

New Islington Phase 3C Manchester

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Soft Landscape Specification

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D20

Excavating and filling

Clauses

2 To be read with preliminaries/general conditions

Generally/the site

145 Variations in ground water level

1. Give notice: If levels encountered are significantly different from levels in the site investigation report or previously measured.

151 Existing services, features and structures

1. To be provided by contracts administrator.

Clearance/excavating

168 Site clearance

1. Timing: Before topsoil stripping, if any.
2. General: Clear site of rubbish, debris and vegetation. Do not compact topsoil.
3. Treatment: Apply a suitable non-residual herbicide to areas to receive planting

170 Removing small trees, shrubs, hedges and roots

1. Identification: Clearly mark trees to be removed.
2. Small trees, shrubs and hedges: Cut down.
3. Roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
4. Safety: Comply with Forest Industry Safety Accord safety leaflets.

180 Chipping and shredding

1. General: Not permitted

244 Excavations adjacent to existing foundations

1. Prior to commencing excavation
 - 1.1. Excavate trial pits adjacent to existing foundations to determine extent and formation levels.
 - 1.2. Allow for inspection of trial pits.
 - 1.3. Allow time for amendment of details if required.
 - 1.3.1. Time period: 10 working days .
2. Backfill material to new excavation: Refer to clause 248

250 Permissible deviations from formation levels

1. Beneath mass concrete foundations: ± 25 mm.
2. Beneath ground bearing slabs and r.c. foundations: ± 15 mm.
3. Embankments and cuttings: ± 50 mm.
4. Ground abutting external walls: ± 50 mm, but such as to ensure that finished level is not less than 150 mm below dpc.

271 Foundations generally

1. To engineers specification.

Disposal of materials

450 Water

1. **Generally:** Keep all excavations free from water until:
 - 1.1. Formations are covered.
 - 1.2. Below ground constructions are completed.
 - 1.3. Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
2. **Drainage:** Form surfaces of excavations and fill to provide adequate falls.
3. **Removal of water:** Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

454 Ground water level, springs or running water

1. **Give notice:** If it is considered that the excavations are below the water table.
2. **Springs/ Running water:** Give notice immediately if encountered.

Filling

500 Proposed fill materials

1. **Details:** Submit full details of proposed fill materials to demonstrate compliance with specification, including:
 - 1.1. Type and source of imported fill.
 - 1.2. Proposals for processing and reuse of material excavated on site.
 - 1.3. Test reports as required elsewhere.
2. **Timing:** At least 21 days before starting filling

530 Placing fill

1. **Surfaces of excavations and areas to be filled:** Free from loose soil, topsoil, organic material, rubbish and standing water.
2. **Freezing conditions:** Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
3. **Adjacent structures, membranes and buried services**
 - 3.1. Do not overload, destabilise or damage.
 - 3.2. Submit proposals for temporary support necessary to ensure stability during filling.
 - 3.3. Allow 14 days (minimum) before backfilling against in situ concrete structures.
4. **Layers:** Place so that only one type of material occurs in each layer.
5. **Earthmoving equipment:** Vary route to avoid rutting.

535 Compaction generally

1. **General:** Compact fill not specified to be left loose as soon as possible after placing.
2. **After compaction:** Surface of each layer must be well closed, showing no movement under compaction plant, and without cracks, holes, ridges, loose material and the like.
3. **Defective areas:** Remove and recompact to full thickness of layer using new material.

540 Benching in fill

1. **Adjacent areas:** If, during filling the difference in level between adjacent areas of filling exceeds 600 mm, cut into edge of higher filling to form benches 600 mm minimum width and height equivalent to depth of a layer of compacted filling.
2. **New filling:** Spread and compact to ensure maximum continuity with previous filling.

550 Geotextile sheet

1. **Manufacturer:** TERRAM or equal and approved
 - 1.1. **Product reference:** TERRAM T1000
2. **Type:** Woven
3. **Polymer type:** As supplied subject to approval by Landscape Architect
4. **Recycled content:** As supplied subject to approval by Landscape Architect
5. **Jointing:** 300 mm overlap
6. **Preparation of subgrade:** Before laying sheet, remove humps and sharp projections. Fill hollows
7. **Protect from**
 - 7.1. Exposure to light.
 - 7.2. Contaminants.
 - 7.3. Materials listed as potentially deleterious by geotextile manufacturer.
 - 7.4. Wind uplift.

