

Development at Oldlands Farm, Bognor

Detailed Planting Scheme and Management Plan

For Hanbury (PM) Limited
by
Davies Landscape Architects Ltd

DIA-1930-LPMP-01-P02
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- DLA-1930-L-11 Planting Proposals

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Appendix 3 – 5 Year Maintenance Operations

1. Introduction

1.1 This appendix has been prepared to support a planning application for the development at Oldlands Phase 1A

1.2. This appendix is structured as follows:

- **Section 2:** Sets out details of species which shall include, plant mixes, planting densities and initial sizes of trees and shrubs;
- **Section 3:** Plant sources;
- **Section 4:** Plant implementation;
- **Section 5:** Timetable for implementation

2. Details of Positions and Species Mix

2.1. Location of plant species are indicated on Davies Landscape Architects drawings DLA-1930-L-11.

2.2. The proposed species mix is outlined in Table 1 below.

Table 1: Species mix			
Planting schedule			
Trees	Size	Spec	Density
Acer campestre	14-16cm girth	Root balled	As shown
Alnus glutinosa	16-18cm girth	Root balled	As shown
Alnus glutinosa laciniata	16-18cm girth	Root balled	As shown
Amelanchier Ballerina	14-16cm girth	Container grown	As shown
Betula pendula	12-14cm girth	Container grown	As shown
Betula pubescens	12-14cm girth	Container grown	As shown
Betula utilis Grayswood Ghost	20-25cm girth	Multi stem 3 bole	As shown
Ginkgo biloba 'Blagon'	18-20cm girth	Root balled	As shown
Quercus robur	16-18cm girth	Root balled	As shown
Tilia cordata Rancho	20-25cm girth	Root balled	As shown
Hedges			
Fagus sylvatica	1.2-1.5m	Bare root	5 Per lin m - double staggered rows
Lonicera pileata	50-60cm	5Lt	5 Per lin m - double staggered rows
Native hedge - Planted in groups of 3 to 10			%
Corylus avellana	60-90cm	Bare root	40
Cornus sanguinea	60-90cm	Bare root	10
Crataegus monogyna	60-90cm	Bare root	20
Ilex aquifolium.	60-90cm	Bare root	5
Lonicera periclymenum	20-30cm	Bare root	5
Pinus spinosa	60-90cm	Bare root	15
Rosa canina	60-90cm	Bare root	5
Shrubs and grasses			
Cornus alba Sibirica	60-90cm	Bare root	2.5 Per Sq m
Cornus sanguinea Midwinter Fire	60-90cm	3 Lt	2.5 Per Sq m
Cornus sericea Flaviramea	60-90cm	Bare root	2.5 Per Sq m
Escallonia ebbingei Limelight	60-90cm	3 Lt	2 Per Sq m
Escallonia Gold Brian	30-40cm	3 Lt	3 Per Sq m
Euonymus Dart's Blanket	30-40cm	3 Lt	3 Per Sq m
Hebe Green Globe	30-40cm	3 Lt	4 Per Sq m
Lonicera Baggesen's Gold	30-40cm	3 Lt	3 Per Sq m
Lonicera May Green	30-40cm	3 Lt	4 Per Sq m
Miscanthus Morning Light	NA	3 Lt	3 Per Sq m
Pinus mugo Mini Mound	10-15cm	3 Lt	5 Per Sq m
Prunus otto Luyken	30-40cm	3 Lt	3 Per Sq m
Viburnum davidii	30-40cm	5 Lt	2 Per Sq m
Buffer planting mix (1.5 m grid)			%
Acer campestre	90-1.2m	Bare root	10
Corylus avellana	90-1.2m	Bare root	25
Cornus sanguinea	60-90 cm	Bare root	10
Crataegus monogyna	90-1.2m	Bare root	20
Ilex aquifolium.	40-60cm	3Lt	5
Lonicera periclymenum	30-40cm	3Lt	2
Pinus spinosa	40-60cm	Bare root	10
Rosa canina	40-60cm	Bare root	3
Sorbus aucuparia	90-1.2m	Bare root	5
Taxus baccata	90-1.2m	5Lt	10

Plant Sources

- 3.1. Plant supply shall be obtained from a nursery that are members of the Horticultural Trades Association Nursery Certification Scheme and approved by the project and local authority landscape architect.
- 3.2. All planting stock shall be of local provenance or if unavailable national provenance. Origin and provenance have the meaning given in the National Plant Specification and grown in the UK.

