

Groundwork Hertfordshire

Colney Heath Parish Council

Colney Heath Play Area

30119-V01-102-Specification

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D20

Excavating and filling

Generally/the site

110 Site investigation

1. Report: See Preliminaries section A12

150 Existing services, features and structures

1. Services: See section A12 for locations.
2. Site features to be retained: See section A12 for details.
3. Structures: See section A34 for details of protection.

Clearance/excavating

164 Tree roots

1. Protected area: Do not cut roots within precautionary protection area.
 - 1.1. Size of area: Circle around each tree of radius 12 times trunk diameter, measured 1.5 m above ground level
2. Excavation in protected area
 - 2.1. Method: Contractor's choice, By hand
 - 2.2. Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
3. Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
4. Cutting
 - 4.1. Make clean smooth cuts with no ragged edges.
 - 4.2. Pare cut surfaces smooth with a sharp knife.
 - 4.3. Treatment of cut roots: Not required
5. Backfill: As dug material, enriched with amelioration as section Q31

168 Site clearance

1. Timing: Before topsoil stripping, if any.
2. General: Clear site of rubbish, debris and vegetation. Do not compact topsoil.

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: Permitted, spread arisings on site in areas designated

220 Stripping topsoil

1. General: Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, buildings, pavings/ roads and other areas shown on drawings.
2. Depth

- 2.1. Give notice where the depth of topsoil is difficult to determine.
3. **Handling:** Handle topsoil for reuse or sale in accordance with clause 225.
4. **Around trees:** Do not remove topsoil from below the spread of trees to be retained.
5. **Site storage:** Keep separate from excavated sub-soil

225 Handling topsoil

1. **Standard:** To BS 3882.
2. **Aggressive weeds**
 - 2.1. **Species:** Notify the presence of species included in the Weeds Act, section 2, or the appropriate Wildlife and Countryside Act for the relevant jurisdiction.
 - 2.2. **Give notice:** Obtain instructions before moving topsoil.
3. **Contamination:** Do not mix topsoil with:
 - 3.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
 - 3.2. Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.
 - 3.3. Oil, fuel, cement or other substances harmful to plant growth.
 - 3.4. Other classifications of topsoil.
4. **Multiple handling:** Keep to a minimum. Use topsoil immediately after stripping.

242 Excavations adjacent to existing backfilled trenches

1. **Proximity:** When width of undisturbed ground between the two excavations will be less than 2m.
2. **Action:** Assume that the ground between the trenches is unstable and provide side support accordingly.

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.

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.

255 Accuracy – linear dimensions

1. **Permissible deviations from linear dimensions generally:** 0.1m

260 Inspecting formations

1. **Give notice:** Make advance arrangements for inspection of formations for foundations and filling formations.
 - 1.1. **Notice (minimum):** 5 days
2. **Preparation:** Just before inspection remove the last 150 mm of excavation. Trim to required profiles and levels.
 - 2.1. **Loose material:** Minor compaction permitted

3. Seal: Within 4 hours of inspection, seal formations with concrete.

265 Inspecting formations in sand and gravel

1. Notice for inspection (minimum): 3 days
2. Preparation: Just before inspection remove the last 150 mm of excavation. Trim to required profiles and levels and mechanically compact formation.

270 Foundations generally

1. Give notice if
 - 1.1. A natural bearing formation of undisturbed subsoil is not obtained at the depth shown on the drawings.
 - 1.2. The formation contains soft or hard spots or highly variable material.

290 Foundations in made up ground

1. Depth: Excavate down to a natural formation of undisturbed subsoil.
2. Discrepancy: Give notice if this is greater or less than depth given.

330 Unrecorded features

1. Give notice: If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

360 Excess excavation

1. Excavation taken wider than required
 - 1.1. Backfill: As instructed
2. Excavation taken deeper than required
 - 2.1. Backfill: With well graded granular material or lean mix concrete

370 Underground structures in landscape areas

1. Generally: Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
2. Minimum depth below finished levels
 - 2.1. Grass, ground cover and perennial planting: 500 mm
 - 2.2. Shrub planting: 750 mm.
 - 2.3. Within 2 m of tree planting: 1000 mm.
3. Walls and slabs remaining: In every 10 m² of wall or slab, make a drainage hole at least 600 mm diameter.

