

ENVIRONMENT PLANNING

Avant Homes

Land off Lidgett Lane

Pilley

South Yorkshire

Biodiversity Enhancement Plan

ENVIRONMENTAL PLANNING

Avant Homes

Land off Lidgett Lane

Pilley

South Yorkshire

Biodiversity Enhancement Plan

Birmingham
Livery Place, 35 Livery Street, Colmore Business District, Birmingham, B3 2PB
T: 0121 233 3322

Cambridge
14-16 High Street, Histon, Cambridge
CB24 9JD
T: 01223 235 173

Leeds
Whitehall Waterfront, 2 Riverside Way, Leeds
LS1 4EH
T: 0113 233 8000

London
11 Borough High Street
London, SE1 9SE
T: 0207 407 3879

Manchester
4th Floor Carvers Warehouse, 77 Dale Street
Manchester, M1 2HG
T: 0161 233 4260

Market Harborough
12a Woodcock House, Compass Point Market Harborough, Leicestershire, LE16 9HW
T: 01858 455020

Nottingham
Waterfront House, Station Street, Nottingham NG2 3DQ
T: 0115 924 1100

DOCUMENT ISSUE RECORD

Revision	Date of Issue	Status	Author:	Checked:	Approved:
1	March 2020	DRAFT	Amy Dowers BSc (Hons) ACIEEM	Chris Grocock MSc (BSc)	
2	March 2020	FINAL	Amy Dowers BSc (Hons) ACIEEM	Chris Grocock MSc (BSc)	Jim MacQueen BA (Hons)

Notice

This document has been prepared for the sole use of the Client in accordance with the terms of the appointment under which it was produced. BWB Consulting Limited accepts no responsibility for any use of or reliance on the contents of this document by any third party. No part of this document shall be copied or reproduced in any form without the prior written permission of BWB.

CONTENTS

1.0	INTRODUCTION.....	4
	Background	4
	Existing Site	4
	Scope of Works.....	4
2.0	BIODIVERSITY ENHANCEMENT PLAN	6
	Aims & Objectives	6
	Hedgerow Enhancement	7
	New Hedgerow Planting	8
	Bird Boxes	8
	Bat Boxes	9
	Other Enhancements	9
3.0	Protection of Existing Features and Species	11
4.0	TIMETABLE FOR IMPLEMENTATION.....	12

1.0 INTRODUCTION

Background

- 1.1 Planning permission was granted for a development of 49 dwellings and associated roads and infrastructure located at Land at Lidgett Lane, Pilley, Barnsley (Planning Reference 2016/1308). A variation of conditions application was submitted to the council for changes relating to conditions 2, 20, 27 and the removal of condition 13 (Planning Reference 2019/1464) in 2019. This application was approved on the 25 February 2020 with a Condition attached, which requires details of ecological enhancements and a timetable for their implementation in line with the previous ecological report recommendations.
- 1.2 BWB Consulting (BWB) have been commissioned to produce this Biodiversity Enhancement Plan (BEP) in relation to the discharge of this condition.

Existing Site

- 1.3 The Site covers approximately 2.30 hectares with existing residential housing to the north and south, St Pauls Church, a small number of residential properties and arable land to the west with arable land, woodland and hedgerows to the east. The Site is centred on grid reference SE 33714 00413 and is located within the centre of Pilley Village, south of Barnsley in South Yorkshire.
- 1.4 The Site has been previously subject to two Preliminary Ecological Appraisal surveys, one undertaken by Absolute Ecologist in 2013 which was subsequently updated in 2016 by Brooks Ecological. This report is only based on the information contained within the Preliminary Ecological Appraisal report by Brooks Ecological (2016), report reference R-2463-01, as the previous reports by Absolute Ecology were not available to review.
- 1.5 The habitats recorded on-site during the original Preliminary Ecological Appraisal (undertaken in 2016 by Brooks Ecological) include improved neutral grassland, hedgerow, scrub and trees. The habitats were considered to provide low ecological value.
- 1.6 The previous survey considered the Site to provide low value for protected species including bats, birds, amphibians including great crested newts, badger and brown hare with negligible value for reptiles. Previous bat activity surveys undertaken by Absolute Ecological identified a low level of bat activity, no important commuting corridors identified.

