ONE Creative environments

Landscape Specification

Eckington Community Fields

06-01-2023

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Document Control Sheet

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Contents

Q20
Granular sub-bases to roads/ pavings

To be read with preliminaries/ general conditions.

110 Thicknesses of sub-base/ subgrade improvement layers

1. Capping to footpaths: 175mm Type 6F2 Capping layer using existing stockpile on site. Existing stockpile should provide circa 270m3 6F2 material.
2. Sub-base to footpaths: 50mm Type 1 MOT Sub-base using existing stockpile on site. Existing stockpile should provide circa 90m3 Type 1 MOT material.

120 Checking of subgrades

1. Anticipated subgrade conditions
   - 1.1. Soil type: Sandy, gravelly CLAY / SAND & GRAVEL
   - 1.2. Plasticity index: 32-41%
   - 1.3. CBR (minimum): Unknown
   - 1.4. Depth below formation level to groundwater table: <1.0m

140 Excavation of subgrades

1. Final excavation to formation or subformation level: Carry out immediately before compaction of subgrade.
2. Soft spots and voids: Give notice.
3. Old drainage and service trenches: None anticipated.
   But if found: Excavate to remove soft or damanged material, then backfill with specified granular sub-base material and compact.
4. Wet conditions: Do not excavate or compact when the subgrade may be damaged or destabilized.

145 Preparation and compaction of subgrades

1. Timing: Immediately before placing sub-base.
2. Soft or damaged areas: Excavate and replace with sub-base material, compacted in layers 300 mm (maximum) thick
3. Compaction: Thoroughly, by roller or other suitable means, adequate to resist subsidence or deformation of the subgrade during construction and of the completed roads/ pavings when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

170 Geotextile filter/ separator membrane

1. Description: Typically T1000 by Terram or equivalent
2. Manufacturer: Submit proposals
   - 2.1. Product reference: Submit proposals
3. Jointing: 300 mm overlap
4. Protect from
   - 4.1. Exposure to light, except during laying (maximum five hours).
   - 4.2. Contaminants.

4.3. Materials listed as potentially deleterious by geotextile manufacturer.

4.4. Damage, until fully covered by fill.

4.5. Wind uplift, by laying not more than 15 m before covering with fill.

5. Preparation: Remove humps and sharp projections and fill hollows before laying.

200 Subgrade improvement layer (capping)

1. Material: To Highways Agency 'Specification for highway works', table 6/1, Class 6F2. There is an existing stockpile of Type 6F2 material available on the site, circa 270m3.
2. Standard: Placed and compacted to Highways Agency 'Specification for highway works', table 6/1, clauses 612 and 613.3, 613.8, 613.9, 613.10 and 613.13.

210 Highways agency Type 1 unbound mixture for sub-base

1. Material: Type 1 unbound mixture to Highways Agency 'Specification for highway works', clauses 801 and 803.

1.1. Recycled aggregate: Permitted

211 Granular material

1. Quality: Of a known suitability for use in sub-bases, free from excessive dust, well graded, all pieces less than 75 mm in any direction, minimum 10% fines value of 50 kN when tested in a soaked condition to BS 812-111 or a resistance to fragmentation of LA50 for the Los Angeles test to BS EN 1097-2, and in any one layer only one of the following:

1.1. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.

1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.

1.3. Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.

1.4. Natural gravel.

1.5. Natural sand.

2. Filling: Spread and levelled in 150 mm maximum layers, each layer thoroughly compacted.

213 Blinding protection for membranes

1. Location: On subgrade to receive separating membrane
2. Material: Sand to BS EN 12620, grade 0/2
3. Thickness (minimum): Sufficient to fill interstices and cover all stones
4. Compaction: Moisten as necessary before final rolling to provide a flat, closed, smooth surface.
5. Permissible deviations on surface level: +0 -25 mm

230 Placing granular material generally

1. Preparation: Loose soil, rubbish and standing water removed.
2. Structures, membranes and buried services: Ensure stability and avoid damage.

250 Laying granular sub-bases

1. Description: FOR PEDESTRIAN AREAS
2. General: Spread and levelled.
3. Compaction

3.1. Timing: As soon as possible after laying.

3.2. Method: By roller or other suitable means, adequate to resist subsidence or deformation of the sub-base during construction and of the completed paving when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

310 Accuracy

1. Permissible deviation from required levels, falls and cambers (maximum)
   1.1. Subgrades
      1.1.1. Footways and recreation areas: ± 20 mm.
   1.2. Sub-bases
      1.2.1. Footways and recreation areas: ± 12 mm

330 Cold weather working

1. Frozen materials: Do not use.
2. Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.

340 Protection

1. Sub-bases: As soon as practicable, cover with subsequent layers, specified elsewhere.
2. Subgrades and sub-bases: Prevent degradation by construction traffic, construction operations and inclement weather.

Ω End of Section

Q23
Gravel/ hoggin/ woodchip/ resin bound roads/ pavings/ overlays

Types of surfacing

130 Self binding gravel

1. Description: To all marked paths
2. Subgrade improvement layer: Not required
   2.1. Compacted thickness: 50mm
3. Geotextile: Sheet, contractors choice
4. Granular sub-base: Type 1 unbound mixture, as section Q20
   4.1. Compacted thickness: 150mm
5. Surface course: Naturally occurring fine hoggin consisting of sand and gravel, with minimum clay content required to bind the material together, and with no large lumps of clay.
   5.1. Size: Minimum of 85% by weight passing a 10 mm BS sieve.
   5.2. Maximum particle size: 12 mm
   5.3. Compacted thickness: 50mm
6. Manufacturer:: Breedon Special Aggregates
   6.1. Product reference:: Breedon Golden Amber Gravel
7. Completion: Compact to produce a firm, regular surface, stable in use.