Disposal of materials

410 Excavated topsoil storage

1. Storage: Stockpile in temporary storage heaps on site, away from RPAs .

441 Surplus subsoil

1. Excavated material: Stockpile in temporary storage heaps.
2. Retained material: Spread and level surplus subsoil on site.
 - 2.1. Locations: Adjacent to site
 - 2.2. Protected areas: Do not raise soil level within root spread of trees that are to be retained.
3. Remaining material: Remove from site.

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

510 Hazardous, aggressive or unstable materials

1. **General:** Do not use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling, including material that is:
 - 1.1. Frozen or containing ice.
 - 1.2. Organic.
 - 1.3. Contaminated or noxious.
 - 1.4. Susceptible to spontaneous combustion.
 - 1.5. Likely to erode or decay and cause voids.
 - 1.6. With excessive moisture content, slurry, mud or from marshes or bogs.
 - 1.7. Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.
 - 1.8. Unacceptable, class U2 as defined in the 'Specification for highway works', clause 601.

520 Frost susceptibility

1. **General:** Except as allowed below, fill must be non frost-susceptible as defined in the 'Specification for highway works', clause 801.8.
2. **Test reports:** If the following fill materials are proposed, submit a laboratory report confirming they are non frost- susceptible:
 - 2.1. Fine grained soil with a plasticity index less than 20%.
 - 2.2. Coarse grained soil or crushed granite with more than 10% retained on a 0.063 mm sieve.
 - 2.3. Crushed chalk.
 - 2.4. Crushed limestone fill with average saturation moisture content in excess of 3%.
 - 2.5. Burnt colliery shale.

3. Frost-susceptible fill: May only be used:
 - 3.1. At depths below the finished ground surface greater than: 600 mm
 - 3.2. Within the external walls of buildings below spaces that will be heated. Protect from frost during construction.
 - 3.3. Where frost heave will not affect structural elements.

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.

550 Geotextile sheet

1. Manufacturer: Terram
 - 1.1. Product reference: T1000
2. Type: Woven
3. Polymer type: Polypropylene
4. Recycled content: Submit proposals
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.

640 Starter layer of compacted filling

1. Fill: Suitable hard granular material. Compact thoroughly.

650 Protection of compacted filling

1. Temporary protective filling: Before allowing construction traffic, raise level of compacted cohesive soil filling at least 150 mm above formation level using properly compacted temporary filling.
2. Removal: Remove temporary protective filling from site before permanent construction.

700 Backfilling around foundations

1. Under oversite concrete and pavings: Hardcore as clause 710.
2. Under grassed or soil areas: Material excavated from the trench, laid and compacted in 300 mm maximum layers.

710 Hardcore filling

1. Fill: Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction:
 - 1.1. Test requirements
 - 1.1.1. Minimum 10% fines value tested in a soaked condition to BS 812-111
 - 1.1.2. Impact value SZ tested to BS EN 1097-2
2. Material
 - 2.1. Permitted materials in any one layer
 - 2.1.1. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
 - 2.1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
 - 2.1.3. Crushed non-expansive slag.
 - 2.1.4. Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
 - 2.1.5. Well-burned non-plastic colliery shale.
 - 2.1.6. Natural gravel.
 - 2.1.7. Natural sand.
3. Filling: Spread and level in 150 mm maximum layers. Thoroughly compact each layer.

Bioremediation - Not Used

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

Ω End of Section

L37

External stair, ramps, handrail and balustrades systems

General

110 Timber Railway Sleeper Steps

1. Description: To embankment slide
2. Type: Built in situ
3. Base/ Fabric: Submit design and cost proposals
4. Surface: Submit design and cost proposals
 - 4.1. Finish: Submit design and cost proposals
5. Unobstructed width: 800mm
6. Accessories: No finger traps, splinters or sharp edges.

System performance - Not Used

Products - Not Used

Fabrication

510 Fabrication generally

1. Design: Complete the detailed design and obtain approval prior to commencing fabrication.
2. Shop drawings: Submit.
3. Structural calculations: Submit.
4. Frameworks: Assemble and brace, including temporary members required for installation.
5. Contact between dissimilar metals: Avoid.
6. Fixings: Fully bolt together. Tighten bolts.
7. Temporary support: Do not subject members to non-design loadings.

Execution

640 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.

