# **Hertford Theatre for East Herts District Council**

NBS Hard and Soft Landscape Specification

July 2023

D2823-FAB-XX-XX-SP-L-0001 Revision C01

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### Q10

# Kerbs/ edgings/ channels/ paving accessories REVISED

#### Clauses

#### 2 To be read with preliminaries/general conditions.

### Types of kerbs/edgings and channels

#### 112A ET1 - concrete pin kerb

- Manufacturer: Marshalls plc or similar approved W: marshalls.co.uk
- 2. Product: Conservation X Edging
- 3. Standard: To BS EN 1340.
- 4. Size (width x height x length): 63 x 915 x 150mm
- 5. Finish: As cast
- 6. Colour: Silver Grey
- 7. Bedding: Concrete races to Engineer's specification
- 8. Joints generally: Dry, 2-3 mm gap
- 9. Accessories: None

#### ET1A - timber kerb ADDED 112B



- Description: To landscape contractor's choice.
- Standard: To BS EN 1340.

#### 120 ET2 - Raised granite kerb

- 1. Standard: To BS EN 1343.
- 2. Supplier: Marshalls plc or similar approved W: marshalls.co.uk
- 3. Stone type: Granite
- 4. Size (width x height): 150 x 900 x 200mm
- 5. Freeze/ Thaw resistance: Resistant
- 6. Special shapes: External radius kerbs
- 7. Finish: Flamed, dark colour to be contrasting with PT2
- 8. Bedding: Concrete bed to Engineer's details
- 9. Joints generally: Tooled mortar
- 10. Sealant movement joints: Not required
- 11. Accessories: None

#### ET3 - Raised granite kerb existing/re-laid REVISED 120A

- Re-use existing where possible: Any removed existing granite road kerbs to be lifted, cleaned and stored for re-use if in good condition. To be re-laid to new position in new bedding. If insufficient, following specification to be used:
- 2. Standard: To BS EN 1343.
- Supplier: Marshalls plc or similar approved W: marshalls.co.uk
- 4. Stone type: Granite
- 5. Size (width x height): 300 x 900 x 200mm



- 6. Freeze/ Thaw resistance: Resistant
- 7. Special shapes: None
- 8. Finish: Flamed to match existing
- 9. Bedding: Concrete bed to Engineer's details
- 10. Joints generally: Tooled mortar
- 11. Sealant movement joints: Not required
- 12. Accessories: None

#### 250 Material samples

- 1. Samples representative of colour and appearance of designated materials: Submit before placing orders.
  - 1.1. Designated materials: Stone kerbs

### 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

 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.

### 547 Bedding/ Backing of units on fresh concrete races

1. Standard: To BS 7533-6.

### 610 Angle kerbs

- 1. Usage: Internal and external 90° changes of direction.
- 2. Cutting of mitres: Not permitted.

#### 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.

### 640 Tooled mortar joints

- 1. Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
  - 1.1. Joint width: 6 mm.

 $\boldsymbol{\Omega}$  End of Section



### **Q23**

# Gravel/ hoggin/ woodchip/ resin bound roads/ paving/ overlays

### REVISED

#### Clauses

To be read with preliminaries/ general conditions.

### Types of surfacing

#### Gravel ADDED 160A

- 1. Subgrade improvement layer: To Engineer's specifications
  - 1.1. Compacted thickness: To Engineer's specifications
- 2. Granular sub-base: To Engineer's specifications
  - 2.1. Compacted thickness: 200mm or to suit available depth
- 3. Gravel: Loose laid and raked to uniform thickness
  - 3.1. Type: Sea Flint Gravel or similar approved
  - 3.2. Source: CED Stone Ltd, or similar approved
  - 3.3. Colour: www.cedstone.co.uk
  - 3.4. Size: 10mm
  - 3.5. Thickness: 50mm

#### Concrete paving REVISED 190A

- Description: TO PT6 WEIR CONTROL AREA
- 2. Granular sub-base: to Engineer's specification
  - 2.1. Compacted thickness: to Engineer's specification

#### **PT5 - Resin Bound Chippings** 225A

- 1. Description: TO PT5 PEDESTRIAN AREAS
- 2. Granular sub-base: to Engineer's specification
  - 2.1. Compacted thickness: to Engineer's specification
- Base course: to Engineer's specification. In areas adjacent to walkway, laid into metal panel trays of boardwalk system.
- 4. Surface course
  - 4.1. Manufacturer: Addagrip or similar approved
    - E: sales@addagrip.co.uk
    - T: 01825 761333
    - 4.1.1. Product reference: 6mm New Oyster
  - 4.2. Aggregate size: 6mm
- 5. Application: Thoroughly mixed and uniformly spread.
  - 5.1. Thickness: 18mm
  - Compaction to all layers: By heavy roller or other appropriate means, adequate to resist subsidence or deformation of the completed roads/ pavings when in use.

### Laying

#### 315 **Materials**

1. Compatibility: Chippings suitable for use with respective binders/ emulsions/ resin/ epoxy.



### 320 Samples

1. Submit: Representative samples of all aggregates.

### 340 Laying generally

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

### 350 Cold weather working

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

### 380 Laying granular surfaces in pedestrian areas and cycle tracks

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

#### 390 Protection from traffic and plant

1. Paved areas: Restrict access to prevent damage.

### Completion - Not Used

 $\Omega$  End of Section



### **Q24**

# Interlocking brick/ block roads/ pavings REVISED

### Types of paving

# Permeable concrete block paving ADDED

- 1. Subgrade improvement layer: to Engineer's specification
- 2. Granular sub-base: to Engineer's specification
- 3. Laying course
  - 3.1. Material: to Engineer's specification
- Blocks: To BS EN 1338.
  - 4.1. Manufacturer: Marshalls W: marshalls.co.uk T: 0345 302 0600
    - 4.1.1. Product reference: Tegula Priora Harvest
  - 4.2. Sizes: 40% 240x160mm 40% 160x160mm 20% 120x160mm
  - 4.3. Spacer nibs: Required
  - 4.4. Arrises: Chamfered
  - 4.5. Colour/ Finish: Harvest with Pennant Grey Header
- 5. Jointing
  - 5.1. Material: Single size 5 mm washed aggregate
  - 5.2. Joint width: to Engineer's specification
  - 5.3. Conventional sand jointing: To edge cut blocks at perimeters only
- 6. Setting out
- 6.1. Bond: Stretcher 7. Accessories: None

