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A10

Project particulars

Clauses

110 The Project

1. Name: Catalyst Phase 4

2. Nature: Landscape Scheme for Commercial Development

3. Location: Charles Shouler Wy, Bicester OX25 2DS

120 Employer (client)

1. Name: Albion Land

2. Address: 100 St. James Road, Northampton, NN5 5LF

3. Telephone: 01604 770322

140 Landscape architect/ contract administrator

1. Name: Laird Bailey Ltd

2. Address: The Hawthorns, 6 North Road Cardiff, CF10 3DU

Contact: Andrew Laird
 Telephone: 0330 043 4883
 Email: hello@lbla.co.uk

C

150 THE LANDSCAPE WORK

Description: Landscape design, specification and maintenance

195 The Drawings

- 1. The specification should be read in conjunction with the latest revision of the following drawings:
- LB467_D01 Detailed Soft Landscape Proposals (Sheets 1-6)
 LB467_R01 Landscape Management Plan
- 3. Contractors should ensure that they have the most current drawing revision

 $\boldsymbol{\Omega}$ End of Section

A31

Provision, content and use of documents

Definitions and interpretations

110 Definitions

 Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated here or in the appropriate referenced document.

120 Communication

- 1. Definition: Includes advise, inform, submit, give notice, instruct, agree, confirm, seek, provide or obtain information, consent or instructions, or make arrangements.
- 2. Format: In writing to the person named in clause A10/140 unless specified otherwise.
- 3. Response: Do not proceed until response has been received.

130 Products

- 1. Definition: Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
- 2. Includes: Goods, plant, materials, site materials and things for incorporation into the Works.

135 Site equipment

- Definition: Apparatus, appliances, machinery, vehicles or things of whatsoever nature required in or about the construction for the execution and completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
- 2. Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.

145 Contractor's choice

 Meaning: Selection delegated to the Contractor, but liability to remain with the specifier.

155 Submit proposals

1. Meaning: Submit information in response to specified requirements.

160 Terms used in specification

- Remove: Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes removal and disposal of associated pipework, wiring, ductwork or other services.
- 2. Remediate: Action or measures taken to lessen, clean up, remove or mitigate the existence of hazardous materials; in accordance with standards, or requirements as may be set out by statutes, rules, regulations or specification.

- 3. Fix: Receive, unload, handle, store, protect, place and fasten in position; dispose of waste and surplus packaging. To include all labour, materials and site equipment for that purpose.
- 4. Supply and fix: As above, but including supply of products, components or systems to be fixed, together with everything necessary for their fixing. All products, components or systems are to be supplied and fixed unless stated otherwise.
- 5. Keep for reuse: Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, protect adequately and store until required by the employer/ purchaser, or until required for use in the works as instructed.
- 6. Keep for recycling: As 'keep for reuse', but relates to a naturally occurring material rather than a manufactured product.
- 7. Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/or replacement.
- 8. Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
- 9. Repair: Execute remedial work to restore something to its original working state. Make secure, sound and neat. Excludes redecoration and/or replacement.
- 10. Refix: Fix removed products.
- 11. Ease: Adjust moving parts of designated products, or work to achieve free movement and good fit in open and closed positions.
- 12. Match existing: Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
- 13. System: Equipment, accessories, controls, supports and ancillary items (including installation) necessary for that section of the work to function.

170 Manufacturer and product reference

- 1. Definition: When used in this combination:
 - 1.1. Manufacturer: the person or legal entity under whose name or trademark the particular product, component or system is marketed
 - 1.2. Product reference: the proprietary brand name and/ or identifier by which the particular product, component or system is described.
- 2. Currency: References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

200 Substitution of products

- 1. Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
- 2. Reasons: Submit reasons for the proposed substitution.
- 3. Documentation: Submit relevant information, including:
 - 3.1. manufacturer and product reference;
 - 3.2. cost;
 - 3.3. availability;
 - 3.4. relevant standards;
 - 3.5. performance:

- 3.6. function;
- 3.7. compatibility of accessories;
- 3.8. proposed revisions to drawings and specification;
- 3.9. compatibility with adjacent work;
- 3.10. appearance;
- 3.11. copy of warranty/ guarantee.
- 4. Alterations to adjacent work: If needed, advise scope, nature and cost.
- 5. Manufacturers' guarantees: If substitution is accepted, submit before ordering products.