662 Adverse weather

1. General: Do not use frozen materials and do not lay on frozen surfaces.
2. Working limits: Do not lay blocks/ dressings:
 - 2.1. Cement gauged mortars: When the air temperature is at or below 3°C and falling or below 1°C and rising (unless mortar has a temperature of not less than 4°C when laid and work is thoroughly protected).
 - 2.2. Hydraulic lime:sand mortars: When the air temperature is at or below 5°C and falling or below 3°C and rising.
3. Temperature of the work: Maintain above freezing until mortar has fully set.
4. Newly erected work: Protect from precipitation; Prevent rapid drying in hot conditions.
5. Remedial work: Rake out and replace mortar damaged by frost.
 - 5.1. Damaged work: Rebuild.

Completion - Not Used

Ω End of Section

Q20

Granular sub-bases to roads/ pavings

To be read with preliminaries/ general conditions.

110 Thicknesses of sub-base/ subgrade improvement layers

1. Thicknesses: See sections: Q23 Gravel/hoggin/woodchip roads/pavings.

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: Give notice
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: Obtain instructions
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. Manufacturer: Terram
 - 1.1. Product reference: Manufacturer's choice
2. Jointing: 300 mm overlap
3. Protect from
 - 3.1. Exposure to light, except during laying (maximum five hours).
 - 3.2. Contaminants.
 - 3.3. Materials listed as potentially deleterious by geotextile manufacturer.
 - 3.4. Damage, until fully covered by fill.
 - 3.5. Wind uplift, by laying not more than 15 m before covering with fill.
4. Preparation: Remove humps and sharp projections and fill hollows before laying.

180 Notice

1. Give notice: After preparation and compaction of subgrades and on completion of compaction
 - 1.1. Period of notice: 2 working days

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

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. General: Spread and levelled.
2. Compaction
 - 2.1. Timing: As soon as possible after laying.
 - 2.2. 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: Self Binding Gravel: Buff colour
2. Geotextile: Sheet
 - 2.1. Manufacturer: Submit proposals
 - 2.1.1. Product reference: Submit proposals
3. Granular sub-base: Type 1 unbound mixture, as section Q20
 - 3.1. Compacted thickness: 150mm
4. 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.
 - 4.1. Size: Minimum of 85% by weight passing a 10 mm BS sieve.
 - 4.2. Maximum particle size: 6-10 mm
 - 4.3. Compacted thickness: 50mm
5. Completion: Compact to produce a firm, regular surface, stable in use.

Laying

310 Timber edging

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: Maximum 500 mm on radii of less than 6 m
3. Preservative treatment: As section Z12 and WPA Commodity Specification C4, with 15 year desired service life

311 Timber edging Curved Sections

1. Flexible plywood: 8mm layers, glued
 - 1.1. Size in line with straight sections:: 150x38mm
 - 1.2. Fixing: Galvanised 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: Maximum 500 mm on radii of less than 6 m
3. Preservative treatment: As section Z12 and WPA Commodity Specification C4, with 15 year desired service life

320 Samples

1. Submit: Representative samples of fine hoggin as clause 130.

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.

380 Laying granular surfaces in pedestrian areas and cycle tracks

1. Permissible deviation from required levels, falls and cambers (maximum): ± 12 mm.
2. General: Spread and level in 100 mm maximum layers. As soon as possible, compact each layer.
3. Dry weather: Lightly water layers during compaction.

390 Protection from traffic and plant

1. Paved areas: Restrict access to prevent damage.

Completion - Not Used

Ω End of Section

Q26

Special surfacings/ pavings for sport/ general amenity

Sports surfacing - Not Used

Impact attenuating surfacings for play areas

300 Extent of impact attenuating surfacing

1. General: Lay to the impact areas shown in the relevant parts of BS EN 1176.

301 Extent of impact attenuating surfacing

1. General: Lay impact attenuating surfacing as indicated on drawings.

330 Sand surfacing

1. Granular sub-base: As section Q20.
 - 1.1. Thickness: 100mm
2. Geotextile membrane
 - 2.1. Manufacturer: Terram
 - 2.1.1. Product reference: T1000
 - 2.2. Jointing: Stitched
3. Surface course
 - 3.1. Supplier: Submit proposals
 - 3.1.1. Product reference: Submit proposals
 - 3.2. Grade: Playground grade, clean multi-washed and screened silica sand of smooth rounded particles. Light beige colour, non-staining and non-marking.
 - 3.3. Artificially crushed material: Not permitted.
 - 3.4. Nominal size: 0.25-1.25 mm.
 - 3.5. Depth (minimum): 300mm
4. Submit
 - 4.1. Critical fall height: Evidence of testing to BS EN 1177. at depths of 300mm, 200mm and 100mm.
 - 4.2. Toxicity: Evidence of testing to BS 71-3.

