

GENERAL PLANTING SPECIFICATION

Where any deviation from the landscape proposals or specification occurs within a scheme, the contractor shall request the relevant detail or agreement from the designer prior to proceeding.

All planting operations shall be carried out in accordance with: Trees from nursery to independence in the landscape BS 8545, and General landscape operations BS 4428.

- Material Sourcing.** Plant material to conform to the National Plant Specification. All plant stock to originate from within the UK. Plant handling and planting operations to be in accordance with HTA 'Handling and Establishing Landscape Plants', Parts I-III.
- Ground Preparation.** Planting beds and tree pits shall be weed free prior to the commencement of planting operations. Hand weed or apply an approved translocated systemic herbicide to the manufacturers instructions and to 1997 Control of Pesticides Regulations and 2003 COSHH regulations.
- Ground Preparation.** Topsoil to be fertile with maximum 35% clay content and 5% minimum organic content, pH 5.8 - 7.5 and to be free of perennial weeds, weed seeds and contamination. Maximum stone content 20% (20mm+ particle size), maximum size of stones 50mm in any direction. Existing topsoil to be ameliorated and/or screened if necessary to achieve this specification.
- Ground Preparation.** The identification of topsoil and subsoil resources on site will be required to inform the detailed design of tree pits and planting beds, including the depth of topsoil horizons and the requirement for amelioration of the growing medium, prior to planting. All site/ existing topsoils/ subsoils will be subject to detailed testing in accordance with BS 3882 & BS 8601. All storage/ stripping to comply with the British Standard. If modifications to the soil are necessary, soil ameliorants will be used sparingly. Ideally the soil dug from the excavated pit should be used as the backfill medium and as far as practicable, replicate the horizons within the original soil profile. Suggested Soil testing: Tim O'Hare Associates LLP, Howbery Park, Wallingford, Oxfordshire, OX10 8BA, T: +44 (0)1491 822653.
- Ground Preparation.** Imported topsoil to be to BS 3882:2015 Multi Purpose Grade, from an approved source, and to accord with the above specification. Refer to the landscape drawings for specific purpose topsoils.

TREES:

- Planting.** Trees in planting areas to be planted in pits minimum 1200 x 1200-backfilled with topsoil mixed with peat free organic tree planting compost and Sierrablén Flora slow release fertiliser or equal approved, as required in accordance with manufacturers instructions. Refer to soft planting details for staking / underground guying. Backfilling of tree pits will be carried out in layers, using the backfilling medium specified. As backfilling proceeds the tree pit walls will be broken down to a distance of 500 mm beyond the edge of the rootball in all directions, thoroughly watered to expel air pockets and with due allowance being made for subsequent settlement. The natural thickening between the trunk and the root flare shall be at the finished top surface of the planting medium and shall not be buried by excess soil. The nursery grade should be the finish planting level.
- Ground Preparation.** Trees in grass areas to be surrounded by 1000mm Ø circle of bark mulch, 75mm depth. The root flare and base of the stem should be maintained free from mulch.
- Planting.** All nursery standard trees are to be fitted with irrigation pipe and inlet, sized as appropriate.
- Planting.** No trees are to be planted within 3m of sewers or services (or other easement recommended by the relevant statutory undertaker) without the use of tree root barriers, eg. 'Greenleaf Reroot 600 /100 or equal approved placed between the tree and services. The top edge of the root barrier should finish 10mm above any growing media or be encapsulated into the concrete haunch of the adjacent edgings. Contractor to ascertain the location of all sewers and services prior to tree planting.
- Tree Form.** Trees are to be of uniform size and uniform clear stem. Unless tree is a multi-stem then it should have a clearly defined central leader, with a clear stem height defined in NPS. Trees to be planted in line with recommendations in BS 8545 Trees from nursery to independence in the landscape

PLANTING BEDS:

- Planting.** Planting beds to have a minimum depth of 450mm topsoil over 150mm broken up existing ground with all stones over 50mm removed. If importing soils a minimum of 550mm multipurpose subsoil is required below the topsoil layer.
- Ground Preparation.** Soil conditioner: Sanitized and stabilised compost to BS1 PAS 100. Apply 50mm depth even coverage and incorporate into topsoil during cultivation operations, to a minimum depth of 150mm. Compost to be Compost Association certified, or from an approved supplier conforming to this specification. If no local supplies are available an alternative organic peat free compost may be specified, subject to the Landscape Architect's approval.
- Planting.** Shrubs to be planted in pits 150mm wider and deeper than root spread backfilled with excavated topsoil/compost, mixed with 'Sierrablén Flora' slow release fertiliser or equal approved, quantity in accordance with manufacturer's recommendations.
- Ground Preparation.** All planting beds to be mulched with matured coniferous bark, with an even particle size between 15 - 50mm, to a minimum depth of 75mm over weed free soil after completion of all planting and watering operations. Mulch to be free of pests, diseases, fungus and weeds, and with no fines or dust. Mulch source and sample to be approved.
- Planting.** Native hedge planting to be protected from rabbit damage with Biodegradable Plastic-Free Shrub Spiral Guards and stakes (or equal and approved). Net guards for bushy shrub species or post and wire rabbit proof fence as indicated.

