

PLANT SCHEDULE

TREES

QTY	CODE	PLANT NAME	STOCK	FORM	GIRTH/HEIGHT	SPECIFICATION
1No.	ACE STR xhs14	Acer campestre 'Streetwise'	RB	STD	14-16cm	3x; Extra Heavy Standard; clear stem minimum 200cm; 5 breaks
5No.	BET PEN hs12	Betula pendula	RB	STD	12-14cm	3x; heavy standard; clear stem minimum 175-200, 350-425cm ht, 5 breaks
5No.	BET JAC ms3+	Betula utilis 'Jaquemoniti'	RB	MSTEM3	350-400cm	4x; multi stem; bushy; 3 stems minimum
1No.	CRA PAU xhs14	Crataegus laevigata "Pauls Scarlet"	RB	STD	14-16cm	3x; standard; clear stem minimum 175-200, 400-450cm ht; 5 breaks
6No.	MAL Dis s 12-14	Malus domestica "Discovery"	RB	STD	12-14cm	3x; Heavy Standard; clear stem 175-200cm; 5 breaks; ht: 350-425cm
3No.	PRU SNO xhs14	Prunus 'Snow Goose'	RB	EHS	14-16cm	3x; Extra Heavy Standard; clear stem 175-200cm; 5 breaks; 400-450 ht
1No.	PRU PLE xhs16	Prunus avium "Plena"	RB	STD	16-18cm	3x; Extra Heavy Standard; clear stem minimum 200cm
1No.	PYR CHA xhs16 RB	Pyrus calleryana "Chanticleer"	RB	STD	16-18cm	3x;extra heavy standard;clear stem minimum 175-200, 5 breaks; 400-450cm height
1No.	PYR CON s	Pyrus communis "Conference"	B	STD	10-12cm	Standard; 175 minimum height, Pyrus communis rootstock
4No.	Sor She xhs14	Sorbus aucuparia "Sheerwater Seedling"	RB	STD	14-16cm	3x; Extra Heavy Standard; clear stem 175-200cm; 5 breaks; 400-450cm ht

HEDGES

QTY	CODE	PLANT NAME	STOCK	SIZE	SPECIFICATION
146m	Pru Zab Hedge 5L	Prunus laurocerasus 'Zabeliana'	C 5L	40-60cm	Bushy; 5 breaks
584No.	Plants spaced @ 4/m	in a Double Staggered Row			

SHRUBS

QTY	CODE	PLANT NAME	STOCK	SIZE	SPACING	SPECIFICATION
2No.	Ara ela 25L	Aralia elata	C 25L	125-150cm	1/m2	Single leader: 2 breaks
2No.	Bux sem B	Buxus sempervirens (Topiary Ball 50cm)	C 20-25L	50-60D	1/m2	Ball shape; neatly clipped
6No.	Car HB 10L	Caryopteris x clandonensis "Heavenly Blue"	C 10L	40-60cm	3/m2	Branched; 6 breaks
6No.	Cha C&G	Chaenomeles x superba 'Crimson and Gold'	C 3L	40-60cm	3/m2	Branched; 2 breaks
12No.	Heb pin SU 5L	Hebe pinguifolia "Sutherlandii"	C 5L	20-30D	5/m2	Bushy; 7 breaks
6No.	Hyd Lan 25L	Hydrangea macrophylla "Lanarth White"	C 25L	80-100cm	1/m2	Branched; 10 breaks
14No.	Lav Hid 5L 5/m2	Lavandula angustifolia "Hidcote"	C 5L	40-60cm	5/m2	Bushy; 7 breaks
3No.	Per Spi 5L	Perovskia atriplicifolia "Blue Spire"	C 5L	40-60cm	4/m2	Bushy; 5 breaks
7No.	Phi BE 25L	Philadelphus "Belle Etoile"	C 25L	60-80cm	1/m2	Branched; 9 breaks
3No.	Spi Gol 10L	Spiraea japonica "Goldflame"	C 10L	40-60cm	1/m2	Bushy; 9 breaks
4No.	Vib EP 15L	Viburnum tinus "Eve Price"	C 15L	40-60cm	1/m2	Bushy; 9 breaks

