

# **Hatfield Play 18-19 Specification**

**28 March 2019**

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## **Q10 Kerbs/ edgings/ channels/ paving accessories**

### **TYPES OF KERBS/EDGINGS AND CHANNELS**

#### **390A BASKETBALL COURT MARKING (LIGHT DUTY)**

- Manufacturer: contractors preference .
  - Product reference: Contractor's choice .
- Colour: White .
- Surfaces to receive markings: Clean and dry, loose material removed.
- Application: Uniform, with no streaks or ragged edges.

### **LAYING**

#### **510 LAYING KERBS, EDGINGS AND CHANNELS**

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

#### **530 CONCRETE FOR FOUNDATIONS, RACES AND HAUNCHING**

- Standard: To BS 8500-2.
- Designated mix: Not less than GEN0 or Standard mix ST1.
- Workability: Very low.

#### **540 CEMENT MORTAR BEDDING**

- General: To section Z21.
- Mix (Portland cement:sand): 1:3.
  - Portland cement: Class CEM I 42.5 to BS EN 197-1.
  - Sand: to BS EN 12620, grade 0/4 or 0/2 (MP).
- Bed thickness: 12-40 mm.

#### **547 BEDDING/BACKING OF UNITS ON FRESH CONCRETE RACES**

- Standard: To BS 7533-6.

#### **620 ACCURACY**

- Deviations (maximum):
  - Level:  $\pm 6$  mm.
  - Horizontal and vertical alignment: 3 mm in 3 m.

## Q20 Granular sub-bases to roads/pavings

To be read with Preliminaries/ General conditions.

- 110A THICKNESSES OF SUB-BASE/ SUBGRADE IMPROVEMENT LAYERS
- Thicknesses: See sections:Q23 and Q24
  - Breedon gravel paths with Filcris flexible edges.
- 140 EXCAVATION OF SUBGRADES
- Final excavation to formation or subformation level: Carry out immediately before compaction of subgrade.
  - Soft spots and voids: Give notice.
  - Old drainage and service trenches: give notice.
  - Wet conditions: Do not excavate or compact when the subgrade may be damaged or destabilized.
- 145 PREPARATION AND COMPACTION OF SUBGRADES
- Timing: Immediately before placing sub-base.
  - Soft or damaged areas: Obtain instructions.
  - Compaction: Thoroughly, by roller or other suitable means, adequate to resist subsidence or deformation of the subgrade during construction and of the completed roads/ paving when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.
- 170 GEOTEXTILE FILTER/ SEPARATOR MEMBRANES
- Manufacturer: contractors choice .
  - Product reference: submit proposals .
  - Jointing: 300mm overlap .
  - Protect from:
    - Exposure to light, except during laying (maximum five hours).
    - Contaminants.
    - Materials listed as potentially deleterious by geotextile manufacturer.
    - Damage, until fully covered by fill.
    - Wind uplift, by laying not more than 15 m before covering with fill.
  - Preparation: Remove humps and sharp projections and fill hollows before laying.
- 180 NOTICE
- Give notice: After preparation and compaction of subgrades and On completion of compaction .
  - Period of notice: 2 working days.
- 210 HIGHWAYS AGENCY TYPE 1 GRANULAR MATERIAL
- Material: Type 1 unbound mixture to Highways Agency 'Specification for highway works', clause 801.
  - Recycled aggregate: permitted.
- 230 PLACING GRANULAR MATERIAL GENERALLY
- Preparation: Loose soil, rubbish and standing water removed.
  - Structures, membranes and buried services: Ensure stability and avoid damage.

250 LAYING GRANULAR SUB-BASES FOR PEDESTRIAN AREAS

- General: Spread and levelled.
- Compaction:
  - Timing: As soon as possible after laying.
  - Method: By roller or other suitable means, adequate to resist subsidence or deformation of the sub-base during construction and of the completed paving when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

310 ACCURACY

- Permissible deviation from required levels, falls and cambers (maximum):
  - Subgrades:
    - Roads and parking areas: +20 -30 mm.
    - Footways and recreation areas:  $\pm$  20 mm.
  - Sub-bases:
    - Roads and parking areas: na.
    - Footways and recreation areas:  $\pm$  12 mm .