#### Impermeable concrete block paving 115A

- 1. Subgrade improvement layer: to Engineer's specification
- 2. Granular sub-base: to Engineer's specification
- 3. Laying course
  - 3.1. Material: to Engineer's specification
- 4. Blocks: To BS EN 1338.
  - Manufacturer: Marshalls W: marshalls.co.uk T: 0345 302 0600
    - 4.1.1. Product reference: Tegula Priora Harvest
  - 4.2. Sizes: 40% 240x160mm 40% 160x160mm 20% 120x160mm
  - 4.3. Spacer nibs: Required
  - 4.4. Arrises: Chamfered
  - 4.5. Colour/ Finish: Harvest with Pennant Grey Header
- 5. Jointing
  - 5.1. Material: Ready-mixed mortar.



- 5.2. Manufacturer: Larsen Building Products, or similar approved.
- 5.3. Product: Flowable Jointing Mortar
- 5.4. Colour: Grey, to match paving. Landscape Contractor to submit samples for approval prior to installation.
- 5.5. Application: Jointing mortar must be applied in accordance with Manufacturer's recommendations.
- 5.6. Joint width: 10mm.
- 6. Setting out
  - 6.1. Bond: Stretcher
  - 6.2. Features: Double header course: Tegula Priora Pennant Grey 120x120mm
- 7. Accessories: None

#### Execution

### 200 Execution generally - concrete block and clay paver paving

Standard: In accordance with BS 7533-3.

#### 211 Colour banding

 General: Unless premixed by manufacturer, select blocks/ pavers/ setts from at least 5 separate packs in rotation, to avoid colour banding.

#### 220 Samples

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

#### 230 Control samples

- 1. General: Carry out sample area of finished work:
  - 1.1. Location: TBC on site
  - 1.2. Size (minimum): 1.5m x 1.5m
  - 1.3. Features to be included: Channel

Kerh

Recessed manhole cover infill

Junction with building facade

- 2. Give notice: When ready for inspection.
- 3. Timing: Obtain approval of appearance from Landscape Architect before proceeding.

#### 240 Adverse weather

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

### 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:
- 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.

### 490 Laying permeable paving

1. General: Do not fill joints with sand, except for a 300 mm strip along restraining edges and around features and the like, to hold cut blocks in place



### 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.

 $\Omega$  End of Section



### **Q25**

# Slab/brick/sett/cobble pavings REVISED

#### Clauses

#### To be read with preliminaries/ general conditions.

#### General

#### PT4 - Vehicular Yorkstone Paving System 110A

- 1. Subgrade improvement layer: to Engineer's specification
- 2. Granular sub-base: to Engineer's specification
- Base: to Engineer's specification
- 4. Laying course: Ready-mixed mortar
  - Manufacturer: Larsen Building Products, or similar approved W: larsenbuildingproducts.com
  - 4.2. Product: Streetscape FBC
  - 4.3. Thickness: 40mm, Engineer to confirm
  - 4.4. Application: Mortar bedding must be applied in accordance with Manufacturer's recommendations.
  - 4.5. Accessories: Streetscape PS primer for underside of slabs, as per Manufacturer's recommendations
- 5. Paving units: as clause Q25/310A
- 6. Jointing: Ready-mixed mortar
  - Manufacturer: Larsen Building Products, or similar approved W: larsenbuildingproducts.com
  - 6.2. Product: Flowable Jointing Mortar
  - 6.3. Colour: Buff, to match paving. Landscape Contractor to submit samples for approval prior to installation.
  - 6.4. Application: Jointing mortar must be applied in accordance with Manufacturer's recommendations
  - 6.5. Joint width: 10mm
  - 6.6. Bond: 1/3 staggered
- 7. Accessories: none

#### PT1 - Yorkstone Paving System - existing/relaid REVISED 110B

- Description: Yorkstone paving to be retained where possible. To be relaid where necessary. Carefully take out the slabs, clean and relay as shown on the drawings.
- Subgrade improvement layer: to Engineer's specification
- Granular sub-base: to Engineer's specification
- Base: to Engineer's specification
- 5. Laying course: Ready-mixed mortar
  - Manufacturer: Larsen Building Products, or similar approved W: larsenbuildingproducts.com
  - 5.2. Product: Streetscape FBC
  - 5.3. Thickness: 40mm, Engineer to confirm
  - 5.4. Application: Mortar bedding must be applied in accordance with Manufacturer's recommendations.
  - 5.5. Accessories: Streetscape PS primer for underside of slabs, as per Manufacturer's recommendations
- 6. Paving units: as clause Q25/310B
- 7. Jointing: Ready-mixed mortar



- Manufacturer: Larsen Building Products, or similar approved W: larsenbuildingproducts.com
- 7.2. Product: Flowable Jointing Mortar
- 7.3. Colour: Buff, to match paving. Landscape Contractor to submit samples for approval prior to installation.
- 7.4. Application: Jointing mortar must be applied in accordance with Manufacturer's recommendations
- 7.5. Joint width: 10mm 7.6. Bond: 1/3 staggered
- 8. Accessories: none