Laying

310 Timber edging to self binding gravel paths

1. Softwood board
   1.1. Size: 150 x 38 mm.
   1.2. Fixing: Galvanized nails into softwood pegs.
2. Softwood pegs
   2.1. Size: 50 x 50 x 450 mm long
   2.2. Fixing: Drive into ground.
   2.3. Centres: 1200 mm
3. Preservative treatment: 15 year desired service life

340 Laying generally

1. Channels, gullies, etc: Keep clear.
2. Finished surfaces
   2.1. Lines and levels: To prevent ponding.
   2.2. Overall texture: Even.
   2.3. State at completion: Clean.

350 Cold weather working

1. Frozen materials: Do not use.

2. Freezing conditions: Do not lay pavings.
3. Cold bituminous surface dressings: Do not apply when ambient temperature is below 10°C.
4. Other dressings or overlays: As manufacturers' recommendations.

360 Drainage falls

1. Sealed surfaces
   1.1. Falls and cross falls (minimum): 1:40.
   1.2. Camber (minimum): 1:50.
2. Unsealed surfaces (minimum): 1:30.

390 Protection from traffic and plant

1. Paved areas: Restrict access to prevent damage.

Completion - Not Used

Ω End of Section

Q28
Topsoil and soil ameliorants

System outline

21 Preparatory works by main contractor

1. General: The following works will be carried out by the main contractor prior to the commencement of the sub-contract works covered in this section:
   1.1. Stripping and storing existing topsoil for subsequent re-use
   1.2. Excavating and filling with approved subsoil to formations beneath topsoil areas.

135 Planting bed soil system

1. Description: FOR PLANTING AREAS AND TREE PITS
2. Composition
   2.1. Topsoil: Site-sourced topsoil. Deficiencies in site sourced topsoil to be made up imported topsoil to BS 3882
      2.1.1. Minimum depth: 450mm
   2.2. Subsoil: Site-sourced subsoil. Deficiencies in site sourced subsoil to be made up imported subsoil to BS 8601
      2.2.1. Minimum depth: 500mm
   2.3. Ameliorants:
   2.4. Accessories: None

145 Planting pit backfilling topsoil system

1. Description: For all tree pits and shrub pits
2. Composition
   2.1. Topsoil: Site-sourced topsoil. Deficiencies in site sourced topsoil to be made up imported topsoil to BS 3882
   2.2. Ameliorants:
   2.3. Accessories: Mycorrhizal inoculant

155 Mulching and top dressing system

1. Description: For all planting beds, tree pits and container planting
2. Composition
   2.1. 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.

305 Permitted materials

1. Materials: Bark
2. Give notice: before ordering or using.
3. Declaration of compliance in accordance with BS EN 13650: Required

310 Materials not permitted

1. Materials: Products containing peat

315 Imported topsoil to BS 3882

1. Description: For planting beds and tree pits
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

   4.1. Soil textural class to BS 3882, Figure 1: Sandy clay loam
5. Source: Contractor's choice

   5.1. Product reference: Contractor's choice

316 Imported subsoil to BS 8601

1. Description: For grassland improvement areas and wildflower grass areas
2. Quantity: Provide as necessary to make up any deficiency of subsoil existing on site and to complete the work.
3. Standard: To BS 8601.
4. Classification: Multipurpose

   4.1. Soil textural class to BS8601 , Figure 1: sandy clay loam
5. Source: Contractor's choice

   5.1. Product reference: Contractor's choice

355 Organic materials

1. Description: FOR MULCHING
2. Type: Bark
3. Source: Melcourt Industries Limited
   Web: www.melcourt.co.uk/
   Tel: +44(0)1666 502711
   Email: mail@melcourt.co.uk

3.1. Product reference: Amenity Bark Mulch or equal and approved

3.1.1. Main Constituent: Conifer bark

3.1.2. Origin: British

3.1.3. Nominal Particle: 5 - 75mm

3.1.4. Dust and Fines content: minimal

3.1.5. pH : 4.5 - 5.5

3.1.6. Bulk Density: 200 - 250 g/l

3.1.7. Durability: 2+ years

3.1.8. Fire tested to BS 4790 : Yes

380 Mycorrhizal inoculant

1. Description: For tree pits and shrub pits
2. Manufacturer: Contractor's choice

2.1. Product reference: Contractor's choice

Execution

605 Site investigation

1. Report: See section refer to engineers specification.

610 Topsoil analysis

1. Soil to be analysed: Site sourced topsoil stockpile and imported topsoil
2. Soil analyst: Tim O'Hare Associates
   Web: www.toha.co.uk
   E: info@toha.co.uk
   T: +44 (0)1491 822653
3. Samples: Collect in accordance with BS 3882.
4. Submit

4.1. Declaration of analysis: In accordance with BS 3882, clause 6 and Table 1.

4.2. Additional analysis: Not required

4.3. Report detailing soil analyst's recommendations.

612 Subsoil analysis

1. Soil to be analysed: Imported subsoil
2. Soil analyst: Tim O'Hare Associates
   Web: www.toha.co.uk
   E: info@toha.co.uk
   T: +44 (0)1491 822653
3. Samples: Collect in accordance with BS 8601.
4. Submit

4.1. Declaration of analysis: In accordance with BS 8601, clause 5 and Table 1.

4.2. Additional analysis: Not required

4.3. Report detailing soil analyst's recommendations.

620 Importing topsoil

1. Give notice: Before stripping topsoil for transfer to site.
    1.1. Notice period: 5 days

625 Sample loads

1. Description: FOR IMPORTED TOPSOIL
2. Deliver to site a sample load: of not less than 5 m³
3. Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
    3.1. Notice period: 5 days

630 Documentation for imported topsoil

1. Description: For planting beds, tree pits and grass areas
2. Timing: Submit at handover.
3. Contents
    3.1. Full description of all soil components.
    3.2. Record of source for all soil components.
    3.3. Record drawings showing the location and depth of all soils by type and grade.
    3.4. Declaration of analysis: in accordance with BS 3882, clause 6 and Table 1.
4. Number of copies: Two

635 Documentation for compost and composted materials

1. Description:
2. Timing: Submit at handover.
3. Contents
    3.1. Full description of all compost components.
    3.2. Record of source for all compost components.
    3.3. Analyst's report for each test carried out.
    3.4. Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
    3.5. Quality Compost Protocol certification: Required
4. Number of copies: Two

636 Condemned soil

1. When a soil analysis (topsoil and subsoil) states that the soil could be treated at the Contractor’s expense to comply with the specification the topsoil may be used after treatment. Otherwise the soil will be condemned and is to be removed from site at the Contractor’s expense.

