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SDCC

Butler McGee Park Up-grade

Landscape Architect's Specification

25-06-2026

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C20 Demolition

General requirements

110 Desk study/ survey

1. **Scope:** Before starting deconstruction/ demolition work, examine available information, and carry out a survey of:
 - 1.1. the structure or structures to be deconstructed/ demolished,
 - 1.2. the site on which the structure or structures stand, and
 - 1.3. the surrounding area.
2. **Report and method statements:** Submit, describing:
 - 2.1. Form, condition and details of the structure or structures, the site, and the surrounding area.
 - 2.1.1. **Extent:** As drawings BMcGP-L-001, 002 & 003.
 - 2.2. Type, location and condition of features of historical, archaeological, geological or ecological importance.
 - 2.3. Type, location and condition of adjoining or surrounding premises that might be adversely affected by removal of the structure or structures, or by noise, vibration and/ or dust generated during deconstruction/ demolition.
 - 2.4. Identity and location of services above and below ground, including those required for the Contractor's use, and arrangements for their disconnection and removal.
 - 2.5. Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
 - 2.6. Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
 - 2.7. Proposed programme of work, including sequence and methods of deconstruction/ demolition.
 - 2.8. Details of specific pre-weakening required.
 - 2.9. Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
 - 2.10. Arrangements for control of site transport and traffic.
 - 2.11. **Special requirements:** Site waste management plan development and proposals

120 Extent of deconstruction/ demolition

1. **General:** Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to base of foundation build up.

130 Groundworks

1. **Old foundations, slabs and the like:** Break out in locations and to the extents stated.
2. **Contaminated material:** Remove, and carry out remediation required by the Enforcing Authority.

140 Bench marks

1. **Unrecorded bench marks and other survey information:** Give notice when found. Do not remove marks or destroy the fabric on which they are found.

Services affected by deconstruction/ demolition

210 Services regulations

1. **Work carried out to or affecting new and/ or existing services:** Carry out in accordance with the byelaws and/ or regulations of the relevant Statutory Authority.

220 Location of services

1. **Services affected by deconstruction/ demolition work:** Locate and mark positions.
2. **Mains services marking:** Arrange with the appropriate authorities for services to be located and marked.
 - 2.1. **Marking standard:** In accordance with National Joint Utilities Group 'Guidelines on the positioning and colour coding of underground utilities' apparatus'.

230 Services disconnection arranged by contractor

1. **General:** Arrange with the appropriate authorities for disconnection of services and removal of fittings and equipment owned by those authorities prior to starting deconstruction/ demolition.

250 Live foul and surface water drains

1. **Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings**
 - 1.1. Protect; maintain normal flow during deconstruction/ demolition.
 - 1.2. Make good any damage arising from deconstruction/ demolition work.
 - 1.3. Leave clean and in working order at completion of deconstruction/ demolition work.

260 Service bypass connections

1. **General:** Provide as necessary to maintain continuity of services to occupied areas of the site on which the deconstruction/ demolition is taking place and to adjoining sites/ properties.
2. **Minimum notice to adjoining owners and all affected occupiers:** 72 hours, if shutdown is necessary during changeover.

270 Services to be retained

1. **Damage to services:** Give notice, and notify relevant service authorities and/ or owner/ occupier regarding damage arising from deconstruction/ demolition.
2. **Repairs to services:** Complete as directed, and to the satisfaction of the service authority or owner.

Deconstruction/ demolition work

310 Workmanship

1. **Standard:** Demolish structures in accordance with BS 6187.
2. **Operatives**
 - 2.1. Appropriately skilled and experienced for the type of work.
 - 2.2. Holding, or in training to obtain, relevant CITB Certificates of Competence.
3. **Site staff responsible for supervision and control of work:** Experienced in the assessment of risks involved and methods of deconstruction/ demolition to be used.

320 Gas or vapour risks

1. **Precautions:** Prevent fire and/ or explosion caused by gas and/ or vapour from tanks, pipes, etc.

330 Dust control

1. **General:** Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.
2. **Lead dust:** Submit method statement for control, containment and clean-up regimes.

340 Health hazards

1. **Precautions:** Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.

350 Adjoining property

1. **Temporary support and protection:** Provide. Maintain and alter, as necessary, as work proceeds. Do not leave unnecessary or unstable projections.
2. **Defects:** Report immediately on discovery.
3. **Damage:** Minimize. Repair promptly to ensure safety, stability, weather protection and security.
4. **Support to foundations:** Do not disturb.

360 Structures to be retained

1. **Extent:** As drawings BMcGP-L-004 to L-012.
2. **Parts which are to be kept in place:** Protect.
3. **Interface between retained structures and deconstruction/ demolition:** Cut away and strip out with care to minimize making good.

370 Partly demolished structures

1. **General:** Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
2. **Temporary works:** Prevent overloading due to debris.
3. **Access:** Prevent access by unauthorized persons.

380 Dangerous openings

1. **General:** Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
2. **Access:** Prevent access by unauthorized persons.

391 Asbestos-containing materials – unknown occurrences

1. **Discovery:** Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction/ demolition work. Avoid disturbing such materials.
2. **Removal:** Submit statutory risk assessments and details of proposed methods for safe removal.

410 Unforeseen hazards

1. **Discovery:** Give notice immediately when hazards such as unrecorded voids, tanks, chemicals, are discovered during deconstruction/ demolition.
2. **Removal:** Submit details of proposed methods for filling, removal, etc.

442 Site surface at completion

1. **Levels:** Grade the site to follow the levels of adjacent areas.
2. **Temporary surface:** Cover the site with a consolidated layer of crushed hard rock, such as Clause 804..

450 Site condition at completion

1. **Debris:** Clear away and leave the site in a tidy condition.

Materials arising

510 Contractor's property

1. **Components and materials arising from the deconstruction/ demolition work:** Property of the Contractor except where otherwise provided.
2. **Action:** Remove from site as work proceeds where not to be reused or recycled for site use.

520 Recycled materials

1. **Materials arising from deconstruction/ demolition work:** Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.
2. **Evidence of compliance:** Submit full details and supporting documentation.
 - 2.1. **Verification:** Allow adequate time in programme for verification of compliance.

Ω End of Section

D20 Excavating and filling

Generally/the site

110 Site investigation

1. **Report:** See the *Site Investigation Report* contained in *Volume D - Information Pack*.

145 Variations in ground water level

1. **Give notice:** If levels encountered are significantly different from levels in the site investigation report or previously measured.

150 Existing features and structures

1. **Services:** See Engineer's drawings for approximate locations.
2. **Site features to be retained:** See drawings BMcGP-L-004 to L-012.
3. **Structures:** See drawings BMcGP-L-004 to L-012.

Clearance/excavating

164 Tree roots

1. **Protected area:** Do not cut roots within precautionary protection area.
 - 1.1. **Size of area:** Circle around each tree of radius 12 times trunk diameter, measured 1.5 m above ground level, and as directed by ER.
2. **Excavation in protected area**
 - 2.1. **Method:** By hand
 - 2.2. **Backfill** as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
3. **Outside protected area:** Give notice of roots exceeding 25 mm and do not cut without approval.
4. **Cutting**
 - 4.1. Make clean smooth cuts with no ragged edges.
 - 4.2. Pare cut surfaces smooth with a sharp knife.
 - 4.3. **Treatment of cut roots:** Not required
5. **Backfill:** As dug material, enriched with phosphate fertilizer

168 Site clearance

1. **Timing:** After protection of trees to be retained and before topsoil stripping, if any.
2. **General:** Clear site of rubbish, debris and vegetation. Do not compact topsoil.

170 Removing small trees, shrubs, hedges and roots

1. **Identification:** Clearly mark trees to be removed and obtain approval of ER before proceeding.
2. **Small trees, shrubs and hedges:** Cut down, where possible shred on site for re-use as mulch, or remove from site.
3. **Roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas, and remove from site.
4. **Safety:** Comply with Safety, Health and Welfare at Work Act 2005 in addition to the Safety, Health and Welfare at Work (General Application) Regulations 2007-2016.

175 Felling large trees

1. **Definition:** Girth over 600 mm.
2. **Identification:** Clearly mark trees to be removed and confirm with ER before proceeding.
3. **Safety:** Comply with Safety, Health and Welfare at Work Act 2005 in addition to the Safety, Health and Welfare at Work (General Application) Regulations 2007-2016
4. **Felling:** As close to the ground as possible.
5. **Stumps:** Remove by stump grinding
6. **Work near retained trees:** Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.

180 Chipping and shredding

1. **General:** Permitted, remove off site unless otherwise agreed with ER.

220 Stripping topsoil

1. **General:** Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, pavings/roads and other areas shown on drawings.
2. **Depth**
 - 2.1. Remove to an average depth of 150 mm.
 - 2.2. Give notice where the depth of topsoil is difficult to determine.
 - 2.3. Give notice where the depth of topsoil is less than 100mm to ensure there is no shortage when relaying the topsoil.
3. **Handling:** Handle topsoil for reuse or sale in accordance with clause 225.
4. **Around trees:** Do not remove topsoil from below the spread of trees to be retained.
5. **Site storage:** Keep separate from excavated sub-soil

221 Treating topsoil

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

225 Handling topsoil

1. **Standard:** To BS 3882.
2. **Aggressive weeds**
 - 2.1. **Species:** Notify the presence of species included in the National Biodiversity Action Plan (www.npws.ie/legislation/national-biodiversity-plan), Invasives.ie, the Irish Statutory Instrument 477/2011 Article 49, or the presence of species included in the Weeds Act, section 2.
 - 2.2. **Give notice:** Obtain instructions before moving topsoil.
3. **Contamination:** Do not mix topsoil with:
 - 3.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
 - 3.2. Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.
 - 3.3. Oil, fuel, cement or other substances harmful to plant growth.
 - 3.4. Other classifications of topsoil.
4. **Multiple handling:** Keep to a minimum. Use topsoil immediately after stripping.