#### Natural granite sett paving system 140A

REVISED

- Description: To be relaid where necessary. Carefully take out the setts, clean and relay as shown on the drawings.
- 2. Subgrade improvement layer: to Engineer's specification
- 3. Granular sub-base: to Engineer's specification
- Base: to Engineer's specification
- 5. Laying course: Ready-mixed mortar
  - Manufacturer: Larsen Building Products, or similar approved W: larsenbuildingproducts.com
  - 5.2. Product: Streetscape FBC
  - 5.3. Thickness: 40mm, Engineer to confirm
  - 5.4. Application: Mortar bedding must be applied in accordance with Manufacturer's recommendations.
  - 5.5. Accessories: Streetscape PS primer for underside of slabs, as per Manufacturer's recommendations
- 6. Paving units: Q25/330A
- 7. Jointing: Ready-mixed mortar
  - Manufacturer: Larsen Building Products, or similar approved W: larsenbuildingproducts.com
  - 7.2. Product: Flowable Jointing Mortar
  - 7.3. Colour: Silver grey, to match paving. Landscape Contractor to submit samples for approval prior to installation.
  - 7.4. Application: Jointing mortar must be applied in accordance with Manufacturer's recommendations
  - 7.5. Joint width: 10mm 7.6. Bond: 1/3 staggered
- 8. Accessories: None

### System performance - Not Used

#### **Products**

#### PT4 - vehicular access yorkstone paving

- Description: TO MATCH EXISTING
- 2. Standard: To BS EN 1341.
- 3. Supplier: Marshalls plc or similar approved

W: marshalls.co.uk

- 3.1. Product reference: Yorkstone Paving Provisionally Scoutmoor samples to be compared and matched to PT1 existing paving before ordering.
- 4. Finish: To match existing (Provisionally Diamond sawn)
- 5. Sizes: 200 x 300 x 80mm Engineer and manufacturer to confirm thickness for vehicular usage.
- 6. Arrises: Square



- 7. Breaking strength: Engineer to confirm
- Slip resistance: SRV to BS EN 14231 of 80
- Skid resistance: PSV to HA DMRB 7.5.1 of 65

# PT1 - Yorkstone paving - existing/relaid REVISED

- Description: Any removed existing yorkstone paving to be lifted, cleaned and stored for re-use if in good condition. To be re-laid to new position in new bedding. If insufficient, following specification to be used:
- Standard: To BS EN 1341.
- Supplier: Marshalls plc or similar approved

W: marshalls.co.uk

- Product reference: Yorkstone Paving Provisionally Scoutmoor samples to be compared and matched to PT1 existing paving before ordering.
- Finish: To match existing. 4.
- Sizes: To match existing.

### PT3 - Natural granite setts

- Description: Any removed existing granite setts to be lifted, cleaned and stored for re-use if in good condition. To be re-laid to new position in new bedding. If insufficient, following specification to be used:
- Standard: To BS EN 1342.
- Supplier: Marshalls plc or similar approved W: marshalls.co.uk
  - 3.1. Product reference: Granite setts
- 4. Colour: To match existing.
- 5. Finish: To match existing.
- 6. Sizes: To match existing.

#### Execution

#### REVISED **Material samples** 610

- Samples representative of colour and appearance of designated materials: Submit before placing orders.
  - 1.1. Designated materials: All pavings.

#### 620 Adverse weather

- General
  - 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:
  - 3.1. Stockpiled bedding sand: Protect from saturation.
  - 3.2. Exposed areas of sand bedding and uncompacted areas of sand bedded paving: Protect from heavy
  - 3.3. Saturated sand bedding: Remove and replace, or allow to dry before proceeding.
  - Laying dry-sand 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.
- 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

- 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

 General: Unless premixed by manufacturer, select from at least 5 separate packs in rotation to avoid colour banding.

#### 645 Protection

- 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): 24 hours
  - 4.2. Vehicular traffic (minimum): 7 days
- 5. Access: Restrict access to paved areas to prevent damage from site traffic and plant.

### 650 Cementitious bases and sub-bases

 General: Protect from moisture loss, if not covered by another pavement course within 2 hours of completion.

### 655 Condition of sub-bases/ bases before spreading laying course

- 1. Trenches and excavation of soft or loose spots in subgrade: Fill and thoroughly compact.
- 2. Granular surfaces: Lay and compact so as to be sound, clean, smooth and close-textured enough to prevent migration of bedding/ laying course materials into the sub-base during compaction and use, free from movement under compaction plant and free from compaction ridges, cracks and loose material.
- 3. Prepared existing and new bound bases (roadbases): Sound, clean, free from rutting or major cracking. Remove sharp stones, projections and debris.
- 4. Sub-base/ Roadbase level tolerances: To BS 7533-7, Annex A.



- 5. Levels and falls: Accurate and within the specified tolerances.
- 6. Drainage outlets: Within 0-10 mm of the required finished level.
- 7. Features in sand bedded paving (including mortar bedded restraints and drainage ironwork): Complete to required levels; adequately bed and haunch in mortar.
- 8. Sub-bases containing cement/ hydraulic binder: Cure for minimum times specified in BS 7533-4.

#### 750 Laying natural stone cobble paving

1. Bedding, laying, jointing and completion: In accordance with BS 7533-7 and -10.

### 760 Laying precast concrete and gravel paving

- 1. Laying: Tamp down into lightly compacted laying course.
  - 1.1. Nominal thickness of laying course after compaction: 40 mm
- 2. Filling: Allow to settle and refill level with surface.

### 785 Tooled joints in mortar-bedded units

- 1. Joints: Completely filled with bedding mortar as work proceeds.
  - 1.1. Joint width: 10 mm
  - 1.2. Finish: Neat flush profile.

