

LEGAL AND GENERAL (STRATEGIC LAND NORTH HORSHAM) LIMITED

LAND NORTH OF HORSHAM

EASTERN ALLOTMENTS LANDSCAPE SPECIFICATION

ISSUE: Tuesday, 28 July 2026

CLIENT Legal and General (Strategic Land North Horsham) Limited

PROJECT Land North of Horsham

REPORT TITLE Eastern Allotments Landscape Specification

DJA Reference: 2898-5-4-SP-1011-S5-P3 North Horsham Eastern Allotments Specification

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REPORT REVISIONS

Revision	Date	Description	Prepared	Approved
P1	14/05/2026	First draft	MS	ED
P2	18/05/2026	Issue	MS	PG
P3	28/07/2026	Compost bays removed	PG	PG

ITEMS OF SPECIFIC IMPORTANCE TO THE CONTRACTOR RESPONSIBLE FOR THE UNDERTAKING OF GENERAL LANDSCAPE OPERATIONS ON BEHALF OF THE CLIENT UNDER THE TERMS OF THE CONTRACTGeneral

- In undertaking his duties, the Landscape Contractor shall be compliant with all schedules, specifications, Maintenance Schedules, British Standards & Health & Safety legislation pertaining to this Contract.
- Non-compliance shall not alleviate the Contractor of his responsibilities under the Contract.
- The Contractor shall take care not to disturb / disrupt / break any underground services during the undertaking of his duties under the Contract.
- Rectification of non-compliant items & making good any damage arising from the undertaking of his contractual duties shall be at the Contractors own expense.

Subsoil Preparation

- The subsoil is to be thoroughly de-compacted / aerated / graded to a depth of 300mm prior to the commencement of topsoiling operations.
- The Contractor shall notify David Jarvis Associates (DJA) no less than 2 weeks prior to the commencement of the subsoil operations to allow DJA to attend site and inspect random examples.
- The Contractor shall supply photographic evidence after the sub surface is de-compacted / aerated / graded but prior to topsoiling. This shall be submitted in A4 report format no later than 2 weeks after operations are complete and shall clearly identify the location of each photograph.
- Specified top & subsoil depths are a minimum after settlement.

Plant Selection & Procurement

- Plants are to conform to the plant specification & NBS spec.
- DJA will undertake detailed checks during the construction phase to ensure compliance with the specification. Soft plant materials are therefore to be of the correct size, specification & density.
- Submission of plant material receipts by the Contractor will be declared invalid if supplied plant materials are blatantly undersize. Non-conformities will be identified to the Contractor & rectified at the Contractors own expense prior to payment being authorised by the Contract Administrator.
- Planting to be undertaken during the next available planting season.

Mulch

- Mulch shall be supplied as per the NBS specification (Section: Q31/485A).
- The Contractor shall supply a sample to DJA to approve prior to importing and spreading.
- **Wood chip / over coarse / oversized 'mulch' will not be accepted.**

Maintenance

- Maintenance shall be in accordance with the Landscape Management & Maintenance Plan.
- DJA will undertake ongoing maintenance inspections during / upon completion of build to ensure the specification standards are being maintained. Of key importance at all times is that:
 - i. The site must be free from litter.
 - ii. Shrub & tree mulched areas are to be maintained as weed free.
 - iii. Grass is to be kept mown.
 - iv. Mulch is to be maintained at the specified thickness (after settlement) and within shrub beds.
 - v. Hard surfaces are to be kept free from weeds, litter and arisings.

Reporting

- The Contractor shall provide a written statement of work completed in the month passed.
- This shall be supplied to the Client & DJA for review during DJA maintenance checks.

Contents

B91 - BUILDINGS IN THE LANDSCAPE.....	5
D20 - EXCAVATING AND FILLING	8
N91 - EXTERNAL SIGNAGE AND INTERPRETATION	18
Q10 - KERBS/ EDGINGS/ CHANNELS/ PAVING ACCESSORIES	21
Q20 - GRANULAR SUB-BASES TO ROADS/PAVINGS.....	22
Q22 - ASPHALT ROADS/ PAVINGS	23
Q28 - TOPSOIL AND SOIL AMELIORANTS	24
Q30 - SEEDING/ TURFING.....	31
Q31 - EXTERNAL PLANTING	36
Q35 - LANDSCAPE MAINTENANCE	45
Q40 - FENCING	46
Q50 - SITE/ STREET FURNITURE/ EQUIPMENT	48
Z20 - FIXINGS AND ADHESIVES	51

B91 - Buildings in the landscape

System outline

105 Proprietary small buildings/ structures

1. Description: For Allotment
2. Building type: Lockable Store
3. Services requirements: Not required

System performance

240 Water penetration

1. Requirement: Under site exposure conditions, moisture must not penetrate onto internal surfaces or into cavities not designed to be wetted.

Products

380A Lockable Store

1. Manufacturer: Dunster House Ltd. (or Equal & Approved).
 - 1.1. Contact:: Dunster House, Factory 1
Caxton Road, Bedford, MK41 0LF. T: 01234 819414 | E: enquiries@dunsterhouse.co.uk | W: www.dunsterhouse.co.uk
 - 1.2. Product reference: Deore Double Wooden Garage inc. Barn Doors
2. Material: Wood
 - 2.1. Finish: Stained
 - 2.2. Colour: Black
3. Store Dimensions:
 - 3.1. Eaves Height: 2.32m (7'7")
 - 3.2. External Depth: 5.39m (17' 8")
 - 3.3. Internal Depth: 5.17m (17' 0")
 - 3.4. External Width: 5.89m (19' 4")
 - 3.5. Internal Width: 5.67m (18' 7")
 - 3.6. Ridge Height: 2.96 (9'9")
4. Intrusions:
 - 4.1. Door, Main: Heavy Duty Barn, double leaf, lockable
 - 4.1.1. Dimensions: 1.99m x 1.84m (6' 7" x 6' 0")
 - 4.2. Door, Side: Single Door, Part Glazed
 - 4.2.1. Dimensions: 0.74m x 1.82m (2' 5" x 6' 0")
 - 4.2.2. Locking Mechanism: Industry Leading 4 Point Lock - 2 Cams, latch & Hook Bolt
 - 4.3. Windows: Yes
 - 4.3.1. Glazing: 24mm Double
 - 4.3.2. Glazing Thickness: 4mm
 - 4.3.3. Opening: 1 Opening
 - 4.3.3.1. Dimensions: 0.66m x 1.08m (2' 2" x 3' 7")
 - 4.3.4. Locking Mechanism: Multi Point with Mushroom Headed Espagnolettes