3. Plant Implementation

- 3.1 Plant handling and planting operations shall be undertaken in accordance with Horticultural Trades Association "Handling and Establishing Landscape Plants" (Parts I-III).
- 3.2 Refer to Davies Landscape Architects NBS Specification for fully detailed planting specification and is provided at **Appendix 3** of this document.
- 3.3 Topsoil for the landscape planting works shall be obtained from site material and imported soils to make up any deficiency.
- 3.4 Imported topsoil shall be fertile with maximum 35% clay content and 5% minimum organic content, pH levels between 5.8 - 7.5 and free of perennial weeds, weed seeds and contamination in accordance with **Appendix 3** of this document. Existing soil to be ameliorated and/or screened, if necessary, to achieve this specification.
- 3.5 Imported topsoil shall be to BS3882: Multi-Purpose Grade, from an approved local source and to accord with the above specification and shall be analysed by Voelcker Consultants, Long Island House, Warple Way, London W3 0RG, To determine the following parameters:
 - particle size analysis and stone content;
 - pH and electrical conductivity values;
 - exchangeable sodium percentage;
 - major plant nutrients (N, P, K, Mg);
 - organic matter content;
 - C:N ratio;
 - heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn);
 - soluble sulphate, elemental sulphur, acid volatile sulphide;
 - total cyanide and total (mono) phenols;
 - aromatic and aliphatic TPH.
 - spectated PAHs.

4. Timetable for Implementation

5.1. The Landscape implementation shall be undertaken by the end of the next available planting season following the completion of the works and during the following periods:

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/ October or April/ May.
- Container grown plants: At any time if ground and weather conditions are favourable.

Appendix 1 – Landscape Drawings

- DLA-1930-L-11 Planting proposal

Appendix 2 – Landscape NBS Specification

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Q28
Topsoiling

Oldlands Farm Phase 1A

Q28 Topsoiling

200A GRADING PLACED SUBSOIL

- General: Grade to smooth flowing contours to achieve specified finished levels of topsoil 150mm for grass areas 300mm for planting areas.
- Areas of thicker topsoil: Excavate locally.

250B SUBSOIL SURFACE PREPARATION

- General: Excavate and/ or place fill to required profiles and levels, as section D20.
- Loosening:
 - Light and noncohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 250 mm.
 - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 350 mm.
 - Rock and chalk subgrades: Lightly scarify to promote free drainage.
- Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
- Other items: Remove arisings, contaminants and debris.

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340A IMPORTED TOPSOIL (TO BS 3882)

Testing imported materials shall be carried out by the Contractor prior to use. The sample(s) should be truly representative of the topsoil being considered. A minimum of one composite sample shall be taken for every 750m³ of topsoil being considered with a minimum of three samples per source. Each composite sample shall be made up of 10 No. sub-samples taken from evenly spaced locations across the site or at regular intervals and depths across the stockpile. The sub-samples shall be mixed together and quartered down to form a 5kg composite sample. Each composite sample shall be placed in a clean, strong plastic bag and each labelled with the source reference, location of sampling and date of sampling. A representative sample load of not less than 5m³ supplied shall be provided from each source, to be retained on site for comparison with subsequent deliveries. The sample(s) should be truly representative of the material being considered and be correctly stored for the duration of the contract period.

