



**Barrow Brook Residential Estate
Phase 2
Clitheroe
Lancashire**

320120273P

LANDSCAPE SPECIFICATION

**Landscape specification to be read in conjunction with
drawings entitled:
Landscape Proposal 49578-13**

Presented to

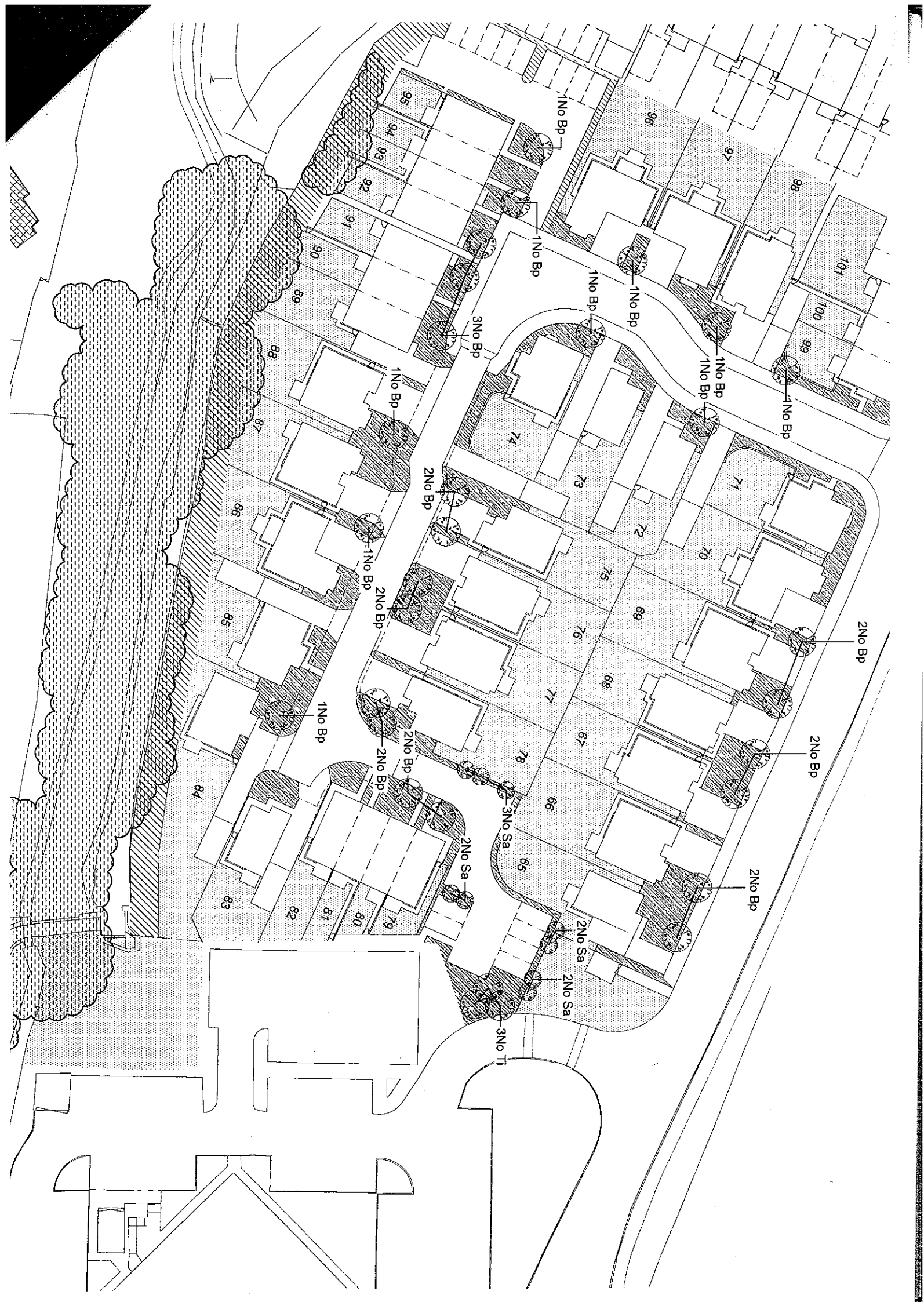
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-November 2011-

PLANTING SPECIFICATION:



LANDSCAPE SPECIFICATION

Landscape Specification: Planting regimes

1.1 Purpose

The following specification has been prepared for the purpose of the planning submission and should be used only for this purpose. This specification should be read in conjunction with the plan entitled 'Landscape Proposal 49578-13'.

