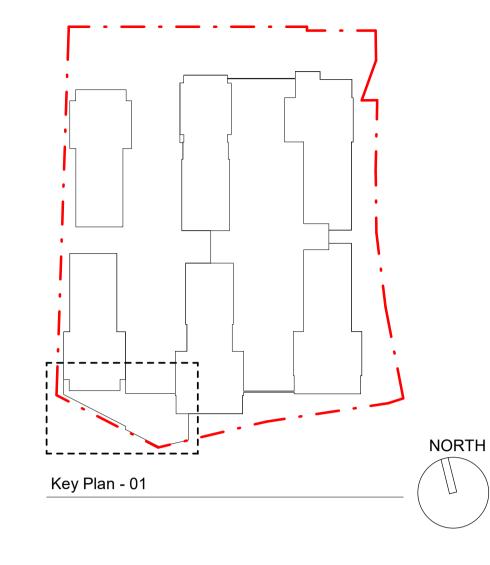


REFER TO THE FOLLOWING DRAWINGS

NBS Landscape Specification Sitewide Landscape Legend Sitewide key plan - GF and podium Sitewide section location plan - GF and podium Sitewide key plan - Roof terraces

Sitewide section location plan - Roof terraces

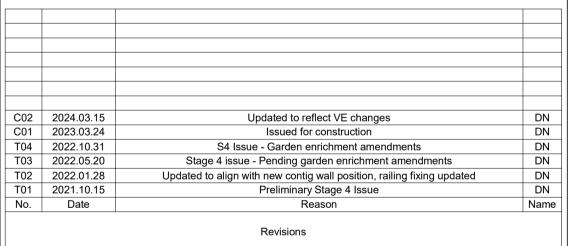
E746-FAB-SW-XX-SP-LA-920-0001 E746-FAB-SW-XX-DR-LA-920-1200 E746-FAB-SW-XX-DR-LA-920-1210 E746-FAB-SW-XX-DR-LA-920-1211 E746-FAB-SW-XX-DR-LA-920-1220 E746-FAB-SW-XX-DR-LA-920-1221



EXTERNAL MODEL REFERENCES

D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-PO-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-S1-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-S2-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-S3-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-S3-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-S5-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-S6-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-S6-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-PC-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-PO-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\02 Architect\E746-AQP-PO-ZZ-M3-A-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\03 Civil Engineer\E746-PTA-SW-ZZ-M3-SE-001-0001
D2930 St Albans Road, Watford\Drawings\03 Civil Engineer\E746-PTA-SW-ZZ-M3-CE-910-0001
D2930 St Albans Road, Watford\Drawings\03 Evid Engineer\E746-PTA-SW-ZZ-M3-CE-910-0001
D2930 St Albans Road, Watford\Drawings\03 Evid Engineer\E746-PTA-SW-ZZ-M3-SE-001-0001.ifc
D2930 St Albans Road, Watford\Drawings\03 Evid Engineer\E746-PTA-SW-ZZ-M3-CE-910-0001

This drawing is the property of fabrik ltd. It must not be copied or reproduced without written consent. Only figured dimensions are to be taken from this drawing. All contractors must visit site and be responsible for taking and checking all dimensions related to the works shown on the drawing.



First Floor Studio The Old School 4 Exton Street London SE1 8UE T: 0207 620 1453 0207 261 9126 london@fabrikuk.com www.fabrikuk.com

St Albans Road, Watford for Berkeley Homes

First floor podium - General arrangement plan

Approved Checked Oct '21 NB Project No. Drawing No. Revision

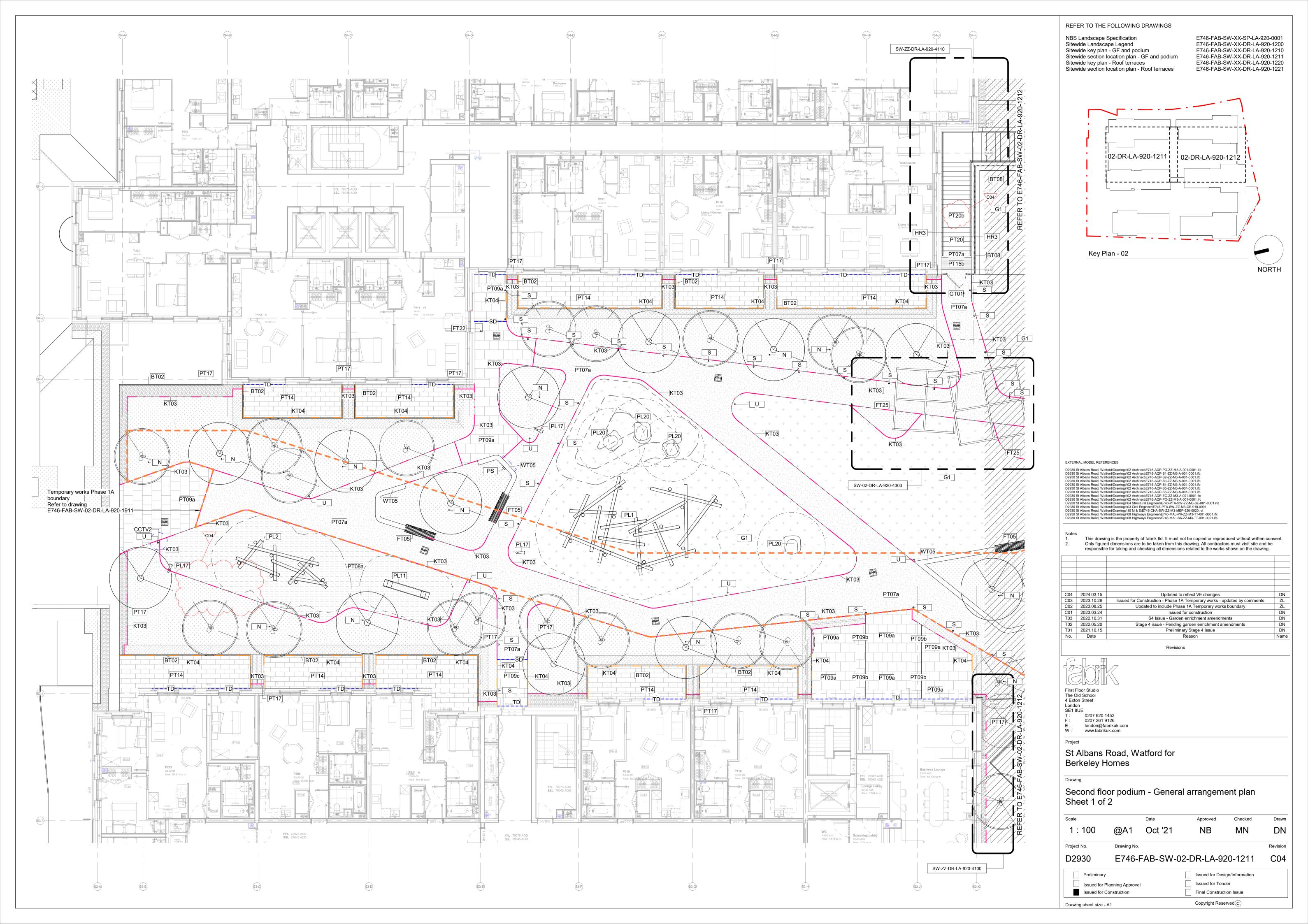
E746-FAB-SW-01-DR-LA-920-1211

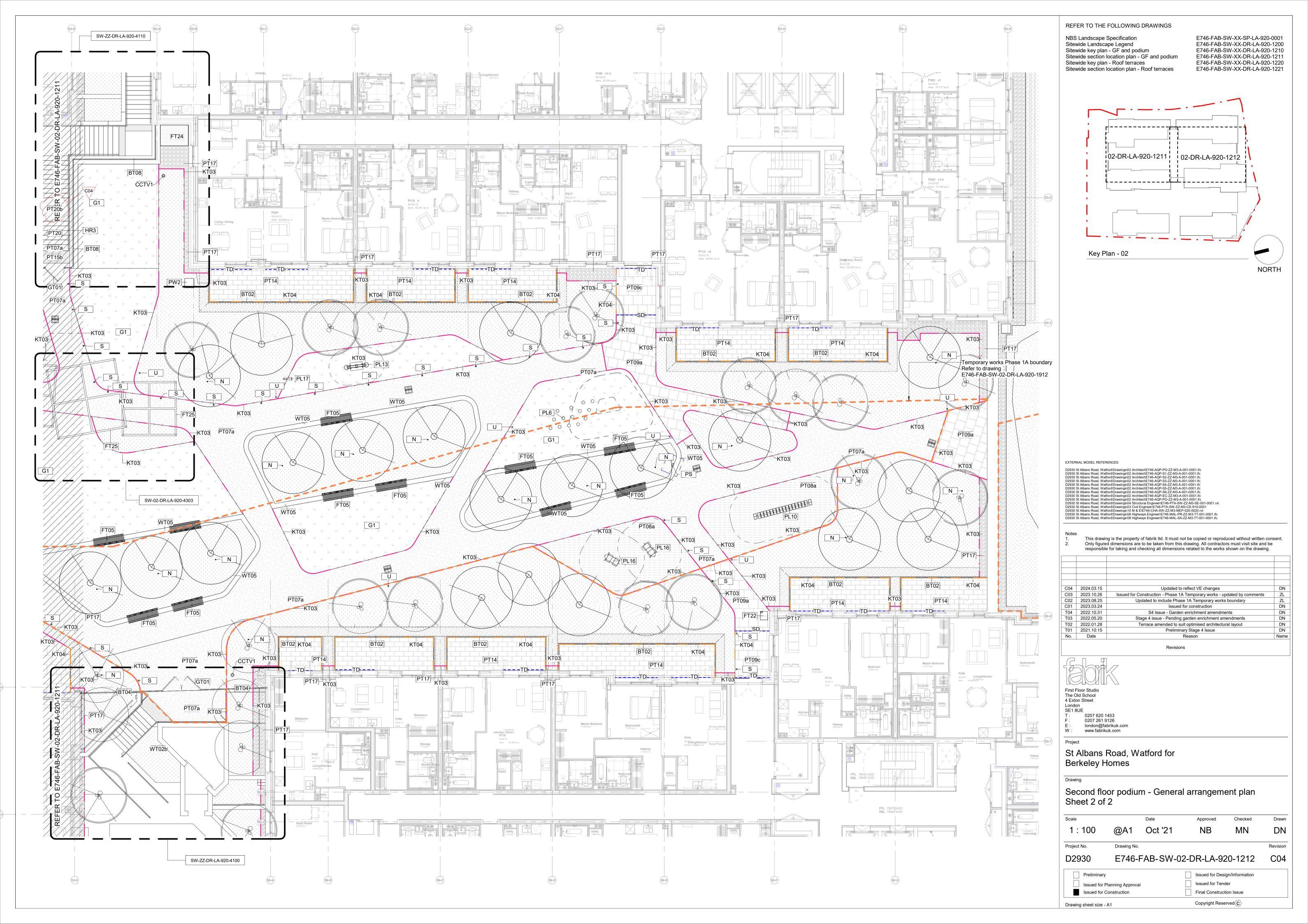
Preliminary Issued for Planning Approval Issued for Construction

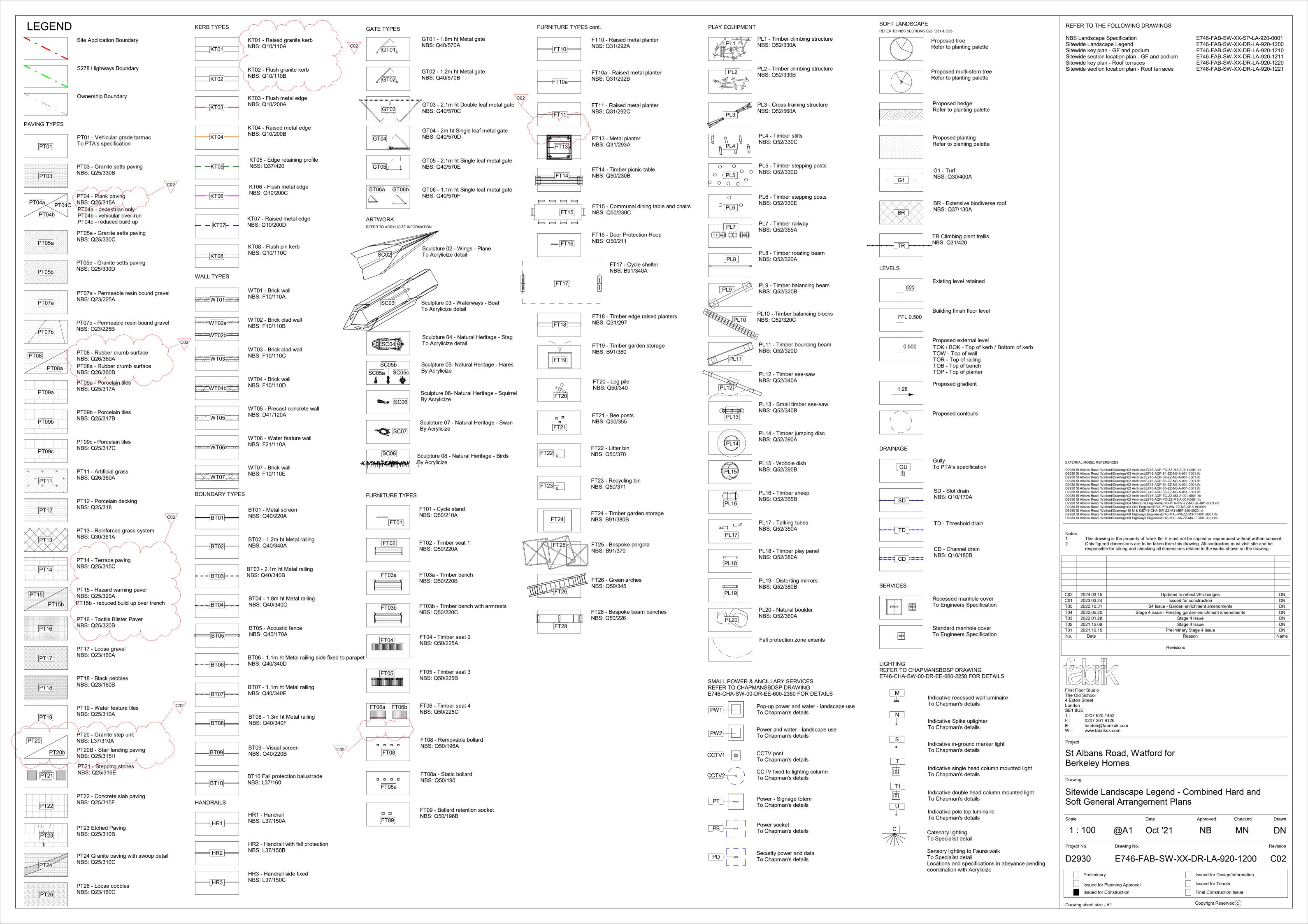
Issued for Design/Information Issued for Tender Final Construction Issue

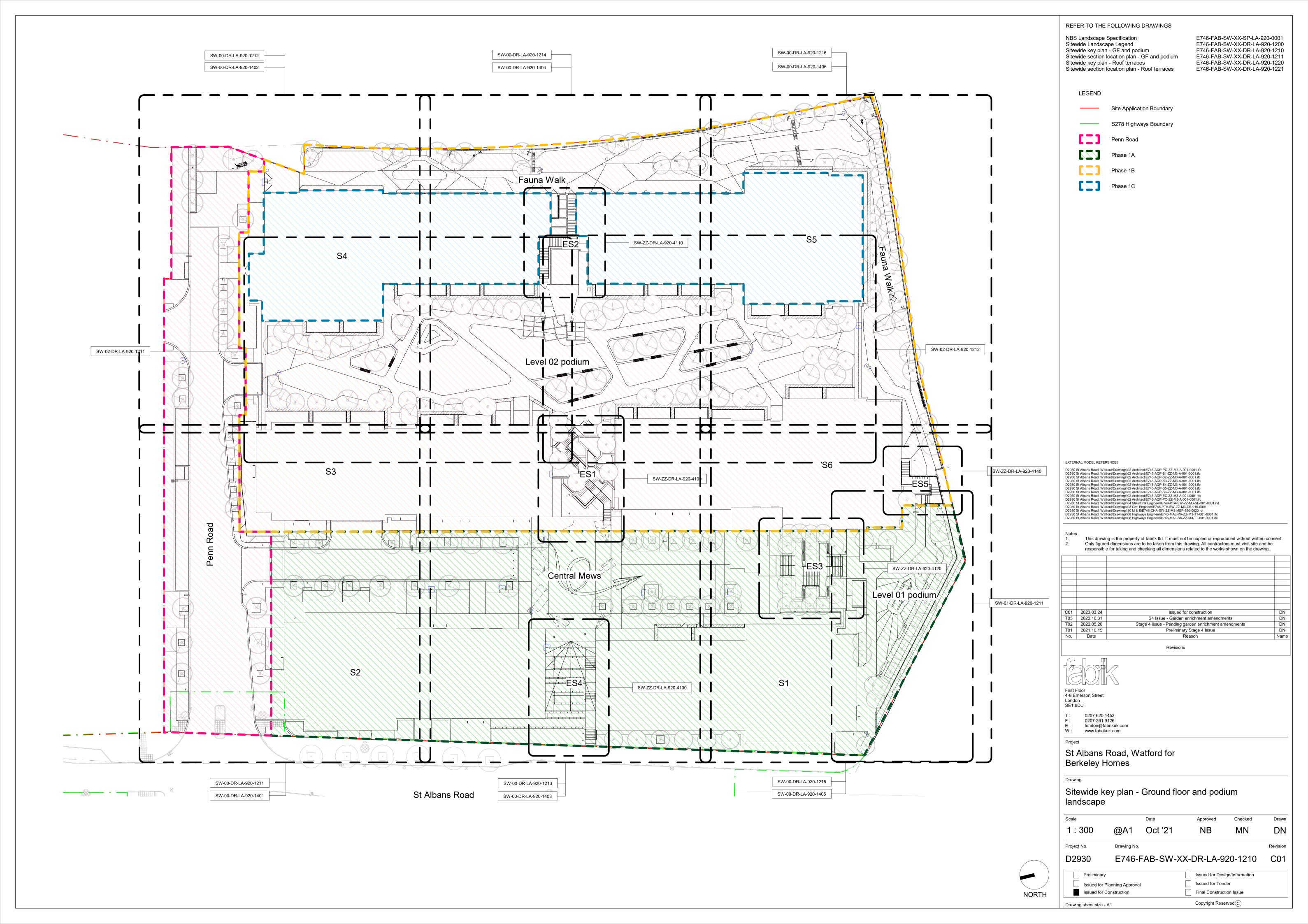
Copyright Reserved C

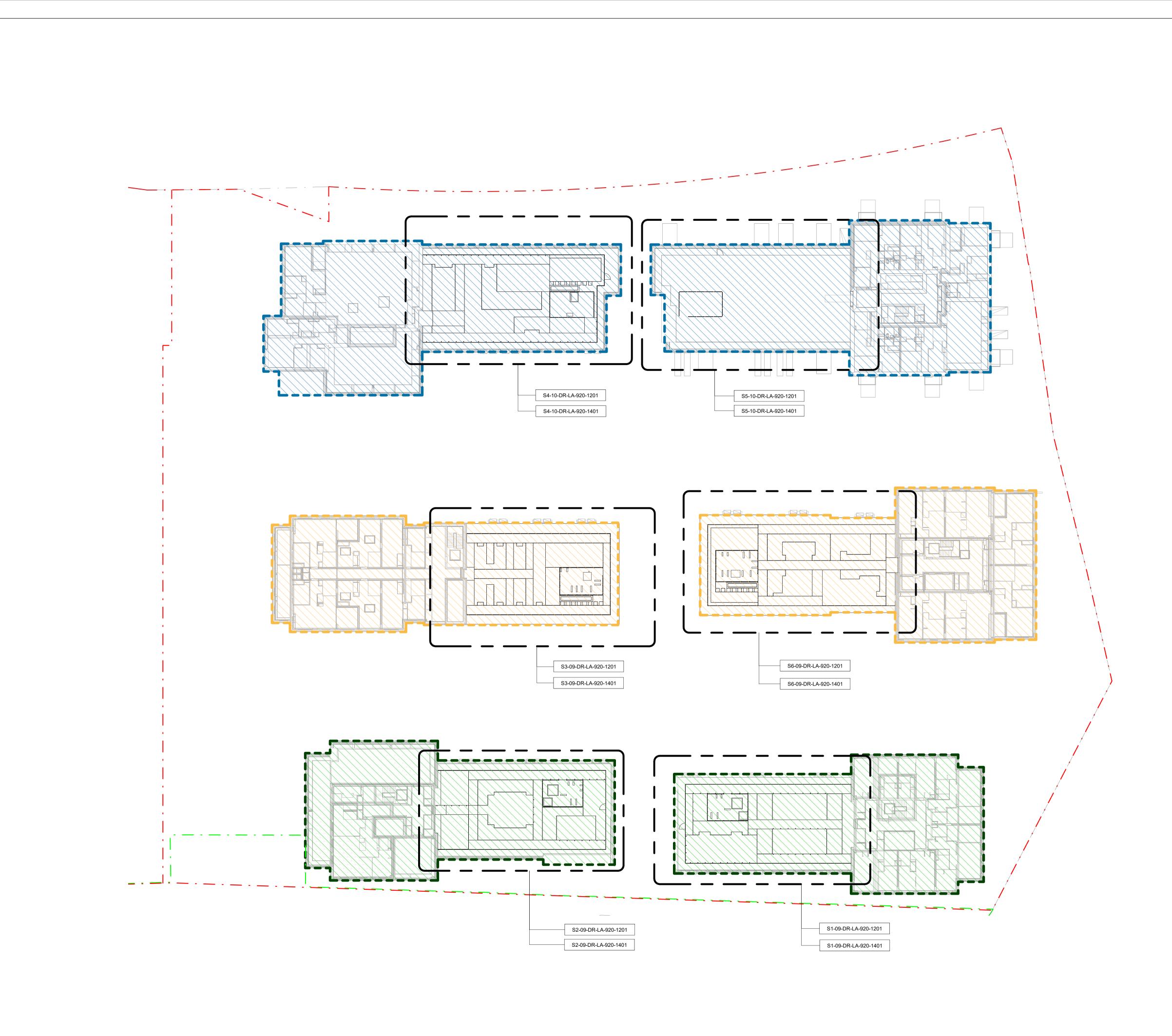
Drawing sheet size - A1

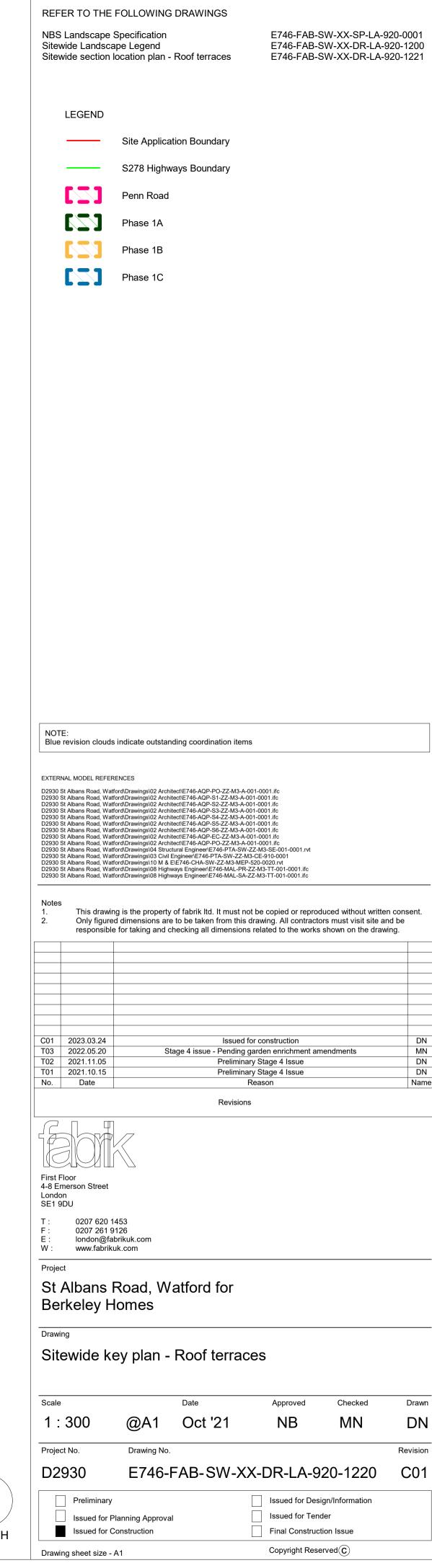














St Albans Road, Watford

for Berkeley Homes

Hard and Soft Landscape Specifications

25-03-2024

E746-FAB-SW-XX-SP-LA-920-0001 C05

Stage 5 Issue - Hard landscape materials VE

Document Control Sheet

Client	Berkeley Homes
Project Title	St Albans Road, Watford
Project Code	D2930
Document Status	Stage 5 Issue - Hard landscape materials VE
Current Revision	C05
Publication Date	25-03-2024