Testing shall be carried out according to the analytical methods stated and described in The Analysis of Agricultural Material 3rd Edition (Reference Book 427 HMSO 1974) or BS3882:2007 Specification for Topsoil and Requirements for Use, or as specified below. The composite sample(s) shall be analysed by a laboratory that operated in accordance with UKAS and MCERTS Performance Standards for Laboratories Undertaking the Chemical

Testing of Soil.

The analysis shall be reported on a 7 working day turnaround and the Contractor should incorporate this into their programme. An accelerated analysis turnaround will be permitted at the Contractor's cost where programme constraints deem this necessary.

The composite sample(s) shall be tested prior to approval in accordance with the following schedule:

" Visual examination shall be carried out during sampling. This shall include, but not necessarily be limited to, recording the following properties at each sampling location, with reference to the Soil Survey Field Handbook (Technical Monograph No. 5): Munsell colour, soil structure, moisture status, consistency, stone type, size and shape, the presence of any deleterious materials (e.g. sharps), unusual odours (e.g. anaerobism) and invasive weeds (e.g. Japanese Knotweed).

" pH Value (1:2.5 water extract)

" Calcium Carbonate (% m/m – BS7755-3.10: 1995)

" Exchangeable Sodium Percentage

" Electrical Conductivity (µS/cm1:2.5 soil/water extract and CaSO₄ extract)

" Particle Size Analysis (clay, silt, very fine sand, fine sand, medium sand, coarse sand, very coarse sand)

" Stone Content by % weight (2-20mm, 20-50mm, >50mm)

" Visible Contaminants (>2mm)

" Organic Matter (% - LOI)

" Total Nitrogen (% - Dumas Method)

" Extractable Phosphorus (P), Potassium (K) and Magnesium (Mg) (mg/l - RB427 Method)

" Carbon: Nitrogen ratio (by calculation)

" Potential Contaminants – in accordance with SSACs

The Contractor shall provide the Employer with a report (1 no. copy; electronic PDF format) for each source and type of topsoil to be imported at least 4 weeks prior to delivery. Each report shall contain the following information:

" Source name and location;

" Date of sampling;

" Details of the Soil Scientist, including company information, qualifications;

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- " Description of the topsoil;
- " Volume of the topsoil in each stockpile and number of samples taken;
- " Photographs of the stockpile and the topsoil;
- " Visual examination;
- " Certificates of Analysis;
- " Declaration of Compliance;
- " Interpretative report shall compare the soil analysis results to this specification and comment on the significance of any non-compliance. The report shall include recommendations to rectify any non-compliance (if possible) and any adjustments to the proposed ameliorants for the particular end use of the soil.

In addition, the following phytotoxic contaminants shall comply with the limits outlined below:

Parameter	Unit	Lower Limit	Upper Limit
Boron	mg/kg	0	3
Zinc	mg/kg	0	300
Copper	mg/kg	0	200
Nickel	mg/kg	0	110

" General Purpose Topsoil Specification

All General Purpose Topsoil shall comply in all respects to the requirements listed below. Visual Examination: the soil shall have a visible homogeneity and shall be free from non-soil material, brick and other building materials and wastes, hydrocarbons, plant matter, roots of perennial weeds and any other foreign matter or material or substance that would render the topsoil unsuitable for use.

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	20
Silt (0.002-0.05mm)	%	5	35
Sand (0.05-2.0mm)	%	55	85
Of which at least 45% shall fall into fine sand (0.15-0.25mm) to medium sand (0.25-0.50mm) range			
Stones (2-20mm)	%DW	--	15
Stones (20-50mm)	%DW	--	15
Stones (>50mm)	%DW	--	0
pH Value	Unit	5.5	8.5
Electrical Conductivity (1:2.5 water extract)	µS/cm	--	1500
Electrical Conductivity (CaSO ₄ extract)	µS/cm	--	2800
Exchangeable Sodium Percentage	%	--	15
Organic Matter	%	4.0	8.0
Total Nitrogen	%	0.20	--
Carbon: Nitrogen Ratio	--	--	20:1
Extractable Phosphorus	mg/l	26	100
Extractable Potassium	mg/l	240	1200
Extractable Magnesium	mg/l	50	600
Calcium Carbonate	%	--	5

380 CONTAMINATION

- General: 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.
- Subsoil: In areas to receive topsoil, do not use subsoil contaminated with the above materials.
- Give notice: If any evidence or symptoms of soil contamination are discovered on the site, or in topsoil to be imported.