- 4.4. Translucent Roof Panels: No
- 5. Walls/ Cladding: 100% Slow Grown Spruce
 - 5.1. Bearers: Pressure Treated, Use Class 3
- 6. Roof: Timber
 - 6.1. Thickness: 19mm Tongue & Groove
 - 6.2. Covering: Superfelt
- 7. Guarantee: 10yrs
- 8. Accessibility: Level threshold
- 9. Accessories/ Special requirements: Anchor Kit, Gutters, Translucent Roof Panels downpipe & Integrated Bulk Container water butt for rainwater harvesting purposes.
- 10. Base: Concrete
 - 10.1. Concrete Spec: To Engineer's requirements
 - 10.2. Concrete Finish: Brushed
 - 10.3. Concrete Edge: 10mm bullnose with smooth, trowelled weathered edge
 - 10.4. Sealant: Yes - to prevent dusting
 - 10.4.1. Type: Penetrating, Silane & Siloxane Sealer
 - 10.4.2. Product: Contractors choice
 - 10.5. Sub-base: To Engineer's requirements
- 11. Method of fixing to ground or base: Propriety bolted to Engineer's requirements

Execution/ erection/ installation

600 Erection/ installation generally

- 1. Frameworks: Assemble and brace, including temporary members required for installation
- 2. Contact between dissimilar metals: Avoid
- 3. Fixings: Fully bolted together Tightened bolts
- 4. Temporary support: Do not subject members to non-design loading

605 Jointing/ Fixing generally

- 1. Generally: Where not specified precisely, select methods of jointing and fixing and types, sizes and spacings of fasteners in compliance with section Z20.

610 Concrete foundations generally

- 1. Concrete: To BS 8500-2.
- 2. Mix: Designated concrete not less than GEN 1 or standard prescribed concrete not less than ST2.
- 3. Admixtures: Do not use.
- 4. Depth of foundations, bedding, haunching: Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.
- 5. Foundation holes: Neat vertical sides.
- 6. Components: Accurately positioned and securely supported.
- 7. Concrete fill: Compact as filling proceeds.
- 8. Concrete foundations exposed to view: Compact until air bubbles cease to appear on the upper surface, then weather to shed water and trowel smooth.
- 9. Temporary component support: Maintain undisturbed for minimum 48 hours.

640 Site painting and staining

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

645 Making good 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.

650 Making good treated timber

1. Surfaces exposed by minor cutting and/ or drilling: Treat by immersion or apply two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.
2. Heavily worked sections: Re-treat.
3. Cutting and machining: Cut and machine timber as much as possible before treatment.
4. Extensively processed timber: Retreat timber sawn lengthways, planed, ploughed, etc.

D20 - Excavating and filling**Generally/the site****110A Site investigation**

1. Report: As determined by Engineers details, drawings and specifications in line with the site wide parameter and previously approved information.

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.

150 Existing services, features and structures

1. Services: Refer to Engineer's drawings.
2. Site features to be retained: Refer to Engineer's drawings.
3. Structures: Refer to Engineer's drawings.

Clearance/excavating**164 Tree roots**

1. Protected area: Do not cut roots within precautionary protection area.
 - 1.1. Size of area: As per Tree Protection/Removal Plan
2. Excavation in protected area
 - 2.1. Method: 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.
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.

175 Felling large trees

1. Definition: Girth over 600 mm.
2. Identification: Clearly mark trees to be removed.

3. Safety: Comply with Forest Industry Safety Accord safety leaflets.
4. Felling: As close to the ground as possible.
5. Stumps: Remove mechanically to a minimum depth of 300 mm below ground level. Obtain approval before removing by winching. Do not use other trees as supports or anchors
6. Work near retained trees: Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.

180 Chipping and shredding

1. General: Permitted, remove arisings from site

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. Remove to an average depth of 200 mm.
 - 2.2. Give notice where the depth of topsoil is difficult to determine.
3. Handling: Handle topsoil for reuse 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

221 Treating topsoil

1. Treatment: Apply a suitable translocated nonresidual herbicide.
2. Timing: Not less than two weeks before excavating topsoil.

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.

240 Adjacent excavations

1. Requirement: Where an excavation encroaches below a line drawn at an angle from the nearest formation level of another higher excavation, the lower excavation, all work within it and backfilling thereto, must be completed before the higher excavation is made.
2. Angle of line below horizontal: to Engineer's details
3. Backfill material: to Engineer's details

242 Excavations adjacent to existing backfilled trenches

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

248 Backfill to excavations lower than foundation formation level

1. Critical level
 - 1.1. Distance between near faces of foundation and lower excavation less than 1 m: 150 mm above foundation formation level
 - 1.2. Otherwise: 150 mm above the level at which a line drawn from the corner of the foundation formation nearest the excavation at an angle below the horizontal of 30° cuts the near face of the lower excavation
2. Backfill material
 - 2.1. Below critical level: to Engineer's details
 - 2.2. Above critical level: to Engineer's details

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.

260 Inspecting formations

1. Give notice: Make advance arrangements for inspection of formations for foundations and filling formations, service trenches, roads and pavings.
 - 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: Remove
3. Seal: Within 4 hours of inspection, seal formations with concrete.

265 Inspecting formations in sand and gravel

1. Notice for inspection (minimum): 5 days
2. Preparation: Just before inspection remove the last 150 mm of excavation. Trim to required profiles and levels and mechanically compact formation.
3. Seal: Within 4 hours of inspection, seal formations with lean mix concrete.

267 Inspection of formations in shrinkable soils

1. Inspect formation: For signs of conducting and fine moisture absorbing roots.
2. Give notice: If significant quantities of roots are visible in the formation or in the bottom 75 mm of the walls of the excavation.

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.

310 Unstable ground

1. Generally: Ensure that the excavation remains stable at all times.
2. Give notice: Without delay if any newly excavated faces are too unstable to allow earthwork support to be inserted.
3. Take action: If instability is likely to affect adjacent structures or roadways, take appropriate emergency action.

320 Recorded features

1. Recorded foundations, beds, drains, manholes, etc.: if no longer used: Break out and seal drain ends
2. Contaminated earth: Remove and disinfect as required by Local Authority.

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.

350 Existing watercourses

1. Diverted watercourses which are to be filled: Before filling, remove vegetable growths and soft deposits.

360 Excess excavation

1. Excavation taken wider than required
 - 1.1. Backfill: Obtain Engineer's instruction.
2. Excavation taken deeper than required
 - 2.1. Backfill: Obtain Engineer's instruction.

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 in accordance w/t the Construction Phase Plan, Site Manager & the Contract Administrator .

415 Excavated topsoil removal

1. General: Remove from site as determined by Site Manager.

420 Topsoil storage heaps

1. Location: to be agreed with Contract Administrator
2. Standard: To BS 3882.
3. Height (maximum): 1.5m
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.

421 Topsoil storage heap treatment

1. Treatment: Apply a suitable herbicide at appropriate times to prevent seeding of weeds

441 Surplus subsoil

1. Excavated material: Stockpile in temporary storage heaps.
2. Retained material: Spread and level surplus subsoil on site.
 - 2.1. Locations: as determined by the Construction Phase Plan/Site Manager
 - 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.

457 Pumping

1. General: Do not disturb excavated faces or stability of adjacent ground or structures.
2. Pumped water: Discharge without flooding the site or adjoining property.
3. Sumps: Construct clear of excavations. Fill on completion.