240 Adjacent excavations

1. Requirement: Where an excavation encroaches below a line drawn at an angle from the nearest formation level of another higher excavation, the lower excavation, all work within it and backfilling thereto, must be completed before the higher excavation is made.
2. Angle of line below horizontal: 30°

242 Excavations adjacent to existing backfilled trenches

1. Proximity: When width of undisturbed ground between the two excavations will be less than 900mm.
2. Action: Assume that the ground between the trenches is unstable and provide side support accordingly.

244 Excavations adjacent to existing foundations

1. Prior to commencing excavation
 - 1.1. Excavate trial pits adjacent to existing foundations to determine extent and formation levels.
 - 1.2. Allow for inspection of trial pits.
 - 1.3. Allow time for amendment of details if required.
 - 1.3.1. Time period: 10 working days
2. Backfill material to new excavation: As clause 248.

248 Backfill to excavations lower than foundation formation level

1. Critical level
 - 1.1. Distance between near faces of foundation and lower excavation less than 1 m: 150 mm above foundation formation level.
 - 1.2. Otherwise: 150 mm above level at which line defined in clause 240 cuts near face of lower excavation.
2. Backfill material
 - 2.1. Below critical level: Lean mix concrete.
 - 2.2. Above critical level: Hardcore filling as clause 710

250 Permissible deviations from formation levels

1. Beneath mass concrete foundations: ± 25 mm.
2. Beneath ground bearing slabs and r.c. foundations: ± 15 mm.
3. Embankments and cuttings: ± 50 mm.
4. Ground abutting external walls: ± 50 mm, but such as to ensure that finished level is not less than 150 mm below dpc.

260 Inspecting formations

1. Give notice: Make advance arrangements for inspection of formations for footpaths/cycleways, foundations for walls, piers, structures, signs, seats, etc..
 - 1.1. Notice (minimum): 4 days
2. Preparation: Just before inspection remove the last 150 mm of excavation. Trim to required profiles and levels.
 - 2.1. Loose material: Remove
3. Seal: Within 4 hours of inspection, seal formations with concrete or other specified fill.

270 Foundations generally

1. Give notice if
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- 1.1. A natural bearing formation of undisturbed subsoil is not obtained at the depth shown on the drawings.
- 1.2. The formation contains soft or hard spots or highly variable material.

280 Trench fill foundations

1. **Excavation:** Form trench down to formation in one operation.
2. **Safety:** Prepare formation from ground level.
3. **Inspection of formations:** Give notice before commencing excavation.
 - 3.1. **Period of notice:** Four working days
4. **Shoring:** Where inspection of formation is required, provide localised shoring to suit ground conditions.
5. **Concrete fill:** Place concrete immediately after inspection and no more than four hours after exposing the formation.

290 Foundations in made up ground

1. **Depth:** Excavate down to a natural formation of undisturbed subsoil.
2. **Discrepancy:** Give notice if this is greater or less than depth given.

310 Unstable ground

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

320 Recorded features

1. **Recorded foundations, beds, drains, manholes, etc.:** Break out, removed and seal drain ends
2. **Contaminated earth:** Remove and disinfect as required by Local Authority.

330 Unrecorded features

1. **Give notice:** If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

335 New foundations crossing old foundations or walls

1. **Break out:** The old foundation/ wall where it crosses the new foundation/ wall:
 - 1.1. **Length of breaking out:** Width of the new foundation/ wall plus 50 mm on either side of new foundation.
 - 1.2. **Depth of breaking out:** As necessary to permit the construction of the new foundation to its design cross section.
2. **Disturbed/ softened soil:** When the formation for the old foundation/ wall is deeper than the formation of the new foundation.
 - 2.1. **Excavate:** Soil that has been disturbed and/ or softened on either side of the old wall/ foundation, and for 100 mm into undisturbed ground on either side.
3. **Step up:** The formation for the new foundation as necessary on either side of the old foundation/ wall until the formation is at its design level.
 - 3.1. **Size of steps:** Minimum distance between steps 600 mm and maximum height of step 200 mm.
4. **Backfilling beneath design formation level:** Fill with concrete as foundation is cast

337 Old foundations or walls beneath new ground supported slab

1. Break out: The old foundation/ wall to a depth below the slab formation level of at least 300 mm.
 - 1.1. Excavate: Soil that has softened on either side of the old wall/ foundation.
2. Backfill: Obtain instructions if depth of fill will be greater than 600 mm, otherwise backfill with compacted hardcore.

350 Existing watercourses

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

360 Excess excavation

1. Excavation taken wider than required
 - 1.1. Backfill: As instructed by ER.
2. Excavation taken deeper than required
 - 2.1. Backfill: With well graded granular material or lean mix concrete

370 Underground structures in landscape areas

1. Generally: Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
2. Minimum depth below finished levels
 - 2.1. Grass, ground cover and perennial planting: 500 mm
 - 2.2. Shrub planting: 750 mm.
 - 2.3. Within 2 m of tree planting: 1000 mm.
3. Walls and slabs remaining: In every 10 m² of wall or slab, make a drainage hole at least 600 mm diameter.

Disposal of materials

410 Excavated topsoil storage

1. Storage: Stockpile in temporary storage heaps on site .

420 Topsoil storage heaps

1. Location: As agreed with ER on site.
2. Standard: To BS 3882.
3. Height (maximum): To be not more than 2m high.
4. Protection
 - 4.1. Do not place any other material on top of storage heaps.
 - 4.2. Do not allow construction plant to pass over storage heaps.
 - 4.3. Prevent compaction and contamination.

421 Topsoil storage heap treatment

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

441 Surplus subsoil

1. Excavated material: Stockpile in temporary storage heaps.
2. Retained material: Spread and level surplus subsoil on site.
 - 2.1. Locations: Adjacent to excavations or as directed on site.

- 2.2. **Protected areas:** Do not raise soil level within root spread of trees that are to be retained.
3. **Remaining material:** Remove from site.

450 Water

1. **Generally:** Keep all excavations free from water until:
 - 1.1. Formations are covered.
 - 1.2. Below ground constructions are completed.
 - 1.3. Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
2. **Drainage:** Form surfaces of excavations and fill to provide adequate falls.
3. **Removal of water:** Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

454 Ground water level, springs or running water

1. **Give notice:** If it is considered that the excavations are below the water table.
2. **Springs/ Running water:** Give notice immediately if encountered.

457 Pumping

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

460 Permanent drainage system

1. **Disposal of water from the excavations through system:** Permitted where agreed with ER.

Filling

500 Proposed fill materials

1. **Details:** Submit full details of proposed fill materials to demonstrate compliance with specification, including:
 - 1.1. Type and source of imported fill.
 - 1.2. Proposals for processing and reuse of material excavated on site.
 - 1.3. Test reports as required elsewhere.
2. **Timing:** At least 21 days before starting filling

510 Hazardous, aggressive or unstable materials

1. **General:** Do not use fill materials which would, either in themselves or in combination with other materials or ground water, give rise to a health hazard, damage to building structures or instability in the filling, including material that is:
 - 1.1. Frozen or containing ice.
 - 1.2. Organic.
 - 1.3. Contaminated or noxious.
 - 1.4. Susceptible to spontaneous combustion.
 - 1.5. Likely to erode or decay and cause voids.
 - 1.6. With excessive moisture content, slurry, mud or from marshes or bogs.
 - 1.7. Clay of liquid limit exceeding 80 and/or plasticity index exceeding 55.

- 1.8. Unacceptable, class U2 as defined in the 'Specification for highway works', clause 601.

512 Limitation of sulfate content in fill materials

1. Test specification: To BS 1377-3.
2. Sulfate content: Expressed as SO₃.
 - 2.1. Water soluble sulfate (maximum): 1200 mg/L in 2:1 water/ soil extract
 - 2.2. Total potential sulfate (maximum): 0.6%
 - 2.3. Oxidizable sulfides (maximum): 0.3% of total potential sulfate
3. Certificates of test result: Submit.

520 Frost susceptibility

1. **General:** Except as allowed below, fill must be non frost-susceptible as defined in the 'Specification for highway works', clause 801.8.
2. **Test reports:** If the following fill materials are proposed, submit a laboratory report confirming they are non frost- susceptible:
 - 2.1. Fine grained soil with a plasticity index less than 20%.
 - 2.2. Coarse grained soil or crushed granite with more than 10% retained on a 0.063 mm sieve.
 - 2.3. Crushed chalk.
 - 2.4. Crushed limestone fill with average saturation moisture content in excess of 3%.
 - 2.5. Burnt colliery shale.
3. **Frost-susceptible fill:** May only be used:
 - 3.1. At depths below the finished ground surface greater than: 450 mm
 - 3.2. Within the external walls of buildings below spaces that will be heated. Protect from frost during construction.
 - 3.3. Where frost heave will not affect structural elements.

525 Testing of suitability of fill materials before start of filling

1. **Laboratory:** INAB accredited laboratory
2. **Submit report to:** Civils Engineer (two copies)
 - 2.1. **Timing:** 21 days before starting filling
3. **Samples:** Deliver to laboratory as required.
 - 3.1. **Additional requirements:** Also deliver 25 kg samples to offices of structural engineer. On request, collect and dispose.
4. **Tests:** As directed by Civils Engineer.
5. **Frequency:** Submit with tender proposed rate and frequency of testing to demonstrate continuing compliance of imported or reprocessed fill with specified properties.

530 Placing fill

1. **Surfaces of excavations and areas to be filled:** Free from loose soil, topsoil, organic material, rubbish and standing water.
2. **Freezing conditions:** Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
3. **Adjacent structures, membranes and buried services**
 - 3.1. Do not overload, destabilise or damage.
 - 3.2. Submit proposals for temporary support necessary to ensure stability during filling.
 - 3.3. Allow 14 days (minimum) before backfilling against in situ concrete structures.
4. **Layers:** Place so that only one type of material occurs in each layer.

5. Earthmoving equipment: Vary route to avoid rutting.

535 Compaction generally

1. **General:** Compact fill not specified to be left loose as soon as possible after placing.
2. **After compaction:** Surface of each layer must be well closed, showing no movement under compaction plant, and without cracks, holes, ridges, loose material and the like.
3. **Defective areas:** Remove and recompact to full thickness of layer using new material.

