IMPLEMENTATION AND MAINTENANCE GUIDELINES

1.0 GENERAL

All plants shall conform to BS 3936 and be in accordance with the National Plant Specification. Supplying nurseries shall be registered under the HTA Nursery Certification Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE. Planting shall not be carried out when the ground is waterlogged, frostbound or during periods of cold drying winds. All bare root stock shall be root dipped in an approved water-retaining polymer. Tree planting implementation and maintenance to conform to BS 8545:2014 Trees: From Nursery to Independence in the Landscape'.

If the formation level is compacted it should be ripped through before topsoiling.
Topsoil depths to be 450mm for shrub beds and 150mm for grass areas.

2.0 ORNAMENTAL SHRUBS AND TREES

2.1 Ground Preparation
Where necessary treat existing weeds with a glyphosate based herbicide and allow a suitable period as recommended by the manufacturer for this to take effect. A general purpose slow release fertiliser at the rate of 75gr/m2 and Tree Planting and Mulching Compost at the rate of 200litre/m2 are to be incorporated into the top 150mm of topsoil during final cultivations. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from site.

Tree pits are to be excavated and the base broken up a further 150mm with the sides well scarified to prevent smearing. All pits shall be filled with water and allowed to drain away before planting commences. Where trees are to be planted in grass verges grown and trees over heavy standard size shall be double staked. Any feature trees semi-mature in size to be secured with a below ground anchoring system (such as a deadman anchor). Stakes should be driven 500mm into undisturbed ground before planting the tree, taking care to avoid underground services and cables etc.

2.2 Planting
Shrubs and hedges are to be set out as shown on the drawing and pit planted into the prepared soil at the specified centres with minimal disturbance to the rootball and well firmed in.

Trees are to be placed into the pits and backfilled with topsoil incorporating slow-release fertilizer and Tree Planting and Mulching Compost as specified. Firm trees in well and secure with proprietary rubber tree ties and spacers.

Water in all trees and shrubs at the end of each day of planting.

Spread ornamental pine bark mulch to a depth of 75mm across all new planting areas,ensuring groundcover plants are not buried.

2.3 Maintenance
The landscape contractor shall maintain all areas of new planting for a period of 12 months following practical completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor at his own cost.

The site is to be visited monthly throughout the year to undertake the following operations.
Weeding: Weeding shall be carried out by hand or by the use of approved safe hand weeding or herbicide treatment.
Litter clearance: All litter is to be removed from planting beds.
Watering: Planting areas are to be brought up to field capacity at each visit and each tree is to receive 20 gallons.
Stakes and ties: Ties are to be checked, stakes are to be checked and adjusted if too loose, too tight or if chafing is occurring. Any broken stakes are to be replaced.
Formative pruning: Any damaged shoots/branches are to be pruned back to healthy wood. Plants are to be pruned in accordance with good horticultural practice to maintain healthy well-shaped specimens.

3.0 NATIVE SHRUB PLANTING

3.1 Ground Preparation
Stakes for individual planting area shall be set out using 38x38x1200mm timber stakes at each change in direction and at a maximum of 50m intervals.

Either - for notch planting
All herbacious material within the proposed planting area shall be sprayed out using an approved herbicide at least two weeks before planting and the ground shall be cultivated to a depth of 150mm.
Or - for pit planting
A 600mm diameter circle shall be sprayed out at each planting station using an approved herbicide at least two weeks before planting.

3.2 Planting
Trees in treated stock is to be root dipped in water retaining polymer. Proposed planting is to be planted on an informal grid. To avoid straight lines each planting station can be moved by up to 200mm in any direction.

Either a for shelters or b for rabbit fence
a. All stock to be protected from rabbit damage using approved proprietary tree and shrub shelters, 900mm and 600mm high respectively, secured with stakes and ties as advised by the manufacturer.
b. All stock to be protected from rabbit damage by 900mm high rabbit fencing erected in accordance with the manufacturers recommendations.

3.3 Maintenance
Using approved herbicides a 900mm diameter circle centered on each planting station shall be kept weed free throughout the maintenance period.

Each Autumn after planting and until handover to the adopting authority, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these during the following planting season.

4.0 NATIVE HEDGE PLANTING

4.1 Setting Out
The hedge line shall be set out using 38x38x1200 stakes at maximum 50m intervals and all herbaceous material within 450mm of the centre line shall be sprayed out using an approved herbicide at least two weeks before planting.