HEDGE PLANTING:

- Setting out.** The hedge line shall be set out using 38 x 38 x 1200 stakes and all herbaceous material within 500mm of the centreline shall be sprayed out using an approved herbicide at least two weeks before planting. A 600mm wide and 300-400mm deep trench shall be dug and the backfill mixed with slow-release fertiliser. (For double staggered rows) Planting shall be set out as per planting plan.
- Planting.** Plants shall be notch or pit planted as appropriate. All hedge plants shall be protected with 600mm proprietary shelters secured with a stake/cane and ties as recommended by the manufacturer. Upon completion hedge trenches are to be mulched with 75mm depth bark mulch.

NATIVE SCRUB TRANSPLANTS:

- Ground Preparation and Setting Out.** The extent of the planting area shall be set out using 38 x 38 x 1200 timber stakes at maximum 10m intervals. All herbaceous 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 (bed preparation).
- Planting.** Proposed native shrub planting is to be planted on an informal 1m grid (up to 1.5m for larger species such as Hazel). To avoid straight lines each planting station can be adjusted by up to 300mm in any direction. All planting stock to be protected from rabbit damage using approved Biodegradable Plastic-Free Tree or Shrub Spiral Guards secured with stakes and ties as advised by the manufacturers. Planting to bund: Plants shall be notch or pit planted as appropriate. Planting to bund to be planted through coir matting/protection layer.

WILDFLOWER MEADOW AND GRASSES:

- Sourcing and preparation.** Wildflower Emorsgate EM 1 sown at 40kg/ha or 4g/m2 (or equal approved) in bare/new areas into prepared ground as per the plans.
- Top soil stripping of proposed wildflower grassland areas.** Prior to receipt of excavated soils, topsoil from the areas to receive wildflower seed to be stripped (depth to be confirmed following detailed soil analysis - e.g 20-25cm). Topsoil to be stored in accordance with the earthworks strategy for use elsewhere on site. Tracked machinery will be used with access routes planned and suitably protected to minimize soil compaction.
- Wildflower Meadow soil profile.** Following removal of topsoil, a soil profile will be established to give finished levels (depth to be confirmed following soils analysis). The revised soil profile will utilise subsoil from previous sub-soil stockpiles and low fertility topsoil removed from other areas of the site. The top soil shall be free from stone, rubbish of any kind, roots of perennial weed or any other injurious matter.
- Preparation for seeding.** During any fallow period prior to sowing, the tilth shall be maintained free from weeds. No seed shall be sown until the cultivation and preparatory works have been completed. Areas of existing weeds shall be sprayed out with an approved herbicide no less than 24 hours prior to cultivations to create a stale seed bed (for bare/new areas). Soil cultivation around established trees and hedges should only receive shallow cultivation. Areas to be seeded shall be cultivated to a depth of 100mm, and all weeds, deleterious material and stones exceeding 25mm diameter removed. Areas to be seeded shall have an even surface, be lightly consolidated and raked to a fine tilth to receive the seed. All areas of existing grass to be over seeded with wildflowers shall be heavily scarified to create areas of bare earth prior to seeding with wildflowers only mixes; bare areas to be prepared as per amenity grass.
- Sowing.** Sowing shall be undertaken between April and October within a wet/warm period, dry or cold periods to be avoided. Sowing shall be carried out 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 the rates as specified. After sowing the contractor shall lightly rake the seed into intimate contact with the soil (if advised by the supplier). Any failures due to neglect and especially seeding out of season shall be the responsibility of the contractor.
- Establishment.** For Spring sown areas, mow the developing meadow throughout the first growing season to weaken / control any annual weeds as the seeded perennials establish. For Autumn sown areas, do not mow until late Summer/Autumn. Removing all arising.

TIMES OF YEAR FOR PLANTING:

- Planting.** Deciduous trees and shrubs: Late October to late March. Conifers and evergreens: September/ October or April/ May. Herbaceous plants (including marginal): 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, corns and tubers: September/ October. Colchicum (crocus): July/ August. Green bulbs: After flowering in spring. Grass seeding: April to October
- Planting.** Any stock planted outside the recognised planting season to be containerised.
- Planting.** Containerised plant stock will have a fully developed root system within the specified pot size.