330 COLD WEATHER WORKING

- Frozen materials: Do not use.
- Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.

340 PROTECTION

- Sub-bases: As soon as practicable, cover with subsequent layers, specified elsewhere.
- Subgrades and sub-bases: Prevent degradation by construction traffic, construction operations and inclement weather.

## Q22 Asphalt roads/ pavings

To be read with Preliminaries/ General conditions.

### TYPES OF PAVING

#### 154A HOT ROLLED ASPHALT PAVING TO BASKETBALL COURT

- Standard: To BS EN 13108-4.
- Surface course:
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Type: HRA 15/10F to BS EN 13108-4.
  - Compacted thickness: 25 mm nominal, 20 mm minimum at any point.
- Reclaimed content:
  - Standard: To BS EN 13108-8.
  - Value (maximum): Submit proposals.

### PREPARATORY WORK/ REQUIREMENTS

#### 220 BITUMINOUS MATERIALS GENERALLY

- Suppliers names: Submit.
  - Timing (minimum): Two weeks before starting work.
- Test certificates: At the time of delivery for each manufacturing batch submit certificate:
  - Confirming compliance with this specification and the relevant standard.
  - Stating full details of composition of mix.

#### 240 ACCEPTANCE OF SURFACES

- Surface: Sound, clean and suitably close textured.
- Level tolerances: To BS 594987.
- Kerbs and edgings: Complete, adequately bedded and haunched and to the required levels.

#### 250 ABUTMENTS

- Vertical edges of manholes, gullies, kerbs and other abutments: Clean and paint with a thin uniform coating of hot applied 40/60 paving grade bitumen.
- Finishing: Tamp surface around projections.
  - Level: Flush or not more than 3 mm above projections.

### LAYING

#### 310 LAYING GENERALLY

- Preparation: Remove all loose material, rubbish and standing water.
- Adjacent work: Form neat junctions. Do not damage.
- Channels, kerbs, inspection covers etc: Keep clean.
- New paving:
  - Keep traffic free until it has cooled to prevailing atmospheric temperature.
  - Do not allow rollers to stand at any time.
  - Prevent damage.
  - Lines and levels: With regular falls to prevent ponding.
  - Overall texture: Smooth, even and free from dragging, tearing or segregation.
  - State on completion: Clean.

320 ADVERSE WEATHER

- Frozen materials: Do not use.
- Suspend laying:
  - During freezing conditions
  - If the air temperature reaches 0°C, or in calm dry conditions -3°C, on a falling thermometer.
  - Hot rolled asphalt: During periods of continuous or heavy rain or if there is standing water on the base.

330 LEVELS

- Permissible deviation from the required levels, falls and cambers (maximum): In accordance with BS 594987, clause 5.2.

340 FLATNESS/ SURFACE REGULARITY

- Deviation of surface: Where appropriate in relation to the geometry of the surface, the variation in gap under a 3 m straightedge placed anywhere on the surface to be not more than:
  - Base: Hand laid, 25 mm and Machine laid, 25 mm.
  - Binder course: Hand laid, 13 mm and Machine laid, 13 mm.
  - Surface course: Hand laid, 10 mm and Machine laid, 7 mm.
  - Where a straightedge cannot be used the surface must be of a comparable standard of accuracy when judged by eye.

## Q23 Gravel/ hoggin/ woodchip roads/ pavings

To be read with Preliminaries/ General conditions.

### TYPES OF SURFACING

- 110 HARD BINDING GRAVEL to footpath
- Subgrade improvement layer: As section Q20.
  - Granular sub-base: Highways Agency Type 1 unbound mixture, as section Q20.
    - Compacted thickness: 150 mm.
  - Blinding to sub-base: Not required.
  - Surface course: Angular gravel, free from clay, with sufficient grit to enable compaction.
    - Type: Breedon Golden Amber Gravel.
    - Source: Contractor's choice.
    - Colour: Golden Amber.
    - Size: Graded 6-10 mm.
    - Compacted thickness: 50 mm.
  - Completion: Compact to produce a firm, regular surface, stable in use.