340A Safety Grass Matting Technix Grasslok

1. Thick
2. Thickness: 23mm
3. Standard: To BS 7188
4. Manufacturer: Technix Grasslok
5. Product Reference: GRASSLOK23
6. Colour: Black
7. Critical fall height when tested to BS EN 1177: 1m
 - 7.1. Refer to manufacturers instructions for play equipment.
8. Resistance to abrasive wear, slip resistance, resistance to indentation and ease of ignition: Evidence of testing to BS EN 1177

Associated accessories - Not Used

Execution - Not Used

Completion

930 Documentation

1. Standard: To BS EN 1176-1.
2. Submission requirements
 - 2.1. Name and contact details of installer.
 - 2.2. Date of installation.
 - 2.3. Name and contact details of manufacturer.
 - 2.4. Type/ description/ reference of products used.
 - 2.5. Manufacturer's recommended inspection and maintenance procedures to maintain safety and impact attenuating performance.
3. Manufacturer's recommended cleaning and maintenance methods, where relevant.

Ω End of Section

Q28

Topsoil and soil ameliorants

System outline

115 Topsoil system for turfing and seeding

1. Description: FOR ALL GRASSED AREAS
2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882
 - 2.2. Ameliorants: Organic materials
 - 2.3. Accessories: None

135 Planting bed topsoil system

1. Description: FOR GENERAL PLANTING AREAS
2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882
 - 2.2. Ameliorants: Organic materials

145 Planting pit backfilling topsoil system

1. Description: FOR SHRUB-PLANTING PITS FOR ALL TREE PITS
2. Composition
 - 2.1. Topsoil: Site-sourced topsoil
 - 2.2. Ameliorants: Submit design and cost proposals
 - 2.3. Accessories: None

155 Mulching and top dressing system

1. Description: FOR PLANTING BEDS
2. Composition
 - 2.1. Material: Sanitized and stabilized composted materials certified to PAS 100

Products

300 Preparation materials generally

1. Purity: Free of pests and disease.
2. Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
3. Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - 3.1. Corrosive, explosive or flammable.
 - 3.2. Hazardous to human or animal life.
 - 3.3. Detrimental to healthy plant growth.
4. Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
5. Objectionable odour: None.
6. Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

310 Materials not permitted

1. Materials: Peat, Products containing peat,

315 Imported topsoil to BS 3882

1. Description: FOR GRASS SEEDING, FOR PLANTING BEDS
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 silt loam
5. Source: Local,
 - 5.1. Product reference: Submit proposals

315 Imported topsoil to BS 3882 Type A

1. Description: FOR WILDFLOWER SEEDING
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 Specific purpose - Low fertility
 - 4.1. Soil textural class to BS 3882, Figure 1: Any class
5. Source: Local,
 - 5.1. Product reference: Submit proposals

Execution

620 Importing topsoil

1. Give notice: Before stripping topsoil for transfer to site.
 - 1.1. Notice period: 7 days

630 Documentation for imported topsoil

1. Timing: Submit at handover.
2. Contents
 - 2.1. Full description of all soil components.
 - 2.2. Record of source for all soil components.
 - 2.3. Record drawings showing the location and depth of all soils by type and grade.
 - 2.4. Declaration of analysis: in accordance with BS 3882, clause 6 and Table 1.
3. Number of copies: Two

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: 3 working days

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:** PLANTED AREAS AND MOUND
2. **Standard:** In accordance with BS 8601.
3. **General:** Grade to smooth flowing contours to achieve specified finished levels of topsoil.
4. **Loosening:** Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm.
 - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm.
 - Rock and chalk subgrades: Lightly scarify to promote free drainage.
5. **Areas of thicker topsoil:** Excavate locally.
6. **Avoid compaction.**
7. **Excess subsoil:** Remove.

