

GENERAL. All work to be undertaken in accordance with the National Plant Specification 3936 Parts 1 (Nursery Stock Specification for trees and shrubs), and 10 (ground cover shrubs), BS4428:1989 Code of practice for general landscape operations (excluding hard surfaces) and BS7370:1993 Grounds maintenance part 4. Recommendations for maintenance of soft landscape (other than amenity turf).

EXISTING TREES AND HEDGES. Retain and protect in accordance with BS5837:2012 Trees in Relation to Demolition, Design and Construction. Tree works to be carried out in accordance with BS3998 and project arboriculturalist recommendations.

It is important to avoid ground compaction and damage to tree and hedge roots. The protective fence to be erected prior to commencement of excavations and construction and located as indicated. No vehicle access, change in level, compaction, excavations, materials stored or allowed to run through the protected area. No fires within 10M of the canopy spread. Clearly label the protective fence with a laminated A4 information notice giving procedure required for access by personnel. Any intrusion within to be with written permission from the Site Agent.

Any excavations within the RPA are to be carried out by hand digging or carefully using machinery standing outside the RPA or on new handstanding already constructed with a watching brief. Any roots over 25mm found are to be retained where possible, wrapped in hessian or covered with sharp sand (not builders, which may contain lime) and watered daily to prevent desiccation. Where root retention is not possible, remove with a clean cut using sharp secateurs. During prolonged periods of dry weather of 7 days or more, vertical faces of soil within the RPA that are exposed during excavations are to be covered with hessian and watered daily. During periods of high temperature, the soil surface of the RPA is to be watered daily to prevent the soil drying out and the temperature around roots which can cause serious damage. Remove the protective fencing at Completion.

Arboricultural supervisor to be present at key stages and make regular progress reports. Timing to be agreed at the pre start meeting. Timing of Tree Works to comply with the Wildlife and Countryside Act 1981 and undertaken outside the bird nesting season March-End August unless otherwise agreed.

SUBSOIL. Rip to 500mm depth using the teeth of a JCB back bucket or similar approved method to break up compaction and allow free drainage.

TOPSOIL. All topsoil to comply with BS 3882:2015, pH 6-8, free of stone greater than 50mm in any dimension, perennial weed roots, toxic materials, glass and contamination.
Supply and spread by loose tipping to the following depths after settlement;
Tree pits 1.2 x 1.2M x 750mm depth
Ornamental shrubs and hedge - 400mm depth.

Lightly firm without compacting. Grade to an even surface and marry in with adjacent soft landscape areas. Finished levels adjacent to hard surfaces to be level with kerb unless otherwise instructed. Cultivate to a fine tilth removing all stones over 25mm that come to the surface. Allow to settle and make good deficiencies, humps and hollows. Remove any weeds before planting.

TREE PITS. Supply materials for and install to suppliers and Engineers requirements. Supplier GreenBlue Urban or similar approved. A Root Barrier or deflector is to be provided where a row of trees is located within 3M of a highway, service duct or utilities to be adopted. Product; Barrier; ReRoot 1000 (shallow services) or 2000 (deep applications). Root Barrier for all trees within 3M of adopted highway where no root barrier is provided. Product code; RD1050 or similar approved.

drainage system. Spread Roxon Precast rigidification System with Arbortect 1000 ink and plastic mulch over topsoil. Place 6 inch diameter holes spaced 8' apart in grid pattern. Lay down depth and shape to conform profile to facilitate fire drainage and root penetration. Incorporate 10% of total soil volume of approved organic material using a mixture of at least two of the following; composted bark mulch, charcoal and either chicken pellets or bone meal with topsoil backfill and water to field capacity after planting. EHS and HS trees to BSS530 planted as described above.

Fostered seed trees planted with single short stake 50mm diameter. Multi-stem trees planted with a single angled short stake and hessian tie. EHS trees have a protective hessian wrap on the trunk to protect from sun scorch and bark desiccation. Trees in grass areas planted in a 1m x 1m square grid pattern. Bark mulch 50mm depth applied to permit biodegradable with a protective wildmesh ree guard screen based on manufacturers recommendations ref. GBU Arboret Tree Shield or similar.