### LAYING

- 310A RECYCLED PLASTIC EDGING
- Recycled plastic Filcris edging:
    - Size: 18mm width
  - Stakes and fixings:
    - Size: as per manufacturers recommendation.
    - Fixing: Drive into ground.
    - Centres: Contractor's choice.
  - Preservative treatment: Not required.
- 340 LAYING GENERALLY
- Channels, gullies, etc: Keep clear.
  - Finished surfaces:
    - Lines and levels: To prevent ponding.
    - Overall texture: Even.
    - State at completion: Clean.
- 350 COLD WEATHER WORKING
- Frozen materials: Do not use.
  - Freezing conditions: Do not lay pavings.
  - Cold bituminous surface dressings: Do not apply when ambient temperature is below 10°C.
- 360 DRAINAGE FALLS
- Sealed surfaces:
    - Falls and cross falls (minimum): 1:40.
    - Camber (minimum): 1:50.
  - Unsealed surfaces (minimum): 1:30.
- 380 LAYING GRANULAR SURFACES IN PEDESTRIAN AREAS
- Permissible deviation from required levels, falls and cambers (maximum):  $\pm 12$  mm.
  - General: Spread and level in 100 mm maximum layers. As soon as possible, compact each layer.
  - Dry weather: Lightly water layers during compaction.



- 390 PROTECTION FROM TRAFFIC AND PLANT
- Paved areas: Restrict access to prevent damage.

## Q24 Interlocking brick/block roads/pavings

To be read with Preliminaries/ General conditions

### TYPES OF PAVING

- 110 CONVENTIONAL CONCRETE BLOCK PAVING TO MAZE
- Subgrade improvement layer: Contractor's choice.
    - Compacted thickness: Contractor's choice.
  - Geotextile: Sheet.
    - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Granular sub-base: As seen Q20.
    - Compacted thickness: 150mm .
  - Laying course:
    - Material: In accordance with BS 7533-3.
    - Category: IV.
    - Method of screeding, in accordance with BS 7533-3: Contractor's choice of compaction or uncompacted.
    - Nominal thickness after compaction: 30 mm.
  - Blocks: To BS EN 1338.
    - Manufacturer: Marshall Standard Concrete Block Paving.
    - Product reference: PV1053000.
    - Sizes: 200 x 100 x 50 mm.
    - Special blocks: None.
    - Arrises: No requirement.
    - Colour/ Finish: Brindle.
    - Recycled content: Contractor's choice.
    - Requirements: Contractor's choice.
    - Freeze/ thaw resistance: Class 3.
    - Abrasion resistance: Class 1.
    - Slip/ Skid resistance: No requirement.
  - Jointing:
    - Material: In accordance with BS 7533-3.
    - Joint width: 2-5 mm.
  - Sealer/ Stabilizer: Not required.
  - Setting out:
    - Bond: Running single .
    - Features: Single brick width.
  - Accessories: None.

#### 110A INSET CONCRETE BLOCK PAVING TO FOOTPATHS

- Subgrade improvement layer: Contractor's choice.
  - Compacted thickness: Contractor's choice.
- Geotextile: Sheet.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Granular sub-base: As seen Q20.
  - Compacted thickness: 150mm .
- Laying course:
  - Material: In accordance with BS 7533-3.
  - Category: IV.
  - Method of screeding, in accordance with BS 7533-3: Contractor's choice of compaction or uncompacted.
  - Nominal thickness after compaction: 30 mm.
- Blocks: To BS EN 1338.
  - Manufacturer: Bradstone Stonewood.
  - Product reference: none.
  - Sizes: 900 x 250 x 50 mm.
  - Special blocks: None.
  - Arrises: No requirement.
  - Colour/ Finish: Antique Brown.
  - Recycled content: Contractor's choice.
  - Requirements: Contractor's choice.
  - Freeze/ thaw resistance: Class 3.
  - Abrasion resistance: Class 1.
  - Slip/ Skid resistance: No requirement.
- Jointing:
  - Material: In accordance with BS 7533-3.
  - Joint width: 2-5 mm.
- Sealer/ Stabilizer: Not required.
- Setting out:
  - Bond: Placed at 750mm centres to resemble railway track.
  - Features: None .
- Accessories: None.