HERBACEOUS PLANTS

QTY	CODE	PLANT NAME	STOCK	SPACING	SPECIFICATION
21No.	Cal KF 10L	Calamagrostis x acutiflora "Karl Foerster"	C 10L	1/m2	Full pot
18No.	Sti Pon 5-7.5L 5/m2	Stipa tenuissima "Pony Tails"	C 5-7.5L	5/m2	Full pot

HEDGE MIXES

PERCENT	QTY	PLANT NAME	STOCK	SIZE
12m NATIVE HEDGE MIX 7 planted @ 6/m	in a Double Staggered Row			
20%	14No.	Crataegus monogyna	B Trans	60-80cm
30%	22No.	Corylus avellana	B Trans	60-80cm
20%	14No.	Cornus sanguinea	B Trans	60-80cm
10%	7No.	Ilex aquifolium	C 3L	40-60cm
10%	7No.	Prunus spinosa	B Trans	60-80cm
10%	7No.	Rosa canina	B Trans	60-80cm

PLANT MIXES

PERCENT	QTY	PLANT NAME	STOCK	SIZE	SPECIFICATION
107m2 GROUNDCOVER MIX 5 planted @ 6/m2					
25%	161No.	Geranium macrorrhizum "Johnsons Blue"	C 2L	20-30cm	
25%	161No.	Hedera helix "Green Ripple"	C 2L	20-30cm	3 breaks
25%	161No.	Pachysandra terminalis	C 2L	20-30cm	9 breaks
25%	161No.	Vinca minor "Gertrude Jekyll"	C 2L	20-30cm	3 breaks

Individual varieties to be planted in groups of between 9 and 17.

14m2 GROUNDCOVER MIX 7 planted @ 4/m2					
50%	28No.	Geranium macrorrhizum "Album"	C 2L	20-30cm	Full pot
50%	28No.	Hypenicum x moserianum	C 2L	20-30cm	Bushy; 5 breaks

Individual varieties to be planted in groups of between 5 and 7.

272m2 GROUNDCOVER MIX 43 planted @ 6/m2					
15%	245No.	Hypericum x moserianum	C 3L	30-40cm	Bushy; 7 breaks
15%	245No.	Rosa "Max Graff"	C 3L	40-60cm	Cutting; bush; 3 breaks
20%	326No.	Hebe "Red Edge"	C 5L	30-40cm	Bushy; 7 breaks
20%	326No.	Euonymus fortunei 'Emerald Gaiety'	C 5-7.5L	25-30cm	Bushy; 9 breaks
15%	245No.	Pachysandra terminalis 'Variegata'	C 2L	15-20D	Several shoots; 6 breaks
15%	245No.	Pyracantha coccinea 'Red Cushion'	C 3L	30-40D	Bushy; 5 breaks

Individual varieties to be planted in groups of between 3 and 5.

97m2 ORNAMENTAL MIX 15B planted @ 6/m2					
10%	58No.	Euphorbia amygdaloides robbiae	C 2L	-	Full pot
10%	58No.	Nepeta 'Six Hills Giant'	C 3L	-	Full pot
10%	58No.	Hakonechloa macra 'Aureola'	C 3L	-	Full pot
10%	58No.	Lonicera nitida 'Maigrün'	C 3L	30-40cm	Bushy; 6 breaks
10%	58No.	Viburnum tinus 'Eve Price'	C 5L	30-40cm	Bushy; 5 breaks
15%	87No.	Sarcococca humilis	C 3L	20-25cm	Bushy; 6 breaks
10%	58No.	Escallonia laevis 'Gold Ellen'	C 5L	40-60cm	Bushy; 5 breaks
15%	87No.	Skimmia x confusa 'Kew Green'	C 5L	30-40cm	Bushy; 4 breaks
10%	58No.	Vinca minor "Gertrude Jekyll"	C 3L	20-30cm	Several shoots; 3 breaks

Individual varieties to be planted in single species groups of 3, 5, 7 or 9no.