### Completion - Not Used

 $\Omega$  End of Section



### **Q28**

# Topsoil and soil ameliorants REVISED

Clauses - Not Used

### System outline

### Soil system for grass

- 1. Description: FOR LAWNS
- 2. Composition
  - 2.1. Soil: 150mm Imported topsoil from a specified source as clause Q28/315A
  - 2.2. Subsoil:: 150mm Imported subsoil from a specified source as clause Q28/316
  - 2.3. Ameliorants: Sanitized and stabilized composted materials
  - 2.4. Accessories: Ground decompacted before laying of soils

#### 135A Planting bed soil system

- 1. Composition
  - 1.1. Topsoil: 300mm Imported topsoil from a specified source as clause Q28/315A
  - 1.2. Subsoil: 150mm Imported subsoil from a specified source as clause Q28/316
  - 1.3. Ameliorants: Sanitized and stabilized composted materials
  - 1.4. Accessories: None

#### 145 Tree pit backfilling soil system

- 1. Description: FOR TREE PITS
- 2. Composition
  - 2.1. Topsoil: 300mm Imported topsoil from a specified source as clause Q28/315A
  - 2.2. Subsoil: 600mm Imported subsoil from a specified source as clause Q28/316
  - 2.3. Ameliorants: Sanitized and stabilized composted materials
  - 2.4. Accessories: Base of pits decompacted

#### Bark mulch REVISED 155A

- 1. Description: FOR ALL PLANTING BEDS
- 2. Composition
  - 2.1. Material: Bark Mulch
  - 2.2. Manufacturer: Melcourt Industries Ltd

W: melcourt.co.uk T: +44 (0) 1666 502711

2.2.1. Product: Ornamental Grade Bark Mulch

2.2.2. Depth: 50mm

#### **Products**

#### 300 Preparation materials generally

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

#### 310 Materials not permitted

1. Materials: Products containing peat and River and canal dredgings

#### 315A Imported topsoil

- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- 2. Standard: To BS 3882.
- 3. Classification: Multipurpose
  - 3.1. Soil textural class to BS 3882, Figure 1: Sandy silt loam
- 4. Source: Bourne Amenity W: bourneamenity.co.uk T: 01797 252 299
  - 4.1. Product reference: TS6 5mm Premium Topsoil

### 330A Imported subsoil

- 1. Description: FOR PLANTING BEDS, LAWN AND TREE PITS
- 2. Type: Subsoil BS8601:2013
  - 2.1. Soil textural class: Loamy sand
- Manufacturer: Bourne Amenity W: bourneamenity.co.uk

T: 01797 252 299

3.1. Product reference: Loamy Sand Subsoil

#### 360 Sanitized and stabilized composted materials certified to PAS 100

- 1. Description: FOR LAWN, PLANTING BEDS AND TREE PITS
- 2. Standard: In accordance with PAS 100.
- 3. Source: Laverstoke Farm or similar approved
  - 3.1. Product reference: Laverstoke Compost
- 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: 95% passing 25mm and 90% passing 10mm screen mesh apertures.
  - 4.6. Carbon:Nitrogen ratio (maximum): 20:1.
- 5. Texture: Friable.
- 6. Objectionable odour: Not permitted.
- 7. Compost Certification Scheme certification: Required.
- 8. Declaration of analysis: Submit.
- 9. Additional analyses: Not required.



10. Samples: Submit details of recent chemical and physical analysis before ordering.

#### Execution

#### 610 Topsoil analysis

- 1. Soil to be analysed: Imported topsoil and subsoil
- 2. Soil analyst: Contractor's choice
- 3. Samples: Collect in accordance with BS 3882.
- 4. Submit
  - 4.1. Declaration of analysis: In accordance with BS 3882, clause 6 and Table 1.
  - 4.2. Additional analysis: Chemical analysis
    - Chemical contaminants
    - Phytotoxic and CLEA elements Potentially toxic elements (PTEs)
  - 4.3. Report detailing soil analyst's recommendations.
    - 4.3.1. Report: To include soil analysist's recommendations to the appropriateness of the soils for their intended usage.

#### 620 Importing topsoil

- 1. Give notice: Before stripping topsoil for transfer to site. Give notice to client, contract administrator and landscape architect.
  - 1.1. Notice period: 14 days

#### 630 Documentation for imported topsoil

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

#### 635 Documentation for compost and composted materials

- 1. Description: 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

#### 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 weeks

#### 655 Mechanical tools

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

#### 660 Grading subsoil for:

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

#### 665 Subsoil surface preparation for:

- 1. Description: FOR PLANTING BEDS, TREES AND LAWN
- 2. Standard: In accordance with BS 3882.
- 3. General: Excavate and/ or place fill to required profiles and levels, as section D20.
- 4. Loosening
  - 4.1. When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth
    - 4.1.1. Light and noncohesive subsoils: 300 mm
    - 4.1.2. Stiff clay and cohesive subsoils: 450 mm
    - 4.1.3. Rock and chalk subgrades: Lightly scarify to promote free drainage.
  - 4.2. Wet conditions: Do not loosen subsoils.
- 5. Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
- 6. Remove from site: Arisings, contaminants and debris

### 670 Inspecting formations

- 1. Give notice: Before spreading topsoil for lawn areas and planting beds.
- 2. Notice period: 14 days

### 685 Surplus materials to be removed

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

### 700 Grading of topsoil

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

### 705 Handling topsoil

- 1. Standard: In accordance with BS 3882.
- 2. Aggressive weeds: Give notice and obtain instructions before moving topsoil.
- 3. Plant: Select and use plant to minimize disturbance, trafficking and compaction.
- 4. Contamination: Do not mix topsoil with:



- 4.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
- 4.2. Other grades of topsoil.
- 5. Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
- 6. Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall, or when the moisture content is greater than the plastic limit.