4.2 Preparation
The 900mm wide hedge line shall be cultivated to 150mm incorporating Evolap or equal at 75gm/m2.

4.3 Planting
Plants shall be notch planted in two rows 250mm apart and staggered at 300mm centres.All plants are to be protected with a 600mm proprietary shelter secured with a stake/cane and ties as recommended by the manufacturer.

4.4 Maintenance
Using approved herbicides a 600mm wide swathe centred on the hedgeline shall be kept weed free throughout the maintenance period.

Each Autumn after planting and until handover to the adopting authority, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these plants during the following planting season.

5.0 GRASS

5.1 Preparation
The area to be seeded shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 100mm removing all weeds, debris and stones over 25mm diameter. The surface shall be raked to smooth flowing contours with a fine tilth, incorporating pre-seeding fertiliser at 70 g/m2.

5.2 Turf
Turfing operations shall be in accordance with BS 4428.

Whole turves shall be laid around the perimeter of the area to be turfed. The central area shall be laid in rows with staggered joints and the turves shall be closely butted together and not overlapped. The turves shall be laid to a true and even surface. Any unevenness shall be made good by lifting the turf and adjusting the levels. Should shrinkage occur, fine topsoil shall be brushed into the joints.

5.3 Seeding
Grass seed shall be sown in April during calm weather and not when the ground is frost bound or waterlogged. Seed shall be sown in two equal sowings in transverse directions at 35 g/m2. After sowing the contractor shall lightly rake the seed into surface contact with the soil. All seed mixes to be specified in accordance with those set out in the approved management plan.

5.4 Initial cut
When newly seeded areas reach 50mm they should be cut back to a height of 35mm and then cut twice annually in early Spring and late Summer. All arisings shall be removed or spread evenly across grassland. Any bare patches shall be made good at this time.

6.0 TOPSOIL

6.1 Existing Topsoil
Pre planning herbicide application :
Apply by suitable sprayinig apparatus, an approved translocated systemic herbicide to the manufacturer's instructions and to 1997 Control of Pesticides Regulations and 2002 COSHH regulations on all beds, except those which are both weed free and clear of vegetation. Repeat as necessary to ensure complete kill and rate of all dead material from site.
Where the application is to be carried out by skilled and qualified operatives, using protective clothing, in suitable weather (no delay before planting, or the area is to be seeded, spray after one month following cultivation, to allow dormant seed to terminate. All sprayig shall be carried out by skilled and qualified operatives, using protective clothing, in suitable weather (no wind) and in accordance with the COSHH regulations and manufacturer's instructions.
Repeat as necessary to ensure complete kill and rate of all dead material from site.

Carry out the following works to the existing topsoil on site to ensure it Conforms to BS 3882:2015, being free from rocks larger than 50mm diameter, concrete, all roots, wire, brick, and have less than 20% clay. Allow for pre-application of herbicide as necessary to control vigorous perennial weeds. Apply at the rate and in the manner recommended by the manufacturer's instructions. For beds less than 3 metres in width, fork over thoroughly or machine rotavate soil to a depth of 300mm, ensuring that the subgrade and topsoil are completely broken up and free draining, relieving any compaction. For beds greater than 3 metres in width, fork over by hand or machine rotavate soil to a depth of 300mm, except where there are services, or within 10 metres of tree stems or 2 metres of existing hedges. Do not rip areas where roots greater than 10mm diameter are encountered.

6.2 Imported Topsoil
Any imported topsoil for making up ground, shall conform to BS 3882:2015, and be free from rocks (over 50mm diameter), concrete, roots, wire and brick, and have less 20% clay.

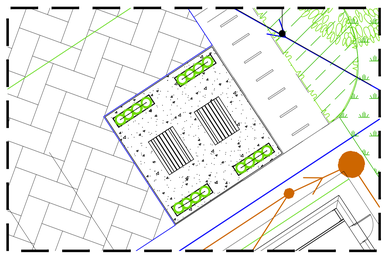
7.0 WILDFLOWER AND GRASSLAND MIX

7.1 Preparation
Grassland mixtures to be sourced from certified local provenance seed stock. Ground surface will be cleared of weed growth either removed by hand or through the application of an approved Glyphosate based herbicide (all herbicides should only be handled by certified users and in accordance with the COSHH Regulations 2002). The ground will then be ploughed and raked to produce a medium tilth with debris and stones over 25mm diameter reomved. The surface shall be raked to smooth flowing contours with a fine to medium tilth.