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420 SPREADING TOPSOIL

- Temporary roads/surfacing: Remove before spreading topsoil.
- Layers:
 - Depth (maximum): 150 mm.
 - Gently firm each layer before spreading the next.
- Depths after firming and settlement (minimum): 450 mm for shrub and buffer planting and 150mm for grass areas.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

450 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- Above adjoining paving or kerbs: 20 mm.
- Below dpc of adjoining buildings: Not less than 150 mm.
- Shrub areas: Higher than adjoining grass areas by 25 mm.
- Within root spread of existing trees: Unchanged.
- Adjoining soil areas: Marry in.
- Thickness of turf or mulch: Included.

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Q30
Seeding/turfing

Oldlands Farm Phase 1A

Q30 Seeding/turfing

GENERAL INFORMATION/REQUIREMENTS

- 115 SEEDED AND TURFED AREAS
- Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
 - Appearance: A closely knit, continuous ground cover of even density, height and colour.
- 120 CLIMATIC CONDITIONS
- General: Carry out the work while soil and weather conditions are suitable.

PREPARATION

- 210 HERBICIDE FOR GRASSED AREAS EXCLUDING AREAS ADJACENT TO WATER COURSES
- Type: Suitable for suppressing perennial weeds.
 - Timing: Allow fallow period before cultivation.
 - Duration: As manufacturer's recommendation.
- 280A FINAL CULTIVATION
- Timing: After grading and fertilizing.
 - Seed bed: Reduce to fine, firm tilth with good crumb structure.
 - Depth: 25 mm.
 - Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
 - Remove surface stones/earth clods exceeding:
 - General areas: 20 mm.
 - Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

SEEDING

- 310A GRASS SEED FOR ALL GRASSED AREAS
- Mixture: Germainal.
 - Mixture reference: A4
 - Application rate: 50g per sq.m.
- 311 GRASS SEED FOR UNIMPROVED GRASS SWARD
- Supplier: Germainal.
 - Mixture reference: WFG4.
 - Application rate: 5g per sq.m.
- 319 QUALITY OF SEED FOR ALL GRASSED AREAS
- Freshness: Produced for the current growing season.
 - Certification: Blue label certified varieties.
 - Standard: EC purity and germination regulations.
 - Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
 - Samples of mixtures: Submit when requested.

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330 SOWING

- General: Establish good seed contact with the root zone.
- Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
 - Distribution: 2 equal sowings at right angles to each other.

335 GRASS SOWING SEASON

- Grass seed generally: April to June or August to October.

PROTECTING/CUTTING

530A FIRST CUT OF GRASSED AREAS

- Timing: When grass is reasonably dry.
 - Height of initial growth: 75 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove.
- Height of first cut: 40 mm.
- Mower type: Contractor's choice.
- Arisings: Spread evenly over cut areas.

590 CLEANLINESS

- Soil and arisings: Remove from hard surfaces.
- General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.

MAINTENANCE

620 MAINTAINING ALL GRASSED AREAS

- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
- Maximum height of growth at any time: 75 mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 35 mm.
 - Arisings: Leave.
- Bulb planting areas: Do not cut until bulb foliage has died down.
- Trimming: All edges.
 - Arisings: Remove.
- Weed control: Substantially free of broad leaved weeds.
 - Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
 - Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: When instructed.