540 Benching in fill

1. **Adjacent areas:** If, during filling the difference in level between adjacent areas of filling exceeds 600 mm, cut into edge of higher filling to form benches 600 mm minimum width and height equivalent to depth of a layer of compacted filling.
2. **New filling:** Spread and compact to ensure maximum continuity with previous filling.

550 Geotextile sheet

1. **Manufacturer:** Contractor's choice. Submit at time of product submission for approval:
ISO 9001- certification
ISO 14001- certification
PAS 2060, net zero, third-party accredited
Registration under a third-party quality assurance scheme.
Registration under a third-party environmental assessment scheme.
 - 1.1. **Product reference:** Submit proposals
2. **Type:** Contractor's choice
3. **Polymer type:** Contractor's choice
4. **Recycled content:** Submit proposals
5. **Jointing:** 1000 mm overlap
6. **Preparation of subgrade:** Before laying sheet, remove humps and sharp projections. Fill hollows
7. **Protect from**
 - 7.1. Exposure to light.
 - 7.2. Contaminants.
 - 7.3. Materials listed as potentially deleterious by geotextile manufacturer.
 - 7.4. Wind uplift.

610 Compacted filling for landscape areas

1. **Fill:** Material capable of compaction by light earthmoving plant.
2. **Filling:** Layers not more than 200 mm thick. Lightly compact each layer to produce a stable soil structure.

615 Loose tip filling for landscape areas

1. **Filling:** Do not firm, consolidate or compact when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

617 Type 1 unbound mixture

1. **Fill:** To TII 'Specification for works', clauses 801 and 803:
 - 1.1. Crushed rock (other than argillaceous rock).
 - 1.2. Coarse crushed concrete aggregate.
 - 1.3. Recycled aggregates.
 - 1.4. Crushed non-expansive slag to clause 801.2.

- 1.5. Well-burned non-plastic colliery shale.
2. **Filling:** To 'Specification for works', clause 802.

618 Type 2 unbound mixture

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

620 Subgrade improvement layer (capping)

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

621 Type 3 unbound mixture

1. **Fill:** To 'Specification for works', clauses 801 and 805:
 - 1.1. Crushed rock (other than argillaceous rock) with well-defined edges.
 - 1.2. Coarse crushed concrete aggregate.
 - 1.3. Crushed non-expansive slag.
2. **Filling:** To 'Specification for works', clause 802.

622 Type 4 unbound mixture

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

640 Starter layer of compacted filling

1. **Fill:** Suitable hard granular material. Compact thoroughly.
2. **Thickness:** 450 mm

650 Protection of compacted filling

1. **Temporary protective filling:** Before allowing construction traffic, raise level of compacted cohesive soil filling at least 150 mm above formation level using properly compacted temporary filling.
2. **Removal:** Remove temporary protective filling from site before permanent construction.

700 Backfilling around foundations

1. **Under oversite concrete and pavings:** Hardcore as clause 710.
2. **Under grassed or soil areas:** Material excavated from the trench, laid and compacted in 300 mm maximum layers.

710 Hardcore filling

1. **Fill:** Granular material, free from excessive dust, well graded, all pieces less than 75 mm in any direction:
2. **Material**
 - 2.1. **Permitted materials in any one layer**
 - 2.1.1. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
 - 2.1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
 - 2.1.3. Crushed non-expansive slag.
 - 2.1.4. Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
 - 2.1.5. Well-burned non-plastic colliery shale.
 - 2.1.6. Natural gravel.
 - 2.1.7. Natural sand.
3. **Filling:** Spread and level in 150 mm maximum layers. Thoroughly compact each layer.

715 Venting hardcore layer

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

730 Blinding

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

Ω End of Section

E10

Mixing/casting/curing in situ concrete

Concrete

101 Specification

1. Concrete generally: To BS 8500-2.
2. Exchange of information: Provide concrete producer with information required by BS 8500-1, clauses 4 and 5.

Materials, batching and mixing

215 Ready-mixed concrete

1. Production plant: Currently certified by a body accredited by UKAS to BS EN ISO/IEC 17065 for product conformity certification of ready-mixed concrete.
2. Source of ready-mixed concrete: Obtain from one source if possible . Otherwise, submit proposals.
 - 2.1. Name and address of depot: Submit before any concrete is delivered.
 - 2.2. Delivery notes: Retain for inspection.
3. Declarations of nonconformity from concrete producer: Notify immediately.

221 Information about proposed concretes

1. Submit when requested
 - 1.1. Details listed in BS 8500-1, clause 5.2.
 - 1.2. Additional information: Data concerning the anticipated rate of strength gain

230 Interruption of supply during concreting

1. Elements without joints: Where elements are detailed to be cast in a single pour without joints, make prior arrangements for a back-up supply of concrete.
2. Elsewhere
 - 2.1. Preparation: Manage pour to have a full face, and have materials available to form an emergency construction joint while concrete can still be worked.
 - 2.2. Before pour is completed: Submit location and details of joint, make proposals for joint preparation.

315 Aggregates for exposed visual concrete

1. Limitations on contaminants: Free from absorbent particles which may cause 'popouts', and other particles such as coal and iron sulfide which may be unsightly or cause unacceptable staining.
2. Colour: Consistent.
3. Supply: From a single source and maintained throughout the contract.
4. Samples: Submit on request.

320 Retarder for exposed visual concrete

1. Manufacturer: Sitetech, or acceptable equivalent.
2. Product Reference: Top Face Retarder, or acceptable equivalent.
3. Method: Retarder to be applied after steel trowelling of the placed concrete and before it starts to go hard. Power washer on a low strength to be used after approx. 12-18 hours (temperature and conditions dependant), to wash off the top 1-2mm of the concrete "fat" to expose the aggregate.

325 Materials for exposed visual concrete

1. Alterations to sources, types and proportions: Submit proposals.

415 Admixtures

1. Calcium chloride and admixtures containing calcium chloride: Do not use.

490 Properties of fresh concrete

1. Adjustments to suit construction process: Determine with concrete producer . Maintain conformity to the specification.

Project testing/ certification

505 Project testing of concrete - general

1. Testing: To IS EN 206 & IS EN 12350-7
 - 1.1. Nonconformity: Obtain instructions immediately.
2. Recording: Maintain complete correlated records including:
 - 2.1. Concrete designation.
 - 2.2. Sampling, site tests, and identification numbers of specimens tested in the laboratory.
 - 2.3. Location of the parts of the structure represented by each sample.
 - 2.4. Location in the structure of the batch from which each sample is taken.

520 Testing laboratory

1. Laboratory: Accredited by UKAS or other national equivalent.
 - 1.1. Name and UKAS reference number: Submit well in advance of making trial mixes or concrete for use in the works.

530 Tests results

1. Submission of reports: Within one day of completion of each test.
 - 1.1. Number of copies: Three
2. Reports on site: A complete set, available for inspection.

550 Broken cubes from failed strength tests

1. Nonconformity: Keep separately the pieces of each cube which fail to meet the conformity requirements for individual results.
2. Period for keeping cubes: Obtain instructions.

Placing/ compacting/ curing and protecting

620 Temperature of concrete

1. Application:
2. Objective: Limit maximum temperature of concrete to minimize cracking during placing, compaction and curing. Take account of:
 - 2.1. High temperatures and steep temperature gradients: Prevent build-up during first 24 hours after casting. Prevent coincidence of maximum heat gain from cement hydration with high air temperature and/ or solar gain.
 - 2.2. Rapid changes in temperature: Prevent during the first seven days after casting.
3. Proposals for meeting objective: Submit.

630 Premature water loss

1. **Requirement:** Prevent water loss from concrete laid on absorbent substrates.
 - 1.1. **Underlay:** Select from:
 - 1.1.1. **Polyethylene sheet:** 250 micrometres thick.
 - 1.1.2. **Building paper:** To BS 1521, grade B1F.
 - 1.2. **Installation:** Lap edges 150 mm.

648 Adverse temperature conditions

1. **Requirement:** Submit proposals for protecting concrete when predicted ambient temperatures indicate risk of concrete freezing or overheating.

650 Surfaces to receive concrete

1. **Cleanliness of surfaces immediately before placing concrete:** Clean with no debris, tying wire clippings, fastenings or free water.

660 Inspection of surfaces

1. **Notice:** Give notice to allow inspections of reinforcement and surfaces before each pour of concrete.
 - 1.1. **Period of notice:** Obtain instructions.
2. **Timing of inspections:** First inspection when reinforcement fixing is close to completion, second inspection when reinforcement and formwork are ready for concreting.

670 Transporting

1. **General:** Avoid contamination, segregation, loss of ingredients, excessive evaporation and loss of workability . Protect from heavy rain.
2. **Entrained air:** Anticipate effects of transport and placing methods in order to achieve specified air content.

680 Placing

1. **Records:** Maintain for time, date and location of all pours.
2. **Timing:** Place as soon as practicable after mixing and while sufficiently plastic for full compaction.
3. **Temperature limitations for concrete:** 30°C (maximum) and 5°C (minimum), unless otherwise specified. Do not place against frozen or frost covered surfaces.
4. **Continuity of pours:** Place in final position in one continuous operation up to construction joints. Avoid formation of cold joints.
5. **Discharging concrete:** Prevent uneven dispersal, segregation or loss of ingredients or any adverse effect on the formwork or formed finishes.
6. **Thickness of layers:** To suit methods of compaction and achieve efficient amalgamation during compaction.
7. **Poker vibrators:** Do not use to make concrete flow horizontally into position, except where necessary to achieve full compaction under void formers and cast-in accessories and at vertical joints.

690 Compacting

1. **General:** Fully compact concrete to full depth to remove entrapped air. Continue until air bubbles cease to appear on the top surface.
 - 1.1. **Areas for particular attention:** Around reinforcement, under void formers, cast-in accessories, into corners of formwork and at joints.

2. **Consecutive batches of concrete:** Amalgamate without damaging adjacent partly hardened concrete.
3. **Methods of compaction:** To suit consistence class and use of concrete.

700 Lightweight aggregate concrete

1. **Placing and compacting:** Prevent flotation of coarse aggregate and formation of excessive blowholes.