#### **EXECUTION**

#### 200 EXECUTION GENERALLY - CONCRETE BLOCK AND CLAY PAVER PAVING

- Standard: In accordance with BS 7533-3.

#### 240 ADVERSE WEATHER

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

#### 385 MORTAR BEDDED EDGE RESTRAINT

- Foundation:
  - Size: 200 x 100 x 60 mm.
  - Concrete: As section E10 Contractor's choice.
- Bedding:
  - Thickness: 10 mm minimum to 40 mm maximum.
  - Mortar: As section Z21 mix 1:3 cement:sand, grading MP or FP.
- Laying: Bed units on foundation, and secure with continuous mortar haunching.
  - Keep exposed faces clean and free from mortar.
- Jointing: Tooled mortar .

#### 420 TOOLED JOINTS IN MORTAR BEDDED UNITS

- Jointing: Butter ends of units with bedding mortar as work proceeds, to completely fill joints.
  - Joint width: 10 mm.
  - Finish: Tool to a neat flush profile.

#### 440A LAYING GEOTEXTILE EDGING STRIP FOR CONVENTIONAL PAVING

- Location: Immediately below sub-base, abutting features that interrupt the laying course, including:
  - Perimeters, edge restraints and kerbs.
  - Other types of paving.
  - Drainage fittings, e.g. channels and manholes.
- Width: 2000 mm.
- Jointing: Lap by 300 mm.
- Edge detail: Turn sheet up to form an upstand fitted neatly against features.
  - Height (minimum): Thickness of sand laying course.

#### 450A LAYING GEOTEXTILE SHEET FOR CONVENTIONAL PAVING

- Location: Immediately below sub-base.
- Jointing: Lap by 300 mm.
- Laying: Fit neatly at edge restraints and other features that interrupt the sand laying course, e.g. drainage fittings, channels, manholes and kerbs.
  - Edge detail: Turn sheet up to form an upstand against features.
    - Height (minimum): Thickness of sand laying course.

#### 485 LAYING BLOCKS/ PAVERS/ SETTS

- Setting out: Start from an edge restraint.
- Cutting: Cleanly, accurately and vertically, without spalling. Do not mark or damage visible surfaces.
- Cut edges: Turn inwards where possible; do not position against edge restraints or other features.
- In situ mortar or concrete infill: Do not use.
- 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.
  - Concrete blocks and clay pavers: In accordance with BS 7533-3, Annex F, to site category required for laying course material.

#### 500 REGULARITY OF PAVED SURFACES

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

### **COMPLETION**

#### 615 COMPLETION OF PAVING

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

## Q26 Special surfacings/ pavings for sport/ general amenity

To be read with Preliminaries/ General conditions.

### SPORTS SURFACING

#### 120A SURFACING FOR BASKET BALL COURT

- Type: Asphalt.
- Performance: To BS 7044-4 medium duty outdoor.
- Anticipated usage:
  - Hours per day: 2.
  - Days per week: 7.
- Priority of activities: 1. basketball.
- Standard of play: Recreational.
- Permeability: Low permeability.
- Minimum life expectancy: 10 years.

#### 120B SAFETY GRASS MATTING FOR Play equipment

- Type: Technix Grasslok .
- Performance: To BS EN 11925, BS EN7188, BS EN1177.
- Anticipated usage:
  - Hours per day: 6.
  - Days per week: 7.
- Priority of activities: Play equipment.
- Standard of play: Recreational.
- Permeability: Not less than 100 mm/hour.
- Minimum life expectancy: 8 years.