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Q31
External planting

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Q31 External planting

112 SITE CLEARANCE GENERALLY

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with largest dimension exceeding 50 mm.
- Contamination: Substances injurious to plant growth including subsoil, rubble, fuel, and lubricants.
- Vegetation: Clear scrub to ground level by flail mowing and remove arisings.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Additional requirements: Remove remnants of old fence posts and mesh.

118 SOIL CONDITIONS

- Soil for cultivating and planting: Moist, friable and (excepting aquatic/ marginal planting) not waterlogged.
- Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

120 CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable. Do not plant during periods of frost or strong winds.

125A TIMES OF YEAR FOR PLANTING

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/ October or April/ May.
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.

130 MECHANICAL TOOLS

- Restrictions: Do not use within 100 mm of tree and plant stems.

145 WATERING

- Quantity: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As necessary to ensure establishment and continued thriving of planting.

150 WATER RESTRICTIONS

- General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

160 NOTICE

- Give notice before:
 - Setting out.
 - Applying herbicide.
 - Applying fertilizer.
 - Delivery of plants/ trees.
 - Planting shrubs.
 - Planting trees into previously dug pits.
 - Watering.
 - Visiting site during maintenance period.
- Period of notice: 7 days.

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- 165 PREPARATION, PLANTING AND MULCHING MATERIALS
- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
 - Certification: Submit a certificate giving supply source, content analysis, confirmation of suitability for purpose and confirmation of absence of harmful substances.
 - Certified materials: Manufactured planting media and Imported composts.
 - Give notice before ordering or using.
- 200 PLANTS/ TREES - GENERAL
- Condition: Materially undamaged, sturdy, healthy and vigorous.
 - Appearance: Of good shape and without elongated shoots.
 - Hardiness: Grown in a suitable environment and hardened off.
 - Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
 - Budded or grafted plants: Bottom worked.
 - Root system and condition: To requirements of The National Plant Specification and balanced with branch system.
 - Species: True to name.
 - Origin/ Provenance: Local provenance.
Origin and Provenance have the meaning given in the National Plant Specification.
- 215 PLANTS/ TREES - SPECIFICATION CRITERIA
- Name, forms, dimensions, provenance and other criteria: As scheduled and defined in the National Plant Specification.
- 235 CONTAINER GROWN PLANTS/ TREES
- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
 - Plants: Centred in containers, firmed and well watered.
 - Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
 - Hardiness: Grown in the open for at least two months before being supplied.
 - Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.
- 245 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.
- 246 LABELLING AND INFORMATION
- Standard: To BS 3936.
- 250 SUPPLY OF PLANTS/ TREES
- Suppliers: Members of the Horticultural Trades Association Nursery Certification Scheme.

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Oldlands Farm Phase 1A

255 PLANTS/ TREES RESERVED AT SUPPLIER'S PREMISES

- Types/ Species: As schedule.
- Predelivery inspection: Give notice.
- Labelling: Identify inspected plants/ trees as reserved for use on this project.

260 PLANT/ TREE SUBSTITUTION

- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
 - Price.
 - Difference from specified plants/ trees.
- Further alternatives: Proposed substitutions may not be acceptable and submission of further alternatives may be required.
- Approval: Obtain before making any substitution.

265 PLANT/ TREE HANDLING, STORAGE AND TRANSPORT

- Standard: To HTA 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.
- Frost: Protect plants/ trees from frost.
- Handling: Handle plants/ trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Coextruded polyethylene bags with black interior and white exterior.
- Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.

270 PLANTING GENERALLY

- Standard: To HTA 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
- Appearance: Plant upright or well balanced with best side to front.

280 TREATMENT OF TREE WOUNDS

- Cutting: Keep wounds as small as possible.
 - Cut cleanly back to sound wood using sharp, clean tools.
 - Leave branch collars. Do not cut flush with stem or trunk.
 - Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

290 SURPLUS MATERIAL

- General: Remove subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, prunings and other arisings/ rubbish.

PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS

300 HERBICIDE

- Locations: All shrub beds excluding hedgerow translocation areas and buffer planting.
- General: Prevent weeds from seeding and perennial weeds from becoming established, by applying a suitable herbicide.
 - Delay cultivation as recommended by manufacturer.