720 Vibrators

1. **General:** Maintain sufficient numbers and types of vibrator to suit pouring rate, consistency and location of concrete.
2. **External vibrators:** Obtain approval for use .

730 Plastic settlement

1. **Settlement cracking:** Inspect fresh concrete closely and continuously wherever cracking is likely to occur, including the top of deep sections and at significant changes in the depth of concrete sections.
 - 1.1. **Timing:** During the first few hours after placing and whilst concrete is still capable of being fluidized by the vibrator.
2. **Removal of cracks:** Revibrate concrete.

810 Curing generally

1. **Requirement:** Keep surface layers of concrete moist throughout curing period, including perimeters and abutments, by either restricting evaporation or continuously wetting surfaces of concrete.
 - 1.1. **Surfaces covered by formwork:** Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
 - 1.2. **Top surfaces:** Cover immediately after placing and compacting. If covering is removed for finishing operations, replace it immediately afterwards.
2. **Surface temperature:** Maintain above 5°C throughout the specified curing period or four days, whichever is longer.
3. **Records:** Maintain details of location and timing of casting of individual batches, removal of formwork and removal of coverings. Keep records on site, available for inspection.

811 Coverings for curing

1. **Sheet coverings:** Suitable impervious material.
2. **Curing compounds:** Selection criteria:
 - 2.1. **Curing efficiency:** Not less than 75% or for surfaces exposed to abrasion 90%.
 - 2.2. **Colouring:** Fugitive dye.
 - 2.3. **Application to concrete exposed in the finished work:** Readily removable without disfiguring the surface.
 - 2.4. **Application to concrete to receive bonded construction/ finish:** No impediment to subsequent bonding.
3. **Interim covering to top surfaces of concrete:** Until surfaces are in a suitable state to receive coverings in direct contact, cover with impervious sheeting held clear of the surface and sealed against draughts at perimeters and junctions.

812 Preventing early age thermal cracking

1. **Deep lifts or large volume pours:** Submit proposals for curing to prevent early age thermal cracking, taking account of:

- 1.1. Temperature differentials across sections.
- 1.2. Coefficient of thermal expansion of the concrete.
- 1.3. Strain capacity of the concrete mix (aggregate dependent).
- 1.4. Restraint.

815 Additional curing requirement - water curing

1. Commencement of water curing: As soon as practicable after placing and compacting concrete.
 - 1.1. Surfaces covered by formwork: Expose to water curing as soon as practicable.
 - 1.2. Top surfaces: Cover immediately with impermeable sheeting to prevent evaporation before commencement of water curing.
2. Water curing: Wet surfaces continuously throughout curing period.
 - 2.1. Select methods from
 - 2.1.1. Mist spray.
 - 2.1.2. Wet hessian covered with impermeable sheeting.

840 Protection

1. Prevent damage to concrete, including
 - 1.1. Surfaces generally: From rain, indentation and other physical damage.
 - 1.2. Surfaces to exposed visual concrete: From dirt, staining, rust marks and other disfiguration.
 - 1.3. Immature concrete: From thermal shock, physical shock, overloading, movement and vibration.
 - 1.4. In cold weather: From entrapment and freezing expansion of water in pockets, etc.

Ω End of Section

F20 Natural stone rubble walling

Types of walling

110 Rubble walling

1. Description: COURSED RANDOM RUBBLE
2. Stone: To BS EN 771-6.
 - 2.1. Name (traditional): Buff granite
 - 2.2. Petrological family: Granite
 - 2.3. Colour: Buff granite to approved sample
To match the Jobstown Park entrance walls to the south.
 - 2.4. Origin: Irish
 - 2.5. Supplier: Submit proposals with verification of certification:
ISO 9001-certified.
ISO 14001-certified.
Net zero in accordance with PAS 2060, third-party-accredited.
Registered under a third-party quality assurance scheme.
Registered under a third-party environmental assessment scheme.
 - 2.6. Size: As per drawings BMcGP-C-004
 - Stone to walls: Random sizes to form overall wall width of 450mm and fit course heights of 425mm for 1.1m high walls and 200mm for 450mm high walls.
 - Stone to piers: Random sizes to form overall pier widths of 550mm and fit course heights of 301mm & 425mm.
 - 2.7. Compressive strength (minimum): Mpa LEV >130 BSEN1926:2006
 - 2.7.1. Category: Category I BS EN 771-6
 - 2.8. Apparent Density: >2600kg/m³ BS EN 1936:2006
 - 2.9. Open porosity: <1.7% BSEN1936:2006 & BS EN 771-6
 - 2.10. Water Absorption: <0.6% BSEN 13755:2008
 - 2.11. Freeze/ thaw resistance: (57 cycles) No Frost Failure BSEN12371:2001 & BSEN771-6
 - 2.12. Additional requirements: Submit declared values from suppliers
 - 2.13. Water absorption: 0.20 BSEN 13755:2002
 - 2.14. Petrographic Description: BS EN 12407:2007 – Granite medium to course textured, Yellowish grey tonality containing dark nodules and silver platelets
 - 2.15. Quality: Seasoned and free from vents, cracks, fissures or other defects deleterious to strength, durability or appearance.
3. Mortar: As Engineer's specification.
 - 3.1. Standard: To BS EN 998-2
 - 3.2. Mix: 1:2-3 NHL 2 hydraulic lime:sand
 - 3.3. Sand: To BS EN 13139; crushed stone graded to approval
4. Joints: Recessed; brushed
5. Wall Capping: As per Dwg. BMcGP-C-004: 250mm high rough raked rounded capping.
6. Pier Capping Stones: As per Dwg. BMcGP-C-004 :
 - Pier corner: 150 x 150mm x 140 mm high
 - Pier edge: 150 x 110mm x 140 mm high
 - Pier centre: 230 x 230mm x 140 mm highCapping to be constructed to prevent ponding.

111 Rubble wall seating

1. **Description:** COURSED RANDOM RUBBLE
2. **Stone:** To BS EN 771-6.
 - 2.1. **Name (traditional):** Buff Granite
 - 2.2. **Petrological family:** Granite
 - 2.3. **Colour:** Buff granite to approved sample
To match the Jobstown Park entrance walls and stone seating walls to the south.
 - 2.4. **Origin:** Irish
 - 2.5. **Supplier:** Submit proposals with verification of certification:
ISO 9001-certified.
ISO 14001-certified.
Net zero in accordance with PAS 2060, third-party-accredited.
Registered under a third-party quality assurance scheme.
Registered under a third-party environmental assessment scheme.
 - 2.6. **Size:** As per drawings BMcGP-C-004
Stone to walls: Random sizes to form overall wall width of 450mm and overall height of 450mm.
 - 2.7. **Compressive strength (minimum):** Mpa LEV >130 BSEN1926:2006
 - 2.7.1. **Category:** Category I BS EN 771-6
 - 2.8. **Apparent Density:** >2600kg/m3 BS EN 1936:2006
 - 2.9. **Open porosity:** <1.7% BSEN1936:2006 & BS EN 771-6
 - 2.10. **Water Absorption:** <0.6% BSEN 13755:2008
 - 2.11. **Freeze/ thaw resistance:** (57 cycles) No Frost Failure BSEN12371:2001 & BSEN771-6
 - 2.12. **Additional requirements:** Submit declared values from suppliers
 - 2.13. **Water absorption:** 0.20 BSEN 13755:2002
 - 2.14. **Petrographic Description:** BS EN 12407:2007 – Granite medium to coarse textured, Yellowish grey tonality containing dark nodules and silver platelets
 - 2.15. **Quality:** Seasoned and free from vents, cracks, fissures or other defects deleterious to strength, durability or appearance.
3. **Mortar:** As Engineer's specification.
 - 3.1. **Standard:** To BS EN 998-2
 - 3.2. **Mix:** 1:2-3 NHL 2 hydraulic lime:sand
 - 3.3. **Sand:** To BS EN 13139; crushed stone graded to approval
4. **Joints:** Recessed; brushed
5. **Wall Capping:** As per Dwg. BMcGP-C-004 : Provide a relatively level top surface suitable to be used as informal seating with no ponding, subject to approval of reference panel.

115 Signage

1. **Description:** SIGNAGE
2. **Supplier/manufacturer::** Submit proposals.
3. **Size:**
 - 2,500mm x 400mm
4. **Materials:**
 - Stove Enamelled Aluminium
5. **Lettering and Logos:**
 - Lettering and logos to be kiss-cut out of 6mm blue (PMS 2126/2746) stove enamelled aluminium to show the 6mm white stove enamelled aluminium behind as per Detail 2 on Dwg. C-004.

- 5.1. Font Type and Size: SDCC Sans, 89.2mm height
6. Colours:
 - Blue: HEX #363a92, RGB 54, 58, 146; CMYK 95, 93, 4, 0; PMS 2126/2746
 - White: HEX #ffffff; RGB 255, 255, 255; CMYK 0, 0, 0, 0
7. Mounting:
 - 80mm studs welded to the rear of the aluminium and mounted via chemical fixed anchors to solid concrete blockwork set within stonework wall.
 - Two sheets of aluminium to be fixed to one another using 0.8mm thick 3M VHB tape and additional appropriately coloured screws/bolts if required.

General requirements

240 Stone samples

1. Timing: Before placing orders.
2. Submit: Labelled samples of stone or arrange for samples which represent the range of variation in appearance to be inspected.

250 Sand samples

1. Timing: Before placing orders.
2. Submit: Representative samples for approval of colour and grading.

Laying and jointing

300 Reference panels

1. General: Complete section of specified walling type and obtain approval of appearance before proceeding with all walls.
2. Walling type:
 - Wall with rounded coping.
 - Seating Walls
- 2.1. Location: Contractor's compound unless otherwise agreed, cannot form part of one of the proposed walls.
- 2.2. Size: Not less than 2m length
- 2.3. Features: Capping.

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 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. Absorbent stones: Dampen in warm weather to reduce suction. Do not soak.
2. Mortar joints
 - 2.1. Laying: Full bed of mortar with all joints and voids filled.
 - 2.2. Appearance: Neat and consistent.