650 Notice

1. 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

651 Formation of soft landscape areas

1. General: Before the commencement of soiling operations, inspect all formation levels and obtain instructions if:

1.1. Areas have not been excavated and/or filled to the required levels below finished soil levels.

1.2. A formation of naturally occurring subsoil/imported subsoil is not obtained at the specified depths below formation levels.

1.3. The formation is unduly compacted, waterlogged or excessively contaminated with builders rubbish, rubble or other deleterious material.

652 Contaminated subsoil

1. Contaminated subsoil is not permitted. Subsoil is to be free of all builders rubbish, concrete, bricks, reinforcement mesh and rods, polythene sheets, etc. to a depth of at least 1 metre below finished levels in tree and shrub areas and 600mm in grass areas before ripping ground. Obtain approval before either spreading additional subsoil to make up levels, or spreading topsoil as specified.

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: For wildflower areas
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.

670 Inspecting formations

1. Give notice: Before spreading topsoil for planting beds.
2. Notice period: 7 days

675 Preparation of undisturbed topsoil

1. Standard: In accordance with BS 4428.

1.1. Grading and cultivation: To suit cultivation operations specified in Q30 and Q31

2. Hard ground: Break up thoroughly.
3. Clearing: Remove visible roots and large stones with a diameter greater than 50 mm.
4. Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
5. Fallow period (minimum): Two months

5.1. Weed control: At appropriate times treat with a suitable translocated nonresidual herbicide.

685 Surplus 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.

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.

705 Handling 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.
5. 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:

1. Description: For trees, planting beds and grass areas
2. Standard: In accordance with BS 3882.
3. Temporary roads/ surfacing: Remove before spreading topsoil.
4. Layers
   4.1. Depth (maximum): 150 mm.
   4.2. Gently firm each layer before spreading the next.
5. Depth after firming and settlement: Refer to P1144-ONE-ZZ-XX-DR-L-2001 (P01) PHASE ONE TOPSOILING
6. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715 Loose tipping of topsoil

1. 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: For trees, planting beds and grass 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: Within a few days before planting or 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
   50 mm above adjoining lawns
   Minimum 150 mm below dpc of adjoining buildings
10. Undesirable material brought to the surface
    10.1. Remove visible weeds.
    10.2. Remove roots and large stones with any dimension exceeding 50 mm.

720 Finished levels of topsoil after settlement

1. In relation to adjoining paving, kerbs or hard surfaces: 25 mm above
2. In relation to dpc of adjoining buildings: Not less than 150 mm below.
3. In relation to adjacent grass areas: 25 mm above
4. Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
5. Sportsfields: To even levels and within the following permitted deviations:
   5.1. From levels or gradients shown on drawings: ±75 mm.
   5.2. From line between boning rods 30 m apart: ±25 mm.
6. Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
7. Adjoining soil areas: Marry in.
8. Thickness of turf or mulch: Included.

840 Applying mycorrhizal inoculant

1. Description: To trees and shrubs
2. Depth: To maintain contact with root system and to manufacturer's/ supplier's recommendations

845 Applying loose mulch

1. Description: Tree pits, planting beds and container plants
2. Timing: Immediately after planting
3. Preparation: Ensure that soil is thoroughly moistened, applying water where necessary
4. Coverage of mulch (minimum)
   4.1. Planting beds (depth): 75 mm depth
   4.2. Trees: In a circular area of 500 mm radius measured from the tree stem
   4.3. Container planting: 75 mm depth
5. Finished level of mulch: 75 mm below adjacent grassed or paved areas

Completion

905 Applying maintenance fertilizer to soil

1. Description: To tree pits, planting bends and container plants

2. Duration: Carry out the following operations from completion of seeding/ turfing until the end of the rectification period.
3. Time of year: As per maintenance schedule P1144-ONE-ZZ-XX-SP-L-0002 (P01) PHASE ONE MAINTENANCE
4. Application: Evenly spread, carefully incorporating below mulch materials.
5. Rate: To manufacturer's recommendations

920 Applying mulch

1. Timing: At end of the rectification 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
5. Container planting: Remulch.
   5.1. Depth (minimum): 75 mm

Ω End of Section

Q30
Seeding/ turfing

Clauses

2 To be read with preliminaries/general conditions.

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.

Preparation

212 Harrowing before sowing

1. Description: All Grassland Improvements and Wildflower Meadow Areas
2. Operations: Harrowing in preparation for overseeding. All Grassland Improvement and Wildflower Meadow Areas to be harrowed and overseeded with Rhiananthus minor (Yellow Rattle) in the spring. Areas to be harrowed a second time in the Autumn and overseeded with areas specific mixes (Clauses 310,312, and 313)
3. Timing:: Ground temperatures should be around 6 degrees minimum and dry
4. Mowing:: Prepare for harrowing by cutting grass to 3-4cm height and removing arisings
5. Harrowing:: Harrow all areas marked as Grassland Improvement and Wildflower Meadow and remove arisings
6. Harrow:: Chain or drag harrow

Seeding

309 Overseeding Grassland Improvement and Wildflower Meadow Areas

1. Description: For Grassland Improvement and Wildflower Meadow areas

2. Supplier: Emorsgate
3. Mixture: Rhiananthus minor (Yellow Rattle)
4. Application rate: 1.5g/m2

310 Seed mix for Grassland Improvement areas

1. Description: For Grassland Improvement areas
2. Supplier:: Emorsgate
3. Mixture: EL1F Wild flowers for lawns
4. Application rate: 1.5g/m2

312 Wildflower seed mixture

1. Description: To all areas marked as Wild Flower Meadow planting
2. Supplier: Emorsgate
   2.1. Mixture reference: EM4F Wild flowers for clay soils
3. Application rate: 1.5g/m2