1.2 Ground Preparation and Soil Specification

Subsoil:

Subsoil shall meet the following specification:

Texture 5-50% clay

PH 6-7.5

Stones <20%

To be free from toxic substances, weed seeds, plastic, metals etc.

Subsoil shall be spread to a minimum of 250mm below shrub areas. Tree pits to be constructed as described in section 1.3 'Plant and Planting Specification'.

Subsoil to be spread by hand or using a back-acting track vehicle to cause minimum compaction and loss of soil structure. No soil handling shall be undertaken when the soil is wetter than the plastic limit.

Topsoil:

Imported topsoil shall be general purpose grade as described in Table 2, Topsoil Characteristics of BS 3882 - Specification for topsoil. Soil shall be stored in heaps not exceeding 1.5 metres high. Heaps shall be graded to shed water and avoid ponding, maintained in a weed-free condition and protected from contamination or trespassed by heavy machinery.

Topsoil shall be lightly consolidated in layers not exceeding 150mm by hand. Works shall not be undertaken in periods of wet weather.

Topsoil shall be laid to the following minimum depths:

- 400mm beneath new shrub areas.

Finished levels, after settlement, shall be as follows:

- 75mm below adjacent paving for mulched shrub beds.

1.2 Ground Preparation and Soil Specification Cont...

Ground Conditioning

40 litres of compost to be incorporated into the top 200mm of each square metre of topsoil for all ornamental shrub beds.

1.3 Plant and Planting Specification

All plant stock, plant handling and planting to be undertaken in accordance with the following British Standard Specifications and Code of Practice:

- BS 3936:1992 Part 1 Nursery Stock - Specification for trees and shrubs.
- BS 3936:1981 Part 10 Nursery Stock - Specification for ground cover plants.
- BS 4428:1989 - Code of Practice for General Landscaping Operations (excluding hard surfaces).
- The Code of Practice for Plant Handling 2002 (Horticultural Trades Association).

Standard Tree Planting:

Pits to be prepared to 800x800x800mm. Base and sides of pit to be further scarified by 200mm

Trees to be double staked using two stakes (75mm diameter), driven into ground 300mm below bottom of pit. Base of pit to be filled with 200mm of 3:1 mix of approved topsoil / compost.

Trees to be centrally located and stem placed in an upright position. Pit to be back-filled with a 3:1 mix of an approved topsoil / compost. Backfill firmly to 50mm above previous ground level to allow for settlement.

Saw stakes to leave 600mm above soil level. Fix adjustable tree ties to each stake, to include rubber spacer. Water in same day with 50 litres per tree.

All works shall be carried out to the minimum standard according to BS 3936:1992 - Nursery stock specification for trees and shrubs

Root Barriers

For all tree planting within minimum planting distanced recommended by each utility, install root barriers to the satisfaction of the service provider.

Plant stock shall be watered in on the same day with 5 litres per plant.

1.2 Ground Preparation and Soil Specification Cont...

Plant Stock:

Plant stock to be supplied in accordance with the size and description specified on the plant schedule. Plant stock shall be healthy, vigorous, free from pests and diseases, suitably hardened off for the proposed situation of planting and lifted at a time in accordance with good nursery practice. Stock shall have a well formed fibrous root system and be free from perennial weeds. The form of trees shall be in accordance with BS 3936: 1992 Part 1 Section 7 - Form of trees.

Plant Handling:

All plant materials shall be lifted, bundled, labelled, packaged, transported, temporarily stored and planted in accordance with the procedures and methods illustrated in the publication, "Plant Handling" (Horticultural Trades Association) and relevant sections of BS 4043:1989 - Recommendations for transplanting of root-balled trees.

Shrub and Herbaceous Planting

All bare root stock shall be planted between November and April. Plants shall be delivered to site in quantities which can be planted the same day. No plant roots shall be allowed to dry out. 1L & 2L pot grown shrubs and herbaceous plants shall be planted in pits 350x350x350mm and back-filled gently.

Hedge planting

Southern hedge (133m) should be planted in a double staggered row, 4 plants per metre, 50cm apart. 10% of hedge to be climbers, approximately 1 per 2m. Random mix of 4 species should be used.