210 Cross references

- 1. Accuracy: Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
- 2. Related terminology: Where a numerical cross reference is not given, the relevant sections and clauses of the specification will apply.
- 3. Relevant clauses: Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
- 4. Discrepancy or ambiguity: Before proceeding, obtain clarification or instructions.

220Referenced documents

1. Conflicts: Specification prevails over referenced documents.

230Equivalent products

1. Inadvertent omission: Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.

240Substitution of standards

- Specification to British Standard or European Standard: Substitution may be
 proposed complying with a grade or category within a national standard of another
 Member State of the European Community or an international standard recognised
 in the UK.
- 2. Before ordering: Submit notification of all such substitutions.
- 3. Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

250Currency of documents and information

1. Currency: References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

260 Sizes

- General dimensions: Products are specified by their co-ordinating sizes.
- 2. Timber: Cross section dimensions shown on drawings are:
 - 2.1. Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.

2.2. Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

Documents provided on behalf of the employer

440Dimensions

1. Scaled dimensions: Do not rely on.

Documents provided by contractor/ subcontractors/ suppliers

630 Technical literature

- 1. Information: Keep on site for reference by all supervisory personnel:
 - 1.1. Manufacturers' current literature relating to all products to be used in the Works.
 - 1.2. Relevant British, EN or ISO Standards.

 Ω End of Section

A33

Quality standards/ control

Standards of products and executions

120 Workmanship skills A

- 1. BALI membership:: Landscape contractors to be current members of the British Association of Landscape Industries
- 2. Operatives: Appropriately skilled and experienced for the type and quality of work.
- 3. Registration: With Construction Skills Certification Scheme.
- 4. Verification: When requested, operatives must produce evidence of skills/ qualifications.

130 Quality of products

- 1. Generally: New. (Proposals for recycled products may be considered).
- 2. Supply of each product: From the same source or manufacturer.
- 3. Whole quantity of each product required to complete the Works: Consistent kind, size, quality and overall appearance.
- 4. Tolerances: Where critical, measure a sufficient quantity to determine compliance.
- 5. Deterioration: Prevent. Order in suitable quantities to a programme and use in appropriate sequence.
- 6. British Standards: Materials and products should follow recommendations and guidance provided by the relevant, current versions of British Standards, including, but not limited to:
 - 6.1. BS3882 Specification for topsoil
 - 6.2. BS8601 Specification for subsoil
 - 6.3. BS5837 Trees in relation to design, demolition and construction
 - 6.4. BS8545 Trees: from nursery to independence in the landscape
 - 6.5. BS3936-1 Nursery stock: Specification for trees and shrubs
 - 6.6. BS7370 Grounds maintenance

135 Quality of execution

- 1. Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- 2. Colour batching: Do not use different colour batches where they can be seen together.
- 3. Dimensions: Check on-site dimensions.
- 4. Finished work: Without defects, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- 5. Location and fixing of products: Adjust joints open to view so they are even and regular.
- 6. British Standards: In line with BS set out in A33-130

170 Manufacturer's recommendations/instructions

- General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
- 2. Changes to recommendations or instructions:: Submit details

180 Water for the works

- 1. Mains supply: Clean and uncontaminated.
- 2. Other: Do not use until:
 - 2.1. Evidence of suitability is provided
 - 2.2. Tested to BS EN 1008 if instructed

Samples/approvals - No Amendments

Accuracy/ setting out generally - No Amendments

Services generally - No Amendments

Supervision/ inspection/ defective work - No Amendments

Work at or after completion

730 Making good defects

- 1. Remedial work: Arrange access with Contract Administrator.
- 2. Rectification: Give reasonable notice for access to the various parts of the Works.
- 3. Completion: Notify when remedial works have been completed.

 Ω End of Section

A34

Security/safety/protection

Protect against the following

340Pollution

- 1. Prevention: Protect the site, the works and the general environment (including the atmosphere, land, streams and waterways) against pollution.
- 2. Contamination: If pollution occurs, report immediately, including to the appropriate authorities, and provide relevant information.

350Pesticides

- Use: Only where specified or approved, and then only suitable products listed on www.pesticides.gov.uk
- 2. Restrictions: Work near water, drainage ditches or land drains must comply with the 'Guidelines for the use of herbicides on weeds in or near watercourses and lakes'
- 3. Containers: Comply with manufacturer's disposal recommendations. Remove from site immediately empty or no longer required

400 Burning on site

Burning on site: Not permitted.

