and/or cross bar in any location and fixed so that nails do not scar tree and 25mm wide rubber or rubber covered canvas strap of such a length to allow 50mm overlap after securing. The strap shall be flexible, slightly elastic and adjustable. Tie Firing Nails shall be galvanised and not less than 38mm long with 10mm diameter heads.
Container grown shrubs, transplants and whips: Shrubs and transplants shall be planted in pits 300x300x400mm depth, and the backfill shall include 3 litres of peat-free tree and shrub compost. Where two or more shrub species are indicated within a single bed each species shall be randomly mixed throughout the bed in groups of 3/5.
Herbicide: Spot treat with herbicide throughout the maintenance period in accordance with the manufacturer's instructions.
Mulch: Planting beds to receive 75mm depth pulverised ornamental bark mulch. Native woodland/edge plants to be planted with 500g flow fibre mulch mat pinned to soil. Native hedgerow to be planted through 500g flow fibre mulch roll, edges lashed. Ensure the top of the mulch layer is a minimum of 15mm below adjacent pavements and other surfaces, to prevent spillage.
Plant position: Final position of trees and shrubs subject to confirmation of service location and approval of statutory undertakers.
Protection to planting: Native hedgerow plants to be protected by spiral shelters. Native trees and shrubs within mixes to be protected by shelter guards as supplied by Acorn Planting Products Ltd (01508 528783), or equivalent.
Ornamental hedging: Hedges to comprise a single row of plants, 400mm wide trench excavated to take plants and topsoil cultivated to 400mm depth prior to application of fertiliser.
Grass: All turfseeded areas to be cultivated and levelled as required removing any stones, rubble, subsoil, general construction waste.
Planting Season: Bare-root shrubs to be planted between mid-November and mid-March dependent upon the planting season.

LEGEND

- Site boundary
- Existing vegetation to be retained
- Proposed tree Heavy (Standard)
- Proposed tree Selected (Standard)
- Proposed Native Hedge Mix
- Proposed hedge
- Proposed shrub bed
- Proposed grass
- Proposed wildflower mix Emorsgate EL1 - Flowering lawn mixture Sown @ 4g/m² www.wildseed.co.uk
- Proposed wildflower mix Emorsgate EM8 - Meadow Mixture for Wetland Sown @ 4g/m² www.wildseed.co.uk

See drawing 3903/1G for full planting schedule

Rev G: Revised to new Avant Homes 'Planning Layout' drawing number 4203-04-J- 02Feb23 (RP)

Rev F: Revised to client comments - 31Jan23 (RP)

Rev E: Revised to new Avant Homes 'Planning Layout' drawing number 4203-04-I - 31Jan23 (RP)

Rev D: Revised to client comments - 05Dec22 (BP)

Rev C: Revised to Avant Homes drawing SK01-G - 01Dec22 (RP)

Rev B: Revised to Avant Homes 'Planning Layout' amended attenuation basin - 23Jun22 (RP)

Rev A: Revised to Avant Homes 'Planning Layout' SK01-D - 26Apr22 (BP)

Base: Avant Homes 'Planning Layout' SK01-C received 13Apr22

PROJECT Hay Green Lane, Birdwell

TITLE Detailed Landscape Proposals (2 of 2)

CLIENT Avant Homes Yorkshire

DATE 20 Apr 22 SCALE 1 : 250 SHEET A0

DRAWN BP DRAWING NO 3903/2

CHECKED BP REVISION G



Landscape Architects

Swallow's Nest, Main Street

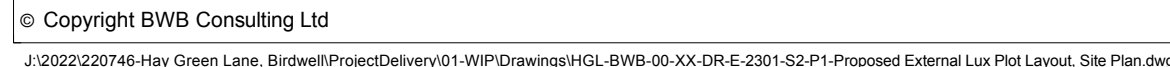
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Appendix 3: External Lighting Layout Plan



Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
HGL-BWB-00-XX-DR-E-2301	S2	P1

