



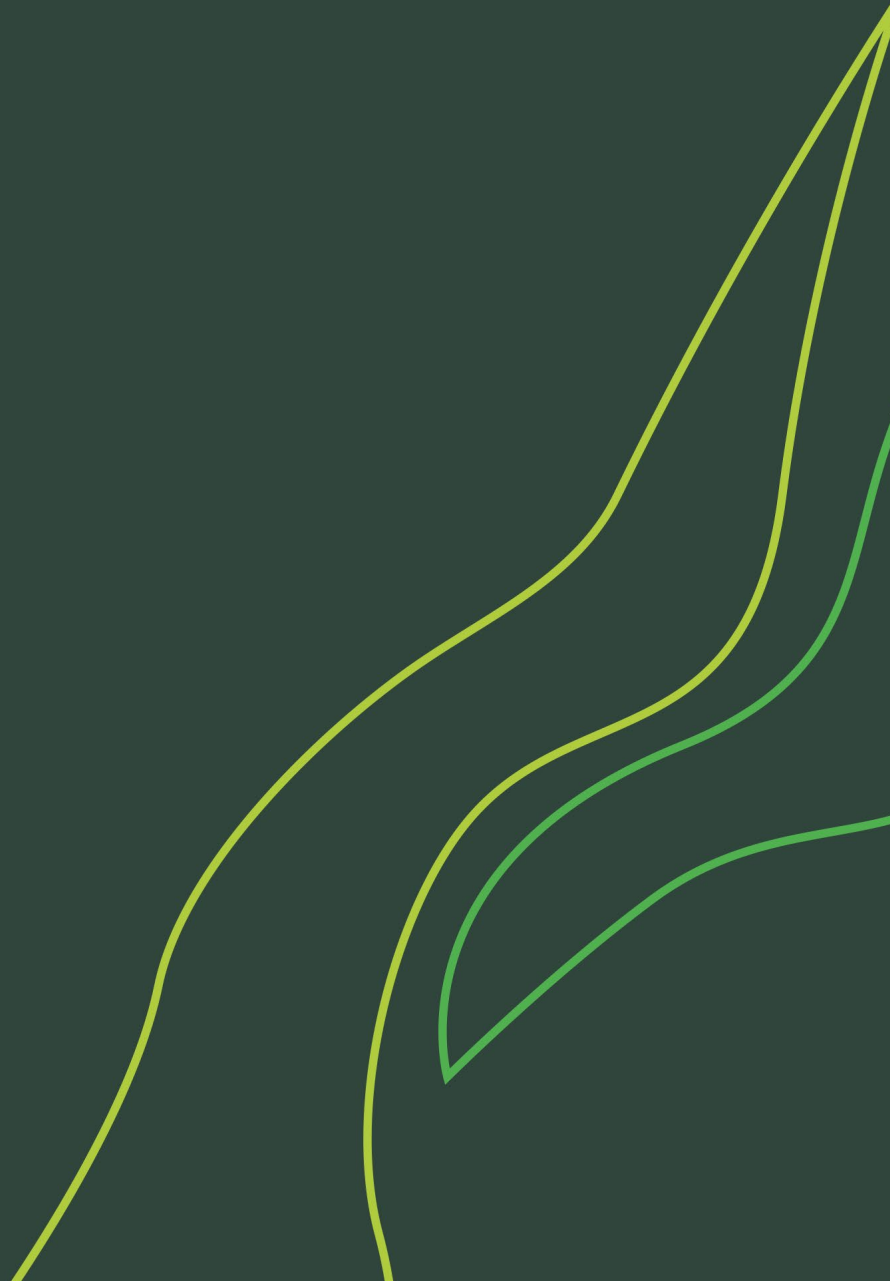
Ecology
Arboriculture
GIS and mapping
Landscape Architecture

NBS Landscape Specification

Site: Sainsbury's Arborfield, Nine Mile Ext, Reading, RG2 9GB

Client: Base Build Services Ltd

Revision: C01



Document Control Sheet

<i>Title</i>	NBS Landscape Specification			
<i>Client</i>	Base Build Services Ltd			
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<i>Author</i>	Megan Kavanagh <i>BAS, MALA</i> <i>Landscape Architect, GC Professional Services</i> Ground Control Limited, Kingfisher House, Radford Way, Billericay, Essex, CM12 0EQ T: 0203 870 5780 E: megan.kavanagh@ground-control.co.uk			
<i>Reviewed</i>	Chris Chippendale <i>BSc (Hons) LGD, MALA, CMLI</i> <i>Principal Landscape Architect, GC Professional Services</i>			
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D20 Excavating and filling

Generally/the site - Not Used

Clearance/excavating

166 Tree root barriers

1. Trench: Sever all roots.
 - 1.1. Depth: 1 m
2. Root barrier: Green-tech Terram Rootguard Barrier - Permeable or similar
3. Root barrier installation: Full depth of excavation. Fit closely to trench wall nearest the tree. Install at time of service installation.
4. Backfill material: In line with statutory requirements and soft landscape buildups - Refer to J241270-GCL-ZZ-ZZ-D-L-0400.
5. Backfilling: Lay and compact thoroughly in layers not more than 300 mm thick.

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: n/a

170 Removing small trees, shrubs, hedges and roots

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

180 Chipping and shredding

1. General: Not permitted

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 300 mm.
 - 2.2. 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

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 3882:2015

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 1000mm.
2. **Action:** Assume that the ground between the trenches is unstable and provide side support accordingly.

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.:** 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.

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: 750 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 , location to be agreed. .

415 Excavated topsoil removal

1. **General:** Remove from site.

420 Topsoil storage heaps

1. **Location:** To be agreed.
2. **Standard:** To BS 3882:2015
3. **Height (maximum):** 2m
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 non residual 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:** To be agreed.
 - 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.

Filling

621 MOT Type 3 to TreeParker Tree Pit Base

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.

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 Stair systems

1. Description: TO ALL EXTERNAL STEPS
2. Type: Built in situ
3. Base/ Fabric: To engineers details
4. Surface: Precast concrete step units, as Q25/315
 - 4.1. Finish: Slip-resistant, incorporated as part of manufacturer supplied step product
5. Unobstructed width: Refer to individual stair case on General Arrangement Plan
6. Accessories: 'Corduroy' hazard warning surface as section Q25; Handrail system

150 Handrail systems

1. Description: TO ALL EXTERNAL STEPS
2. System manufacturer: Contractor's choice
3. Material: Austenitic stainless steel
 - 3.1. Cross section: Between 32 - 50 mm diameter circular. Rail to extend 300mm beyond step nosing at top and bottom of flight with end finish to prevent snagging of clothing in accordance with Part M regulations.
 - 3.2. Finish: Not required
4. Height (to upper surface of handrail)
 - 4.1. Above pitch line: 900 mm
 - 4.2. Above landing: 1100 mm
5. Accessories: None

System performance

220 Design

1. Description: OF HANDRAIL SYSTEM
2. Inclusive design: Complete detailed design in accordance with Building Regulations (Eng) Approved Document M, volume 2
3. Structure and associated features: Complete the design to meet structural and safety requirements of BS 6180 and in accordance with BS 8300-2
4. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

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: n/a
5. Contact between dissimilar metals: Avoid.

6. Fixings: To be advised by fabricator.
7. Temporary support: Do not subject members to non-design loadings.

Execution

610 Loading

1. Site activities: Restrict, to ensure that design loads are not exceeded, or submit proposals for temporary supports.

650 Installation generally

1. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
2. Temporary support: Do not use finished work as temporary support or strutting for other work.
3. Applied finishes: Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as finish manufacturer's recommendation before application.

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

910 Inspection

1. Timing: Two weeks prior to date when principal contractor expects work to be practically complete
2. Period of notice (minimum): 3 working days.