1.3 Plant and Planting Specification Cont...

Mulch

Planting beds shall be spread with a polypropylene porous weed suppressant and spread with medium grade bark mulch to a settled depth of 75mm. Mulch to be free from fines, weeds, disease and contaminants.

1.4 Maintenance and Management

External space shall be maintained by the Developer's agent during which time the following operations shall be carried out:

Regular visits:

Monthly maintenance visits to include the following operations:

- Hand weed planting beds.
- Remove litter.
- Sweep mulch spillage.
- Re-firm plant stock as necessary.
- Adjust stakes and ties as necessary.
- Prune plant stock as required to encourage good form and maintain the width of footways. Maintain hedge at 1.5m.
- Check all plant stock and report signs of pests, disease, death and damage.
- Maintain paths free of debris and overhanging plants.
- Inspect paths for build up of algae and apply treatment to maintain a slip free surface.

Management and enhancement beyond 5 years

Given the use of the surroundings as a busy commercial area and relatively restricted size, it is noted that further opportunities for enhancements are limited. However, the following principles could be employed:

- Restricting hedge/tree maintenance to be undertaken only outside the nesting bird season (March-September inclusive).
- Consider creation of a compost heap, if not on 'site' then elsewhere on the grounds for effective disposal of maintenance rubbish/grass clippings, and provision of ready made nutrients to be dug back into the soil as part of the maintenance regime.
- Manure or compost to be used where appropriate instead of chemical fertilizers. Mulching of plant beds and newly planted shrubs to reduce direct water loss from the soil and reduce the need for watering.

1.3 Plant and Planting Specification Cont...

Watering:

Plant stock to receive the following quantities of water:

- Shrubs, transplants and herbaceous plants - 5 litres per plant on three occasions throughout the growing season.

Watering to be undertaken during the first 24 months.

Plant replacements:

All dead, dying and vandalised plant stock to be replaced at the end of each growing season throughout the maintenance period.

Planting specifications subject to change

Please note, the following planting specifications are based on the current proposed layout plan therefore our planting specifications will be adapted to suit the predefined allocation.

Planting Schedule
Planting Specification: Water side

Incorporated seed mixture to increase value.

Incorporation of a wildflower seed mix is an effective and efficient means of producing native swathes and abundance of wildflowers with minimal disturbance. To this effect, we suggest the following allocation of best suited to wetland areas.

The aim once established is to have different species of height, colour and appearance from May to August.

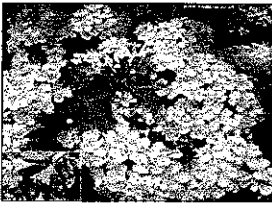
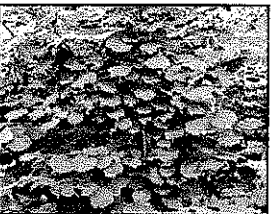
It is a mixture of 100% wildflowers. There are 16 different wild flowers in the mixture which will cope with ground that is prone to some water logging. The application rate is 1.5 grams per square metre or yard. The following mixture should be considered acceptable.

Wild Flower Seed mixture for wetlands

Wild flower species		%
Dark Mullein	Verbascum Nigrum	5.0
Hedge bedstraw	Galium Mollugo	5.0
Gypsy wort	Lycopus europus	2.5
Lesser knapweed	Centaurea nigra	7.5
Meadow buttercup	Ranunculus acris	5.0
Meadowsweet	Filipendula Ulmaria	5.0
Ox eye daisy	Leucanthemum vul	5.0
Ragged robin	Lychnis flos cuculi	5.0
Red campion	Silene dioica	17.5
Ribwort plantain	Plantago lanceol	17.5
Self Heal	Prunella Vulgaris	6.0
Sorrel	Rumex acetosa	5.0
Water avens	Geum rivale	1.5
Water betony	Scrophularia auric	2.5
Yarrow	Achillea millefolium	2.5
Yellow rattle	Rhinanthus minor	7.5
Total		100

Planting Schedule

Planting Specification: Hedge planting - To be implemented within allocated hedge planting areas (see plan 49578)