335A GENERAL FERTILIZER

- Locations: All shrub beds excluding hedgerow translocation areas and buffer planting.
- Product reference: In accordance with soil report.
- Application: Spread evenly.
 - Timing: Immediately before cultivation.
 - Coverage: in accordance with soil report.

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357A SOIL AMELIORANT/ CONDITIONER

- Locations: All shrub beds excluding hedgerow translocation areas and buffer planting .
- Type: In accordance with soil report.
- Coverage: In accordance with soil report.
- Timing: Apply prior to cultivation.

375 CULTIVATION

- Compacted topsoil: Break up to full depth.
- Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
 - Depth: Top 350 mm of planting beds.
 - Timing: Within a few days before planting.
 - Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels:
 - As required in sections D20 and Q28.
 - Within 25 mm of levels specified on drawings.
- Undesirable material brought to the surface: Remove, including weeds, roots, stones and clods larger than 50 mm in any dimension, tufts of grass and foreign matter.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

PLANTING SHRUBS/ HERBACEOUS PLANTS/ BULBS

401A BUFFER PLANTING LAYOUT - REGULAR/ FORMAL

- Spacing: In regular, staggered rows.
- Density: At 1 plant per m².

405 SHRUB PLANTING PITS

- Timing: Excavate 2 days (maximum) before planting.
- Sizes: 150 mm wider than roots when fully spread and 300 mm deep.
- Additional requirements: None.
- Pit bottom improvement Break up to a depth of 150 mm, incorporating 25 g of approved slow release fertilizer per planting pit.
- Backfilling material: As clause 476.

415 ANTIDESSICANT FOR CONIFERS/ EVERGREENS

- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Application: Dip before delivering to site. Spray soon after planting.
 - Do not apply in wet or frosty weather.

420 CLIMBING PLANTS

- Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward. Lightly secure branches to supports. Retain canes of plants which are too small to reach supports.
- Climber supports: Stainless steel wire.

470 FORMAL HEDGES

- Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
- Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

471 NATURALIZED HEDGES

- Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

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476A BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required, together with:
 - Ameliorant/ Conditioner: In accordance with soil report.
Coverage: In accordance with soil report.
 - Fertilizer: In accordance with soil report.
Coverage: To suit soil report recommendations.

480 AFTER PLANTING

- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
- Top dressing: Not required.

485A MULCHING SHRUB PLANTING BEDS ONLY

- Material: Medium grade bark mulch.
 - Purity: Free of pests, disease, fungus and weeds.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: 75 mm depth.
- Finished level of mulch: 30 mm below adjacent grassed or paved areas.

PLANTING TREES

500 ANTIDESSICANT FOR CONIFERS/ EVERGREENS

- Manufacturer: Contractors choice.
 - Product reference: Contract choice.
- Application: Dip in or thoroughly spray with antidesiccant before delivering to site. Apply again soon after planting.
 - Do not apply in wet or frosty weather.
 - Ensure full coverage of underside of foliage.

505 TREE PITS

- Sizes: 1000 mm diameter x 600 mm deep for Semi mature
800 x 800 x 600mm for advanced nursery stock and 600 x 600 x 600mm for feathered stock.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 200 mm.
- Pit sides: Scarify.
- Additional requirements: Incorporate approved slow release fertilizer at 40g per m², worked into pit bottoms.
- Backfilling material: As clause 586.
- Accessories: Root barriers as clause 510, and double tree staking .

510 TREE PIT ROOT BARRIERS

- Locations: Trees within 3m of underground service or hard surfaces.
- Manufacturer: Greenleaf.
 - Product reference: RD640A.
- Depth of top of root barrier below finished soil level: 25 mm.
- Installation: With sides vertical.