Revisions

No.	Date	Description

Contents

B91 Buildings in the landscape	1
D41 Crib walls, gabions and other gravity retaining walls	4
E20 Formwork for in situ concrete	5
F10 Brick/ block walling	6
F21 Natural stone/ashlar walling/dressings	11
L37 External stair, ramps, handrail and balustrades systems REVISED	13
Q05 Biodiversity and environmental conservation	17
Q10 Kerbs/ edgings/ channels/ paving accessories REVISED	18
Q23 Gravel/ hoggin/ woodchip/ resin bound roads/ paving/ overlays	23
Q24 Interlocking brick/block roads/pavings	26
Q25 Slab/brick/sett/cobble pavings REVISED	28
Q26 Special surfacings/ pavings for sport/ general amenity REVISED	42
Q28 Topsoil and soil ameliorants	44
Q30 Seeding/turfing	51
Q31 External planting	56
Q35 Landscape maintenance	66
Q37 Green roofs	77
Q40 Fencing	82
Q50 Site/street furniture/equipment REVISED	89
Q52 Play and sports equipment	95

B91 Buildings in the landscape

System outline

105 Proprietary small buildings/ structures

- 1. Description: FT17 Bicycle Shelter for L01 podium area
- 2. Building type: Proprietary structure of curved steel frame and PETG roof
- 3. Services requirements: Not required

System performance - Not Used

Products

340A FT17 - Cycle shelter

- 1. Description: FT17 Bicycle Shelter for L01 podium area
- 2. Manufacturer: Broxap or similar approved.
 - 2.1. Product reference: Apollo Cycle Shelter
- 3. Size: 5m length
- 4. Frame: As standard, RAL 7022
- 5. Roof covering: As standard
- 6. Accessories/ Special requirements: 5no. FT01 bicycle stands specified separately Q50
- 7. Method of fixing to ground or base: Base plates bolted to concrete bases

370 FT25 - Bespoke pergola

- 1. Description: DESIGN INTENT ONLY.
 - Steel frame pergola to level 02 podium garden.

Refer to drawings E746-FAB-SW-02-DR-LA-920-4303, E746-FAB-SW-02-DR-LA-920-4304

- 2. Manufacturer: Contractor to submit proposals for approval by fabrik
- 3. Size: Frame A: 4m (L) x 4m (W) x 2.8m (H)

Frame B: 4.5m (L) x 4.5(W) x 3m (H)

Frame C: 3.5m (L) x 3.5m (W) x 2.8m (H)

4. Frame: PCC Steel frame

RAL 7022 to match architectural metalwork

- Climber supports: Tensioned trellis cables as per drawings. Cables to match Q31/420
- 6. Roof covering: Bespoke laser cut panels. Design to be developed with fabricator
- Method of fixing to ground or base: PCC Steel shoe fixed to concrete upstand. Engineer to provide detail.

380 FT19 - Timber garden storage

- Description: DESIGN INTENT ONLY Garden storage to roof terraces.
- 2. Manufacturer: Woodscape, or similar approved.
 - 2.1. Website: www.woodscape.co.uk
 - 2.2. Product reference: Bespoke timber storage
- 3. Size: 1.5m (I) x 1.0m (w) x 1.2m (h)
- 4. Frame: FSC certified hardwood (tbc).
- 5. Walls/ Cladding: FSC certified hardwood (tbc).



- 6. Roof covering: FSC certified hardwood (tbc).
- 7. Floor: FSC certified hardwood (tbc).
- 8. Access:: 2No. timber doors with brushed stainless steel handles and lock, brushed internal stainless steel sliding bolts and brushed stainless steel hinges.
- 9. Accessories/ Special requirements:
 - Internal water tap (tbc), to Chapman's specifications.
 - Internal power outlet (tbc), to Chapman's specifications.
- 10. Method of fixing to ground or base: Installed on concrete base, to PTA's design.
- 11. Notes::
 - Specialist contractor to develop design intent and confirm size of all timber elements;
 - Specialist contractor to submit fabrication drawings and ironmongery details to Design Team for comments prior to fabrication;
 - Refer to fabrik's drawing E746-FAB-SW-ZZ-DR-LA-920-5000 for design intent.

380B FT24 - Timber garden storage

- Description: DESIGN INTENT ONLY Garden storage to level 02 podium
- 2. Manufacturer: Woodscape, or similar approved.
 - 2.1. Website: www.woodscape.co.uk
 - 2.2. Product reference: Bespoke timber storage
- 3. Size: 1.75m (I) x 1.3m (w) x 1.885m (h)
- 4. Frame: FSC certified hardwood (tbc).
- 5. Walls/ Cladding: FSC certified hardwood (tbc).
- 6. Roof covering: FSC certified hardwood (tbc).
- 7. Floor: FSC certified hardwood (tbc).
- 8. Access:: 2No. timber doors with brushed stainless steel handles and lock, brushed internal stainless steel sliding bolts and brushed stainless steel hinges.
- 9. Accessories/ Special requirements:
 - Internal water tap (tbc), to Chapman's specifications.
 - Internal power outlet (tbc), to Chapman's specifications.
- 10. Method of fixing to ground or base: Installed on concrete base, to PTA's design.
- 11. Notes::
 - Specialist contractor to develop design intent and confirm size of all timber elements;
 - Specialist contractor to submit fabrication drawings and ironmongery details to Design Team for comments prior to fabrication;
 - Refer to fabrik's drawing E746-FAB-SW-ZZ-DR-LA-920-5000 for design intent.

Materials - Not Used

Execution/ erection/ installation

600 Erection/ installation generally

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

610 Concrete foundations generally

1. Concrete: To BS 8500-2.



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

630 Erection of prefabricated buildings/ structures

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

640 Site painting and staining

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

645 Making good galvanized surfaces

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

Completion - Not Used

Ω End of Section



D41

Crib walls, gabions and other gravity retaining walls

To be read with preliminaries/general conditions.

120A WT05 - Precast concrete wall

- 1. Manufacturer: FP McCann, or similar approved.
 - 1.1. Web: www.fpmccann.co.uk.
 - 1.2. Product reference: Bespoke precast concrete planter
- 2. Dimensions: As per layout drawings
- 3. Colour: White TBC
- 4. Finish: Polished, to achieve a type C smooth finish in accordance with BS8110 and BS8500. TBC
- 5. Accessories: TBC
- Waterproofing: Walls to receive waterproofing on the internal side to prevent concrete leaching into the soil.
 To Manufacturer's specification.
 10mm drainage board as clause Q37/355.
- 7. Movement joint:
 - 7.1. Location: To manufacturer's specification.
 - 7.2. Size: To manufacturer's specification.
 - 7.3. Type: To manufacturer's specification.
 - 7.4. Colour: white to match concrete
- 8. Notes:
 - 8.1. Landscape Contractor to submit samples of the proposed coping to the Design Team for approval.
 - 8.2. Manufacturer to produce fabrication drawings to be submitted to the Design Team for coordination and approval prior to the fabrication.

Ω End of Section



E20

Formwork for in situ concrete

Generally/ preparation - Not Used

Construction

380 Void former

- 1. Description:: Below landscape build-ups on podium decks and roof terraces
- 2. Manufacturer: LECA®
 - 2.1. Product reference: Lightweight aggregate 10mm 20mm As per Structural Engineers advice
- 3. Note:: Compressive strength and loading to be reviewed and confirmed by Structural Engineers

Striking - Not Used

Formed finishes - Not Used

 $\boldsymbol{\Omega}$ End of Section



F10 Brick/ block walling

Clauses - Not Used

Types of walling

110A WT01 - Brick wall

1. Bricks: To BS EN 771-1.

1.1. Manufacturer: TBC

1.2. Product reference: TBC

1.3. Recycled content: TBC

1.4. Special shapes: TBC

2. Mortar: As section Z21.

2.1. Standard: To BS EN 998-2

2.2. Mix: TBC

2.3. Additional requirements: TBC

3. Bond: TBC

4. Joints: Bucket handle

5. Features:

- 5.1. Brick piers with capping as shown on layout drawings;
- 5.2. Movement joints as specified by PTA;
- 5.3. Damp proof membrane installed beneath coping, to sub-contractor's specification;
- 5.4. Damp proof course installed 150mm above landscape levels, to sub-contractor' specification;
- 5.5. Suitable metal ties to support brick cladding, to sub-contractor's specification;
- 5.6. Concrete copings as per fabrik external stair detail plans

CT01 - 265mm wide flat coping

CT01a - 265mm wide flat coping with recessed skate stop detail as per fabrik drawing E746-FAB-SW-ZZ-DR-LA-920-3131

CT01b - 345mm square 4-way weathered coping stone to piers

CT02 - 265mm wide once weathered coping

6. Structural design: refer to PTA's information for design of concrete retaining structure and foundations.

110B WT02 - Brick clad wall

- 1. Description: WT02a to External Stair 1 staircase, WT02b to External Stair 1 planters
- 2. Bricks: To BS EN 771-1.
 - 2.1. Manufacturer: TBC
 - 2.2. Product reference: TBC
 - 2.3. Recycled content: TBC
 - 2.4. Special shapes: TBC
- 3. Mortar: As section Z21.
 - 3.1. Standard: To BS EN 998-2
 - 3.2. Mix: TBC
 - 3.3. Additional requirements: TBC
- 4. Bond: TBC
- 5. Joints: Bucket handle
- 6. Features:
 - 6.1. Movement joints as specified by PTA;



- 6.2. Damp proof membrane installed beneath coping, to sub-contractor's specification;
- 6.3. Damp proof course installed 150mm above landscape levels, to sub-contractor' specification;
- 6.4. Suitable metal ties to support brick cladding, to sub-contractor's specification;
- 6.5. WT02a to finish flush with edges of step treads and risers
- 6.6. Concrete coping to WT02b as per fabrik external stair detail plans CT02 - 265mm wide once weathered coping
- 7. Structural design: refer to PTA's information for design of concrete retaining structure and foundations.

110C WT03 - Brick clad wall

- 1. Bricks: To BS EN 771-1.
 - 1.1. Manufacturer: TBC
 - 1.2. Product reference: TBC
 - 1.3. Recycled content: TBC
 - 1.4. Special shapes: TBC
- 2. Mortar: As section Z21.
 - 2.1. Standard: To BS EN 998-2
 - 2.2. Mix: TBC
 - 2.3. Additional requirements: TBC
- 3. Bond: TBC
- 4. Joints: Bucket handle
- 5. Features:
 - 5.1. Movement joints as specified by PTA;
 - 5.2. Damp proof membrane installed beneath coping, to sub-contractor's specification;
 - 5.3. Damp proof course installed 150mm above landscape levels, to sub-contractor' specification;
 - 5.4. Suitable metal ties to support brick cladding, to sub-contractor's specification;
 - 5.5. Concrete copings as per fabrik external stair detail plans CT03 - 375mm wide flat coping
- 6. Structural design: refer to PTA's information for design of concrete retaining structure and foundations.

110D WT04 - Brick wall

- 1. Description: FT04a wall below FT04 bench, FT04b wall adjacent to bench with coping
- 2. Bricks: To BS EN 771-1.
 - 2.1. Manufacturer: TBC
 - 2.2. Product reference: TBC
 - 2.3. Recycled content: TBC
 - 2.4. Special shapes: TBC
- 3. Mortar: As section Z21.
 - 3.1. Standard: To BS EN 998-2
 - 3.2. Mix: TBC
 - 3.3. Additional requirements: TBC
- 4. Bond: TBC
- 5. Joints: Bucket handle
- 6. Features:
 - 6.1. Movement joints as specified by PTA;
 - 6.2. Damp proof membrane installed beneath coping, to sub-contractor's specification;
 - 6.3. Damp proof course installed 150mm above landscape levels, to sub-contractor' specification;
 - 6.4. Suitable metal ties to support brick cladding, to sub-contractor's specification;



- 6.5. **WT04a** wall below FT04 bench with brick upstand as per drawing E746-FAB-SW-ZZ-DR-LA-920-3120 **CT05** 425mm wide flat coping below seat
- 6.6. Concrete copings to WT04b as per fabrik external stair detail plans CT04 - 525mm wide flat coping to match architectural coping detail on ES3
- 7. Structural design: refer to PTA's information for design of concrete retaining structure and foundations.

110E WT07 - Brick wall

- 1. Description: To base of External Stair 3 tying into architectural wall
- Bricks: To BS EN 771-1.
 Manufacturer: TBC
 Product reference: TBC
 - 2.3. Recycled content: TBC
 - 2.4. Special shapes: TBC
- 3. Mortar: As section Z21.
 - 3.1. Standard: To BS EN 998-2
 - 3.2. Mix: TBC
 - 3.3. Additional requirements: TBC
- 4. Bond: TBC
- 5. Joints: Bucket handle
- 6. Features:
 - 6.1. Movement joints as specified by PTA;
 - 6.2. Damp proof membrane installed beneath coping, to sub-contractor's specification;
 - 6.3. Damp proof course installed 150mm above landscape levels, to sub-contractor' specification;
 - 6.4. Suitable metal ties to support brick cladding, to sub-contractor's specification;
 - 6.5. Concrete copings as per fabrik external stair detail plans
 CT04 525mm wide flat coping to match and tie into architectural coping detail on ES3
- 7. Structural design: refer to PTA's information for design of concrete retaining structure and foundations.

Testing - Not Used

Workmanship generally

430 Conditioning of clay bricks and blocks

- 1. Bricks and blocks delivered warm from manufacturing process: Do not use until cold.
- 2. Absorbent bricks in warm weather: Wet to reduce suction. Do not soak.

440 Conditioning of concrete bricks/ blocks

- 1. Autoclaved concrete bricks/ blocks delivered warm from manufacturing process: Do not use.
- 2. Age of nonautoclaved concrete bricks/ blocks: Do not use until at least four weeks old.
- 3. Avoidance of suction in concrete bricks/ blocks: Do not wet.
 - 3.1. Use of water retaining mortar admixture: Submit details.

500 Laying generally

- 1. Mortar joints: Fill vertical joints. Lay bricks, solid and cellular blocks on a full bed.
- AAC block thin mortar adhesive and gypsum block adhesive joints: Fill vertical joints. Lay blocks on a full bed.
- 3. Clay block joints
 - 3.1. Thin layer mortar: Lay blocks on a full bed.
 - 3.2. Interlocking perpends: Butted.



- 4. Bond where not specified: Half lap stretcher.
- 5. Vertical joints in brick and concrete block facework: Even widths. Plumb at every fifth cross joint.

535 Height of lifts in walling using cement gauged or hydraulic lime mortar

- 1. Quoins and advance work: Rack back.
- 2. Lift height (maximum): 1.2 m above any other part of work at any time.
- 3. Daily lift height (maximum): 1.5 m for any one leaf.

545 Levelling of separate leaves

- 1. Locations for equal levelling of cavity wall leaves: As follows:
 - 1.1. Every course containing vertical twist type ties or other rigid ties.
 - 1.2. Every third tie course for double triangle/ butterfly ties.
 - 1.3. Courses in which lintels are to be bedded.

560 Coursing brickwork

1. Gauge: Four brick courses including bed joints to 300 mm.

561 Coursing brickwork with existing

1. Gauge: Line up with existing brick courses.

610 Support of existing work

1. Joint above inserted lintel or masonry: Fully consolidated with semidry mortar to support existing structure.

635 Jointing

1. Profile: Consistent in appearance.

645 Accessible joints not exposed to view

1. Jointing: Struck flush as work proceeds.

690 Adverse weather

- 1. General: Do not use frozen materials or lay on frozen surfaces.
- 2. Air temperature requirements: Do not lay bricks/ blocks:
 - 2.1. In cement gauged mortars when at or below 3°C and falling or unless it is at least 1°C and rising.
 - 2.2. In hydraulic lime:sand mortars when at or below 5°C and falling or below 3°C and rising, or as manufacturer's/ supplier's recommendations.
 - 2.3. In thin layer mortar when outside the limits set by the mortar manufacturer.
- 3. Temperature of walling during curing: Above freezing until hardened.
- 4. Newly erected walling: Protect at all times from:
 - 4.1. Rain and snow.
 - 4.2. Drying out too rapidly in hot conditions and in drying winds.

Additional requirements for facework

750 Colour consistency of masonry units

- Colour range: Submit proposals of methods taken to ensure that units are of consistent and even appearance within deliveries.
- 2. Conformity: Check each delivery for consistency of appearance with previous deliveries and with approved reference panels; do not use if variation is excessive.
- 3. Finished work: Free from patches, horizontal stripes and racking back marks.



760 Appearance

- 1. Brick/ block selection: Do not use units with damaged faces or arrises.
- 2. Cut masonry units: Where cut faces or edges are exposed cut with table masonry saw.
- 3. Quality control: Lay masonry units to match relevant reference panels.
 - 3.1. Setting out: To produce satisfactory junctions and joints with built-in features and components.
 - 3.2. Coursing: Evenly spaced using gauge rods.
- 4. Lifts: Complete in one operation.
- 5. Methods of protecting facework: Submit proposals.

780 Ground level

 Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.

830 Cleanliness

- 1. Facework: Keep clean.
- 2. Mortar on facework: Allow to dry before removing with stiff bristled brush.
- 3. Removal of marks and stains: Rubbing not permitted.

 Ω End of Section



F21

Natural stone/ashlar walling/dressings

Clauses - Not Used

Types of walling/ dressings

110A WT06 - Water feature wall

- 1. Cladding: Granite panels with text and graphics etching
- 2. Stone: To BS EN 771-6.
 - 2.1. Petrological family: Granite
 - 2.2. Colour: TBC2.3. Finish: TBC2.4. Supplier: TBC
 - 2.5. Unit dimension tolerances: TBC2.6. Additional requirements: TBC
 - 2.7. Quality: Free from vents, cracks, fissures, discolouration, or other defects deleterious to strength, durability or appearance. Before delivery to site, season thoroughly, dress and work in accordance with shop drawings prepared by supplier.
- 3. Mortar: Bedding and jointing/grouting.
 - 3.1. Standard: TBC
 - 3.2. Mix: TBC
 - 3.3. Sand: TBC
 - 3.4. Additional requirements: TBC
- 4. Bond: TBC
- 5. Joints: Flush.
 - 5.1. Width: TBC
 - 5.2. Pointing: TBC
- 6. Other requirements: Cut-outs to be formed in the cladding to accommodate text and graphics etching protruding from the face of the cladding. Design and details TBC
- 7. Structural design: Concrete block and waterproofing to specialist design
- 8. Features:: CT06 300mm wide flat coping. Colour to match PT20 step treads
- 9. Notes: Specialist to detail lighting design
- 10. Landscape Contractor to submit samples of the proposed cladding to the Design Team for approval.
- 11. Manufacturer to produce cutting drawings to be submitted to the Design Team for coordination and approval prior to the fabrication.