665 Subsoil surface preparation for:

1. **Description:** TO MOUND
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: 300 mm
 - 4.1.2. Stiff clay and cohesive subsoils: 450 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

670 Inspecting formations

1. **Give notice:** Before spreading topsoil for planting beds, lawn areas, mound areas.
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
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.

680 Surplus topsoil to be retained

1. **Generally:** Spread and level on site:
 - 1.1. **Locations:** Any areas where topsoil is required for new planting, As directed by landscape architect

- 1.2. Protected areas: Do not raise soil level within root spread of trees that are to be retained.

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): 1.0 m
3. Width (maximum): 2.0 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. Finished levels after settlement: 25mm above adjoining, paving, kerbs, manholes etc.
4. 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: GRASSED AREAS WILDFLOWER 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: 100 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 GRASS SEEDING 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:** 75 mm
5. **Particle size (maximum):** 5 mm
6. **Timing:** After grading and fertilizing, and within a few days before seeding
7. **Weather and ground conditions:** Suitably dry.
8. **Surface:** Leave regular and even.
9. **Levels:** Agree on site
10. **Undesirable material brought to the surface**
 - 10.1. Remove visible weeds.
 - 10.2. Remove roots and large stones with any dimension exceeding 20 mm.

720 Finished levels of topsoil after settlement

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

845 Applying loose mulch

1. **Description:** FOR PLANTING BEDS
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): 50 mm depth
 - 4.2. Trees: In a circular area of 500 mm radius measured from the tree stem
5. **Finished level of mulch:** 30 mm below adjacent grassed or paved areas

Completion - Not Used

Ω End of Section

Q30

Seeding/ turfing

General information/requirements

115 Seeded and turfed areas

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

120 Climatic conditions

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

145 Watering

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

150 Water restrictions

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

160 Notice

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

212 Seed bed cleaning before sowing

1. **Description:** WILDFLOWER MEADOWS
2. **Operations:** As seed supplier's recommendations.

250 Soil requirements

1. Type
 - 1.1. **Seeded areas:** Soil for grass swards, as section Q28

Seeding

310 Grass seed

1. Description: FOR ALL GRASSED AREAS
2. Mixture: 50% amenity perennial ryegrass, 32% strong creeping red fescue, 10% chewings fescue, 6% slender creeping red fescue and 2% highland bent
3. Supplier: Boston Seeds
 - 3.1. Mixture reference: BS Childs Play Lawn Seed
4. Application rate: 25 g/m²

312 Wildflower seed mixture TYPE A

1. Description: FOR WILDFLOWER MEADOWS
2. Supplier: Boston Seeds
 - 2.1. Mixture reference: Restore & Enrich Wildflower Seed BSRE 100%
3. Origin of each species (as defined in Flora Locale's Code of practice for collectors, growers and suppliers of native flora): Locally collected
4. Application rate: Supplier's recommendations

312 Wildflower seed mixture TYPE B

1. Description: FOR WILDFLOWER MEADOWS
2. Supplier: Boston Seeds
 - 2.1. Mixture reference: Bees and Butterfly Wildflower Seed BSBP 100%
3. Origin of each species (as defined in Flora Locale's Code of practice for collectors, growers and suppliers of native flora): Locally collected
4. Application rate: Supplier's recommendations

330 Sowing

1. General: Establish good seed contact with the root zone.
2. Method: Manually broadcast, raked and rolled
 - 2.1. Distribution: 2 equal sowings at right angles to each other

335 Grass sowing season

1. Grass seed generally: April to October

336 Wildflower sowing season

1. Wildflower seed generally: March to May or August to October

Turfing

405 Cultivated turf

1. Description: FOR ALL GRASSED AREAS
2. Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards.
3. Seed mixture: 50% amenity perennial ryegrass, 32% strong creeping red fescue, 10% chewings fescue, 6% slender creeping red fescue and 2% highland bent
4. Properties of soil used for turf production: Submit proposals

440 Turfing on banks exceeding 30° slope

1. Turf configuration: Diagonal or horizontal.
2. Securing turfs
 - 2.1. Fixings: Submit proposals
 - 2.2. Frequency of fixings: Every fourth row
3. Removal of fixings: When turf is thoroughly self anchored by its roots. Make good any damage to grass until area is accepted