915 Slip resistance testing

1. Surfaces to be tested: L37/ 110.
 - 1.1. Surface condition: Dry and wet
2. Timing: Post final clean, prior to handover
3. Period of notice (minimum): 3 working days.
4. Test standard: To BS 7976-2
 - 4.1. Testing authority: A UKAS accredited laboratory
 - 4.2. Witnessing/ Certification: Arrange for tests to be witnessed/ certified by: Project manager.
 - 4.3. Report: Submit.
 - 4.3.1. Format: As required under BS 7976-2

920 Documentation

1. Contents
 - 1.1. Copies of structural design calculations/ test reports.
2. General product information.
 - 2.1. Installation information.
 - 2.2. Inspection and maintenance reports.
3. Number of copies: 2
4. **Submission:** Two weeks prior to date when principal contractor expects work to be practically complete

Ω End of Section

Q10

Kerbs/ edgings/ channels/ paving accessories

Types of kerbs/edgings and channels

112 Precast concrete EF

1. Description: CONCRETE PIN KERB EDGINGS
2. Standard: To BS EN 1340.
3. Recycled content: Contractor's choice
4. Designations: EF Edging, flat top
5. Size (width x height x length): 50 x 150 x 915 mm
6. Finish: As cast
7. Colour: Grey
8. Bending strength: No requirement
9. Weathering resistance: Class 3
10. Abrasion resistance: No requirement
11. Slip/ skid resistance: Rz to BS 1134 of 20 µm
12. Bedding: To Engineer's specification
13. Joints generally: Dry, 2-3 mm gap
14. Sealant movement joints: Not required
15. Accessories: None

200 Special - Raised Planter Edging

1. Description: RAISED PLANTER EDGING
2. Manufacturer: Logic, or similar approved
 - 2.1. Product reference: Stapel Raised Planter Edging
3. Size: Refer to General Arrangement Plan for proposed finished planter heights. Exact planter edge design to be provided by manufacturer
4. Type/ Material: Steel
 - 4.1. Finish: Polyester powder coated
 - 4.2. Colour: RAL 7016
5. Accessories: Integrated seating, as section Q50
6. Fixing: Proprietary fixings onto concrete foundation to engineers design/specification
7. Joints: Manufacturers standard. Waterproofing of joints to suppliers details.
8. Approval: Raised Planter Edging subject to fabricator design. Design to be signed off by Landscape Architect prior to fabrication.

Roads/paving accessories/ marking/ demarcation - Not Used

Laying

510 Laying kerbs, edgings and channels

1. Cutting: Neat, accurate and without spalling. Form neat junctions.
 - 1.1. Long units (450 mm and over) minimum length after cutting: 300 mm.
 - 1.2. Short units minimum length after cutting: The lower of one third of their original length or 50 mm.

2. **Bedding of units:** Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
3. **Securing of units:** After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.

520 Adverse weather

1. **Conditions:** Do not construct if the temperature is below 3°C on a falling thermometer or 1°C on a rising thermometer. Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.

620 Accuracy

1. **Deviations (maximum)**
 - 1.1. **Level:** ± 6 mm.
 - 1.2. **Horizontal and vertical alignment:** 3 mm in 3 m.

625 Regularity of paved surfaces

1. **Maximum undulation of (non-tactile) paving surface:** 3 mm.
 - 1.1. **Method of measurement:** Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
2. **Difference in level between adjacent units (maximum)**
 - 2.1. **Joints flush with the surface:** Twice the joint width (with 5 mm max difference in level).
 - 2.2. **Recessed, filled joints:** 2 mm.
 - 2.2.1. **Recess depth (maximum):** 5 mm.
 - 2.3. **Unfilled joints:** 2 mm.
3. **Sudden irregularities:** Not permitted.

Ω End of Section

Q24

Interlocking brick/ block roads/ pavings

Types of paving

110 Textured concrete block paving

1. Description: To all main pedestrian paved areas
2. Manufacturer: Tobermore, or similar approved
 - 2.1. Product reference: Sienna 50mm
3. Subgrade improvement layer: To engineers details
 - 3.1. Compacted thickness: To engineers details
4. Geotextile: To engineers details
5. Granular sub-base: To engineers details
 - 5.1. Compacted thickness: To engineers details
6. Laying course
 - 6.1. Material: In accordance with [BS 7533-3](#).
 - 6.1.1. Category: To engineers details
 - 6.2. Method of screeding, in accordance with [BS 7533-3](#): Contractor's choice of compaction or uncompacted
 - 6.3. Nominal thickness after compaction: 30 mm
7. Blocks: To [BS EN 1338](#).
 - 7.1. Sizes: 208x173x50 mm
 - 7.2. Special blocks: None
 - 7.3. Arrises: No requirement
 - 7.4. Colour/ Finish: Silver
 - 7.5. Recycled content: N/A
 - 7.6. Requirements:
 - 7.6.1. Freeze/ thaw resistance: Class 3
 - 7.6.2. Abrasion resistance: Class 3
 - 7.6.3. Slip/ Skid resistance: PTV to [BS EN 16165](#) of 45
8. Jointing
 - 8.1. Material: Silver Granite to suppliers recommendations and in accordance with [BS 7533-3](#).
 - 8.2. Joint width: 2-5 mm.
9. Sealer/ Stabilizer: Not required
10. Setting out
 - 10.1. Bond: Stretcher
 - 10.2. Features: N/A
11. Accessories: None

Execution

200 Execution generally – concrete block and clay paver paving

1. Standard: In accordance with [BS 7533-3](#).

211 Colour banding

1. General: Unless premixed by manufacturer, select blocks/ pavers/ setts from at least Four separate packs in rotation, to avoid colour banding.

220 Samples

1. General: Before ordering, submit samples of all blocks/ pavers/ setts that are representative of colour and appearance.

240 Adverse weather

1. General: Do not use frozen materials or lay bedding on frozen or frost covered sub-bases.

452 Prepared existing and new bound bases (roadbases)

1. Condition before placing laying course: Sound, clean, free from rutting or major cracking and cleared of sharp stones, projections or debris.

485 Laying blocks/ pavers/ setts

1. Setting out: Start from an edge restraint.
2. Cutting: Cleanly, accurately and vertically, without spalling. Do not mark or damage visible surfaces.
3. Cut edges: Turn inwards where possible; do not position against edge restraints or other features.
4. In situ mortar or concrete infill: Do not use
5. Compaction: Vibrate to produce thoroughly interlocked paving of even overall appearance with regular joints and accurate to line, level and profile. Do not mark or damage paving units, kerbs and adjacent work.
 - 5.1. Concrete blocks and clay pavers: In accordance with BS 7533-3, Annex F, to site category required for laying course material.

500 Regularity of paved surfaces

1. Maximum variation in gap under a 3 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface)
 - 1.1. Precast concrete paving blocks and clay pavers for flexible pavements: 10 mm.
2. Difference in level between adjacent paving units (maximum): 2 mm.
3. Sudden irregularities: Not permitted.

Completion

615 Completion of paving

1. Final compaction of the surface course: In accordance with BS 7533-3.
2. Vacuum cleaning machines: Not allowed.

620 Slip resistance testing

1. Surfaces to be tested: All paved areas
 - 1.1. Surface condition: Dry and wet
2. Timing: Post final clean, prior to handover
3. Period of notice (minimum): Three working days.
4. Test standard: To BS EN 16165
 - 4.1. Testing authority: A UKAS accredited laboratory
 - 4.2. Witnessing/ Certification: Arrange for tests to be witnessed/ certified by: Project manager.