General/ production

250 Cutting and dressing of stone

- 1. Timing: After seasoning but before delivery to site.
- 2. Accuracy:
 - 2.1. Exposed and joint surfaces: Square, true planes free from hollow or rough areas.
 - 2.2. Dimensions: Maintain specified joint widths.
- 3. Orientation for natural bed of stones: Appropriate to properties of stones and positions in walling/ dressings.



260 Identification of stone units

 Marking: Clearly and indelibly on concealed faces to indicate the natural bed and position in the finished work.

Laying and jointing

315 Adverse weather

- 1. General: Do not use frozen materials or lay on frozen surfaces.
- 2. Air temperature: Do not lay stones:
 - 2.1. In cement gauged mortars: At or below 3°C and falling or below 1°C and rising.
 - 2.2. In hydraulic lime:sand mortars: At or below 5°C and falling or below 3°C and rising.
- 3. Temperature of walling during curing: Above freezing until mortar hardened.
- 4. Newly erected walling: Protect at all times from:
 - 4.1. Rain and snow.
 - 4.2. Drying out too rapidly in hot conditions and in drying winds.

325 Laying generally

- 1. Stone selection: Do not use units with damaged faces or arrises.
- 2. Accuracy:
 - 2.1. Courses: Level and true to line.
 - 2.2. Faces, angles and features: Plumb.
 - Setting out: Achieve satisfactory junctions and joints with adjoining or built-in elements and components.
- 3. Absorbent stones: Dampen in warm weather to reduce suction. Do not soak.
- 4. Mortar joints:
 - 4.1. Laying: Full bed of mortar with all joints and voids filled.
 - 4.2. Temporary distance pieces: Lead or stainless steel. Remove when mortar is sufficiently strong.
 - 4.3. Appearance: Neat and consistent.
- 5. Cleanliness: Keep facework clean. Rubbing and other abrasive or chemical cleaning methods to remove marks and stains not permitted.

 Ω End of Section



L37

External stair, ramps, handrail and balustrades systems REVISED



General

Stair systems to external steps 110A

- 1. Type: Built in situ
- 2. Base/ Fabric: In situ concrete, to PTA's design
- 3. Surface: Paving as clause L37/310A
 - 3.1. Finish: Not required
- 4. Unobstructed width: As shown on layout drawings
- 5. Accessories: 'Corduroy' hazard warning surface as clause Q25/320A and Handrail system as clause L37/150A

150A HR1 - Handrail

- System manufacturer: Landscape Contractor to submit proposals for comments prior to the fabrication., for all purpose designed wall and floor mounted handrails at steps and ramps.
- 2. Material: Stainless Steel grade 316
 - 2.1. Cross section: 48.3mm (TBC)
 - 2.2. Finish: Brushed
 - 2.3. Colour: Natural
- 3. Height (to upper surface of handrail)
 - 3.1. Above pitch line: 900mm
 - 3.2. Above landing: 1000mm
- 4. Accessories: Rose plate to hide paving cuts- Integrated led lighting strip, to Lighting engineer / Manufacturer's specifications

HR2 - Handrail with fall protection 150B

- System manufacturer: Landscape Contractor to submit proposals for comments prior to the fabrication., for all purpose designed wall and floor mounted handrails at steps and ramps.
- 2. Material: Stainless Steel grade 316
 - 2.1. Cross section: 48.3mm (TBC)
 - 2.2. Finish: Brushed
 - 2.3. Colour: Natural
- 3. Height (to upper surface of handrail)
 - 3.1. Above pitch line: 1000mm
 - 3.2. Above landing: 1100mm
- 4. Accessories: Rose plate to hide paving cuts- Integrated led lighting strip, to Lighting engineer / Manufacturer's specifications

HR3 - Handrail side fixed

- 1. System manufacturer: Landscape Contractor to submit proposals for comments prior to the fabrication., for all purpose designed wall and floor mounted handrails at steps and ramps.
- Material: Stainless Steel grade 316
 - 2.1. Cross section: 48.3mm (TBC)
 - 2.2. Finish: Brushed
 - 2.3. Colour: Natural
- 3. Height (to upper surface of handrail)



- 3.1. Above pitch line: 900mm
- 3.2. Above landing: 1000mm
- Accessories: Welded to BT07 railings or fixed to wall as needed- Integrated led lighting strip, to Lighting engineer / Manufacturer's specifications

160 BT10 Fall protection balustrade

- 1. Description: To ES1 planters
- 2. System manufacturer: Contractor to submit proposals for approval by fabrik
- 3. Guarding
 - 3.1. Material: Steel flat bar posts and top rail with tensioned wire rails
 - 3.2. Finish: PCC RAL 9005
- 4. Rail
 - 4.1. Cross section: Top rail to match building balconies architectural metalwork.
 - 4.2. Material: To match building balconies architectural metalwork.
 - 4.3. Finish: To match building balconies architectural metalwork.
- 5. Height (to upper surface of rail)
 - 5.1. Above pitch line: 900mm

System performance - Not Used

Products

310A PT20 - Granite step unit REVISED

- 1. Manufacturer: Tectonix. or similar approved.
 - 1.1. Website: www.tectonix.co.uk
 - 1.2. Product reference: Granite step treads and riser
- 2. Standard: To BS EN 771-2 and -3.
- 3. Size
 - 3.1. Surface width: As shown on layout drawings
 - 3.2. Going: As shown on layout drawings
 - 3.3. Rise: As shown on layout drawings
- 4. Colour: Ziliang
- 5. Finish: Flamed
 - 5.1. Slip resistance value of integral tread water wet (minimum): PTV of 45 to BS 7976
 - 5.2. Slip resistance value of integral nosing water wet (minimum): PTV of 45 to BS 7976
 - 5.2.1. Colour of integral nosing: Black
- 6. Laying course: Ready-mixed mortar.
 - 6.1. Manufacturer: Larsen Building Products, or similar approved.
 - 6.2. Website: www.larsenbuildingproducts.com
 - 6.3. Tel: 028 9077 4000
 - 6.4. Product Reference: Streetscape FBC
 - 6.5. Application: Mortar bedding must be applied in accordance with Manufacturer's recommendations.
 - 6.6. Thickness: 30mm.
- 7. Jointing: Ready-mixed mortar.
 - 7.1. Manufacturer: Larsen Building Products, or similar approved.
 - 7.2. Web: www.larsenbuildingproducts.com
 - 7.3. Tel: 028 9077 4000



- 7.4. Product Reference: Gun applied Jointing Mortar (GPM)
- 7.5. Colour: Charcoal, to match paving. Landscape Contractor to submit sample for approval prior the installation.
- 7.6. Application: Jointing mortar must be applied in accordance with Manufacturer's recommendations.
- 7.7. Joint width: 6 mm.
- 8. Accessories: None

Fabrication - Not Used

Execution

610 Loading

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

620 Concrete foundations generally

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

650 Installation generally

- Fasteners: To approved Specialist's details.
- Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on 2. drawings.
- 3. Temporary support: Do not use finished work as temporary support or strutting for other work.
- 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:
 - 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.

Site painting and staining 680

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

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.

920 Documentation

- 1. Contents
 - 1.1. Copies of structural design calculations/ test reports.
 - 1.2. General product information.
 - 1.3. Installation information.
 - 1.4. Inspection and maintenance reports.
- 2. General product information.
 - 2.1. Installation information.
 - 2.2. Inspection and maintenance reports.
- 3. Number of copies: 2
- 4. Submission: Two weeks after request by contract administrator

 Ω End of Section



Q05

Biodiversity and environmental conservation

System outline - Not Used

Performance - Not Used

Products

311 Ecological Enhancement - EE1 Log Pile

1. Contract to design and build netted dead wood log piles built in accordance with London Wildlife Trust guidelines. Submit detail for approval.

312 Ecological Enhancement - EE2 Bug Hotel / Insect Box

- 1. Manufacturer: Schewegler or similar approved
- 2. Product: Clay and reed block 337/5
- 3. Installation: Fixed to 6" timber garden fence post at 1m in east facing sunny location to approved contractor's proposal. Submit details for approval.

Execution - Not Used

Record keeping/ monitoring/ surveys - Not Used

Documentation - Not Used

 Ω End of Section



Q10

Kerbs/ edgings/ channels/ paving accessories REVISED

Clauses - Not Used

Types of kerbs/edgings and channels

KT01 - Raised granite kerb 110A

- Standard: To BS EN 1340.
- 2. Manufacturer: Tectonix
 - 2.1. Website: www.tectonix.co.uk
- 3. Product reference: Shanny granite
- 4. Size (width x height x length): 255mm (W) x 205mm (d)
- 5. Special shapes: External radius kerbs, Internal radius kerbs and 90° return unit where kerb changes in direction, mitre joints not allowed
- 6. Finish: flamed
- 7. Colour: Silver grey
- 8. Bedding: To PTA's specification
- 9. Joints generally: Narrow mortar joint. Colour to match kerb material.
- 10. Sealant movement joints: Not required
- 11. Accessories: None
- 12. Notes:: Kerb installed with a 125mm upstand

KT02 - Flush granite kerb REVISED

- 1. Standard: To BS EN 1340.
- 2. Manufacturer: Tectonix
 - 2.1. Website: www.tectonix.co.uk
- 3. Product reference: Shanny granite
- 4. Designations:
- 5. Size (width x height x length): 255mm (W) x 205mm (d)
- 6. Special shapes: External radius kerbs, Internal radius kerbs and 90° return unit where kerb changes in direction, mitre joints not allowed
- 7. Finish: flamed
- 8. Colour: Silver grey
- Bedding: To PTA's specification
- 10. Joints generally: Narrow mortar joint. Colour to match kerb material.
- 11. Sealant movement joints: Not required
- 12. Accessories: None
- 13. Notes:: Kerb installed with flush with the adjacent paving

KT08 - Flush pin kerb 110C

- Standard: To BS EN 1340.
- Manufacturer: Tectonix
 - 2.1. Website: www.tectonix.co.uk
- 3. Product reference: Shanny granite
- 4. Size (width x height x length): 63mm (W) x 150mm (d)



- Special shapes: External radius kerbs, Internal radius kerbs and 90° return unit where kerb changes in direction, mitre joints not allowed
- 6. Finish: Flamed
- 7. Colour: Silver grey
- 8. Bedding: To PTA's specification
- 9. Joints generally: Narrow mortar joint. Colour to match kerb material.
- 10. Sealant movement joints: Not required
- 11. Accessories: None
- 12. Notes:: Kerb installed with flush with the adjacent paving

170A SD - Slot drain

- 1. Manufacturer: ACO Technologies plc.
 - 1.1. Web: www.aco.co.uk.
 - 1.2. Email: technical@aco.co.uk.
 - 1.3. Product reference: M100DS Brickslot, stainless steel edged channel and stainless steel slot top
- 2. Channel:
 - 2.1. Type of fall: To PTA's specification
 - 2.1.1. Invert depths: To PTA's specification
 - 2.2. Joints: To PTA's specification
 - 2.2.1. Size: To PTA's specification
- 3. Finish: Stainless steel single slot offset
 - Accessories: Sump unit with removable recessed cover and galvanized steel sediment bucket;-Endcap, closing piece;- Endcap, inlet/ outlet;- Step connectors; and- Inspection unit with removable stainless steel inspection lid
- 4. Bedding: To PTA's specification.
- 5. Notes:
 - 5.1. Landscape contractor to supply 2 sets of lifting tools (Drainlock™ grating lifting tool 835) to allow the removal of the brickslot access unit tray for maintenance purposes.

180A TD - Threshold drain

- Manufacturer: ACO Technologies plc.
 - 1.1. Web: www.aco.co.uk.
 - 1.2. Email: technical@aco.co.uk.
 - 1.3. Product reference: M100DS Brickslot, stainless steel edged channel and stainless steel slot top
- 2. Channel:
 - 2.1. Type of fall: To PTA's specification
 - 2.1.1. Invert depths: To PTA's specification
 - 2.2. Joints: To PTA's specification
 - 2.2.1. Size: To PTA's specification
- 3. Finish: Stainless steel single slot offset
 - 3.1. Accessories: Sump unit with removable recessed cover and galvanized steel sediment bucket;-Endcap, closing piece;- Endcap, inlet/ outlet;- Step connectors; and- Inspection unit with removable stainless steel inspection lid
- 4. Bedding: To PTA's specification.
- 5. Notes:
 - 5.1. Landscape contractor to supply 2 sets of lifting tools (Drainlock™ grating lifting tool 835) to allow the removal of the brickslot access unit tray for maintenance purposes.



5.2. Threshold drains to be provided at all door thresholds in accordance with requirements of building guarantor.

180B **CD** - Channel drain

- 1. Manufacturer: ACO Technologies plc, or similar approved
 - 1.1. Product reference: Multidrain MD
- 2. Size: To PTA's specification
- 3. Type of fall: To PTA's specification
- 4. Finish: As cast
- 5. Colour: As manufactured
- 6. Accessories: To PTA's specification
- 7. Bedding: To PTA's specification
- 8. Joints generally: To PTA's specification
- 9. Cover gratings: FREESTYLE
 - 9.1. Pattern: Typographic graphic TBC
 - 9.2. Fixings: Anti-vandal security catches
 - 9.3. Loading grade to BS EN 124-1: C250
 - 9.4. Finish/ Colour: Galvanized TBC

200A KT03 - Flush metal edge

- 1. Description: KT03 Final works; KT03b Temporary works Phase 1A
- 2. Manufacturer: Kinley Systems Ltd, or similar approved
 - 2.1. Web: www.kinleysystems.com.
 - 2.2. Product reference: AluExcel AE100FM
- 3. Size: 70mm (w) x 100mm (h)
- 4. Type/ Material: Aluminium
 - 4.1. Finish: Mill
 - 4.2. Colour: Standard
- 5. Accessories: None
- 6. Joints: Strip connectors as per Manufacturer's recommendations.
- 7. Bedding: Spiral securing spikes on concrete haunch and as per manufacturer's recommendations

KT04 - Raised metal edge 200B

- 1. Manufacturer: Kinley Systems Ltd, or similar approved
 - 1.1. Web: www.kinleysystems.com.
 - 1.2. Product reference: AluExcel AE150FM
- 2. Size: 70mm (w) x 150mm (h)
- 3. Type/ Material: Aluminium
 - 3.1. Finish: Mill
 - 3.2. Colour: Standard
- 4. Accessories: None
- 5. Joints: Strip connectors as per Manufacturer's recommendations.
- 6. Bedding: Spiral securing spikes on concrete haunch and as per manufacturer's recommendations

200C KT06 - Flush metal edge

- 1. Manufacturer: Kinley Systems Ltd, or similar approved
 - 1.1. Web: www.kinleysystems.com.



1.2. Product reference: AluExcel AE50FM

1.2.1. Product code: 101020

- 2. Size: 70mm (w) x 75mm (h) 3. Type/ Material: Aluminium
 - 3.1. Finish: Mill
 - 3.2. Colour: Standard
- 4. Accessories: None
- 5. Joints: Strip connectors as per Manufacturer's recommendations.
- 6. Bedding: Spiral securing spikes on concrete haunch and as per manufacturer's recommendations

200D KT07 - Raised metal edge

- 1. Manufacturer: Kinley Systems Ltd, or similar approved
 - 1.1. Web: www.kinleysystems.com.
 - 1.2. Product reference: AluExcel AE200FM
- 2. Size: 70mm (w) x 200mm (h)
- 3. Type/ Material: Aluminium
 - 3.1. Finish: Mill
 - 3.2. Colour: Standard
- 4. Accessories: None
- 5. Joints: Strip connectors as per Manufacturer's recommendations.
- 6. Bedding: Spiral securing spikes on concrete haunch and as per manufacturer's recommendations

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.
- 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

Standard: To BS 7533-6. 1.

580 **Drainage channel systems**

- 1. Installation: To an even gradient, without ponding or backfall. Commence laying from outlets.
- 2. Silt and debris: Removed from entire system immediately before handover.
- 3. Washing and detritus: Safely disposed without discharging into sewers or watercourses.



600 Radius kerbs/ channels

Usage: Radii of 15 m or less.

610 Angle kerbs

- Usage: Internal and external 90° changes of direction. 1.
- 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

- Maximum undulation of (non-tactile) paving surface: 3 mm.
 - 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.

630 Narrow mortar joints

- Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled, tightly butted and surplus mortar removed immediately.
 - 1.1. Joint width: 3 mm.

 Ω End of Section



Q23

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

Clauses - Not Used

Types of surfacing

PT17 - Loose gravel

- 1. Subgrade improvement layer: To PTA's specification
 - 1.1. Compacted thickness: To PTA's specification
- 2. Geotextile: To PTA's specification
- 3. Granular sub-base: Free draining sub-base, To PTA's specification
 - 3.1. Compacted thickness: To PTA's specification
- 4. Gravel: Loose laid and raked to uniform thickness.
 - 4.1. Manufacturer: CED Stone Group, or similar approved.
 - 4.2. Web: www.cedstone.co.uk
 - 4.3. Product reference: Silver grey granite
 - 4.4. Type: Granite
 - 4.5. Colour: Silver grey
 - 4.6. Size: 20mm single size
 - 4.7. Thickness: 100mm

160B PT18 - Black pebbles

- 1. Gravel: Loose laid and raked to uniform thickness.
 - 1.1. Manufacturer: Stone Warehouse, or similar approved.
 - 1.2. Web: www.stonewarehouse.co.uk
 - 1.3. Product reference: Black pebbles 20-40mm
 - 1.4. Type: Granite
 - 1.5. Colour: Black
 - 1.6. Size: Graded 20-40mm
 - 1.7. Thickness: 115mm

160C PT26 - Loose cobbles

- 1. Gravel: Loose laid and raked to uniform thickness.
 - 1.1. Manufacturer: Stone Warehouse, or similar approved.
 - 1.2. Web: www.stonewarehouse.co.uk
 - 1.3. Product reference: Scottish cobbles 40-90mm
 - 1.4. Type: Granite
 - 1.5. Colour: Shades of brown, mixed with grey, pale pink and cream
 - 1.6. Size: Graded 40-90mm
 - 1.7. Thickness: 350mm

170 Loose gravel overlay ballast

- Description: Below suspended flooring on roofs and podium
- 2. Base: Insulation to Architect's specification
- 3. Gravel: Loose laid and raked to uniform thickness:
 - 3.1. Type: Quartz gravel



- 3.2. Source: Submit proposals
- 3.3. Colour: Buff
- 3.4. Size: Graded 15-30 mm
- 3.5. Thickness: 60 mm giving a mass of ≥80 kg/m2

225A PT07a - Permeable resin bound gravel

- Description: Pedestrian surface for ground level fauna walk and L02 podium.
 Pedestrian surface for L02 podium in Temporary works Phase 1A.
 - 1.1. Notes for Temporary works Phase 1A and next phase: Resin bound finish to be lifted and replaced at next phase to avoid defined lines and patches between old and new
- 2. Granular sub-base: To PTA's specification and as per Manufacturer's recommendations
 - 2.1. Compacted thickness: To PTA's specification
- 3. Water collection: To PTA's specification
- 4. Geotextile: To PTA's specification
- 5. Base course: Open graded asphalt, to PTA's specification and as per Manufacturer's recommendations
- 6. Surface course
 - 6.1. Manufacturer: SureSet UK Ltd, or similar approved.
 - 6.1.1. Web: www.sureset.co.uk
 - 6.1.2. Product reference: Permeable resin bound natural aggregate
 - 6.2. Chippings: As supplied.
 - 6.2.1. Colour: Norwegian Pearl submit sample to client for approval.
 - 6.3. Aggregate size: 6mm PTA to confirm 7-20L/sec/m2 is sufficient porosity
- 7. Application: Refer to Manufacturer's specifications and instructions.
 - 7.1. Thickness: 18mm

225B PT07b - Permeable resin bound gravel

- 1. Description: Vehicular over-run to fauna walk
 - Refer to drawungs E746-FAB-SW-00-DR-LA-920-1212, E746-FAB-SW-00-DR-LA-920-1214, E746-FAB-SW-00-DR-LA-920-1216 for pattern design intent
- 2. Granular sub-base: To PTA's specification and as per Manufacturer's recommendations
 - 2.1. Compacted thickness: To PTA's specification
- 3. Water collection: To PTA's specification
- 4. Geotextile: To PTA's specification
- 5. Base course: Open graded asphalt, to PTA's specification and as per Manufacturer's recommendations
- 6. Surface course
 - 6.1. Manufacturer: SureSet UK Ltd, or similar approved.
 - 6.1.1. Web: www.sureset.co.uk
 - 6.1.2. Product reference: Permeable resin bound natural aggregate
 - 6.2. Chippings: As supplied.
 - 6.2.1. Colour: 3 colours, patterned as per drawings. Norwegian Pearl, Barley Butter, Bronze. TBC
 - 6.3. Aggregate size: 3mm PTA to confirm
- 7. Application: Refer to Manufacturer's specifications and instructions.
 - 7.1. Thickness: 22mm



Laying

315 Materials

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

340 Laying generally

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

350 Cold weather working

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

360 Drainage falls

- 1. Sealed surfaces
 - 1.1. Falls and cross falls (minimum): 1:40.
 - 1.2. Camber (minimum): 1:50.
- 2. Unsealed surfaces (minimum): 1:30.

380 Laying granular surfaces in pedestrian areas and cycle tracks

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

390 Protection from traffic and plant

1. Paved areas: Restrict access to prevent damage.

Completion - Not Used

Ω End of Section



Q24

Interlocking brick/block roads/pavings

Clauses - Not Used

Types of paving - Not Used

Execution

200 Execution generally - concrete block and clay paver paving

1. 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 concrete 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.

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.

505 Regularity of paved surfaces

- 1. Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 3 mm.
- 2. Joints between paving units or utility access covers
 - 2.1. Joints flush with the surface: difference in level between adjacent units to be no more than twice the joint width (with a 5 mm max difference in level).
 - 2.2. Recessed, filled joints: difference in level between adjacent units to be no greater than 2 mm; the recess to be no deeper than 5 mm.
 - 2.3. Unfilled joints: difference in level between adjacent units to be no greater than 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.