Viburnum, Escallonia and Skimmia to be planted to the back of the border, or in the centre of bed if located away from a boundary feature, either singularly or in groups of 3no.

13m2 SHADY MIX 13B planted @ 5/m2					
15%	10No.	Dryopteris filix-mas	C1.5L-2L		Full Pot
120%	13No.	Lonicera pileata	C3L	30-40cm	Bushy; 6 breaks
20%	13No.	Euonymus fortunei 'Silver Queen'	C3L	20-30D	Bushy; 5 breaks
15%	10No.	Pachysandra terminalis 'Variegata'	C2L	15-20cm	Several shoots; 6 breaks
20%	13No.	Sarcococca hookeriana digyna	C5L	30-40cm	Bushy; 6 breaks

Individual varieties to be planted in groups of 1, 3, and 5.

39m2 SHADY MIX 21b planted @ 5/m2					
20%	39No.	Dryopteris filix-mas	C1.5L-2L		Full Pot
20%	49No.	Hydrangea macrophylla 'Lanarth White'	C3L	30-40cm	Branched; 3 Breaks
10%	10No.	Pachysandra terminalis 'Variegata'	C2L	15-20cm	Several shoots; 6 breaks
25%	49No.	Sarcococca hookeriana digyna	C5L	30-40cm	Bushy; 6 breaks
25%	49No.	Viburnum davidii	C3L	20-30cm	Bushy; 3 breaks

Individual varieties to be planted in groups of 1, 3, 5 and 7.

74m2 SUNNY MIX 2A planted @ 6/m2					
30%	133No.	Brachyglottis "Sunshine"	C5-7.5L	40-60cm	Branched; 6 breaks
20%	89No.	Hebe brachyophon "White Gem"	C5L	30-40cm	Bushy; 5 breaks
30%	133No.	Spiraea japonica "Anthony Waterer"	C5L	30-40cm	Bushy; 7 breaks
20%	89No.	Perovskia atriplicifolia "Blue Spire"	C5L	40-60cm	Bushy; 5 breaks

Individual varieties to be planted in groups of 1, 3 and 5.

39m2 BULB PLANTING 8 planted @ 20/m2					
50%	390No.	Narcissus pseudonarcissus		Grade 5/6	
25%	195No.	Crocus chrysanthus "Snow Bunting"		Grade 5/7	
25%	195No.	Crocus speciosus		Grade 5/6	

Individual varieties to be planted in groups of approximately 7-11.

NOTES AND ABBREVIATIONS:

B = Bare root (bagged).
C = Container (or pot) grown, followed by size of the container (or pot).
FORM = Shape of tree as supplied by the nursery.
QTY = Quantity
RB = Rootballed (balled and wrapped).
SIZE = Height or Spread of juvenile plant.
Std = (clear stem) Standard.
STOCK = Root condition/protection method eg Bare root.
Trans = Transplant (or undercut seedling).

- Refer to specification for further information.
- All plants to be completely hardened off
- Substitutions to be agreed with Landscape Architect.
Plant Schedule generated by "Qscape" software 16/11/2020

OUTLINE SPECIFICATION (FOR PLANNING)

STANDARD OF OPERATIONS

All works shall be carried out in accordance with good professional horticultural practice by qualified and experienced staff. Works shall comply with all relevant and current British Standards and codes of practices including:
Topsoil: BS 3882: 2015 Multipurpose Grade
Nursery Stock: BS 3936 1-9
Turf, BS 3969: 1998 +A1: 2013
Tree work, BS 3998: 2010
Transplanting root balled trees, BS 4043: 1989
Code of Practice for general landscape operations, BS 4428: 1989
Trees in relation to construction BS 5837: 2012
Grounds maintenance, BS 7370: 1998
Joint Council for Landscape Industries (JCLI) Committee for Plant Supply and Establishment 'Guidance on Handling and Establishing Landscape Plants' see Appendix 1, HTA National Plant Specification.

