

ECOLOGY
Notes:
Bat boxes 4x boxes suitable for crevice dwelling bats, Inbuilt or free standing comprising woodcrete for longevity. Schwegler 1FQ or equivalent.
Swift boxes - multiple entrance such as Vivara pro Madrid, Schwegler swift box, or Woodstone invisible swift box. (inbuilt where possible) to be placed high near gable.
Robin Boxes open fronted Robin boxes placed in cover in vegetation - mix of 28mm and 32mm round hole boxes
Hedgehog highway To be signed with Hedgehog Highway signage and compliant diameter holes in fencing routes as indicated



Wildlife Hedge planting	Height	Form	Size	Hedge 1	Hedge 2	Hedge 3	Hedge 4	Hedge 5	Hedge 6	Hedge 7	Hedge 8	Hedge 9	Hedge 10	Hedge 11	Hedge 12	Hedge 13	Notes
<i>Dioglossa s. submacrophylla</i>	600-900mm	ctr	linear m	65	60	6.5	17	7	6	16	14	10	18	15	8.5	16	Min 5 breaks
<i>Fagus sylvatica</i>	600-900mm	ctr	min 3ltr	195	180	20				48	42	30					Min 5 breaks
<i>Fuchsia magellanica</i>	600-900mm	ctr	min 3ltr				51*	21*	18								Min 5 breaks
<i>Hedera helix</i> Hibernica - underplanted	300-450mm	ctr	min P9														Min 3 breaks cut back to 300mm before planting
<i>Ribes sanguineum</i>	600-900mm	ctr	Min 3ltr									54	45	26	48		Min 3 breaks

Planting to be in a single row at 3no. per linear metre in mixed species or as a single species hedge as indicated. Prepared Trench to be 300x300x450mm backfilled with topsoil and 100mm peat free organic matter + Micorhizal granules + Slow release fertiliser at manufacturers recommended rates. Stock to be cut back to 600mm where oversized before planting to achieve a balanced root shoot ratio. * Hedges indicated to be underplanted with 20 no. *Hedera helix* Hibernica 300-450mm P9/1ltr plants as ground cover stock to be Local Provenance Forestry Area 303 where available. Evergreen stock to be dipped with 5600 Antidesiccant prior to planting. Hedge to be kept weed free by mechanical means and mulching with Strutch propriety mulch in accordance with manufacturers instructions.

TY HAPUS, CWM ROAD, LLANDUDNO SOFT LANDSCAPE CONTEXT AND DESIGN NOTES.

Design.
 The soft landscape proposals reflect several aims and constraints on site including:
 • Retention of existing native vegetation bordering the site - primarily on land outside the immediate control of the client.
 • Inclusion of Hedge Planting for habitat connectivity and strengthening
 • Presence of underground services both existing and proposed including SUDs Drainage measures as Rain Gardens and Aqua retention Tree Pits.
 • Species selection for the anticipated microclimate and disturbed ground conditions including dense shade, and aridity due to building overhangs and limited areas for planting potential.
 • Promotion and enhancement of biodiversity as an urban site, adding longer term linkage potential.
 • Inclusion of native species as well as fruiting and flowering species for Pollinator and avian benefit as well as scented climbers for added invertebrate benefit.
 • Seeded areas include short mown grass for use of external areas by residents and longer species rich seeded areas for pollinator and invertebrate interest.
 • Security and forward visibility for residents safety and Secure by design principles
 • Maintenance cost for the client and future residents
 • Planting species selected for amenity and safety (i.e. non toxic, or non flammable) including respecting residents' privacy, security, safety and enjoyment of properties.

PROGRAMME OF IMPLEMENTATION
ALL PLANTING WILL BE CARRIED OUT THE FIRST PLANTING SEASON FOLLOWING COMPLETION OF CONSTRUCTION OF CONSENTED PROPOSALS

Topsoil and soil preparation
 Topsoiling in both planting areas will ensure a minimum depth of 400mm approved imported Topsoil for existing ground/subsoil, with Growing Medium of 100mm thickness and Micorhizal granules (at manufacturers recommended rates) added to the beds to provide a minimum overall 0.5m rooting depth of un compacted material.
 Growing media, (Peat free) mycorrhizal granules and slow-release fertilizers to be incorporated within pits and well incorporated before notch planting of stock, before 50mm Coarse Grade Bark Mulch is applied after planting and to not exceed the level of the surrounding hard standing areas.

Planting
 Bare root planting to be implemented between December and February wherever possible when species are dormant and planted in accordance with BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces) and will be subject to seasonal adjustment if necessary.
 Containerised and Container grown stock to be planted from April onwards after the risk of frost has passed.
 All shrub planting and climbers to be individually planted into prepared pits, after the risk of frost has passed, firmed up and maintained weed-free to promote healthy and vigorous growth, to include formative pruning, weed control, pest and disease control and fertiliser application. Shrub shelters to be fixed to all plants and hedging immediately after planting.
 Evergreen hedge species to be dipped with Anti desiccant prior to planting to prevent wind scorch

Seeding
 To be carried out between March - May or August to September inclusive.