Ω End of Section





Q25 Slab/brick/sett/cobble pavings REVISED

Clauses - Not Used

General

110A PT05a / 5b - Granite setts paving system

- 1. Subgrade improvement layer: To PTA's specifications
- 2. Granular sub-base: To PTA's specifications
- 3. Base: To PTA's specifications
- 4. Laying course: Ready-mixed mortar.
 - 4.1. Manufacturer: Larsen Building Products, or similar approved.
 - 4.2. Website: www.larsenbuildingproducts.com
 - 4.3. Tel: 028 9077 4000
 - 4.4. Product Reference: Streetscape FBC
 - 4.5. Application: Mortar bedding must be applied in accordance with Manufacturer's recommendations.
 - 4.6. Thickness: 40mm PTA to confirm.
 - 4.7. Accessories: Primer for underside of setts
 - 4.8. Manufacturer: Larsen Building Products, or similar approved.
 - 4.9. Website: www.larsenbuildingproducts.com
 - 4.10. Tel: 028 9077 4000
 - 4.11. Product Reference: Streetscape PS
 - 4.12. Application: Primer must be applied in accordance with Manufacturer's recommendations.
- 5. Paving units: As clause Q25/330C + D
- 6. Jointing: Ready-mixed mortar.
 - 6.1. Manufacturer: Larsen Building Products, or similar approved.
 - 6.2. Web: www.larsenbuildingproducts.com
 - 6.3. Tel: 028 9077 4000
 - 6.4. Product Reference: Flowable Jointing Mortar (FJM)
 - 6.5. Colour: Silver grey. Landscape Contractor to submit sample for approval prior the installation.
 - 6.6. Application: Jointing mortar must be applied in accordance with Manufacturer's recommendations
 - 6.7. Joint width: 6 mm.
 - 6.8. Bond: Herringbone as per E756-FAB-SW-XX-SP-LA-920-4502
- 7. Accessories: Sealer TBC

110B PT03 - Granite setts paving system

- 1. Subgrade improvement layer: To PTA's specifications
- 2. Base: To PTA's specifications
- 3. Laying course: Ready-mixed mortar.
 - 3.1. Manufacturer: Larsen Building Products, or similar approved.
 - 3.2. Website: www.larsenbuildingproducts.com
 - 3.3. Tel: 028 9077 4000
 - 3.4. Product Reference: Streetscape FBC
 - 3.5. Application: Mortar bedding must be applied in accordance with Manufacturer's recommendations.
 - 3.6. Thickness: 40mm PTA to confirm.



- 3.7. Accessories: Primer for underside of setts
- 3.8. Manufacturer: Larsen Building Products, or similar approved.
- 3.9. Website: www.larsenbuildingproducts.com
- 3.10. Tel: 028 9077 4000
- 3.11. Product Reference: Streetscape PS
- 3.12. Application: Primer must be applied in accordance with Manufacturer's recommendations.
- 4. Paving units: As clause Q25/330B
- 5. Jointing: Ready-mixed mortar.
 - 5.1. Manufacturer: Larsen Building Products, or similar approved.
 - 5.2. Web: www.larsenbuildingproducts.com
 - 5.3. Tel: 028 9077 4000
 - 5.4. Product Reference: Flowable Jointing Mortar (FJM)
 - 5.5. Colour: Grey. Landscape Contractor to submit sample for approval prior the installation.
 - 5.6. Application: Jointing mortar must be applied in accordance with Manufacturer's recommendations
 - 5.7. Joint width: 6 mm.
 - 5.8. Bond: Stretcher
- 6. Accessories: Sealer TBC

115A PT19 - Water feature paving system

- 1. Base: Water feature GRP membrane, to Specialist's specification
 - 1.1. Preparation: To Specialist's design
- 2. Laying course: Suitable epoxy mortar bedding for underwater applications
 - 2.1. Accessories: Primer for underside of flags or slabs as per Manufacturer's recommendations
- 3. Paving units: Granite slab paving as clause Q25/310A
- 4. Jointing: Suitable epoxy mortar for underwater applications
 - 4.1. Bond: TBC
- 5. Accessories: TBC

PT04 - Granite paving system REVISED 120A

- 1. Subgrade improvement layer: To PTA's specification
- 2. Granular sub-base: To PTA's specification
- 3. Base: To PTA's specification
- 4. Laying course: Bedding sand to BS 7533
 - 4.1. Category:: IB
 - 4.2. Depth:: 30mm
- 5. Paving units: As clause Q25/315A
- 6. Jointing:
 - 6.1. Material: Bedding sand in accordance with BS 7533
 - 6.2. Joint size: 5-6mm
 - 6.3. Bond: Half lap stretcher
- 7. Accessories: None

PT14 - Terrace paving system REVISED 120B

- Base: Insulation layer to AQP's specification
- Paving units: As clause Q25/315B
- 3. Joint size: 5mm



- 3.1. Bond: Half lap stretcher
- 4. Accessories: Steel pedestals as clause Q25/480B

120D PT21 - Concrete stepping stones paving system

- 1. Base: Concrete base to PTA's specification.
 - 1.1. Thickness: Varies, to suit proposed FFL.
- 2. Laying course: 20mm mortar bedding, to PTA's specification.
- 3. Paving units: As clause Q25/315E

127A PT09a/b- Porcelain tiles system

- 1. .
- 2. Preparation of existing base: Not required
- Paving support: Aluminium pedestals as clause Q25/480A, aluminium substructure joists as clause Q25/482A
- 4. Paving units: Porcelain tiles as clause Q25/317A, B
- 5. Accessories: None

127B PT09c- Porcelain tile paving

- 1. .
- 2. Preparation of existing base: Not required
- 3. Paving support: Bedded on concrete base.
- 4. Paving units: Porcelain tiles as clause Q25/317C
- 5. Accessories: None

128 PT12 - Porcelain decking system

- 1. .
- 2. Preparation of existing base: Not required
- Paving support: Aluminium pedestals as clause Q25/480A, aluminium substructure joists as clause Q25/482A
- 4. Paving units: Porcelain tiles as clause Q25/318
- 5. Accessories: None

System performance - Not Used

Products

310A PT19 - Water feature tiles

- 1. Standard: To BS EN 1341.
- 2. Supplier: Marshalls plc. or similar approved.

Website: www.marshalls.co.uk

- 2.1. Product reference: TBC
- 3. Petrographical description/ stone type: Granite
- 4. Finish: Base of pools flamed (non slip)
 Reveals adjacent to falls polished
- 5. Sizes: 100mm x 200mm x 20mm
- 6. Slip resistance: PTV to BS 7976-2 of 45
- 7. Notes: Samples to be reviewed and tested with supplier
 - 7.1. Landscape Contractor to submit samples to the Design Team for approval.



310B PT23 Etched Paving REVISED

- Description: Feature paving with etched detail to Mews Square Refer to E746-FAB-SW-00-DR-LA-920-4503
- 2. Standard: To BS EN 1341.
- 3. Supplier: Tectonix. or similar approved.

Website: www.tectonix.co.uk

- 3.1. Product reference: Cabral, Preto, Ziliang- fine picked TBC after samples of etching detail are reviewed
- 3.2. Bond: Stretcher
- 4. Petrographical description/ stone type: Granite
- 5. Sizes: 200/400/600mm x 400mm x 75mm (D)
- 6. Slip resistance: PTV to BS 7976-2 of 40

310C PT24 Granite paving with swoop detail

- Description: Feature paving with waterjet cut detail to Mews Square Refer to E746-FAB-SW-00-DR-LA-920-4503
- 2. Standard: To BS EN 1341.
- Supplier: Tectonix or similar approved.
 - Website: www.tectonix.co.uk
 - 3.1. Product reference:
 - 3.1.1. PT24a: Ziliang flamed
 - 3.1.2. PT24b swoop detail: Cabral flamed
 - 3.2. Bond: Stretcher
- 4. Petrographical description/ stone type: Granite
- 5. Finish: Flamed
- 6. Sizes: 200mm x 100mm x 80mm (D)
- 7. Slip resistance: PTV to BS 7976-2 of 40

315A PT04 - Plank paving

REVISED

- 1. This clause must be read in conjunction with clause Q25/120A
- 2. Standard: To BS EN 1339.
 - 2.1. Manufacturer: Tectonix or similar approved.

Website: www.tectonix.co.uk

- 2.1.1. Product reference: Cabral granite
- 3. Colour: Charcoal
 - 3.1. Finish: flamed
 - 3.2. Nominal sizes: PT04a / PT04c 600mm (I) x 200mm (w) x 50mm (h) PT04b 600mm (I) x 200mm (w) x 80mm (h)
- 4. Arrises: Chamfered
- 5. Slip/ Skid resistance: >45 USRV
- 6. Notes:
 - 6.1. Stretcher bond laying pattern.
 - 6.2. PT04a standard build-up

PT04b - vehicular over-run build-up

PT04c - reduced build-up.

6.3. Landscape contractor to submit samples to design team for approval prior to the purchasing.



PT14 - Terrace paving REVISED 315C

- 1. This clause must be read in conjunction with clause Q25/120B
- 2. Description: To private terraces on level 02
- 3. Standard: To BS EN 1339.
 - 3.1. Manufacturer: Marshalls plc. or similar approved.- Website: www.marshalls.co.uk
 - 3.1.1. Product reference: Conservation X Paving
- 4. Recycled content: Not less than 55% recycled materials included
- 5. Colour: Silver grey
 - 5.1. Finish: Skimmed
 - 5.2. Nominal sizes: 900mm (I) x 300mm (w) x 50mm (h)
- 6. Arrises: Chamfered
- 7. Slip/ Skid resistance: >45 USRV
- 8. Notes: Pavers to be laid on aluminium sub-structure refer to clause Q25/482A
 - 8.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.
 - 8.2. Stretcher bond laying pattern:

PT14b - Terrace paving REVISED 315D

- 1. This clause must be read in conjunction with clause Q25/120B
- 2. Description: To private terraces on GF
- 3. Standard: To BS EN 1339.
 - 3.1. Manufacturer: Tectonix or similar approved.
 - Website: www.tectonix.co.uk
 - 3.1.1. Product reference: Cabral
- 4. Recycled content: Not less than 55% recycled materials included
- 5. Colour: Charcoal
 - 5.1. Finish: Flamed
 - 5.2. Nominal sizes: 900mm (I) x 300mm (w) x 50mm (h)
- 6. Arrises: Chamfered
- 7. Slip/ Skid resistance: >45 USRV
- 8. Notes: Pavers to be laid on aluminium sub-structure refer to clause Q25/482A
 - 8.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.
 - 8.2. Stretcher bond laying pattern:

PT21 - Stepping stones REVISED 315E

- 1. This clause must be read in conjunction with clause Q25/120D
- 2. Description: Stepping stones to roof terraces
- 3. Standard: To BS EN 1339.
 - 3.1. Manufacturer: Marshalls plc. or similar approved.
 - 3.1.1. Website: www.marshalls.co.uk
 - 3.1.2. Product reference: Conservation X paving
- 4. Recycled content: Not less than 55% recycled materials included
- 5. Colour: Silver Grey
 - 5.1. Finish: Skimmed
 - 5.2. Nominal sizes: 600mm (I) x 600mm (w) x 50mm (h)
- 6. Arrises: Square



- 7. Slip/ Skid resistance: >45 USRV
- 8. Notes:
 - 8.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.

315F PT22 - Concrete slab paving

- 1. Description: Paved base under FT13 metal planter. refer to Q31/293
- 2. Standard: To BS EN 1339.
 - 2.1. Manufacturer: Marshalls plc. or similar approved.- Website: www.marshalls.co.uk
 - 2.1.1. Product reference: Conservation X paving
- 3. Recycled content: Not less than 55% recycled materials included
- 4. Colour: Silver Grey
 - 4.1. Finish: Skimmed
 - 4.2. Nominal sizes: 400mm (I) x 400mm (w) x 50mm (h)
- 5. Arrises: Square
- 6. Slip/ Skid resistance: >45 USRV
- 7. Notes:
 - 7.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.
 - 7.2. Stacked bond laying pattern.:

PT30 - Concrete paving

- 1. Description: Vehicular over-run paving to mews road for Temporary landscape scheme Phase 1A.
- 2. Standard: To BS EN 1339.
 - 2.1. Manufacturer: Tobermore, or similar approved
 - 2.1.1. Product reference: Fusion
- 3. Recycled content: Not less than 55% recycled materials included
- 4. Colour: Mix (Graphite 35%, Mid grey 35%, Silver 30%)
 - 4.1. Finish: Textured
 - 4.2. Nominal sizes: 200mm (I) x 100mm (w) x 80mm (h)
- 5. Arrises: Square
- 6. Slip/ Skid resistance: >45 USRV
- 7. Notes:
 - 7.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.
 - 7.2. 45° herringbone bond laying pattern.:

PT20B - Stair landing paving ADDED 315H

- 1. This clause must be read in conjunction with clause Q25/120A
- 2. Description: To match PT20 step treads and risers
- 3. Standard: To BS EN 1339.
 - Manufacturer: Tectonix or similar approved. Website: www.tectonix.co.uk
 - 3.1.1. Product reference: Ziliang granite
- 4. Colour: Silver grey
 - 4.1. Finish: flamed
 - 4.2. Nominal sizes: 200mm (I) x 100mm (w) x 50mm (h)
- 5. Arrises: Chamfered
- 6. Slip/ Skid resistance: >45 USRV



- 7. Notes:
 - 7.1. Stretcher bond laying pattern.
 - 7.2. Landscape contractor to submit samples to design team for approval prior to the purchasing.

317A PT09a - Porcelain tiles

- 1. Description:
- 2. This clause must be read in conjunction with clause Q25/127A.
- 3. Material: Porcelain.
- 4. Description: To level 2 podium
- 5. Standard:
 - 5.1. Manufacturer: Raaft, or similar approved.- Website: www.raaft.co
 - 5.1.1. Product reference: Atria
- 6. Colour: Ochre
 - 6.1. Finish: Textured RT
 - 6.2. Nominal sizes: 600 x 600 mm
 - 6.3. Thickness: 20mm
- 7. Arrises: Square
- 8. Slip/ Skid resistance: R11
- 9. Bond: Half-lap stretcher.
- 10. Joint width: 3mm spacers giving 5-6mm joints
- 11. Notes: Pavers to be laid on aluminium sub-structure refer to clause Q25/482A
 - 11.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.

317B PT09b - Porcelain tiles

- 1. Description:
- 2. This clause must be read in conjunction with clause Q25/127A.
- 3. Material: Porcelain.
- 4. Description: To roof terraces and level 2 podium
- 5. Standard:
 - 5.1. Manufacturer: Raaft, or similar approved.- Website: www.raaft.co
 - 5.1.1. Product reference: Atria
- 6. Colour: Urban
 - 6.1. Finish: Textured RT
 - 6.2. Nominal sizes: 600 x 600 mm
 - 6.3. Thickness: 20mm
- 7. Arrises: Square
- 8. Slip/ Skid resistance: R11
- 9. Bond: Half-lap stretcher.
- 10. Joint width: 3mm spacers giving 5-6mm joints
- 11. Notes: Pavers to be laid on aluminium sub-structure refer to clause Q25/482A
 - 11.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.

317C PT09c - Porcelain tiles

- 1. Description:
- 2. This clause must be read in conjunction with clause Q25/127B.
- 3. Material: Porcelain.



- 4. Description: To level 2 podium
- 5. Standard:
 - 5.1. Manufacturer: Raaft, or similar approved.- Website: www.raaft.co
 - 5.1.1. Product reference: Atria
- 6. Colour: Ochre
 - 6.1. Finish: Textured RT
 - 6.2. Nominal sizes: 600 x 600 mm
 - 6.3. Thickness: 20mm
- 7. Arrises: Square
- 8. Slip/ Skid resistance: R11
- 9. Bond: Half-lap stretcher.
- 10. Joint width: 3mm
- 11. Notes: Bedded and grouted tiles above concrete subbase to Specialist's proposals.
 - 11.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.

318 PT12 - Porcelain decking

- 1. Material: Extruded porcelain.
- 2. This clause must be read in conjunction with clause Q25/128.
- 3. Description: To roof terraces
- 4. Standard:
 - 4.1. Manufacturer: Kinley, or similar approved.- Website: www.kinley.co.uk
 - 4.1.1. Product reference: Farrino Porcelain Decking
- 5. Colour: Flax
 - 5.1. Finish: Textured RT
 - 5.2. Nominal sizes: 1202mm (I) x 145mm (w) x 26mm (h)
- 6. Slip/ Skid resistance: R11
- 7. Bond: Half-lap stretcher.
- 8. Joint width: 3mm
- 9. Notes:
 - 9.1. Landscape contractor to submit samples to design team for approval prior to the purchasing.

320A PT15 - Hazard warning paver

- 1. Description: Corduroy tactile paver to steps
- 2. Standard: To DD CEN/TS 15209.
- 3. Material: Precast concrete
 - 3.1. Manufacturer: Marshalls plcor similar approved.
 - 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: www.marshalls.co.uk 3.1.1.4. Email: info@marshalls.co.uk
 - 3.1.2. Product reference: Hazard Warning Tactile Flag Paving
- 4. Nominal sizes: 400 x 400 mm



5. Colour: Natural textured

6. Type of surface: Rib - type R1

320B PT16 - Tactile Blister Paver

1. Description: Blister tactile paver to pedestrian crossings

2. Standard: To DD CEN/TS 15209.

3. Material: Precast concrete

3.1. Manufacturer: Marshalls plcor similar approved.

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: www.marshalls.co.uk 3.1.1.4. Email: info@marshalls.co.uk

3.1.2. Product reference: Blister Tactile Flag Paving

4. Nominal sizes: 400 x 400 mm

5. Colour: Natural

6. Type of surface: Rib - type R1 Blister - type B1

330B PT03 - Granite setts paving

1. This clause must be read in conjunction with clause Q25/110B.

2. Standard: To BS EN 1342.

3. Supplier: Tectonix or similar approved.

- Website: www.tectonix.co.uk

3.1. Product reference: Cabral flamed

- 4. Petrographical description/ stone type: Granite
- 5. Requirements: Paving must be free from vents, cracks, fissures or defects that might adversely affect strength and durability.
- 6. Finish: Flamed
- 7. Colour: Mid grey
- 8. Size: 200mm (I) x 100mm (w) x 100mm (h)
- 9. Plan dimension and thickness deviation: Class 2.

10. Special setts: TBC

10.1. Breaking strength: TBC

- 11. Slip resistance: SRV to BS EN 14231 of 80
- 12. Skid resistance: PSV to HA DMRB 7.5.1 of 65
- 13. Notes:
- 14. Colours subject to natural variation during the quarrying. Landscape Contractor to submit sample panel of the proposed paving pattern in the proposed colours for approval prior to ordering the paving.

330C PT05a - Granite setts paving

REVISED

- 1. This clause must be read in conjunction with clause Q25/110A.
- Description: Vehicular over-run feature paving to mews road Refer to E746-FAB-SW-00-DR-LA-920-4502
- 3. Standard: To BS EN 1342.



- 4. Supplier: Marshalls plc. or similar approved
 - Web: www.marshalls.co.uk Tectonix or similar approved. - Website: www.tectonix.co.uk
 - 4.1. Product reference: Bespoke natural stone setts
- 5. Petrographical description/ stone type: Granite
- Requirements: Paving must be free from vents, cracks, fissures or defects that might adversely affect strength and durability.
- 7. Finish: Fine picked
- 8. Colour: 50% Tectonix Cabral Granite flamed 25% Marshalls Proteus Granite - fine picked

15% Marshalls Elara Granite - fine picked

5% Marshalls Mimas Granite - fine picked

5% Marshalls Callisto Granite - fine picked

- Refer to E746-FAB-SW-00-LA-920-4502 for laying pattern intent
- 9. Size: 300mm (I) x 150mm (w) x 80mm (h)
- 10. Plan dimension and thickness deviation: Class 2.
- 11. Special setts: Oversize units to avoid cuts resulting in slivers less than 40mm in any direction
 - 11.1. Breaking strength: TBC
- 12. Slip resistance: SRV to BS EN 14231 of 80
- 13. Skid resistance: PSV to HA DMRB 7.5.1 of 65
- 14. Notes:
- 15. Colours subject to natural variation during the quarrying. Landscape Contractor to submit sample panel of the proposed paving pattern in the proposed colours for approval prior to ordering the paving.

PT05b - Granite setts paving REVISED 330D

- 1. This clause must be read in conjunction with clause Q25/110A.
- 2. Description: Pedestrian feature paving to mews road Refer to E746-FAB-SW-00-DR-LA-920-4502
- 3. Standard: To BS EN 1342.
- 4. Supplier: Marshalls plc. or similar approved
 - Web: www.marshalls.co.uk Tectonix or similar approved.
 - Website: www.tectonix.co.uk
 - 4.1. Product reference: Bespoke natural stone setts
- 5. Petrographical description/ stone type: Granite
- 6. Requirements: Paving must be free from vents, cracks, fissures or defects that might adversely affect strength and durability.
- 7. Finish: Fine picked
- 8. Colour: 50% Tectonix Cabral Granite flamed

25% Marshalls Proteus Granite - fine picked

15% Marshalls Elara Granite - fine picked

5% Marshalls Mimas Granite - fine picked

5% Marshalls Callisto Granite - fine picked

Refer to E746-FAB-SW-00-LA-920-4502 for laying pattern intent.

- 9. Size: 200mm (I) x 100mm (w) x 60mm (h)
- 10. Plan dimension and thickness deviation: Class 2.
- 11. Special setts: Oversize units to avoid cuts resulting in slivers less than 40mm in any direction
 - 11.1. Breaking strength: TBC
- 12. Slip resistance: SRV to BS EN 14231 of 80
- 13. Skid resistance: PSV to HA DMRB 7.5.1 of 65



- 14. Notes:
- 15. Colours subject to natural variation during the quarrying. Landscape Contractor to submit sample panel of the proposed paving pattern in the proposed colours for approval prior to ordering the paving.