#### 710 Spreading topsoil on:

- 1. Description: PLANTING BEDS
- 2. Standard: In accordance with BS 3882.
- 3. Temporary roads/ surfacing: Remove before spreading topsoil.
- 4. Layers
  - 4.1. Depth (maximum): 150 mm.
  - 4.2. Gently firm each layer before spreading the next.
- 5. Depth after firming and settlement: 300mm
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

### 715 Loose tipping of topsoil

- 1. Standard: In accordance with BS 3882.
- 2. General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

#### 718 Final cultivation

- 1. Description: FOR ALL 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: 350 mm
- 5. Particle size (maximum): 2-8 mm
- 6. Timing: Within a few days before planting
- 7. Weather and ground conditions: Suitably dry.
- 8. Surface: Leave regular and even.
- 9. Levels: 25 mm above adjoining paving or kerbs
- 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: Flush
- 2. In relation to dpc of adjoining buildings: Not less than 150 mm below.
- 3. In relation to adjacent grass areas: 25 mm below
- Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
- 5. Sportsfields: To even levels and within the following permitted deviations:
  - 5.1. From levels or gradients shown on drawings: ±75 mm.
  - 5.2. From line between boning rods 30 m apart: ±25 mm.
- 6. Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
- 7. Adjoining soil areas: Marry in.
- 8. Thickness of turf or mulch: Included.



### 805 Applying soil ameliorant

- 1. Description: FOR PLANTING BEDS, TREE PITS AND LAWN
- 2. Type: Composted materials Q28/360
- 3. Fully incorporate into topsoil to a depth of 150 mm.
- 4. Application: Spread evenly.
  - 4.1. Timing: Apply prior to cultivation.
  - 4.2. Rate: 5 kg/m<sup>2</sup>
- 5. Timing: Prior to cultivation.
- 6. Other requirements: as Q28/360

#### 845 Applying loose mulch

- 1. Description: For planting beds
- 2. Timing: Immediately after planting
- 3. Preparation: Clear all weeds
- 4. Coverage of mulch (minimum)
  - 4.1. Planting beds (depth): 50 mm depth
  - 4.2. Trees: 50 mm depth
  - 4.3. Container planting: 50 mm depth
- 5. Finished level of mulch: Flush to adjacent grassed or paved areas

### Completion

### 910 Applying maintenance fertilizer to grass swards

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

#### 920 Applying mulch

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

### Deleted clauses

115B Soil system for shade wildflower meadow DELETED

115C Soil system for wetland wildflower meadow DELETED

315B Imported aquatic topsoil DELETED

Ω End of Section





# Q30 Seeding/turfing REVISED

Clauses - Not Used

### General information/requirements

#### 115 Seeded and turfed areas

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

#### 120 Climatic conditions

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

#### 145 Watering

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

#### 150 Water restrictions

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

#### 160 Notice

- 1. Give notice before
  - 1.1. Setting out.
  - 1.2. Applying herbicide.
  - 1.3. Applying fertilizer.
  - 1.4. Preparing seed bed.
  - 1.5. Seeding or turfing.
  - 1.6. Visiting site during maintenance period.
- 2. Period of notice: 2 weeks

### 170 Setting out

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

### Preparation - Not Used

### Seeding

### 311 G1 - Amenity Grass REVISED

1. Description: LAWN SEED MIX

2. Supplier: Rolawn W: Rolawn.co.uk T: 01904 757372

2.1. Mixture reference: Medallion Premium Lawn Seed

3. Application rate: 1.5kg per 43m2



#### 330 Sowing

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

#### 335 Grass sowing season

1. Grass seed generally: April to October

### Turfing - Not Used

### Protecting/cutting

#### 530 First cut of G1 grass

- 1. Timing: When grass is reasonably dry.
  - 1.1. Height of initial growth: 75 mm
- 2. Preparation
  - 2.1. Debris and litter: Remove.
  - 2.2. Stones and earth clods larger than 25 mm in any dimension: Remove
- 3. Height of first cut: 40 mm
- 4. Mower type: Contractor's choice. Gently roll before first cut.
- 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: practical completion.
- 2. Defective materials or workmanship: Areas that have failed to thrive.
  - 2.1. Exclusions: Theft or malicious damage.
- 3. Method of making good: Recultivation and reseeding/ returfing.
- 4. Timing of making good: The next suitable planting season

### 620 Maintaining

- 1. Description: General grassed areas
- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
- 3. Maximum height of growth at any time: 50 mm
- 4. Preparation: Before each cut remove all litter and debris.
- 5. Cutting: As and when necessary to a height of 35 mm.
  - 5.1. Arisings: Remove
- 6. Bulb planting areas: Do not cut until bulb foliage has died down.
- 7. Trimming: All edges.
  - 7.1. Arisings: Remove.
- 8. Weed control: Substantially free of broad leaved weeds.
  - 8.1. Method: Application of a suitable selective herbicide.



- 9. Stones brought to the surface: Remove regularly.
  - 9.1. Size: Exceeding 25 mm in any dimension.
- 10. Areas of settlement: Make good.
- 11. Watering:

### **Deleted clauses**

312A Wildflower seed mixture DELETED

312 Wildflower seed mixture DELETED

319 Quality of seed DELETED

352 Edges to seeded areas DELETED

 $\boldsymbol{\Omega}$  End of Section



# Q31 External planting REVISED

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
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas. Large roots of protected trees must not be disturbed.
- 6. Additional requirements: See General Arrangements for retained existing features.

#### 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.
- 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 REVISED

- 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: Two weeks

#### 170 Soil requirements

- 1. Type
  - 1.1. Planted beds: Planting bed soil system, as section Q28
  - 1.2. Tree pits, shrub pits and other backfilling: Plant pit backfilling soil system, as section Q28
  - 1.3. External container planting: Container planting growing media system, as section Q28
  - 1.4. Mulch applied after planting: Mulching and top dressing system, as section Q28

#### 200 Plants/ Trees - general

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

#### 215 Plants/ Trees – specification criteria

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

#### 225 Bulbs/ Corms/ Tubers

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



4.3. Temperature: 18-21°C.

#### 235 Container grown plants/ Trees

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

#### 245 Labelling and information

- 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.
- Additional information: Submit on request: Country of origin; Date supplied and consignment details or reference; - Name or designation of rootstock of budded or grafted plants; - Potting dates; - Propagation method and dates; and - Type of container.