4.3. Report: Submit.

4.3.1. Format: As required under [BS EN 16165](#)

Ω End of Section

Q25

Slab/ brick/ sett/ cobble pavings

General

140 Natural stone sett paving system

1. Description: TO PEDESTRIAN FOOTWAY STRIP ALONGSIDE SITE ENTRANCE
2. Granular sub-base: To Engineers Details
 - 2.1. Compacted thickness: To Engineers Details
3. Base: To Engineers Details
 - 3.1. Thickness: To Engineers Details
4. Laying course: To Engineers Details
 - 4.1. Accessories: To Engineers Details
5. Paving units: Natural stone setts - Granite
6. Jointing: Site-mixed fine concrete. Joint width 5-10mm
 - 6.1. Bond: Stacked bond
7. Accessories: None

System performance - Not Used

Products

315 Concrete Preformed Step Units

1. Description: PREFORMED STEP UNIT TO EXTERNAL STEPS
2. Standard: To [BS EN 1339](#).
 - 2.1. Manufacturer: [Marshall's plc](#)
 - 2.1.1. Product reference: [Conservation X Single Solid Step Unit](#)
 - 2.2. Colour: Silver grey.
 - 2.3. Finish
 - 2.3.1. Treads: Textured.
 - 2.3.2. Risers: Textured.
 - 2.4. NominalSize: 400 x 150 x 1000 mm.
 - 2.5. Tolerances on plan dimension and thickness (nominal): Length ± 2 mm, width ± 2 mm, thickness ± 3 mm.
 - 2.6. PhysicalPropertiesWeatheringResistance: ≤ 1.0 kg/m² as a mean with no individual value > 1.5 kg/m² (freeze thaw durability).
 - 2.7. PhysicalPropertiesSlipResistance: > 45 .
 - 2.8. Bending strength: Characteristic bending strength of 4.0 MPa with no individual result less than 3.2 MPa (400 x 150 x 1000 mm).
 - 2.9. Visibility Strips: Integrated - Black in colour
 - 2.10. Joint Width: 2mm

320 Concrete tactile flags

1. Description: TO TOP AND BOTTOM OF EXTERNAL STEPS
2. Standard: To [PD CEN/TS 15209](#).
3. Material: Precast concrete

- 3.1. Manufacturer: Marshalls plc
 - 3.1.1. Contact details
 - 3.1.1.1. Address: Landscape House
Lowfields Business Park
Elland
West Yorkshire
HX5 9HT
 - 3.1.1.2. Telephone: +44 (0)330 0574472
 - 3.1.1.3. Web: <https://www.marshalls.co.uk>
 - 3.1.1.4. Email: specification.support@marshalls.co.uk
 - 3.1.2. Product reference: Corduroy Tactile Hazard Warning Paving
- 4. Recycled content: Not applicable
- 5. Nominal sizes: 400 x 400 mm
- 6. Colour: Standard Charcoal
- 7. Type of surface: Rib – Type R1

330 Natural stone setts

- 1. Description: TO PEDESTRIAN FOOTWAY STRIP ALONGSIDE SITE ENTRANCE
- 2. Standard: To [BS EN 1342](#).
- 3. Supplier: Contractor's choice
 - 3.1. Product reference: Cropped Granite Setts - Silver
 - 3.2. Quarry: Contractor's choice
- 4. Petrographical description/ stone type: Granite
- 5. Finish: Coarse-textured
- 6. Sizes: 100 x 100 x 100 mm
 - 6.1. Plan dimension and thickness deviation: Class 2
- 7. Slip resistance: PTV to [BS EN 16165](#) of 49
- 8. Skid resistance: No requirement
- 9. Surface treatment: None

445 Ready-mixed fine concrete

- 1. Description: FOR JOINTING OF NATURAL STONE SETTS
- 2. Standard/ Performance requirements: In accordance with [BS 7533-101](#)
- 3. Manufacturer: Contractor's choice
 - 3.1. Product reference: Contractor's choice
- 4. Consistency: Workable

Execution

620 Adverse weather

- 1. General
 - 1.1. Temperature: Do not lay or joint paving if the temperature is below 3°C on a falling thermometer or below 1°C on a rising thermometer.
 - 1.2. Frozen materials: Do not use. Do not lay bedding on frozen or frost covered bases.
- 2. Paving with mortar joints and/ or bedding
 - 2.1. Protect from frost damage, rapid drying out and saturation until mortar has hardened.
- 3. Paving laid and jointed in sand/ fine aggregate

- 3.1. Stockpiled laying course sand/ fine aggregate: Protect from saturation.
- 3.2. Exposed areas of unbound laying course and uncompacted areas of unbound paving: Protect from heavy rainfall.
- 3.3. Saturated unbound laying course: Remove and replace, or allow to dry before proceeding.
- 3.4. Laying dry sand/ fine aggregate jointed paving in damp conditions: Brush in as much jointing sand as possible. Minimize site traffic over paving. As soon as paving is dry, top up joints and complete compaction.

625 Laying pavings – general

1. Appearance: Smooth and even with regular joints and accurate to line, level and profile.
2. Falls: To prevent ponding.
3. Bedding of paving units: Firm so that rocking or subsidence does not occur or develop.
 - 3.1. Bedding/ Laying course: Consistently and accurately graded, spread and compacted to produce uniform thickness and support for paving units.
4. Slopes: Lay paving units upwards from the bottom of slopes.
5. Paving units: Free of mortar and sand stains.
6. Cutting: Cut units cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes.

630 Levels of paving

1. Permissible deviation from specified levels
 - 1.1. Generally: +/-6 mm.
2. Height of finished paving above features
 - 2.1. At gullies: +6 to +10 mm.
 - 2.2. At drainage channels and kerbs: +3 to +6 mm.

635 Regularity of paved surfaces

1. Maximum variation in gap under a 3 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface)
 - 1.1. Precast concrete paving blocks and clay pavers for flexible pavements: 10 mm.
 - 1.2. Precast concrete flags or natural stone slabs: 3 mm.
2. Difference in level between adjacent paving units (maximum): 2 mm.
3. Sudden irregularities: Not permitted.

640 Colour banding

1. General: Unless premixed by manufacturer, select from at least 3 separate packs in rotation to avoid colour banding.

645 Protection

1. Cleanliness: Keep paving clean and free from mortar droppings, oil and other materials likely to cause staining.
2. Materials storage: Do not overload pavings with stacks of materials.
3. Handling: Do not damage paving unit corners, arrises, or previously laid paving.
4. Mortar-bedded pavings: Keep free from traffic after laying:
 - 4.1. Pedestrian traffic (minimum): Four days
 - 4.2. Vehicular traffic (minimum): Ten days
5. Access: Restrict access to paved areas to prevent damage from site traffic and plant.

710 Laying flag and slab paving – sand/ fine aggregate laying course and jointing

1. Standard: In accordance with [BS 7533-4](#).
2. Flag installation and cutting: To [Interpave](#) publication [Concrete flag paving](#).
3. Laying course
 - 3.1. Nominal thickness after compaction: To engineers details
4. Joint width: 2mm. Tactile paving to be butt jointed.

730 Laying natural stone sett paving

1. Standard generally: In accordance with [BS 7533-101](#).
2. Laying type: Rigid.
 - 2.1. Laying and jointing method: Moist bed fine concrete with full depth slurry joint
3. Laying course
 - 3.1. Target thickness after compaction: To engineers details
4. Joint width (nominal): 5-10 mm

Completion

915 Completion of paving with dry sand or fine aggregate-filled joints

1. Sand dressing: Leave a thin layer of dry jointing sand/ fine aggregate over the paving, sweep clean before practical completion
2. Final compaction of the surface course: In accordance with [BS 7533-3](#).
3. Vacuum cleaning machines: Not allowed.