3.1. Locations: Submit proposals

460 Permanent drainage system

1. Disposal of water from the excavations through system: to Engineer's details

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: 450 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.

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: refer: D20, C571
 - 1.1. Product reference: Treetex (as part of Cellweb TRP system)
2. Type: permeable non-woven
3. Polymer type: as manufactured
4. Recycled content: as manufactured
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.

571 Geocells

1. Manufacturer: Geosynthetics Ltd., Fleming Road, Harrowbrook Ind Est, Hinckley, Leicestershire, LE10 3DU. T: 01455 617139 | E: sales@geosyn.co.uk | W: www.geosyn.co.uk (or equal & approved).
 - 1.1. Product reference: Cellweb TRP
2. Materials: Cellweb as manufactured and filled with clean angular stone Type 4/20 or 20/40
3. Recycled content: 90% (minimum) to BS EN ISO 14021

4. Size of cells (length x width x thickness): to Engineer's details
5. Preparation of subgrade: Before laying geocells, remove humps and sharp projections, and fill hollows
6. Fixing/ Connecting: to Engineer's details
 - 6.1. Centres: to Engineer's details

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.

617 Type 1 unbound mixture

1. Fill: To 'Specification for highway works', clauses 801 and 803:
 - 1.1. Crushed rock (other than argillaceous rock).
 - 1.2. Coarse crushed concrete aggregate.
 - 1.3. Recycled aggregates.
 - 1.4. Crushed non-expansive slag to clause 801.2.
 - 1.5. Well-burned non-plastic colliery shale.
2. Amendments to requirements in the 'Specification for highway works': to Engineer's requirements
3. Filling: To 'Specification for highway works', clause 802.

618 Type 2 unbound mixture

1. Fill: To 'Specification for highway works', clauses 801 and 804:
 - 1.1. Crushed rock (other than argillaceous rock).
 - 1.2. Coarse crushed concrete aggregate.
 - 1.3. Recycled aggregates.
 - 1.4. Crushed non-expansive slag to clause 801.2.
 - 1.5. Well-burned non-plastic colliery shale.
 - 1.6. Natural gravel.
 - 1.7. Natural sand.
2. Amendments to requirements in the 'Specification for highway works': to Engineer's requirements
3. Filling: To 'Specification for highway works', clause 802.

620 Subgrade improvement layer (capping)

1. Fill: To 'Specification for highway works', Table 6/1, Class 6F1 or 6F2.
2. Filling: Place and compact to MCHW Volume 1: 'Specification for highway works' (SHW), Table 6/1, clause 612 and clause 613.3, 613.9 and 613.10.

621 Type 3 unbound mixture

1. Fill: To 'Specification for highway works', clauses 801 and 805:
 - 1.1. Crushed rock (other than argillaceous rock) with well-defined edges.

- 1.2. Coarse crushed concrete aggregate.
- 1.3. Crushed non-expansive slag.
2. Amendments to requirements in the 'Specification for highway works': to Engineer's requirements
3. Filling: To 'Specification for highway works', clause 802.

622 Type 4 unbound mixture

1. Fill: To 'Specification for highway works', clauses 801 and 807:
 - 1.1. Asphalt road planings.
 - 1.2. Granulated asphalt.
 - 1.3. Crushed rock (other than argillaceous rock) with well-defined edges.
 - 1.4. Coarse crushed concrete aggregate.
 - 1.5. Crushed non-expansive slag.
 - 1.6. Well-burned non-plastic colliery shale.
2. Amendments to requirements in the 'Specification for highway works': to Engineer's requirements
3. Filling: To 'Specification for highway works', clause 802.

626 Compacted general fill

1. Suitable material: to Engineer's requirements
2. Excavated material: Select suitable material and keep separate.
3. Filling: Spread and level material in layers. As soon as possible thoroughly compact each layer.
4. Required compaction: to Engineer's requirements
5. Proposals: Well in advance of starting work submit details of proposed:
 - 5.1. Materials to be used, including quantities of each type.
 - 5.2. Type of plant.
 - 5.3. Maximum depth of each compacted layer.
 - 5.4. Minimum number of passes per layer.

640 Starter layer of compacted filling

1. Fill: Suitable hard granular material. Compact thoroughly.
2. Thickness: to Engineer's requirements

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 to Engineer's requirements.
- 1.1.2. Impact value SZ tested to BS EN 1097-2 to Engineer's requirements.

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.

715 Venting hardcore layer

- 1. Fill: Clean granular material, well graded, passing a 75 mm BS sieve but retained on a 20 mm BS sieve. In each layer only one of the following:
 - 1.1. Crushed hard rock.
 - 1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
 - 1.3. Gravel.
- 2. Filling: Spread and level in 150 mm maximum layers. Thoroughly compact each layer whilst maintaining enough voids to allow efficient venting.

730 Blinding

- 1. Surfaces to receive sheet overlays or concrete:
- 2. Blind with
 - 2.1. Concrete where shown on drawings; or
- 3. Sand, fine gravel, or other approved fine material applied to fill interstices. Moisten as necessary before final rolling to provide a flat, closed, smooth surface.
- 4. Sand for blinding: To BS EN 12620, grade 0/4 or 0/2 (MP).
- 5. Permissible deviations on surface level: +0/-25mm.

N91 - External signage and interpretation

Signage outline

110A Signage system - to Allotment

1. Function: Information / Interpretation / Safety / Warning
 - 1.1. Allotment: As DJA Drawing 2898-5-5-FRN-0006 Information Board
2. Sign type: Post-mounted sign Display Sign (Post Mounted) Cardiff A 72001
3. Supplier: Hornbeck Group
 - 3.1. Contact: Hornbeck, 1 Centrus, Mead Lane, Hertford, SG13 7GX. T: 01992 939 279 | E: enquiries@hornbeckgroup.com | W: hornbeckgroup.com

System performance

210 External signage generally

1. Signage systems generally: Complete to BS 559, including components, inserts, accessories and fixings necessary to complete the system.
2. External signage: To BS 559, clause 6.1.
3. Content: Signs including facing information, components, inserts, accessories and fixings necessary to complete the system.
4. Geometric shapes, colours and layout: To BS ISO 7001
5. Wind loads: To BS EN 1991-1-4.

230 Accessibility

1. Design standard for disabled users: In accordance with BS 8300-1.
2. Geometric shapes, colours and layout: To BS ISO 3864-1

Execution/ erection/ installation

610 Fixing signs generally

1. Generally: Where not specified precisely, select methods of jointing and fixing, and types, sizes and spacings of fasteners in compliance with section Z20.
2. Installation: To BS 559.
 - 2.1. Secure, plumb and level.
3. Strength of fasteners: Sufficient to support all live and dead loads.
4. Fasteners and/ or adhesives: As section Z20.
5. Fasteners for external signs: Corrosion-resistant material or with a corrosion-resistant finish. Isolate dissimilar metals to avoid electrolytic corrosion.
6. Fixings showing on surface of sign: Must not detract from the message being displayed.
7. Temporary support: Do not subject members to non-design loadings.
8. Protection of users
 - 8.1. Fasteners for signs must not have sharp edges or protrusions that would cause injury to users.
 - 8.2. Fasteners for tactile/ Braille signs must not have protrusions that would cause confusion to users.