430Waste

- 1. Waste: Includes rubbish, debris, spoil, containers and packaging, and surplus material requiring disposal.
- 2. Requirement: Minimize production and prevent accumulation of waste. Keep the site and works clean and tidy.
- 3. Disposal: Collect and store in suitable containers. Remove from site and dispose of in a safe and competent manner, as approved and directed by the waste regulation authority.
- 4. Recyclable material: Sort and dispose of at a materials recycling facility approved by the waste regulation authority.

470Invasive species

- 1. General: Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or works economically, environmentally or ecologically.
- 2. Special precautions: Do not use soil from areas containing Japanese Knotweed elsewhere on site
- 3. Duty: Report immediately any suspected invasive species discovered during execution of the works.
 - 3.1. Do not disturb.
 - 3.2. Agree methods for safe eradication or removal.

Protect the following

530Existing topsoil/ subsoil

- 1. Duty: Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.
- 2. Protection: Before starting work submit proposals for protective measures

Q28

Topsoil and soil ameliorants

System outline

115 Topsoil system for turfing and seeding

- 1. Description: FOR ALL GRASSED AREAS
- 2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882 or Site-sourced topsoil if present and suitable (all site won topsoil to be tested and signed off for suitability)
 - 2.2. Ameliorants: None
 - 2.3. Accessories: None

135 Planting bed topsoil system

- 1. Description: FOR GENERAL PLANTING AREAS
- 2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882
 - 2.2. Ameliorants: None
 - 2.3. Accessories: None

145 Planting pit backfilling topsoil system

- 1. Description: FOR ALL TREE PITS
- 2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882 or Site-sourced topsoil if present and suitable (all site won topsoil to be tested and signed off for suitability)
 - 2.2. Ameliorants: None
 - 2.3. Accessories: Mycorrhizal inoculant

155 Mulching and top dressing system

- Description: MULCHING AND TOP DRESSING SYSTEM FOR ALL HEDGE, SHRUB AND TREE PLANTING
- Composition
 - o Material: Bark Mulch

Products

300 Preparation materials generally

- 1. Purity: Free of pests and disease.
- 2. Foreign matter: On visual inspection, 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.
- 3. Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - 3.1. Corrosive, explosive or flammable.

- 3.2. Hazardous to human or animal life.
- 3.3. Detrimental to healthy plant growth.
- 4. Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
- 5. Objectionable odour: None.
- 6. Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

310 Materials not permitted

1. Materials: Products containing peat

315 Imported topsoil to BS 3882

- 1. Description:
- 2. Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- 3. Standard: To BS 3882.
- 4. Classification: Multipurpose

380 Mycorrhizal inoculant

- 1. Description: FOR TREE PITS
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice

Execution

625 Sample loads

- 1. Description: FOR IMPORTED TOPSOIL and BARK MULCH
- 2. Deliver to site a sample load: of 5 kg
- 3. Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
 - 3.1. Notice period: 5 days

650 Notice

- Give notice before
 - 1.1. Setting out.
 - 1.2. Spreading topsoil.
 - 1.3. Applying herbicide.
 - 1.4. Applying fertilizer.
 - 1.5. Visiting site during maintenance period.
- 2. Period of notice: 1 week

655 Mechanical tools

1. Restrictions: Do not use within 100 mm of tree and plant stems. Do not damage adjacent planting.

660 Grading subsoil for:

- 1. Description: LANDSCAPED AREAS OVER EXCAVATIONAL FILLING
- 2. Standard: In accordance with BS 8601.
- 3. General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
- 4. Areas of thicker topsoil: Excavate locally.
- 5. Avoid compaction.
- 6. Excess subsoil: Remove.