930 Slip resistance testing

1. Surfaces to be tested: ALL PAVED SURFACES
 - 1.1. Surface condition: Dry and wet
2. Timing: Post final clean, prior to handover
3. Period of notice (minimum): Three working days.
4. Test standard: To [BS EN 16165](#)
 - 4.1. Testing authority: A UKAS-accredited laboratory
 - 4.2. Witnessing/ Certification: Arrange for tests to be witnessed/ certified by: Project manager.
 - 4.3. Report: Submit.
 - 4.3.1. Format: As required under [BS EN 16165](#)

Ω End of Section

Q28

Topsoil and soil ameliorants

Clauses - Not Used

System outline

135 Planting bed topsoil system

1. Description: For general planting areas
2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882
 - 2.2. Ameliorants: Sanitized and stabilized composted materials certified to PAS 100
 - 2.3. Accessories: None

155 Mulching and top dressing system Refer to J241270-GCL-ZZ-ZZ-D-L-0200 Soft Landscape Proposals Plan for details.

1. Description: For planting beds, tree rings and step out strips.
2. Composition
 - 2.1. Material: Medium grade ornamental bark mulch

200 Grading Subsoil

1. General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
2. Areas of thicker topsoil: Excavate locally.

250 Subsoil Surface Preparation

1. General: Excavate and/ or place fill to required profiles and levels, as Engineers specification.
2. Loosening: Light and non-cohesive subsoil's: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300mm.
Stiff clay and cohesive subsoil's: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450mm.
Rock and chalk sub-grades: Lightly scarify to promote free drainage.
3. Stones: Immediately before spreading topsoil, remove stones larger than 75mm.
4. Remove Arisings, contaminants and debris.
Ensure at least 500mm of subsoil below all plant beds and grass areas.
Quality of subsoil: to be general purpose sandy clay loam. Soil analysis detailing pH. texture classification and samples required for approval.
To be reviewed on site with landscape architect to determine if existing sub soil is suitable.

Products

300 Preparation materials generally

1. Purity: Free of pests and disease.
2. Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
3. Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - 3.1. Corrosive, explosive or flammable.
 - 3.2. Hazardous to human or animal life.
 - 3.3. Detrimental to healthy plant growth.

4. **Subsoil:** In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
5. **Objectionable odour:** None.
6. **Give notice:** If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

305 Permitted materials

1. **Materials:** Composted green/ food waste certified to PAS 100
2. **Give notice:** Before ordering or using.
3. **Declaration of compliance in accordance with BS EN 13650:** Required

310 Materials not permitted

1. **Materials:** Products containing peat

315 Imported topsoil to BS 3882 Refer to J241270-GCL-ZZ-ZZ-D-L-0101 Topsoil Depths Plan for depths.

1. **Description:** For soft landscape areas
2. **Quantity:** Provide as necessary to make up any required topsoil depths for soft landscape areas.
3. **Standard:** To BS 3882:2015.
4. **Classification:** Multipurpose
 - 4.1. **Soil textural class to BS 3882, Figure 1:** Sandy clay loam
5. **Source:** Submit proposals
 - 5.1. **Product reference:** Submit proposals

330 Imported manufactured topsoil/ growing medium

1. **Description:** For tree pits in hard landscape areas
2. **Type:** Green-tech Geo-Soil
3. **Manufacturer:** Green-tech or similar (Submit proposals)
 - 3.1. **Product reference:** 190GT3226-PRO

330A Imported manufactured subsoil To Tree Parker Tree Pit System

1. **Description:** For tree pits in hard landscape areas
2. **Type:** Green-tree Subsoil (190GT3102-PRO)
3. **Manufacturer:** Green-tech

360 Sanitized and stabilized composted materials certified to PAS 100

1. **Description:** TO ALL PLANTING AREAS
2. **Standard:** In accordance with PAS 100.
3. **Source:** Submit Proposals
 - 3.1. **Product reference:** Multipurpose Compost to PAS 100
4. **Horticultural parameters**
 - 4.1. **pH (1:5 water extract):** 7.0-8.7.
 - 4.2. **Electrical conductivity (maximum, 1:5 water extract):** 200 mS/m.
 - 4.3. **Moisture content (m/m of fresh weight):** 35-55%.
 - 4.4. **Organic matter content (minimum):** 25%.

- 4.5. Grading (air dried samples): : 99% passing 25 mm screen, and 90% passing 10mm screen mesh apertures.
- 4.6. Carbon:Nitrogen ratio (maximum): 20:1.
5. Texture: Friable.
6. Objectionable odour: None.
7. Compost Certification Scheme certification:
8. Declaration of analysis: Submit.

405 Inorganic fertilizers

1. Description: For soft landscape areas
2. Manufacturer/ source: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Standard: In accordance with the Fertiliser Industry Assurance Scheme (FIAS)
4. Purpose: General purpose fertilizer
5. Type: Sulfate of ammonia fertilizer (with a minimum of 20% nitrogen)
6. Availability to plants: Slow release

Execution

610 Topsoil analysis

1. Soil to be analysed: Existing topsoil to be used as backfill to planting areas; required only where imported topsoil is not being used.
2. Soil analyst: Chemical analysis
3. Samples: Collect in accordance with BS 3882:2015.
4. Submit
 - 4.1. Declaration of analysis: In accordance with BS 3882, clause 6 and Table 1. Soil needs to meet Multi-purpose standards set out in Annex E.
 - 4.2. Additional analysis: Potentially toxic elements (PTEs)
 - 4.3. Report detailing soil analyst's recommendations.

620 Importing topsoil

1. Give notice: Before stripping topsoil for transfer to site.
 - 1.1. Notice period: 2 days

625 Sample loads

1. Description: For imported topsoil
2. Deliver to site a sample load: Of 5 kg
3. Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
 - 3.1. Notice period: 2 days

630 Documentation for imported topsoil

1. Description: For soft landscape areas
2. Timing: Submit at handover.
3. Contents
 - 3.1. Full description of all soil components.
 - 3.2. Record of source for all soil components.

- 3.3. Record drawings showing the location and depth of all soils by type and grade.
- 3.4. Declaration of analysis: In accordance with BS 3882:2015, clause 6 and Table 1.

4. Number of copies: Two

635 Documentation for compost and composted materials

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

640 Documentation for preparation materials

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

655 Mechanical tools

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

660 Grading subsoil for:

- 1. Description: Soft landscape areas
- 2. Standard: In accordance with BS 8601:2013.
- 3. General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
- 4. Areas of thicker topsoil: Excavate locally.
- 5. Avoid compaction.
- 6. Excess subsoil: Remove.

665 Subsoil surface preparation for:

1. **Description:** Soft landscape areas
2. **Standard:** In accordance with BS 3882:2013.
3. **Minimum rooting depths:** Tree planting – 900mm; Ornamental shrub, herbaceous & hedge planting – 600mm depth.
4. **General:** Excavate and/ or place fill to required profiles and levels, as section D20.
5. **Loosening**
 - 5.1. **When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth**
 - 5.1.1. **Light and noncohesive subsoils:** 300 mm
 - 5.1.2. **Stiff clay and cohesive subsoils:** 450 mm
 - 5.1.3. **Rock and chalk subgrades:** Lightly scarify to promote free drainage.
 - 5.2. **Wet conditions:** Do not loosen subsoils.
6. **Stones:** Immediately before spreading topsoil, remove stones larger than 75 mm.
7. **Remove from site:** Arisings, contaminants and debris and Builders rubble

670 Inspecting formations

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

675 Preparation of undisturbed topsoil

1. **Standard:** In accordance with BS 4428:1989.
 - 1.1. **Grading and cultivation:** Category C
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:** Rotovate or dig over to full depth of topsoil.
5. **Fallow period (minimum):** One month
 - 5.1. **Weed control:** At appropriate times treat with a suitable translocated nonresidual herbicide.