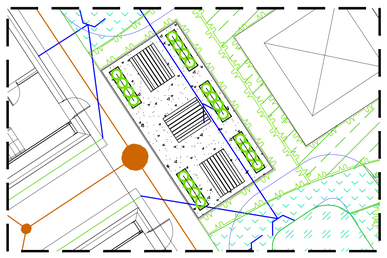
7.2 Seeding
Meadow and wildflower seed mixes shall be sown in either August -September or March -April during calm weather and not when the ground is frost bound or waterlogged. Seed shall be sown at a rate of 4g/m2 (Wildflower Meadow) and 35g/m2 (EM2), according to supplier's recommendations. After sowing the contractor shall roll the seed into intimate contact with the soil with a ribbed Cambridge roller.

7.3 First year maintenance
All litter should be removed from areas prior to mowing. The following procedures should not be undertaken in periods of drought or when the ground is waterlogged to prevent the use of machinery without damage to the ground surface. Mow regularly throughout the first season of establishment to encourage basal growth and reduce weed competition. All arisings shall be removed or deposited in an area designated by the Contracts Manager. Any bare patches shall be made good at this time.

7.4 Second and subsequent year maintenance
Management of subsequent years comprises a single Autumn cut in September or October to allow plants to set seed. Arisings shall be left for a minimum of 24 hours and a maximum of 7 days before being removed or relocated to an area identified by the Contracts Manager.



INSET 1: Breakout space proposals
Scale 1:100 @ A0



INSET 2: Breakout space proposals
Scale 1:100 @ A0

BREAKOUT SPACE KEY

Resin bound gravel surfacing
Resin bound gravel surfacing, colour: Golden Pearl as supplied by Sureset Resin Systems or similar. To be installed to the manufacturer's recommendations and defined with pcc edging.

Picnic benches
Saltwell Picnic Bench ref: BX29 2136, steel framed timber open access picnic bench with timber slats, 1.8m x 1.475m as supplied by Broxap or similar. To be root fixed as per manufacturer's recommendations.

Timber raised planter
Blok with capping, timber raised planters 2m (L) x 0.5m (W) x 0.55m (H) as supplied by Taylor Made Planters Ltd or similar approved. Planters to be stained in a Light Oak stain and planted with bamboo to help screen the breakout spaces and provide privacy for the users.



KEY

Site boundary

Soft Landscape Proposals
Refer to plant schedule for details.

Drainage swales
Please refer to PRP consulting engineers & surveyors drainage layout ref: 62886 101-104 P3 for further details.
Note: Trees located adjacent to services and hard standing to be planted with a root barrier such as Green Blue Urban re-root 600, 1000 or 2000 (depending on location). Exact location and specification of root barriers to be agreed with the site engineer prior to tree installation.

Trees in hard surfaces
Trees planted within hard surfacing to be installed with Green Blue Urban Arborsystem or similar approved to enable additional rooting volume for trees to thrive. Exact specification to be agreed and extent of tree pit determined. **Tree pits in hard landscaped areas to be lined with tree root barriers (as specified below) where adjacent to permeable block paved areas.**

Tree root protection barriers
Location of tree root protection barriers. Im depth barrier, Root 1000 as supplied by GreenBlue Urban or similar approved.Exact location and specification subject to reviewed by drainage engineer and to be agreed with the site engineer.

PLANT SCHEDULE

PROPOSED TREES

ABBR	SPECIES	COMMON NAME	SUPPLY	HEIGHT (CM)	GIRTH	QTY (No.)
ACECAME	Acer campestre 'Elsrijk'	Field Maple 'Elsrijk'	HStd	300–400cm	12–14cm	7 –
ALNGL	Alnus glutinosa	Common alder	HStd	300–400cm	12–14cm	16 –
BETPE	Betula pendula	Common Silver Birch	EHStd	425–600cm	14–16cm	11 –
BETPU	Betula pubescens	Downy Birch	Std	200–300cm	8–10cm	6 –
BETUTJA	Betula utilis Jacquemontii	Himalayan Birch	HStd	300–400cm	12–14cm	4 –
CARBET	Carpinus betulus	Common Hornbeam	EHStd	425–600cm	14–16cm	7 –
CARBETF	Carpinus betulus 'Fastigiata'	Fastigiate Hornbeam	EHStd	425–600cm	14–16cm	4 –
CARBETFF	Carpinus betulus 'Frans Fontaine'	Hornbeam 'Frans Fontaine'	HStd	300–400cm	12–14cm	6 –
UNH	Ulmus New Horizon'	Resistant Elm	EHStd	425–600cm	14–16cm	9 –
						Total : 70 –