Scope of Works

- 1.7 This document has been produced to facilitate the discharge of Condition 23 (planning reference: 2019/1464), which states:

Prior to the commencement of development, details of the ecological enhancements, including a timetable of their implementation, shall have been

submitted to and agreed in writing with the Local Planning Authority. The enhancements shall be in line with the recommendations as set out in Brooks Ecological Preliminary Ecological Appraisal (Ref: R2463-01) dated January 2016. The scheme shall then proceed in accordance with the approved details.

Reason: To conserve and enhance biodiversity in accordance with Local Plan Policy B101 Biodiversity and Geodiversity.

2.0 BIODIVERSITY ENHANCEMENT PLAN

Aims & Objectives

- 2.1 In accordance with the requirements of Condition 23, the development is required to conserve and enhancement biodiversity in line with the Barnsley Local Plan (adopted 2019) Policy BIO1 Biodiversity and Geodiversity which states:

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).

- 2.2 In line with the above policy and the previous recommendations within the Preliminary Ecological Appraisal Report (Brooks Ecological), we therefore recommend the following measures to be implemented to provide biodiversity enhancements to maximise biodiversity value. To achieve this aim, this BEP focuses on:

- Enhancement of retained hedgerows;
- Nesting provisions for garden birds; and

- Roosting opportunities for bats.

Hedgerow Enhancement

- 2.3 As per the recommendations within the Preliminary Ecological Appraisal Report (Brooks Ecological) the retained hedgerows will be enhanced through supplementary planting to 'gap up' and form a continuous hedge line. The understorey of the retained hedgerows will also be planted using native bulb mixes and native hedgerow seed mixes to form a more diverse hedgerow. The following species and seed mixes are recommended:

Hedging species:

- Field Maple *Acer campestre*
- European Hornbeam *Carpinus betulus*
- European Beech *Fagus sylvatica*
- Wild Privet *Ligustrum vulgare*
- Guelder rose *Viburnum opulus*

Seed understorey mix (or similar mix):

- Emorsgate Seeds EH1F – Wildflowers for Hedgerows Mix - These can be sourced from <https://wildseed.co.uk/mixtures/view/34>

Understorey Bulb mix (or similar mix):

- Wild Native Bulbs - Woodland Bulb Collection – These can be sourced from <https://wildnativebulbs.co.uk/native-woodland-and-spring-bulb-collections.html>

See Table 1 (Section 4) for more information relating to the timings of planting.

- 2.4 The hedgerows should be maintained as thick and bushy as reasonably practical 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 (every 10m).

New Hedgerow Planting

- 2.5 New native hedgerows are to be planted providing valuable commuting and foraging habitats for bats as well as nesting and foraging opportunities for birds. Species used within the new hedgerows will include:

- Field Maple
- European Hornbeam
- European Beech
- Wild Privet
- Guelder rose

*See Table, 1 below in Section 4.1 for more information relating to the timings of planting. See **Appendix 2** for the general landscape layout with the locations of the new hedgerows. Once established, the new hedgerows should be maintained, as per the retained hedgerows above.*

Bird Boxes

- 2.6 Bird boxes will be incorporated on and within the new buildings as indicated in **Appendix 1**. Bird boxes should be installed two to four metres above ground on the buildings and should offer unobstructed fly-in access. The boxes should face between north and east, thus avoiding full sun and prevailing wind.
- 2.7 Box type has been focussed on those species whose populations are declining and are most likely to be associated with the built environment. This includes swift boxes which should be integrated into the building's fabric, as per the manufacturer's instructions. General purposes boxes have also been provided, as this will target as wide range of species as possible.

The following shall be installed:

- Three open fronted nest boxes such as Schwegler 26 Brick Box Nests which are designed to support a range of species. These can be sourced from: <https://www.wildcare.co.uk/schweglar-brick-box-type-26.html>
 - Three hole fronted nest boxes such as Schwegler 1B Bird Box, These can be sourced from <https://www.wildcare.co.uk/schwegler-1b-bird-box-32.html>
 - Three integrated Swift bricks such as Manthorpe Swift Brick. These can be sourced from: <https://www.nhbs.com/manthorpe-swift-brick>
- 2.8 Cleaning/maintenance should be undertaken between October to January, outside of the nesting bird season. The old nesting material which accumulates after every breeding season needs to be cleaned and the droppings from the earlier season removed. This can be undertaken without a specific licence, although in the unlikely

event that active nests are located, these should remain unaffected until all chicks have fledged.