319 Quality of seed

1. Description: For all seed mixes
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.

330 Sowing

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

Turfing - Not Used

Protecting/cutting

510 Protective fencing

1. Fencing type: Chestnut pale fencing to BS 1722-4
   1.1. Height: 1.2 m
2. Erection: On completion of seeding/ turfing.
3. Removal: Not required. Fencing will remain the property of the employer

530 First cut of grassland improvement areas

1. Timing: When grass is reasonably dry.
   1.1. Height of initial growth: 50 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: 30-50
4. Mower type: Contractor's choice
5. Arisings: Remove from site

540 First cut of wildflower seeded areas

1. Description: Wildflower seeded areas
2. Height of initial growth: 50mm
3. Preparation:
   3.1. Debris and litter: Remove.
   3.2. Stones and earth clods larger than 25 mm in any dimension: Remove
4. Height of first cut: 30-50mm
5. Mower type: Contractor's choice
6. Arisings: Remove from site

590 Cleanliness

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

1. Duration: Carry out the following operations from completion of seeding/ turfing until: one year after seeding.
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

Ω End of Section

Q31
External planting

Clauses

2 To be read with preliminaries/general conditions.

General information/ requirements

110 Approved landscape contractors

1. External planting to be undertaken by specialist Landscape Contractor with BALI membership. Landscape Contractor to be approved by the Project Landscape Architect.

111 Landscape contractor responsibilities

1. The Landscape Contractor is responsible for undertaking the following:
   1.1. Placing the order for plant material within ten working days from award of contract.
   1.2. Securing the supply of plant material as per scheduled varieties and specification to schedule .
   1.3. Securing the supply of plant material for the project programme and to the correct time of year for planting as per clause 125.
   1.4. setting out all planting areas.

112 Site clearance generally

1. General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
2. Stones: Remove those with any dimension exceeding 75 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; retain and protect trees indicated on drawings
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/ October.
6. Colchicum (crocus): July/ August.
7. Green bulbs: After flowering in spring.
8. Wildflower plugs: Late August to mid November or March/ April.
9. Aquatic plants: May/ June or September/ October.

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

1. 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 fertilizer.
   1.3. Delivery of plants/ trees.
   1.4. Planting shrubs.
   1.5. Planting trees into previously dug pits.
   1.6. Watering.
   1.7. Visiting site during maintenance period.
2. Period of notice: One week

165 Preparation, planting and mulching materials

1. General: free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
2. Certification of source, analysis, suitability for purpose and absence of harmful substances: Submit
   2.1. Certified materials: Sanitised and stabilised compost to Q28, Bark Mulch to Q28
   2.2. Give notice before ordering

170 Soil requirements

1. Type
   1.1. Planted beds: Planting bed soil system, as section Q28

1.2. 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

180 Plant suppliers

1. All plant stock to be sourced from the nominated suppliers set out below or approved by the Project Landscape Architect. The Landscape Contractor to confirm the preferred supplier/ suppliers at the time of the tender.
2. Supplier: Hillier Nurseries Limited
   2.1. Web: www.hillier.co.uk/
   2.2. Tel: 01794 368832
3. Supplier: Deepdale Trees Ltd
   3.1. Web: www.deepdale-trees.co.uk/
   3.2. Tel: 01767 26 26 36
   3.3. Email: mail@deepdale-trees.co.uk
4. Supplier: Barcham Trees Plc
   4.1. Web: www.barcham.co.uk/
   4.2. Tel: 01353 720 950
   4.3. Email: info@barchamtrees.co.uk
5. Supplier: Johnsons of Whixley Ltd
   5.1. Web: www.nurserymen.co.uk/
   5.2. Tel: 01423 330 234
   5.3. Email: xpress@nurserymen.co.uk
6. Supplier: Robin Tacchi Plants Ltd
   6.1. Web: www.robintacchiplants.com/
   6.2. Tel: 01953 681312

190 Securing plant supplies

1. The Landscape Contractor is responsible for ensuring plant supplies are secured to varieties and specification as scheduled:
2. Plant materials to be to the programme required by this project and to the correct time of year for planting as per clause 125.
3. Single species from more than one source must be of the same clonal type and cultivar and be similar in form, root structure and size.

195 Inspection of plant material

1. All plant material to be inspected by the Project landscape Architect before supply to site. The plant material may be inspected at the nursery at any time prior to dispatch.
2. If trees are supplied from field grown nursery the inspection to take place prior to trees being lifted.
3. Plants/ trees that do not meet the specification will be rejected and shall be replaced to the required standard by the Landscape Contractor and at their own expense.
4. Labelling: Identify inspected plants/ trees as reserved for use on this project.
5. Give notice before delivery of plants/ trees to site: minimum 10 working days.

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 relevant parts of BS 3936
7. Species: True to name.
8. Origin/ Provenance: British grown
9. Definition: Origin and Provenance have the meaning given in the National Plant Specification.

216 Plants/ Trees – specification criteria

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

225 Bulbs/ Corms/ Tubers

1. Condition: Firm, entire, not dried out or shrivelled.
2. Health: Free from pests, diseases and fungus.
3. Handling: Remove from packaging immediately.
4. Storage: Permitted only when necessary.
   4.1. Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
   4.2. Duration: Minimum period.
   4.3. Temperature: 18-21°C.

235 Container grown plants/ Trees

1. Growing medium: With adequate nutrients for plants to thrive until permanently planted.
2. Plants: Centred in containers, firmed and well watered.
3. Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
4. Hardiness: Grown in the open for at least two months before being supplied.
5. Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

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: Country of origin.

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.

262 Plant/ tree delivery

1. Timing of deliveries to be made for immediate planting of plants/ trees or suitable storage arrangements have been made in compliance with clause 266.
2. Landscape Contractor to inspect plants/ tree on arrival to ensure that they have not been damaged during transit. Any plant material that is damaged or does not comply with the project specification are to be returned to the nursery and the Landscape Contractor to state in writing the reason for the rejection. Landscape Contractor to inform the Project Landscape Architect of any rejected plant material.
3. All plants/ tree accepted by the Landscape Contractor will be the responsibility of the Landscape Contractor until the end of the rectification period.