#### 140 SURFACE GRADIENTS, EVENNESS AND FLATNESS

- Surface regularity: As specified by BS 7044-4.
- Deviation from the finished plane: When checked on a 10 m grid the difference in level between adjacent grid points, after taking design gradients into account, must not exceed  $\pm 6$  mm.
- Profile: Crossfall in a single plane.
- Gradients: Not greater than 1:100 in any direction.

#### 150 SUITABILITY OF BASE/ SUB-BASE

- Preparation: Before starting work ensure the following:
  - Accuracy: Base/ sub-base will permit specified flatness/ regularity of finished surfacing.
  - Falls/ camber: Accurately incorporated in the base/ sub-base.

#### 210A FILLED SYNTHETIC SPORTS TURF SURFACING Making good existing MUGA surface

- Patch repair where necessary to match existing

### IMPACT ABSORBING SURFACINGS FOR PLAY AREAS

#### 301 EXTENT OF IMPACT ABSORBING SURFACING

- General: Lay impact absorbing surfacing as indicated on drawings.

340A SAFETY GRASS MATTING Technix Grasslok

- .- Thickness: 23mm..
- Standard: To BS 7188.
- Manufacturer: Technix Grasslok.  
Product reference: GRASSLOK23.
- Colour: Black.
- Critical fall height when tested to BS EN 1177: 3.0 m.
- 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.

**COMPLETION**

930 DOCUMENTATION

- General: For all types of surfacing, provide the following:
  - Name and contact details of installer.
  - Date of installation.
  - Name and contact details of manufacturer.
  - Type/ description/ reference of products used.
  - Manufacturer's recommended inspection and maintenance procedures to maintain safety and impact absorbing performance.
  - Manufacturer's recommended cleaning and maintenance methods, where relevant.

## Q28 Topsoil and soil ameliorants

To be read with Preliminaries/ General conditions.

### SYSTEM OUTLINE

#### PRODUCTS

##### 300 PREPARATION MATERIALS GENERALLY

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

##### 310 MATERIALS NOT PERMITTED

- Materials: Peat and Products containing peat.

##### 315A IMPORTED TOPSOIL TO BS 3882 FOR TOP DRESSING FOR SAFETY GRASS MATTING, PLANTING BEDS, TREEPITS

- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- Standard: To BS 3882.
- Classification: Multipurpose.
  - Grade: Within the parameters of 'sandy loam' textural class.
- Source: Local, within a 20 mile radius.
  - Product reference: Contractor's choice.

#### EXECUTION

##### 650 NOTICE

- Give notice before:
  - Setting out.
  - Spreading topsoil.
  - Applying herbicide.
  - Applying fertilizer.
  - Visiting site during maintenance period.
- Period of notice: 1 week.

- 660 GRADING SUBSOIL
- General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
  - Loosening:
    - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm.
    - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm.
    - Rock and chalk subgrades: Lightly scarify to promote free drainage.
  - Areas of thicker topsoil: Excavate locally.
  - Avoid over compaction.
- 665A SUBSOIL SURFACE PREPARATION
- General: Excavate and/ or place fill to required profiles and levels.
  - Loosening:
    - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm.
    - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm.
    - Rock and chalk subgrades: Lightly scarify to promote free drainage.
  - Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
  - Remove from site: Arisings, contaminants and debris.
- 670 INSPECTING FORMATIONS
- Give notice: Before spreading topsoil for FOR SITE FILLING.
  - Notice period: 7 days.
- 680 SURPLUS TOPSOIL TO BE RETAINED
- Generally: Spread and level on site:
    - Locations: Agree on site.
    - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
- 685A SURPLUS MATERIALS TO BE REMOVED Only when quality renders it unuseable on site.
- Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
- 690 TOPSOIL STORAGE HEAPS
- Location: As agreed with LA.
  - Height (maximum): 1.0 m.
  - Width (maximum): 2.0 m.
    - Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
  - Protection:
    - Do not place any other material on top of storage heaps.
    - Do not allow construction plant to pass over storage heaps.
    - Prevent compaction and contamination, by fencing and covering as appropriate.
- 700 GRADING OF TOPSOIL
- Topsoil condition: Reasonably dry and workable.
  - Contours: Smooth and flowing, with falls for adequate drainage.
    - Hollows and ridges: Not permitted.
  - Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
  - Give notice: If required levels cannot be achieved by movement of existing soil.



