



- SOFT LANDSCAPE KEY:**
- EXISTING TREES & HEDGEROWS TO BE RETAINED (Any gaps of thin spots within existing hedgerows to be strengthened with new native planting)
 - PROPOSED ORNAMENTAL TREE PLANTING (Refer to schedule for species)
 - PROPOSED NATIVE TREE PLANTING (Refer to schedule for species)
 - PROPOSED SHRUB PLANTING (Refer to schedule for species/densities)
 - PROPOSED GRASS TURF (Areas to be turfed with Rolawn Medallion)
 - PROPOSED WILDFLOWER HABITAT 1 (Emorsgate EM1 - Meadow Mix)
 - PROPOSED WILDFLOWER HABITAT 2 (Emorsgate EH1 - Hedgerow Mix)
 - PROPOSED WILDFLOWER HABITAT 3 (Emorsgate EM8 - Wetland Mix)
 - EXISTING LANDSCAPE RETAINED AS EXISTING (Grassland to be maintained as wildflower meadow)
 - PROPOSED LARGE LANDSCAPE BOULDERS WITHIN RAIN GARDENS

- RAIN GARDEN PLANTING (density as shown)**
- Calamagrostis brachytricha (30-40 Con 3L - 4 per square metre)
 - Carex pseudocyperus (30-40 Con 3L - 4 per square metre)
 - Deschampsia cespitosa (30-40 Con 3L - 4 per square metre)
 - Dryopteris affinis (30-40 Con 3L - 4 per square metre)
 - Helleborus foetidus (30-40 Con 3L - 5 per square metre)
 - Cornus sericea Flaviramea (30-40 Con 3L - 3 per square metre)
 - Leucothoe Scarlatta 'Zelbid' (30-40 Con 3L - 3 per square metre)
 - Asplenium scolopendrium (30-40 Con 3L - 6 per square metre)
 - Ajuga reptans Atropurpurea (30-40 Con 3L - 6 per square metre)
 - Geranium Rozanne Gerwat (30-40 Con 3L - 6 per square metre)
 - Skimmia japonica 'Fragrans' (male) (30-40 Con 3L - 4 per square metre)
 - Hydrangea arborescens Annabelle (30-40 Con 3L - 2 per square metre)

Rain gardens adjacent to proposed and existing trees to be lined with GreenBlue Urban Root Barriers

PLANT SCHEDULE

TREE PLANTING

ABBREV	SPECIES	DENSITY	HEIGHT/GIRTH	ROOT COND	POT SIZE	TOTAL
Ac	Acer Campestre	AS SHOWN	14-16 (g)	RB	-	-
Ag	Alnus glutinosa	AS SHOWN	14-16 (g)	RB	-	-
Qro	Quercus robur	AS SHOWN	14-16 (g)	RB	-	-
Sau	Sorbus aucupria	AS SHOWN	14-16 (g)	RB	-	-
UN	Ulmus New Horizon	AS SHOWN	14-16 (g)	RB	-	-

SHRUB PLANTING

ABBREV	SPECIES	DENSITY	HEIGHT/GIRTH	ROOT COND	POT SIZE	TOTAL
HAG	Hebe Autumn Glory	4 sqm	30-40 (h)	CON	3L	-
HO	Heuchera Obsidian	6 sqm	30-40 (h)	CON	3L	-
PIOL	Prunus laurocerasus Otto Luyken	4 sqm	30-40 (h)	CON	3L	-

NATIVE HEDGEROW PLANTING

ABBREV	SPP. & PERCENTAGE IN MIX	DENSITY	HEIGHT/GIRTH	ROOT COND	POT SIZE	TOTAL
AS KEY	Crataegus monogyna (50%)	5 per lin/m	40 - 60 (h)	ROOT CELL	-	-
	Corylus avellana (20%)		40 - 60 (h)	ROOT CELL	-	-
	Ilex aquifolium (10%)		40 - 60 (h)	ROOT CELL	-	-
	Sambucus nigra (10%)		40 - 60 (h)	ROOT CELL	-	-
	Ulex europaeus (10%)		40 - 60 (h)	ROOT CELL	-	-

NOTES:
 Existing retained trees to be protected in accordance with BS5837:2012. Protection measures to be implemented prior to any construction operations on site.
 Drawing was produced in colour at a scale of 1:250 @ A1. Do not rely on monochrome or scaled copies

TREE PIT NOTES:
 No container/root-balled tree shall be supplied and planted until it has been found to be compliant with BS 8545:2014, Table 1, P.21

TOPSOIL:
 300mm site won topsoil. Approved for use by a suitably qualified soil scientist in receipt of the landscape proposals drawing

SUBSOIL:
 600mm insitu subsoil. Approved for use by a suitably qualified soil scientist in receipt of the landscape proposals drawing Backfilling to reinstate the pre-existing soil profile

Areas around proposed trees to be securely fenced prior to commencement of construction operations on site to avoid compaction / contamination of soils.