685 Surplus materials to be removed

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

690 Topsoil storage heaps

1. **Location:** Submit proposals
2. **Height (maximum):** 2.0 m
3. **Width (maximum):** 5.0 m
 - 3.1. **Formation:** Loose tip and shape from the side only, without running machinery on the heap at any time.
4. **Protection**
 - 4.1. **Do not place any other material on top of storage heaps.**
 - 4.2. **Do not allow construction plant to pass over storage heaps.**
 - 4.3. **Prevent compaction and contamination, by fencing and covering as appropriate.**

700 Grading of topsoil

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

705 Handling topsoil

1. Standard: In accordance with BS 3882.
2. Aggressive weeds: Give notice and obtain instructions before moving topsoil.
3. Plant: Select and use plant to minimize disturbance, trafficking and compaction.
4. Contamination: Do not mix topsoil with:
 - 4.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
 - 4.2. Other grades of topsoil.
5. Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
6. Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit: less 3%, to BS 1377-2

710 Spreading topsoil on Amenity Planting Areas

1. Description: Amenity planting areas.
2. Standard: In accordance with BS 3882:2015.
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: Ornamental Planting - min 300mm; Native hedge planting - min 300mm; Trees - minimum 300mm or depth of rootball, which ever is deeper; Raised planting areas - min 450mm.
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 3882:2015.
2. General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

718 Final cultivation

1. Description: For planting beds
2. Compacted topsoil: Break up to full depth.
3. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
4. Depth: 300 mm
5. Particle size (maximum): 5 mm
6. Timing: Within a few days before planting
7. Weather and ground conditions: Suitably dry.
8. Surface: Leave regular and even.
9. Levels: 50mm below adjacent surfaces
10. Undesirable material brought to the surface

10.1. Remove visible weeds.

10.2. Remove roots and large stones with any dimension exceeding 50 mm.

720 Finished levels of topsoil after settlement

1. In relation to adjoining paving, kerbs or hard surfaces: 30 mm below (including mulch depth)
2. In relation to dpc of adjoining buildings: Not less than 150 mm below.
3. In relation to adjacent grass areas: flush with adjacent surfaces
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: Do not dig or cultivate.
6. Adjoining soil areas: Marry in.
7. Slopes to have maximum 1:3 gradient unless otherwise stated on drawings.:
8. Thickness of turf or mulch: Included. Bark mulch to be 50mm depth. Finished levels of turf to be 30mm above surrounding paved areas and shrub beds.

810 Applying compost

1. Description: To soft landscape areas
2. Application rate for trees and shrubs: 50 mm thick
 - 2.1. Timing: Apply prior to cultivation.

820 Applying general fertilizer

1. Description: To soft landscape areas.
2. Application: Spread evenly, carefully incorporating below mulch materials.
 - 2.1. Timing: Immediately before cultivation.
 - 2.2. Application rate: to manufacturers recommendations

845 Applying loose mulch

1. Description: For planting beds
2. Timing: Immediately after planting
3. Preparation: Water soil thoroughly
4. Coverage of mulch (minimum)
 - 4.1. Planting beds (depth): All Planting areas: 50 mm depth.
 - 4.2. Trees: (In soft landscape areas only) In a circular area of 500 mm radius measured from the tree stem
 - 4.3. Container planting: 50mm depth
5. Finished level of mulch: 30 mm below adjacent grassed or paved areas

Completion

905 Applying maintenance fertilizer to soil

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

920 Topping up bark mulch Refer to J241270-GCL-ZZ-ZZ-D-L-0200 Soft Landscape Proposals Plan for locations.

1. **Timing:** At end of the maintenance period & annually thereafter.
2. **Watering:** Ensure that soil is thoroughly moistened prior to mulching, applying water where necessary.
3. **Planting beds:** Re-mulch.
 - 3.1. **Depth (minimum):** 50 mm
4. **Trees:** Remulch.
 - 4.1. **Depth (minimum):** 50 mm
5. **Step out and maintenance strips:** 50mm

Ω End of Section

Q31 External planting

Clauses - Not Used

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.
5. **Large roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.

118 Soil conditions

1. **Soil for cultivating and planting:** Moist, friable and 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. Optimum times are September/ October or March/ April.
 - 4.1. **Watering and weed control:** Provide as necessary.

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:** Imported topsoil to BS 3882:2015 – Multi-purpose Topsoil Classification Standards.
 - 1.2. **Tree pits, shrub pits and other backfilling:** Imported topsoil to BS 3882: 2015 - Multi-purpose Topsoil Classification Standards. Tree pits in hard landscape to receive specialist manufactured soil - Refer to detail.
 - 1.3. **Mulch applied after planting:** Mulching and top dressing system, as section Q28

200 Plants/ Trees – general

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

215 Plants/ trees - specification criteria

1. **Name, forms, dimensions, provenance and other criteria:** As scheduled and defined in the National Plant Specification and Planting Schedule on Drawing:
 - 1.1. J241270-GCL-ZZ-ZZ-D-L-0200 - Soft Landscape Proposals Plan

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.

246 Labelling and information

1. **Standard:** To BS 3936. Remove labels on installation.

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. Potential for change to require approval from LPA prior to installation.

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 for bareroot stock only
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.
3. **Note:** Any significant wounds on trees to be rejected on delivery to site.

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

300 Herbicide

1. Description: To clear existing vegetation
2. Locations: All planting areas
3. Type: Suitable for suppressing perennial weeds.
4. Timing: Allow fallow period before cultivation.
 - 4.1. Duration (minimum): As manufacturer's recommendation

305 Weed control

1. Description: Control of all weeds within planting areas
2. Locations: All planting areas
3. General: Prevent weeds from seeding and perennial weeds from becoming established, by contractor's choice of herbicide or hand weeding.

Planting shrubs/ herbaceous plants/ bulbs

400 Random plant layout

1. Description: To ornamental shrub and herbaceous planting beds.
2. Spacing: Evenly, avoiding straight lines within forms set out on Soft Landscape Proposal Plan
3. Density: As plant schedule

401 Regular plant layout

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

405 Shrub planting pits

1. Timing: Excavate 1-2 days (maximum) before planting.
2. Sizes: As plant schedule
3. Pit bottom improvement Break up to a depth of 150 mm, incorporating 25 g of slow release fertilizer per planting pit. Planting Pit to be in accordance with HTA recommendations.

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 Native hedge planting

1. Treatment:: All plants to be treated with nursery recommended root dip during transplantation. Contractors choice.
2. Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

480 After planting

1. Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
2. Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.

3. Top dressing: Mulching and top dressing system, as section Q28
 - 3.1. Depth: 50mm Ornamental bark mulch in planting beds.

486 Shrub protection

1. Manufacturer: Greentech
 - 1.1. Product reference: Tubex Nature Shrub Shelter Guard and Stake 130-160mm Ø Shelter.
 - 1.2. New Item: To receive 160mm Ø shelter.
2. Type: Round
3. Material: Biopolymer and oxo-bio biodegradable tube, timber stake & nylon tie.
4. Size: 600mm high
5. Colour: Light brown or similar
6. Support: Treated softwood timber stake
7. General: Ensure that protection methods do not impede natural movement of shrubs or restrict growth.
8. Refer to Typical Soft Landscape Details Drawing J241270-GCL-ZZ-ZZ-D-L-0400 for details:

Planting trees

500 Tree planting

1. Standard: Prepare trees and transplant in accordance with BS 8545:2014.

505 Tree pits for trees in soft landscape Areas. Refer to J241270-GCL-ZZ-ZZ-D-L-0400 Typical Soft Landscape Details.

1. Description: Pit diameter to be at least 75 mm greater than that of the root system and no deeper than the existing root ball or container in accordance with BS 8545:2014 guidance. Pit should be formed as a square to encourage outward root growth.
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: Pit base to be undisturbed unless drainage problems are apparent. Base to be penetrated at approx. 250mm intervals with fork prior to planting. If drainage is found to be an issue, pit base to have 100-150mm depth 100mm pea gravel incorporated..
 - 4.1. Treatment: Soil ameliorant worked into pit bottoms.
5. Pit sides: Sides to be penetrated with fork at approx. 250mm intervals to prevent creation of side pan to pit.
6. Backfilling material: Compost and fertilizer to be incorporated together with excavated material from tree pit and backfilled to original soil profiles in accordance with BS 8545 as follows:
 - 6.1. Compost: Standard trees (over 12-14cm girth): 80-100L PAS 100 compost.
 - 6.2. Fertilizer: 25g of slow release fertilizer.
 - 6.3. Backfill Soil: Multipurpose Topsoil to BS3882:2015

505 A TreeParker Tree Pit & Pavement Support System - Tree Pit Support and SuDS System Refer to J21270-GCL-ZZ-ZZ-D-L-0401 Tree Pit in Hard Landscape Details.