#### 705 HANDLING TOPSOIL

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

#### 710 SPREADING TOPSOIL

- Temporary roads/ surfacing: Remove before spreading topsoil.
- Layers:
  - Depth (maximum): 150 mm.
  - Gently firm each layer before spreading the next.
- Depths after firming and settlement (minimum): 100 mm.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

#### 715 LOOSE TIPPING OF TOPSOIL

- 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 FOR GRASS SEEDING

- Compacted topsoil: Break up to full depth.
- Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
- Depth: 75 mm.
- Particle size (maximum): 5 mm.
- Timing: After grading and fertilizing, and within a few days before seeding.
- Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels: Agree on site.
- Undesirable material brought to the surface:
  - Remove visible weeds.
  - Remove roots and large stones with any dimension exceeding 20 mm.

#### 720A FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- Above adjoining paving or kerbs: 25 mm.
- Planting beds: Higher than adjoining grass areas by 25 mm.
- Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
- Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
- Adjoining soil areas: Marry in.
- Thickness of turf or mulch: Included.

## **Q30 Seeding/turfing**

To be read with Preliminaries/General conditions.

### **GENERAL INFORMATION/REQUIREMENTS**

#### **115 SEEDED AND TURFED AREAS**

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

#### **120 CLIMATIC CONDITIONS**

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

#### **145 WATERING**

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

#### **150 WATER RESTRICTIONS**

- 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**

- Give notice before:
  - Setting out.
  - Applying herbicide.
  - Applying fertilizer.
  - Preparing seed bed.
  - Seeding or turfing.
  - Visiting site during maintenance period.
- Period of notice: 1 week.

#### **170 SETTING OUT**

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

### **PREPARATION**

#### **250 SOIL REQUIREMENTS**

- Type:
  - Seeded areas: Soil for grass swards, as section Q28.
  - Turfed areas: Existing topsoil.
  - Reinforced grass areas: Existing topsoil.

### **SEEDING**

#### **310 GRASS SEED FOR INFILTRATION HOLLOWES**

- Mixture: Emorsgate EM8 – MEADOW MIXTURE FOR WETLANDS.
- Application rate: 4g per m2.

311 GRASS SEED FOR ALL GRASSED AREAS

- Supplier: Germinal .
  - Mixture reference: A22 - low maintenance areas.
- Application rate: 50g per m2.

330 SOWING

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

335 GRASS SOWING SEASON

- Grass seed generally: April to October.

530 FIRST CUT OF GRASSED AREAS

- Timing: When grass is reasonably dry.
  - Height of initial growth: 40-75 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 40 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site.

590 CLEANLINESS

- Soil and arisings: Remove from hard surfaces.
- 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: practical completion.
- Defective materials or workmanship: Areas that have failed to thrive.
  - Exclusions: Theft or malicious damage.
- Method of making good: Recultivation and reseedling/ returfing.
- Timing of making good: The next suitable planting season.

## Q40 Fencing

To be read with Preliminaries/ General conditions.

### FENCING SYSTEMS

#### EXECUTION

##### 710 INSTALLATION GENERALLY

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

##### 720 SETTING POSTS IN CONCRETE

- Standard: To BS 8500-2.
- Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
- Alternative mix for small quantities: 50 kg Portland cement to 150 kg fine aggregate to 250 kg 20 mm nominal maximum size coarse aggregate, medium workability.
- Admixtures: Do not use.
- Holes: Excavate neatly and with vertical sides.
- Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
- Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.