625 Fixing signposts into concrete

1. Description: GENERALLY

2. Concrete: To BS 8500-2.
3. Mix: Designated concrete not less than GEN 1, or standard prescribed concrete not less than ST2.
 - 3.1. Admixtures: Submit proposals.
 - 3.1.1. Prohibited: Calcium chloride, and admixtures containing calcium chloride.
4. Depth of foundations, bedding, haunching: Appropriate to provide adequate support, and to receive overlying soft landscape or paving finishes.
5. Foundation holes: Neat vertical sides.
6. Components: Accurately positioned and securely supported.
7. Concrete fill: Compact as filling proceeds.
8. Concrete foundations exposed to view: Compact until air bubbles cease to appear on the upper surface, then weather to shed water and trowel smooth.
9. Temporary support: Maintain undisturbed for minimum 48 hours.

665 Making good galvanized surfaces

1. Minor damage in areas of 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.

Completion

905 Inspection of signs

1. Standard for timber structures: In accordance with BS EN 1995-1-1.
2. Timing: Two weeks prior to date when principal contractor expects work to be complete
3. Period of notice (minimum): Three working days.
4. Maintenance inspection: Check and tighten fixings six to eight weeks after completion of structure
5. Access: Provide access for inspection and maintenance of luminaires and other technologies.

910 Testing of signs and structures

1. Standard for testing timber structures: In accordance with BS EN 1995-1-1.
2. Evaluation of conformity for road traffic signs: To BS EN 12899-1, section 10.

915 Cleaning of signs/ graffiti removal

1. Method: As approved by manufacturer
2. Subsequent treatment: Transparent, two-part anti-graffiti coating
 - 2.1. Finish: Matt

920 Documentation

1. Submit
 - 1.1. Copies of structural design calculations/ test reports.
 - 1.2. General product information.
 - 1.3. Installation information.
 - 1.4. Inspection and maintenance reports.
 - 1.5. Manufacturer's maintenance instructions.
 - 1.6. Guarantees, warranties, test certificates, record schedules and logbooks.

2. Number of copies: 2
3. Submission: Two weeks prior to date when principal contractor expects work to be complete

Q10 - Kerbs/ edgings/ channels/ paving accessories**Highways and pedestrian paths: kerbs, channels, edgings & associated drainage infrastructure and/or systems****110A All kerbs, channels & edges**

1. Description: To Allotment environs.
2. As determined by the Engineers drawings and specifications in line with the site wide Design Code / to adoptable standards.

Q20 - Granular sub-bases to roads/pavings

To be read with preliminaries/ general conditions.

110A Thicknesses of sub-base/ subgrade improvement layers - to Allotments

1. Thicknesses: All construction build up to Engineer's detail, drawings and specifications. All works in line with the site wide Design Code / adoptable standards.

Q22 - Asphalt roads/ pavings**Types of paving****99A All bitumen bound vehicular & pedestrian surfacing**

1. As determined by the Project Engineer's drawings and specifications in line with the site wide Design Code / adoptable standards.

Q28 - Topsoil and soil ameliorants**System outline****110A Naturally Occurring Topsoil System to all Areas**

General topsoiling and tree pit preparation completed by the site civils team ameliorants and accessories are included in the softworks package (refer to section Q31 for tree pit ameliorants).

1. Topsoil: Site sourced topsoil & imported topsoil to BS 3882.
2. Ameliorants: Sanitized and stabilized PAS 100 compost.
3. Accessories: General fertiliser & pre-seeding fertiliser.

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.

315A Imported topsoil to BS 3882 from a specified source: to all soft landscape planting beds

1. Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
2. Standard: To BS 3882 & NHBC approved.
3. Classification: Multipurpose
 - 3.1. Soil textural class to BS 3882, Figure 1: Silty clay loam
4. Source: Freeland Horticulture. (Alternative source an equal / equivalent product by British Sugar)
 - 4.1. Details: (Head Office) Freeland Horticulture Limited, Rosedale Nursery, College Road, Hextable, Kent, BR8 7LT. T: 01322 619161, F: 01322 619135, E: philippa@freelandhorticulture
 - 4.2. Product reference: Multi-purpose (normal phosphorus)
 - 4.3. Local Source:: St Albans, Hertfordshire / Beenham, Hamps

360 Sanitized and stabilized composted materials certified to PAS 100

1. Standard: In accordance with PAS 100
2. Source: Contractor's choice
 - 2.1. Product reference: Contractor's choice
3. Horticultural parameters
 - 3.1. pH (1:5 water extract): 7.0-8.7

- 3.2. Electrical conductivity (maximum, 1:5 water extract): 200 mS/m
- 3.3. Moisture content (m/m of fresh weight): 35-55%.
- 3.4. Organic matter content (minimum): 25%
- 3.5. Grading (air dried samples): 99% passing 25 mm and 90% passing 10 mm screen mesh apertures
- 3.6. Carbon:Nitrogen ratio (maximum): 20:1.
4. Texture: Friable.
5. Objectionable odour: Not permitted.

401 Organic fertilizers

1. Description: All planted areas
2. Manufacturer/ source: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Standard: In accordance with the Fertilizer Industry Assurance Scheme (FIAS)
4. Purpose: Establishment fertilizer
5. Type: Seaweed extract Blood and bone
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 and contaminants; Maximum stone content, stone size and pH value; Nutrient content, pH value and textural classification; pH value and textural classification; and Phytotoxic and CLEA elements.
 - 4.3. Report detailing soil analyst's recommendations.

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

635 Documentation for compost and composted materials

1. Timing: Submit at handover.
2. Contents
 - 2.1. Full description of all compost components.
 - 2.2. Record of source for all compost components.

- 2.3. Analyst's report for each test carried out.
 - 2.4. Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
 - 2.5. Quality Compost Protocol certification: Required
3. Number of copies: Three

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.

660A Grading subsoil for: Landscaped areas

- 1. Standard: In accordance with BS 8601.
- 2. General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
- 3. Debris: Remove: stones larger than 50mm & all debris, litter, builders' rubble to leave clean / clear areas for topsoil. Take care not to damage or loosen any haunch areas / pre-buried root barriers.
- 4. Loosening: (Generally)
 - 4.1. Subsoils generally: When ground conditions are reasonably dry, loosen thoroughly to a depth of 100mm, prior to spreading topsoil.
 - 4.2. Margin: Leave 100mm margin to haunches / structures and ensure that area of loosening avoids underground structures.
- 5. Areas of thicker topsoil: Excavate locally.
- 6. Avoid:: Over compaction.
- 7. Excess subsoil: Remove.