480A Sub-structure steel pedestals

- 1. Manufacturer: Kinley, or similar approved.
 - 1.1. Website: www.kinley.co.uk
 - 1.2. Product reference: Preventa® Class A Fire-Rated Metal Pedestals
- 2. Type: Screwjack pedestal.
- 3. Material: Zinc coated steel.
- 4. Dimensions:
- 5. Base diameter: 120mm.
- 6. Height range: 30-40mm (331010)

40-60mm (331011)

60-100mm (331012)

100-180mm (331013)

350-425mm (341020)

- 7. Additional pedestals: Adjacent to perimeters and centre of each tile
- 8. Accessories: Not required

480B Paving steel pedestals

- 1. Manufacturer: Ryno Group, or similar approved Web: www.rynogroup.co.uk
 - 1.1. Product reference: Non-Combustible Paving Pedestals. Product code: RP-FR-8
- 2. Type: Screwjack pedestal
- 3. Material: Mild Steel, treated with Astec 3000 Zinc Nickel electroplated coating
- 4. Dimensions:
- 5. Base diameter: 120mm
- 6. Height range: 405 to 505mm TBC
- 7. Additional pedestals: Adjacent to perimeters
- 8. Accessories: Proprietary gasket with 4mm wide tabs

482A Aluminium sub-structure support REVISED

- 1. Description: Below all pavers on roof level, below PT09 and PT14a/c on podium level 02
- 2. Manufacturer: Kinley, or similar approved Web: www.kinley.co.uk
 - 2.1. Product reference: Preventa® Class A Fire-Rated aluminium joist
- 3. Material: Aluminium
- 4. Code: 300111
- 5. Size: 2400mm (I) x 70mm (w) x 50mm (h).
- 6. Additional requirement: Noggins where required.
- 7. Accessories: Angle connectors, 90° connector clips, 80mm end caps, joist connectors, 3mm tile spacers, wall spacers
- 8. Notes:
 - 8.1. Landscape contractor to submit frabrication drawings for the substructure to the design team for comments prior to the fabrication.
 - 8.2. System to be installed in accordance with Manufacturer's recommendations and instructions.



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.
- 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.

637 Regularity of paved surfaces

- 1. Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 3 mm.
- 2. Joints between paving units or utility access covers
 - 2.1. Joints flush with the surface: difference in level between adjacent units to be no more than twice the joint width (with a 5 mm max difference in level).
 - Recessed, filled joints: difference in level between adjacent units to be no greater than 2 mm; the recess to be no deeper than 5 mm.
 - 2.3. Unfilled joints: difference in level between adjacent units to be no greater than 2 mm.
- 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

- 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): 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 unbound 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.

785 Tooled joints in mortar-bedded units

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

790 Tooled coloured joints in mortar-bedded units

- 1. Joints: Completely filled with bedding mortar as work proceeds.
 - 1.1. Joint width: As specified in the paving system clauses
- 2. Pointing: 1:3 cement:sand mortar with pigment, colour As specified in the paving system clauses.
 - 2.1. Depth: Full depth

810 Pedestal installation

- 1. Surface to accept pedestals: Clean and free of debris.
- Setting out: Mark centre-point of pedestal on substrate surface, with perpendicular guidelines to ensure square layout.
 - 2.1. Orientation: Align parallel with adjacent features.
 - 2.2. Spacing: As per clause Q25/480B
- 3. Movement tolerance at perimeter of paver system (maximum): 5 mm.



Completion

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

- 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.

920 Completion of grassed pavings

1. Protection: Protect from traffic for 6-8 weeks or until grass can tolerate traffic.

 Ω End of Section



Q26

Special surfacings/ pavings for sport/ general amenity REVISED

Clauses - Not Used

Sports surfacing - Not Used

Impact attenuating surfacings for play areas

301 **Extent of impact attenuating surfacing**

General: Lay impact attenuating surfacing as indicated on drawings.

350A PT11 - Artificial grass

- 1. Base: Insulation layer, to AQ&P's specification
- 2. Synthetic grass system.
 - 2.1. Standard: To BS 7044-4
 - 2.2. Manufacturer: Evergreens UK Ltd LazyLawn®-EverRoof™.
 - 2.3. Website: www.lazylawn.co.uk
 - 2.4. Product reference: EVR-3 Four part paving system
- 3. Components forming the system
 - 3.1. Wonder Yarn® 36mm surface with sand infill.
 - 3.2. 30mm Force FieldTM Foam drainage pad, for vertical flow and fire retardency layer.
 - 3.3. 50mm Paving slabs.
 - 3.4. Adjustable Pedestal with fabric top.

PT08 - Rubber crumb surface REVISED

- 1. Description:: To play areas
- 2. Sub-base: Graded crush rock, to PTA's specification and as per Manufacturer's recommendations
 - 2.1. Thickness: To PTA's specification
- 3. Base: Porous open-textured bituminous macadam, to PTA's specification and as per Manufacturer's recommendations
 - 3.1. Thickness: 50mm as per Manufacturer's recommendations
- 4. Surface course: Wet pour, in situ laid polyurethane bound EPDM rubber crumb surface.
 - 4.1. Thickness: 20mm
 - 4.2. Standard: To BS 7188.
 - 4.3. Manufacturer: Playtop Ltd, or similar approved Web: http://www.playtop.com/
 - 4.3.1. Product reference: Wet Pour Safety Surface
 - 4.4. Colour: Reseda Green RAL 6011
 - 4.5. Critical fall height when tested to BS EN 1177: 0.8 m
 - 4.6. Health and safety
 - 4.6.1. Substance known to be toxic or carcinogenic on skin contact or released as vapour or dust during normal use: Not permitted.
- 5. Submit
 - 5.1. Resistance to abrasive wear, slip resistance, resistance to indentation and ease of ignition: Evidence of testing to BS 7188.
 - 5.2. Critical fall height: Evidence of testing to BS EN 1177.



PT08a - Rubber crumb surface REVISED 360B

- Description:: To detailed play area on level 01 podium
- 2. Sub-base: Lightweight, non-flammable, permeable void former as per clause E20/380
 - Thickness: As required to make up levels as indicated on plans
- 3. Base: Sand with geotextile liner
 - 3.1. Thickness: 50mm as per Manufacturer's recommendations
- 4. Surface course: Wet pour, in situ laid polyurethane bound EPDM rubber crumb surface.
 - 4.1. Thickness: 60mm (As required to achieve 1.5m safe fall height)
 - 4.2. Standard: To BS 7188.
 - 4.3. Manufacturer: Playtop Ltd, or similar approved Web: http://www.playtop.com/
 - 4.3.1. Product reference: Wet Pour Safety Surface
 - 4.4. Colour: Level 02: Reseda Green RAL 6011 Level 01 boat area: Water Blend surrounding boat, the rest Dark Blue RAL 5009. See E746-FAB-SW-01-DR-LA-920-1501 for setting out of pattern.
 - 4.5. Critical fall height when tested to BS EN 1177: 1.5m
 - 4.6. Health and safety
 - 4.6.1. Substance known to be toxic or carcinogenic on skin contact or released as vapour or dust during normal use: Not permitted.
- 5. Submit
 - 5.1. Resistance to abrasive wear, slip resistance, resistance to indentation and ease of ignition: Evidence of testing to BS 7188.
 - Critical fall height: Evidence of testing to BS EN 1177.

Associated accessories - Not Used

Execution - Not Used

Completion

930 **Documentation**

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

 Ω End of Section



Q28

Topsoil and soil ameliorants

Clauses - Not Used

System outline

135 Planting bed soil system

- 1. Description: FOR ALL PLANTED AREAS ON MADE GROUND
- 2. Composition
 - 2.1. Topsoil: Imported topsoil as clause Q28/330A
 - 2.2. Subsoil:: Imported subsoil as clause Q28/332A
 - 2.3. Ameliorants: As clause Q28/401
 - 2.4. Accessories: None

135A Planting bed lightweight soil system

- 1. Description: FOR ALL PLANTED AREAS ON PODIUM
- 2. Composition
 - 2.1. Topsoil: Imported lightweight topsoil as clause Q28/330B
 - 2.2. Subsoil:: Imported lightweight subsoil as clause Q28/332B
 - 2.3. Ameliorants: As clause Q28/401
 - 2.4. Accessories: None

145 Plant pit backfilling soil system

- 1. Description: FOR TREE PITS
- 2. Composition
 - 2.1. Topsoil: Imported topsoil as clause Q28/330A and Q28/330B depending on locations
 - 2.2. Ameliorants: As clause Q28/401
 - 2.3. Accessories: None

155A Bark mulch

- 1. Description: For all tree pits and planted areas
- 2. Manufacturer: Melcourt Industries Limited, or similar approved
 - 2.1. Website: www.melcourt.co.uk
- 3. Product reference: Ornamental bark mulch
 - 3.1. Grade: 3-35mm
- 4. Composition
 - 4.1. Material: FSC certified wood
- 5. Depth: 50mm

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

310 Materials not permitted

Materials: Peat;

Products containing peat; River and canal dredgings;

330A Imported topsoil for planting beds

1. Description: Topsoil for planting beds and tree pits on made ground

2. Standard: BS3882:2015

3. Type:

3.1. Soil textural class: Sandy loam

4. Classification: Multipurpose

5. Manufacturer: Bourne Amenity Ltd or similar approved

5.1. Website: www.bourneamenity.co.uk

5.2. Product reference: TS6 5mm Premium Topsoil

330B Imported lightweight topsoil for planting beds

1. Description: Topsoil for planting beds and tree pits on podium

Standard: BS3882:2015
 Classification: Multipurpose

4. Manufacturer: Bourne Amenity Ltd or similar approved

4.1. Website: www.bourneamenity.co.uk

4.2. Product reference: Intensive Topsoil (lightweight topsoil)

5. Soil textural class: Sandy loam

5.1. Dry density: 850 Kg/m³

5.2. Saturated bulk density: approx. 1,200 Kg/m³

330C Imported topsoil for lawn

1. Description: Topsoil for lawns

2. Standard: BS3882:2015

3. Classification: Multipurpose

4. Manufacturer: Bourne Amenity Ltd or similar approved

4.1. Website: www.bourneamenity.co.uk

4.2. Product reference: TS1-F Topsoil (10mm sandy loam)

5. Soil textural class: Sandy loam

332A Imported subsoil

1. Description: Subsoil for planting beds and tree pits on made ground

Standard: BS8601:2013
 Classification: Multipurpose

4. Manufacturer: Bourne Amenity Ltd or similar approved



- 4.1. Website: www.bourneamenity.co.uk
- 4.2. Product reference: Loamy Sand Subsoil
- 5. Soil textural class: Loamy sand

332B Imported lightweight subsoil

- 1. Description: Lightweight subsoil for planting beds and tree pits on podium
- 2. Standard: BS8601:2013
- 3. Classification: Multipurpose
- 4. Manufacturer: Bourne Amenity Ltd or similar approved
 - 4.1. Website: www.bourneamenity.co.uk
 - 4.2. Product reference: Intensive lightweight subsoil.
- 5. Soil textural class: Loamy sand
 - 5.1. Bulk density: 1.57 mg/m³
 - 5.1.1. Permeability: 234 mm/hr
 - 5.1.2. Total porosity: 38 %

401 Organic fertilizers

- 1. Description: For planting beds, tree pits and turfing
- 2. Manufacturer/ source: Landscape Contractor to submit proposals for comments prior to ordering
 - 2.1. Product reference: Landscape Contractor to submit proposals for comments prior to ordering
- 3. Standard: In accordance with The EC Fertilizers (England and Wales) Regulations 2006
- 4. Purpose: General purpose fertilizer
- 5. Type: Sanitized and stabilized compost
- 6. Availability to plants: Slow release

Execution

610 Topsoil analysis

- 1. Soil to be analysed: Imported topsoil
- 2. Soil analyst: Landscape Contractor to submit proposals for comments prior to ordering
- 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.

620 Importing topsoil

- 1. Give notice: Before stripping topsoil for transfer to site.
 - 1.1. Notice period: 14 days

630 Documentation for imported topsoil

- 1. Description: For all imported topsoil
- 2. Timing: Submit at handover.
- 3. Contents
 - 3.1. Full description of all soil components.



- 3.2. Record of source for all soil components.
- 3.3. Record drawings showing the location and depth of all soils by type and grade.
- 3.4. Declaration of analysis: in accordance with BS 3882, clause 6 and Table 1.
- 4. Number of copies: As required by Contract administrator

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: As required by Contract administrator

640 Documentation for preparation materials

- 1. Description: FOR IMPORTED ORGANI MATERIALS
- 2. Timing: Submit at handover.
- 3. Contents
 - 3.1. Full description of all components.
 - 3.2. Record of source for all components.
 - 3.3. Analyst's report for each test carried out.
 - 3.4. Supplier's declaration of compliance with BSI PD CR 13456.
- 4. Number of copies: As required by Contract administrator

650 Notice

- 1. Give notice before
 - 1.1. Setting out.
 - 1.2. Spreading topsoil.
 - 1.3. Applying herbicide.
 - 1.4. Applying fertilizer.
 - 1.5. Visiting site during maintenance period.
- 2. Period of notice: 2 weeks

655 Mechanical tools

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

660 Grading subsoil for:

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



665 Subsoil surface preparation for:

- 1. Description: ORNAMENTAL PLANTING BEDS AND TREE PITS
- 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: 400mm
 - 4.1.2. Stiff clay and cohesive subsoils: 400mm
 - 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.
- Remove from site: Arisings, contaminants and debris Builders rubble

670 Inspecting formations

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

680 Surplus topsoil to be retained

- 1. Generally: Spread and level on site:
 - 1.1. Locations: Any areas where topsoil is required for new planting
 - 1.2. Protected areas: Do not raise soil level within root spread of trees that are to be retained.

685 Surplus materials to be removed

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

690 Topsoil storage heaps

- 1. Location: Submit proposals
- 2. Height (maximum): 1.0 m
- 3. Width (maximum): 2.0 m
 - 3.1. Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
- 4. Protection
 - 4.1. Do not place any other material on top of storage heaps.
 - 4.2. Do not allow construction plant to pass over storage heaps.
 - 4.3. Prevent compaction and contamination, by fencing and covering as appropriate.

700 Grading of topsoil

- 1. Topsoil condition: Reasonably dry and workable.
- 2. Contours: Smooth and flowing, with falls for adequate drainage.
 - 2.1. Hollows and ridges: Not permitted.
- 3. 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: ORNAMENTAL PLANTING BEDS
- 2. Standard: In accordance with BS 3882.
- 3. Temporary roads/ surfacing: Remove before spreading topsoil.
- 4. Layers
 - 4.1. Depth (maximum): 150 mm.
 - 4.2. Gently firm each layer before spreading the next.
- 5. Depth after firming and settlement: 400 mm
- 6. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715 Loose tipping of topsoil

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

718 Final cultivation

- 1. Description: FOR PLANTING BEDS
- 2. Compacted topsoil: Break up to full depth.
- 3. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
- 4. Depth: 400 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 and minimum 150 mm below dpc of adjoining buildings
- 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: 25 mm above
- 2. In relation to dpc of adjoining buildings: Not less than 150 mm below.
- 3. In relation to adjacent grass areas: 25 mm above
- 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.

730 Green roof growing medium installation

- 1. Handling: Minimize.
 - 1.1. Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
- 2. Layers
 - 2.1. Depth (maximum): 150 mm.
 - 2.2. Sequence: Gently firm each layer before spreading the next.

845 Applying loose mulch

- 1. Description: FOR PLANTING BEDS AND TREE PITS
- 2. Timing: Immediately after planting
- 3. Preparation: Clear all weeds

Ensure that soil is thoroughly moistened, applying water where necessary

- 4. Coverage of mulch (minimum)
 - 4.1. Planting beds (depth): 50 mm depth
 - 4.2. Trees: 50 mm depth
 - 4.3. Container planting: 50 mm 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
- 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

Ω End of Section



Q30 Seeding/turfing

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
- 2. Appearance: A closely knit, continuous ground cover of even density, height and colour.

120 Climatic conditions

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

145 Watering

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

150 Water restrictions

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

160 Notice

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

312 EM1 Wildflower seed mixture

- 1. Description: Phase 1A Temporary work on Ground Floor Fauna walk
- 2. Supplier: Emorsgate Seeds, or similar as approved
 - 2.1. Mixture reference: EM1 Basic General Purpose Meadow Mixture
- 3. Application rate: 4 g/m².
- 4. Soil requirements: Planting bed soil system, as section Q28/135



330 Sowing

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

336 Wildflower sowing season

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

361A PT13 - Reinforced grass system

- 1. Manufacturer: ABG creative geosynthetic engineering.
 - 1.1. Web: http://www.abg-geosynthetics.com.
 - 1.2. Product reference: Advanced Turf® System (ATS).
- 2. Subgrade/ Preparation: To PTA's specifications.
- 3. Sub-base: Permeable free draining sub-base, to PTA's specifications.
- 4. Geotextile: ABG Terrex NW9, as per Manufacturer's recommendations.
- Geogrid: Abgrid 30/30 biaxal geogrid, as per Manufacturer's recommendations. PTA to confirm requirements.
- 6. Reinforced root zone:: The Advanced Turf System (ATS400/B) rootzone as supplied.
 - 6.1. Thickness: 200mm, suitable for Light vehicle with emergency vehicles access.
- 7. Fertilizer: As supplied by the Manufacturer.
- 8. Grass cover: ABG BT1 Turf as supplied with the system TBC. Alternative grass to be sandy soil grown turf.
- 9. Notes:
 - 9.1. System to be installed in accordance with Manufacturer's recommendations and instructions. PTA to confirm details prior to the purchasing.

361B PT13b - Reinforced grass system

- 1. Manufacturer: Gridforce
 - 1.1. Web: https://www.gridforce.co.uk/
 - 1.2. Product reference: GF40 Green
- 2. Subgrade/ Preparation: To PTA's specifications.
- 3. Sub-base: Permeable free draining sub-base, to PTA's specifications.
- 4. Geotextile: To PTA's specifications.
- 5. Geogrid: To PTA's specifications.
- 6. Grass cover: G1 Turf as clause Q30/400A. Alternative grass to be sandy soil grown turf.
- 7. Notes:
 - 7.1. System to be installed in accordance with Manufacturer's recommendations and instructions. PTA to confirm details prior to the purchasing.
 - 7.2. Proposed reinforced turf system is not appropriate for play and will need to be replaced when the final scheme is installed.

Turfing

400A G1 - Turf

- 1. Supplier: Rolawn Limited, or similar approved
 - 1.1. Website: www.rolawn.co.uk.
 - 1.2. Product reference: Rolawn Medallion® Turf
- 2. Properties of soil used for turf production: Well drained sandy loam



430 Turfing generally

- 1. Time of year: Autumn or early winter
- 2. Timing of laying
 - 2.1. Spring and summer: Within 18 hours of delivery.
 - 2.2. Autumn and winter: Within 24 hours of delivery.
- 3. Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- 4. Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
- 5. Jointing: Laid with broken joints, well butted up. Do not stretch turf.
- 6. Edges: Whole turfs, trimmed to a true line.
- 7. Adjusting levels: Remove high spots and fill hollows with fine soil.
- 8. Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers
- 9. Dressing, brushed well in to completely fill all joints: None
- 10. Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

450 Trimming turf

- 1. Newly planted tree pits: Neatly cut away around individual trees.
 - 1.1. Diameter: 800 mm
 - 1.2. Tree pit surface: Respread existing mulch

Protecting/cutting

530 First cut of grassed areas

- 1. Timing: When grass is reasonably dry.
 - 1.1. Height of initial growth: 75 mm
- 2. Preparation
 - 2.1. Debris and litter: Remove.
 - 2.2. Stones and earth clods larger than 25 mm in any dimension: Remove
- 3. Height of first cut: 50 mm
- 4. Mower type: Contractor's choice
- 5. Arisings: Remove from site

540 First cut of wildflower

- 1. Description: Resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals.
- 2. Height of initial growth: 75 mm
- 3. Preparation:
 - 3.1. Debris and litter: Remove.
 - 3.2. Stones and earth clods larger than 25 mm in any dimension: Remove
- 4. Debris and litter: Remove.
 - 4.1. Stones and earth clods larger than 25 mm in any dimension: Remove
- 5. Height of first cut: 50 mm
- 6. Mower type: Contractor's choice
- 7. Arisings: Remove from site



590 Cleanliness

- 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

- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
- 2. Defective materials or workmanship: Areas that have failed to thrive.
 - 2.1. Exclusions: Theft or malicious damage.
- 3. Method of making good: Recultivation and reseeding/ returfing.
- 4. Timing of making good: The next suitable planting season

620 Maintaining

- 1. Description: LAWNS
- 2. Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
- 3. Maximum height of growth at any time: 35 mm
- 4. Preparation: Before each cut remove all litter and debris.
- 5. Cutting: As and when necessary to a height of 25 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: When instructed

650 Maintaining grassed areas with perennial wildflowers

- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
- 2. Preparation: Before each cut remove all litter and debris.
- 3. Height and frequency of cut in first growing season
 - 3.1. Time of first cut: March/ April
 - 3.2. Height of first cut: 50 mm
 - 3.3. Frequency of subsequent cutting (minimum): Every 6-8 weeks until autumn
 - 3.4. Height of growth permitted (maximum): 150 mm
- 4. Height and frequency of cut in second growing season
 - 4.1. Time of cut: Single cut in October
 - 4.2. Height of cut: 50 mm
- 5. Trimming: All edges.
 - 5.1. Arisings: Remove.
- 6. Watering: Contractor's choice



D2930 - St Albans Road, Watford Client: Berkeley Homes

 $\boldsymbol{\Omega}$ 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
- 5. Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- 6. Additional requirements: None

118 Soil conditions

- 1. Soil for cultivating and planting: Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
- 2. Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

120 Climatic conditions

- 1. General: Carry out the work while soil and weather conditions are suitable.
 - 1.1. Strong winds: Do not plant.