PROPOSED SPECIMEN SHRUBS & CLIMBERS

ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES	QTY (No.)
FARMUS	Fargesia murieae 'Simba' 10L		100–125cm	Bushy	Counted 36	–

PROPOSED ORNAMENTAL SHRUB MIXES

MIX NAME	ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES (M)	QTY (No.)
LOW MIX 3L	COTBEAA	Cotoneaster 'Coral Beauty'	3L	30–40cm	Bushy	0.6Ctr	16 –
LOW MIX 3L	EUOPCEJ	Euonymus fortunei 'Emerald Gaiety'	3L	20–30cm	Bushy	0.6Ctr	20 –
LOW MIX 3L	LONNIMG	Lonicera nitida 'May Green'	3L	30–40cm	Bushy	0.6Ctr	16 –
LOW MIX 3L	PRULACB	Prunus laurocerasus 'Cherry Brandy'	3L	30–40cm	Bushy	0.6Ctr	16 –
LOW MIX 3L	VINMA	Vinca major	3L	20–25cm	Bushy	0.6Ctr	13 –
LOW MIX 5L	CEATHR	Ceanothus thyrsiflorus repens	5L	30–40cm	Bushy	0.6Ctr	43 –
LOW MIX 5L	HEBPS	Hebe pinguifolia 'Sutherlandii'	5L	30–40cm	Bushy	0.6Ctr	43 –
LOW MIX 5L	LAVANHI	Lavandula angustifolia 'Hidcote'	5L	30–40cm	Bushy	0.6Ctr	43 –
LOW MIX 5L	LONNIMG	Lonicera nitida 'May Green'	5L	40–60cm	Bushy	0.6Ctr	43 –

PROPOSED NATIVE SHRUB MIXES

MIX NAME	ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES (M)	MIX %	QTY (No.)
NATIVE SHRUB MIX AB	CORAV	Corylus avellana	T1+1	0.60–0.90m	Transplant	1Ctr	20%	104 –
NATIVE SHRUB MIX AB	CORSA	Cornus sanguinea	T1+1	0.60–0.90m	Transplant	1Ctr	20%	104 –
NATIVE SHRUB MIX AB	CRAMON	Crataegus monogyna	T1+1	0.60–0.90m	Transplant	1Ctr	20%	104 –
NATIVE SHRUB MIX AB	PRUSP	Prunus spinosa	T1+1	0.60–0.90m	Transplant	1Ctr	20%	104 –
NATIVE SHRUB MIX AB	VIBLA	Viburnum lantana	T1+1	0.60–0.90m	Transplant	1Ctr	20%	104 –
NATIVE SHRUB MIX D	CORAV	Corylus avellana	T1+1	60–80cm	Transplant	1Ctr	25%	29 –
NATIVE SHRUB MIX D	CRAMON	Crataegus monogyna	T1+1	60–80cm	Transplant	1Ctr	25%	29 –
NATIVE SHRUB MIX D	EUOPES	Euonymus europaeus	T1+1	60–80cm	Transplant	1Ctr	10%	13 –
NATIVE SHRUB MIX D	ROSCA	Rosa canina	T1+1	60–80cm	Transplant	1Ctr	20%	24 –
NATIVE SHRUB MIX D	SACAP	Salix caprea	T0+1	60–80cm	Transplant	1Ctr	10%	13 –
NATIVE SHRUB MIX D	VIBOP	Viburnum opulus	T1+1	60–80cm	Transplant	1Ctr	10%	13 –

PROPOSED SEMI-ORNAMENTAL MIXES

MIX NAME	ABBR	SPECIES	SUPPLY	HEIGHT (CM)	HABIT	CENTRES (M)	MIX %	QTY (No.)
SEMI ORN MIX D	BUDDAROP	Buddleia davidii 'Royal Purple'	3L	40–60cm	Bushy	0.7Ctr	15%	49 –
SEMI ORN MIX D	CORALE	Cornus alba 'Elegantissima'	3L	40–60cm	Branched	0.7Ctr	20%	65 –
SEMI ORN MIX D	CORALS	Cornus alba 'Sibirica'	3L	60–80cm	Bushy	0.7Ctr	20%	65 –
SEMI ORN MIX D	CORSTF	Cornus stolonifera 'Flaviramea'	3L	60–80cm	Branched	0.7Ctr	20%	65 –
SEMI ORN MIX D	ELAEB	Elaeagnus ebbingei	5L	60–80cm	Bushy	0.7Ctr	10%	33 –
SEMI ORN MIX D	VIBTI	Viburnum tinus	5L	40–60cm	Bushy	0.7Ctr	15%	49 –