Bat Boxes

- 2.9 Integrated bat boxes will be incorporated into the new buildings as indicated in **Appendix 1**. These boxes will provide enhancements for bats through providing new roosting opportunities. A mixture of different bat box types will be used to suit as wide a range of species as possible.

The following shall be installed:

- Two Habibat 003, Cavity Bat Roost. These can be sourced from: <https://www.wildcare.co.uk/habibat-box-0003-10187.html>
 - Three Ibstock enclosed Bat Box C. These can be sourced from: <https://www.nhbs.com/ibstock-enclosed-bat-box-c>
- 2.10 These boxes should be installed and positioned as close to the eaves as possible and face south to southwest. The flight paths should be unobstructed and the boxes should not face or be placed near any light sources, i.e. street lighting. These boxes will not require any maintenance, but once in situ, if any boxes need any works, such as repairs or replacement then this will need to be completed under the supervision of a licenced bat worker.

Other Enhancements

- 2.11 In addition to the above enhancements the following additional enhancements will also be incorporated into the development to benefit other species including hedgehogs and invertebrates.

Hedgehogs

- 2.12 Hedgehog 'highways' will be created within the new development to facilitate movement of this species i.e. garden fences will have 13cm by 13cm holes cut into the bases.

Grassland

- 2.13 Areas of grassland which are not immediately associated with residential front or rear gardens such as the adjacent area to lot 32 on the western side of the Site and the area adjacent to plot 49 on the eastern side of the Site will have additional wildflower grassland planting. This planting should include a general-purpose wildflower seed mixture. We recommend the following seed mixture:
- Emorgate Seeds EM1 – Basic General Purpose Meadow Mixture, which can be sourced from: <https://wildseed.co.uk/mixtures/view/2>

-
- 2.14 These meadow mixtures require very little maintenance, once established. They require one cut a year in late summer, with the arisings removed. The arisings should be left for 48 hours prior to removal to allow seeds to disperse.
- 2.15 To further enhance biodiversity flowing lawn mixtures can also be used in place of general amenity grass sowing or turf. These mixtures contain a variety of native flowering species which can withstand the regular mowing of amenity grass. We recommend the following seed mixture or similar:
- Naturescape N14 Flowering Lawn Mixture, which can be sourced from:
<https://www.naturescape.co.uk/product/n14-flowering-lawn-mixture/>

3.0 Protection of Existing Features and Species

Hedgerow and trees

- 3.1 All retained hedgerows and trees will be protected from development in accordance with BS5837:2012 and the tree root protection areas, as identified within the Tree Survey Report (2013, James Royston Arboricultural Consultant, Ref: 130905).

Bats

- 3.2 The previous surveys and reports identified that the Site has low importance for bats, however some bat activity has been recorded.
- 3.3 All lighting within the construction phase will be the minimum necessary to ensure security and safety. Any security lighting will be positioned at low-height and motion activated on short timers. Continuous lighting should be avoided. No construction lighting should be directed onto the tree lines / hedgerows that bound the Site. Any lighting which is required will follow current best practice guidelines (i.e. Bats and artificial lighting in the UK, 2018).
- 3.4 All lighting post development should be pointed away from the boundary features to avoid any adverse light spill. This includes retained and new features such as the hedgerows. All lighting should be designed in accordance with the best practice guidelines (Bats and artificial lighting in the UK, 2018). This will minimise any impacts on bats and other nocturnal wildlife and ensure that the linear features can be utilised by nocturnal wildlife.

Birds

- 3.5 To avoid disturbance to nesting birds, vegetation removal including ground clearance will be undertaken outside the nesting bird season (March to August inclusive), unless preceded by a nesting bird check by a suitably qualified ecologist. Works outside of this period should still be preceded by a nesting birds check conducted by the contractors.
- 3.6 Those features of potential value to nesting birds within the Site which are to be retained will be protected during the works phase by the Tree Protection Fencing which will be installed in accordance with BS5837:2012.