610 Compacted filling for landscape areas

1. **Fill:** Material capable of compaction by light earthmoving plant.
2. **Filling:** Layers not more than 200 mm thick. Lightly compact each layer to produce a stable soil structure.

615 Loose tip filling for landscape areas

1. **Filling:** Do not firm, consolidate or compact when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

Bioremediation - Not Used

'specification for highway works: earthworks specification' appendices - Not Used

Ω End of Section

Q28

Topsoil and soil ameliorants

Clauses

2 To be read with preliminaries/ general conditions.

System outline - Not Used

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:** - Composted bark;- Composted cocoa shell;- Composted coir fibre; and- Spent mushroom compost
2. **Give notice:** before ordering or using.
3. **Declaration of compliance in accordance with BS EN 13650:** Required

310 Materials not permitted

1. **Materials:** - Peat;- Products containing peat; and- River and canal dredgings

315 Imported topsoil to BS 3882

1. **Description:** For planting beds & grassed areas
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 loam
5. **Source:** Submit proposals
 - 5.1. **Product reference:** Submit proposals

360 Sanitized and stabilized composted materials certified to PAS 100

1. **Description:** For planting beds & grassed areas
2. **Standard:** In accordance with PAS 100.

3. Source: Submit proposals
 - 3.1. Product reference: Submit proposals
4. Horticultural parameters
 - 4.1. pH (1:5 water extract): 7.0-8.7.
 - 4.2. Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
 - 4.3. Moisture content (m/m of fresh weight): 35-55%.
 - 4.4. Organic matter content (minimum): 25%.
 - 4.5. Grading (air dried samples): 99% passing 25 mm screen, and 90% passing: 5 mm screen mesh aperture
 - 4.6. Carbon:Nitrogen ratio (maximum): 20:1.
5. Texture: Friable.
6. Objectionable odour: None.
7. Compost Certification Scheme certification: Required
8. Declaration of analysis: Submit.
9. Additional analyses: CLEA elements
10. Samples: Submit details of recent chemical and physical analysis before ordering

401 Organic fertilizers

1. Description: For planting beds & grassed areas
2. Manufacturer/ source: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Standard: In accordance with the Fertiliser Industry Assurance Scheme (FIAS)
4. Purpose: Establishment fertilizer
5. Type: Sanitized and stabilized compost
6. Availability to plants: Slow release

405 Inorganic fertilizers

1. Description: For planting beds & grassed areas
2. Manufacturer/ source: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Standard: In accordance with the Fertiliser Industry Assurance Scheme (FIAS)
4. Purpose: General purpose fertilizer
5. Type: NPK (macronutrient)
6. Availability to plants: Slow release

Execution

610 Topsoil analysis

1. Soil to be analysed: Imported topsoil
2. Soil analyst: submit proposals
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: - Chemical analysis;- Chemical contaminants;- Phytotoxic and CLEA elements; and- Potentially toxic elements (PTEs)
 - 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: 7 days

625 Sample loads

1. Description: For imported topsoil
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: 7 days

630 Documentation for imported topsoil

1. Description: For planting beds & grassed 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: as instructed by Contract Administrator

635 Documentation for compost and composted materials

1. Description: For compost
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: as instructed by Contract Administrator

640 Documentation for preparation materials

1. Description: For imported soil improvers
2. Timing: Submit at handover.
3. Contents
 - 3.1. Full description of all components.
 - 3.2. Record of source for all components.
 - 3.3. Analyst's report for each test carried out.
 - 3.4. Supplier's declaration of compliance with BSI PD CR 13456.
4. Number of copies: As instructed by Contract Administrator

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

655 Mechanical tools

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

660 Grading subsoil for:

1. Description: Ornamental planting beds & grassed 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.

665 Subsoil surface preparation for:

1. Description: Ornamental planting beds & grassed areas
2. Standard: In accordance with BS 3882.
3. General: Excavate and/ or place fill to required profiles and levels, as section D20.
4. Loosening
 - 4.1. When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth
 - 4.1.1. Light and noncohesive subsoils: 150 mm
 - 4.1.2. Stiff clay and cohesive subsoils: 300 mm
 - 4.1.3. Rock and chalk subgrades: Lightly scarify to promote free drainage.
 - 4.2. Wet conditions: Do not loosen subsoils.
5. Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
6. Remove from site: Arisings, contaminants and debris and Builders rubble

670 Inspecting formations

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

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.