PROPOSED AMENITY SEED MIX (or similar approved)

MIX NAME	SEED MIX SUPPLIER	AREA	DENSITY
A22 (Low Maintenance) Amenity Germinal GB Limited		842.1911m²	50g/m²

PROPOSED WILDFLOWER MEADOW (or similar approved)

MIX NAME	SEED MIX SUPPLIER	AREA	DENSITY
EM3 – Special Gen. Purpose Meadow Emorsgate Seeds		819.0776m²	4g/m²

PROPOSED WETLAND WILDFLOWER MEADOW (or similar approved)

MIX NAME	SEED MIX SUPPLIER	AREA	DENSITY
EM8 – Meadow Mix for Wetlands Emorsgate Seeds		851.3788m²	4g/m²

PROPOSED LOW GROWING WILDFLOWER MEADOW (or similar approved)

MIX NAME	SEED MIX SUPPLIER	AREA	DENSITY
Low Flowering Lawn Seed Mix Wild Flower Lawns and Meadows		392.1767m²	4g/m²

NOTES

All trees, feature shrubs, climbers, shrubs and hedgerows to be planted in accordance with the implementation and maintenance guidelines. All landscape proposals must be referred to by the Structural Engineer during foundation design. No tree, feature shrub, climber, shrub and hedgerow species, size or location should be altered without prior approval from the Landscape Architect.

- Individual shrub/herbaceous/grass species to be planted in groups of 3-7
- Individual species within ornamental shrub mixes to be planted in groups of 5-9.
- Lower growing species within ornamental shrub mixes to be planted at the front of the shrub bed (as indicated).
- Individual bulbs species to alternate every 2 linear metres.
- Native hedgerow shrubs to be supplied as bareroot stock unless stated.
- Hedgerow shrubs to be planted within a 80cm wide bed and mulched.
- Any native hedgerow shrubs to be planted on a double staggered row, 250mm apart with no less than 6 per linear metre within a 50cm wide bed in accordance with implementation and maintenance guidelines. Any feathered stock is to have a upright central stem furnished with evenly spread and balanced lateral growth the full lenath of the stem. If feathered hedgerow stock is proposed, shrubs are to be attached to a double line support lone for feathered stock at 1m high and one for transplant stock at 60cm high) fence using an approved clip tie and cut back to 1.2m in height at time of planting.
- Pond marginal planting to be sourced from certified local provenance plant stock.
- Soiling operations to be carried out in accordance with the implementation and maintenance guidelines.
- All planting to be in accordance with the implementation and maintenance guidelines.
- No species, variety, size or position to be amended without the Landscape Architects prior approval.
- Before trees are planted, the Landscape Contractor shall ascertain the location of drains from the site manager, and shall if necessary make minor adjustments to tree positions to ensure that they are planted at least 1.5m from drains. They should however be planted no closer to houses/garages than is shown on the drawing, and if shown located in shrub beds, the shape of the latter should be adjusted if necessary to accommodate the revised tree position.
- All planting must be mulched in accordance with the implementation and maintenance guidelines.
- If planting is required outside the October–March season, bare root shrubs will be replaced by 3L pot grown plants, and trees will be replaced by a containerised equivalent to be approved by the project landscape architect.

NORTH

Land to the north east of
Shoreham Airport
Soft Landscape Proposals

Drawing Ref: **P19-3110_01-F**
Client: **Shoreham Property Unit Trust**
Date : 23/09/2021
Drawn by : EW
Checked by : EW
Scale : 1 : 500 @ A0

F: (24/01/2022) ARI Inclusion of tree root barriers.
E: (04/08/2022 WM) Updated to LPA comments.
D: (14/04/2022 WM) Updated to NP comments.
C: (02/03/2022 WM) Updated to comments regarding buffer planting
B: (18/01/2022 EW) Updated to comments regarding additional tree planting
A: (26/11/2021 EW) Updated to include the specification for the breakout spaces
Revisions:
First Issue– 23/09/2021 EW

DESIGN ENVIRONMENT PLANNING ECONOMICS HERITAGE

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