266 Plant handling, storage transport and planting

1. 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. All plants must be in a turgid condition and stacked in such a way that breakage, crushing or damage from securing does not occur during transit.
4. Plant packaging: Coextruded polyethylene bags with black interior and white exterior. Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
5. Site storage:
   5.1. If plants/ trees are not planted on the day of delivery a storage facility must be established on site before delivery. Storage areas are to be secure and protected from construction activity.
   5.2. Bare root plants supplied as bagged stock should be stored in bags unless storage exceeds three days. If storage exceeds three days, plants to be temporarily planted in suitable location by placing roots in a prepared trench, covering root system with fine soil and well firming and watering.
   5.3. Trees stored for more than 24 hours to be protected from damage and drying out, protect rootballs with damp hessian, straw or similar.
   5.4. Container grown plants/ trees not required for 24 hours or more to be stored out of crates, upright and close together. Any material stored on site to be watered to protected from drying.
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.

290 Surplus material

1. 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

305 Weed control

1. Description: For invasive non-native weeds
2. Locations: All planting areas
3. General: Prevent weeds from seeding and perennial weeds from becoming established, by cultivating and/or by hand weeding.

375 Cultivation

1. Compacted topsoil: Break up to full depth.
2. Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
   2.1. Depth: 450mm.
   2.2. Timing: Within a few days before planting.
   2.3. Weather and ground conditions: Suitably dry.
3. Surface: Leave regular and even. Levels:
   3.1. 25mm above adjoining paving or kerbs
   3.2. 50mm above adjoining lawns
   3.3. 150mm below dpc of adjoining buildings.
4. Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50mm.
5. Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

385 Mulch matting/ Geotextile fabric

1. Description:
2. Manufacturer: Contractor's choice
   2.1. Product reference: Contractor's choice
3. Type:
4. Recycled content:
5. Timing: Lay before planting.
6. Watering: Water soil thoroughly before laying.

7. Laying: In close contact with soil surface. Lap or butt joints as recommended by manufacturer, with no gaps.
8. Planting: Cut neat slits or flaps. Refit closely around plant stems.
9. Overlay:

Planting shrubs/ herbaceous plants/ bulbs

405 Shrub planting pits

1. Timing: Excavate 1-2 days (maximum) before planting.
2. Sizes: Wide enough to accommodate roots when fully spread and 75 mm deeper than root system
3. Pit bottom improvement Break up to a depth of 150 mm.

410 Planting shrubs

1. Care to be taken during planting to avoid damage to the root system or the plant.
2. Planting:
3. Upright or well balanced with best side to front.
4. Plants to be positioned with the nursery line flush to surrounding finished soil levels.
5. Avoid breaking up the rootball of pot grown shrubs. If root systems are pot bound, plants to have their roots carefully eased out from the rootball and roots to be spread out in the planting pit and packed with fine soil.
6. Backfilling planting pit: Soil to be well consolidated and firmed around the root system

435 Climbing plants used as ground cover

1. Planting
   1.1. Canes or other supports: Remove.
   1.2. Arrangement: Spread stems.
2. Fixing: Pinned to ground to ensure good contact.

445 Planting bulbs/ Corms/ Tubers

1. Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
2. Backfilling: Finely broken soil. Lightly firm to existing ground level.
3. Naturalized planting in existing grassed areas
   3.1. Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
   3.2. Planting: Neatly remove a plug of turf and replace after planting.

470 Formal hedges

1. Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
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: 50 mm

485 Mulching planting beds

1. Material: Bark mulch to Q28
2. Location: To all planting beds and hedges
3. Preparation: Clear all weeds, Water soil thoroughly.
4. Coverage: 50mm depth

Planting trees

500 Tree planting

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

506 Tree pits

1. For rootball and container grown trees
2. Sizes: Excavate pit to the following dimensions. Tree pit depth may need to be adjusted when planting the tree so that the tree pit is no deeper than the existing rootball or container depth. - SS 10-12cm girth 750x750mm square by 250mm depth- HS 12-14cm girth 1000x1000mm square by 300mm depth- EHS 14-16cm girth 1200x1200mm square by 500mm depth - EHS 16-18cm girth 1200x1200mm square by 500mm depth- EHS 18-20cm girth 1500x1500mm square by 600mm depth- SM 20-25cm girth 1500x1500mm square by 600mm depth- SM 25-30cm girth 1500x1500mm square by 600mm depth- SM 30-35cm girth 2000x2000mm square by 700mm depth- SM 35-40cm girth 2000x2000mm square by 700mm depth- SM 40-45cm girth 2000x2000mm square by 700mm depth
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: Do not disturb base.
   5.1. Treatment: Not required
6. Pit sides: Scarify.
7. Backfilling material: Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545 with allowance for settlement.

512A Tree pit irrigation

1. Locations: To all trees
2. Manufacturer: GreenBlue UrbanAddress: Northpoint, Compass Park, Junction Road, Bodiam, TN32 5BSTel: 0800 018 7797 Email: enquiries@greenblueurban.comWeb: www.greenblue.com/gb/
   2.1. Product reference: RootRain Urban - RRURB1A, RRURB2A, RRURB3A
3. Type: Perforated plastics irrigation pipe with inlet
4. Pipe diameter: 60 mm
5. Ring diameter: Contractor's choice
6. Inlet: Black plastics
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.

526 Underground guying for 18-20 & 20-25 cm girth trees

1. Description: To all large trees
2. Manufacturer: Platipus Anchors Limited - Web: https://www.platipus-anchors.com/- Tel: 01737 762300- Email: info@platipusdirect.co.uk
   2.1. Product reference:
3. Anchoring system: 3 no timber dead-man anchors
4. Installation: Ensure tree is positioned correctly and vertically prior to tightening guy line tensioners.

550 Single staking for Orchard Trees

1. Description: To apple trees in orchard
2. Staking
   2.1. Position: To 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 to approximately 600 mm above ground level
4. Horizontal bracing: Rubber belting with spacers
   4.1. Fixing: Nailed to stake within 25 mm of top of stakes
5. Ties: Contractor's choice
6. Tying: Contractor's choice
7. Nails for fixing ties, belts and webbing: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.