MAINTENANCE NOTES:

- Maintenance.** Maintenance operations to be carried out as specified until planting becomes established (year 5 after planting).
- Maintenance.** Trees - inspect soil around newly planted trees should be regularly inspected for soil capping and compaction. Remedial action should be taken as necessary. Check stakes and ties and adjust if necessary in summer and winter. Remove stakes when no longer required, i.e. after 3 years. Prune out damaged branches or deadwood, cutting back so as not to affect branch collar. Progressively raise canopies of new trees to provide clearance for vehicles and pedestrians.
- Maintenance.** Shrubs - Weed control measures to continue until canopy of shrubs is closed. Weeds to be cleared by hand or by application of translocated herbicide, with inspections made regularly through the growing season. Prune back any badly damaged shrubs to sound growth. Cut back plants adjacent to paths and access ways where necessary, retaining a balanced shape. Clear litter and debris from planted areas and cut leggy growth hard back to promote bushy growth.
- Maintenance.** Mulches - replenish to original depth and hand-weed as necessary, at least once annually.
- Maintenance.** Watering - In periods of dry weather apply sufficient water to maintain healthy growth. Allow 10L/m2 to planting beds and 20L per tree, twice a week, during the growing season (based on 800mm dia. rootball). Irrigation operations to be carried out for two full growing seasons. In accordance with BS 8545.
- Maintenance.** Refriming - Ensure that all trees and shrubs are firmly bedded in the ground after strong winds, frost heave or other disturbances.
- Maintenance.** Proposed Hedges - Prune hedge annually during winter period to shape and/or promote bushy growth. All hedgerows adjoining the public highway must be of a maximum 0.6m height to ensure compliance with highway safety in Manual for Streets. All hedges in residential areas and properties to be maintained at a 0.6m height to ensure site lines. Apply compost / fertiliser twice yearly (years 1-3). Remove guards / stakes at end of year 5
- Maintenance.** Grass Areas - Remove litter, twigs and debris prior to first cut of each Spring. Mow lawn areas regularly, cutting to a height of 35mm, allowing 16 cuts per season. Wildflower meadows and areas under tree canopies to be cut 4 times to a height of 50mm or greater in the first season, and thereafter 3 times. Second growing season onwards cut in October, March and August after flowering to a height of 50 - 75 mm. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol trimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. All arisings to be removed.
- Maintenance.** Bioorientation Areas - Remove litter, weeds and debris. Weeds to be cleared by hand, with inspections made regularly through the growing season. During winter, remove any dead or un-tidy plants, although it is good to leave some dead stems and seed heads for wildlife.
- Protection/Reinstatement** - Regularly inspect all planting and grassed areas, eg. once a month, for any pest damage or vandalism/damage caused by others. Any damaged to be reported to the Employer and rectified in the next available season by replacement planting or reseedling/ turfing, and protective measures if required.

MANAGEMENT NOTES:

- Management.** Existing trees to be retained are to be protected by fencing to BS 5837:2012, erected prior to construction commencing and maintained during building operations.
- Management.** Tree surgery to be carried out by an approved contractor in accordance with BS 3882:2010 and with the prior permission of the Local Authority. Existing trees are to have major deadwood and broken branches removed for safety reasons. Refer to Tree Survey.

GENERAL NOTES:

- Trees and Plants substitution.** Should tree and plants species and size not be available as specified an equal substitute will be agreed with the LPA.

TREES				
Code	Species	Common name	Size	Specification
Qr	<i>Quercus robur</i>	Oak	10-12cm girth	Standard
Ag	<i>Alnus glutinosa</i>	Alder	10-12cm girth	Standard
Bp	<i>Betula pubescens</i>	Downy Birch	12-14cm girth	Standard
Sc	<i>Salix caprea</i>	Goat Willow	3 metres high	Multistem
Cb	<i>Carpinus betulus</i>	Hornbeam	10-12cm girth	Standard
Sa	<i>Sorbus aucuparia</i>	Rowan	10-12cm girth	Standard
Tc	<i>Tilia cordata</i>	Lime	10-12cm girth	Standard
Cl	<i>Crataegus laevigata</i>	Midland Hawthorn	3 metres high	Multistem
Un	<i>Ulmus 'New Horizon'</i>	Elm	10-12cm girth	Standard
Total				154