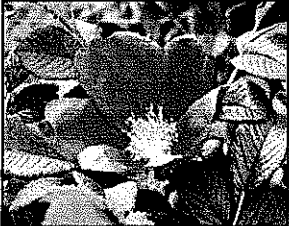
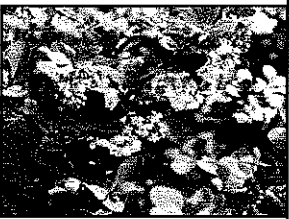
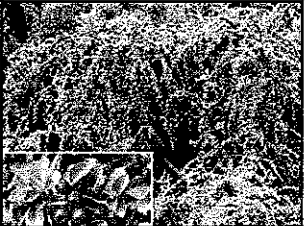
Hedge planting						
Name	Abbreviation	Pot size	Height	Density	Habit	Number
Hawthorn (n) (w)  (Crataegus monogyna)	H	2l	10m	6	Fast growing, very thorny UK native	144
Dogwood (n)  (Cornus sanguinea)	D	2l	2.5m	6	Strong upright	48
Hazel (n)  (Corylus avellana)	H	2l	1.5-2.5m	6	Dense, twiggy, spiny leaves	144
Blackthorn (n) (w)  (Prunus spinosa)	B	2l	4m	6	Dense, thorny	144

Ecological value of plants

n native plant

w wildlife friendly plant

Planting Schedule
Planting Specification: Shrub planting
planting areas (see plan 49578)

Name	Abbreviation	Pot size	Height	Density per m2	Habit	%
Berberis julianae (w) 	Bj	3l	3m	3	Graceful, arching.	10%
Mahonia 'Winter sun' 	Mw	3l	3m	4-5	Compact	5%
Rosa regosa (w) 	Rr	3l	2.5m	6	Stout, upright, basal branching rounded crown.	12%
Berberis Ottawensis Superba (w) 	BOs	2l	1m	3-4	A fast growing prickly hedge, ideal for deterring intruders.	10%
Cotoneaster firethorn (w) 	Cf	3l	2-4.3m	3	Dense, spiny, fast growing evergreen hedge.	12%

Ecological value of plants

n native plant

w wildlife friendly plant

Planting Schedule
Planting Specification: Shrub planting
planting areas (see plan 49578)

Name	Abbreviation	Pot size	Height	Density per m2	Habit	Number
Aucuba japonica (w) 	Aj	3l	1.8m	1-2	Compact, spreading, upright	10%
Lonicera pileata 	Lp	3l	12inches	3	Compact, low, spreading	20%
Photinia red robin (w) 	Prr	3l	4m	3	Upright, bushy, dense	15%

Ecological value of plants

n native plant

w wildlife friendly plant

Planting Schedule

Planting Specification: Tree Planting - To be implemented at proposed tree planting locations (see plan 49578)

Tree Planting				
Name	Abbreviation	Height (m)	Location	Number
Weeping birch (n) (w)  (Betula pendula 'Tristis')	Bp	10-12		27
Sugar maple (w)  <i>Acer saccharum</i> 'Newton Sentry'	As	12-15		3
Rowan (n) (w)  <i>Sorbus aucuparia</i>	Sa	6		9

Ecological value of plants

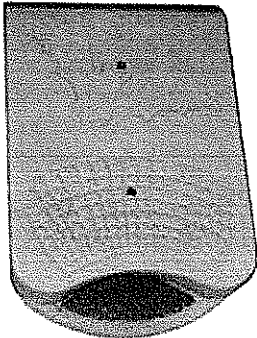
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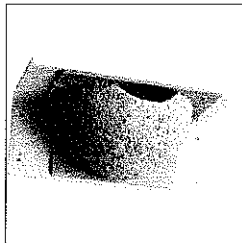
w wildlife friendly plant