675 Preparation of undisturbed topsoil

- 1. Standard: In accordance with BS 4428.
 - 1.1. Grading and cultivation: Category B
- 2. Hard ground: Break up thoroughly.
- 3. Clearing: Remove visible roots and large stones with a diameter greater than 50 mm.
- 4. Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
- 5. Fallow period (minimum): Two months
 - 5.1. Weed control: At appropriate times treat with a suitable translocated nonresidual herbicide.

680 Surplus topsoil to be retained

- 1. Generally: Spread and level on site:
 - 1.1. Locations: as determined within Construction Phase Plan / Site Manager.
 - 1.2. Protected areas: Do not raise soil level within root spread of trees that are to be retained.

690 Topsoil storage heaps

1. Location: as determined within Construction Phase Plan / Site Manager.
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.

695 Cultivation

1. Compacted topsoil: Break up to full depth.
2. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
 - 2.1. Depth: 150 mm.
 - 2.2. Particle size (maximum): 10 mm.
 - 2.3. Timing: Within a few days before planting.
 - 2.4. Weather and ground conditions: Suitably dry.
3. Surface: Leave regular and even.
4. Levels: 25 mm above adjoining paving or kerbs.
5. Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50 mm.
6. Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

700A 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:: 25 mm 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.

710A Spreading topsoil on:

1. Locations: as per plans.
2. Exclusions: Tree Root Protection Zones. Existing levels retained.
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. • Depths* after firming and settlement (minimum): in accordance w/t BS 3882 (2015) Specification for Topsoil:
 - 5.1. Private Grassed Areas: 100mm topsoil, 350mm subsoil (450mm rooting depth).
 - 5.2. Public Amenity Grassed Areas: 150mm topsoil, 300mm subsoil (450mm rooting depth).
 - 5.3. Shrubs: 300mm topsoil, 300mm subsoil (600mm rooting depth).
 - 5.4. Trees: 300mm topsoil, 600mm subsoil (900mm rooting depth).
 - 5.5. Allotment Plots: 300mm topsoil, 300mm subsoil (600mm rooting depth).
 - 5.6. NB:: In areas not subject to groundwork/topsoil/subsoil stripping operations, but that are subject to general landscape operations (e.g. tree/hedge planting) & in areas of uncompacted/undisturbed ground, with suitable topsoil & subsoil provision (e.g. open ground, fields, parks, etc.) such soil reprofiling procedures may not be required.
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.

718A 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: 150 mm
5. Particle size (maximum): 10 mm
6. Timing: Within a few days before planting 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. Undesirable material brought to the surface
 - 9.1. Remove visible weeds.
 - 9.2. Remove roots and large stones with any dimension exceeding 50 mm.

720A Finished levels of topsoil after settlement

1. Above adjoining paving or kerbs: : 20 mm
2. Below dpc of adjoining buildings:: Not less than 150 mm.
3. Shrub areas: Higher than adjoining grass areas by 50 mm.

4. Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
5. Within root spread of existing trees and shrubs to be retained: Unchanged. Do not dig or cultivate.
6. Adjoining soil areas: Marry in.
7. Thickness of turf or mulch: Included.

755 Site-made growing media For Grass / Shrub / Tree Planting Areas

1. Quantity: Provide as necessary to make up any deficiency of topsoil or growing media existing on site and to complete the work.
2. Composition
 - 2.1. Base material: Existing topsoil
 - 2.2. Additional materials: Sanitized and stabilized compost certified to PAS 100
3. Crumb structure: Made up of discernible crumbs.
4. Particles
 - 4.1. Size in any dimension (maximum): 50 mm
 - 4.2. Large particle content by dry weight (maximum): 5%
5. Organic content (by dry weight): 20-25%
6. Nutrient content: Minimum index values for nitrogen, phosphorus, potassium and magnesium to be as for BS 3882 multipurpose topsoil.

805 Applying soil ameliorant For Grass / Shrub / Tree Planting Areas excluding woodland

1. Type: Minerals Organic materials
2. Fully incorporate into topsoil to a depth of 150 mm.
3. Application: Spread evenly.
 - 3.1. Timing: Apply prior to cultivation.
 - 3.2. Rate: To suit Soil Report recommendations.
4. Timing: Prior to cultivation.
5. Other requirements: Submit details of recent chemical and physical analysis before ordering

810 Applying compost to Allotment Plots

1. Locations: As softworks drawings.
2. Other requirements: Submit details of recent chemical and physical analysis before ordering.
3. Application rate for trees and shrubs: 50 mm thick
 - 3.1. Timing: Apply prior to cultivation.
4. Application rate for grass: 25 mm-thick layer
 - 4.1. Timing: Apply prior to cultivation.
5. Application rate to allotment plots: 100 mm-thick layer
 - 5.1. Timing: Apply prior to cultivation.

820 Applying general fertilizer to ameliorate Nitrogen efficiency

1. Application: Spread evenly, carefully incorporating below mulch materials.
 - 1.1. Timing: Immediately before cultivation.
 - 1.2. Application rate: 25 g/m² (only as required).
 - 1.3. Other requirements: N/A.

825A Applying fertilizer to proposed grass areas Amenity & Private Greenspace

1. Locations: as softworks drawings.
2. Application: Before final cultivation and three to five days before seeding/ turfing.
3. Coverage: Spread evenly, in transverse directions.
 - 3.1. Rate: 35g/m² (only as required).
 - 3.2. Refer: LEMP.

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.

146 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 To all Grassed & Wildflower Areas**

1. Type: Suitable for suppressing perennial weeds.
2. Timing: Allow fallow period before cultivation.
 - 2.1. Duration: 1 week

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

280A Final Cultivation

1. Timing: After grading and fertilizing.
2. Seed bed: Reduce to fine, firm tilth with good crumb structure.
 - 2.1. Depth: 25 mm.
 - 2.2. Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
 - 2.3. Remove surface stones/earth clods exceeding: General & Wild Flower Areas: 50mm prior to seeding & 25mm prior to turfing. Fine lawn areas: 10 mm.
3. Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

Seeding

310 Grass seed For all Grassed Areas

1. Mixture: Refer to drawing schedule & notes.
2. Application rate: Refer to drawing schedule & notes.

319 Quality of seed

1. Freshness: Produced for the current growing season.
2. Certification: Blue label certified varieties.
 - 2.1. Standard: EC purity and germination regulations.
 - 2.2. Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
3. Samples of mixtures: Submit when requested.

330 Sowing

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

335 Grass sowing season

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

336A Wildflower sowing season

1. Wildflower seed generally: March to May or August to October.
 - 1.1. Refer:: to LMMP.

340 Pre-emergent herbicide For all Grassed Areas

1. Standard: Pesticide Safety Directorate approved.
2. Application rate: In accordance with manufacturer's written recommendation.
 - 2.1. Timing: Immediately after sowing.

350A Turf edging to seeded areas adjacent pavement

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

352 Edges to seeded areas adjacent Planting Beds & Tree Pits

1. Timing: After seeded areas are well established.
2. Edges: Clean straight lines or smooth curves.
 - 2.1. Mulch and soil: Draw back to permit edging.
3. Arisings: Remove.
4. Completion: Respread soil and mulch.