3. **Orientation for natural bed of stones:** Appropriate to properties of stones and positions in walling/ dressings.
4. **Appearance and bonding:** Consistent overall appearance and good bond.
 - 4.1. **Random walling:** Distribute different shapes, sizes and colours evenly throughout the face of the wall. Avoid long continuous vertical joints.
5. **Accuracy**
 - 5.1. **Walling generally:** Plumb, unless specified otherwise.
 - 5.2. **Setting out:** Achieve satisfactory junctions and joints with adjoining or built-in elements and components.
6. **Cleanliness:** Keep facework clean. Rubbing and other abrasive or chemical cleaning methods to remove marks and stains, not permitted.

330 Walling below ground level

1. **Extent of facework below finished level of adjoining ground or external works (minimum):** Flush with hard surfaces.

340 Putlog scaffolding

1. **Use:** Not permitted in facework.

350 Cavity walls

1. **Regularity:** Dress stones to give consistent leaf thickness and maintain consistent wall width.

360 Quoins and jambs in rubble walling

1. **Selection of stones:** Large stones, dressed to a regular shape.
2. **Laying:** In advance of main body of walling.

380 Coursed work

1. **Courses:** True to line and level.

390 Brushed finish to joints

1. **General:** After the initial set has taken place, brush joints to remove laitance/ excess fines and give a coarse texture.

410 Support of existing works

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

Ω End of Section

M60

Painting/clear finishing

Coating systems

175 Protective coating

1. **Description:** To all new seating walls and concrete walls, including the Ball Wall.
2. **Manufacturer:** ProtectiT, or acceptable equivalent
 - 2.1. **Product reference:** Anti-Graffiti Coating, or acceptable equivalent.
3. **Surfaces:** To be applied to all new concrete walls and seating walls.
 - 3.1. **Preparation:** Ensure surface is clean, dry and dust free. Remove any stains or efflorescence.
Any previous coatings must be fully cured before application.
For the ball wall the protective coating is to be applied after the painting of the targets has been completed.
4. **Application:** Apply using a brush or short pile/gloss roller or airless sprayer ensuring an even coat. Avoid runs, drips and foaming - do not use a foam roller.
 - 4.1. **Application Temperatures:** Minimum +5°C
Maximum 25°C
 - 4.2. **Drying time:** 30min, re-coat: 4 hours dependant on weather conditions

195 Special coating - Ball Wall

1. **Description:** Target Painting to Ball Wall
2. **Manufacturer:** COO-VAR, or acceptable equivalent
 - 2.1. **Product reference:** POLYGUARD PU FLOOR PAINT, or acceptable equivalent.
3. **Training/Qualifications:** This is an isocyanate cured, 2-pack polyurethane coating. An ISOPA Isocyanate training course will need to be completed before using the product.
4. **Surfaces:** The face of the Ball Wall facing the asphalt surfacing as per Dwg. C-008.
 - 4.1. **Preparation:**
 - Surfaces should be sound and free from contaminants. All bare concrete surfaces should be mechanically abraded, or if not possible, treated with Coo-Var Acid Etch, to remove any latents.
 - Newly laid concrete should be left to cure prior to painting.
 - Metal should be suitably prepared.
 - Before applying to previously painted surfaces check with Coo-Var technical team.
 - N.B. when using multiple tins check they have the same batch number to avoid slight variations in shade.
5. **Colours:** To be confirmed with ER prior to ordering.
 1. RGB 125,166,215 / PMS 278 Powder Blue
 2. RGB 242,106,90 / PMS 7417 Red-Orange
 3. RAL 9005 Black for Goal Posts and Numbering
 4. RAL 1026 Luminous yellow
 5. RAL 4008 Signal violet
 6. RAL 2007 Luminous bright orange
6. **Application:** Apply between 5 to 30°C by brush or short nap mohair roller. When brush or roller applied at ambient temperatures - these products do not emit free Isocyanate at above levels recommended by C.O.S.H.H. Regulations. However, the protective measures shown on the product labels and safety data sheets must be followed. Use disposable tools.
Minimum of 2 coats.

7. Undercoats:
 - Coo-Var ProSeal High Performance Primer to concrete surfaces.
 - Teamac 2 Pack Zinc Phosphate Primer to be used on metal.
8. **Finishing coats:** To be finished with ProtectiT Anti-Graffiti Coating to entire exposed surface of ball wall as per Paragraph 175 above.

Generally

215 Handling and storage

1. **Coating materials:** Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
2. **Materials from more than one batch:** Store separately. Allocate to distinct parts or areas of the work.

220 Compatibility

1. **Coating materials selected by contractor**
 - 1.1. Recommended by their manufacturers for the particular surface and conditions of exposure.
 - 1.2. Compatible with each other.
 - 1.3. Compatible with and not inhibiting performance of preservative/fire-retardant pretreatments.

280 Protection

1. **'Wet paint' signs and barriers:** Provide where necessary to protect other operatives and general public, and to prevent damage to freshly applied coatings.

Preparation

400 Preparation generally

1. **Standard:** In accordance with BS 6150.
2. Refer to any pre-existing CDM Health and Safety File.
3. Refer to CDM Construction Phase Plan where applicable.
4. **Suspected existing hazardous materials:** Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
5. **Preparation materials:** Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
6. **Substrates:** Sufficiently dry in depth to suit coating.
7. **Efflorescence salts:** Remove.
8. **Dirt, grease and oil:** Remove. Give notice if contamination of surfaces/ substrates has occurred.
9. **Surface irregularities:** Remove.
10. **Joints, cracks, holes and other depressions:** Fill flush with surface, to provide smooth finish.
11. **Dust, particles and residues from preparation:** Remove and dispose of safely.
12. **Water based stoppers and fillers**
 - 12.1. Apply before priming unless recommended otherwise by manufacturer.
 - 12.2. If applied after priming: Patch prime.
13. **Oil based stoppers and fillers:** Apply after priming.
14. **Doors, opening windows and other moving parts**
 - 14.1. Ease, if necessary, before coating.
 - 14.2. Prime resulting bare areas.

Application

711 Coating generally

1. Application standard: In accordance with BS 6150, clause 9.
2. Conditions: Maintain suitable temperature, humidity and air quality during application and drying.
3. Surfaces: Clean and dry at time of application.
4. Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
5. Overpainting: Do not paint over intumescent strips or silicone mastics.
6. Priming coats
 - 6.1. Thickness: To suit surface porosity.
 - 6.2. Application: As soon as possible on same day as preparation is completed.
7. Finish
 - 7.1. Even, smooth and of uniform colour.
 - 7.2. Free from brush marks, sags, runs and other defects.
 - 7.3. Cut in neatly.
8. Doors, opening windows and other moving parts: Ease before coating and between coats.

Ω End of Section

Q10

Kerbs/ edgings/ channels/ paving accessories

Types of kerbs/edgings and channels

102 Brexit

1. CE Marking/ Declaration of Performance and relevant product-related documentation are to be appropriate to demonstrate and ensure compliance with the Building Regulations.
2. UK 'notified bodies' (those registered in Great Britain or Northern Ireland) will lose their legal status as EU 'notified bodies' from the date the UK leaves the EU. Construction products relying on certification from a UK 'notified body' may not be placed on the EU market from the date the UK leaves the EU. The contractor shall include for all requirements to ensure only EU certified CE marked products and systems are used on the project for the duration of the construction period.
3. The Contractor is required to confirm full detail of the notified body responsible for testing each CE marked product forming part of a submittal.
4. A Brexit management plan by contractor is required to be submitted prior to starting on site – noting the following:
 - 4.1. Management plan for recording and tracking names, contact details and validity for each CE marked product being used on the project.
 - 4.2. Actions required where products have lost accreditation during the course of the construction works to ensure full certification on completion of the project. All requirements to ensure compliance are deemed to be included as part of the Works Requirements.

112 Proprietary precast concrete Kerb Type 1

1. **Description:** PIN KERBS (Kerb Type 1)
2. **Standard:** To BS EN 1340.
3. **Manufacturer:** Contractor's choice
 - 3.1. **Product reference:** Pin kerb
4. **Recycled content:** 3% (minimum) to BS EN ISO 14021
5. **Designations:** EF Edging, flat top
6. **Size (width x height x length):** 50 x 150 x 914 mm
7. **Colour:** Natural concrete
8. **Bedding:** As per Engineer's details.
9. **Joints generally:** Dry, close butted, 2mm gap.

250 Material samples

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

260 Material quantities

1. The contractor will be required to provide 5% of the quantity of all kerbs, edgings and channels laid to the client, for future repairs and maintenance. The materials shall be delivered, neatly stacked and wrapped on pallets, to a storage facility to be advised by South Dublin County Council within 3 km of the works. The contractor shall have included in their pricing for all temporary storage, double handling and all applicable delivery charges associated with the provision of spare materials in this regard.

Laying

510 Laying kerbs, edgings and channels

1. **Cutting:** Neat, accurate and without spalling. Form neat junctions.
 - 1.1. **Minimum length after cutting::** Not shorter than 200mm.
2. **Bedding of units:** Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
3. **Securing of units:** After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.

520 Adverse weather

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

600 Radius kerbs/ channels

1. **Usage:** Radii of 12 m or less.

610 Angle kerbs

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

620 Accuracy

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

625 Regularity of paved surfaces

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

640 Tooled mortar joints

1. **Jointing:** Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
 - 1.1. **Joint width:** 10 mm.

Ω End of Section

Q22

Asphalt roads/ pavings

Types of paving

116 Asphalt concrete paving - Surface Type 1

1. Description: Surface Type 1: Asphalt concrete (DBM) paving to footpaths.
2. Standard: To BS EN 13108-1
3. Subgrade improvement layer: Where directed by Engineer
 - 3.1. Compacted thickness: As applicable
4. Geotextile: Sheet
 - 4.1. Manufacturer: Contractor's Choice
 - 4.1.1. Product reference: Contractor's choice
5. Granular sub-base: TII Type B (Cl. 804) unbound mixture to Engineer's details on secugrid.
 - 5.1. Compacted thickness: Minimum 300 mm to Engineer's details.
6. Surface course: AC 10 close surf
 - 6.1. Paving grade: 70/100
 - 6.2. Slip/ Skid resistance: As Appendix 7/1 TII Specification for Road Works Series 900 Road Pavements – Bituminous Materials.
 - 6.3. Compacted thickness: 50 mm, to Engineer's details.
7. Reclaimed content
 - 7.1. Standard: To BS EN 13108-8.
 - 7.2. Value (maximum): Surface course 10%, other courses 20%
8. Surface treatment: Not required
9. Other requirements:
 - Laid to crossfall / camber as required. Ensure surface sheds water.
 - For widening of existing footpaths, asphalt reinforcement to be laid between surface course and sub-base, Tensar AX5-GN or SEA or acceptable equivalent.