#### 246 Labelling and information

1. Standard: To BS 3936.

#### 260 Plant/ Tree substitution

- 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.
- 3. Note: : If specified plants are unobtainable or known to be likely to be unobtainable at the time of tendering and ordering, the contractor must submit alternatives to the Landscape Architect at least two weeks prior to tender submission or the start of works on site.

### 265 Plant handling, storage transport and planting

- 1. Standard: To CPSE 'Handling and establishing landscape plants'.
- 2. Frost: Protect plants from frost.
- 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
- 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

 Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

#### Plant containers - Not Used

### Preparation of planting beds/ planting materials

#### 305 Weed control

- 1. Description: FOR INVASIVE NON-NATIVE WEEDS
- 2. Locations: All planting areas
- 3. General: Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding.

### Planting shrubs/ herbaceous plants/ bulbs

### 405 Shrub planting pits

- 1. Timing: Excavate 1-2 days (maximum) before planting.
- 2. Sizes: Wide enough to accommodate roots when fully spread and 75 mm deeper than root system
- 3. Pit bottom improvement Break up to a depth of 150 mm, incorporating 25 g of slow release fertilizer per planting pit.

# 420A FT3 - climbing plant support REVISED

- Design Intent Specification:: Manufacturer to create fabrication drawings including loading calculations for approval.
- 2. Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward.
  - 2.1. Branches: Lightly secured to supports.
- 3. Climber supports: Stainless Steel wire
  - 3.1. Supplier:: GreenBlue Urban Ltd.
    - Web: www.greenblue.com.
    - Email: enquiries@greenblueurban.com
  - Product:: Climbing trellis system Light Series 60
  - 3.3. Base height: 600mm above ground
  - 3.4. Extent: As drawing D2823-FAB-XX-XX-DR-L-4022
  - 3.5. Centres: See drawing
  - 3.6. Distance from wall: 60mm
- 4. Components:: Manufacturer to provide components required to achieve design intent.
- 5. Fixings: Manufacturer to provide fixings required to achieve design intent. Fixing depth to be confirmed with Architect and Structural Engineer.



#### 463 Preplanted Coir Rolls

- 1. Manufacturer: AGA Group
  - W: agagroup.co.uk T: 01953886824
  - 1.1. Product reference: AGA Vegetated Coir Rolls
- 2. Species mix: Standard mix combination of *Iris pseudacorus, Carex acutiformis*, *Glyceria fluitans*, *Juncus effuses*, *Phragmites australis* and *Lythrum salicaria*.
- 3. Properties of soil used for mat production: 100% virgin mattress coir fibre
- 4. Substrate preparation: as manufactured
- 5. Fixing/ Jointing: Timber stakes to manufacturer's recommendation
  - 5.1. Restraint on slopes: To Engineer's recommendation
- 6. Establishment/ Aftercare: See management plan

### 480 After planting

- 1. Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- 2. Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
- 3. Top dressing: Mulching and top dressing system, as section Q28
  - 3.1. Depth: 50 mm

### Planting trees

#### 500 Tree planting

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

#### 505 Tree pits

- 1. Sizes: 500 mm wider than, and the same depth as the rootball
- 2. Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- 3. Excavated material: Remove arisings
- 4. Pit bottoms: Excavate with slightly raised centre: Break up base to a depth of 200 mm.
  - 4.1. Treatment: Soil ameliorant worked into pit bottoms
- 5. Pit sides: Scarify.
- 6. Backfilling material: Topsoil, as section Q28
- 7. Accessories::

Underground guying: Q31/512A
Irrigation pipe: Q31/512D
Rootbarrier: Q31/510B

#### 510 Tree pit root barriers

- 1. Locations: Wherever the installed rootball will be within 2 m of a building foundation. Wherever the installed rootball will be within 3 m of an existing underground service route
- 2. Manufacturer: GreenBlue Urban Ltd.
  - Web: www.greenblue.com.
  - Email: enquiries@greenblueurban.com
  - 2.1. Product reference: RER1000
- Thickness: 1.0 mm
   Barrier depth: 1000 mm
   Foil liner: Not required
- 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: GreenBlue Urban Ltd.
  - Web: www.greenblue.com.
  - Email: enquiries@greenblueurban.com
  - 2.1. Product reference: RRCIVIC1A / RRCIVIC2A to suit tree rootball size
- 3. Type: Perforated plastics irrigation pipe with inlet
- 4. Pipe diameter: 60 mm
- 5. Ring diameter: Various, to suit tree rootball size
- 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: To all tree pits
- 2. Depth of excavation: Increase from specified size to allow for aggregate layer, with base slightly falling to
- 3. Aggregate layer: Clean gravel or broken stone, with no fines, graded 40 to 20 mm.
  - 3.1. Depth: 200 mm
- 4. Drainage pipes
  - 4.1. Type: to Engineer's specification
  - 4.2. Diameter: to Engineer's specification
  - 4.3. Position: to Engineer's specification
- 5. Completed pits: Test for free drainage before planting.

#### 526 Underground guying for:

- 1. Description: All trees
- 2. Manufacturer: GreenBlue Urban Ltd.
  - Web: www.greenblue.com.
  - Email: enquiries@greenblueurban.com
  - Product reference: Arborguy rootball guying system. SASMCB / SASLCB depending on the girth size
    of the trees
- 3. Anchoring system: 3 no drive-in anchors
- 4. Installation: Ensure tree is positioned correctly and vertically prior to tightening guy line tensioners.

### Woodland/ matrix/ buffer zone planting - Not Used

### Protecting/ maintaining/ making good defects

#### 710 Maintenance

- 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: In accordance with the agreed maintenance schedule



#### 720 Failures of planting

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

### 740 Cleanliness

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

#### 750 Planting maintenance generally

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

### 760 Planting maintenance - pruning

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

#### 780 Maintenance instructions

 General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide a schedule of any ongoing maintenance problems experienced during the rectification period.