Hedgehogs

- 3.7 Hedgehogs are protected from harm under the protection of mammals act 1992.
- 3.8 Construction staff will be made aware of the potential presence of hedgehogs the Site during the pre-start toolbox talk. Good working practices for hedgehogs and must be adhered to and include ensuring no excavations are left overnight without the correct exit ramps and any hedgehogs found are moved by hand to a nearby off-site place of safety. Brash piles should not be allowed to accumulate on site so as to avoid creating potential refugia for hedgehogs.

4.0 TIMETABLE FOR IMPLEMENTATION

4.1 **Table 1** lists the timetable for enhancement implementation which will be conducted over the construction period.

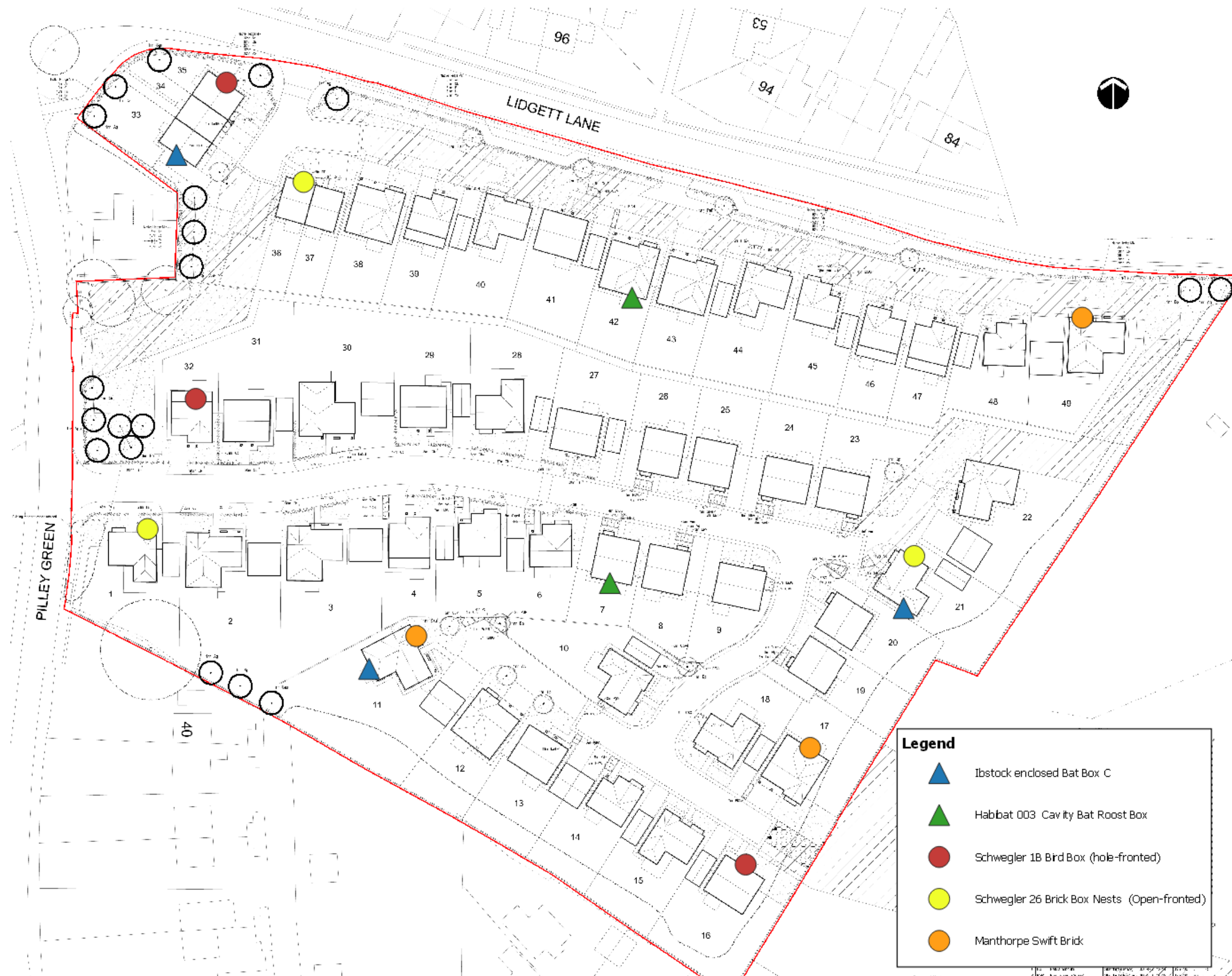
Table 1: Timetable for Implementation

Item	Date	Notes
New hedgerow planting	November to March	Any new hedgerow plants should be planted between November and March, although they should not be planted into waterlogged or frozen ground. If bare rooted plants are to be used, care must be taken to ensure the roots are not exposed for long during planting. 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.
Hedgerow enhancements	Spring (March/April) / November to March	Hedgerow understorey: Ground preparation should be completed in late summer by cutting and creating gaps to form 50% bare soil in the areas to be sown. Sowing of hedgerow understorey seed mixture should be completed in autumn and rolling is not necessary. For the first year (after sowing) the area will need to be kept short to allow the seeds to germinate and become established. See the suppliers instructions for more details. New plants: Any new hedgerow plants should be planted between November and March, as above, or per the suppliers instructions.
Bat and bird box installation	Anytime	New bird and bat boxes can be installed anytime of the year, but should be installed as soon as possible after the completion of a building.
Hedgehog highway installation	Anytime	Installation of gaps to provide a hedgehog highway can be installed anytime, but should be completed during the installation of any new fencing.
Wildflower / turf / lawn sowing	Spring (March/April)	Any new seeding or turf laying should be completed within spring at the start of the growing season to allow seeds and / or turf to establish. Seeds will need to be sown into 100% s and maintenance of the areas will be necessary i.e. weed removal and regular watering until the seeds have become established. See the suppliers instructions for more details.