690 Topsoil storage heaps

1. Location: Submit proposals
2. Height (maximum): 1.5 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.

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 it is wetter than the plastic limit: less 3%, to BS 1377-2

710 Spreading topsoil on:

1. **Description:** Ornamental planting beds
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:** 450 mm
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 planting beds
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:** 450 mm
5. **Particle size (maximum):** 15 mm
6. **Timing:** Within a few days before planting
7. **Weather and ground conditions:** Suitably dry.

8. **Surface:** Leave regular and even.
9. **Levels:** Refer to Architect's proposals
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.

718A Final cultivation

1. **Description:** For turfing
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):** 15 mm
6. **Timing:** Within a few days before planting
7. **Weather and ground conditions:** Suitably dry.
8. **Surface:** Leave regular and even.
9. **Levels:** Refer to Architect's proposals
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:** 50 mm below
2. **In relation to dpc of adjoining buildings:** Not less than 150 mm below.
3. **In relation to adjacent grass areas:** 50 mm below
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.

825 Applying fertilizer to proposed grass areas

1. **Description:** To seeded areas
2. **Application:** Before final cultivation and three to five days before seeding/ turfing.
3. **Coverage:**
4. **Spread evenly, in transverse directions.**
 - 4.1. **Rate:** as manufacturer's recommendations

845 Applying loose mulch

1. **Description:** For planting beds & tree surrounds
2. **Timing:** Immediately after planting
3. **Preparation:** Clear all weeds
4. **Coverage of mulch (minimum)**

- 4.1. Planting beds (depth): 50 mm depth
- 4.2. Trees: 50 mm depth
- 4.3. Container planting: 50 mm depth
5. Finished level of mulch: 50 mm below adjacent grassed or paved areas

Completion

905 Applying maintenance fertilizer to soil

1. Description: To planting beds
2. Duration: Carry out the following operations from completion of seeding/ turfing until the end of the rectification period.
3. Time of year: During April and May
4. Application: Evenly spread, carefully incorporating below mulch materials.
5. Rate: To manufacturer's recommendations

910 Applying maintenance fertilizer to grass swards

1. Description: To all grassed areas
2. Duration: Carry out the following operations from completion of seeding/turfing until the end of the rectification period.
3. Time of year: During April and May
4. Application: Evenly spread, carefully incorporating below mulch materials.
5. Rate: To manufacturer's recommendations

920A 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. Product:
4. General spft landscape areas - Melcourt Ornamental Bark Nuggets, or similar & approved
5. T: 01666 502711
6. E: info@sylvagrow.co.uk
7. W: www.melcourt.co.uk
8. On-plot soft landscape areas - Gravel to Architect's specification
9. Planting beds: Re-mulch.
 - 9.1. Depth (minimum): 50 mm
10. Trees: Remulch.
 - 10.1. Depth (minimum): 50 mm
11. Container planting: Remulch.
 - 11.1. Depth (minimum): 50 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.

160 Notice

1. **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:** 1 week

170 Setting out

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

Preparation

210 Herbicide

1. **Description:** For all grassed areas
2. **Type:** Suitable for suppressing perennial weeds.
3. **Timing:** Allow fallow period before cultivation.

- 3.1. Duration: As manufacturer's recommendation

250 Soil requirements

1. Type
 - 1.1. Seeded areas: Soil for grass swards, as section Q28
 - 1.2. Turfed areas: Soil for grass swards, as section Q28
 - 1.3. Reinforced grass areas: n/a

Seeding

350 Turf edging to seeded areas

1. Description: Adjacent to footpath
2. Standard: To BS 3969, with no perennial ryegrass.
 - 2.1. Seed mix: Similar to seeded area.
3. Timing: Before sowing.
4. Preparation: Rake back a 750 mm wide margin around prepared seed beds.
 - 4.1. Level of seed bed: Married in with turf.
5. Placement: Single row laid end to end and trimmed to a line.
6. Watering: On completion.