SITE PREPARATION

General Requirements for Site Clearance, Preparation and Cultivation

Old foundations, slabs and the like in areas to be planted/ seeded: break out in locations and to the extents stated by engineer.
Foreign matter: On visual inspection, areas to be planted or seeded to be free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
- Corrosive, explosive or flammable.
- Hazardous to human or animal life.
- Detrimental to healthy plant growth.
Purity: Free of pests and disease.
Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
Objectionable odour: None.
Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

Grading Subsoil for Soft Landscaped Areas

Standard: In accordance with BS 8601.
General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
Areas of thicker topsoil: Excavate locally.
Avoid compaction.
Excess subsoil: Remove.

Subsoil Surface Preparation

Standard: In accordance with BS 3882.
General: Excavate and/ or place fill to required profiles and levels.
Loosening:
- When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth:
 Light and non-cohesive subsoils: 150mm
 Stiff clay and cohesive subsoils: 300mm
 Rock and chalk subgrades: Lightly scarify to promote free drainage.
- Wet conditions: Do not loosen subsoils.
Stones: Immediately before spreading topsoil, remove stones larger than 75mm.
Remove from site: all coarse rubble or artefacts greater than 75mm in diameter, remove to a licenced facility.

TOPSOIL

Preparation of Undisturbed Topsoil:

Standard: In accordance with BS 4428.
- Grading and cultivation: to suit cultivation operations suited to specified seeding/ planting.
Hard ground: Break up thoroughly.
Clearing: Clear of rubbish, debris, remove visible roots and large stones with a diameter greater than 75mm.
Do not compact topsoil.
Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
Fallow period (minimum) One month
- Weed control: At appropriate times treat with a suitable translocated non-residual herbicide.

Grading of Topsoil:

Topsoil condition: Reasonably dry and workable.
Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
Give notice: If required levels cannot be achieved by movement of existing soil.

Handling Topsoil:

Standard: In accordance with BS 3882.
Aggressive weeds: Give notice and obtain instructions before moving topsoil.
Plant: Select and use plant to minimize disturbance, trafficking and compaction.
Contamination: Do not mix topsoil with:
- Subsoil, stone, hardcore, rubbish or material from demolition work.
- Other grades of topsoil.
Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall.

Imported Topsoil to BS3882: Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.

Standard: To BS 3882.
Classification: Multipurpose Grade
- Soil textural class to BS 3882, Figure 1: Any Class

Spreading Topsoil

Standard: In accordance with BS 3882.
Temporary roads/ surfacing: Remove before spreading topsoil.
Layers:
- Depth (maximum): 150 mm.
- Gently firm each layer before spreading the next.
Depth after firming and settlement: Grass – 150mm, Planting/ shrubs – 450mm, Trees 750mm (or to dimensions shown on any tree pit detail).
Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

Loose Tipping Of Topsoil:

Standard: In accordance with BS 3882.
General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

Final Cultivation of Areas to be Planted/ Seeded

Compacted topsoil: Break up to full depth.
Tilth: Loosen, aerate and break up topsoil to a fine tilth depth of 150mm suitable for blade grading.
Particle size (maximum): 10mm.
Timing: Prior to seeding and planting. Weather and ground conditions: Suitably dry.
Surface: Leave regular and even.
Undesirable material brought to the surface:
- Remove visible weeds.
- Remove roots and large stones with any dimension exceeding 25mm in turfed areas, 50mm planted areas.