665Subsoil surface preparation for:

- 1. Description: PLANTING AREAS
- 2. Warning: : Archaeological protection area located to south end of site. Ensure surface preparations align with Archaeological Protection Plan.
- 3. Standard: In accordance with BS 3882.
- 4. General: Excavate and/ or place fill to required profiles and levels, as section D20.
- 5. Loosening
 - 5.1. When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth
 - 5.1.1. Light and noncohesive subsoils: 300 mm
 - 5.1.2. Stiff clay and cohesive subsoils: 600 mm
 - 5.1.3. Rock and chalk subgrades: Lightly scarify to promote free drainage.
 - 5.2. Wet conditions: Do not loosen subsoils.
- 6. Stones: Immediately before spreading topsoil, remove stones larger than 20 mm.
- 7. Remove from site: Arisings, contaminants and debris

675 Preparation of undisturbed topsoil

- 1. Warning: Archaeological protection area located to south end of site. Ensure surface preparations align with Archaeological Protection Plan.
- 2. Standard: In accordance with BS 4428.
 - 2.1. Grading and cultivation: Category C
- 3. Hard ground: Break up thoroughly.
- 4. Clearing: Remove visible roots and large stones with a diameter greater than 20 mm.
- 5. Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
- 6. Fallow period (minimum): Six months
 - 6.1. Weed control: At appropriate times re-cultivate at fortnightly intervals to suppress weed growth.

680 Surplus topsoil to be retained

- 1. Generally: Spread and level on site:
 - 1.1. Locations: Any areas where topsoil is required for new planting
 - 1.2. Protected areas: Do not raise soil level within root spread of trees that are to be retained.

685Surplus materials to be removed

- 1. Topsoil removal from site: Topsoil remaining after completion of all landscaping work
- 2. Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

690 Topsoil storage heaps

- 1. Location: Submit proposals
- 2. Height (maximum): 1.0 m
- 3. Width (maximum): 3.0 m
 - 3.1. Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
- 4. Protection
 - 4.1. Do not place any other material on top of storage heaps.
 - 4.2. Do not allow construction plant to pass over storage heaps.
 - 4.3. Prevent compaction and contamination, by fencing and covering as appropriate.

700 Grading of topsoil

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

705Handling topsoil

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

710 Spreading topsoil on:

- Description: AREAS DISTRUPTED BY CONSTRUCTION ACTIVITIES
- 3. Standard: In accordance with BS 3882.
- 4. Temporary roads/ surfacing: Remove before spreading topsoil.
- 5. Layers
 - 5.1. Depth (maximum): 150 mm.
 - 5.2. Gently firm each layer before spreading the next.
- 6. Depth after firming and settlement: 150 mm

7. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715 Loose tipping of topsoil

- Standard: In accordance with BS 3882.
- 2. 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.

718 Final cultivation

- 1. Description: PLANTING AND SEEDED AREAS
- 2. Compacted topsoil: Break up to full depth.
- 3. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
- 4. Depth: 150 mm
- 5. Particle size (maximum): 5 mm
- 6. Timing: After grading and fertilizing, and within a few days before seeding
- 7. Weather and ground conditions: Suitably dry.
- 8. Surface: Leave regular and even.
- 9. Levels: 25 mm above adjoining paving or kerbs
- 10. Undesirable material brought to the surface
 - 10.1. Remove visible weeds.
 - 10.2. Remove roots and large stones with any dimension exceeding 20 mm.

720 Finished levels of topsoil after settlement

- 1. In relation to adjoining paving, kerbs or hard surfaces: 25 mm above
- 5. In relation to adjacent grass areas: 75 mm above
- 6. Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
- 7. Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
- 8. Adjoining soil areas: Marry in.
- 9. Thickness of turf or mulch: Included.

840 Applying mycorrhizal inoculant

- 1. Description: TO TREE PITS
- 2. Depth: To maintain contact with root system

845 Applying loose mulch

- 1. Description: FOR HEDGEROWS, AMENITY BEDS AND TREE PITS
- 2. Timing: Immediately after planting
- 3. Preparation: Clear all weeds. Water soil thoroughly
- 4. Coverage of mulch (minimum)
 - 4.1. Planting beds (depth): 75 mm depth
 - 4.2. Trees: 75 mm depth In a circular area of 1m radius measured from the tree stem
- 5. Finished level of mulch: 30 mm below adjacent grassed or paved areas

Completion

920Applying mulch

- 1. Timing: Reapply mulch at the end of the maintenance period
- 2. Watering: Ensure that soil is thoroughly moistened prior to mulching, applying water where necessary.
- 3. Planting beds: Re-mulch.
 - 3.1. Depth (minimum): 75 mm
- 4. Trees: Remulch.
 - 4.1. Depth (minimum): 75 mm

 Ω End of Section

Q30

Seeding/turfing

General information/requirements

115 Seeded and turfed areas

- 1. Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
- 2. Appearance: A closely knit, continuous ground cover of even density, height and colour.