125 Times of year for planting

- 1. Deciduous trees and shrubs: Late October to late March.
- 2. Conifers and evergreens: September/ October or April/ May.
- 3. Herbaceous plants (including marginal): September/ October or March/ April.
- 4. Container grown plants: At any time if ground and weather conditions are favourable.
 - 4.1. Watering and weed control: Provide as necessary.
- 5. Dried bulbs, corms and tubers: September/ October.
- 6. Colchicum (crocus): July/ August.
- 7. Green bulbs: After flowering in spring.
- 8. Wildflower plugs: Late August to mid November or March/ April.
- 9. Aquatic plants: May/ June or September/ October.

130 Mechanical tools

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

145 Watering

- 1. Quantity: Wet full depth of topsoil.
- 2. Application: Even and without damaging or displacing plants or soil.
- 3. Frequency: As necessary to ensure establishment and continued thriving of planting.

150 Water restrictions

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



160 Notice

- 1. Give notice before
 - 1.1. Setting out.
 - 1.2. Applying herbicide.
 - 1.3. Applying fertilizer.
 - 1.4. Delivery of plants/ trees.
 - 1.5. Planting shrubs.
 - 1.6. Planting trees into previously dug pits.
 - 1.7. Watering.
 - 1.8. Visiting site during maintenance period.
- 2. Period of notice: 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

- 1. General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
 - 1.1. Full botanical name.
 - 1.2. Total number.
 - 1.3. Number of bundles.
 - 1.4. Part bundles.
 - 1.5. Supplier's name.
 - 1.6. Employer's name and project reference.
 - 1.7. Plant specification, in accordance with scheduled National Plant Specification categories.
- 2. Additional information: Submit on request: Country of origin Date supplied and consignment details or reference Impact of pest/ disease Name or designation of rootstock of budded or grafted plants Potting dates Propagation method and dates Pruning dates Type of container.

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
- 6. Planting: Upright or well balanced with best side to front.

280 Treatment of tree wounds

- 1. Cutting: Keep wounds as small as possible.
 - 1.1. Cut cleanly back to sound wood using sharp, clean tools.
 - 1.2. Leave branch collars. Do not cut flush with stem or trunk.
 - 1.3. Set cuts so that water will not collect on cut area.
- 2. Fungicide/ Sealant: Do not apply unless instructed.



285 Protection of existing grass

- 1. General: Protect areas affected by planting operations using boards/ tarpaulins.
 - 1.1. Excavated or imported material: Do not place directly on grass.
 - 1.2. Duration: Minimum period.

290 Surplus material

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

Plant containers

292A FT10 - Raised metal planter

- 1. Manufacturer: Kinley Systems Ltd., or similar approved
 - 1.1. Website: www.kinleysystems.com
 - 1.2. Product reference: Perimeta HiGrade bespoke
- 2. Material: Galvanized steel
 - 2.1. Finish: Powder coated
 - 2.2. Colour: RAL 7022 (TBC)
- 3. Dimensions/ Shape: As shown on drawings
 - 3.1. Height: 900mm above paving level
- Lining: Liquid applied flexible waterproofing layer and 20mm polystyrene insulation panel as per Manufacturer's recommendations.
 10mm drainage board as clause Q37/355.
- 5. Accessories: Proprietary tension wire bracing.
- Joints: All fixings and joints to be sealed with a clear externally rated sealant as per Manufacturer's recommendations.
- 7. Fixing: Support stanchions fixed to proprietary RoofTray system and supported by aluminium substructure support as clause Q25/482A
- 8. Note: Landscape contractor to submit shop drawings to Landscape Architect for comments prior to the fabrication.

292B FT10a - Raised metal planter

- 1. Manufacturer: Kinley Systems Ltd., or similar approved
 - 1.1. Website: www.kinleysystems.com
 - 1.2. Product reference: Perimeta HiGrade bespoke
- 2. Material: Galvanized steel
 - 2.1. Finish: Powder coated2.2. Colour: RAL 7022 (TBC)
- 3. Dimensions/ Shape: As shown on drawings
 - 3.1. Height: 500mm
- Lining: Liquid applied flexible waterproofing layer and 20mm polystyrene insulation panel as per Manufacturer's recommendations.
 - 10mm drainage board as clause Q37/355.
- 5. Accessories: Proprietary tension wire bracing
- Joints: All fixings and joints to be sealed with a clear externally rated sealant as per Manufacturer's recommendations.
- 7. Fixing: Support stanchions fixed to proprietary RoofTray system and supported by aluminium substructure support as clause Q25/482A.
- 8. Note: Landscape contractor to submit shop drawings to Landscape Architect for comments prior to the fabrication.



292C FT11 - Raised metal planter

- 1. Manufacturer: Kinley Systems Ltd., or similar approved
 - 1.1. Website: www.kinleysystems.com
 - 1.2. Product reference: Perimeta HiGrade bespoke
- 2. Material: Galvanized steel
 - 2.1. Finish: Powder coated
 - 2.2. Colour: RAL 7022 (TBC)
- 3. Dimensions/ Shape: As shown on drawings
 - 3.1. Height: 500mm, 650mm behind benches with tapered connection
- Lining: Liquid applied flexible waterproofing layer and 20mm polystyrene insulation panel as per Manufacturer's recommendations.
- 5. Accessories: Proprietary tension wire bracing
- Joints: All fixings and joints to be sealed with a clear externally rated sealant as per Manufacturer's recommendations.
- 7. Fixing: Support stanchions bolted to concrete pads. Concrete to Engineer's specification
- 8. Note: Landscape contractor to submit shop drawings to Landscape Architect for comments prior to the fabrication.

292D FT27 - Raised metal planter

- 1. Manufacturer: Kinley Systems Ltd., or similar approved
 - 1.1. Website: www.kinleysystems.com
 - 1.2. Product reference: Perimeta HiGrade bespoke
- 2. Material: Galvanized steel
 - 2.1. Finish: Powder coated
 - 2.2. Colour: RAL 7022 (TBC)
- 3. Dimensions/ Shape: As shown on drawings
 - 3.1. Height: 900mm
- Lining: Liquid applied flexible waterproofing layer and 20mm polystyrene insulation panel as per Manufacturer's recommendations.
- Accessories: Proprietary tension wire bracing FT06a integrated seat (Q50/225C)
- Joints: All fixings and joints to be sealed with a clear externally rated sealant as per Manufacturer's recommendations.
- 7. Fixing: Support stanchions bolted to concrete pads. Concrete to Engineer's specification
- 8. Note: Landscape contractor to submit shop drawings to Landscape Architect for comments prior to the

293A FT13 - Metal planter

- 1. Manufacturer: Vestre
 - 1.1. Website: www.vestre.com
 - 1.2. Product reference: Bloc planter 1584
- 2. Material: PPC steel
 - 2.1. Finish: Powder coated2.2. Colour: RAL 7022 (TBC)
- 3. Dimensions/ Shape: Square: 1.6 x 1.6 m x 676mm (h)
- 4. Lining: As manufactured



- 5. Accessories: Capillary irrigation system to approved Contractor's proposals
 - 4 Welded lifting eyes fixed internally to corners
 - Welded eyes for tree guying anchor internally at base of planter
- 6. Fixing: Free standing

297 FT18 - Timber edge raised planters

- 1. Materials generally: To BS EN 942.
 - 1.1. Timber species: European oak
 - 1.2. Class: J2
 - 1.3. Finish: Unfinished
 - 1.4. Adhesive: Synthetic resin to BS EN 301, type 1.
 - 1.5. Joinery workmanship: To approved Contractor's proposals
- 2. Fixings: To approved Contractor's proposals
- 3. Material/ finish: To approved Contractor's proposals
- 4. Lining/ reservoir: Liquid applied flexible waterproofing layer and to approved Contractor's proposals. 10mm drainage board as clause Q37/355.
- 5. Accessories: Capillary irrigation system to approved Contractor's proposals

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.

385A Geotextile

- 1. Manufacturer: Wallbarn Ltd, or similar approved
 - 1.1. Web: www.wallbarn.com
- 2. Product Reference: White Recycled Geotextile Fabrics
- 3. Thickness: $130 \text{ g/m}^2 1.0 \text{ mm}$

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.

420 TR Climbing plant trellis

- 1. Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward.
 - 1.1. Branches: Lightly secured to supports.
- 2. Climber supports: to ground floor green promenade behind S4, S5 and S6
 - 2.1. Supplier:: S3i Ltd.
 - 1 Faraday Close, Snape Lane, Harworth, DN11 8RU, England.
 - e: info@s3i.co.uk
 - t: 01302 752 504
 - 2.2. Product:: Stainless Steel Wire Trellis
 - * Green Wall Trellis Hub GW-01-A
 - * Wire Cap PWC-03



- 2.3. Base height: 300 mm above planting bed
- 2.4. Extent: * Width: as shown on plans
 - * Height: 4.2m.
- 2.5. Centres: 300 mm (Horizontal and Vertical)
- 2.6. Distance from wall: 27mm as manufacturers standard
- 3. Fixings: Stainless steel screws and plugs into concrete wall

445 Planting bulbs/ Corms/ Tubers

- Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
- 2. Backfilling: Finely broken soil. Lightly firm to existing ground level.
- 3. Naturalized planting in existing grassed areas
 - 3.1. Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
 - 3.2. Planting: Neatly remove a plug of turf and replace after planting.

470 Formal hedges

- 1. Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
- 2. Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

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:
 - 3.1. Depth:

Planting trees

500 Tree planting

- 1. Standard: Prepare trees and transplant in accordance with BS 8545
- 2. Notes for Temporary works Phase 1A:
 - 2.1. Cloud topiaries to be tagged in nursery and approved before ordering, with position and aspect within the bed to avoid branches overhanging the road, which could cause crown damage during crane dismantling.
 - 2.2. Care of trees to be taken by large vehicles to avoid damage to crown and trunk. Any damaged branches to be assessed by arborist.

505 Tree pits

- 1. Sizes: As shown on drawings
- 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 150 mm.
 - 4.1. Treatment: Soil ameliorant worked into pit bottoms
- 5. Pit sides: Scarify.
- 6. Backfilling material: Topsoil and subsoil, as section Q28

510 Tree pit root barrier

- 1. Locations: As shown on drawings
- 2. Manufacturer: GreenBlue Urban Ltd, or similar approved



- 2.1. Website:: www.greenblue.com
- 2.2. Product reference: ReRoot 600 and ReRoot 1000, depending on locations
- 3. Thickness: 1mm
- 4. Barrier depth: 600mm / 1000mm depending on locations
- 5. Foil liner: No required
- 6. Top of root barrier in relation to finished topsoil level: 50 mm below ground level
- 7. Installation: With sides vertical. Remove all sharp objects adjacent to barrier.

512 Tree irrigation and ventilation ring

- 1. Locations: To all tree pits
- 2. Manufacturer: GreenBlue Urban Ltd, or similar approved
 - 2.1. Website:: www.greenblue.com
 - 2.2. Product reference: RootRain Civic
 - 2.2.1. Product code:: 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 Drainage layer

- 1. Locations: As shown on drawings
- 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: Varies, refer to detailed drawings for depths
- 4. Drainage pipes
 - 4.1. Type: To PTA's specifications
 - 4.2. Diameter: To PTA's specifications
 - 4.3. Position: To PTA's specifications
- 5. Geotextile filter
 - 5.1. Manufacturer: As clause Q31/385A
 - 5.2. Position: Lay over aggregate before installing tree or backfill.
- 6. Completed pits: Test for free drainage before planting.

520 Cellular structural soil system

- 1. Locations: As shown on drawings
- 2. Manufacturer: GreenBlue Urban Ltd, or similar approved
 - 2.1. Website: www.greenblue.com
 - 2.2. Product reference: Rootspace
- 3. Installation: As per Manufacturer's recommendations



526 Tree anchoring guying system

- 1. Manufacturer: GreenBlue Urban Ltd, or similar approved
 - 1.1. Website: www.greenblue.com
 - 1.2. Product reference: Arborguy Root Ball Guying
 - 1.2.1. Product code: SASMCB / SASLCB depending on the girth size of the trees
- 2. Anchoring system: 3No. deadman anchors. Weight used to be confirmed with Struc Eng.
- 3. Installation: As per Manufacturer's recommendations

Woodland/ matrix/ buffer zone planting - Not Used

Protecting/ maintaining/ making good defects

710 Maintenance

- 1. Duration: Carry out the operations in the following clauses from completion of planting until 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.
- 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

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

790 Final mulching

- 1. Timing: At end of the maintenance period.
- 2. Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
- 3. Planting beds: Remulch.
- 4. Depth (minimum): 50 mm
- 5. Trees: Remulch.
- 6. Depth (minimum): 50 mm

Ω End of Section



Q35

Landscape maintenance

Generally

105 Maintenance objectives

- 1. Location: All external landscape area
 - 1.1. Duration: 1 year
- 2. Aims: Enhanced landscape quality
- 3. Restrictions: As described in the landscape maintenance manual
- 4. Results: Adequate establishment in accordance with the grant scheme contract

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

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

155 Watering

- 1. Supply: Automatic irrigation system, but if no site supply available, submit proposals
- 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.

181 Mechanical equipment

1. General: Minimize.



- 2. Prohibited equipment: Chippers
- 3. Timing: Use of mechanical equipment allowed between the hours of 10:00 am and 4:00 pm only

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

210 Maintenance of grassed areas

- 1. General: Maintain turf in a manner appropriate to the intended use.
- 2. Soil and grass
 - 2.1. Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
 - 2.2. Waterlogging and compaction: Prevent.
 - 2.3. Damage: Repair trampling, abrasion or scalping.
- 3. Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
 - 3.1. Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
- 4. Litter and fallen leaves: Remove regularly to maintain a neat appearance.

211 Maintenance of grassed areas

- 1. Standard: To BS 7370-3. Carry out maintenance appropriate to each category of turf, as follows:
 - 1.1. Objectives: To BS 7370-3, Table 6.
 - 1.2. Programme: To BS 7370-3, clause 11.
 - 1.3. Mowing methods: To BS 7370-3, Table 3.

220 Grass cutting generally

- 1. Before mowing: Remove litter, rubbish and debris.
- 2. Finish: Neat and even, without surface rutting, compaction or damage to grass.
- 3. Edges: Leave neat and well defined. Neatly trim around obstructions.
- 4. Adjoining hard areas: Sweep clear and remove arisings.
- 5. Drought or wet conditions: Obtain instructions.

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.

235 Bulbs and corms in grassed areas

- 1. Before flowering: Do not cut.
- Interval between end of flowering and start of grass cutting (minimum): As agreed in the maintenance manual



250 Leaf removal

- 1. Operations: Collect fallen leaves.
- 2. Special requirements: None
- 3. Disposal: Remove from site for recycling

255 First cut of

- 1. Description: ALL GRASSED AREAS
- 2. Height of initial growth: 75 mm
- 3. Preparation
 - 3.1. Debris and litter: Remove.
 - 3.2. Stones and earth clods larger than 25 mm in any dimension: Remove
- 4. Height of first cut: 40 mm
- 5. Mower type: Cylinder
- 6. Arisings: Remove

260 Mowing lawns

- 1. Grass height: Maintain between 25 and 50 mm
- 2. Arisings: Remove for composting on site

310 Re-forming grass edges

- 1. Location: Planting bed edges
- 2. Method: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

320 Levelling hollows and bumps in turf

1. Standard: To BS 7370-3, clauses 12.4 and 12.5.

325 Relieving surface compaction in turf

- 1. Standard: To BS 7370-3.
- 2. Method: Spiking
- 3. Top dressing: Medium to fine sand
 - 3.1. Depth: 2-3 mm

350 Fertilizer – spring application

- 1. Type: Organic
- 2. Application rate: 60 g/m²

360 Fertilizer – autumn application

- 1. Type: Organic
- 2. Application rate: 60 g/m²

381 Reinstatement of worn or damaged lawns

- 1. Worn or damaged areas: Make good by returfing or reseeding:
 - 1.1. Returfing standard: To BS 7370-3, Clause 12.2.
 - 1.2. Reseeding standard: To BS 7370-3, Clause 12.6.
- 2. Turf or seed: To match existing in appearance and quality.
- 3. Protection and watering: Provide as necessary to promote successful germination and/ or establishment.



Flower beds/ seasonal beddings - Not Used

Shrubs/trees/hedges

500 Establishment of new planting

- Duration: 1 year
- 2. Weed control
 - Method: Keep planting beds clear of weeds by hoeing and screefing and maintaining full thickness of mulch.
 - 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: Contractor's choice

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: During spring when no longer required to support the tree
 - 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.

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: Annually



- Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
- 3. Special requirements: Allow ground cover plants to partially overlap paths and lawns

550 Pruning of excessive height

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

555 Pruning trees and shrubs

Standard: To BS 7370-4.
 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.
- Operatives: Approved specialist contractor

575 Pruning ornamental shrubs

- 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 roses

- 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. Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.

600 Trimming rapidly establishing hedges

- 1. General: Allow to reach planned height as rapidly as possible.
 - 1.1. Form: Trim back lateral branches moderately.

605 Trimming slowly establishing hedges

- 1. Operations
 - 1.1. Timing: Cut back hard in June and September to encourage bushy growth down to ground level.
 - Form: Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

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.



625 Climbing plants

- 1. Pruning: Remove excess growth, to ensure that signs, light fittings, doors and windows are kept clear at all times
- Insecure growth: Attach to supporting wires or structures using 1 mm diameter black plastics-coated steel wire.
- 3. Supporting structures: Check and repair as necessary.

630 Dead and diseased plants

- 1. Removal: As soon as possible
- 2. Replacement: In the next scheduled round of replacement planting Within 2 weeks

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:
- 5. Dressing: Slow release fertilizer:
 - 5.1. Type:
 - 5.2. Application rate:

640 Thinning by removal of surplus plants

- 1. Plants to be thinned:
- 2. Standard: BS 7370-4.
- 3. Timing:
- 4. Roots
 - 4.1. Disturbance to adjacent plants: Minimize.
 - 4.2. Soil: Refill holes with topsoil to leave an even graded surface.
 - 4.3. Mulch: Maintain mulch as original specification.
 - 4.4. Adjacent plants: Make good any minor damage immediately.
- 5. Plants for retention: Select plants with a strong healthy habit.
- 6. Mature planting density:

642 Thinning by transplanting surplus plants

- 1. Plants to be thinned:
- 2. Standard: BS 7370-4.
- 3. Timing:
- 4. Roots
 - 4.1. Disturbance to adjacent plants: Minimize.
 - 4.2. Soil: Refill holes with topsoil to leave an even graded surface.
 - 4.3. Mulch: Maintain mulch as original specification.
 - 4.4. Adjacent plants: Make good any minor damage immediately.
- 5. Plants for retention: Select plants with a strong healthy habit.
- 6. Mature planting density:



645 Weed control generally

- 1. Weed tolerance:
- 2. Adjacent plants, trees and grass: Do not damage.

650 Hand weeding

- 1. General: Remove weeds entirely, including roots.
- 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.

655 Weed cutting by hand or machine

- 1. Undesirable grass, brambles and herbaceous growth: Cut down cleanly to a maximum height of
- 2. Herbicides:

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.

675 Digging over

- 1. General: Dig over beds. Do not damage existing plants, bulbs and roots.
 - 1.1. Depth of dig (minimum):

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: Reduce to 50 mm below adjacent grass or hard surface.
 - 1.1. Arisings (if any): Spread evenly over the bed.

690 Maintenance of loose mulch

- 1. Thickness (minimum):
 - 1.1. Top up:
- 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



693 Maintenance of mulch matting/ sheet mulches

- 1. General: Inspect and reattach or refirm mulch mats and sheet mulches.
- 2. Type:
 - 2.1. Remove: After

695 Fertilizing established trees and shrubs

- 1. Time of year:
- 2. Type of fertilizer:
- 3. Application: Spread evenly.
 - 3.1. Rate:

700 Snow removal from shrubs/ trees

- 1. Standard: To BS 7370-4.
- 2. Plants subject to snow removal:
- 3. Timing:

705 Winter leaf removal

- 1. Operations: Take down temporary leaf fences. Collect accumulations of drifted leaves from the vicinity and from planting beds.
- 2. Arisings:

710 Woodland planting maintenance

- 1. Watering: In exceptional circumstances to prevent plants dying.
- 2. Loose plants: Refirm surrounding soil, without compacting.
- 3. Vegetation: Except trees and coppice shoots to be retained, cut down to above ground level within the plantation area.
 - 3.1. Arisings: Leave between rows.
- 4. Ditches and drains: Keep clear.

715 Woodland thinning

- 1. Mature planting density:
- 2. Timing: Thin in stages

720 Coppicing

- 1. Material to be coppiced
- 2. Standard: Good forestry practice.
- 3. Cut stems:
 - 3.1. Finish: Leave sloping upward towards the centre to promote rainwater runoff.
- 4. Brash: Stack around coppice stool to alleviate deer damage.
- 5. Coppiced timber:

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:
- 3. Standard: To BS 3998.
- 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

 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.

825 Prevention of disease transmission

Standard: To BS 3998.

830 Cleaning out and deadwooding

- 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

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 if unavoidable
 - 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.

845 Crown lifting

- 1. Clearances: Remove branch systems to give clearance.
 - 1.1. Height: As recommended by BS 7370-4, clause 3.7.2.3
- 2. Removing branches: Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

850 Crown thinning

1. Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches.



- 2. Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown.
 - 2.1. Quantity: 10 %
- 3. Cutting: Make no cuts of more than 35 mm diameter.
 - 3.1. Branches: Cut back to lateral or sublateral buds or branches without leaving stumps.
- 4. Appearance: Leave a uniform and well-balanced structure of branches and foliage.