590 Mulching trees

1. Material: Bark mulch to Q28
2. Location: To all trees
3. Preparation: 500mm diameter circle to the base of all trees in soft landscape
4. Coverage: 75mm depth

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: Contractor's choice

720 Failures of planting

1. 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

740 Cleanliness

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: Contractor's choice
7. Watering: As required for healthy establishment, depending on weather conditions

760 Planting maintenance – pruning

1. General: Prune to promote healthy growth and natural shape.
   1.1. Dead, dying, diseased wood and suckers: Remove.
   1.2. Timing: As appropriate to the species
   1.3. Trees: Favour a single central leading shoot.
2. Arisings: Remove.

780 Maintenance instructions

1. General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide details of any special procedures to be carried out and a programme of maintenance visits for approval.

790 Final 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): 50 mm
5. Trees: Remulch.
6. Depth (minimum): 75 mm

Ω End of Section

Q35
Landscape maintenance

Clauses

2 To be read with preliminaries/ general conditions.

Generally

105 Maintenance objectives

1. Location: All planting, turfed, and seeded areas, and all tree planting
   1.1. Duration: 1 year
2. Aims: Enhanced landscape quality and improved landscape visual amenity

110 Notice

1. Give notice before
   1.1. Application of herbicide.
   1.2. Application of fertilizer.
   1.3. Watering.
   1.4. Each site maintenance visit.
2. Period of notice: 7 days

130 Reinstatement

1. Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition.

155 Watering

1. Supply: Potable mains water
2. Quantity: Wet full depth of topsoil
3. Application: Do not damage or loosen plants.
4. Compacted soil: Loosen or scoop out, to direct water to rootzone.
5. Frequency: As necessary for the continued thriving of all planting.

160 Water restrictions

1. General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

170 Disposal of arisings

1. General: Unless specified otherwise, dispose of arisings as follows:
   1.1. Biodegradable arisings: Remove to recycling facility
   1.2. Grass cuttings: Remove to recycling facility
   1.3. Tree roots and stumps: Remove from site
   1.4. Shrub and tree prunings: Remove to recycling facility
   1.5. Litter and nonbiodegradable arisings: Remove from site

180 Chipping or shredding

1. General: Not permitted on site.

181 Mechanical equipment

1. General: Minimize.
2. Prohibited equipment: Chippers
3. Timing: Use of mechanical equipment allowed between the hours of 10:00 am and 4:00 pm only

190 Litter

1. Extraneous rubbish not arising from the contract work: Collect and remove from site.

195 Protection of existing grass

1. General: Protect areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly on grass.

197 Cleanliness

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.

Grassed areas

210 Maintenance of grassed areas

1. General: Maintain turf in a manner appropriate to the intended use.
2. Soil and grass
   - 2.1. Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
   - 2.2. Waterlogging and compaction: Prevent.
   - 2.3. Damage: Repair trampling, abrasion or scalping.
3. Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
   - 3.1. Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
4. Litter and fallen leaves: Remove regularly to maintain a neat appearance.

211 Maintenance of grassed areas

1. Standard: To BS 7370-3. Carry out maintenance appropriate to each category of turf, as follows:
   - 1.1. Objectives: To BS 7370-3, Table 6.
   - 1.2. Programme: To BS 7370-3, clause 11.
   - 1.3. Mowing methods: To BS 7370-3, Table 3.

220 Grass cutting generally

1. Before mowing: Remove litter, rubbish and debris.
2. Finish: Neat and even, without surface rutting, compaction or damage to grass.

3. Edges: Leave neat and well defined. Neatly trim around obstructions.
4. Adjoining hard areas: Sweep clear and remove arisings.
5. Drought or wet conditions: Obtain instructions.

225 Tree stems

1. Precautions: Do not use mowing machinery closer than 100 mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.

226 Tree stems

1. Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
   1.1. Operations close to stems: Complete using hand tools.

235 Bulbs and corms in grassed areas

1. Before flowering: Do not cut.
2. Interval between end of flowering and start of grass cutting (minimum): 6 weeks

250 Leaf removal

1. Operations: Collect fallen leaves.
2. Special requirements: None
3. Disposal: Remove from site for recycling

255 First cut of wildflower seeded areas

1. Description: All wildflower seeded areas
2. Height of initial growth: 50mm
3. Preparation
   3.1. Debris and litter: Remove.
   3.2. Stones and earth clods larger than 25 mm in any dimension: Remove
4. Height of first cut: 35-50 mm
5. Mower type: Contractor's choice
6. Arisings: Remove

265 Mowing general areas

1. Grass height: 75 mm maximum
2. Arisings: Remove

272 Maintaining grassed areas with perennial wild flowers (Grassland Improvement areas and Wildflower Meadows)

1. Preparation: Before each cut remove litter and debris.
2. Height and frequency of cut in first growing season
   2.1. Time of first cut: March/ April
   2.2. Height of first cut: 35-50 mm

2.3. Frequency of subsequent cutting (minimum): As per maintenance schedule P1144-ONE-ZZ-XX-SP-L-0002 - Landscape Management Plan

3. Height and frequency of cut in second growing season

3.1. Time of cut: April and September/October

3.2. Height of cut: 35-50 mm

4. Frequency of subsequent cutting (minimum):: As per maintenance schedule P1144-ONE-ZZ-XX-SP-L-0002 - Landscape Management Plan

5. Trimming: All edges.

5.1. Arisings: Remove.

6. Watering: As schedule and when instructed

320 Levelling hollows and bumps in turf

1. Standard: To BS 7370-3, clauses 12.4 and 12.5.

Flower beds/ seasonal beddings - Not Used

Shrubs/trees/hedges

520 Refirming of trees and shrubs

1. Timing: After strong winds, frost heave and other disturbances.
2. Refirming: Tread around the base until firmly bedded.
3. Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and refirm.