BARK MULCH: 75mm depth over shrub beds. Main constituent conifer bark, maximum of 15% wood content and 5% fines, particle size 5-65mm, free of pest disease or weed contamination. **2L sample to be submitted for approval with tender.**

WATER all plants after planting and before mulching. If planted between April and October include for soaking thoroughly after planting and then for dry spells of 7 days duration. Allow for provision of water from a bowser during periods of hosepipe ban to maintain uniform healthy growth.

MAINTENANCE. until budburst or client instruction. Include for the removal of weeds and litter and the maintenance of bare ground beneath planted areas by cultivation **without the use of herbicides where possible especially in sensitive ecology areas besides ponds**, fertilizer application with slow release granules in March / April using Scotts Enmag to suppliers recommendations (5-25g/sq.m), replacement of plant defects, topping up bark mulch to 50mm depth, pruning dead/damaged/replaced branches, obstructions to circulation and edge trimming as required. Shrubs and hedges pruned in accordance with good horticultural practice and BS7370:4 to rejuvenate, encourage flowering, fruit and colored branches/leaves for the respective species. Timing to minimise disruptive impact on wildlife incl. nesting birds, bats and amphibians.

Hedges clipped to maintain at the required height in a neat formal shape as instructed. Second year cut back strong laterals by 1/3. Subsequent years cut leaders when final height is reached. Paved areas to be kept free of weeds, litter and leaves.

All plant defects including replacement trees after 5 years to be re-instated.

STRUCTURE TREES: Of local provenance where possible

All EHS trees planted outside the recognised bare root season (Nov-e, March) to be container grown 100L Airpot. Trees within 3M of the parking area to have a 2M clear stem and be pit planted with a Root Barrier or deflector and irrigation system. Base of pits loosened to a further 150mm depth and shaped to convex profile to facilitate free drainage and root penetration. EHS trees to BS2526 planted as BS8545 with double tall stake 75mm diameter to BS4072, cross brace and a hessian wrap on the trunk to protect from sun scorch. Incorporate 10% of approved compost or manure with topsoil backfill and water to field capacity after planting.

Abre Species	Common name	Size	(Eventual size)
Ac*	Acer campestre Elstrijk	(Field maple)	EHS 14-16cm 4-4.5M M
Bp*	Betula pendula	(Silver birch)	EHS 14-16cm 4-5M* M

M = medium tree, eventual growing height 10-15M * = 2M clear stem

NATIVE HERBAGE Plants of local provenance. Supplier details to be provided for approval before sowing. Hedger planted in hand excavated pits 150mm wider and deeper than the root spread in a double sided ditch 400mm between rows, 400mm between plants in row = 100 plants/m². Seedlings in row 1 to be sown 10-15 cm away apart. All with rabbit protection using a biodegradable spiral guard 600mm ht, green with support cane tie.

Green-tea Rainforest Treecree or similar. Cut back by 1/3 after planting to encourage branching. (Honey-suckle)