120 Climatic conditions

1. General: Carry out the work while soil and weather conditions are suitable.

145 Watering

- 1. Quantity: Wet full depth of topsoil.
- 2. Application: Even and without displacing seed, seedlings or soil.
- 3. Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing.

150 Water restrictions

1. Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

160 Notice

- Give notice before
 - 1.1. Setting out.
 - 1.2. Applying herbicide.
 - 1.3. Applying fertilizer.
 - 1.4. Preparing seed bed.
 - 1.5. Seeding or turfing.
 - 1.6. Visiting site during maintenance period.
- 2. Period of notice: 3 working days

170 Setting out

- Boundaries: Mark clearly.
- 2. Delineation: In straight lines or smoothly flowing curves as shown on drawings.

Preparation

212 Seed bed cleaning before sowing

- 1. Description: ALL GRASSED AREAS
- 2. Operations: Remove weeds by hand weeding and hoeing. As seed supplier's recommendations. Avoid at all costs the use of herbicides

250Soil requirements

- 1. Type
 - 1.1. Seeded areas: Existing approved topsoil or imported in line with Q28.

Seeding

310 Grass seed

- Description: Amenity Grassland. Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Mixture: ryegrass based, such as Emorsgate's EL1 Flowering Lawn Mix or similar
- Application rate: 40kg/ha. Application rates shall be increased by 50% for slopes exceeding 1:5

312 Wildflower seed mixture

- Description: Wildflower Grassland Seed Mix. Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Supplier: Emorsgate Seeds
 - 2.1. Mixture reference: Emorsgate EM2, EH1 and EM8 or similar approved
- 3. Origin of each species (as defined in Flora Locale's Code of practice for collectors, growers and suppliers of native flora): British Native
- 4. Application rate: Supplier's recommendations

319 Quality of seed

- Description: FOR ALL GRASSED AREAS
- 2. Freshness: Produced for the current growing season.
- 3. Certification: Blue label certified varieties.
 - 3.1. Standard: EC purity and germination regulations.
 - 3.2. Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- 4. Samples of mixtures: Submit when requested.

322 Quality of wildflower seed

- Description: FOR ALL SEEDED AREAS
- 2. Standard: In accordance with Flora Locale's 'Code of practice for collectors, growers and suppliers of native flora'.
- 3. Germination testing: Not required
- 4. Freshness of seed: Produced for the current growing season
- 5. Samples: Submit when requested. Submit when requested.

330Sowing

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

335 Grass sowing season

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

336Wildflower sowing season

Wildflower seed generally: March to May or August to October

352 Edges to seeded areas

- 1. Description: ADJACENT TO PLANTING BEDS AND TREE PITS
- 2. Timing: After seeded areas are well established.
- 3. Edges: Clean straight lines or smooth curves.
 - 3.1. Mulch and soil: Draw back to permit edging.
- 4. Arisings: Remove.
- 5. Completion: Respread soil and mulch.

Turfing - Not Used

Protecting/cutting

530First cut of grassed areas

- 1. Timing: When grass is reasonably dry.
 - 1.1. Height of initial growth: 40-75 mm
- 2. Preparation
 - 2.1. Debris and litter: Remove.
 - 2.2. Stones and earth clods larger than 25 mm in any dimension: Remove
- 3. Height of first cut: 50 mm
- 4. Mower type: Contractor's choice
- 5. Arisings: Remove from site

590Cleanliness

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

Maintenance

610 Failures of seeding/turfing

- 1. Duration: Carry out the following operations from completion of seeding/turfing until: the end of the rectification period.
- 2. Defective materials or workmanship: Areas that have failed to thrive.
 - 2.1. Exclusions: Theft or malicious damage.
- 3. Method of making good: Recultivation and reseeding/returfing.
- 4. Timing of making good: The next suitable planting season

660 Maintaining grassed areas with annual wildflowers

1. Refer to latest version of Landscape Management Plan (Document LB467_R01)

 Ω End of Section

Q31

External planting

General information/requirements

112 Site clearance generally

- 1. General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- 2. Stones: Remove those with any dimension exceeding 50 mm.
- 3. Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- 4. Vegetation: Clear scrub to ground level by flail mowing and remove arisings
- 5. Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- 6. Additional requirements:

118 Soil conditions

- 1. Soil for cultivating and planting: Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
- 2. 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

- 1. General: Carry out the work while soil and weather conditions are suitable.
 - 1.1. Strong winds: Do not plant.