1. Manufacturer: Green-Tech
2. Material: Polypropylene
3. Unit Size: 605 x 605 x 1000mm

4. **Load Capacity:** Axle load: 15 t. Per m²: 56 t.
5. **Components:** TreeParker Deck, TreeParker Frame, TreeParker Post, RDP060 Root Directing Panel, TreeParker Aeration pipe double inlet, TPGeoGrid 150.

510 Tree pit root barriers

1. **Locations:** Where newly planted trees are in close proximity to existing and proposed services and as indicated on plan.
2. **Manufacturer:** Green-tech or similar
 - 2.1. **Product reference:** Terram Root Guard permeable or similar
3. **Thickness:** Submit proposals
4. **Barrier depth:** Submit proposals
5. **Foil liner:** Submit proposals
6. **Top of root barrier in relation to finished topsoil level:** Flush
7. **Installation:** With sides vertical. Remove all sharp objects adjacent to barrier.

512 Tree pit irrigation and ventilation accessories

1. **Locations:** To all tree pits
2. **Manufacturer:** Green-tech or similar approved.
 - 2.1. **Product reference:** Mona Relief Vente/ Grande or similar.
3. **Type:** Perforated plastics irrigation pipe with inlet
4. **Pipe diameter:** 60 mm
5. **Ring diameter:** 900mm
6. **Inlet:** Black plastics, with cap
7. **Installation**
 - 7.1. **Pipe:** Lay in loop above root ball with slight fall away from inlet pipe. Trim length to ensure a close fit in the tree pit. Connect both ends of pipe securely into plastics tee junction on inlet.
 - 7.2. **Top cap of inlet:** Protruding slightly above finished surround level.
 - 7.3. **Backfill material:** Carefully compact in layers.

515 Tree pit drainage

1. **Locations:** Where identified following excavation of tree pits.
2. **Depth of excavation:** Increase from specified size to allow for aggregate layer, with base slightly falling to outlet.
3. **Aggregate layer:** Clean gravel or broken stone, with no fines, graded 40 to 20 mm.
 - 3.1. **Depth:** 100mm
4. **Completed pits:** Test for free drainage before planting.

520 Structural tree pit components

1. **Locations:** To tree TreeParker tree pits
2. **Manufacturer:** Greentech
 - 2.1. **Product reference:** TreeParker Unit (39269097)
 - 2.1.1. **Material:** Recycled material
 - 2.1.2. **Dimensions:** 605mm (l) x 605mm (w) x (h) 1000
 - 2.1.3. **Colour:** Black/antracite
 - 2.1.4. **TreeParker Unit consists of:** 1 pc. TreeParker Deck. 2 pc. TreeParker Frame. 4 pc. TreeParker Post

- 2.1.5. Weight: (400-1500mm) 11.34 - 20.84 kg
- 2.2. Product Reference: TreeParker Deck
 - 2.2.1. Material: Recycled fibreglass reinforced polypropylene (PP 100 % recyclable)
 - 2.2.2. Colour: Black
 - 2.2.3. Weight: 2.3 kg/pc.
 - 2.2.4. Dimensions: 503mm (l) x 503mm (w) x 30mm (h)
- 2.3. Product Reference: TreeParker Frame
 - 2.3.1. Material: PVC, 100% recyclable
 - 2.3.2. Colour: Black
 - 2.3.3. Weight: 2.9 kg/pc.
 - 2.3.4. Dimensions: 605mm (l) x 605mm (w) x 55mm (h) horizontal and vertical impacts
- 2.4. Product Reference: TreeParker Post
 - 2.4.1. Material: PVC, 100% recyclable
 - 2.4.2. Colour: Anthracite
 - 2.4.3. Weight: 2.10 kg/m
 - 2.4.4. Dimensions: Ø105 mm, length 1000 mm
- 2.5. Product Reference: Tree Root Directing Panel (17OUR7050-PRO)
 - 2.5.1. Material: Polypropylene PP (50% post-consumer)
 - 2.5.2. Type: RDP060
 - 2.5.3. Colour: Black
 - 2.5.4. Dimensions: 60 x 60cm
 - 2.5.5. Weight: 19.8kg per box
- 2.6. Product Reference: TreeParker TPGeoGrid 150 (17OUR7043-PRO)
 - 2.6.1. Dimensions: 1.5m x 100m (50kg)
 - 2.6.2. Material: Fibreglass, bitumen, polyethylene (PE)
 - 2.6.3. Diameter: 45cm
 - 2.6.4. Weight: 310 g/m²
- 2.7. Product Reference: TP Geotextile to Greentech specification.
- 2.8. Aeration Pipe: Tree Parker Aeration pipe Double inlet to Greentech specification.
- 3. Installation: To manufacturer's recommendations

526 Underground guying for:

- 1. Description: All trees to northern and western boundaries as noted on Soft Landscape Proposal Plan
- 2. Manufacturer: Greentech or similar approved
 - 2.1. Product reference: Tree Anchor Rootball Contract Strap Fixing System - GTRBK10S - 4.5m-7.5m Tree Height 25cm-45cm circumference or equivalent.
- 3. Installation: Ensure tree is positioned correctly and vertically prior to tightening the tension straps.

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: Alkaline Copper Quaternary (ACQ)
- 2. Stake size (minimum): 75 mm diameter
- 3. Stake length (minimum): 1.65m.

550 Double staking for Trees in Soft Landscape

1. **Description:** Trees in soft landscape areas not noted as requiring underground guying - Refer to notes on Soft Landscape Proposal Plan
2. **Staking**
 - 2.1. **Position:** Either side of tree position and perpendicular to wind direction.
 - 2.2. **Driving:** Vertically at least 300 mm into bottom of pit before planting.
 - 2.3. **Backfilling:** Consolidate material around stake.
 - 2.4. **Firming:** Sufficiently firm to prevent movement of the rootball/ rootstock.
3. **Height of stakes:** Cut off to approximately 900 mm above ground level
4. **Horizontal bracing:** Rubber belting with spacers
 - 4.1. **Fixing:** Firmly fix using nails on windward side of tree and as close as possible to the stem without making contact with the bark. Position cross bar horizontally and 25 mm from top of stakes
5. **Ties:** Adjustable
6. **Tying:** Secure tree firmly but not rigidly to cross bar. Prevent tree from touching cross bar using spacer blocks or cushions if required
7. **Nails for fixing ties, belts and webbing:** To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
8. **Nails for fixing cross bars:** To BS 1202-1, galvanized round wire, minimum 75 mm long and 3.75 mm gauge

576 Tree pit surfacing – loose fill

1. **Surfacing material:** Ornamental bark mulch, as section Q28
2. **Area:** 500mm radius circle
3. **Depth:** 50 mm
4. **Watering:** Water soil thoroughly before laying.
5. **Installation:** Ensure the base of the tree stem is kept free from loose filled material.

Woodland/ matrix/ buffer zone planting

665 Setting out - Ornamental & Herbaceous Planting

1. Ornamental shrub and herbaceous planting
2. **Distance between shrubs:** As per density outlined on soft landscape proposals plan.
 - 2.1. **Layout:** Natural form in staggered arrangement. Specimens to be planted at location on planting plan.

Ornamental Mixes to avoid straight lines with plants set out in groups of 3, 5 and 7 of the same species with taller species to back of planting bed tiering down to lower growing species.