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512 TREE PIT ACCESSORIES

- Locations: Semi mature and advanced nursery stock only.
- Manufacturer: Greenleaf.
 - Product reference: RRURB1A.
- Type: Perforated plastics irrigation pipe system, 50 mm diameter, in circle above and around sides of rootball.

535A STAKING TO TREES

- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - Preservative treatment: Not required.
- Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- Minimum stake sizes: 75mm diam.

555 SHORT SINGLE STAKING FOR FEATHERED TREES

- Staking: Position stake close to tree on windward side and drive vertically at least 300 mm into bottom of pit before planting. Consolidate material around stake during backfilling.
- Height of stakes: Cut to approximately 600 mm above ground level.
- Ties: Cushioned ties.
- Tying: Secure tree firmly but not rigidly to stake with one tie within 25 mm of top of stake.

575 SHORT DOUBLE STAKING FOR HEAVY STANDARD AND STANDARD TREES

- Staking: Drive stakes vertically at least 300 mm into bottom of pit on either side of tree position before planting. Consolidate material around stakes during backfilling.
- Height of stakes: Cut to approximately 600 mm above ground level.
- Cross bar: Wood, as stake.
 - Firmly fix on windward side of tree and as close as possible to stem.
- Ties: Adjustable cushioned ties.
- Tying: Secure tree firmly but not rigidly to cross bar.

586 BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required, together with:
 - Ameliorant/ Conditioner: Mushroom compost.
 - Coverage: To soil report recommendations.
 - Fertilizer: Slow release.
 - Coverage: To suit soil report recommendations.

PROTECTING/ MAINTAINING TO PRACTICAL COMPLETION

710 MAINTENANCE

- Duration: Carry out the operations in the following clauses from completion of planting until practical completion.
- Frequency of maintenance visits: Monthly during growing season.

720A FAILURES OF PLANTING PRIOR TO PRACTICAL COMPLETION

- General: Plants/ trees/ shrubs that have failed to thrive (unless due to theft or malicious damage after completion) during period stated in clause 710, will be regarded as defects due to materials or workmanship not in accordance with the Contract. Replace with equivalent plants/ trees/ shrubs.
- Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
- Timing of making good: within 7 days.

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Oldlands Farm Phase 1A

740 CLEANLINESS

- Soil and arisings: Remove from hard surfaces and grassed areas.
- General: Leave the works in a clean tidy condition at Completion and after any maintenance operations.

750 PLANTING MAINTENANCE GENERALLY

- Weed control: Maintain weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of original planting pit.
 - Keep planting beds clear of weeds, by hoeing.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Staking: Check condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Cut back any damaged bark. Tie loose climbers back to support.
 - Frequency of checks: Every month.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- Trees: Spray crown when in leaf during warm weather. Carry out in the evening.

760 PLANTING MAINTENANCE - PRUNING

- General: Prune at appropriate times, to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape.
 - Prune trees to favour a single central leading shoot.

765 PLANTING MAINTENANCE - WATERING

- General: As clauses 145 and 150.

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Appendix 3 - 5 Year Maintenance Operations

