LIZARD
Landscape Design and Ecology

ECOLOGICAL DESIGN STRATEGY

Little Paddocks, Hurston Lane, Storrington

On behalf of: Church Barn Homes LLP

Client:	Church Barn Homes LLP			
Project:	Little Paddocks, Hurston Lane, Storrington			
Reference:	LLD3636-ECO-REP-001-01-EDS			
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Validity:

This report is valid for 18 months from the date of the site visit. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

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Contents

		Page No.
1.0	Introduction	01
2.0	Site Context	03
3.0	Baseline Ecological Conditions	04
4.0	Aims and Objectives	06
5.0	Compensation and Enhancement Measures	07
6.0	Management Prescriptions	10
7.0	Long-term Management and Monitoring	14
8.0	Implementation Schedule	16

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1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned by Church Barn Homes LLP to provide an Ecological Design Strategy (EDS) for Little Paddocks, Hurston Lane, Storrington (*Grid Reference: TQ 07745 14919– hereafter referred to as 'the site'*).

1.2 This report has been produced to allow the discharge of condition 5 which states:

"A Biodiversity Enhancement Strategy for protected and Priority species shall be submitted to and approved in writing by the local planning authority. The content of the Biodiversity Enhancement Strategy shall include the following:
a) Purpose and conservation objectives for the proposed enhancement measures including encourage ongoing use of boundary features by Barbastelle bats ;
b) detailed designs to achieve stated objectives;
c) locations of proposed enhancement measures by appropriate maps and plans;
d) persons responsible for implementing the enhancement measures; e) details of initial aftercare and long-term maintenance (where relevant). The works shall be implemented in accordance with the approved details prior to occupation and shall be retained in that manner thereafter.

Reason: To enhance protected and Priority species & habitats and allow the LPA to discharge its duties under the s40 of the NERC Act 2006 (Priority habitats & species).

1.3 This report has been produced based on the following data and surveys:

- Preliminary Ecological Assessment (CT Ecology, 2021)
- Bat Survey Report (CT Ecology, 2022)

1.4 This report has been based on data from these previous surveys and reports and should be read in conjunction with the above.

1.5 Maintenance prescriptions have been formulated to maximise the biodiversity value of the site and ensure healthy plant growth. It is anticipated that the initial landscape contractor as appointed by the main contractor will be responsible for any defects identified within 12 months of implementation. After this 12-month period all management as detailed within this report will be undertaken by a suitable management company as appointed by the contractor.

2.0 SITE CONTEXT

Site Description

2.1 The site covers c. 0.3 hectares (ha) of land to the east of the Little Paddock estate. The site is dominated by amenity grassland, introduced shrub, non-native hedgerow with scattered trees and hardstanding. Access to the site is via an unnamed track, extending from Hurston Lane, located 120m to the east of the site boundary that links directly to the A283.

Surrounding Landscape

2.2 The surrounding area is dominated by agricultural fields, associated tree lines, hedgerows and areas of woodland dominate the landscape, together with residential areas to the north, south and west.

2.3 There are no ponds on site and there are no ponds shown on OS maps within 500.0m of the site.

Development Proposals

2.4 It is understood that the proposals include the redevelopment of the site for residential use. Three detached units are proposed with parking, garages and landscaping throughout the site.

3.0 BASELINE ECOLOGICAL CONDITIONS

3.1 The site is in a semi-rural environment, situated northwest to the town of Storrington. The survey area is dominated by amenity grassland, introduced shrub, non-native hedgerow, with scattered trees and hardstanding, with species-poor semi-improved grassland to the eastern section of the site.

3.2 Tarmacadam and gravel along with gravel are present throughout the site, with the main access track to the southern aspect of the site.

3.3 At the time of the survey, the site was dominated by well-maintained amenity grassland supporting a short sward. Grassland species comprised fescues *Festuca sp*., creeping bent *Agrostis stolonifera*, sweet-vernal grass *Anthoxanthum odoratum,* and perennial ryegrass *Lolium perenne* and forbs included white clover *Trifolium repens*, daisy *Bellis perennis* and common mouse-ear *Cerastium fontanum*. Springy turf moss *Rhytidiadelphus squarrosus* was also observed throughout the sward.