#### 790 Final mulching

- 1. Timing: At end of the maintenance period.
- 2. Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.



3. Planting beds: Remulch.4. Depth (minimum): 50 mm

5. Trees: Remulch.

6. Depth (minimum): 50 mm

### **Deleted clauses**

457 Planting aquatic/ Marginal plant plugs DELETED

464 Preplanted Coir Pallets DELETED

 $\boldsymbol{\Omega}$  End of Section



# **Q40** Fencing REVISED

#### Clauses

#### 2 To be read with preliminaries/ general conditions.

### Fencing systems

#### **BT2** - Timber fence 310

Manufacturer: Jacksons Fencing W: www.jacksons-security.co.uk

T: 0800 408 2236

1.1. Product reference: Urban Fence - Slatted

- 2. Height: 1830mm
- 3. Wood: FSC Softwood
  - 3.1. Treatment: To provide a 25-year service life.
  - 3.2. Finish: None
- 4. Boards/ rails: 95 x 8mm thickness & 38 x 7mm. Planed
- 5. Posts: Timber
- 6. Centres of posts (maximum): to manufacturer's recommendation
- 7. Method of setting posts: Set in concrete below surface finish to Engineer's specification. Any excavations must not disturb Scheduled Ancient Monument wall / foundations.
- 8. Accessories: GT4 Q40/570, GT4A Q40/570A
- Conformity: Submit manufacturer's and installer's certificates, to BS 1722-5.

#### BT1 - Vertical Bar Railing REVISED 340

- DESIGN INTENT: Fabricator to create shop drawings for approval before manufacture. Engineer to confirm loading calculations as a fall protection railing. Measurements required on site to facilitate coordination with existing retained structures.
- 2. Manufacturer: Lang and Fulton

W: langandfulton.co.uk

T: 0131 441 1255

2.1. Product reference: Rimini Railing

- 3. Standard: To BS 1722-9.
- 4. Height: 1100mm
- 5. Verticals: 60x8mm
- 6. Centres of verticals: 110mm
- 7. Posts: 60x10mm TBC by manufacturer for loading requirements
  - 7.1. Finish: Galvanized and polyester powder coated
    - 7.1.1. Colour: RAL TBC with Architect to match curtain walling
- 8. Centres of posts (maximum): 1950mm
- 9. Method of setting posts/ stays/ legs: Fixed to concrete below surface finish to Engineer's specification
- 10. Accessories: GT2 Q40/570, GT3/GT3A
- 11. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

#### 440 **Boundary protection materials specification**

Minimum BRE 'Green Guide to Specification Online' rating:



### Gates, posts and stiles

# 570A GT2 - Pedestrian gate - omitted REVISED

Manufacturer: Lang and Fulton

W: langandfulton.co.uk

T: 0131 441 1255

- 1.1. Product reference: Single leaf pedestrian gate to match BT1.
- 2. Sizes: 1100mm x 1200mm
- 3. Posts: to match BT1.
- 4. Finish as delivered: to match BT1.
- 5. Fittings: Two hook and band hinges, dropbolts and a padbolt with padlock.
  - 5.1. Finish: to match BT1.
- Method of fixing: Fixed to concrete below surface finish to Engineer's specification.
- 7. Accessories: None

### 570B GT3/GT3A - Pedestrian maintenance gate

1. DESIGN INTENT: Fabricator to create shop drawings for approval before manufacture.

2. Manufacturer: Lang and Fulton

W: langandfulton.co.uk

T: 0131 441 1255

- 2.1. Product reference: Single leaf pedestrian gate to match BT1
- 3. Sizes: 1100mm x 1000mm
- 4. Posts: to match BT1
- 5. Finish as delivered: to match BT1
- 6. Fittings: Two hook and band hinges, dropbolts and a padbolt with padlock
  - 6.1. Finish: to match BT1
- 7. Method of fixing: Fixed to concrete below surface finish to Engineer's specification
- 8. Accessories: None

# 570C GT4 - Bin Store Gate REVISED

- 1. DESIGN INTENT: Fabricator to create shop drawings for approval before manufacture.
- 2. Manufacturer: Jacksons Fencing

W: www.jacksons-security.co.uk

T: 0800 408 2236

- 2.1. Product reference: Double leaf gate to match BT2
- 3. Sizes: 1800mm x 1800mm
- 4. Posts: to match BT2
- 5. Finish as delivered: to match BT2
- 6. Fittings: Two hook and band hinges and latch and drop bolts for closed position
  - 6.1. Finish: to match BT2
- 7. Method of fixing: Fixed to concrete below surface finish to Engineer's specification
- 8. Accessories: None

### 570D GT4A - Timber Gate

ADDED

 Manufacturer: Jacksons Fencing W: www.jacksons-security.co.uk

T: 0800 408 2236



- 1.1. Product reference: Single leaf gate to match BT2
- 2. Sizes: 900mm x 1800mm
- 3. Posts: to match BT2
- 4. Finish as delivered: to match BT2
- 5. Fittings: Hook and band hinges.
  - 5.1. Finish: to match BT2
- 6. Method of fixing: Fixed to concrete below surface finish to Engineer's specification
- 7. Accessories: None

#### Accessories - Not Used

### Execution

### 710 Installation generally

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

#### 715 Competence

- 1. Operatives: Contractors must employ competent operatives.
- Qualifications: Submit certification of training.
  - 2.1. NHSS Sector Scheme 2A sub categories: (a) (b) (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.
- 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.

### 770 Site cutting of wood

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

- 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.