##### 730 EXPOSED CONCRETE FOUNDATIONS

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

#### COMPLETION

##### 910 CLEANING

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

##### 920 FIXINGS

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

##### 930 GATES

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

## **Q50 Site/street furniture/equipment**

To be read with Preliminaries/ General conditions.

## Q52 Play and sports equipment systems

To be read with Preliminaries/ General conditions.

### GENERAL

### SYSTEM PERFORMANCE

- 330A CLIMBING FRAME TO RECREATION GROUND
- Standard: To BS EN 1176-1.
  - Manufacturer: G L Jones.
    - Product reference: Bryncrug Unit H030-001(01).
  - Method of fixing: Set in concrete.
- 390A ROCKING EQUIPMENT Surfboard
- Standard: To BS EN 1176-1 and -6.
  - Manufacturer: G L Jones.
    - Product reference: C503-002-01.
  - Age range: 5+.
  - Method of fixing: Set in concrete.
- 400A RUNWAY TO RECREATION GROUND
- Standard: To BS EN 1176-1 and -4.
  - Manufacturer: Caloo.
    - Product reference: DP-802 - Steel Aerial Runway with ramp.
  - Type: Seat.
  - Age range: 6-14.
  - Length: 20 m.
  - Method of fixing: Set in concrete.
- 410A TRAMPOLINE TO PLAYGROUND
- Standard: To BS EN 1176-1.
  - Manufacturer: G L Jones.
    - Product reference: N003-005-01.
- 440B SWINGING EQUIPMENT TO RECREATION GROUND
- Standard: To BS EN 1176-1 and -2.
  - Manufacturer: G L Jones.
    - Product reference: A003-017-01 2.4m High Bird Nest Swing.
  - Age range: 3-12.
  - Method of fixing: Set in concrete.
- 520A BASKETBALL HOOPS TO OUTDOOR COURT
- Standard: In accordance with BS EN 1270.
  - Manufacturer: Caloo.
    - Product reference: GO2003 - Combi Flush Goal Unit.
  - Method of fixing: Set in concrete.

560A EXERCISE EQUIPMENT TO ADULT TRIM TRAIL

- Manufacturer: Caloo 8 piece community bundle with Body Twist swapped for Combi Benches in GREEN..
  - Product reference: CW06 Leg press  
CW57 Lat Pull and Chest Press  
CW08 Skier  
CW12 Airwalker  
CW23 Cross Rider  
CW35 Arm Bike  
CW36 Stepper  
CW16 Combi Benches.
- Method of fixing: Set in concrete.

580A GOALS Single Junior Goals

- Standard: To BS EN 748.
- Manufacturer: G L Jones.
  - Product reference: M002-001-01.
- Size: 5.0 m x 2.2 m.
- Method of fixing: Set in concrete.

**EXECUTION**

710 PLAY EQUIPMENT INSTALLATION GENERALLY

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

720 CONCRETE FOUNDATIONS GENERALLY

- Standard: To BS 8500-2.
- Concrete: Designated, not less than GEN 1 or Standard prescribed, not less than ST2.
- Admixtures: Do not use.
- 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

- Holes: 250 x 250 x minimum 300 mm deep.
- Components: Accurately positioned and securely supported.
- Concrete fill: Fully compacted as filling proceeds.
- Concrete foundations exposed to view: Finished to weathering profile to shed water and trowel smooth.
- Temporary component support: Maintain undisturbed for minimum 48 hours.

750 DAMAGE TO GALVANIZED SURFACES

- Minor damage in areas up to 40 mm<sup>2</sup> (including on fixings and fittings): Make good.
  - 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.
  - Thickness: Sufficient to provide a zinc coating at least equal to the original layer.

760 SITE PAINTING

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

## **COMPLETION**

### 910 INSPECTION

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

### 920 CLEANING

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

### 930 TESTING

- Standard: To BS EN 1176-1.

### 940 LABELS

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

### 950 DOCUMENTATION

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