3.4 Areas of introduced shrub were found throughout the site with main concentrations within the southern, central and eastern areas of the survey area. Large stands of non-native species were present in ornamental beds with the southern, northern and eastern boundaries formed of non-native hedgerows. Large areas of ornamental beds had been cleared with arisings and brash piles noted. Species included Japanese skimmia *Skimmia japonica*, thuja species *Thuja sp*., coralberry *Symphoicarpos orbiculatus*, viburnum *Viburnum sp*., rhododendron *Rhododendron ponticum*, paper plant *Fatsia japonica*, bamboo species *Bambusoideae sp.*, garden privet *Ligustrum ovalifolium*, cherry laurel *Prunus laurocerasus* and leylandii *Cupressus x leylandii*.

3.5 Immature and semi-mature trees were present within the western site extents. Species present included paper bark birch *Betula papyrifera*, Leyland cypress *Cupressus x leylandii*, laburnum *Laburnum anagyroides* and rowan *Sorbus aucuparia*.

3.6 Two short, well managed lengths of box *Buxus sempervirens* hedgerow were present adjacent to Building 1, forming a boundary to a discrete section of the access track.

3.7 There are no ponds on-site and no ponds located within 500m of the proposed development boundary.

4.0 AIMS AND OBJECTIVES

4.1 Aims

4.1.1 The aim of the EDS has been to;

- To maximise biodiversity value of the scheme.
- To ensure sensitive management of new and existing features to maximise their biodiversity value.
- To ensure that proposed enhancement measures are appropriately managed into the future.
- To provide a long-term management plan of the site;

4.2 Objectives of the Proposals

4.2.1 The below objectives have been identified, which when implemented, shall ensure the aims of the EDS are achieved:

- To provide areas of suitable soft landscaping suitable for use within a residential development.
- To provide a landscape scheme which provides shelter and foraging opportunities for a range of species. This is achieved through the provision of species which offer a known wildlife value, such as those listed on 'RHS Plants for Pollinators'.
- To create habitat areas at the optimal time of year for their successful establishment.
- To manage areas of grassland, hedges, shrubs and trees to maximise flowering and fruiting abundance.
- To provide additional habitat opportunities for birds, bats and invertebrates through the provision of suitable boxes.



Legend

- Bird box
- Bat box
- Wildflower Lawn
- Hedgerow
- Shrubs
- New Trees

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Client
Rocco Homes

Project Title & Location
Land to north of Little Paddock, Hurston Lane, Storrington

Drawn by	Approved by	Rev	Date
EH	CO	00	28/10/25

25 50 m

N

1:700

Figure No. 01 - Site Habitat Plan

5.0 COMPENSATION AND ENHANCEMENT MEASURES

5.1 The following features are proposed as compensation and enhancement measures. For location of planting areas please refer to the outline landscape plan.

Wildflower Grassland

5.2 Newly created garden areas are to be re-seeded with a wildflower lawn mix such as Emorsgate EM1 Basic General-Purpose Meadow Mixture which contains:

Wild flowers - 10%

- 1.00% *Betonica officinalis (Stachys officianalis)* – Betony
- 1.50% *Centaurea nigra* – Common Knapweed
- 1.00% *Daucua carota* – Wild Carrot
- 1.00% *Leucanthemum vulgare* – Oxeye Daisy
- 1.50% *Plantago lanceolata* – Ribwort Plantain
- 0.80% *Poterium sanguisorba ssp sanguisorbba* – Salad Burnet
- 2.00% *Prunella vulgaris* – Selfheal
- 0.20% *Rhinanthus minor* – Yellow Rattle
- 0.50% *Silene dioica* -Red Campion

Grasses - 90%

- 9.00% *Agrostis capillaris* – Common Bent
- 31.50% *Cynosurus cristatus* – Crested Dogstail
- 27.00% *Festuca rubra* – Red Fescue
- 4.50% *Phleum bertonii – Smaller Cat's-tail*
- 18.00% *Poa pratensis* – Smooth-stalked Meadow-grass

5.3 To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll or tread to produce a level firm surface. Resist cutting first flush of annual weeds as they offer shelter to sown seedlings and will die before year is out. Resist cutting until the annual weeds until mid to late summer, then cut, remove and compost.