Protecting/cutting

510 Protective fencing

1. Erection: On completion of seeding/ turfing.
2. 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: 40-75 mm
2. Preparation
 - 2.1. Debris and litter: Remove.
 - 2.2. Stones and earth clods larger than 25 mm in any dimension: Remove
3. Height of first cut: 40 mm
4. Mower type: Contractor's choice
5. Arisings: Spread evenly over cut areas

565 Timber edgings

1. Material: Softwood board
 - 1.1. Size: 150 mm x 38 mm.
2. Fixings: Galvanised nails
 - 2.1. Pegs: 50 mm x 50 mm x 450 mm long.
 - 2.2. Centres: 1200 mm.
 - 2.3. Installation height: Flush
3. Curved boards: Flexible plywood, 8mm
 - 3.1. Size to fit straight sections: 150 mm x 38 mm.
 - 3.2. Centres: 500mm (minimum) for radii less than 6m
4. Preservative treatment: As section Z12 and Wood Protection Association commodity specification C4.
 - 4.1. Type: To provide a 15 year service life

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: practical completion.
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

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.

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: Three working days

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 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.

246 Labelling and information

1. **Standard:** To BS 3936.

260 Plant/ Tree substitution

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

265 Plant handling, storage transport and planting

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:** Black polyethylene bags
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 - Not Used

Planting shrubs/ herbaceous plants/ bulbs

400 Random plant layout

1. Description: TO SENSORY PLANTING, refer to plan
2. Spacing: Even mix of woody perennials, perennials and annuals. Groups of 3 - 5 of the same species of plant.
3. Density: At 9 plants per m²

401 Regular plant layout

1. Description: To Sensory Planting Bed
2. Spacing: In regular, staggered rows
3. Density: At 4 plants per m²

405 Shrub planting pits

1. Timing: Excavate 1-2 days (maximum) before planting.
2. Sizes: 150 mm wider than roots when fully spread and 300 mm deep
3. Pit bottom improvement Break up to a depth of 150 mm.

420 Climbing plants

1. Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward.
 - 1.1. Branches: Lightly secured to supports.
2. Climber supports: Stainless steel wire, Softwood
 - 2.1. Base height: 600 mm above ground
 - 2.2. Centres: 3m centres
 - 2.3. Distance from wall: 75 mm
3. Fixings: Contractor's choice
 - 3.1. Centres: 1.5 m

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: Plant when seeding lawn.

471 Naturalized hedges

1. 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

486 Shrub protection

1. **Manufacturer:** Contractor's choice
 - 1.1. **Product reference:** Contractor's choice
2. **General:** Ensure that protection methods do not impede natural movement of shrubs or restrict growth.

Planting trees

500 Tree planting

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

505 Tree pits

1. **Sizes:** Twice the width of the root spread, and 1.5 times the depth of the root system As drawing 30119-V01-501-4
2. **Sloping ground:** Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
3. **Excavated material:** Separate topsoil and subsoil material and stockpile for backfilling
4. **Pit bottoms:** Excavate with slightly raised centre: Break up base to a depth of 200 mm.
 - 4.1. **Treatment:** Soil ameliorant worked into pit bottoms
5. **Pit sides:** Scarify.
6. **Backfilling material:** Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545 Topsoil, as section Q28

535 Tree stakes

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

Woodland/ matrix/ buffer zone planting

617 Removing trees and hedges

1. **Identification:** Clearly mark trees and hedges to be removed.
2. **Work near retained trees:** Where canopies overlap, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
3. **Arisings:** Remove.
4. **Tree stumps:** Remove mechanically to a minimum depth of 300 mm below ground level

680 Setting out

1. **Planting density:** As plant schedule

2. **Layout:** Random groups of no less than 3 or more than 7 of the same species, ensuring that no three plants are aligned in any one direction.

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:** Weekly during growing season

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:** Contractor's choice
2. **Erection:** On completion of planting.
3. **Removal:** After planting is well established

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.

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 Provide details of any special procedures to be carried out.

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):** 50 mm

Ω End of Section

Q40 Fencing

Fencing systems

210 Wooden post fencing

1. Manufacturer: Contractor's choice
 - 1.1. Product reference: Full rounds
2. Height: As per drawing 30119-V01-501-1
3. Wood: Sweet chestnut
 - 3.1. Treatment: None
 - 3.2. Finish: Stripped
4. Maximum centres of posts: As per drawing 30119-V01-501-1
5. Method of setting posts: Driven to a minimum depth of 600 mm
6. Accessories: None

Gates, posts and stiles - Not Used

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. As per drawing 30119-V01-501-1
 - 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.