125 Times of year for planting

- 1. Deciduous trees and shrubs: Late October to late March.
- 2. Conifers and evergreens: September/October or April/May.
- 3. Herbaceous plants (including marginal): September/ October or March/ April.
- 4. Container grown plants: At any time if ground and weather conditions are favourable.
 - 4.1. Watering and weed control: Provide as necessary.
- 5. Dried bulbs, corms and tubers: September/ November.
- 6. Colchicum (crocus): July/ August.
- 7. Green bulbs: After flowering in spring.
- 8. Wildflower plugs: Late August to mid November or March/April.

130 Mechanical tools

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

145 Watering

- 1. Quantity: Wet full depth of topsoil.
- 2. Application: Even and without damaging or displacing plants or soil.

3. 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

- 1. Give notice before
 - 1.1. Setting out.
 - 1.2. Applying herbicide.
 - 1.3. Applying fertilizer.
 - 1.4. Delivery of plants/ trees.
 - 1.5. Planting shrubs.
 - 1.6. Planting trees into previously dug pits.
 - 1.7. Watering.
 - 1.8. Visiting site during maintenance period.
- 2. Period of notice: Three working days

170 Soil requirements

- 1. Type
 - 1.1. Planted beds: Planting bed soil system, as section Q28
 - Tree pits, shrub pits and other backfilling: Plant pit backfilling soil system, as section Q28
 - 1.3. External container planting: Container planting growing media system, as section Q28
 - 1.4. Mulch applied after planting: Mulching and top dressing system, as section Q28

200 Plants/Trees - general

- 1. Condition: Materially undamaged, sturdy, healthy and vigorous.
- 2. Appearance: Of good shape and without elongated shoots.
- 3. Hardiness: Grown in a suitable environment and hardened off.
- 4. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- 5. Budded or grafted plants: Bottom worked.
- 6. Root system and condition: Balanced with branch system.
 - 6.1. Standard: The National Plant Specification
- 7. Species: True to name.
- 8. Origin/ Provenance: British provenance
- 9. Definition: Origin and Provenance have the meaning given in the National Plant Specification.

216 Plants/ Trees - specification criteria

 Description: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01

2. Name, forms, dimensions and other criteria: To the relevant part of BS 3936.

225 Bulbs/ Corms/ Tubers

- Description: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Condition: Firm, entire, not dried out or shrivelled.
- 3. Health: Free from pests, diseases and fungus.
- 4. Handling: Remove from packaging immediately.
- 5. Storage: Permitted only when necessary.
 - 5.1. Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
 - 5.2. Duration: Minimum period.
 - 5.3. Temperature: 18-21°C.

245 Labelling and information

- 1. 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:
 - 1.1. Full botanical name.
 - 1.2. Total number.
 - 1.3. Number of bundles.
 - 1.4. Part bundles.
 - 1.5. Supplier's name.
 - 1.6. Employer's name and project reference.
 - 1.7. Plant specification, in accordance with scheduled National Plant Specification categories.
- 2. Additional information: Submit on request: Nursery origin.

246Labelling and information

1. Standard: To BS 3936.

260 Plant/ Tree substitution

- 1. Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
 - 1.1. Price.
 - 1.2. Difference from specified plants/ trees.
- 2. Approval: Obtain before making any substitution.

265 Plant handling, storage transport and planting

- Standard: To CPSE 'Handling and establishing landscape plants'.
- 2. Frost: Protect plants from frost.
- 3. Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- 4. Plant packaging: Coextruded polyethylene bags with black interior and white exterior

- 5. Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped
- 6. Planting: Upright or well balanced with best side to front.

280 Treatment of tree wounds

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

285 Protection of existing grass

- 1. General: Protect areas affected by planting operations using boards/ tarpaulins.
 - 1.1. Excavated or imported material: Do not place directly on grass.
 - 1.2. Duration: Minimum period.