Turfing

All turfing shall be as instructed by the Contract Administrator.

405 Cultivated turf

1. Supplier: Rolawn Limited, The Airfield, Seaton Ross, York, YO42 4NF, Tel: 01904 757300, Fax: 01904 608272, Email: info@rolawn.co.uk
2. Product Reference:: Medallion Turf
3. Properties of soil used for turf production: Well drained sandy loam

410 Turf to BS 3969 For Road Verges and Front Gardens

1. Standard: To BS 3969, free from undesirable grasses and weeds.
 - 1.1. Grade: General purpose utility turf with perennial ryegrass
2. Source: Submit proposals.
3. Herbicide treatment: Apply not less than four weeks and not more than three months before lifting.

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.

428 Compost dressing for Turf

1. Type: Sanitized and stabilized compost.
2. Supplier: Contractor's choice.
 - 2.1. Product reference: Contractor's choice.
 - 2.2. Standard: To PAS 100.

2.3. Horticultural parameters:

- 2.3.1. pH (1:5 water extract): 7.0-8.7.
- 2.3.2. Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
- 2.3.3. Moisture content (m/m of fresh weight): 35-55%.
- 2.3.4. Organic matter content (minimum): 25%.
- 2.3.5. Grading (air dried samples): 100% passing screen mesh aperture of 5 mm.
- 2.3.6. Carbon:Nitrogen ratio (maximum): 20:1.

- 3. Texture: Friable.
- 4. Objectionable odour: None.
- 5. Composting Association certification: Required.
- 6. Declaration of analysis: Submit.
- 7. Additional analyses: Not required.
- 8. Samples: Not required.
- 9. Application rate: 2-4 kg/m².
- 10. Timing: Apply prior to cultivation.

430 Turfing generally

- 1. Time of year: As agreed, subject to the following:
- 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: Sandy loam.
- 10. Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

Protecting/cutting

530 First cut of grassed areas

- 1. Timing: When grass is reasonably dry.
 - 1.1. Height of initial growth: 50 mm
- 2. Preparation
 - 2.1. Debris and litter: Remove.
 - 2.2. Stones and earth clods larger than 25 mm in any dimension: Remove
- 3. Height of first cut: 50 mm
- 4. Mower type: Rotary

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 reseedling/ returfing.
4. Timing of making good: Submit proposals.

Q31 - External planting**General information/ requirements****112 Site clearance generally**

1. General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
2. Stones: Remove those with any dimension exceeding 50 mm.
3. Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
4. Vegetation: Clear scrub to ground level by flail mowing and remove arisings; retain and protect trees indicated on drawings
 - 4.1. Refer: to Ecologist for further instruction.
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.

165 Preparation, planting & mulching materials

1. General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
2. Certification of source, analysis, suitability for purpose and absence of harmful substances: Submit.
 - 2.1. Certified materials:
 - 2.2. Composted food waste;
 - 2.3. Composted horticultural waste; and
 - 2.4. Wood waste.
3. Give notice: before ordering or using.

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: Local provenance where possible; otherwise seek approval from the Contract Administrator.
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; Date supplied and consignment details or reference; Impact of pest/ disease; Name or designation of rootstock of budded or grafted plants; Potting dates; Propagation method and dates; Pruning dates; Type of container.

260 Plant/ Tree substitution

1. Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives
 - 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

296 Timber raised beds

1. Materials generally: To BS EN 942.
 - 1.1. Timber species: Scots pine
 - 1.2. Class: J40
 - 1.3. Preservative treatment: As section Z12 and Wood Protection Association Commodity Specification C4.
 - 1.3.1. Type: To provide a 20 year service life
 - 1.4. Finish: Unfinished
 - 1.5. Adhesive: Synthetic resin to BS EN 301, type 1.
 - 1.6. Joinery workmanship: As section Z10.
2. Fixings: As section Z20.
3. Product Dimensions: L: 3000mm; W: 1200mm; H: 600-900mm
 - 3.1. Sleeper dimensions: 100x200mm
 - 3.2. Sleeper Length: 1200mm; 3000mm
4. Accessories: Terram WeedGuard, or equal & approved; stapled to internal sides of planter.

Preparation of planting beds/ planting materials

300 Herbicide to clear overgrown beds

1. Locations: All planting areas
2. Type: Suitable for suppressing perennial weeds.
3. Timing: Allow fallow period before cultivation.
 - 3.1. Duration: Minimum period.

305 Weed control

1. Locations: All planting areas

2. General: Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding in the first instance, then by contractor's choice of herbicide if required. For Japanese Knotweed refer to the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'..

375 Cultivation

1. Compacted topsoil: Break up to full depth.
2. Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
 - 2.1. Depth: 300 mm.
 - 2.2. Timing: Within a few days before planting.
 - 2.3. Weather and ground conditions: Suitably dry.
3. Surface: Leave regular and even.
4. Levels: 50 mm above adjoining lawns.
5. Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50 mm.
6. Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

Planting shrubs/ herbaceous plants/ bulbs

400 Random plant layout - Mixed Planting Areas

1. Spacing: Planted in single species groups of 2-5 plants in naturalistic swathes, with larger species to be planted toward the back of planting areas as per planting schedule, notes and associated drawings.
2. Density: As plant schedule

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.

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: Not required
 - 3.1. Depth: NA

485A Mulching Planting Beds All areas

1. Material: medium grade, well composted bark mulch.
 - 1.1. Purity: Free of pests, disease, fungus and weeds.
 - 1.2. Recycled content: Contractor's choice.
 - 1.3. Particle size: 8-40mm.
 - 1.4. Colour: mid dark brown.
 - 1.5. Manufacturer: Rolawn or equal & approved.

2. Preparation: Clear all weeds. Water soil thoroughly.
3. Coverage: 75 mm depth after settlement.
4. Finished level of mulch at edges: 25 mm below adjacent grassed or paved areas.
5. USE OF NON-APPROVED MATERIALS: (such as wood chip, coarse grade, over-sized mulch): not accepted. Contractor to make good at own expense.
6. APPROVAL: Contractor to submit sample prior to importing and spreading. Sample to be retained for comparison against subsequent loads.
 - 6.1. - Notice period: 2wks prior to spreading.

486A Shrub protection - for whips & transplants as specified within native hedge and shrub planting areas

1. Manufacturer: Contractor's choice
 - 1.1. Product reference: as specified on planting plans.

Planting trees

500 Tree planting

1. Standard: Prepare trees and transplant in accordance with BS 8545 and DJA details 2898-5-5-VEG-0001 - 0003

505A Tree pits

1. Sizes: as determined by size at planting with reference to Tree Planting detail.
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 sides: Scarify.
5. Backfilling material: Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545
 - 5.1. Ameliorant / Conditioner: as Q28/401A.
 - 5.2. Application rate: To soil report recommendations.
 - 5.3. Fertilizer: as Q28/401A.
6. Accessories: as identified on drawings.