Preparatory work/ requirements

220 Bituminous materials generally

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

240 Acceptance of surfaces

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

250 Abutments

1. 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.

2. Finishing: Tamp surface around projections.
 - 2.1. Level: Flush or not more than 3 mm above projections.

Laying

310 Laying generally

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

320 Adverse weather

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

330 Levels

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

340 Flatness/ Surface regularity

1. 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:
 - 1.1. Base: Machine laid, 25 mm
 - 1.2. Surface course: Hand laid, 10 mm
 - 1.3. Where a straightedge cannot be used the surface must be of a comparable standard of accuracy when judged by eye.

345 Accuracy for bases beneath sports surfacing

1. Profile: Crossfall
2. Gradients in any direction: Not greater than 1%.
3. Surface regularity: To BS 7044-4
4. Sudden irregularities: Not permitted.

350 Contractor's use of pavements

1. Before use
 - 1.1. Timing: allow newly laid sections to cool before trafficking.
 - 1.2. Open-grained surface: Fill with 0/4 mm size coated grit. Remove surplus.

- 1.3. Finish: Uncoated chipping and binder surface treatment.
2. Preparation for final surfacing
 - 2.1. Timing: Defer laying until as late as practicable.
 - 2.2. Immediately before laying final surfacing: Clean and make good the base/ binder course.
Allow to dry.
 - 2.3. Adhesion: Submit proposals
 - 2.3.1. Application rate: As manufacturer's recommendation
 - 2.3.2. Accuracy: Uniform, without puddles.
 - 2.4. Finishing: Allow emulsion to break completely before applying surface.

Completion

390 Documentation

1. Standard: IS EN 13108-1
 - 1.1. Declaration of conformity: Submit.
2. Number of copies: 3
3. Submission: Two weeks prior to date when Contractor expects work to be complete

Ω End of Section

Q23

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

Types of surfacing

110 Self binding gravel - Surface Type 7

1. Description: Surface Type 7
2. Subgrade improvement layer: Not required unless directed by Engineer.
3. Geotextile: Sheet
 - 3.1. Manufacturer: Contractor's choice.
 - 3.1.1. Product reference: Contractor's choice
4. Granular sub-base: To Engineer's detail.
5. Surface course: Golden angular gravel, free from clay, with sufficient grit to enable compaction.
 - 5.1. Type: Ballylusk Quartzite 0-10mm dust
 - 5.2. Source: Submit proposal
 - 5.3. Colour: Beige/Golden
 - 5.4. Size: 0-10mm dust
 - 5.5. Compacted thickness: 50 mm
6. Completion: Compact to produce a firm, regular surface, stable in use.

Laying

320 Samples

1. Submit: Representative samples of chippings for hard binding gravel as clause 110.

330 Herbicide to paving

1. Description: To prevent pre and post emergent weeds.
2. Type: Suitable for the application, location and conditions of use.
3. Weeds and moss: Grub up.

340 Laying generally

1. Finished surfaces
 - 1.1. Lines and levels: To prevent ponding.
 - 1.2. Overall texture: Even.
 - 1.3. State at completion: Clean.

350 Cold weather working

1. Frozen materials: Do not use.
2. Freezing conditions: Do not lay pavings.
3. Other dressings or overlays: As manufacturers' recommendations.

360 Drainage falls

1. 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.

Ω End of Section

Q25

Slab/ brick/ sett/ cobble pavings

General

102 Brexit

1. CE Marking/ Declaration of Performance and relevant product-related documentation are to be appropriate to demonstrate and ensure compliance with the Building Regulations.
2. UK 'notified bodies' (those registered in Great Britain or Northern Ireland) will lose their legal status as EU 'notified bodies' from the date the UK leaves the EU. Construction products relying on certification from a UK 'notified body' may not be placed on the EU market from the date the UK leaves the EU. The contractor shall include for all requirements to ensure only EU certified CE marked products and systems are used on the project for the duration of the construction period.
3. The Contractor is required to confirm full detail of the notified body responsible for testing each CE marked product forming part of a submittal.
4. A Brexit management plan by contractor is required to be submitted prior to starting on site – noting the following:
 - 4.1. Management plan for recording and tracking names, contact details and validity for each CE marked product being used on the project.
 - 4.2. Actions required where products have lost accreditation during the course of the construction works to ensure full certification on completion of the project. All requirements to ensure compliance are deemed to be included as part of the Works Requirements.

Products

320 Concrete tactile flags

1. **Description:** Buff and Red Blister Tactile Paving
2. **Standard:** To DD CEN/TS 15209.
3. **Material:** Precast concrete
 - 3.1. **Manufacturer:** [Tobermore](#)
 - 3.1.1. **Contact details**
 - 3.1.1.1. **Address:** 2 Lisnamuck Road
Tobermore
Co L'derry
BT45 5QF
 - 3.1.1.2. **Telephone:** +44 (0)844 800 5736
 - 3.1.1.3. **Web:** <https://www.tobermore.co.uk/professional/>
 - 3.1.1.4. **Email:** b.developmentteam@tobermore.co.uk
 - 3.1.2. **Product reference:** [Tactile Slab - Blister](#)
 - 3.2. **Standard:** To BS EN 1339.
 - 3.3. **Physical properties**
 - 3.3.1. **Colour:**
 - Red to interfaces with Cookstown Road
 - Buff to Drumcairn Avenue
 - 3.3.2. **Profile**
 - 3.3.2.1. **Flag type:** Blister.
 - 3.3.2.2. **Arrises:** Square.
 - 3.3.3. **Dimensions and associated tolerances**
 - 3.3.3.1. **Nominal sizes:** 400 x 400 x 50 mm.

- 3.3.4. Abrasion resistance: Class 3.
- 3.3.5. Bending strength: Class 3.
- 3.3.6. Recycled content (minimum): Not less than 5%.
- 3.4. Skid resistance: Extremely low (>75 USRV).
- 3.5. Slip resistance: Extremely low (>75 USRV).
- 3.6. BREEAM rating: A (A+ can be achieved when used with recycled sub-base).
- 3.7. SurfaceLayer: Hard-wearing surface layer with a minimum of 4 mm and >390 kgs/m³ cement.
- 3.8. TensileStrength: >5 MPa (Class 3).

335 Concrete pavers - Surface Type 2

- 1. Description: Surface Type 2
- 2. Manufacturer: [Tobermore](#), or acceptable equivalent.
 - 2.1. Contact details
 - 2.1.1. Address: 2 Lisnamuck Road
Tobermore
Co L'derry
BT45 5QF
 - 2.1.2. Telephone: [+44 \(0\)844 800 5736](tel:+44208448005736)
 - 2.1.3. Web: www.tobermore.co.uk
 - 2.1.4. Email: sales@tobermore.co.uk
 - 2.2. Product reference: [Fusion | Concrete Block Paving](#), or acceptable equivalent.
- 3. Standard: To BS EN 1338 and BS EN 1339.
- 4. Physical properties
 - 4.1. Colour: Graphite, Mid Grey and Silver.
 - 4.2. Finish: Textured granite aggregate.
 - 4.3. Dimensions and associated tolerances
 - 4.3.1. Nominal sizes: 200 x 100 x 80 mm and 100 x 100 x 80 mm, 20% (Graphite): 20% (Mid grey): 60% (Silver), with perpendicular soldier course of 200 x 100 x 80 mm in Mid-Grey.
 - 4.4. Slip resistance: Extremely low: (>75 USRV).
- 5. Strength: >3.6 MPa.
- 6. Recycled content: Not less than 6%.
- 7. Laying pattern: See Dwg. BMcGP-L-014, L-015, L-016 and L-017.

365 Geotextile sheet

- 1. Description: - BELOW LAYING COURSE
- 2. Manufacturer: Contractor's choice
 - 2.1. Product reference: Contractor's choice

390 Sand/ fine aggregate for unbound laying course and jointing of concrete paving

- 1. Description: To surface Type 2
- 2. Standard: To BS 7533-4, unbound construction laying course and jointing material.
- 3. Purity: Free from deleterious salts, contaminants, lime and cement.
- 4. Procurement: Obtain from one source and ensure consistent grading.

420 Sand/ fine aggregate for laying course of concrete sett paving

1. **Material:** Sand/ fine aggregate for laying courses to BS 7533-4

425 Fine aggregate for jointing concrete sett paving

1. **Material:** Kiln dried jointing sand, complying with BS 7533-3 section D.1.2 and BS EN 12620:2002 GF 85 0/1(FP).
2. **Colour::** Silver Granite

Execution

615 Control samples

1. **Sample areas:** Complete as part of the finished work.
 - 1.1. **Types of paving:** Concrete sett paving
 - 1.2. **Location:** Part of the proposed paving works, exact location to be agreed with the C.A.
 - 1.3. **Size (minimum):** 3.0 x 3.0 m
 - 1.4. **Included features:**
 - Kerb and PCC sett paving.
2. **Approval of appearance and surface:** Obtain before proceeding.

620 Adverse weather

1. **General**
 - 1.1. **Temperature:** Do not lay or joint paving if the temperature is below 3°C on a falling thermometer or below 1°C on a rising thermometer.
 - 1.2. **Frozen materials:** Do not use. Do not lay bedding on frozen or frost covered bases.
2. **Paving with mortar joints and/ or bedding**
 - 2.1. **Protect from frost damage, rapid drying out and saturation until mortar has hardened.**
3. **Paving laid and jointed in sand/ fine aggregate**
 - 3.1. **Stockpiled laying course sand/ fine aggregate:** Protect from saturation.
 - 3.2. **Exposed areas of unbound laying course and uncompacted areas of unbound paving:** Protect from heavy rainfall.
 - 3.3. **Saturated unbound laying course:** Remove and replace, or allow to dry before proceeding.
 - 3.4. **Laying dry sand/ fine aggregate jointed paving in damp conditions:** Brush in as much jointing sand as possible. Minimize site traffic over paving. As soon as paving is dry, top up joints and complete compaction.