Finished Levels of Topsoil after Settlement

In relation to adjoining paving, kerbs or hard surfaces: 25mm above (including bark mulch).
In relation to dpc of adjoining buildings: minimum 150mm below.
In relation to adjacent grass areas: 25mm above.
Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
Adjoining soil areas: Marry in.
Thickness of turf or mulch: Included.

Weed Treatment

All areas to be planted are to be treated with Roundup a minimum of 10 days prior to planting. Planted areas are to be kept weed free with the use of herbicides. Following the use of herbicides remove dead vegetation.

PLANTING

Planting General

All plant material to be supplied in accordance with HTA National Plant Specification.
All planting to be local provenance wherever possible and from local supplier.

General Planting Notes

All plants to be healthy, hardened-off and with good fibrous root systems and to comply with the requirements of BS3936 Specification for Nursery Stock. All planting to be undertaken in accordance with BS4428 Code of Practice for General Landscape Operations.
All plants to be protected from wind exposure at all times. All plants to be soaked in water for several hours prior to planting and to be well watered in.
No planting to be carried out during poor weather conditions, i.e. when ground is frozen, waterlogged, or during droughts, hot sunshine or persistent dry or cold winds. All plant material to receive enough water to ensure healthy establishment.

Labelling and Information:

General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
- Full botanical name.
- Total number.
- Number of bundles.
- Part bundles.
- Supplier's name.
- Employer's name and project reference.
- Plant specification, in accordance with scheduled National Plant Specification categories.
Additional information: Submit on request: Country of Origin.

Times of year for planting/ seeding:

Deciduous trees and shrubs: Late November to late March.
Container grown stock - Any time of year as providing adequately watered, autumn planting desirable.
Conifers and evergreens: September/ October or April/ May.
Herbaceous plants: September/ October or March/ April.
Container grown plants: At any time if ground and weather conditions are favourable.
- Watering and weed control: Provide as necessary.
Dried bulbs, corms and tubers: September/ October.
Turfing: All year round providing adequately watered, avoid hot sunny conditions.
Grass seeding: March - September (best in Spring or Autumn)
Wildflower seeding: Spring or autumn

Soil Conditioner/ Ameliorant

As part of good horticultural practice, use peat-free composts, mulches and soil conditioners.
Soil analysis shall be completed by a reputable laboratory to determine any nutritional requirements, and any pH and organic matter adjustments necessary. Once determined, the soil shall be appropriately amended to a range suitable for the species to be established.
Locations: All new trees, plant beds and new turf and seeded areas.
• Type: Peat free sanitized and stabilized compost or spent mushroom compost and to conform to the Numerical Product Specification for Landscape Compost..
• Reference/Description/Grading: Compost shall be produced from biodegradable materials and shall fall within the recommended ranges for the horticultural parameters outlined in the specification table, as well as fall within the limits for contaminant parameters in PAS 100.
• Coverage: Plant beds -Uniformly apply a (25mm-50mm) layer over the area to be treated, trees - incorporate into backfill 1:3 mixture of compost and topsoil, grass seeding / turf cover the entire treatment area at an average depth of 25 to 50 mm, then incorporate it to a minimum depth of 150 mm using a rotavator or other appropriate equipment.
• Timing: Apply prior to cultivation.

Compost: typical specification.
Horticultural Parameters Reported as (units of measure) Recommended Range
pH pH units (1:5 water extract) 7.0 – 8.7
Electrical Conductivity µS/cm or mS/m (1:5 water extract) 2000 µS/cm or 200 mS/m max
Moisture Content % m/m of fresh weight 35 – 55
Organic Matter Content % dry weight basis >25
Particle Sizing % m/m of air-dried sample passing 99% pass through 25mm screen the selected mesh aperture size 90% pass through 10mm screen
C:N Ratio 20:1 maximum
Contaminant Parameters Various Meet BSI PAS 100* Criteria

Cultivation

Cultivate the soil of all areas prior to seeding and planting. This should include loosening, aerating and breaking up soil into particles 2-8mm to depth of 150mm. Remove any undesirable material brought to surface to a depth of 100mm including visible weeds, roots and large stones or clay balls with any dimension exceeding 30mm. Final Cultivation prior to seeding topsoil shall be brought to a fine tilth by approved mechanical means or by hand raking, and if necessary regrading of the surface will be carried out to conform to the prescribed finished levels.