P1 - NATIVE WOODLAND SCRUB MIX			
Tree Species	Common Name	% Mix	Specification
<i>Alnus glutinosa</i>	Alder	5	1+2: Branched: 3 Brks: BR
<i>Betula pendula</i>	Silver Birch	10	1+2: Branched: 3 Brks: BR
<i>Betula pubescens</i>	Downy Birch	10	1+2: Branched: 3 Brks: BR
<i>Carpinus betulus</i>	Hornbeam	5	1+2: Branched: 3 Brks: BR
<i>Fagus sylvatica</i>	Beech	5	1+2: Branched: 3 Brks: BR
<i>Prunus avium</i>	Wild Cherry	10	1+2: Branched: 3 Brks: BR
<i>Quercus robur</i>	Oak	5	1+2: Branched: 3 Brks: BR
Tree species to be allowed to grow to a mature size in line with best woodland management practice. To be planted on an informal 1.5m grid.			
Shrub Species	Common Name	% Mix	Specification
<i>Corylus avellana</i>	Hazel	10	1+2: Branched: 3 Brks: BR
<i>Crataegus monogyna</i>	Midland Hawthorn	10	1+2: Branched: 3 Brks: BR
<i>Eunymia europaeus</i>	European Spindle	3	1+2: Branched: 3 Brks: BR
<i>Ilex aquifolium</i>	Holly	2	1+2: Branched: 3 Brks: BR
<i>Salix aurita</i>	Eared Willow	3	1+2: Branched: 3 Brks: BR
<i>Salix cinerea</i>	Grey Willow	2	1+2: Branched: 3 Brks: BR
<i>Sambucus nigra</i>	Elder	10	1+2: Branched: 3 Brks: BR
<i>Viburnum lantana</i>	Wayfaring Tree	5	1+2: Branched: 3 Brks: BR
<i>Viburnum opulus</i>	Guelder Rose	5	1+2: Branched: 3 Brks: BR
Shrub species to form a mixed canopy height substorey in line with best woodland management practice. To be planted on an informal 1m grid (up to 1.5m for larger species such as Hazel)			

P2 - NATIVE MIXED SPECIES HEDGE		
% Mix	Species	Common Name
15	<i>Acer campestre</i>	Field maple
20	<i>Corylus avellana</i>	Hazel
20	<i>Crataegus monogyna</i>	Hawthorn
10	<i>Ilex aquifolium</i>	Holly
5	<i>Prunus spinosa</i>	Blackthorn
5	<i>Quercus robur</i>	Oak
10	<i>Rosa canina</i>	Dog Rose
15	<i>Viburnum lantana</i>	Wayfaring Tree
1.8m high Hedge: All planting to be double staggered rows, 500mm between plants and rows in groups of 9 to 12		

P3 - NATIVE GROUNDCOVER MIX		
% Mix	Species	Common Name
5	<i>Carex pendula</i>	Pendulous Sedge
15	<i>Dryopteris affinis</i>	Scaly Male Fern
25	<i>Iris foetidissima</i>	Stinking Iris
25	<i>Luzula nivea</i>	Snowy Wood Rush
30	<i>Luzula sylvatica</i>	Great Wood Rush

P4 - EM1 –EMORSGATE GENERAL PURPOSE MEADOW MIXTURE		
EM1 is a mix suitable for a wide range of soil types with a range of robust and showy flowers with a backing of fine, slow growing grasses.		
%	Species	Common name
0.3	<i>Achillea millefolium</i>	Yarrow
1.6	<i>Centaurea nigra</i>	Common Knapweed
1.6	<i>Leucanthemum vulgare</i>	Oxeye Daisy
1.6	<i>Malva moschata</i>	Musk Mallow
1.6	<i>Plantago lanceolata</i>	Ribwort Plantain
1.6	<i>Potterium sanguisorba spp sanguisorba</i>	Salad Burnet
0.7	<i>Ranunculus acris</i>	Meadow Buttercup
0.5	<i>Rhinanthus minor</i>	Yellow Rattle
0.5	<i>Daucus carota</i>	Wild Carrot
Grasses		
%	Species	Common name
9	<i>Agrostis capillaris</i>	Common Bent
31.5	<i>Cynosurus cristatus</i>	Crested Dogtail
27	<i>Festuca rubra</i>	Red Fescue
4.5	<i>Phleum bertolonii</i>	Smaller Cat's-tail
18	<i>Poa pratensis</i>	Smooth-stalked Meadow-grass

Notes:
Refer to 35025-RG-LD-01 sheets 1 and 2 for general arrangement
Refer to 35025-RG-LD-02 for illustrative sections
Refer to 35025-RG-LD-03 for illustrative masterplan
Refer to 35025-RG-LD-04 for typical details