Ornamental Shrubs, perennial and Herbaceous Planting

5.4 Ornamental shrubs are proposed to the southern margins of the garden areas of Plot 1 and Plot 2. Mixed species proposed within the scheme have been supplemented by ornamental varieties of a known wildlife value, such as those listed on 'RHS Plants for Pollinators'. Species have been chosen to provide a foraging resource for invertebrate through the year, with ornamental species providing a valuable winter foraging resource. Species shall include:

- Hawthorn veronica/Hebe *Veronica spp.;*
- Blackthorn *Prunus spinosa;*
- Daisy bush *Olearia spp.;*
- Firethorn *Pyracantha coccinea;*
- Spindle *Euonymus europaeus;*
- Common holly *Ilex aquifolium and;*
- Yew *(Taxus baccata)*

Native Tree Planting

5.5 Scattered native tree planting is proposed to the northern, southern, eastern and western boundaries of the site. Species have been chosen to provide a nectar resource for invertebrates, as well as seeds and berries to support foraging birds, including species such as:

- Bird Cherry *Prunus padus;*
- Beech *Fagus sylvatica;*
- Small-leaved lime *Tilla cordata;*
- Silver Birch *Betula pendula, and;*
- Apple *Malus sylvestris.*

Hedgerow Enhancement Planting

5.6 Enhanced planting to existing hedgerows is proposed to encourage ongoing use by barbastelles in the long term and provide a buffer between the development and off-site habitats to the west. Species have been chosen to provide a nectar resource for invertebrates, as well as seeds and berries to support foraging birds, including species such as:

- Hornbeam *Carpinus betulus;*
- Beech *Fagus sylvatica;*
- Hawthorn *Corylus avellana and;*
- Blackthorn *Prunus spinosa.*

Bat, Bird & Invertebrate Boxes

5.7 3no. integrated bat boxes as supplied by bird brick houses or similar shall be installed to the southern aspect of each new dwelling.

5.8 3no. integrated sparrow box as supplied by bird brick houses or similar shall be installed to the northern aspect of each new dwelling.

Implementation Schedule

5.9 The construction works are scheduled to begin from late Spring 2026. The planting of hedges, trees and shrubs and seeding of grassland shall be completed as soon as practicable within the construction programme, during the optimal planting season. This is anticipated to include seeding of grassland in the Autumn of 2026, and tree and shrub planting during the dormant season of late Autumn / Winter 2026/27.

6.0 MANAGEMENT PRESCRIPTIONS

6.1 In order to ensure the long-term viability and maximum ecological value of the scheme, detailed prescriptions for initial establishment and long-term management are provided within this section.

6.2 Flowering Lawn

Sowing

6.2.1 Areas of proposed amenity grassland are to be sown with an appropriate seed mix during the autumn of 2023. The seeds are to be sown on a fine friable seedbed which has been prepared to 150mm in depth. Two equal sowings shall be carried out at right angles to each other, either broadcast manually or using a seed drill. The seed bed is to be raked, levelled and rolled following sowing to ensure good seed to soil contact.

Cutting

6.2.2 All debris, litter and large stones over 25mm diameter to be removed prior to cutting. Grass shall be cut during the growing season (generally April-October) using a suitable mover to a height of 25mm-50mm. Grass will be cut at intervals of not more than 10-14 days depending on growing conditions. Arisings shall be collected and removed from the area.

Weed Removal

6.2.3 The sward shall be maintained free of unwanted species during establishment by hand pulling or use of a selective spot herbicide where necessary. Once established, the requirement for weed removal shall be minimal.

Fertiliser and Spiking

6.2.4 A propriety granular slow-release fertiliser shall be applied twice yearly, in the spring and autumn. Areas should be scarified in autumn to remove thatch and dead grass. The area is to be spiked annually in October.

Strimming

6.2.5 Grassed edges to planted areas to be trimmed to maintain a clear smooth edge to planted beds; strim edges elsewhere but not within 100mm of trees.

Rectification of Defects

6.2.6 Should bare patches of grass develop, area is to be cultivated to 150mm and then seeded with amenity grass seed. To be cross-sown in two directions at right angles to each other, (half the seed being used in each direction) at the rate of 35 gm per square meter and the ground lightly raked over on a still, dry day.

6.3 Ornamental Shrubs / Perennial / Herbaceous Planting

Planting

6.3.1 Planting pits shall be excavated to a depth and size that contains the plant's root system and allows the collar of the plant (*the mark on the tree where it has been growing above ground*) to be level with the top of the soil. The soil shall be carefully backfilled in layers, ensuring the plant is held upright, and each layer should be carefully firmed down.