625 Laying pavings – general

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

630 Levels of paving

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

635 Regularity of paved surfaces

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

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).
 - 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.

640 Colour banding

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

645 Protection

1. **Cleanliness:** Keep paving clean and free from mortar droppings, oil and other materials likely to cause staining.
2. **Materials storage:** Do not overload pavings with stacks of materials.
3. **Handling:** Do not damage paving unit corners, arrises, or previously laid paving.
4. **Mortar bedded pavings:** Keep free from traffic after laying:
 - 4.1. Pedestrian traffic (minimum): 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

1. **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.

660 Drainage holes in existing bases

1. **Location:** Impervious layers of existing road/ paving.
2. **Drainage:** Form regular grid of holes, through base and any additional build up, down to sub-base:
 - 2.1. Spacing in both directions: 1000 mm
 - 2.2. Minimum clear opening: 30 mm
 - 2.3. Do not weaken or excessively disturb road/ paving.
3. **Completion:** Remove jagged or protruding edges. Fill voids with 2-8 mm pea gravel Ram down to form flush smooth surface.

Completion

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

1. **Sand dressing:** Leave a thin layer of dry jointing sand/ fine aggregate over the paving until opened to public access
2. **Final compaction of the surface course:** In accordance with BS 7533-3.
3. **Vacuum cleaning machines:** Not allowed.

Ω End of Section

Q26

Special surfacings/ pavings for sport/ general amenity

Sports surfacing

250 Acrylic coated asphalt surfacing

1. Wearing surface: Spray applied permeable polyurethane and acrylic colour surface coating with anti-slip properties.
 - 1.1. Manufacturer: Sports Coatings Ltd, or acceptable equivalent.
 - 1.1.1. Address: Hawthorn House, Helions Bumpstead Road, Haverhill, Suffolk, CB9 7AA
 - 1.1.2. Website: www.sportscoatings.com/products/sports-cote-excel
 - 1.1.3. Email: info@sportscoatings.com
 - 1.2. Product reference: Sports-Cote Excel
 - 1.3. Colour: White, Standard Blue and Light Blue

Impact attenuating surfacings for play areas

320 Woodchip Play Surfacing - Surface Type 5

1. Description : Surface Type 5
2. Geotextile membrane
 - 2.1. Manufacturer: Contractor's choice
 - 2.1.1. Product reference: Submit proposals
 - 2.2. Jointing: As manufacturer's recommendations
3. Surface course: Engineered Wood Fibre Safety Surface
 - 3.1. Supplier: Submit proposals
 - 3.1.1. Product reference: Submit proposals
 - 3.2. Standard:: To EN 16630:2015.
 - 3.3. Grade: Playground grade woodchips free from dust, pests, disease, weeds, coarse angular fragments and sharp pieces.
 - 3.4. Nominal chip size: 5-30 mm, well graded.
 - 3.5. Long thin slivers and large chunks: Not permitted.
 - 3.6. Ease of ignition: To BS 7188.
 - 3.7. Additives, dyes or any substance harmful to humans or the environment: Not permitted.
 - 3.8. Depth (minimum): 400mm or greater to meet the fall height requirements of the relevant pieces of equipment plus an additional 50mm depth.
4. Submit
 - 4.1. Ease of ignition: Evidence of testing to BS 7188.
 - 4.2. Critical fall height: Evidence of testing to BS EN 1177.

360 In situ synthetic surfacing

1. Description: Surface Type 6
2. Base: To manufacturer's guidelines.
3. Surface course: Permeable wet pour, in situ laid polyurethane bound EPDM rubber bark mulch surface.
 - 3.1. Manufacturer: Ecosurface or equal approved.

- 3.1.1. **Contact Details:** Address: Ecosurface, PO Box 475, Bicester, Oxon, OX26 9NQ, UK
Phone: +44 (0) 1869 45 70 70
E-mail: info@ecosurface.co.uk
- 3.1.2. **Product reference:** Gummibond or equal approved.
- 3.2. **Colour:** Carousel: Coffee
Other areas: Blend of Coffee, Brown and Khaki.
- 3.3. **Depth::** To achieve the required critical fall heights of the relevant pieces of play equipment.
- 3.4. **Content:** 100% recycled rubber shred with zero metal.
- 3.5. **Binder:** Clear Polyurethane with a cure time of 24-72 hours.
- 3.6. **Geotextile:** Submit proposals.
- 3.7. **Health and safety**
 - 3.7.1. **Substance known to be toxic or carcinogenic on skin contact or released as vapour or dust during normal use:** Not permitted.
- 4. **Submit**
 - 4.1. **Resistance to abrasive wear, slip resistance, resistance to indentation and ease of ignition:** Evidence of testing to BS 7188.
 - 4.2. **Critical fall height:** Evidence of testing to BS EN 1177.
 - 4.3. **Sample:** Submit samples for approval of both the Coffee colour and the blend of 3 colours.

Ω End of Section

Q28

Topsoil and soil ameliorants

System outline

115 Topsoil system for turfing and seeding - Grassed areas

1. Description: FOR ALL GRASSED AREAS
2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882 or site-sourced topsoil where suitable and meeting the requirements of the specification.
 - 2.2. Ameliorants: Sanitized and stabilized composted materials certified to PAS 100

145 Planting pit backfilling topsoil system - for trees in soft landscaping

1. Description: FOR ALL TREE PITS IN SOFT LANDSCAPING
2. Composition
 - 2.1. Topsoil: Imported topsoil to BS 3882 or site-sourced topsoil where suitable and meeting the requirements of the specification.
 - 2.2. Ameliorants: Sanitized and stabilized composted materials certified to PAS 100

155 Mulching and top dressing system

1. Description: FOR HEDGEROWS
2. Composition
 - 2.1. Material: Organic materials - Fine bark mulch
3. Source: Enrich Fine Bark Mulch, or acceptable equivalent.

Products

300 Preparation materials generally

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

310 Materials not permitted

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

315 Imported topsoil to BS 3882

1. Description: FOR SEEDED AREAS, PLANTING BEDS, HEDGEROWS AND TREE PITS
2. Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
3. Standard: To BS 3882.
4. Classification: Multipurpose
 - 4.1. Soil textural class to BS 3882, Figure 1: Any class
5. Source: Submit proposals
 - 5.1. Product reference: Submit proposals

360 Sanitized and stabilized composted materials certified to PAS 100

1. Description: FOR GRASS SEEDING, PLANTING BEDS, HEDGEROWS AND TREE PITS
2. Standard: In accordance with PAS 100
3. Source: Submit proposals
 - 3.1. Product reference: Submit proposals
4. Horticultural parameters
 - 4.1. pH (1:5 water extract): 7.0-8.7
 - 4.2. Electrical conductivity (maximum, 1:5 water extract): 200 mS/m
 - 4.3. Moisture content (m/m of fresh weight): 35-55%.
 - 4.4. Organic matter content (minimum): 25%
 - 4.5. Grading (air dried samples): 95% passing 25 mm and 90% passing 10 mm screen mesh apertures
 - 4.6. Carbon:Nitrogen ratio (maximum): 20:1.
5. Texture: Friable.
6. Objectionable odour: Not permitted.
7. Compost Certification Scheme certification: Required
8. Declaration of analysis: Submit.
9. Additional analyses: Not required
10. Samples: Supply 5 kg sample before ordering

401 Organic fertilizers for maintenance

1. Description: FOR GRASS SEEDING, PLANTING BEDS, HEDGEROWS AND TREES
2. Manufacturer/ source: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Standard: In accordance with the Fertiliser Industry Assurance Scheme (FIAS)
4. Purpose: Maintenance fertiliser - March application (15:10:10 spring turf fertilizer)

402 Organic fertilisers to be incorporated into soil/ growing media

1. Description: FOR PLANTING BEDS, HEDGEROWS AND TREE PITS
2. Manufacturer/ source: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Standard: In accordance with the Fertiliser Industry Assurance Scheme (FIAS)
4. Purpose: Establishment fertiliser

405 Pitch fertilisers

1. **Description:** For pitches
2. **Manufacturer/ source:** Submit proposals
 - 2.1. **Product reference:**
 - Immediately post cultivation: Apply pre-seed fertiliser (12-20-12), 40-50 grams per m².
 - One to two weeks post seeding: Apply fertiliser (28-3-15) multigreen, 25-30 grams per m².
 - Five to six months post seeding: Apply fertiliser (28-3-15) multigreen, 25-30 grams per m².
 - NB: Timings and applications may require adjustment to reflect time of sowing.
3. **Standard:** In accordance with the Fertiliser Industry Assurance Scheme (FIAS), or similar body.
4. **Purpose:** Pre-seeding and establishment fertiliser.

Execution

610 Topsoil analysis

1. **Soil to be analysed:** All topsoil, existing on site and imported.
2. **Timing:** Just prior to placement operations to determine levels of fertilizer and ameliorants required.
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. Report detailing soil analyst's recommendations.

620 Importing topsoil

1. **Give notice:** Before stripping topsoil for transfer to site.
 - 1.1. **Notice period:** 7 days

625 Sample loads

1. **Description:** FOR IMPORTED TOPSOIL
2. **Deliver to site a sample load:** of 5 kg
3. **Give notice:** Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
 - 3.1. **Notice period:** 7 days

630 Documentation for imported topsoil

1. **Timing:** Submit at handover.
2. **Contents**
 - 2.1. Full description of all soil components.
 - 2.2. Record of source for all soil components.
 - 2.3. Record drawings showing the location and depth of all soils by type and grade.
 - 2.4. **Declaration of analysis:** in accordance with BS 3882, clause 6 and Table 1.
3. **Number of copies:** Three

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 Required
4. **Number of copies:** Three

650 Notice

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

655 Mechanical tools

1. **Restrictions:** Do not use within precautionary tree protection areas or within 100 mm of plant stems. Do not damage adjacent planting.