Maintenance Operations

Maintenance Schedule Years 1 to 5 Development @ Oldlands Farm, Bognor		
Features / habitat types	Action required	Timings
Advanced nursery stock trees	Newly planted tree stock should be inspected for disease by a competent person and inform the Landowner or management company of any major deterioration in the condition of any landscape element. Tree Surgery / Crown reduction as instructed by a qualified arborist. The works should only be carried out by qualified contractors with proof of adequate insurance cover. Pruning of epicormic or basal growth can normally be undertaken by unqualified personnel. Weed control by ensuring no weed growth within a 500mm diameter of each tree. A suitable herbicide should be used in compliance with manufacturer's instructions. Fertilize using suitable slow release fertilizer as per manufacturer's instructions. Inspect tree ties and stakes as scheduled and after strong winds. Replace loose, broken ties or decayed stakes to original specification. Semi mature trees - inspect tree guys as scheduled and after strong winds, tighten as necessary. Remove ties and stakes. Remove dead trees and replace as per original specification.	Annually – in late autumn Annually inspect and monitor condition of trees. - Sept Annually - Sept Annually - Apr & Aug Till year 4– Apr & Aug Every 3 months Every 3 months or after strong wind Till year 4 5 years after planting. Annually till year 5
Shrub planting	Prune shrubs in accordance with best practise and appropriate to species, removing arisings.	Annually between March and April
Grasses	Prune previous years foliage to 10cm from ground level Remove weed growth and remove off site Top up bark mulch	Annually between March and April Weekly in high profile areas and fortnightly in other shrub beds. Annually in March till year 4
Buffer Planting	Newly planted should be regularly inspected for disease by a competent person and inform the Landowner or management company of any major deterioration in the condition of any landscape element. Gapping up if vegetation edge becomes broken, with stock identified on planting plans. Cutting back. Weed control - ensure minimal weed growth within a 500mm diameter of each transplant / feathered tree by strimming or an application of a suitable non-residual herbicide in compliance with manufacturer's instructions.	Annually – in late autumn Annually Oct to Feb Annually Oct / Nov Annually - Apr & Aug Till year 4– Apr & Aug

Maintenance Schedule Years 1 to 5 Development @ Oldlands Farm, Bognor		
Features / habitat types	Action required	Timings
	Fertilise using suitable slow release fertiliser as per manufacturer's instructions. Grow tubes, adjust or replace to original specification. Inspect tree ties and tree stakes as scheduled and after strong winds. Replace loose, broken or decayed stakes to original specification. Adjust Strimmer guards, replace or refit to original specification. Replace stock losses to original specification. Remove grow tubes. Thinning of newly planted woodland in compliance with Standard: BS 7370-4 Clause 3.5.17.1 Select weaker plants for removal. Stack arising within planting area to create hibernaculums. Ensure no or minimum damage to adjacent plants during thinning and refill hole immediately with topsoil. Make good any damage of adjacent plants. Coppice 20% of the hazel stock - operating a 5-year rotational coppicing pattern.	Annually up to year 3 between March and April Every 3 months Annually up to end of year 4 – Oct to Feb 4 years after planting. At year 5 At year 5
Native hedge planting	Weed control by ensuring no weed growth within the hedgerow with a suitable herbicide and used in compliance with manufacturer's instructions. Fertilise using suitable slow release fertilizer as per manufacturer's instructions. Only those hedgerows backing on to development to be cut annually. All other hedgerows shall be cut on a bi-annual basis (once every two years) on a rotational basis to ensure sufficient habitat for birds and availability of winter foraging. The field layer at the base of hedgerows (adjoining the unimproved grass sward) and a margin of 1 metre side is to be left unmaintained to provide habitat for small mammals. No cutting or herbicide applications are to take place within these margins, except if required to control noxious weeds.	Annually - March & Aug Till year 4– Apr & Aug Oct / Nov after year 3 and thereafter in annually. Oct / Nov after year 3 and thereafter in alternate years.
Formal hedges	Weed control by ensuring no weed growth within the hedgerow with a suitable herbicide and used in compliance with manufacturer's instructions. Fertilise using suitable slow release fertilizer as per manufacturer's instructions. With hedge cutters prune formal hedges with vertical sides Fagus sylvatica Lonicera pileata	Annually - Apr & Aug Till year 4– Apr & Aug Sept / Oct after year 2. To the following heights 1.2m high 0.8m high

Maintenance Schedule Years 1 to 5 Development @ Oldlands Farm, Bognor		
Features / habitat types	Action required	Timings
Defects	Remove and replace stock losses to original specification.	Annual – Oct till year 5
Reviewing the maintenance and management plan	Qualified personnel shall monitor / report and adjust the short term maintenance plan and timings twice a year. The long-term management plan including its objectives and deliverability should be reviewed every 5 years and should be adjusted as appropriate.	Twice per annum Every 5 years