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.

Completion

910 Cleaning

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

Q50

Site/ street furniture/ equipment

Gates, barriers and parking controls

130 Gate

1. Description: TO PLAY AREA
2. Manufacturer: Jackson's Fencing
 - 2.1. Product reference: Anti-trap bow top gate with self closing mechanism and slide latch.
3. Size: 1000 mm clear opening
4. Posts: 80mm Steel
 - 4.1. Treatment: Powder coated in standard colour: Blue BS 20-C-40
5. Finish as delivered: Polyester powder-coated, as section Z31
 - 5.1. Colour: Blue BS 20-C-40
6. Fittings and accessories: Self closing hinge, anti trap bar and slide latch
7. Method of setting posts: Concrete foundation.

Site and street furniture

220 Benches

1. Description: Fabrication of greenwood block bench
2. Manufacturer: Ruskin Trees or similar approved equal.
 - 2.1. Product reference: As per drawing: 30119-V01-503
3. Material: Hardwood, submit proposals
 - 3.1. Finish: Stripped
4. Size: As per drawing: 30119-V01-503
5. Method of fixing: Submit proposals

262 Tree Guards

1. Description: To newly planted trees
2. Manufacturer: Contractor's choice
 - 2.1. Product reference: n/a
3. Material: Steel
 - 3.1. Finish: polyester powder coated steel
 - 3.2. Colour: as supplied
4. Size: 650mm diameter
5. Accessories/ Special requirements: 50mm diameter timber tree stakes and flexible rubber tree ties
6. Method of fixing: fixed to timber tree stakes

340 Play Boulders

1. Supplier:: CED Stone
2. Material: Large glacial play boulders
3. Approximate size: 0.6-1m diameter boulders. Total no. refer to General Arrangement Plan
4. Method of fixing: set 1/3 into ground over compacted existing subgrade base

Installation

510 Concrete foundations generally

1. **Standard:** To BS 8500-2.
2. **Concrete:** As section E10. Mix: Designated concrete not less than GEN 1 or standard prescribed concrete not less than ST2.
3. **Admixtures:** Do not use.
4. **Foundation holes:** Neat vertical sides.
5. **Depth of foundations, bedding, haunching:** Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.

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.

520 Setting in earth

1. **Holes:** As small as practicable.
2. **Components being fixed:** Accurately positioned and securely supported.
3. **Buried depth (minimum):** 300 mm
4. **Earth refill:** Well rammed as filling proceeds.

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.

545 Erection of timber and prefabricated structures

1. **Checking:** 5 days (minimum) before proposed erection date, check foundations, holding down bolts, etc.
2. **Inaccuracies or defects in prepared bases or supplied structures:** Report immediately. Obtain instructions before proceeding.

550 Damage to galvanized surfaces

1. **Minor damage in areas up to 40 mm² (including on fixings and fittings):** Make good.
 - 1.1. **Material:** Low melting point zinc alloy repair rods or powders made for this purpose or at least two coats of zinc-rich paint to BS 4652.
 - 1.2. **Thickness:** Sufficient to provide a zinc coating at least equal to the original layer.

560 Site painting

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

Ω End of Section

Q52

Play and sports equipment

General

168 Play Digger

1. Description: Inground sand digger. With operating digger bucket and rotating base
2. Equipment: Excavator
 - 2.1. System manufacturer: Kompan
3. Surfacing: As per General Arrangement Plan
4. Product Reference:: NRO524
5. Age Range: 2-6
6. Materials: Robinia wood, stainless steel, plastic
7. Finishes: Refer to supplier
8. Colour: As supplied
9. Length/Width/Height: 124x23x80cm
10. Method of Fixing: In ground

System performance - Not Used

Products

320 Balance beam

1. Description: Balance Beam on springs
2. Standard: To BS EN 1176-1.
3. Manufacturer: Kompan
 - 3.1. Product reference: NRO827-0401
4. Age range: 6+
5. Materials: Wood, Steel, Spring
 - 5.1. Finish: None
 - 5.2. Colour: Manufacturer's standard
6. Length: 3.1m
7. Height: 0.51m
8. Method of fixing: Manufacturer's standard