510A Tree Pit Root Barriers

1. ROOT BARRIERS:
 - 1.1. Zone of Deployment: protections of hard surfacing / channels / kerbs / edging / services lying within 5m radius of the tree.
 - 1.2. Manufacturer: Green-tech, Rabbit Hill Business Park, Great North Road, Arkendale, HG5 0FF.
 - 1.3. T: 01423 369727. F: 01423 332101. E: sales@green-tech.co.uk
 - 1.4. Product reference: Green-tech Root Barrier 360.
2. Depth of top of root barrier above finished soil level: +10mm above G.L.
3. Installation: With sides vertical.

525 Semi-Mature Trees

1. Standard: Prepare roots and transplant to BS 4043.
2. Backfilling material: As clause 585.

3. Support: as drawing.
4. Protection: Not required.

535A Staking Generally

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. Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
3. Stake size (minimum diameter): 60 mm.
4. Stake specifics: as per tree planting detail.

590 Mulching Trees

1. Material: Medium grade bark mulch as planting beds (Q31/485A).
2. Preparation: Clear all weeds. Water soil thoroughly.
3. Coverage: In a circular area of 500 mm radius measured from the tree stem, 75mm depth after settlement, with 120mm Ø mulch free ring around tree to prevent stems/trunk from rotting.
4. Finished level of mulch: 25 mm below adjacent grassed or paved areas.

Woodland/ matrix/ buffer zone planting

605 Existing vegetation/ Weed clearance

1. Surface vegetation clearance: Screef an area one metre diameter around each planting location
2. Arisings: Remove.

615A Existing trees / Seedlings / Coppice shoots

1. Existing trees and seedlings: Retain / remove as per: Landscape Protection Plan drawings.
2. Coppice shoots: Thin to 3-5 stems per stool, removing all damaged, dead or diseased shoots

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

Protecting/ maintaining/ making good defects

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: In accordance with an agreed defects rectification programme

740 Cleanliness

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

750 Planting maintenance generally

1. Weed control: Maintain weed free area around each tree and shrub.
 - 1.1. Diameter (minimum): The larger of 1 m or the surface of original planting pit.
 - 1.2. Keep planting beds clear of weeds: By maintaining full thickness of mulch
2. Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
3. Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
4. Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
5. Trees: Spray crown when in leaf during warm weather.
 - 5.1. Timing: After dusk.
6. Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
 - 6.1. Broken or missing items: Replace.
 - 6.2. Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
 - 6.3. Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
 - 6.4. Ties: Adjust to accommodate growth and prevent constriction or abrasion.
 - 6.5. Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
 - 6.6. Frequency of checks: As schedule
7. Firming Up: Firming up: Gently firm loosened soil around trees / shrubs. Straighten leaning trees / shrubs.
 - 7.1. Timing: After dusk.
8. 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: In accordance with the agreed maintenance schedule
 - 1.3. Trees: Generally:
 - 1.3.1. Decurrent: Favours multiple shoots producing a rounded or spreading crown.
 - 1.3.2. Excurrent: Favours strong apical dominance producing a upright crown.
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): 75 mm
5. Trees: Remulch.
6. Depth (minimum): 75 mm

Q35 - Landscape maintenance**Generally****105A Maintenance Objectives**

1. Refer: to North Horsham Phase 2 Landscape Management & Maintenance Plan & Schedule.
2. Once handed over the maintenance of the site will be the responsibility of Horsham District Council.

Q40 - Fencing

Fencing systems

125A Open mesh steel panel general purpose fence and gates

1. Standard: To BS 1722-14, category 1.
2. Manufacturer: HERMEQ Ltd. (or similar approved)
 - 2.1. Product Type: Weldmesh.
 - 2.2. Contact: HERMEQ UK, 10-11 Oldbury Road Industrial Estate, Oldbury Road, West Bromwich, West Midlands, B70 9DD
T: 0800 043 2520 | F: 01302 322401 | E: sales@hermeq.com | W: www.hermeq.com
 - 2.3. Product Reference: as drawings
 - 2.4. Product Height: as drawings
3. Refer:
 - 3.1. Locations: as drawing[s].
 - 3.2. Accessories: Lockable Gate & keeps to match
4. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-14

Execution

710 Installation generally

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

715 Competence

1. Operatives: Contractors must employ competent operatives.
2. Qualifications: Submit certification of training.
 - 2.1. NHSS Sector Scheme 2A sub categories: (d) (g)
 - 2.2. NHSS Sector Scheme 2C sub categories: Not required

720 Setting posts in concrete

1. Standard: To BS 8500-2.
2. Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2. At least one part cement to 10 parts 20 mm all-in ballast to BS EN 12620:2002 mixed with the minimum requisite quantity of clean water, or grade C8/10 or ST2 concrete to BS 8500 parts 1 and 2. The concrete shall be placed in position before commencement of the initial set. Source: BS 1722-7 (2006) Clause 7.2.
3. Alternative mix for small quantities: 50 kg Portland cement to 150 kg fine aggregate to 250 kg 20 mm nominal maximum size coarse aggregate, medium workability.
4. Admixtures: Do not use.
5. Holes: Excavate neatly and with vertical sides.

6. Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
7. Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.

730 Exposed concrete foundations

1. Filling: Compact until air bubbles cease to appear on the upper surface.
2. Finishing: Weathered to shed water and trowelled smooth.

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.

780 Making good galvanized surfaces

1. Treatment of minor damage (including on fasteners and fittings): 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.
2. Thickness: Apply sufficient material to provide a zinc coating at least equal in thickness to the original layer.

Completion

910 Cleaning

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

920 Fixings

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

930 Gates

1. Hinges, latches and closers: Adjust to provide smooth operation. Lubricate where necessary.
 - 1.1. Timing: Before handover.
 - 1.2. Product Width: pedestrian gate 1.5m wide, vehicle gate double leaf 4.8m total width

Q50 - Site/ street furniture/ equipment**Site and street furniture****200 Litter bins**

1. Description: Litter bin to DJA detail 2898-5-5-FRN-0001 Litter bin
2. Manufacturer: Broxap Ltd
 - 2.1. Contact: Broxap Ltd., Rowhurst Industrial Estate, Chesterton, Newcastle-under-Lyme, ST5 6BD. T: 0844 800 4085 / 01782 564411. F: 01782 565357 / 562546. E: enquiries@broxap.com W: www.broxap.com
 - 2.2. Product reference: Winchester canopied litter bin
3. Accessories: None
4. Method of fixing: Root, c.300 mm below ground, set in concrete base

210 Cycle stands

5. Description: Metal Cycle Stand to DJA detail 2898-5-5-FRN-0002 Cycle Stand
6. Manufacturer: Broxap Ltd
 - 6.1. Contact: Broxap Ltd., Rowhurst Industrial Estate, Chesterton, Newcastle-under-Lyme, ST5 6BD. T: 0844 800 4085 / 01782 564411. F: 01782 565357 / 562546. E: enquiries@broxap.com W: www.broxap.com
 - 6.2. Product reference: BXMW/GS/Sheffield-Stand
7. Type: Single stands
8. Material: Steel
 - 8.1. Finish: Hot-dip galvanized to BS EN ISO 1461
 - 8.2. Colour: None
9. Accessories: None
10. Method of fixing: Root, c.300 mm below ground, set in concrete base