Watering

6.3.2 All plants shall be watered as may be required to maintain healthy growth following planting, during the maintenance period and subsequently in cases of extreme drought (Trees – 5Ltr's per tree, Shrubs 1Ltr each, Grass 5Ltr's/m2). Watering to commence following 10 consecutive days of no rainfall, during the months of June to August. Any failures due to drought shall be replaced during the next optimal planting season.

Top Dressing

6.3.3 All planted areas shall be given an application of an approved top dressing at the rate of 40 gm per sq. metre in May. This should be in slow-release form and should be worked lightly into the soil, without disturbing the roots. Unless specific nutritional deficiencies are identified, no fertilizer shall be applied to newly planted areas in the first season. If visual inspection points to nutrient deficiency further investigation of causes will be necessary. Remedial action may, in addition to fertilizer application, include pH testing, assessment of organic content and levels of compaction.

Pruning

6.3.4 Shrubs should be checked bi-annually for shape, form and size, and pruned accordingly whilst they are still in leaf. Once established, any support canes shall be removed from the shrubs. Trailing and climbing material shall be assisted in its growth by securing growing leaders where necessary.

Mulch

6.3.5 The bark mulch should be maintained at an even spread, 75mm deep, to ensure that it is effective as a weed suppressant and moisture conserver. Following any maintenance operations and on a bi-annual basis, the mulch shall be supplemented to allow for any material which may have been lost.

6.4 Native Trees, Shrubs and Hedges

Planting and Establishment

6.4.1 Planting pits shall be excavated to a depth and size that contains the plant's root system and allows the collar of the plant (*the mark on the tree where it has been growing above ground*) to be level with the top of the soil. The soil shall be carefully backfilled in layers, ensuring the plant is held upright. Plants are to be supported by stakes and ties as appropriate. All tree ties are to be checked twice yearly or following bad weather for their soundness and effectiveness. Any defective ties or stakes are to be removed and replaced as appropriate.

Watering

6.4.2 All plants shall be watered as may be required to maintain healthy growth following planting, during the maintenance period and subsequently in cases of extreme drought (Trees – 5Ltr's per tree, Shrubs 1Ltr each, Grass 5Ltr's/m2). Watering to commence following 10 consecutive days of no rainfall, during the months of June to August.

Pruning / Trimming – Ongoing

6.4.3 Pruning and trimming of trees and hedgerows should be carried out outside of the bird breeding season (*nesting season: March – August inclusive).* Trees and shrubs should be checked bi-annually for shape, form and size, and pruned accordingly. Hedges should be cut in alternate years if possible, to allow species to flower and fruit on the previous year's growth. Pruning of hedgerows should be carried out in such a way to achieve a dense

hedgerow.

Weeding

6.4.4 Areas around the new plants should be kept clear of weeds to allow the plants to establish by weeding twice a year in the Spring and Autumn. Any litter or debris should be removed as soon as it is found.

Fertiliser

6.4.5 Slow-release 11:22:9 NPK fertiliser at a rate of 50g / tree to be applied annually to the base of each tree. Fertiliser is to be applied in spring.

6.5 Bat Boxes

Maintenance

6.5.1 The bat boxes specified above do not require any cleaning. A visual inspection should be carried out annually to ensure the boxes remain in good condition and securely affixed to the trees.

6.6 Bird and Invertebrate Boxes

Maintenance

6.6.1 No maintenance necessary. A visual inspection should be carried out annually to ensure the boxes remain in good condition and securely affixed to the trees.

7.0 LONG-TERM MANAGEMENT AND MONITORING

7.1 Flowering Lawn

Rectification of Defects

7.1.1 The condition of the amenity lawn overall should be inspected and monitored on an annual basis over the 30-year management period. Should bare patches of grass develop during this time, the area is to be cultivated to 150mm and then seeded with amenity grass seed; to be cross-sown in two directions at right angles to each other (half the seed being used in each direction) at the rate of 35 gm per square metre and the ground lightly raked over on a still, dry day when the top 25 mm of soil is dry. Within the 30-year management period following monitoring due to condition it may be decided that the lawn should be re-seeded / re-turfed in its entirety.