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

400 Cultivated turf

1. Description: For all grassed areas
2. Supplier: Lindum Turf, or similar & approved www.turf.co.uk
 - 2.1. Product reference: LT7 Festival
3. Properties of soil used for turf production: Well drained sandy loam

420 Delivery and storage

1. Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
2. Frosty weather or waterlogged ground: Do not lift turf.
3. Delivery: Arrange to avoid need for excessive stacking.
4. Stacking height (maximum): 1 m.
5. Dried out or deteriorated turf: Do not use.
6. Certification
 - 6.1. Standard: To BS 3969.
 - 6.2. Declaration: Species mix, including percentage of specified species

423 Inspection of turf

1. Description: For all grassed areas
2. Sampling method: To BS 3969.
3. Give notice: Before lifting turf.
 - 3.1. Period of notice: 2 weeks

430 Turfing generally

1. Time of year: To be agreed
2. Timing of laying
 - 2.1. Spring and summer: Within 18 hours of delivery.
 - 2.2. Autumn and winter: Within 24 hours of delivery.
3. Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
4. Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
5. Jointing: Laid with broken joints, well butted up. Do not stretch turf.
6. Edges: Whole turfs, trimmed to a true line.
7. Adjusting levels: Remove high spots and fill hollows with fine soil.
8. Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers.
9. Dressing, brushed well in to completely fill all joints: submit proposals
10. Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

450 Trimming turf

1. Newly planted tree pits: Neatly cut away around individual trees.
 - 1.1. Diameter: 1000 mm
 - 1.2. Tree pit surface: Mulch

Protecting/cutting

510 Protective fencing

1. Fencing type: Chestnut pale fencing to BS 1722-4
 - 1.1. Height: 1.1 m
2. Erection: On completion of seeding/ turfing.
3. Removal: After grass is well established. Fencing will remain the property of the Contractor

530 First cut of grassed areas

1. Timing: When grass is reasonably dry.
 - 1.1. Height of initial growth: 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

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/ 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

620 Maintaining

1. **Description:** General grassed areas
2. **Duration:** Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
3. **Maximum height of growth at any time:** 75 mm
4. **Preparation:** Before each cut remove all litter and debris.
5. **Cutting:** As and when necessary to a height of 50 mm.
 - 5.1. **Arisings:** Remove
6. **Bulb planting areas:** Do not cut until bulb foliage has died down.
7. **Trimming:** All edges.
 - 7.1. **Arisings:** Remove.
8. **Weed control:** Substantially free of broad leaved weeds.
 - 8.1. **Method:** Application of a suitable selective herbicide.
9. **Stones brought to the surface:** Remove regularly.
 - 9.1. **Size:** Exceeding 25 mm in any dimension.
10. **Areas of settlement:** Make good.
11. **Watering:** As required

Ω End of Section

Q31 External planting

Clauses

2 To be read with preliminaries/general conditions.

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 surface vegetation in areas shown on drawings using suitable nonresidual herbicide
5. **Large roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.
6. **Additional requirements:** n/a

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 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:** One week

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

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.

215 Plants/ Trees – specification criteria

1. **Name, forms, dimensions, provenance and other criteria:** As scheduled and defined in the National Plant Specification (available on CS Design Software Limited's website).

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.

265 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.
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.

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: Ornamental beds
3. General: Prevent weeds from seeding and perennial weeds from becoming established, by contractor's choice of herbicide.

Planting shrubs/ herbaceous plants/ bulbs

400 Random plant layout

1. Description: To bulb planting
2. Spacing: Random groups of 3-11 plants of the same species.
3. Density: As plant schedule

401 Regular plant layout

1. Description: To shrub planting
2. Spacing: In regular, staggered rows
3. Density: As plant schedule

405 Shrub planting pits

1. Timing: Excavate 1-2 days (maximum) before planting.
2. Sizes: As plant schedule
3. Pit bottom improvement Break up to a depth of 250 mm, incorporating 25 g of slow release fertilizer per planting pit.