APPENDICES

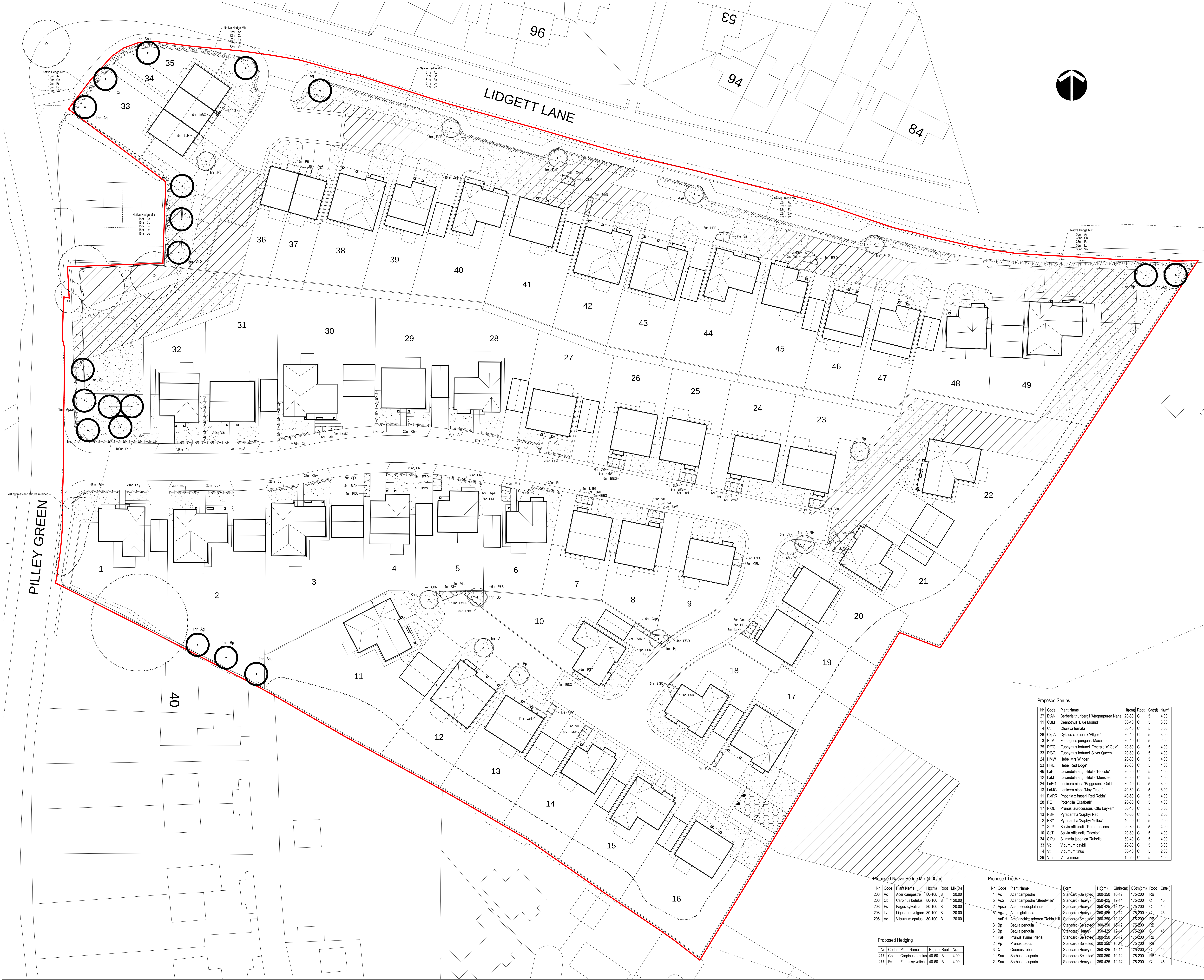
APPENDIX 1

Location of Bat and Bird Boxes



APPENDIX 2:

Landscape General Arrangement



This drawing is the copyright of Rosetta Landscape Design and cannot be reproduced in any form without the express consent of the company. Written and scaled dimensions to be checked on site, any discrepancies reported prior to work commencing. **If in doubt please ask.**

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 BS3882:2007 compliant and existing topsoil must be cultivated in accordance with BS3882:2007. 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 BS 3839: 1992 and BS 4428:1989.
Trees: Standard trees to be planted in pits 800x800x450mm or dimensions of rootball, whichever is greater. Tree to be supported by 11r stake (1500mm long, per tree, 600mm above ground, 75mm diameter) and 11r bio-degradable tie. Heavy Standard trees to be planted in pits 1000x1000x600mm or dimensions of rootball, whichever is greater. Tree to be supported by 21r stakes (1500mm long, 600mm above ground, 75mm diameter), cross bar (400x100x15mm) and 11r bio-degradable ties. Agrisure 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.
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 pulverized ornamental bark mulch. Native woodland/edge plants to be planted with 800g flax fibre mulch mat pinned to soil. Native hedgerow to be planted through 800g flax fibre mulch roll, edges tuckled. Ensure the top of the mulch layer is a minimum of 15mm below adjacent pavements and other surfaces, to prevent collapse.
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 Acom 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 turfseeded areas to be cultivated and levelled as required removing any stones, rubble, subsoil, general construction waste.
Planting Season: Bare-root plants to be planted between mid-November and mid-March dependant upon the planting season.

LEGEND

- Site boundary
- Existing tree to be retained
- Existing tree to be removed
- Proposed tree Standard (Heavy)
- Proposed tree Standard (Selected)
- Proposed shrub bed
- Proposed hedge
- Proposed grass
- Proposed Native Hedge Mix