540 Pruning generally

1. Pruning: In accordance with good horticultural and arboricultural practice.

1.1. Removing branches: Do not damage or tear the stem or bark.

1.2. Wounds: Keep as small as possible and cut cleanly back to sound wood.

1.3. Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.

1.4. Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.

2. Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.
3. Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
4. Disease or infection: Give notice if detected.
5. Growth retardants, fungicide or pruning sealant: Do not use unless instructed.

555 Pruning trees and shrubs

1. Standard: To BS 7370-4.
2. Special requirements: None

570 Formative pruning of young trees

1. Standard: Type and timing of pruning operations to suit the plant species.

2. Time of year: Do not prune during the late winter/ early spring sap flow period.
3. Young trees up to 4 m high
   3.1. Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well balanced head and ensure the development of a single strong leader.
   3.2. Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
4. Whips or feathered trees: Do not prune.
5. Operatives: Approved specialist contractor

575 Pruning ornamental shrubs

1. General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
2. Suckers: Remove by cutting back level with the source stem or root.

580 Pruning flowering species of shrubs and roses

1. Time of year
   1.1. Winter flowering shrubs: Spring.
   1.2. Shrubs flowering between March and July: Immediately after the flowering period.
   1.3. Shrubs flowering between July and October: Back to old wood in winter.
   1.4. Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.

615 Trimming field hedges

1. Operations: Trim to specified height and profile using suitable mechanical cutters.

620 Removal of dead plant material

1. Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

630 Dead and diseased plants

1. Removal: As soon as possible
2. Replacement: In the next suitable planting season

645 Weed control generally

1. Weed tolerance: At all times, weed cover less than 5% and no weed to exceed 100 mm high
2. Adjacent plants, trees and grass: Do not damage.

650 Hand weeding

1. General: Remove weeds entirely, including roots.
2. Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible.
3. Completion: Rake area to a neat, clean condition.
4. Mulch: Reinstate to original depth.

695 Fertilizing established trees and shrubs

1. Time of year: During February or March
2. Type of fertilizer: Organic
3. Application: Spread evenly.
   3.1. Rate: As manufacturer's recommendations

Tree work

810 Tree work generally

1. Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
2. Protection: Avoid damage to neighbouring trees, plants and property
3. Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
4. Removing branches: Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
5. Appearance: Leave trees with a well balanced natural appearance.
6. Chain saw work: Operatives must hold a Certificate of Competence.
7. Tree work: To be carried out by an approved member of the Arboricultural Association.

815 Additional work

1. Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

820 Prevention of wound bleeding

1. Standard: To BS 3998.

825 Prevention of disease transmission

1. Standard: To BS 3998.

830 Cleaning out and deadwooding

1. Remove
   1.1. Dead, dying, or diseased wood, broken branches and stubs.
   1.2. Fungal growths and fruiting bodies.
   1.3. Rubbish, windblown or accumulated in branch forks.
   1.4. Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
   1.5. Other unwanted objects, e.g. tree houses, swings.

835 Cutting and pruning generally

1. Tools: Appropriate, well maintained and sharp.
2. Final pruning cuts
   2.1. Chainsaws: Do not use on branches of less than 50 mm diameter.
   2.2. Hand saws: Form a smooth cut surface.

2.3. Anvil type secateurs: Do not use.

3. Removing branches: Do not damage or tear the stem.
4. Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
5. Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible.
6. Dead branches and stubs: When removing, do not cut into live wood.
7. Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
8. Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

865 Bark damage

1. Wounds
   1.1. Do not attempt to stop sap bleeding.
   1.2. Bark: Remove ragged edges using a sharp knife.
   1.3. Wood: Remove splintered wood from deep wounds.
   1.4. Size: Keep wounds as small as possible.
2. Liquid or flux oozing from apparently healthy bark: Give notice.

Water areas - Not Used

Hard landscape areas/fencing

900 Snow clearance

1. Clearance: When instructed
2. Deicing: To footpaths
   2.1. Material: Rock salt toBS 3247
   2.2. Timing: *When freezing precipitation is forecast*.
   2.3. Application rate: Spread evenly at a rate of: *10 g/m²*.

910 Hard surfaces and gravel areas

1. Herbicide: Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings.
2. Hard surfaces: Remove litter, leaves and other debris.
3. Surface gutters and channels: Remove mud, silt and debris.
4. Drainage gullies: Empty traps and flush clean.
5. Gravel areas: Rake over. Remove weeds, litter, leaves and debris, and level off.
6. Repairs to flexible bituminous pavings: In accordance with the original paving specification or BS 7370-2, clause 4.12.
7. Stain removal: In accordance with BS 7370-2, table 4.

Ω End of Section

Q40
Fencing

Clauses

2 To be read with preliminaries/ general conditions.

Fencing systems

150 Strained wire fencing

1. Manufacturer: Contractor's choice
   1.1. Product reference: Contractor's choice
2. Wire: High tensile steel wire, 2.5 mm diameter
3. Posts and struts: Round wood
   3.1. Treatment: To provide a 30-year service life
   3.2. Finish: None
4. Maximum centres of posts
   4.1. Straining posts: 150 m in straight runs and at all ends, corners, changes of direction and acute variations in level.
   4.2. Intermediate posts: 3.5 m.
5. Method of setting posts and struts
   5.1. Straining posts: As drawing P1144-ONE-ZZ-XX-DR-L-2003 PHASE ONE DETAILED DRAWINGS
   5.2. Intermediate posts: Driven to a minimum depth of 600 mm
6. Accessories: None
7. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-2.

210 Wooden post and rail fencing

1. Manufacturer: Jacksons Fencing
   1.1. Product reference: Post and Rail
2. Height: 1250 mm
3. Wood: Softwood
   3.1. Treatment: To provide a 15-year service life
   3.2. Finish: None required
4. Maximum centres of posts: 1.8 m
5. Method of setting posts: Driven to a minimum depth of 600 mm
6. Accessories: Single leaf field gate
7. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-7.