360 Stepping Stones

1. Description: - STEPPING STONES TO PLAYGROUND
2. Standard: To BS EN 1176-1.
3. Materials: Stone
 - 3.1. Finish: None
4. Size: Use General Arrangement Plan as guidance
5. Method of fixing: Set in earth

360 Play Tree Type A

1. Description: Play Tree
2. Standard: To BS EN 1176-1.

3. **Supplier:** Ruskin Trees or similar approved equal
4. **Materials:** Hard Wood
5. **Size:** Use General Arrangement Plan as guidance 5m long, 3m wide, with a
6. **Height:** Maximum fall height of 1m.
7. **Method of fixing:** Set in earth

410 Sandpit

1. **Description:** TO PLAYGROUND
2. **Standard:** To BS EN 1176-1.
3. **Manufacturer:** Submit proposals
 - 3.1. **Product reference:** Submit proposals
4. **Sand:** Play
5. **Materials:** Wood
 - 5.1. **Finish:** None
 - 5.2. **Colour:** Manufacturer's standard
6. **Size:** As General Arrangement Plan

420 Slide

1. **Description:** Embankment slide
2. **Standard:** To BS EN 1176-1 and -3.
3. **Manufacturer:** Kompan
 - 3.1. **Product reference:** NRO308
4. **Format:** Embankment Slide
5. **Materials:** Stainless steel
 - 5.1. **Finish:** None
 - 5.2. **Colour:** Manufacturer's standard
6. **Deck height:** 0.93 m
7. **Slide width:** 0.6m
8. **Method of fixing:** Manufacturer's standard

440 Birds Nest Swing

1. **Description:** Birds Nest Swing
2. **Standard:** To BS EN 1176-1 and -2.
3. **Manufacturer:** Kompan
 - 3.1. **Product reference:** KSW92008-0910
4. **Age range:** 4+
5. **Frame:** Traditional
 - 5.1. **Bays:** 1
 - 5.2. **Materials:** Steel
 - 5.3. **Finish:** As supplied
 - 5.4. **Colour:** Manufacturer's standard
 - 5.5. **Height:** 2.8m
6. **Seats:** Cradle
 - 6.1. **Materials:** Manufacturer's standard
 - 6.2. **Ground clearance:** Manufacturer's standard

7. Method of fixing: Manufacturer's standard

Execution

710 Play equipment installation generally

1. Standard: To manufacturer's written instructions provided in accordance with BS EN 1176-1.

720 Concrete foundations generally

1. Standard: To BS 8500-2.
2. Concrete: Designated, not less than GEN 1 or Standard prescribed, not less than ST2.
3. Admixtures: Do not use.
4. Foundation holes: Neat vertical sides.
5. Depth of foundations, bedding, haunching: Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.

725 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: No concrete should be exposed to view
5. Temporary component support: Maintain undisturbed for minimum 48 hours.

730 Setting components in earth

1. Holes: As small as practicable.
2. Components being fixed: Accurately positioned and securely supported.
3. Buried depth (minimum): 300 mm
4. Earth refilling: Well rammed as filling proceeds.

740 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.

750 Damage to galvanized surfaces

1. Minor damage in areas up to 40 mm² (including on fixings and fittings): Make good.
 - 1.1. Materials: Low melting point zinc alloy repair rods or powders made for this purpose or at least two coats of zinc-rich paint to BS 4652.
 - 1.2. Thickness: Sufficient to provide a zinc coating at least equal to the original layer.

760 Site painting

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

Completion

910 Inspection

1. Standard: To BS EN 1176-1
2. Timing: 2 weeks prior to date when work is expected to be practically complete
3. Period of notice (minimum): 3 working days.

920 Cleaning

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

930 Testing

1. **Standard:** To BS EN 1176-1.

940 Labels

1. **Standard:** To BS EN 1176-1
2. **Labels:** Provide permanent labelling on all types of play equipment.
3. **Location:** Where visible when erected on site.

950 Documentation

1. **Standard:** To BS EN 1176-1
2. **Contents**
 - 2.1. Copies of test reports.
 - 2.2. General product information.
 - 2.3. Installation information.
 - 2.4. Inspection and maintenance information.
3. **Number of copies:** 2
4. **Submission:** 2 weeks after request by contract administrator

Ω End of Section



Specification created using NBS Chorus