TREES

Tree Planting

Trees to be pit planted with root access to a minimum 7m3 area of topsoil. Minimum pit size to be 300mm greater than rootball in all directions. Excavate tree pits with slightly raised centre. Retain topsoil for reuse. Dig a hole which is substantially bigger than the volume of roots to be accommodated. Break up and loosen the base and sides of the pit and shape base to falls towards the edge of pit to aid drainage. All tree pits should be constructed to be free draining - in areas of impeded drainage, additional measures may be required such as adding 150mm depth clean pea gravel to base of pit. The trees will be planted to the same depth as they were in the nursery. Back fill the pit in stages, whilst firming up the soil around the roots until the original ground level is restored.
Tree pits to be filled with 1:3 mixture of compost and topsoil. Topsoil to contain peat free organic matter and Growtab fertiliser to be incorporated into each pit.

Tree Support

Extra heavy standard trees, rootballed trees and bareroot trees: short double stakes as BS8548:2014 with an adjustable rubber tie from each stake, and no spacer pad. Stake to be driven into the ground either side of the tree pit. Height of stakes: cut to no higher than approximately one third of the tree height above ground level, and at least 300mm into the ground.
Stakes to be first grade pressure impregnated round timber with chamfered tops. Backfilling: consolidate material around stake. Tying: secure tree firmly but not rigidly to stake with ties within 25mm of top of stake.

Tree Accessories

Rootbarrier: The need for root barriers to be confirmed by engineer. Trees adjacent to hard surfacing and/or services to have growing area defined by Greenleaf Renoot 1000 high density root barrier, or similar approved, in accordance with manufacturer's and Engineer's guidance.
Irrigation:
Trees in soft landscape (EHS and Standard trees) - All trees to receive a Greenblue Rootrain Metro irrigation pipe, or similar and approved.

SHRUBS

Semi-native mixes

To be pit planted in staggered rows, 1000mm between rows and 1000mm between plants, with rabbit protection to aid establishment. Planted in single species groups, as indicated in the Plant Schedule.

Native Hedgerow Planting

All transplants to be planted with rabbit protection (tree/ shrub shelters) and stake support. Trench to be excavated 300mm wide x 450mm deep then backfilled with topsoil mixed with compost in a 3:1 ratio.
Hedge plants to be planted in a double staggered row 450mm apart at 450mm centres (5 per linear metre). All hedgerow planting to be covered with bark mulch to 50mm depth.

Ornamental Shrub Planting

Soil analysis shall be completed by a reputable laboratory to determine any nutritional requirements necessary. Once determined, the soil shall be appropriately amended to a range suitable for the species to be established. If required, apply an organic based fertiliser to manufacturer's recommended rates.

To be pit-planted, with sufficiently large pit to accommodate root system without bending roots (minimum size of 150mm wider than roots when fully spread and 200mm deep).

Climbing Plants

Climbing plants to be planted 150mm clear of supporting structures, with branches lightly secured to climber support with tarred twine and roots spread outward. Climber support to be 5no. zinc coated wire, set at 450mm vertical centres to 8-10cm vine eyes secured at min 900mm horizontal centres. Wires to be fixed to supporting structure (wall or fence) with galvanised screw eyes. Climber support to extend 1.5m either side of centred plant.

Climbing Plants Used as Ground Cover:

Planting:
- Canes or other supports: Remove.
- Arrangement: Spread stems.
Fixing: Pinned to ground to ensure good contact.

GRASS SEEDING/TURF

Turfed Areas