290Surplus material

 Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

Plant containers - Not Used

Preparation of planting beds/ planting materials - Not Used

Planting shrubs/ herbaceous plants/ bulbs

400 Random bulb planting layout

- Description: Native Bulb Planting Areas, Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Spacing: Random groups of 3-11 plants of the same species.
- 3. Density: Refer to planting Schedule on LB467_D01

400 Amenity planting layout Type A

- Description: Amenity Planting, Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Spacing: Evenly, avoiding straight lines. Plant in groups of 3-9 plants of the same species. Amenity Shrubs are to be planted as single specimens.
- 3. Density: As plant schedule

400 Native shrub planting layout Type B

- 1. Description: Native Shrub Areas and Areas with Specimen Shrubs, Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Spacing: Offset avoiding straight lines 1 plant per m2
- 3. Density: As plant schedule

405Shrub planting pits

- Timing: Excavate 1-2 days (maximum) before planting.
- 2. Sizes: 150 mm wider than roots when fully spread and 200 mm deep
- 3. Pit bottom improvement Not required.

445 Planting bulbs/ Corms/ Tubers

- Description:: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
- 3. Backfilling: Finely broken soil. Lightly firm to existing ground level.
- 4. Naturalized planting in existing grassed areas
 - 4.1. Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
 - 4.2. Planting: Neatly remove a plug of turf and replace after planting.

470Ornamental hedges

- Description: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
- 3. Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

471 Native hedges

- Description: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

480 After planting

- 1. Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- 2. 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.
- 3. Top dressing: Mulching and top dressing system, as section Q28
 - 3.1. Depth: 75 mm

486Shrub protection

- 1. Manufacturer: Submit proposals
 - 1.1. Product reference: Submit proposals
- 2. Type: Round
- 3. Material: Biodegradable mesh
- 4. Size: 0.6 m high x 170-200 mm diameter for hedgerow
- 5. Colour: Contractor's choice
- 6. Support: Contractor's choice

7. General: Ensure that protection methods do not impede natural movement of plants or restrict growth.

490 Individual mulch mats

- 1. Manufacturer: Submit proposals
 - 1.1. Product reference: Submit proposals
 - 1.2. Type/ Size: Biodegradable flax
- 2. Recycled content: 90% (minimum) to BS EN ISO 14021
- 3. Timing: Lay after planting.
- 4. Watering: Water soil thoroughly before laying.
- 5. Laying: In close contact with the soil surface. Position pre-slit mats closely around plant stems.
- 6. Fixing: Biodegradable pins
- 7. Overlay: Planting bed mulch

Planting trees

500 Tree planting

1. Standard: Prepare trees and transplant in accordance with BS 8545

505Tree pits

- Description: Refer to Tree Pit Detail drawings in latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Sizes: Refer to Soft Landscape Proposal plans
- 3. Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- 4. Excavated material: Separate topsoil and subsoil material and stockpile for backfilling
- 5. Pit bottoms: Excavate with slightly raised centre: Break up base to a depth of 150 mm.
 - 5.1. Treatment: Soil ameliorant worked into pit bottoms
- 6. Pit sides: Scarify.
- 7. Backfilling material: Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545

510 Tree pit root barriers

- Locations: Refer to Tree Pit Detail drawings in latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice
- 3. Thickness: Refer to Soft Landscape Proposal plans
- 4. Barrier depth: Refer to Soft Landscape Proposal plans
- 5. Foil liner: Refer to Soft Landscape Proposal plans
- 6. Top of root barrier in relation to finished topsoil level: Refer to Soft Landscape Proposal plans

7. Installation: With sides vertical. Remove all sharp objects adjacent to barrier. Install as close to feature that is to be protected as possible to allow maximum rooting area for tree without compromising protected features integrity.

512 Tree pit irrigation and ventilation accessories

- Locations: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice
- 3. Type: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 4. Pipe diameter: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 5. Ring diameter: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 6. Inlet: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 7. Installation
 - 7.1. Pipe: Lay in loop above root ball with slight fall away from inlet pipe. Trim length to ensure a close fit in the tree pit. Connect both ends of pipe securely into plastics tee junction on inlet.
 - 7.2. Top cap of inlet: Protruding slightly above finished surround level.
 - 7.3. Backfill material: Carefully compact in layers.