855 Cutting tree roots

- 1. Excavating: Use hand tools only.
- 2. Protected area: Do not cut roots within an area which is the larger of:
 - 2.1. The branch spread of the tree.
 - 2.2. An area with a radius of half the tree's height, measured from the trunk.
- 3. Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
- 4. Cutting
 - 4.1. Cutting: Make clean smooth cuts with a hand saw.
 - 4.2. Wounds: Minimize. Avoid ragged edges.
 - 4.3. Finishing: Pare cut surfaces smooth with a sharp knife.
- 5. Backfilling
 - 5.1. Protection: Cover cut roots with clean sharp sand.
 - 5.2. Material: Backfill with original topsoil.

860 Removing trees, shrubs and hedges

- 1. Standard: To BS 3998.
- 2. Existing services: Check for below and above ground services. Give notice if they may be affected.
- 3. Shrubs and smaller trees: Cut down and grub up roots.
- 4. Tree stumps
 - 4.1. Treatment: Cut as close to ground as possible and kill by applying a suitable herbicide into drilled holes immediately after felling
 - 4.2. Removal by winching: Give notice. Do not use other trees as supports or anchors.
- 5. Protection: Avoid damage to neighbouring trees, plants and property
- 6. Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
- 7. Filling holes
 - 7.1. Material: Use as-dug material and/ or imported soil as required.
 - 7.2. Finishing: Consolidate and grade to marry in with surrounding ground level.

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.



Water areas - Not Used

Hard landscape areas/fencing

910 Hard surfaces and gravel areas

- 1. Herbicide: Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings.
- 2. Hard surfaces: Remove litter, leaves and other debris.
- 3. Surface gutters and channels: Remove mud, silt and debris.
- 4. Drainage gullies: Empty traps and flush clean.
- 5. Gravel areas: Rake over. Remove weeds, litter, leaves and debris, and level off.
- 6. Repairs to flexible bituminous pavings: In accordance with the original paving specification or BS 7370-2, clause 4.12.
- 7. Stain removal: In accordance with BS 7370-2, table 4.

 Ω End of Section



Q37 Green roofs

Clauses - Not Used

General

130A BR - Extensive biodiverse roof

- 1. Roof type: To AQP's specification
 - 1.1. Substrate: To AQP's specification
 - 1.2. Slope: Flat
- 2. Waterproofing: To AQP's specification
- 3. Thermal insulation: To AQP's specification
- 4. Protection: Protection mat
- 5. Moisture control layers: Drainage layer
- 6. Growing medium:
 - 6.1. Classification: Extensive Green Roof Substrate to meet GRO Green Roof Code guidance.
 - 6.2. Manufacturer: Bauder, or similar approved.
 - 6.3. Website: www.bauder.co.uk
 - 6.4. Product reference: Biodiverse substrate
 - 6.5. Depth: 150mm TBC
- 7. Vegetation:
 - 7.1. Manufacturer: Bauder, or similar approved.
 - 7.2. Website: www.bauder.co.uk
 - 7.3. Product reference: WB Native Wildflower Blanket.
- 8. Accessories: Edge retaining profile and inspection chambers

Performance

210 General design

- 1. Green roof and associated features: Complete the detailed design.
- 2. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

Products

325 Slip layer

- 1. Description: To BR extensive biodiverse roofs.
- 2. Manufacturer: Bauder or similar approved.
 - 2.1. Product reference: Bauder PE Foil.
- 3. Material: Polyethylene sheet.
 - 3.1. Thickness of each layer: As manufactured.

330 Protection layer

- 1. Description: To BR extensive biodiverse roofs.
- 2. Manufacturer: Bauder or similar approved.
 - 2.1. Product reference: Bauder FSM600.
- 3. Material: Plyproylene fibre mix
 - 3.1. Thickness: As manufactured



350 Drainage layer

- 1. Description: To BR extensive biodiverse roofs.
- 2. Manufacturer: Bauder of similar approved.
 - 2.1. Product reference: DSE40.
- 3. Material: Corrugated toughened polyethylene board
 - 3.1. Depth: 40 mm
- 4. Infill: Not required
- 5. Accessories:: Filter fleece as clause Q37/360.
- 6. Installation:: To Manufacturer's recommendations and instructions.

355 Drainage board

- 1. Description: To inside of planters as shown on sections.
- 2. Manufacturer: Bauder of similar approved.
 - 2.1. Product reference: PLT10.
- 3. Material: Corrugated toughened polyethylene board
 - 3.1. Depth: 10 mm
- 4. Infill: Not required
- 5. Accessories:: Bonded filter fleece.
- 6. Installation:: To Manufacturer's recommendations and instructions.

360 Filter membrane

- 1. Description: To BR extensive biodiverse roofs.
- 2. Manufacturer: Bauder or similar approved.
 - 2.1. Product reference: Filter Fleece.
- 3. Material: As manufactured.
 - 3.1. Mass: As manufactured.

400 Vegetation blanket

- 1. Description: To BR extensive biodiverse roofs.
- 2. Manufacturer: Bauder or similar approved.
 - 2.1. Product reference: WB Native WIldflower Blanket.
- 3. Planting mix: As manufactured.
 - 3.1. Thickness: 30 mm.
- 4. Vegetation coverage (minimum): 75%.

420 KT05 - Edge retaining profile

- 1. Description: To BR extensive biodiverse roofs.
- 2. Manufacturer: Bauder or similar approved.
 - 2.1. Product reference: AL150.
- 3. Material: Aluminium
- 4. Height: 150mm.

430 Inspection chambers

- 1. Description: To BR extensive biodiverse roofs.
- 2. Manufacturer: Bauder or similar approved.
 - 2.1. Product reference: ALU250.
- 3. Material: Aluminium



Size: 250 mm x 250 mm
 Depth: 150mm

5. Access covers: Lid as manufactured.

6. Features: Base flange

440 Vegetation barrier

1. Description: Aggregate borders and fire breaks to extensive biodiverse roof areas - BR

2. Material: 20-40 mm round washed pebbles

Depth: 100 mm
 Width: 500 mm

Execution

710 Installation generally

- 1. Preparation: Clear all surfaces of debris.
 - 1.1. Timing: After certification of waterproof membrane integrity.
 - 1.2. Surface condition: Visually inspect waterproof membrane, report any damage.
- 2. Faults in waterproof membrane: Report.
- 3. Contamination: Do not use materials detrimental to healthy plant growth.
- 4. Storage: Do not overload.
 - 4.1. Point loads: Avoid.
- 5. Outlets: Do not block.
 - 5.1. Outlet grilles: Installed.

720 Adverse weather

- 1. Unfinished work: Secure from damage and wind uplift.
- 2. Conditions: Do not install or work with frozen materials.

750 Protection layer installation

- 1. Joints: Minimize.
 - 1.1. Overlaps (minimum): Manufacturer's recommendation
- 2. Upstands: Extend to top of growing medium.

770 Drainage layer installation

- 1. Extent: Continuous over entire roof area.
- 2. Fitting: Manufacturer's recommendation
- 3. Upstands: Fit closely around penetrations and outlets.

780 Filter membrane installation

- 1. Joints: Minimize.
 - 1.1. Overlaps (minimum): 300 mm
- 2. Fitting: Manufacturer's recommendation
- 3. Upstands: Extend to top of growing medium.

790 Growing medium installation

- 1. Handling: Minimize.
 - 1.1. Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
- 2. Layers



- 2.1. Depth (maximum): 150 mm.
- 2.2. Sequence: Gently firm each layer before spreading the next.

800 Vegetation blanket installation

- 1. Handling blankets
 - 1.1. Timing: Lay within 36 hours of lifting from growing position.
 - 1.2. Excessive stacking: Not permitted.
 - 1.3. Material loss (maximum): 3% of total surface area.
- 2. Growing medium condition: Thoroughly watered.
- 3. Laying blankets
 - 3.1. Dry, damaged, frosty or waterlogged blankets: Do not lay.
 - 3.2. Orientation: Diagonal or perpendicular to slope of roof.
 - 3.3. Joints: Stagger. Butt together or slightly overlap to prevent gaps. Do not stretch blankets. Secure with biodegradeable pegs.
 - 3.4. Edges: Finish with whole blankets.
 - Consolidation: Firm as laying proceeds to ensure full contact with the growing medium. Do not use rollers.
- 4. Dressing: Growing medium
 - 4.1. Application: Brush in to fill joints.
- 5. Watering: Thorough, immediately after laying and dressing.

820 Edge retaining profile installation

- 1. Cutting: Neat, accurate and without spalling.
 - 1.1. Junctions: vertical, secured using proprietary connectors.
- 2. Position: True to line and level. Smooth continuous lines.
- 3. Fixing: Manufacturer's standard

830 Inspection chamber installation

- 1. Location: Install centrally over drain outlet.
 - 1.1. Orientation: Align parallel with adjacent features.
- 2. Bedding: Submit proposals
- 3. Backfill: Submit proposals
- 4. Surround: Submit proposals Growing medium

Completion

910 Inspection

- 1. Timing: Before handover.
 - 1.1. Give notice (minimum): 3 days.

920 Completion

- 1. General: Leave the works in a clean, tidy condition.
- 2. Surfaces: Clean immediately before handover.
- 3. Outlets: Clean and clear of obstructions.
- 4. Completed green roof: Protect from adjacent or high level working.

930 Documentation

1. Timing: Submit at handover.



2. Contents

- 2.1. Growing medium declaration of analysis.
- 2.2. Manufacturers' guarantees and warranties.
- 2.3. Procedures for maintenance of the green roof.
- 2.4. Record drawings showing the location of planting and associated features.
- 3. Number of copies: 1

 Ω End of Section



Q40 Fencing

Clauses - Not Used

Fencing systems

170A BT05 - Acoustic fence

- 1. Design intent specification: Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
 - 2.1. Product reference: TBC
- 3. Height: 3000m ht
- 4. Materials: Wood
 - 4.1. Treatment: TBC
 - 4.2. Finish: TBC
- 5. Centres of posts (maximum): TBC
- 6. Method of setting posts: TBC
- 7. Accessories: TBC

220A BT01 - Metal screen

- 1. Design intent specification: Manufacturer to provide manufacture drawings for comments prior to fabrication.
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement.
 - 2.1. Product reference: Bespoke metal screen
- Height: 2.0m ht above ground level.

Height subject to further review following confirmation of highest M&E equipment to be screened within the roof terrace AOV enclosure.

- 4. Posts and bars
 - 4.1. Corner/ End posts: 100x100mm SHS
 - 4.2. Intermediate bars/ Joiner posts: 50x15mm flat bar
 - 4.3. Finish: Powder-coated to BS 1722-16
 - 4.3.1. Colour: Screen frame to match balconies. RAL colour to be confirmed by Architects
 - 4.4. Centres of posts (maximum):
 - 4.5. Joiner posts: As required to achieve structural stability.
 - 4.6. Intermediate posts: As required to achieve structural stability. Intermediate posts to be spaced evenly.
- 5. Pattern: Curved flat bars to match Architect's balcony design.
- 6. Backing: 5mm solid metal panel.
 - 6.1. Finish: Powder-coated to BS 1722-16
 - 6.2. Colour: Colour to be lighter than main pattern. RAL colour to be confirmed following confirmation of main pattern RAL colour.
- Method of setting posts: Flange fixing to concrete structural slab, to Manufacturer's design. Waterproofing to Architect's details.
- 8. Accessories:
 - Top bracing, subject to confirmation of structural calculations.
 - Single leaf gate GT04 as clause Q40/570D
- 9. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-8.
- 10. Notes:



- Refer to drawings E746-FAB-SW-ZZ-DR-LA-920-5010, E746-FAB-SW-ZZ-DR-LA-920-5011, E746-FAB-SW-ZZ-DR-LA-920-5012 for design intent.
- Specialist contractor to provide all structural calculations, including wind loading and confirmed size
 of all components.
- All exposed metalwork, fixings and ironmongery to be finished to match screen pattern colour.

220B BT09 - Visual screen

- 1. Design intent specification: Manufacturer to provide manufacture drawings for comments prior to fabrication.
- Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement.
 - 2.1. Product reference: Bespoke laser cut metal screen
- 3. Height: 2.0m ht above ground level.
- 4. Posts and bars
 - 4.1. Corner/ End posts: 100x100mm SHS
 - 4.2. Finish: Powder-coated to BS 1722-16
 - 4.2.1. Colour: To match balconies. RAL 7022
 - 4.3. Centres of posts (maximum):
 - 4.4. Joiner posts: As required to achieve structural stability.
- 5. Pattern: 5mm solid metal panel with laser cut patterns to be developed
- 6. Method of setting posts: Flange fixing to concrete structural slab, to Manufacturer's design. Waterproofing to Architect's details.
- 7. Accessories:
 - Top bracing, subject to confirmation of structural calculations.
- 8. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-8.
- 9. Notes:
 - Refer to drawings E746-FAB-SW-01-DR-LA-920-4402 for design intent.
 - Specialist contractor to provide all structural calculations, including wind loading and confirmed size
 of all components.
 - All exposed metalwork, fixings and ironmongery to be finished to match screen pattern colour.

340A BT02 - 1.2m ht Metal railing

- 1. Design intent specification : Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
 - 2.1. Product reference: Vertical bar railing
- 3. Standard: To BS 1722-9.
- 4. Height: 1200 mm
- 5. Verticals: To match building balconies architectural metalwork.
- 6. Centres of verticals: To match building balconies architectural metalwork.
- 7. Posts: To match building balconies architectural metalwork.
 - 7.1. Finish: To match building balconies architectural metalwork.
 - 7.1.1. Colour: To match building balconies architectural metalwork.
- 8. Centres of posts (maximum): TBC
- 9. Method of setting posts/ stays/ legs: To Manufacturer's details
- 10. Accessories: None
- 11. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

340B BT03 - 2.1m ht Metal railing

- 1. Design intent specification : Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement



- 2.1. Product reference: Vertical bar railing
- 3. Standard: To BS 1722-9.
- 4. Height: 2100 mm
- 5. Verticals: To match building balconies architectural metalwork.
- 6. Centres of verticals: To match building balconies architectural metalwork.
- 7. Posts: To match building balconies architectural metalwork -TBC
 - 7.1. Finish: To match building balconies architectural metalwork.
 - 7.1.1. Colour: To match building balconies architectural metalwork.
- 8. Centres of posts (maximum): TBC
- 9. Method of setting posts/ stays/ legs: To Manufacturer's details
- Accessories: Single leaf pedestrian gate as clause Q40/570B Double leaf pedestrian gate as clause Q40/570C
- 11. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

340C BT04 - 1.8m ht Metal railing

- 1. Design intent specification: Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
 - 2.1. Product reference: Vertical bar railing
- 3. Standard: To BS 1722-9.
- 4. Height: 1800 mm
- 5. Verticals: To match building balconies TBC
- 6. Centres of verticals: To match building balconies TBC
- 7. Posts: To match building balconies TBC
 - 7.1. Finish: To match building balconies TBC
 - 7.1.1. Colour: To match building balconies TBC
- 8. Centres of posts (maximum): TBC
- 9. Method of setting posts/ stays/ legs: To Manufacturer's details
- 10. Accessories: Single leaf pedestrian gate as clause Q40/570A
- 11. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

340D BT06 - 1.1m ht Metal railing side fixed to parapet

- 1. Design intent specification: Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
 - 2.1. Product reference: Vertical bar railing
- 3. Standard: To BS 1722-9.
- 4. Height: 1100 mm
- 5. Verticals: To match building balconies TBC
- 6. Centres of verticals: To match building balconies TBC
- 7. Posts: To match building balconies TBC
 - 7.1. Finish: To match building balconies TBC
 - 7.1.1. Colour: To match building balconies TBC
- 8. Centres of posts (maximum): TBC
- 9. Method of setting posts/ stays/ legs: To Manufacturer's details
- 10. Accessories: Double leaf pedestrian gate as clause Q40/570C
- 11. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.



340E BT07 - 1.1m ht Metal railing

- 1. Design intent specification: Manufacturer to provide drawings prior to fabrication
- Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
 - 2.1. Product reference: Vertical bar railing
- 3. Standard: To BS 1722-9.
- 4. Height: 1100 mm
- 5. Verticals: To match building balconies architectural metalwork.
- 6. Centres of verticals: To match building balconies architectural metalwork.
- 7. Posts: To match building balconies architectural metalwork.
 - 7.1. Finish: To match building balconies architectural metalwork.
 - 7.1.1. Colour: To match building balconies architectural metalwork.
- 8. Centres of posts (maximum): TBC
- 9. Method of setting posts/ stays/ legs: To Manufacturer's details
- 10. Accessories: None
- 11. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

340F BT08 - 1.3m ht Metal railing

- 1. Design intent specification: Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
 - 2.1. Product reference: Vertical bar railing
- 3. Standard: To BS 1722-9.
- 4. Height: 1300 mm
- 5. Verticals: To match building balconies TBC
- 6. Centres of verticals: To match building balconies TBC
- 7. Posts: To match building balconies TBC
 - 7.1. Finish: To match building balconies TBC
 - 7.1.1. Colour: To match building balconies TBC
- 8. Centres of posts (maximum): TBC
- 9. Method of setting posts/ stays/ legs: To Manufacturer's details
- 10. Accessories: None
- 11. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

Gates, posts and stiles

570A GT01 - 1.8m ht Metal gate

- 1. Design intent specification n: Manufacturer to provide drawings prior to fabrication.
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
- 3. Sizes: 1200mm (clear opening) x 1800mm (ht)
- 4. Infill: To match BT04
- 5. Posts: To match BT04
- 6. Finish: Powder coated
- 7. Colour: To match building balconies TBC
- 8. Fittings: Self-closing hinges, euro cylinder lock with handle on both sides of the gate
 - 8.1. Finish: Polyester powder coated
 - 8.2. Colour: to match gate
- 9. Method of fixing: To manufacturer's details



10. Accessories: None

570B GT02 - 1.2m ht Metal gate

- 1. Design intent specification: Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
- 3. Sizes: 1200mm (clear opening) x 1200mm (ht)
- 4. Infill: To match BT02
- 5. Posts: To match BT02
- Finish: Powder coated
- 7. Colour: To match building balconies TBC
- 8. Fittings: Self-closing hinges
 - 8.1. Finish: Polyester powder coated
 - 8.2. Colour: to match railing
- 9. Method of fixing: To manufacturer's details
- 10. Accessories:
 - 10.1. Railing panels to match gate style;
 - 10.2. Electric lock with key override (TBC);
 - 10.3. Access control proximity readed (fob reader), installed on a freestanding post / ajdacent railing panel (TBC).

570C GT03 - 2.1m ht Double leaf metal gate

- 1. Design intent specification : Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
- 3. Sizes: 4000mm (clear opening) x 2100mm (ht)
- 4. Infill: To match BT03
- 5. Posts: To match BT03
- 6. Finish: Powder coated
- 7. Colour: To match building balconies TBC
- 8. Fittings: Self-closing hinges
 - 8.1. Finish: Polyester powder coated
 - 8.2. Colour: to match railing
- 9. Method of fixing: To manufacturer's details
- 10. Accessories:
 - 10.1. Railing panels to match gate style;
 - 10.2. Powder coated drop bolts;
 - 10.3. Electric lock with key override (TBC);
 - 10.4. Access control proximity reader (fob reader), installed on a freestanding post / adjacent railing panel (TBC). Pedestrian access over -ride

570D GT04 - 2m ht Single leaf metal gate

- 1. Design intent specification: Manufacturer to provide drawings for comments prior to fabrication.
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement.
- 3. Sizes: 1.2m (clear opening) x 2.0m (ht). Height to match BT01 metal screen on roof terraces.
- 4. Infill: To match BT01.
- 5. Posts: To match BT01.
- 6. Finish: To match BT01.
- 7. Colour: To match BT01.



- 8. Fittings:
 - Hinges to allow gate to open 180°
 - Drop bolt on the inside.
 - Handles and lock. All locks to operated with the same key.
 - 8.1. Finish: To match gate.
 - 8.2. Colour: To match gate.
- Method of fixing: Flange fixing to concrete structural slab, to Manufacturer's design.
 Waterproofing to Architect's design.
- 10. Notes:
 - Refer to drawings E746-FAB-SW-ZZ-DR-LA-920-5010, E746-FAB-SW-ZZ-DR-LA-920-5011, E746-FAB-SW-ZZ-DR-LA-920-5012 for design intent.
 - Specialist contractor to provide all structural calculations, including wind loading and confirmed size
 of all components.
 - All exposed metalwork, fixings and ironmongery to be finished to match gate pattern colour.

570E GT05 - 2.1m ht Single leaf metal gate

- 1. Design intent specification : Manufacturer to provide drawings prior to fabrication
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement
- 3. Sizes: 800mm (clear opening) x 2100mm (ht)
- 4. Infill: To match BT03
- 5. Posts: To match BT03
- 6. Finish: Powder coated
- 7. Colour: To match building balconies TBC
- 8. Fittings: Self-closing hinges
 - 8.1. Finish: Polyester powder coated
 - 8.2. Colour: to match railing
- 9. Method of fixing: To manufacturer's details
- 10. Accessories:
 - 10.1. Railing panels to match gate style;
 - 10.2. Powder coated drop bolts;
 - 10.3. Electric lock with key override (TBC);
 - 10.4. Access control proximity reader (fob reader), installed on a freestanding post / adjacent railing panel (TBC). Pedestrian access over -ride

570F GT06 - 1.1m ht Single leaf metal gate

- Design intent specification: Manufacturer to provide drawings for comments prior to fabrication. Maintenance access only.
- 2. Manufacturer: Landscape Contractor to submit proposals for comments prior to the procurement.
- 3. Sizes: GT06a 500mm (clear opening) x 1.1m (ht). GT06b 800mm (clear opening) x 1.1m (ht)To match HR2 metal railing to External Stair 01
- 4. Infill: To match HR2.
- 5. Posts: To match HR2.
- 6. Finish: To match HR2.
- 7. Colour: To match HR2.
- Fittings:
 - Self closing hinges
 - Gates to be as visually unobtrusive as possible, hidden hinges and locks.
 - All locks to operated with the same key.
 - Lighting detail to continue through from surrounding handrails



- 8.1. Finish: To match gate.
- 8.2. Colour: To match gate.
- Method of fixing: Flange fixing to concrete structural slab, to Manufacturer's design.
 Waterproofing to Architect's design.
- 10. Notes:
 - Refer to drawings E746-FAB-SW-ZZ-DR-LA-920-4100, E746-FAB-SW-ZZ-DR-LA-920-3102 for design intent.
 - Specialist contractor to provide all structural calculations, including wind loading and confirmed size
 of all components.
 - All exposed metalwork, fixings and ironmongery to be finished to match gate pattern colour.