#### 790 Site painting

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

### Completion

#### 910 Cleaning

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

#### 920 **Fixings**

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

#### 930

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

#### **Deleted clauses**

340A BT1 - Vertical Bar Railing DELETED



 $\Omega$  End of Section



### Q50

# Site/street furniture/equipment REVISED

#### Clauses

#### 2 To be read with preliminaries/ general conditions.

### Gates, barriers and parking controls

# GT1 - Automated Barrier ADDED

- 1. Manufacturer: EDS Ltd. or similar approved.
  - 1.1. Product reference: Automatic Barrier.
- 2. Special features: Circuitry link to control panel and sensor system to Engineer's specification.
- 3. Method of fixing: Concrete foundations to Engineer's design.

#### Site and street furniture

# FT1 - Double Cycle Rack REVISED

Manufacturer: Cycle Works

W: cycle-works.com T: 02392 815555

1.1. Product reference: Josta 2-Tier Rack

- 2. Type: Double Tiered Rack
- 3. Material: Steel
  - 3.1. Finish: Galvanized Steel
  - 3.2. Colour: None
- 4. Accessories: None
- Method of fixing: Temporary location method of fixing TBD. Permanent location method of fixing: Bolted to concrete foundations to Engineer's specification, under surface finish.

#### FT2 - Sheffield Cycle Hoops REVISED 210B

1. Manufacturer: Cycle Works

W: cycle-works.com T: 02392 815555

1.1. Product reference: Sheffield Rack

- 2. Type: Single stands
- 3. Material: Steel
  - 3.1. Finish: Powder coated
  - 3.2. Colour: Black
- 4. Accessories: Cane detection rail, max 150mm above ground
- 5. Method of fixing: Root fixed with concrete below surface finish.

#### FT4 - Litter Bin - omitted REVISED 242

Manufacturer: Artform Urban Furniture Ltd W: www.artformurban.co.uk

T: 01625 877554

1.1. Product reference: Box Litter Bin 110L



- 2. Material: Steel and Timber
  - 2.1. Finish: Galvanized steel with polyester powder coating and timber panel front
  - 2.2. Colour: RAL TBC with Architect to match curtain walling
- 3. Accessories/ Special requirements: Ash tray
- 4. Method of fixing: Bolted onto concrete pad below surface finish, foundations to Engineer's specification.

### 350 FT8 - Bird nesting box REVISED

- 1. Description: BIRD NEST BOXES
- 2. Manufacturer: Schwegler or similar approved
  - 2.1. Product reference: 2GR Nest Box Oval hole
- 3. Material: Woodcrete
  - 3.1. Finish: As manufactured
  - 3.2. Colour: Brown
- 4. Accessories/ Special requirements: Aluminium fixings as supplied
- Method of fixing: Aluminium hanger on existing mature trees, choose strong lateral branch circa 3m high North or East facing.

## 350A FT8A - Bat nesting box ADDED

- 1. Description: BAT NEST BOXES
- 2. Product reference: Harlech woodstone bat box or similar approved
- 3. Material: Woodcrete
  - 3.1. Finish: As manufactured
- 4. Accessories/ Special requirements: Aluminium fixings as supplied
- Method of fixing: Aluminium hanger on existing mature trees, choose strong lateral branch or on a wall circa 3m high.

# 350B FT8A - Bee nesting box ADDED

- 1. Description: BEE NEST BOXES
- 2. Product reference: Shetland rectangular bee house or similar approved
- 3. Material: Wood, non toxic stain.
  - 3.1. Finish: As manufactured
  - 3.2. Colour: Grey.
- 4. Accessories/ Special requirements: Aluminium fixings as supplied
- 5. Method of fixing: Aluminium hanger on existing mature trees, choose strong lateral branch or on a wall circa 1-1.5m high South or East facing with no vegetation in front of it obscuring the entrances to tunnels. It must be fixed securely to prevent shaking and swaying from wind.

#### Installation - Not Used

#### **Deleted clauses**

220A FT1 - bench with armrests DELETED

550 Damage to galvanized surfaces DELETED

560 Site painting DELETED

Ω End of Section





### **Q55**

# External decks, boardwalks and bridges - Omitted REVISED

Clauses - Not Used

Tendering - Not Used

General - Not Used

System performance - Not Used

**Products** 

# 380A PT7 - Boardwalk grilles - omitted REVISED

- 1. DESIGN INTENT: Manufacturer to produce shop drawings for comment before manufacture.
- 2. Description: TO BOARDWALK
- Manufacturer: Elefant Gratings
   E: sales@elefantgratings.com
   T: 01902 797110
  - Product reference: Gratings Type SP Carbon Steel Press Welded Gratings Grade S235J2 to BS EN 10025-2:2004
- 4. Material:
- 5. Treatment: Galvanized to BS EN 1461: 2009
- 6. Finished size: To be coordinated with Engineer. See detail drawings of boardwalk
  - 6.1. Length: To be coordinated with Engineer. See detail drawings of boardwalk
- 7. Features: SP fixing clip assemblies Free Area: 8-10%

# 380B PT6 - Boardwalk metal panel trays - omitted REVISED

1. DESIGN INTENT: Manufacturer to produce shop drawings for comment before manufacture.

- 2. Description: TO BOARDWALK
- Manufacturer: Steelway or similar approved E: sales@steelway.co.uk
  - 3.1. Product reference: Bespoke metal panel trays
- 4. Material: Steel
- 5. Treatment: Galvanized to BS EN 1461: 2009
- 6. Finished size: To be coordinated with Engineer. See detail drawings of boardwalk
  - 6.1. Length: To be coordinated with Engineer. See detail drawings of boardwalk
- 7. Features: Clip assemblies, Resin bound chippings, refer to: Q23/225A



### **Execution - Not Used**

### **Deleted clauses**

120 Boardwalk DELETED

215 Contractor's design DELETED

510 Fabrication generally DELETED

610 Loading DELETED

665 Installation generally DELETED

670 Installation of surfacing DELETED

950 Documentation **DELETED** 

 $\Omega$  End of Section





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