Gates, posts and stiles

510 Field gates and posts

1. Manufacturer: Jackson's Fencing
   1.1. Product reference: Entrance Gates

2. Size: [263400]. - Wide gate, 2700 mm wide x 1200 mm high. 1500 mm at highest point
3. Materials: Wood gate and posts
   3.1. Treatment: To provide a 30-year service life
   3.2. Finish: None
4. Fittings: Two hook and band hinges, return spring and a heavy duty automatic latch
   4.1. Finish: Hot-dip galvanized to BS EN ISO 1461
5. Method of setting posts: Concrete foundation, 450 mm square x 600 mm deep
6. Accessories: None

520 Bridle gates and posts

1. Manufacturer: Jacksons Fencing
   1.1. Product reference: Bridle Gate Set
2. Standard: To BS 5709.
3. Sizes: 1300 mm high x 1800 mm clear width between posts
4. Materials: Wood gate and posts
   4.1. Treatment: To provide a 30-year service life
   4.2. Finish: None
5. Fittings: Two hook and band hinges, return spring and slotted plate self-closing mechanism with high level opener
6. Method of setting posts: Concrete foundation, 450 mm square x 600 mm deep
7. Accessories: None

Accessories - Not Used

Execution

710 Installation generally

1. Set out and erect
   1.1. Alignment: Straight lines or smoothly flowing curves.
   1.2. Tops of posts: Following profile of the ground.
   1.3. Setting posts: Rigid, plumb and to specified depth, or greater where necessary to ensure adequate support.
   1.4. Fixings: All components securely fixed.

715 Competence

1. Operatives: Contractors must employ competent operatives.
2. Qualifications: Submit certification of training.

720 Setting posts in concrete

1. Standard: To BS 8500-2.
2. Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
3. Alternative mix for small quantities: 50 kg Portland cement to 150 kg fine aggregate to 250 kg 20 mm nominal maximum size coarse aggregate, medium workability.

4. Admixtures: Do not use.
5. Holes: Excavate neatly and with vertical sides.
6. Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
7. Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.

740 Setting posts in earth

1. Holes: Excavated neatly, with vertical sides and as small as practicable to allow refilling.
2. Filling: Position posts/ struts and replace excavated material, well rammed as filling proceeds.

750 Driven posts

1. Damage to heads: Minimize.
   1.1. Repair: Neatly finish post tops after installation.

770 Site cutting of wood

1. General: Kept to a minimum.
2. Below or near ground level: Cutting prohibited.
3. Treatment of surfaces exposed by minor cutting and drilling: Two flood coats of solution recommended for the purpose by main treatment solution manufacturer.

790 Site painting

1. Timing: Prepare surfaces and apply finishes as soon as possible after fixing.

Completion

910 Cleaning

1. General: Leave the works in a clean, tidy condition.
2. Surfaces: Clean immediately before handover.

920 Fixings

1. All components: Tighten.
   1.1. Timing: Before handover.

930 Gates

1. Hinges, latches and closers: Adjust to provide smooth operation. Lubricate where necessary.
   1.1. Timing: Before handover.

Ω End of Section

Q50
Site/ street furniture/ equipment

Clauses

2 To be read with preliminaries/ general conditions.

Gates, barriers and parking controls

110 Wood gate

1. Description: Wooden gate for vehicular entrance
2. Manufacturer: Jacksons Fencing
   2.1. Product reference: Entrance Gates
   2.2. Type:: [263200]. - Wide gate, 2100 mm wide x 1200 mm high. 1500 mm at highest point
3. Standard: To BS 5709.
4. Wood: Softwoods
   4.1. Quality: To BS EN 942, Class …….
5. Treatment: As Wood Protection Association 'Industrial Wood Preservation. Specification and Practice'.
   5.1. Type: To provide a 30 year service life
6. Adhesive: Synthetic resin to BS EN 301, type 1.
7. Fittings and accessories: Hanging kit for double-wide entrance gate, including posts, hinges, anti-lift devices, padlocks and loop over, drop bolt and centre gate stop.
8. Method of setting posts: Concrete foundation

190 Bee Posts

1. Description: Bee Posts to wild flower areas. Refer to P1144-ONE-ZZ-XX-DR-L-2000 for locations
2. Manufacturer: Contractor's choice
   2.1. Product reference: None
3. Material: Unfinished timber
4. Height above ground: 1.2 m
5. Dimensions:: 150 x 150 x 1950mm
6. Method of fixing: Root, 750 mm below ground, set in concrete base
7. Construction: Posts to be drilled to a depth of 100mm as shown in drawing P1144-ONE-ZZ-XX-DR-L-2003. Holes to vary randomly in diameter using 3mm, 6mm and 10mm drill bits. Dimensions as shown in drawing P1144-ONE-ZZ-XX-DR-L-2003
   Holes to be countersunk and sanded to remove any rough edges.

Site and street furniture

242 Bins

1. Description: Use for dog waste and general waste
2. Manufacturer: Artform Urban Furniture

2.1. Product reference: Deacon Litter Bin

3. Material: Timber and powder coated steel
   3.1. Finish (timber):: Hard wood. Cumaru or equal and approved. Finish as manufactured.
   3.2. Finish (steel):: Powder coated in RAL 7001 Silver Grey
4. Accessories/ Special requirements: None
5. Method of fixing: Root, 300 mm below ground, set in concrete base

260 Tree guards

1. Description: To 6-8cm girth trees
2. Manufacturer: Green-Tech
   2.1. Product reference: 160PS1003 Bio-Earth biodegradable Plastic Free Tree Guard
3. Material: Waterproof proof card board
   3.1. Finish: As manufactured
   3.2. Colour: None
4. Size: 600mm high, 100mm square

Installation

515 Setting components in concrete

1. Holes: 250 x 250 x minimum 300 mm deep
2. Components: Accurately positioned and securely supported.
3. Concrete fill: Fully compacted as filling proceeds.
4. Concrete foundations exposed to view: Compacted until air bubbles cease to appear on the upper surface, then weathered to shed water and trowelled smooth.
5. Temporary component support: Maintain undisturbed for minimum 48 hours.

530 Preservative treated timber

1. Surfaces exposed by minor cutting and drilling: Treated by immersion or with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.
2. Heavily worked sections: Re-treat.

Ω End of Section

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