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.

Completion

910 Cleaning

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

920 Fixings

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

930 Gates

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

 Ω End of Section



Q50

Site/street furniture/equipment REVISED

Clauses - Not Used

Gates, barriers and parking controls

190 FT08a - Static bollard

- Manufacturer: Hartecast Ltd, or similar aproved
 - 1.1. Website:: www.hartecast.co.uk.
 - 1.2. Product reference: HC2065P removable bollard
- 2. Material: 316 grade Stainless steel
 - 2.1. Finish as delivered: Polyester powder coated with polished cap
 - 2.2. Colour: TBC
- 3. Height above ground: 900mm
 - 3.1. Overall height (above + below): 1200mm as per manufacturer's standard design.
- 4. Sectional size: 114 mm diameter
- 5. Top: Cap
- Method of fixing: Concrete foundations to Manufacturer's specifications. Concrete to finish below surface finish.

196A FT08 - Removable bollard

- 1. Manufacturer: Hartecast Ltd, or similar aproved
 - 1.1. Website: www.hartecast.co.uk.
 - 1.2. Product reference: HC2065P removable bollard
- 2. Material: 316 grade Stainless steel
 - 2.1. Finish as delivered: Polyester powder coated with polished cap
 - 2.2. Colour: TBC
- 3. Height above ground: 900mm
 - 3.1. Overall height (above and below ground): 1200mm as per manufacturer's standard design.
- 4. Sectional size: 114 mm diameter
- 5. Top: Cap
- 6. Special features: FT09 retention socket adjacent for holding bollard when moved.
- 7. Method of fixing: Stainless steel retention socket in concrete foundations to Manufacturer's specifications. Fireman's lock. Concrete to finish below surface finish.

196B FT09 - Bollard retention socket

- 1. Manufacturer: Hartecast Ltd, or similar aproved
 - 1.1. Website: www.hartecast.co.uk.
 - 1.2. Product reference: HC2065 stainless steel retention socket
- 2. Material: 316 grade Stainless steel
 - 2.1. Finish as delivered: Satin polished
 - 2.2. Colour: None
- 3. Method of fixing: Concrete foundations to Manufacturer's specifications. Concrete foundation below surface finish. Fireman's lock.



Site and street furniture

210A FT01 - Cycle stand

- 1. Manufacturer: Broxap Ltd, or similar approved
 - 1.1. Website: www.broxap.com.
 - 1.2. Product reference: Sheffield cycle stand with tapping bar, to match cycle stands installed for the marketing suite
 - 1.3. Product code: BXMW/GS0-TB.
- 2. Type: Single stands
- 3. Material: Grade 316 Stainless steel
 - 3.1. Finish: Polished, as supplied
 - 3.2. Colour: None
- 4. Size: 715mm (w) x 800mm (h).
- 5. Accessories: Tapping bar
- 6. Method of fixing: Root fixed, to Manufacturer's details

211 FT16 - Door Protection Hoop

- 1. Manufacturer: Broxap Ltd, or similar approved
 - 1.1. Website: www.broxap.com
 - 1.2. Product reference: Door Barrier
 - 1.3. Product code: BX14/DB
- 2. Type: For use with non-powered doors
- 3. Material: Grade 316 Stainless steel
 - 3.1. Finish: Polished, as supplied
 - 3.2. Colour: None
- 4. Size: 1320 mm (h) x 450 mm (w)
- 5. Accessories: Tapping bar
- 6. Method of fixing: Root fixed, to Manufacturer's details Base plate bolted to 400 x 400 x 400 mm concrete base 100 mm below paving surface

220A FT02 - Timber seat 1

- 1. Manufacturer: Vestre, or similar approved
 - 1.1. Website: vestre.com
 - 1.2. Product reference: BLOC seat 1506-930
- 2. Material: Kebonised pine and PPC steel
 - 2.1. Finish: Powder coated
 - 2.2. Colour: Various RAL colours. TBC
- 3. Size: 1740mm (L) x 470mm (W)
- 4. Accessories/ Special requirements: None
- 5. Method of fixing: Proprietary anchored bases, to Manufacturer's details

220B FT03a - Timber bench

- 1. Manufacturer: Vestre, or similar approved
 - 1.1. Website: vestre.com
 - 1.2. Product reference: BLOC seat 1516-930
- 2. Material: Kebonised pine and PPC steel
 - 2.1. Finish: Powder coated



- 2.2. Colour: Various RAL colours. TBC
- 3. Size: 1766mm (L) x 670mm (W)
- 4. Accessories/ Special requirements: None
- 5. Method of fixing: Proprietary anchored bases, to Manufacturer's details

220C FT03b - Timber bench with armrests

- 1. Manufacturer: Vestre, or similar approved
 - 1.1. Website: vestre.com
 - 1.2. Product reference: BLOC seat 1517-930
- 2. Material: Kebonised pine and PPC steel
 - 2.1. Finish: Powder coated
 - 2.2. Colour: Various RAL colours. TBC
- 3. Size: 1766mm (L) x 670mm (W)
- 4. Accessories/ Special requirements: None
- 5. Method of fixing: Proprietary anchored bases, to Manufacturer's details

225A FT04 - Timber seat 2

- 1. Manufacturer: Streetlife, or similar approved
 - 1.1. Website: www.streetlife.nl
 - 1.2. Product reference: Rough & Ready topseat
- 2. Description: To External Stair 3
- 3. Material: FSC Hardwood
 - 3.1. Finish: As supplied
- 4. Size: 2000mm (L) x 400mm (W)
- Accessories/ Special requirements: Concealed proprietary Streetlock comb fixing system to secure timber beams to sub-structure
- 6. Method of fixing: Surface mounted to sub-structure, to Manufacturer's details

225B FT05 - Timber seat 3

- 1. Manufacturer: Kinley, or similar approved
 - 1.1. Website: www.kinley.co.uk
 - 1.2. Product reference: Perimeta bench with backrest
- 2. Description: To WT05 on level 02 podium
- 3. Material: FSC Hardwood
 - 3.1. Finish: As supplied
- 4. Size: 1970mm x 500mm (W)
- 5. Accessories/ Special requirements: Backrest.

Concealed proprietary fixing system to secure seat to metal planter, to Manufacturer's details.

6. Method of fixing: To Manufacturer's details.

225C FT06 - Timber seat 4

- 1. Manufacturer: Kinley, or similar approved
 - 1.1. Website: www.kinley.co.uk
 - 1.2. Product reference: Perimeta benches
- 2. Description: Fixed to raised metal planters
- 3. Material: FSC Hardwood
 - 3.1. Finish: As supplied



- 4. Size: Various lengths x 500mm (W)
- 5. Accessories/ Special requirements:
 - FT06a Backrest;
 - FT06b none;
 - Concealed proprietary fixing system to secure seat to metal planter, to Manufacturer's details.
- Method of fixing: To Manufacturer's details.

225F FT05b - Timber seat type 2b

- 1. Manufacturer: Kinley, or similar approved
 - 1.1. Website: www.kinley.co.uk
 - 1.2. Product reference: Perimeta benches
- 2. Material: FSC Hardwood
 - 2.1. Finish: As supplied
- 3. Size: 1970mm x 500mm (W)
- 4. Accessories/ Special requirements:
 - Concealed proprietary fixing system to secure seat to concrete planter, to Manufacturer's details.
- 5. Method of fixing: To Manufacturer's details.

226 FT28 - Bespoke beam benches

- 1. Description: DESIGN INTENT ONLY.
 - Timber bench to level 01 podium garden.
 - Refer to drawing E746-FAB-SW-01-DR-LA-920-4401
- 2. Material: FSC Hardwood beam on steel I-beam supports (152x89x16)
 - 2.1. Finish: Painted
- 3. Size: 3000mm (L) x 500mm (W)
- 4. Accessories/ Special requirements: Steel armrest and signage as per drawings
- 5. Method of fixing: I-beam flanges as base plates bolted to concrete bases 150 mm below paving surface

230B FT14 - Timber picnic table

- 1. Manufacturer: Streetlife, or similar approved
 - 1.1. Website: www.streetlife.nl
 - 1.2. Product reference: Solid staple picnic table with and without seats as shown on layout drawings.
- 2. Material: FSC Timber and Steel
 - 2.1. Finish: Polyester powder-coated
 - 2.2. Colour: TBC
 - 2.3. Wood: FSC Hardwood II- Virgin (TBC)
 - 2.4. Metal: Powder coated, colour TBC
- 3. Size: 3000mm (L)
- 4. Accessories/ Special requirements: None
- Method of fixing: Bolted to concrete pads below surface finish. Long bolts to reach through pavers (TBC)

230C FT15 - Communal dining table and chairs

- 1. Manufacturer: Shackleton Home & Garden, or similar approved
 - 1.1. Website: www.shackletonsonline.co.uk
 - 1.2. Product reference: Table: Barlow Tyrie Monterey dining table 300 rectangular (TBC) Chair: Barlow Tyrie Monterey dining armchair (TB)C
- 2. Material: Aluminium, wood and ceramic



2.1. Finish: Polyester powder-coated as supplied

2.2. Colour: As supplied

2.3. Wood: Teak

3. Size: Table: 3000mm (L) x 1000mm (W) x 740mm (H)

Chair: 630mm (L) x 630mm (W) x 460mm (H)

- 4. Accessories/ Special requirements: None
- 5. Quanty:: 1No table with 10No. chairs
- 6. Method of fixing: Freestanding

340 FT20 - Log pile

- Source: Recycled from site during site clearance or locally felled trees.
 Ecologist to be consulted on timber sources and installation on site
- 2. Size: Diameter: 100-300mm. Height: 700-900mm.
- 3. Installation: logs grouped together, min. 100mm buried below ground.
- 4. Note: Bark to be retained on the logs.

345 FT26 - Green arches

1. Description: DESIGN INTENT ONLY.

Steel frame arch to fauna walk

Refer to drawings E746-FAB-SW-00-DR-LA-920-4504

- 2. Supplier: Contractor to submit proposals for approval by fabrik
- 3. Material: PCC Steel frame

RAL 7022 to match architectural metalwork

- 4. Approximate size: 3000mm (H) x 3883mm (L) x 650mm (W)
- Method of fixing: Concrete footing, fixed at least 400mm below the finished soil level.
 Fixing to be reviewed by engineer

355 FT21 - Bee posts

- 1. Supplier: Green & Blue.
 - 1.1. Product reference: Beepost
- Method of fixing: Bespoke powder coated shoe base plate fixed to concrete pad foundation as per drawing

370 FT22 - Litter bin

- 1. Manufacturer: Vestre, or similar approved
 - 1.1. Product reference: Bloc litter bin 1545-900
- 2. Material: PPC Steel
 - 2.1. Finish: Polyester powder-coated
 - 2.2. Colour: Various RAL TBC
- 3. Accessories/ Special requirements: Ashtray
- 4. Method of fixing: Mounted as per manufacturer detail

371 FT23 - Recycling bin

- 1. Manufacturer: Vestre, or similar approved
 - 1.1. Product reference: Bloc litter bin 1544-900
- 2. Material: PPC Steel
 - 2.1. Finish: Polyester powder-coated
 - 2.2. Colour: Various RAL TBC



- 3. Accessories/ Special requirements: Logo, recycling only
- 4. Method of fixing: Mounted as per manufacturer detail

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.

550 Damage to galvanized surfaces

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

560 Site painting

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

Deleted clauses

225D FT07 - Timber cube seat DELETED

225E FT12 - Sun Lounger DELETED

 Ω End of Section



Q52

Play and sports equipment

Clauses - Not Used

General - Not Used

System performance - Not Used

Products

320A PL8 - Timber rotating beam

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Rotating beam. Product Code: 6.51500
- 3. Materials: Wood
 - 3.1. Finish: None
 - 3.2. Colour: Natural
- 4. Length: 5.35m
- 5. Height: 350mm
- 6. Features: None
- 7. Method of fixing: Set in concrete as per Manufacturer's details

320B PL9 - Timber balancing beam

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Straight beam. Product Code: 6.81000
- 3. Materials: Wood
 - 3.1. Finish: None
 - 3.2. Colour: Natural
- 4. Length: 3m
- 5. Height: 350mm
- 6. Features: None
- 7. Method of fixing: Set in concrete as per Manufacturer's details

320C PL10 - Timber balancing blocks

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Balance blocks. Product Code: 6.51700
- 3. Materials: Wood
 - 3.1. Finish: None
 - 3.2. Colour: Natural
- 4. Length: 3.85m
- 5. Height: 450mm



- 6. Features: None
- 7. Method of fixing: Set in concrete as per Manufacturer's details

320D PL11 - Timber bouncing beam

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Totter beam. Product Code: 6.05000
- 3. Materials: Wood
 - 3.1. Finish: None
 - 3.2. Colour: Natural
- 4. Length: 3.0m
- 5. Height: 300mm
- 6. Features: None
- 7. Method of fixing: Set in concrete as per Manufacturer's details

330A PL1 - Timber climbing structure

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Climbing Structure 22. Product Code: 6.51022
- 3. Type: Timber posts
- 4. Materials: Wood
 - 4.1. Finish: None
 - 4.2. Colour: None
- 5. Plan size: 9.85m (L) x 6.30m (W)
- 6. Height: Various
- 7. Features: None
- 8. Method of fixing: Set in concrete as per Manufacturer's details

330B PL2 - Timber climbing structure

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Climbing Structure 20. Product Code: 6.51020
- 3. Type: Timber posts
- 4. Materials: Wood
 - 4.1. Finish: None
 - 4.2. Colour: None
- 5. Plan size: 6.2m (L) x 2.4m (W)
- 6. Height: Various
- 7. Features: None
- 8. Method of fixing: Set in concrete as per Manufacturer's details

330C PL4 - Timber stilts

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Kompan, or similar approved



- 2.1. Web: www.kompan.com
- 2.2. Product reference: Stilts. Product Code: NRO806
- 3. Type: Timber posts
- 4. Materials: Wood
 - 4.1. Finish: None
 - 4.2. Colour: None
- 5. Plan size: 2.47m (L) x 1.26m (W)
- 6. Height: 1.10m max.
- 7. Features: None
- 8. Method of fixing: Set in concrete as per Manufacturer's details

330D PL5 - Timber stepping posts

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Jupiter Play, or similar approved
 - 2.1. Web: www.kompan.com
 - 2.2. Product reference: Low stepping posts. Product Code: 906110300R
- 3. Type: Timber posts
- 4. Materials: Wood
 - 4.1. Finish: None
 - 4.2. Colour: None
- 5. Height: 350mm / 450mm / 550mm
- 6. Quantities: group of 12 posts.
- 7. Features: None
- 8. Method of fixing: Set in concrete as per Manufacturer's details

330E PL6 - Timber stepping posts

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Jupiter Play & Leisure Ltd, or similar approved
 - 2.1. Web: www.jupiterplay.co.uk
 - 2.2. Product reference: Low stepping posts. Product Code: 906110300R
- 3. Type: Timber posts
- 4. Materials: Wood
 - 4.1. Finish: None
 - 4.2. Colour: None
- 5. Height: 350mm / 450mm / 550mm
- 6. Quantities: group of 3 posts.
- 7. Features: None
- 8. Method of fixing: Set in concrete as per Manufacturer's details

340A PL12 - Timber see-saw

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved.- Web: www.richter-spielgeraete.de
 - 2.1. Product reference: See-saw with Shock Absorber. Product Code: 6.11000
- 3. Materials: Galvanized steel and Wood
 - 3.1. Finish: None3.2. Colour: Natural



- 4. Length: 4.0m
- 5. Features: Shock absorber
- 6. Method of fixing: Set in concrete as per Manufacturer's details

340B PL13 - Small timber see-saw

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved.- Web: www.richter-spielgeraete.de
 - 2.1. Product reference: Small See-saw. Product Code: 6.11700
- 3. Materials: Galvanized steel and Wood
 - 3.1. Finish: None3.2. Colour: Natural
- Length: 1.55m
 Features: None
- 6. Method of fixing: Set in concrete as per Manufacturer's details

350A PL17 - Talking tubes

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Jupiter Play & Leisure Ltd, or similar approved
 - 2.1. Web: www.jupiterplay.co.uk
 - 2.2. Product reference: Talking tube
- 3. Sensory features: Aural
- 4. Components: Talking tube
- 5. Materials: Stainless steel
 - 5.1. Finish: Polished
 - 5.2. Colour: Natural
- 6. Features: Vandal proof fixings
- 7. Accessories: Flexible plastic tube (PE-hose) up to 50.00 m length no 9122541150.
- 8. Method of fixing: Set in concrete as per Manufacturer's details

355A PL7 - Timber railway

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: RIKO Railway. Product Code: 4.24120
- 3. Components: Play train
- 4. Materials: Wood
 - 4.1. Finish: None
 - 4.2. Colour: Natural
- 5. Features: None
- 6. Method of fixing: Set in concrete, as per Manufacturer's details

355B PL16 - Timber sheep

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Sheep standing. Product Code: 4.24195
- 3. Components: Animal



Materials: Wood
 Finish: None
 Colour: Natural

5. Features: None

6. Method of fixing: Set in concrete, as per Manufacturer's details

360A PL20 - Natural boulder

- 1. Supplier: Contractor to submit proposals to Landscape Architect for comments prior the purchasing.
- Material: Natural stone.
- 3. Approximate weight: To be confirmed by preferred supplier.
- 4. Approximate size: Min. 250mm x 500mm Max. 300mm x 750mm. TBC
- 5. Shape and appereance: Boulders to have a well rounded shape, with no sharp or prominent edges. Boulders to be uniform in colour.
- 6. Delivery/ Handling/ Storage requirements: To Contractor's requirements.
- 7. Method of fixing: Set in concrete foundtion below surrounding surface; top of concrete set minimum 100mm below adjacent FFL. Concrete foundation to PTA's specification.
- 8. Note: Boulders to be thorougly wahsed and cleaned prior to the delivery on site.

380A PL18 - Timber play panel

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: hwww.richter-spielgeraete.de
 - 2.2. Product reference: Pairs. Product code: 9.15200
- 3. Materials: Stainless steel, Wood
 - 3.1. Finish: Polished3.2. Colour: None
- 4. Size: 1.35m (h) above ground level x 0.92m (w).
- 5. Thickness: 100mm
- 6. Features: Vandal proof fixings
- 7. Method of fixing: Extended legs set in concrete, as per Manufacturer's details

380B PL19 - Distorting mirrors

- 1. Standard: To BS EN 1176-1.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: hwww.richter-spielgeraete.de
 - 2.2. Product reference: Distorting Mirror, double sided,1 vertical curve. Product code: 9.10600
- 3. Materials: Wood
 - 3.1. Finish: None
 - 3.2. Colour: Natural
- 4. Size: 1.8m (h) above ground level x 0.96m (w).
- 5. Thickness: 150mm
- 6. Features: Vandal proof fixings
- 7. Method of fixing: Extended legs set in concrete, as per Manufacturer's details

390A PL14 - Timber jumping disc

- 1. Standard: To BS EN 1176-1 and -6.
- 2. Manufacturer: Richter Spielgeräte, or similar approved



- 2.1. Web: www.richter-spielgeraete.de
- 2.2. Product reference: Jumping Disc. Product Code: 6.06000
- 3. Type: Wobble board
- 4. Materials: Wood
 - 4.1. Finish: None4.2. Colour: Natural
- 5. Features: None
- 6. Method of fixing: Set in concrete, as per Manufacturer's details

390B PL15 - Wobble dish

- 1. Standard: To BS EN 1176-1 and -6.
- 2. Manufacturer: Richter Spielgeräte, or similar approved
 - 2.1. Web: www.richter-spielgeraete.de
 - 2.2. Product reference: Wobble Dish. Product Code: 6.27300
- 3. Type: Wobble dish
- 4. Materials: Galvanized steel and Wood
 - 4.1. Finish: None4.2. Colour: Natural
- 5. Features: None
- 6. Method of fixing: Set in concrete, as per Manufacturer's details

560A PL3 - Cross training structure

- 1. Manufacturer: Kompan, or similar approved
 - 1.1. Web: www.kompan.com
 - 1.2. Product reference: Cross training combi 3. Product Code:FAZ204
- 2. Materials: Steel, rubber
 - 2.1. Finish: Polyester powder coated
 - 2.2. Colour: TBC
- 3. Features: None
- 4. Plan size: 10.5m (L) x 1.06m (W).
- 5. Height: 3.34m.
- 6. Method of fixing: Set in concrete as per Manufacturer's details

Execution

710 Play equipment installation generally

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

720 Concrete foundations generally

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

725 Setting components in concrete

1. Holes:



- 2. Components: Accurately positioned and securely supported.
- 3. Concrete fill: Fully compacted as filling proceeds.
- 4. Concrete foundations exposed to view: Finished to weathering profile to shed water and trowel smooth.
- 5. Temporary component support: Maintain undisturbed for minimum 48 hours.

740 Preservative treated timber

1. Surfaces exposed by minor cutting and drilling: Treated by immersion or with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

750 Damage to galvanized surfaces

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

760 Site painting

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

Completion

910 Inspection

- 1. Standard: In accordance with equipment manufacturer's maintenance and inspection instructions
- 2. Timing: Give reasonable notice before covering up
- 3. Period of notice (minimum): 3 working days.

920 Cleaning

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

930 Testing

1. Standard: To BS EN 1176-1.

970 Operating tools

1. Tools: Supply tools required for operation, maintenance and cleaning purposes.

Ω End of Section





Specification created using NBS Chorus