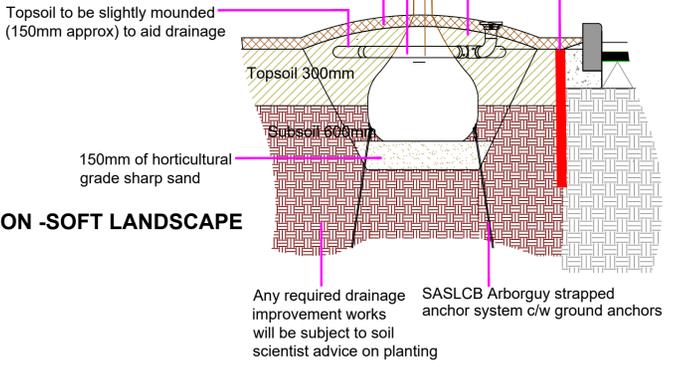
Non-biodegradable & biodegradable root-ball wrappings to be removed. Where root-ball collapse is a concern, Wrapping to be cut & peeled back to one-third root-ball height. Peeled wrapping to be removed and not folded back into the root-ball.

Mulch circles around trees shall be maintained for at least 3 years post-planting.

RRPIPE1A RootRain pipe system c/w 3m of pipe

Base of tree to be kept weed free during maintenance period to allow for establishment. Tree pit to be mulched with 50-75mm of hard wood bark chips tapered to 25mm towards base of stem. mulched circle to be 1.2m. Where this is not practicable, circle to be extended in whatever direction is available to maximise its extent.

GreenBlue Urban ReRoot Barrier where trees are adjacent to hard surfacing



TREE PIT CONSTRUCTION -SOFT LANDSCAPE

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DRAWING NUMBER
 TDA.2913.01(D)

SCALE
 1:250 @ A1

DRAWN
 RHC/AMP

DATE
 FEB 2024

PROJECT
 PLOT E - PENCOED TECHNOLOGY PARK

DRAWING TITLE
 DETAILED SOFT LANDSCAPE PROPOSALS

Landscape Specification & Management Plan

For

Plot E – Pencoed Technology Park

Prepared By



On Behalf of

FABCO

November 2023

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PROGRAMME:

All soft landscape works shall be implemented during the first planting season post practical completion.

SOFT LANDSCAPE SPECIFICATION:

Generally

All works shall be carried out in accordance with BS4428:1989, Code for General Landscape Operations.

Clearance

Any significant clearance of vegetation shall take place between September and March so as to avoid the bird nesting season.

Soil

Soil resources are easily damaged by being stripped or moved when wet. Consequently, all topsoil should be stripped when dry (in the summer months) for re-use in landscape areas.

Stripped soils to be stored in bunds no more than 2 m high and kept grassed and free from construction traffic until required for reuse.

Topsoil depths to be 150mm for grass areas over 150mm of subsoil with a minimum 300mm overall rooting depth, 300mm for shrub planting over 300mm of subsoil with a 600mm overall rooting depth and 300mm for trees over 600mm of subsoil with a 900mm overall rooting depth.

Spread subsoil should be loosened/ripped after replacement to remove compaction and maximise aeration and drainage. De-compaction to be performed with a tined ripper pulled by an earth-mover or excavator, undertaken when soils are sufficiently dry to be friable.

Fallow Cultivation

The contractor shall by cultivation or other approved means allow for suppressing all weed growth on all areas which lie fallow whilst awaiting suitable weather or the right season for planting or seeding.

Cultivation

On newly topsoiled areas or on undisturbed areas where depth of not less than 300mm of topsoil exists after clearing all vegetation, beds shall be dug by hand or cultivated by machine to a minimum depth of 300mm breaking down all lumps and leaving the surface level with a medium tilth. All weeds and debris shall be collected and removed from site.

Nursery Stock

All stock must comply with BS3936 (Nursery Stock).

- Top growth shall be typical of the variety and well branched, except for varieties normally grown with a single stem.
- Roots shall be in balance with the size of plant and sufficiently fibrous and developed.
- All containers must be weed free.
- All plants must be fully hardened off prior to planting where protective growing techniques have been used.