Maintenance
 Maintenance of the Soft Landscape areas will be undertaken by the clients in house team on a regular basis, funded via a service charge for residents which must offer value for money and reflect affordability.

Maintenance and Establishment operations will be undertaken on a monthly basis as follows:
 All areas to be kept weed free by mechanical means including noxious and pernicious weed removal.
 Any failed plant stock to be replaced during the next available planting season.
 Ties and stakes will be checked and adjusted, and removed once stock is established.
 Plants to be watered, firmed up and staked as required and conditions dictate.
 Annual Slow-Release Fertiliser application to be carried out in March
 Formative pruning will be undertaken as appropriate to maintain form and flowering benefit.
 Long term maintenance will be undertaken to maintain hedge and shrub heights compliant with safety and sightline requirements.
 Grass cutting will be undertaken to communal short grass areas to maintain areas as a short sward, (Mix 1 Areas) whilst Species Rich seeded areas will be cut once annually as indicated on the drawing, raking left as seed source and then removed to a compost area designated on site.

Key

- Site Boundary
- Proposed dwellings - refer to Architects drawings for details
- Proposed Hardstanding - refer to Architects drawings for details
- Proposed Planting
 - Proposed Specimen tree (species as indicated within schedules)
 - Proposed Specimen tree Aqua Pit (species as indicated within schedules)
 - Proposed Low Shrub & Perennial Pollinator planting (species as indicated)
 - Proposed Raingarden Planter (species as indicated - see note below)
 - Proposed Permeable paving
 - Short mown Garden amenity grass seeded areas Mix 1 (species as indicated)
 - Proposed Hedge (species as indicated)
 - Proposed Native Tree and Shrub Mix planting Mix NM1 (species as indicated)
 - Specimen Shrub/Climber (species as indicated)
- Proposed additional Biodiversity Mitigation
 - Proposed Hedgehog Hole (Highway route)
 - Proposed Swift Box - see drawing for details
 - Proposed Bat Box - see drawing for details
 - Proposed Robin Box - see drawing for details

NOTES:
 1. Proposals based upon layout provided within Ainsley Common Architects Proposed Site Layout Option 5 Drawing Ref: C1054 0014 Rev L, dated 17.03.25. Drawing issued for Planning purposes only - not for tendering.
 2. Ecological and Drainage reporting provided separately.
 3. All fencing to have compliant Hedgehog Holes and signage as indicated.
 4. Bat Bird and Hedgehog House types as detailed within Architects proposals.
 5. All Species Rich seeded areas to have 400mm short mown edging to adjacent paths and areas of hardstanding/walls etc.
 6. Drainage proposals - including Rain garden planters to Downpipes detailed within Waterco-Datrys Drainage Scheme (provisional) Drawing Ref: 24168/SK501 Rev 4 dated 14.03.25
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Scale 1:250 @ A1

v4	JB	PW	JB	17/03/25
v3	PW	JB	JB	14/03/25
v2	PW	JB	JB	11/03/25
v1	PW	JB	JB	05/11/24
Issue	Drawn	Checked	Approved	Date

Tirlun Barr
 Chartered Landscape Architecture
 Tan y Berllan, Llanbedr y Cennin, Conwy, LL32 8UY
 Tel Office: 01492 650333
 www.tirlunbarr.com

Client **First Choice Housing and Grŵp Cynefin**

Project Title **Cwm Road, Llandudno**

Drawing Title **Soft Landscape and Ecological Mitigation Proposals**

16/024/PP/01

Size	Scale	Issue
A1	1:250	v4

Native - N	Code	Specimen Street/Small Tree planting	Form	Spec	Size	spacing	Notes
N	Cm	<i>Crataegus monogyna</i>	900-1200mm	Rb/Cg	8-10cm	As shown	Staked on windward side
N	Ms	<i>Malus sylvestris</i>	900-1200mm	Rb/Cg	8-10cm		Staked on windward side
N	Sauc	<i>Sorbus aria</i>	900-1200mm	Br/Ctr	10-12cm		Staked on windward side
N	Sauc	<i>Sorbus aucuparia</i>	900-1200mm	Br/Ctr	8-10cm		Staked on windward side

Trees to be planted into prepared pits 900x900x000mm comprising Topsoil, Peat free Soil conditioner, Micorhizal granules and slow release fertiliser at Manufacturers recommended rates. *Where existing boundary vegetation is retained and planting is amongst/close to retained vegetation - planting positions to be adjusted accordingly to underplant and promote long term establishment. All extraneous material to be removed from pits. Stock to be Local Provenance Forestry Area 303 where available.