225 Seats

1. Description: Timber Seats to DJA detail 2898-5-5-FRN-0001 Benches, Seats and Picnic Tables
2. Manufacturer: Furnitubes International Ltd.
 - 2.1. Contact: Unit 9.1.1, The Leather Market, Weston Street, London SE1 3ER. | T: +44 (0)20 8378 3200 | E: sales@furnitubes.com | W: www.furnitubes.com
 - 2.2. Product Name: Cheshunt Seat with Backrest
 - 2.3. Product reference: CHS B6
3. Material: Opepe
 - 3.1. Finish: planed smooth
 - 3.2. Stain:: 'Sadoline Classic Teak'
 - 3.3. Colour: Natural
4. Size: L: 1800mm; W: 755mm; H: 730mm
5. Accessories/ Special requirements: Extension legs
6. Method of fixing: Root, set in concrete base

226 Picnic Tables

1. Description: Timber Picnic Table and Benches (6 person)

2. Manufacturer: Furnitubes International Ltd.
 - 2.1. Contact: Unit 9.1.1, The Leather Market, Weston Street, London SE1 3ER. T: +44 (0)20 8378 3200. E: sales@furnitubes.com. W: www.furnitubes.com
 - 2.2. Product reference: CHS T6 & CHS B6
3. Material: Opepe
 - 3.1. Finish: planed smooth
 - 3.2. Stain: Sadoline Classic Teak
 - 3.3. Colour: Natural
4. Size:
 - 4.1. CHS T6 (6 person table): L: 2400mm; W: 755mm; H: 730mm
 - 4.2. CHS B6: L: 1800mm; W: 755mm; H: 730mm
5. Accessories/ Special requirements: None
6. Method of fixing: Root, 300 mm below ground, set in concrete base

361 Water Butt and supply

1. Manufacturer: Contractor's choice
 - 1.1. Product Type: Integrated Bulk Container
 - 1.2. Product dimensions: L: 1000mm; W: 1200mm; Height: 1160mm
 - 1.3. Capacity: 1000 litre
2. Material: Black plastic HDPE container in hot dip galvanised steel cage to BS EN ISO 1461
 - 2.1. Pallets: PE
 - 2.2. Colour: Black
 - 2.3. Filler Opening: DN 150
 - 2.4. Filler Outlet: DN 50
3. Ground improvement: 1300x1300 concrete pad to Engineer's specification.
4. Accessories/ Special requirements: Tap conversion kit, additional pallets sufficient to allow watering can access
5. Installation: True to line, form and level
6. Metered water supply to type FP3 as DJA detail 2898-5-5-SRV-0001 Feeder Pillars

Installation

510 Concrete foundations generally

1. Standard: To BS 8500-2.
2. Concrete: Designated, not less than GEN 1
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: L x W = to manufacturer's recommendations, D = 300mm (min.)
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.

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.

Z20 - Fixings and adhesives

Products

310 Fasteners generally

1. Materials: To have:
 - 1.1. Bimetallic corrosion resistance appropriate to items being fixed.
 - 1.2. Atmospheric corrosion resistance appropriate to fixing location.
2. Appearance: Submit samples on request.

320 Packings

1. Materials: Noncompressible, corrosion proof.
2. Area of packings: Sufficient to transfer loads.

330 Nailed timber fasteners

1. Nails
 - 1.1. Steel: To BS 1202-1 or BS EN 10230-1.
 - 1.2. Copper: To BS EN 1202-2.
 - 1.3. Aluminium: To BS 1202-3.

340 Masonry fixings

1. Light duty: Plugs and screws.
2. Heavy duty: Expansion anchors or chemical anchors.

350 Plugs

1. Type: Proprietary types to suit substrate, loads to be supported and conditions expected in use.

360 Anchors

1. Types
 - 1.1. Expansion: For use in substrate strong enough to resist forces generated by expansion of anchor.
 - 1.2. Adhesive or chemical
 - 1.2.1. For use in substrate where expansion of anchor would fracture substrate.
 - 1.2.2. For use in irregular substrate where expansion anchors cannot transfer load on anchor.
 - 1.3. Cavity: For use where the anchor is retained by toggles of the plug locking onto the inside face of the cavity.

370 Wood screws

1. Type
 - 1.1. Wood screws (traditional pattern).
 - 1.1.1. Standard: To BS 1210.
 - 1.2. Wood screws.
 - 1.2.1. Pattern: Parallel, fully threaded shank or twin thread types.
2. Washers and screw cups: Where required are to be of same material as screw.

380 Miscellaneous screws

1. Type: To suit the fixing requirement of the components and substrate.

- 1.1. Pattern: Self-tapping, metallic drive screws, or power driven screws.
2. Washers and screw cups: Where required to be of same material as screw.

390 Adhesives

1. Standards
 - 1.1. Hot-setting phenolic and aminoplastic: To BS 1203.
 - 1.2. Thermosetting wood adhesives: To BS EN 12765.
 - 1.3. Thermoplastic adhesives: To BS EN 204.

410 Powder actuated fixing systems

1. Types of fastener, accessories and consumables: As recommended by tool manufacturer.

Execution

610 Fixing generally

1. Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
2. Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers/ sleeves to avoid bimetallic corrosion.
3. Appearance: Fixings to be in straight lines at regular centres.

620 Fixing through finishes

1. Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

630 Fixing packings

1. Function: To take up tolerances and prevent distortion of materials and components.
2. Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.
3. Locations: Not within zones to be filled with sealant.

640 Fixing cramps

1. Cramp positions: Maximum 150 mm from each end of frame sections and at 600 mm maximum centres.
2. Fasteners: Fix cramps to frames with screws of same material as cramps.
3. Fixings in masonry work: Fully bed in mortar.

650 Nailed timber fixing

1. Penetration: Drive fully in without splitting or crushing timber.
2. Surfaces visible in completed work: Punch nail heads below wrot surfaces.
3. Nailed timber joints: Two nails per joint (minimum), opposed skew driven.

660 Screw fixing

1. Finished level of countersunk screw heads
 - 1.1. Exposed: Flush with timber surface.
 - 1.2. Concealed (holes filled or stopped): Sink minimum 2 mm below surface.

670 Pelleted countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Pellets: Cut from matching timber, match grain and glue in to full depth of hole.
3. Finished level of pellets: Flush with surface.

680 Plugged countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Plugs: Glue in to full depth of hole.
3. Finished level of plugs: Projecting above surface.

690 Using powder actuated fixing systems

1. Powder actuated fixing tools: To BS 4078-2 and Kitemark certified.
2. Operatives: Trained and certified as competent by tool manufacturer.

700 Applying adhesives

1. Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.
2. Support and clamping during setting: Provide as necessary. Do not mark surfaces of or distort components being fixed.
3. Finished adhesive joints: Fully bonded. Free of surplus adhesive.