Proposed Shrubs

Nr	Code	Plant Name	Ht(cm)	Root	Cmtr	Nr/m
27	BAN	Barberry thunbergii 'Atropurpurea Nana'	20-30	C	5	4.00
11	CBM	Ceanothus 'Blue Mound'	30-40	C	5	3.00
4	CI	Choisya ternata	30-40	C	5	3.00
28	CxAN	Cytisus x praecox 'Algalot'	30-40	C	5	3.00
3	ESM	Eleagnus pungens 'Maculata'	30-40	C	5	2.00
29	EEG	Euonymus fortunei 'Emerald 'n' Gold'	20-30	C	5	4.00
33	ESQ	Euonymus fortunei 'Silver Queen'	20-30	C	5	4.00
24	HMW	Hebe 'Mrs Winder'	20-30	C	5	4.00
23	HRE	Hebe 'Red Edge'	20-30	C	5	4.00
46	LAIH	Lavandula angustifolia 'Yiddish'	20-30	C	5	4.00
12	LAI	Lavandula angustifolia 'Munstead'	20-30	C	5	4.00
24	LrBG	Lonicera nitida 'Baggesen's Gold'	30-40	C	5	3.00
13	LrMG	Lonicera nitida 'May Green'	40-60	C	5	3.00
11	PuRR	Phytolacca fraseri 'Red Robin'	40-60	C	5	4.00
26	PE	Potentilla 'Elizabeth'	20-30	C	5	4.00
17	POL	Prunus laurocerasus 'Otto Luyken'	30-40	C	5	3.00
13	PSR	Pyracantha 'Saphyr Red'	40-60	C	5	2.00
2	PSY	Pyracantha 'Saphyr Yellow'	40-60	C	5	2.00
7	ScP	Salvia officinalis 'Purpureascent'	20-30	C	5	4.00
10	SOT	Salvia officinalis 'Tricolor'	20-30	C	5	4.00
34	SJRu	Skimmia japonica 'Rubella'	30-40	C	5	4.00
33	Vd	Viburnum davidii	20-30	C	5	3.00
4	VI	Viburnum tinus	30-40	C	5	2.00
28	Vni	Vince minor	15-20	C	5	4.00

Proposed Native Hedges Mix (4.00m)

Nr	Code	Plant Name	Ht(cm)	Root	Nr/m
208	Ac	Acer campestre	80-100	B	20.00
208	Cb	Carpinus betulus	80-100	B	20.00
208	Fs	Fagus sylvatica	80-100	B	20.00
208	Lv	Ligustrum vulgare	80-100	B	20.00
208	Vb	Viburnum opulus	80-100	B	20.00

Proposed Hedging

Nr	Code	Plant Name	Ht(cm)	Root	Nr/m
417	Cb	Carpinus betulus	40-60	B	4.00
277	Fs	Fagus sylvatica	40-60	B	4.00

Proposed Trees

Nr	Code	Plant Name	Form	Ht(cm)	Girth(cm)	CS(m/cm)	Root	Cmtr
1	Ac	Acer campestre	Standard (Selected)	300-350	10-12	175-200	RB	45
5	AcS	Acer campestre 'Spectabilis'	Standard (Heavy)	350-425	12-14	175-200	C	45
2	ApS	Acer pseudoplatanus	Standard (Heavy)	350-425	12-14	175-200	C	45
5	Ag	Aster glaberrimus	Standard (Heavy)	350-425	12-14	175-200	C	45
1	AaRH	Amelanchier alnifolia 'Robin Hill'	Standard (Selected)	300-350	10-12	175-200	RB	45
3	Bp	Betula pendula	Standard (Selected)	300-350	10-12	175-200	RB	45
6	Bp	Betula pendula	Standard (Heavy)	350-425	12-14	175-200	C	45
4	PuP	Prunus avium 'Plena'	Standard (Selected)	300-350	10-12	175-200	RB	45
2	Pp	Prunus padus	Standard (Selected)	300-350	10-12	175-200	RB	45
3	Qr	Quercus robur	Standard (Heavy)	350-425	12-14	175-200	C	45
1	Sau	Sorbus aucuparia	Standard (Selected)	300-350	10-12	175-200	RB	45
2	Sau	Sorbus aucuparia	Standard (Heavy)	350-425	12-14	175-200	C	45

Rev D: Revised to revised layout 00 - 26Feb20 (BP)

Rev C: Revised to client comments - 07Feb20 (BP)

Rev B: Revised to revised layout 00 - 10Jan20 (BP)

Rev A: Revised to revised layout 00 received 20Nov19 - 21Nov19 (BPjr)

Base: Avant Homes 'Master Layout' 00 received 19Nov19

PROJECT Ligett Lane, Pilley

TITLE Detailed Landscape Proposals

CLIENT Avant Homes (Yorkshire)

DATE 20 Nov 19 SCALE 1 : 250 SHEET A0

DRAWN BP/jr DRAWING NO 3594/1

CHECKED BP REVISION D

Chartered Landscape Architects

Swallow's Nest, Main Street

Askrigg, York, YO26 5NA

Telephone +44 (0)1904 500410

Email: design@rosetta-landscape.co.uk

Web: www.rosetta-landscape.co.uk



BETTER SOLUTIONS, INTELLIGENTLY ENGINEERED