7.2 Ornamental Shrubs / Perennial / Herbaceous Planting

Thinning, Dividing, and Plant Replacement

7.2.1 Trees and shrubs should be checked bi-annually for shape, form, and size, and pruned accordingly whilst they are still in leaf. On a 5 year cycle areas of ornamental shrub planting and herbaceous planting should be reviewed for size and spacing and any requirement for removal and thinning should be assessed. Herbaceous plant material should be divided and managed on a routine basis in order to maintain vigour. Any leggy, failed, or defective plant material should be replaced within the soft landscape planting scheme. A review of the soft landscape scheme should be undertaken in years 1-3, 5, 7, 10 and each 5 years thereafter to advise of any removal or replacements required.

7.3 Native Trees and Hedgerows

Thinning, Pruning, and Plant Replacement

7.3.1 Pruning and trimming of trees, shrubs, and hedgerows should be carried out outside of the bird breeding season (nesting season: March – August inclusive). Trees and shrubs should be checked bi-annually for shape, form and size, and pruned as appropriate to the species whilst they are still in leaf. Hedges should be cut in alternate years if possible, to allow species to flower and fruit on the previous year's growth.

7.3.2 Pruning of hedgerows should be carried out in such a way to achieve a dense hedgerow. On a 5-year cycle native trees shall be reviewed for size and spacing and any requirement for removal and thinning should be assessed.

7.3.3 Existing mature trees are to be inspected annually, or following periods of high winds, for signs of poor health or defects; remedial action will be taken where required. All work is to be undertaken by a suitably qualified tree surgeon.

7.4 Log Piles, Bird, and Bat Boxes

Inspection and Replacement

7.4.1 Log Piles - areas of dead wood should be created as the logs breakdown and replenished. The condition of log piles should be checked on an annual basis and replenished where necessary.

7.4.2 Bird and Bat Boxes - the bat boxes specified above do not require any cleaning. A visual inspection should be carried out annually to ensure the boxes remain in good condition. If the boxes have broken down or disintegrated, they should be replaced. A visual inspection should be carried out annually to ensure the boxes remain in good condition. Boxes which have shown no signs of use after 3 years should be moved to a more appropriate location if considered necessary during the monitoring visits.

8.0 IMPLIMENTATION SCHEDULE

Table No. 01 – Annual Maintenance Summary

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
FLOWERING LAWN												
Mowing				X	X	X	X	X	X	X		
Strimming												
Weed Control					X					X		
Top Dressing				X								
Scarifying and Spiking										X		
ORNAMENTAL SHRUBS												
Watering (as required)				X	X	X	X	X	X	X		
Top Dressing					X							
Replace Losses											X	
Mulching										X		
Pruning			X							X		
NATIVE TREES, SHRUBS & HEDGING												
Watering (as required)				X	X	X	X	X	X	X		
Pruning			X									
Check Ties / Stakes (1st yr.)				X						X		
Replace Losses											X	
Maintain 500mm dia. clear base				X		X		X				
Weeding					X				X			
BIRD AND BAT BOXES												
Cleaning (bird boxes)										X		
Check condition											X	
LOG PILES												
Check Integrity			X							X		
Re-stock if needed			X							X		
COMPOST												
Check Integrity			X							X		

Table No. 02 – Long-Term Monitoring and Management Plan

	Y 1	Y 2	Y3	Y 5	Y7	Y10	Y15	Y20	Y25	Y30
FLOWERING LAWN										
Rectification of Defects	X	X	X	X	X	X	X	X	X	X
Review of Lawn Condition	X	X	X	X	X	X	X	X	X	X
ORNAMENTAL SHRUBS										
Thinning and Dividing	X	X	X	X	X	X	X	X	X	X
Review of Condition of Soft Landscape Overall	X	X	X	X	X	X	X	X	X	X
Replacement of Defective Planting	X	X	X	X	X	X	X	X	X	X
NATIVE TREES, SHRUBS & HEDGING										
Tree Pruning / Thinning	X	X	X	X	X	X	X	X	X	X
Review of Tree Planting Overall	X	X	X	X	X	X	X	X	X	X
Replacement of Defective Planting	X	X	X	X	X	X	X	X	X	X
BIRD AND BAT BOXES										
Check Condition / Replace	X	X	X	X	X	X	X	X	X	X
LOG PILES										
Re-stock If Needed	X	X	X	X	X	X	X	X	X	X
COMPOST										
Re-stock If Needed	X	X	X	X	X	X	X	X	X	X