Common Rungles (Dogwood) Br +1 transplant 0-6.0.8M

Corylus avellana (Hazel) Br +1 transplant 0-6.0.8M

Corylus monogyna (Hawthorn) Br +1 transplant 0-6.0.8M

Salix alba (Holly) Br +1 transplant 0-6.0.8M

Lonicer periclymenum (Honey-suckle) 3.0 0-6.0.8M

Malus sylvestris (Crab apple) Br +1 transplant 0-9.1.2M

Rosa canina (Dog rose) Br +1 transplant 0-6.0.8M

Salix cinerea (Grey willow) Br +1 transplant 1-1.2M

Viburnum opulus (Guelder rose) Br +1 transplant 0-6.0.8M

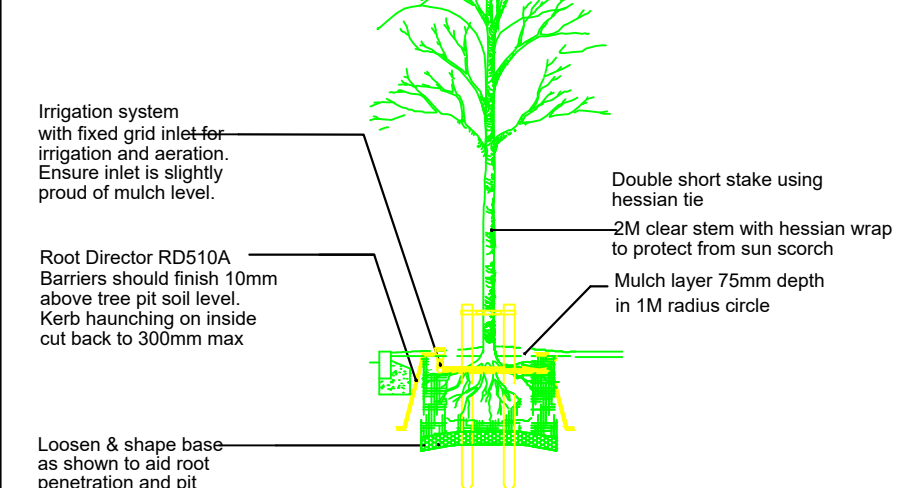
Eventual growing height over 1.0M, 3 strong breaks from the base. All container grown if planted outside the recognised bare root season		No/sq.M
Cornus sanguinea Midwinter Fire (Orange dogwood)	5L 600-900mm	2
Mahonia Winter Sun (Grape of Oregon)	5L 450-600mm	3

GROUND COVER 3 strong breaks from the base. Planted in single species groups			
Euonymus Emerald & Gold	(Winter creeper, variegated)	5L 300-450mm	5
Geranum macrorrhizum Bevens	(perennial geranium)	3L	AS
Hedera Glacier	(Variegated ivy)	3L 300-450mm	5
Hedera helix	(Ivy)	2L 300-450mm	5
Helleborus foetidus	(Stinking hellebore)	3L	5
Vinca Ralph Shugert	(Variegated periwinkle)	2L	9

CLIMBERS Planted 450mm from wall with support cane. Include for provision of support frame of 3 lines of galvanised wire 2M length from 750mm ht @ 450mm intervals secured to

Lonicera periclymenum Serotina	(Honeysuckle)	5L 750-900mm	AS
Jasminum nudiflorum	(Winter jasmine)	3L 750-900mm	AS

Plant numbers and sizes to be checked prior to ordering and planting.
Proposed substitutions to be agreed in writing before ordering and planting.



STATION WITHIN 3M OF ADOPTED HIGHWAY, SERVICES OR HARD SURFACE INCORPORATING
ROOT DIRECTOR OR BARRIER AND IRRIGATION SYSTEM.

Review every year.

Operation	Time in years when operation carried out					
	1	2	3	4	5	>15yr
Trees						
Replacement of Defects (5 years)					*	*
Pruning (Annually)					*	*
Re-staking and tying (Twice yearly check)					*	*
Watering (during dry spell of 14 days)					*	*
Safety inspection of existing followed by recommended tree works (Annually and after severe storms)				*	*	*
Remove stakes and ties once established						(*)
Remove shrubs and herbaceous beds						
Replacement of defects			*			
Pruning (annually) to remove obstructions to circulation/damaged/overgrown material/facilitate			*			
flowering and longevity			*			
Fertilizer (annually)			*			
Hoing (14 occasions annually)			*			
Weeding/remove litter (14 occ's a annually)			*			
Cut back ivy (every 3 years)			*			
Mulching			*			
Top up to 75mm in March			*			
Hard Surfaces						
Remove litter/leaves and pruning cuttings 12x/year			*			
Spray/weedkiller (once a year)			*			
Fencing			*			
Repair and re-instate as required			*			
Carry out annual review with report of works (Once a year December)			*			
Agree refinements required to future management and maintenance operations			*			