All root-balled and containerised tree stock to be supplied in accordance with BS:8545:2014.

Season

All trees, shrubs and ground cover plants shall be planted during suitable weather between October and April. However, containerised material may be planted between May and October. Planting shall not be carried out when the ground is waterlogged, frozen or snow covered.

Planting Trees

No tree shall be accepted for planting until it has been shown by inspection at the nursery and on delivery to be compliant with Table 1, p.21, BS 8545:2014. The project landscape architect and contractor shall liaise with the LPA to confirm compliance and the landscape architect shall provide update reports to the LPA on successful completion of each stage of landscaping.

Preparation of trees for planting: remove any ropes, wrappings, tree frames, etc., where used for protection of tree in transit and temporary storage. Remove any dead, diseased or broken branches. Shorten any unusually long branches by one third.

Tree pit sizes: Twice the root-ball diameter at their opening but no deeper than the root-ball.

Excavate tree pits to specified size and roughen pit sides. Do not disturb the pit base.

Enrich Topsoil backfill with slow-release fertiliser (Sierrablen tablets or similar approved).

Backfill under and around rootballs in 150-250mm layers firmly consolidated to eliminate air pockets. Make allowance for settlement in the thickness of the final layer which should not be consolidated.

Watering: water whole area of the tree pits thoroughly upon completion of backfilling but delay watering if there is risk of frost within 24 hours.

Tree pit to be mulched with 50-75mm of hard wood bark chips tapered to 25mm towards base of stem. Mulched area to be not less than 2 square metres.

Wherever practicable, mulch circles should be to 1.2m radius, but where this is not available in one direction the mulch circle should increase in whatever area is available.

Planting shrubs (Open ground and containerised).

All plants shall be planted at the same depth as previously grown; care being taken to avoid damaging the root system. Sufficient soil shall be taken out of the planting station to enable the roots to be fully spread, packing them round with fine soil before firmly heeling in. The roots of balled trees or shrubs shall not be disturbed during planting.

Mulching

On completion of planting the shrub beds shall be mulched with 50mm depth of ornamental bark mulch. Mulch shall only be applied when the soil is moist.

Ground Preparation of Grassed Areas.

All topsoiled areas to be grassed (150mm deep) shall be cleared of weeds and rubbish then rotovated to a depth of 100mm incorporating pre-seeding fertiliser at 0.06kg/sqm and raked out or harrowed to produce a fine seed bed tilth approximately 25 mm deep and lightly consolidated with an approved roller. Stones over 35mm in diameter shall be removed to a tip.

The tilth shall be kept fine and free from weeds during any fallow period prior to sowing seed/turfing.

All areas for grass shall be finely graded during cultivation to remove all minor hollows or ridges, such operations being carried out when the soil is dry and friable. The final finished surface shall have a smooth and even fall or gently rolling curve between the finished level and the boundary of the areas. The contractor shall ensure that a minimum depth of 150mm of topsoil is left on all parts after completion of grading. Unless otherwise stated finished levels of grassed areas shall be 30mm above adjoining paving or kerb levels, 150mm below the damp-proof course of adjoining buildings and not more than 75mm above previous soil levels adjoining trees and shrubs. Levels shall be arranged to give gentle falls for drainage and any ponding developing after completion of the cultivation shall be made good.

Turfing

All supplied turf shall be to BS 3969 and free from undesirable grasses and weeds.

Turf to be laid with the minimum possible delay after lifting. If delay occurs, turf is to be laid out on topsoil and kept moist. Deliveries to be arranged so as to avoid need for excessive stacking. Maximum stacking height: 1m. Do not use dried out or deteriorated turf.

Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.

For a working access planks are to be placed on previously laid turf. Do not walk on prepared bed or newly laid turf.

Turf to be laid with broken joints, well butted up. Do not stretch turf. Whole turfs to be laid to edges of grassed areas and trimmed to a true line. To adjust ground levels, rake out high spots and infill hollows with fine soil.

To consolidate turf firm lightly and evenly with wooden beaters as laying proceeds to ensure full contact with the substrate. Do not use rollers.

Thoroughly water completed turf immediately after laying. Check by lifting a corner of turf that water has penetrated to the soil below.

The contractor shall make good, at his own expense, all areas of turf which fail to establish, other than areas where failure is due to vandalism.

When the grass has grown 50mm high the areas will be lightly rolled in two directions with a roller not exceeding 0.25 tonne.

Wildflower Seeding

Area to be seeded to be cleared of annual weeds by hoeing or herbicide application. Perennial weeds to be eradicated by a translocated glyphosate-based herbicide.