665 A Setting Out - Native Hedge Planting

1. Native hedge planting
2. Refer to GC Typical Soft Landscape Details drawing J241270-GCL-ZZ-ZZ-D-L-0400 for detail.
3. **Distance between plants:** As plant schedule – 400mm centers.
4. **Distance between rows:** 450mm.
5. **Group species in groups of 5, 7 or 9 to ensure an even distribution of species throughout the specified length.**
 - 5.1. **Plant in double staggered parallel rows 450mm apart.**

Protecting/ maintaining/ making good defects

710 Maintenance

1. Duration: Carry out the operations in the following clauses from completion of planting until the end of the rectification period.
2. Frequency of maintenance visits: Contractor's choice as agreed with the client.

720 Failures of planting

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

740 Cleanliness

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

750 Planting maintenance generally

1. Weed control: Maintain weed free area around each tree and shrub.
 - 1.1. Diameter (minimum): The larger of 1 m or the surface of original planting pit.
 - 1.2. Keep planting beds clear of weeds: By use of approved non-residual herbicides
2. Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
3. Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
4. Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
5. Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
 - 5.1. Broken or missing items: Replace.
 - 5.2. Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
 - 5.3. Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
 - 5.4. Ties: Adjust to accommodate growth and prevent constriction or abrasion.
 - 5.5. Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
 - 5.6. Frequency of checks: Contractor's choice
6. Watering: As necessary

760 Planting maintenance – pruning

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

770 Native hedge planting maintenance

1. **Watering:** As necessary to prevent plants wilting.
2. **Loose plants:** Re-firm surrounding soil, without compacting.
3. **Weed control:** Cut down and remove weeds prior to setting seed along entire length of hedgerow and 500mm offset from each side of hedge.
4. **Mechanical, chemical or mulching methods of vegetation control:** Submit proposals.
5. **Bark mulch:** Maintain a depth of 50mm ornamental bark mulch at base of hedge.

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. Refer to Soft Landscape Management and Maintenance Plan – J241270-GCL-XX-XX-T-L-0601.

790 Final mulching

1. **Timing:** At end of the maintenance period.
2. **Watering:** Ensure that soil is thoroughly moistened prior to re-mulching, applying water where necessary.
3. **Planting beds (including raised planters):** Re-mulch. Depth 50mm (minimum).
4. **Trees in soft landscape:** Re-mulch. Depth 50mm (minimum)
5. **Native hedge planting areas:** Depth 50mm (minimum).
6. **Step out strips:** Depth 50mm (minimum).

Ω End of Section

Q35

Landscape maintenance

To be read with preliminaries/ general conditions.

12 Maintenance and defect period

1. The specification outlined below is in relation to the contractor's requirements under the 12 month maintenance and defect period following initial installation of the scheme. Maintenance following this period is subject to Sainsbury's appointed maintenance contractor and specifications.

This section is to be read in conjunction with scheme Soft Landscape Management and Maintenance Plan- J241270-GCL-XX-XX-T-L-0601.

Generally

105 Maintenance objectives

1. Location: Planting Areas.
 - 1.1. Duration: 12 months then scheme handed to client's landscape contractor.
2. Aims: To ensure successful establishment of planting areas.

110 Notice

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

130 Reinstatement

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

155 Watering

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

160 Water restrictions

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

170 Disposal of arisings

1. General: Unless specified otherwise, dispose of arisings as follows:
 - 1.1. Biodegradable arisings: Remove to recycling facility
 - 1.2. Grass cuttings: Remove to recycling facility
 - 1.3. Tree roots and stumps: Remove from site

- 1.4. Shrub and tree prunings: Remove to recycling facility
- 1.5. Litter and nonbiodegradable arisings: Remove from site

180 Chipping or shredding

- 1. General: Not permitted on site.

190 Litter

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

195 Protection of existing grass

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

197 Cleanliness

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

Grassed areas

226 Tree stems

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

Flower beds/ seasonal beddings - Not Used

Shrubs/ trees/ hedges

500 Establishment of new planting

- 1. Duration: One full growing seasons from the date of planting
- 2. Weed control
 - 2.1. Method: Keep planting beds clear of weeds by use of suitable herbicides or hand weeding.
 - 2.2. Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.
- 3. Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
- 4. Watering: As necessary.

502 Establishment of new planting – Fertilizer

- 1. Time of year: March or April.
- 2. Type: Slow release
- 3. Spreading: Spread evenly. Carefully lift and replace any mulch materials.
 - 3.1. Application rate: As manufacturer's recommendations

510 Tree stakes and ties

- 1. Inspection/ maintenance times: As scheduled and immediately after strong winds
- 2. Stakes
 - 2.1. Replace loose, broken or decayed stakes to original specification.

- 2.2. If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.
3. Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
 - 3.1. Where chafing has occurred, reposition or replace ties to prevent further chafing.
4. Removal of stakes and ties: When instructed
 - 4.1. Fill stake holes with lightly compacted soil.

520 Refirming of trees and shrubs

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

530 Shrub shelters

1. Loose or defective shelters: Adjust, refix or replace to original specification and to prevent chafing.
2. Removal: When instructed During spring when no longer required to protect the plant

540 Pruning generally

1. Pruning: In accordance with good horticultural and arboricultural practice.
 - 1.1. Removing branches: Do not damage or tear the stem or bark.
 - 1.2. Wounds: Keep as small as possible and cut cleanly back to sound wood.
 - 1.3. Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - 1.4. Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
2. Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.
3. Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
4. Disease or infection: Give notice if detected.
5. Growth retardants, fungicide or pruning sealant: Do not use unless instructed.

545 Pruning of excessive overhang

1. Timing: As instructed
2. Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
3. Special requirements: None

550 Pruning of excessive height

1. Timing: As instructed
2. Operations: Remove excessive height As instructed.

555 Pruning trees and shrubs

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

570 Formative pruning of young trees

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

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

575 Pruning ornamental shrubs

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

580 Pruning flowering species of shrubs and herbaceous perennials. Refer to Soft Landscape Management and Maintenance Plan for species specific detail.

1. **Time of year**
 - 1.1. **Winter flowering shrubs:** Spring.
 - 1.2. **Shrubs flowering between March and July:** Immediately after the flowering period.
 - 1.3. **Shrubs flowering between July and October:** Back to old wood in winter.
 - 1.4. **Herbaceous plants:** Check for weeding, staking, dividing and any dead shoots/flowers to be removed.

600 Trimming rapidly establishing hedges - Native hedges

1. **Native hedges**
2. **General:** Allow to reach planned height as rapidly as possible.
 - 2.1. **Form:** Trim back lateral branches moderately.
 - 2.2. **Height:** Hedge to be topped and maintained at maximum height of 1.8m.

620 Removal of dead plant material

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

630 Dead and diseased plants

1. **Removal:** Within 1 week of notification
2. **Replacement:** In the next suitable planting season

635 Reinstatement of shrub/ herbaceous areas

1. **Dead and damaged plants:** Remove.
2. **Mulch/ matting materials**
 - 2.1. **Carefully move** to one side and dig over the soil, leaving it fit for replanting.
3. **Do not disturb roots of adjacent plants.**
4. **Replacement plants**
 - 4.1. **Use pits and plants:** To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
 - 4.2. **Additional requirements:** Submit proposals
5. **Dressing:** Slow release fertilizer:

5.1. Type: Chemical

5.2. Application rate: As manufacturer's recommendations

645 Weed control generally

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

650 Hand-weeding

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

657 Herbicide to kill regrowth

1. Type: Suitable foliar acting herbicide to kill regrowth.
2. Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

665 Weed control with winter herbicide

1. Type: Suitable residual soil acting herbicide.
2. Time of year: Unless otherwise agreed, complete before end of March.
3. Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

670 Weed control with summer herbicide

1. Type: Suitable foliar acting herbicide.
2. Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

680 Soil aeration

1. Compacted soil surfaces
 - 1.1. Prick up: To aerate the soil of root areas and break surface crust.
 - 1.2. Size of lumps: Reduce to crumb and level off.
 - 1.3. Damage: Do not damage plants and their roots.