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.

472 Fencing support for new hedges

1. **Type:** Timber post and rail, only if required
2. **Timing:** Before planting hedge.
3. **Support:** Lightly secure hedge plants to fence wires at appropriate intervals.

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

Planting trees

495A Shrub root barriers

1. **Locations:** To all tree pits adjacent to paved areas
2. **Manufacturer:** GreeBlue Urban, or similar & approved www.greenblue.com enquiries@greenblueurban.com T: +44 (0)1580 830800
 - 2.1. **Product reference:** ReRoot 600
3. **Thickness:** 1.0 mm
4. **Barrier depth:** 600 mm
5. **Foil liner:** Not required
6. **Top of root barrier in relation to finished topsoil level:** 50 mm below ground level
7. **Installation:** With sides vertical. Remove all sharp objects adjacent to barrier.

505 Tree pits

1. **Sizes:** As per Tree Pit Detail
2. **Sloping ground:** Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
3. **Excavated material:** Remove arisings
4. **Pit bottoms:** Excavate with slightly raised centre: Break up base to a depth of 250 mm.
 - 4.1. **Treatment:** Soil ameliorant worked into pit bottoms
5. **Pit sides:** Scarify.
6. **Backfilling material:** Topsoil, as section Q28

510 Tree pit root barriers

1. **Locations:** where tree pit is adjacent to hard landscape and/or services
2. **Manufacturer:** GreeBlue Urban, or similar & approved www.greenblue.com enquiries@greenblueurban.com T: +44 (0)1580 830800
 - 2.1. **Product reference:** ReRoot 1000
3. **Thickness:** 1.0 mm
4. **Barrier depth:** 1000 mm
5. **Foil liner:** Not required
6. **Top of root barrier in relation to finished topsoil level:** 50 mm below ground level

7. **Installation:** With sides vertical. Remove all sharp objects adjacent to barrier.

511 Tree pit Root Director

1. **Manufacturer:** GreenBlue Urban Ltd. or similar & approved
 - 1.1. **Web:** www.greenblue.com.
 - 1.2. **Email:** enquiries@greenblueurban.com.
 - 1.3. **Product reference:** RD640A

512A Tree irrigation and aeration system

1. **Manufacturer:** GreenBlue Urban Ltd.
 - 1.1. **Web:** www.greenblue.com.
 - 1.2. **Email:** enquiries@greenblueurban.com.
 - 1.3. **Product reference:** RRCIVIC
 - 1.4. **Features:** Vented aluminium cap with retainer chain

515 Tree pit drainage

1. **Locations:** To all Tree Pits
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:** Submit proposals
4. **Drainage pipes**
 - 4.1. **Type:** Perforated plastics
 - 4.2. **Diameter:** Submit proposals
 - 4.3. **Position:** Lay around perimeter of pit within aggregate layer.
5. **Completed pits:** Test for free drainage before planting.

520 Cellular structural soil system

1. **Locations:** To all tree pits adjacent paved areas
2. **Manufacturer:** GreenBlue Urban or equal and approved
 - 2.1. **Product reference:** GBURAC600A
3. **Geotextile membrane:** As per manufacturers guidelines
4. **Installation:** Ensure all void spaces are filled with lightly compacted growing medium prior to installation of further layers or sub-bases.

526 Underground guying for:

1. **Description:** All trees
2. **Manufacturer:** GreenBlue Urban Ltd.- **Web:** www.greenblue.com.- **Email:** enquiries@greenblueurban.com.- **Product reference:**
 - 2.1. **Product reference:** Arborguy SASLCB
3. **Anchoring system:** 3 no drive-in anchors
4. **Installation:** Ensure tree is positioned correctly and vertically prior to tightening guy line tensioners.

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

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

730 Protective fencing

1. Fencing type: Cleft chestnut pale fencing
2. Erection: On completion of planting.
3. Removal: Fencing will remain the property of the Contractor. Remove and refill post holes following acceptance of rectified defects

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 use of approved non-residual herbicides
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: At each scheduled maintenance visit

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 a schedule of any ongoing maintenance problems experienced during the rectification period.

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):** n/a

Ω End of Section



Specification created using NBS Chorus