Native tree and shrub planting - Mix NM1	Height	Form	Size	%mix	Spacing	Notes
<i>Corylus avellana</i>	450-600mm	Br	2+0	40	0.8/m ²	Min 3 breaks
<i>Crataegus monogyna</i>	450-600mm	Br	2+0	40	0.8/m ²	Min 3 breaks
<i>Rosa canina</i>	450-600mm	Br	1+1	15	0.8/m ²	Min 3 breaks
<i>Sorbus aria</i>	450-600mm	Br	2+0	5	0.8/m ²	
<i>Sorbus aucuparia</i>	450-600mm	Br	2+0	5	0.8/m ²	

Planting to be a 1.5m centres into prepared pits in staggered rows max. no in groups of the same species to be 7. Pits to be 300x300x300mm backfilled with topsoil and 100mm organic matter + Micorhizal granules + Slow release fertiliser at manufacturers recommended rates. NOTES: Stock to be local provenance (Forestry Area 303 where available) to be planted into prepared ground comprising well incorporated compost and slow release fertiliser - Enmag or equivalent at manufacturers recommended rate. All stock to be fitted with propriety biodegradable tree and shrub shelters - Tubex or equivalent immediately after planting. Shelters to be removed after 4-5 years dependant upon growth rates. Preparation and planting to be carried out between December - March seasonally dependant.

Species Rich Seeded areas MANAGEMENT NOTES:
 Species Rich Seeded Areas to be cut once (late July - August) or twice (February) per year, to a minimum height of 100mm. The cuttings should be left for 2no. weeks to seed before collection The cuttings to be piled in designated compost area within the site. A small area to be left uncut annually to provide for wintering insects; rotated each year.
 N.B. Species rich grassland areas will be managed under meadow management specifications.

Grasses	Latin name	Common name
5	<i>Agrostis capillaris</i>	Common Bent
25	<i>Lolium perenne</i>	Perennial Rye Grass
50	<i>Festuca rubra</i>	Red Fescue
20	<i>Poa pratensis</i>	Smooth-stalked Meadow-grass
100		

Perennial /Low Shrub pollinator based planting	Form	Size	Density/m ²	Bed A	Bed B	Bed C	Bed D	Bed E	Bed F	Bed G	Bed H	Bed I	Bed J	Bed K	Bed L	Bed M	Bed N	Bed O	Bed P	Bed Q	Bed R	Bed S	Bed T	Bed U	Bed V	Bed W	Bed X	Bed Y	Bed Z	A1	D1	C1	D1	E1	F1	G1	H1
<i>Berberis thunbergii</i> f. <i>atropurpurea</i> 'Bagatelle'	2ltr	300-450mm	6	N ^o	4.5	1	9.5	2.5	3	7.5	7.5	4	15	1.8	2.5	15.3	7.5	7.5	5.5	5	1.5	10.5	7.5	1.5	8	6.6	1	6.5	1	6.5	1	4	3	5.5	2.5		
<i>Brachybotrys Sunthine</i>	2ltr	450-600mm	3				9				12	12						18				24		24													
<i>Ceanothus 'Autumnal Blue'</i> (SPECIMEN PLANT)	10ltr	900-1200mm	as shown																																		
<i>Cornus alba</i> 'Elegantissima'	2ltr/1ltr	600-900mm	3																																		
<i>Diagnos x ebbingeri</i> Gilt Edge	3ltr	600-900cm	2.5/1m																																		
<i>Luomyrtus</i> f. <i>harlequin</i>	2ltr	450-600mm	5				8																														
<i>Fuchsia magellanica</i>	3ltr	600-900mm	3																																		
<i>Fuchsia Mrs Piggie</i>	3ltr	600-900mm	2.5/1m																																		
<i>Sauzetia procumbens</i>	1ltr	300-450mm	6																																		
<i>Geranium Roseum</i>	P9/1ltr	300-450mm	6		18			15																													
<i>Lavandula angustifolia</i>	2ltr	450-600mm	8			8	16		24																												
<i>Sarcococa nuscifolia</i> v. <i>Chinensis</i> Dragon Gate	10ltr	900-1200mm	as shown																																		
<i>Rosa Frau Dagmar</i> Hartstrup	2ltr/1ltr	450-600mm	3					9																													
<i>Spiraea japonica</i> Goldflame	2ltr	450-600mm	4																																		
<i>Verbena bonariensis</i>	2ltr	450-600mm	3			5																															
<i>Viburnum opulus</i> compactum	2ltr	450-600mm	3																																		

Beds to be topsoiled with min 600mm depth of soil. Cultivation of top 300mm comprising topsoil, with 100mm added well incorporated Peat free Rooting medium, Micorhizal additive and slow release fertiliser at manufacturers recommended rate. Stock to be planted in blocks of single species evenly spaced as set out on site. Minimum 50mm coarse grade bark mulch applied after planting.

Climbers	Height	Form	Spec	Size	No./m ²	Notes
<i>Lonicera periclymenum</i>	450-600mm	Ctr	Min 3 breaks	2ltr	as shown	Climber

Notes: Planted where indicated within Bed area/individual pits and attached to structures with wire/ties and canes until established. Beds to be prepared with 100mm added peat free organic matter well cultivated into topsoil full depth, and with slow release fertiliser added at the manufacturers recommended rate prior to planting or individual pits as 300mm².

Grasses	Latin name	Common name
5	<i>Agrostis capillaris</i>	Common Bent
25	<i>Lolium perenne</i>	Perennial Rye Grass
50	<i>Festuca rubra</i>	Red Fescue
20	<i>Poa pratensis</i>	Smooth-stalked Meadow-grass
100		