685 Soil level adjustment

1. Level of soil/mulch at edges of beds: Shrub and Native Planting beds to finish 30mm below adjoining surfaces. Grassed areas to finish flush with adjacent hard surfaces.
 - 1.1. Arising's (if any): Spread evenly over the bed.

690 Maintenance of loose mulch

1. Thickness (minimum): 50 mm
 - 1.1. Top up: Annually
2. Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
3. Weeding: Remove weeds growing on or in mulch by herbicide treatment or hand weeding.

695 Fertilizing established trees and shrubs

1. Time of year: During February or March
2. Type of fertilizer: Slow release

3. Application: Spread evenly.
 - 3.1. Rate: As manufacturer's recommendations

Green walls - Not Used

Tree work

810 Tree work generally

1. Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
2. Protection: Avoid damage to neighbouring trees, plants and property
3. Standards: To BS 3998:2010 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
4. Removing branches: Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
5. Appearance: Leave trees with a well balanced natural appearance.
6. Chain saw work: Operatives must hold a Certificate of Competence.
7. Tree work: To be carried out by an approved member of the Arboricultural Association.

815 Additional work

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

820 Prevention of wound bleeding

1. Standard: To BS 3998:2010.

825 Prevention of disease transmission

1. Standard: To BS 3998:2010.

830 Cleaning out and deadwooding

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

835 Cutting and pruning generally

1. Tools: Appropriate, well maintained and sharp.
2. Final pruning cuts
 - 2.1. Chainsaws: Do not use on branches of less than 50 mm diameter.
 - 2.2. Hand saws: Form a smooth cut surface.
 - 2.3. Anvil type secateurs: Do not use.
3. Removing branches: Do not damage or tear the stem.
4. Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.

5. **Cutting:** Cut at a fork or at the main stem to avoid stumps wherever possible.
6. **Large branches:** Remove only with prior approval
 - 6.1. Remove in small sections and lower to ground with ropes and slings.
7. **Dead branches and stubs:** When removing, do not cut into live wood.
8. **Unsafe branches:** Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
9. **Disease or fungus:** Give notice if detected. Do not apply fungicide or sealant unless instructed.

865 Bark damage

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

870 Cavities in trees

1. **Investigation:** Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay, and give notice.
2. **Water filled cavities:** Do not drain.
3. **Sound wood inside cavities:** Do not remove.
4. **Cavity openings:** Cover, as scheduled, with galvanized wire mesh, lightly secured

Water areas - Not Used

Hard landscape areas/ fencing - Not Used

Ω End of Section

Q40 Fencing

Fencing systems

430 Post and panel fencing systems

1. Description: Timber Knee Rail
2. Manufacturer: [Jacksons Fencing](#), or similar approved
 - 2.1. Product reference: [Demarcation Devices \(Diamond rail fencing\)](#)
3. Posts: 1200 mm-high (201000).
4. Rails: 1800 mm-long (640300).
5. Site applied finishes: None
6. System accessories: Galvanized strap (201100); Jakcure end grain preservative.
7. Height: 600mm
8. Maximum centres of posts: As manufacturer's recommendations
9. Method of setting posts: As manufacturer's recommendations

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
 - 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

720 Setting posts in concrete

1. Standard: To [BS 8500-2](#).
2. Mix: To engineers specification
3. Admixtures: To engineers specification
4. Holes: Excavate neatly and with vertical sides
5. Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well-rammed as filling proceeds and consolidated
6. Backfilling of holes not completely filled with concrete: Excavated material, well-rammed and consolidated

770 Site cutting of wood

1. General: Kept to a minimum
2. Below or near ground level: Cutting prohibited

3. **Treatment of surfaces exposed by minor cutting and drilling:** Two flood coats of solution recommended for the purpose by main treatment solution manufacturer

780 Making good galvanised 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

Ω End of Section

Q50

Site/ street furniture/ equipment

Gates, barriers and parking controls - Not Used

Site and street furniture

225 A Street and site seats BE1

1. Description: TO RAISED PLANTER EDGING Q10/200
2. Manufacturer: [Logic](#)
 - 2.1. Contact details
 - 2.1.1. Address: Pennine House
Hurricane Court
Stockton-on-Tees
North Yorkshire
United Kingdom
TS18 3TL
 - 2.1.2. Telephone: +44 (0)1642 373400
 - 2.1.3. Web: www.logic-bespoke.com
 - 2.1.4. Email: technical@logic-bespoke.com
 - 2.2. Product reference: [Plateu Integrated Seating](#)
3. Length: Varies. Refer to General Arrangement Plan for general layout. Manufacturer to produce final design.
4. Base: Attached to planter.
5. Material: Iroko - Class 2 tropical timber.
6. Accessories: None.
7. Style: Integrated bench.

225 B Street and site seats BE2

1. Description: TO RAISED PLANTER EDGING Q10/200
2. Manufacturer: [Logic](#)
 - 2.1. Product reference: [Plateu Integrated Seating](#)
3. Length: Varies. Refer to General Arrangement Plan for general layout. Manufacturer to produce final design.
4. Base: Attached to planter.
5. Material: Iroko - Class 2 tropical timber.
6. Accessories: Armrests. Powder coat colour and finish to match planter edging Q10/200. Refer to General Arrangement Plan for general layout. Manufacturer to produce final design for landscape architect approval.
7. Style: Integrated seat (Inc. backrest)

350 Bat Box

1. Description: Mounted on building
2. Manufacturer: Schwegler
 - 2.1. Product reference: 1FF Schwegler Bat Box
 - 2.2. Installation: Mount on building at a min height of 3.5m. Boxes should be south or east facing to ensure they receive at least partial sunlight, although 6-8 sunlight is preferable. The boxes should be placed close to trees and hedgerows used to feed and commute with a

clear flight line. The boxes should be positioned away from artificial light sources and sheltered from strong winds.

- 2.3. **Fixing:** As per manufacturer's recommendations.
- 2.4. **Maintenance:** Habitat boxes to be checked annually to ensure they are still where originally cited. If habitat boxes have become displaced boxes to be re-fixed to original location. If any evidence of use is seen from displaced or fallen boxes prior to moving advice to be sought from suitably qualified and experienced ecologist.

350 A Bird Box

1. **Description:** Mounted on building.
2. **Manufacturer:** Woodstone
 - 2.1. **Product reference:** Woodstone Seville Nest Box, including varying opening sizes (28mm and 32mm) (x2)
 - 2.2. **Installation::** Place on wall between 3-4m height, facing north or east. Tilt box slightly forward so that rain will hit the roof and bounce clear.
 - 2.3. **Fixing:** Hanger, as per manufacture's recommendation.
 - 2.4. **Maintenance::** Habitat boxes to be checked annually to ensure they are still where originally cited. If habitat boxes have become displaced boxes to be re-fixed to original location. If any evidence of use is seen from displaced or fallen boxes prior to moving advice to be sought from suitably qualified and experienced ecologist.

350 B Bee Hotel

1. **Description:** Sainsbury's Bee Hotel
2. **Manufacturer:** Sainsbury's to provide through Signage supplier
3. **Product::** Bee Hotel (Sainsbury's provided)
4. **Material:** Timber
5. **Installation:** Mounted on 100x100mm softwood treated timber post set in concrete foundation.
6. **Maintenance::** Twigs, cones and wood etc. should be replenished as old material decays.

Installation

530 Preservative treated timber

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

Ω End of Section



Ecology
Arboriculture
GIS and mapping
Landscape Architecture

Ground Control Limited
Kingfisher House
Radford Way
Billericay
Essex
CM12 0EQ

T: 01277 650 697

E: info@ground-control.co.uk

www.ground-control.co.uk