Ground to be cultivated to provide a weed free seed bed and firmed if necessary.

Seed mixture to be sown evenly at the recommended rate either during the Spring (April-May) or Autumn (September - October)

Upon completion of sowing, seed bed is to be raked lightly with a spring - tined rake and soil firmed by treading or rolling and the area well-watered with a fine spray.

Native Hedgerow Planting

Any gaps or thin spots within existing hedgerows are to be infilled with new native planting at a rate of 5 plants per linear metre, set out in double staggered rows, 500mm apart.

Hedgerow whips to be notch planted.

Protective measures:

Rabbit guards: Proprietary plastic mesh guards to be fixed to individual 25mm square section wooden stakes to be installed around each hedge plant to prevent damage by rabbits and other rodents.

LANDSCAPE MANAGEMENT PLAN:

Management Responsibilities

On completion of the development, the management of landscape areas at the site will be undertaken by a suitably qualified contractor to be appointed by the site operator for a period of 24 months. The contractor will be expected to make a minimum of 18 site visits, spread throughout the year to suit the season. All Management will be undertaken in accordance with the specification contained herein.

Landscape Management Specification

All planted areas are to be maintained in a weed free condition and any newly planted trees or shrubs which die, or are destroyed, within 24 months of practical completion shall be replaced in the appropriate season with plants of the same species following examination of the reasons for failure and amelioration / amendments to the specification as necessary.

The contractor shall eradicate weed growth within planted and seeded areas either by manual, mechanical or chemical means. Perennial weeds must be treated with glyphosate or another approved product. The use of residual herbicide is not permitted.

All relevant Acts of Parliament and the manufacturer's instructions concerning the handling, use and storage of chemicals must be followed at all times. Chemical containers and other contaminated equipment must be cleared from the site after each day's work.

Newly Planted Trees

All root-balled and containerised tree planting aftercare must be in accordance with BS: 8545:2014. Any necessary formative pruning to tree planting must be carried out in accordance with BS: 3998:2010.

Mulching squares / circles to be maintained for at least three years post planting.

Check stakes and ties and adjust to allow for growth and movement and replace any broken or defective items. Stakes and ties for tree planting must be removed after no more than three growing seasons. If anchorage has not been achieved by this stage trees are to be replaced following identification of reasons for failure. Prior to replacement the identified reasons are to be addressed and re-planting specification to be agreed with the local authority. Any sockets at base of tree stems caused by movements to be filled with fine soil.

Any dead twigs or water shoots occurring on the clear stems of newly planted trees shall be removed and disposed of by the contractor.

Minor settlement of newly planted tree pits to be made good by topping up with fine topsoil to grade in with surrounding levels.

For 24 months following practical completion all trees are to be watered at least 5 times during the growing season commencing in May, and thereafter as appropriate, to thoroughly wet the tree pits throughout their full depth. In the third and subsequent years trees should be watered during extended dry periods only (March through to October).

Newly Planted Shrubs

Shrub bed areas shall be maintained as bare earth and kept free from weed growth, litter and rubbish at all times. Any shrubs overhanging pedestrian routes or adjacent grassed areas are to be pruned back during the appropriate season and arisings removed from site.

Pruning of ornamental shrubs should be done to encourage healthy and bushy growth and promote desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.

All shrub beds to be treated with a slow-release fertilizer, as chosen by the landscape maintenance contractor, in March or April. Treatment to be undertaken on an annual basis as per the manufacturer's instructions.

Mulch to be maintained at a 50mm thickness. Any weeds growing on, or within, the mulch to be removed by hand weeding and taken off site.

Grass Areas

Ornamental grassed areas are to be regularly cut in accordance with BS 7370-3, table 3 to maintain a healthy sward 35-50mm in height. Grass to be trimmed neatly around obstructions. Smooth flowing curves of edges with adjacent shrub areas to be left neat and in a weed free condition

Wildflower Areas

Wildflower areas to be cut every six to eight weeks during the first year after sowing to prevent the grass from over growing the slower growing wildflowers. Cuttings to be removed from site.

In following years wildflower areas are to be cut in early spring, before growth starts, and in October, after all wildflower seeds have been shed. Cuttings to be removed from site.

Hedgerow Planting

Hedgerow to be cut once annually, outside of the nesting season, to maintain a maximum height of 1.8m

Existing Landscape to be retained

Retained grassland to be cut every six to eight weeks during the first year. Cuttings to be removed from site.

In following years the grassland is to be cut in early spring, before growth starts, and in October, after all wildflower seeds have been shed. Cuttings to be removed from site.