515 Tree pit drainage

- Locations: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 2. Depth of excavation: Increase from specified size to allow for aggregate layer, with base slightly falling to outlet.
- 3. Aggregate layer: Clean gravel or broken stone, with no fines, graded 40 to 20 mm.
 - 3.1. Depth: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 4. Drainage pipes
 - 4.1. Type: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
 - 4.2. Diameter: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
 - 4.3. Position: Lay around perimeter of pit within aggregate layer.
 - 4.4. Discharge: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01
- 5. Geotextile filter
 - 5.1. Manufacturer: Contractor's choice
 - 5.1.1. Product reference: Contractor's choice
 - 5.2. Position: Lay over aggregate before installing tree or backfill.
- 6. Completed pits: Test for free drainage before planting.

526 Underground guying for:

- 1. Description: Trees on mounds
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Submit proposals
- 3. Anchoring system: Submit proposals
- 4. Installation: Ensure tree is positioned correctly and vertically prior to tightening guy line tensioners.

535 Tree stakes

- 1. Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - 1.1. Preservative treatment: Not required
- Stake size (minimum): 75 mm diameter
- 3. Stake length (minimum): 1800 mm

550Double staking for

- 1. Description: ALL TREES NOT ON MOUNDS
- 2. Staking
 - 2.1. Position: Either side of tree position and perpendicular to wind direction.
 - 2.2. Driving: Vertically at least 300 mm into bottom of pit before planting.
 - 2.3. Backfilling: Consolidate material around stake.
 - 2.4. Firming: Sufficiently firm to prevent movement of the rootball/rootstock.
- 3. Height of stakes: Cut off just below lowest branch of tree
- 4. Horizontal bracing: Rubber belting with spacers
 - 4.1. Fixing: Firmly fix using nails on windward side of tree and as close as possible to the stem without making contact with the bark. Position cross bar horizontally and 25 mm from top of stakes
- 5. Ties: Adjustable
- 6. Tying: Secure tree firmly but not rigidly to cross bar. Prevent tree from touching cross bar using spacer blocks or cushions if required
- 7. Nails for fixing ties, belts and webbing: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- 8. Nails for fixing cross bars: To BS 1202-1, galvanized round wire, minimum 75 mm long and 3.75 mm gauge

566Tree protection

 See Individual Tree Pit Details: Refer to latest version of Detailed Soft Landscape Proposal drawings LB467_D01

576 Tree pit surfacing - loose fill

- 1. Surfacing material: Mulch, as section Q28
- 2. Area: 1000 mm radius circle
- 3. Depth: 75 mm
- 4. Watering: Water soil thoroughly before laying.

5. Installation: Ensure the base of the tree stem is kept free from loose filled material.

Woodland/ matrix/ buffer zone planting - Not Used

Protecting/ maintaining/ making good defects

710 Maintenance

- 1. Duration: Carry out the operations in the following clauses from completion of planting until practical completion.
- 2. Frequency of maintenance visits: In accordance with the agreed maintenance schedule

720 Failures of planting

- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
 - 1.1. Exclusions: Theft or malicious damage after completion.
 - 1.2. Rectification: Replace with equivalent plants/ trees/ shrubs.
- 2. Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
- 3. Timing of making good: During the next suitable planting season

740Cleanliness

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

750 Planting maintenance generally

- 1. Weed control: Maintain weed free area around each tree and shrub.
 - 1.1. Diameter (minimum): The larger of 1 m or the surface of original planting pit.
 - 1.2. Keep planting beds clear of weeds: By maintaining full thickness of mulch
- 2. 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.
- 3. Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- 4. Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- 5. Trees: Spray crown when in leaf during warm weather.
 - 5.1. Timing: After dusk.
- 6. Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
 - 6.1. Broken or missing items: Replace.
 - 6.2. Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
 - 6.3. Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
 - 6.4. Ties: Adjust to accommodate growth and prevent constriction or abrasion.

- 6.5. Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
- 6.6. Frequency of checks: Every month
- 7. Watering: As required for healthy establishment, depending on weather conditions

760Planting maintenance – pruning

- 1. General: Prune to promote healthy growth and natural shape.
 - 1.1. Dead, dying, diseased wood and suckers: Remove.
 - 1.2. Timing: In accordance with the agreed maintenance schedule
 - 1.3. Trees: Favour a single central leading shoot.
- 2. Arisings: Remove.

790Final mulching

- 1. Timing: At end of the maintenance period.
- 2. Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
- 3. Planting beds: Remulch.
- 4. Depth (minimum): 75 mm
- 5. Trees: Remulch.
- 6. Depth (minimum): 75 mm

 Ω End of Section