Tree specimens freely available

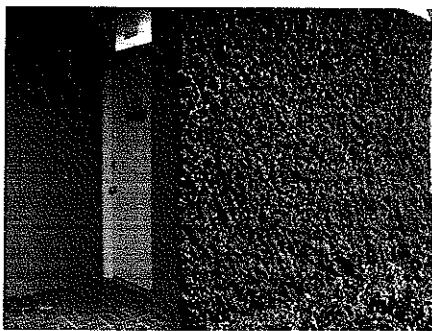
SECTION 5

**HARD WORKS SPECIFICATION:
ECOLOGICAL ENHANCEMENT**

	Bat Box
Type	3 Bat Schwegler 1WQ Winter/ Summer Bat Roost Boxes
Location	On buildings
Dimensions	H 58 x W 38 x D 11.5 cm
Description	A sophisticated bat box designed for the safe hibernation of bats in winter as well as for roosting, forming colonies and raising their young during summer. It has an attractive design and is easy and convenient to install on the wall of a building. This box is self-cleaning and thus completely maintenance-free. 
Installation	Exterior: The 1WQ comes with a decorative bat-silhouette on the front. The entrance area and the lower part of the front cover have an especially structured surface to allow the bats good hold and grip during their approach and while entering the unit. The wide arched entrance section with integrated steps guides the way to the inside, encouraging the occupation of the 1WQ by inexperienced young bats. Colour: The 1WQ is delivered with a light-grey coating. If necessary it can be over-painted with a non-toxic air-permeable paint to match the colour of the background wall. Material: The box is made in special weather-resistant, air-permeable and rot-proof material. Because this material is so long-lasting and because the design is very high quality, the box will last many decades. All metal parts are rust-resistant. Installation: Using the four screws and plugs provided. For easy installation, the 1WQ detaches into two parts. First screw the base into the wall. Then attach the front cover, covering the mounting screws. The 1WQ can be easily attached to most types of external brick, timber or concrete walls. It will also attract bats if it is placed inside a roof space or inside historic buildings. When it is fixed to timber it is advisable to seal the gaps between the wall and the box with silicone.
Installation height	Position 3 metres or higher above the ground, in a place where there is a clear flight path for bats entering and leaving the box.

	Bird Box
Type 1	1 Schwegler 9B House Martin Single Box
Location	On proposed housing block
Description	This woodcrete nest is durable and ready for immediate use when birds return each summer Easily fixed under the eaves on the outside walls of buildings, at least 2 metres from the ground. Nests can be fixed in groups along eaves or beneath guttering to form larger colonies. The backing board may be painted to match the building. 
Installation	Beneath eaves at a height of 2m or above at sheltered side of the building.
Type 2	2 Schwegler 1B Bird Box
Location	On proposed housing block
Dimensions	Woodcrete, 23cm high x 16cm diameter.
Description	The most popular box for garden birds, the 1B appeals to a wide range of species and is the official nest box of National Nest Box Week. The box can be nailed to the trunk of a tree, or hung from a branch. Available with 32mm entrance hole (standard) or with 26mm hole suitable for the smaller tits, or oval entrance hole attractive to redstarts. 

Description	Schwegler boxes have the highest occupation rates of all box types. They are carefully designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting. They can be expected to last 25 years or more without maintenance. Available in a choice of four colours - brown, green, red or white. Selection on this site will be based on exterior of the property and garage rendering to blend with the building.
Installation	A standard nest box for small birds should be fixed to a tree or wall at between 2 to 5 metres (6 to 16 feet) above the ground, out of the reach of cats and people. The holes should be sheltered from prevailing winds and direct sunlight. If there are no trees providing this shelter or shade, the hole should face north to south-east. The box should tilt forwards slightly to ensure rain runs away from the hole. If you are fixing the box to a tree, tie it to the tree using wire or leather strapping to avoid damaging the tree. If you must use nails, use aluminium ones or the special fixings that are now available. These will reduce damage that would be caused to the tree as it grows.

Feature	Vertical Planting
Dimensions	Varies due to growth patterns
Location	On proposed housing block
Description	Facade greening can reduce the daily temperature fluctuations of a building by as much as 50%, cutting heating and air conditioning use dramatically. They also promote urban health by reducing noise, heat, dust, and pollution. Choose a solid render or cement-surfaced building to reduce maintenance issues; self-clinging climbers have trouble sticking to slick surfaces and may stick too well to things like wood and soft mortar. 

Hedgehog box allocations	1 x hedgehog box
Location	Rear boundary
Description	Includes Hedgehog House, Hedgehog Bedding, 1kg Ark Pro-Feed for Hedgehogs, Hedgehog Feeding Dish and full colour Guide to Hedgehogs Our FSC certified natural timber hedgehog house with hinged easy inspection roof is ideal for hedgehogs and will look great in any garden. With design features including an internal tunnel to prevent predator access and extra warmth within the bedding chamber, foot rails to prevent damp, ventilation holes and a sloping roof with waterproof felt, it will give years of trouble free service and will benefit the hedgehogs that visit your garden.
Installation	Simply place in a quiet corner of the garden with a handful of leaves or hay, supplied fully assembled and ready to use.



LANDSCAPE

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