660 Grading subsoil

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

675 Preparation of undisturbed topsoil

1. **Standard:** In accordance with BS 4428.

- 1.1. Grading and cultivation: To suit cultivation operations specified in Q30 and Q31.
2. Hard ground: Break up thoroughly.
3. Clearing: Remove visible roots and large stones with a diameter greater than 50 mm.
4. Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
5. Fallow period (minimum): Two months
 - 5.1. Weed control: At appropriate times treat with a suitable translocated nonresidual herbicide. Glyphosate shall not be used in SDCC parks / open spaces..

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: Not required
2. Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

690 Topsoil storage heaps

1. Location: Submit proposals
2. Height (maximum): 1.0 m
3. Width (maximum): 5.0 m
 - 3.1. Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
4. Protection
 - 4.1. Do not place any other material on top of storage heaps.
 - 4.2. Do not allow construction plant to pass over storage heaps.
 - 4.3. Prevent compaction and contamination, by fencing and covering as appropriate.

700 Grading of topsoil

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

705 Handling topsoil

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

710 Spreading topsoil - Grassed areas

1. Description: GRASSED AREAS
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: 150 mm
6. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

712 Spreading topsoil - Hedgerows

1. Description: HEDGEROWS
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.
 - 2.1. Depths:: Depths after settlement (minimum): as clauses 710-712.

718 Final cultivation - Grassed areas

1. Description: FOR GRASS SEEDING
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: 100 mm
5. Particle size (maximum): 5 mm
6. Timing: After grading and fertilizing, and within a few days before seeding
7. Weather and ground conditions: Suitably dry.
8. Surface: Leave regular and even.
9. Levels: 50 mm above adjoining paving or kerbs
10. Undesirable material brought to the surface
 - 10.1. Remove visible weeds.
 - 10.2. Remove roots and large stones with any dimension exceeding 50 mm.

718 Final cultivation - Hedgerows

1. Description: FOR HEDGEROWS
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: 100 mm
5. Particle size (maximum): 5 mm
6. Timing: After grading and fertilizing, and within a few days before seeding
7. Weather and ground conditions: Suitably dry.
8. Surface: Leave regular and even.
9. Levels: 25 mm below adjoining wall capping or kerbs
10. Undesirable material brought to the surface
 - 10.1. Remove visible weeds.
 - 10.2. Remove roots and large stones with any dimension exceeding 50 mm.

720 Finished levels of topsoil after settlement

1. Grassed areas in relation to adjoining paving, kerbs or hard surfaces:: Flush
2. Hedgerow areas in relation to adjoining grassed areas, paving, kerbs or hard surfaces:: 50mm below
3. Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
4. Sportsfields: To even levels and within the following permitted deviations:
 - 4.1. From levels or gradients shown on drawings: ± 75 mm.
 - 4.2. From line between boning rods 30 m apart: ± 25 mm.
5. Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
6. Adjoining soil areas: Marry in.
7. Thickness of turf or mulch: Included.

805 Applying soil ameliorant

1. Description: TO SEEDED AREAS
2. Fully incorporate into topsoil to a depth of 100 mm.
3. Application: Spread evenly.
 - 3.1. Timing: Apply prior to cultivation.
 - 3.2. Rate: Dependent upon soil analysis and requirements identified.
4. Other requirements: Submit details of recent chemical and physical analysis before ordering

820 Applying general fertilizer

1. Description: TO SEEDED AREAS
2. Application: Spread evenly, carefully incorporating below mulch materials.
 - 2.1. Timing: Immediately before cultivation.
 - 2.2. Application rate: Dependent upon soil analysis and requirements identified.
 - 2.3. Other requirements: Submit details of recent chemical and physical analysis before ordering.

825 Applying fertilizer to proposed grass areas

1. Description: TO SEEDED AREAS
2. Application: Before final cultivation and three to five days before seeding/ turfing.
3. Coverage:
4. Spread evenly, in transverse directions.
 - 4.1. Rate: Dependent upon soil analysis and requirements identified.

845 Applying loose mulch

1. **Description:** FOR TREES AND HEDGEROWS
2. **Timing:** Immediately after planting
3. **Preparation:** Clear all weeds. Ensure that soil is thoroughly moistened, applying water where necessary.
4. **Weed control membrane:** Install and peg down a weed control fabric
 - 4.1. **Material:** Black woven polypropylene, 100g/m2.
5. **Coverage of mulch (minimum)**
 - 5.1. **Trees:** 75mm depth and 600mm radius
6. **Finished level of mulch:** 30mm below adjacent grassed or paved areas

Completion

905 Applying maintenance fertilizer to soil

1. **Description:** TO TREE PITS AND HEDGEROWS
2. **Duration:** Carry out the following operations from completion of seeding/ turfing until the end of the rectification period.
3. **Time of year:** March or April
4. **Application:** Evenly spread, carefully incorporating below mulch materials.
5. **Rate:** To suit soil report recommendations

910 Applying maintenance fertilizer to grass swards

1. **Description:** TO ALL GRASSED AREAS
2. **Duration:** Carry out the following operations from completion of seeding/turfing until the end of the rectification period.
3. **Time of year:** March or April
4. **Application:** Evenly spread, carefully incorporating below mulch materials.
5. **Rate:** To suit soil report 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):** 75 mm

Ω End of Section

Q30

Seeding/ turfing

General information/requirements

115 Seeded and turfed areas

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

120 Climatic conditions

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

145 Watering

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

150 Water restrictions

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

160 Notice

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

170 Setting out

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

Preparation

210 Herbicide

1. **Description:** FOR ALL SEEDED AREAS
2. **Type:** Suitable for suppressing perennial weeds. Contractor to submit proposals for approval. Glyphosate shall not be used in SDCC parks / open spaces.
3. **Timing:** Allow fallow period before cultivation.
 - 3.1. **Duration:** As manufacturer's recommendation

212 Seed bed cleaning before sowing

1. **Description:** ALL SEEDED AREAS
2. **Operations:** Kill pernicious weeds with selective contact herbicide, as seed supplier's recommendations.

220 Pitch Preparation

1. **Description:** Pitch Area
2. **Operations:**

At a minimum, once all vegetation has died off, the surface is to be power harrowed to provide a clean, relatively level soil surface and then grade boxed to ensure a good level surface. The surface will then be top-dressed with 6mm of Wexford sand and hollow cored to aid with the surface final preparation and dilute the topsoil for good surface drainage.

250 Soil requirements

1. **Type**
 - 1.1. **Seeded areas:** As section Q28

Seeding

310 Grass seed - amenity grass

1. **Description:** AMENITY GRASS
2. **Supplier and Reference:** McGuinness Seeds - Low Maintenance Grass Seed Mixture, or acceptable equivalent.
3. **Contact Details:** Tel: 041 982 4142, Email: info@mcguinnessseeds.com, Address: McGuinness Seeds Ltd., Grangegeeth, Slane, Co. Meath
4. **Mixture:** 30% Creeping Red Fescue, 30% Slender Creeping Red Fescue, 20% Chewings Fescue, 10% Smooth Stalk Meadow Grass, 10% Highland Browntop Bent
5. **Application rate:** 50 g/m²

312 Grass seed - Meadow Grass

1. **Description:** MEADOW GRASS - Only for Meadow Grass areas disturbed by works, all other meadow grass areas to be developed through maintenance and not seeding.
2. **Supplier and Reference:** : McGuinness Seeds, Parkland Grass Seed Mixture, or acceptable equivalent.
3. **Contact Details:** Tel: 041 982 4142, Email: info@mcguinnessseeds.com, Address: McGuinness Seeds Ltd., Grangegeeth, Slane, Co. Meath
4. **Mixture:** 15% Timothy Meadow Fescue, 20% Slender Creeping Red Fescue, 20% String Creeping Red Fescue, 20% Hard Fescue, 20% Smooth Stalk Meadow Grass, 5% Highland Browntop Bentgrass
5. **Application rate:** 20 g/m²

313 Grass seed - Sports Pitches Grass

1. **Description:** FOR SPORTS FIELDS
2. **Supplier and Reference:** McGuinness Seeds, or acceptable equivalent.
3. **Contact Details:** Tel: 041 982 4142, Email: info@mcguinnessseeds.com, Address: McGuinness Seeds Ltd., Grangegeeth, Slane, Co. Meath
4. **Mixture:** 40% greenway dwarf perennial rye grass, 40% Adagio dwarf perennial rye grass, 20% double tetraploid perennial rye grass

5. **Application rate:** Sown at a minimum rate of 45 g/m² in two passes (minimum 22.5g/m² per pass) across the full area.
6. **Pre-seeding fertiliser:** 12-20-12 fertiliser at 40-50g/m²
7. **Rolling:**
 - The surface of the pitches will be top-dressed with 6mm of Wexford sand to aid with the surface final preparation and dilute the topsoil for good surface drainage.
 - The completed areas will be lightly rolled after sowing to ensure good soil /seed contact and rolled again after the seed germinates and reaches approximately 20mm of its height.

314 Grass seed - SuDS Basin Grass

1. **Description:** FOR SUDS BASIN
2. **Supplier and Reference:** McGuinness Seeds, or acceptable equivalent.
3. **Contact Details:** Tel: 041 982 4142, Email: info@mcguinnessseeds.com, Address: McGuinness Seeds Ltd., Grangegeeth, Slane, Co. Meath
4. **Mixture:** 70% Strong Creeping Red Fescue, 20% Smooth Stalked Meadow Grass, 10% Creeping Bent
5. **Application rate:** 25 g/m²

319 Quality of seed

1. **Description:** FOR ALL GRASSED AREAS
2. **Freshness:** Produced for the current growing season.
3. **Certification:** Blue label certified varieties.
 - 3.1. **Standard:** EC purity and germination regulations.
 - 3.2. **Official Seed Testing Station certificate of germination, purity and composition:** Submit when requested.
4. **Samples of mixtures:** Submit when requested.

330 Sowing

1. **General:** Establish good seed contact with the root zone.
2. **Method:** To suit soil type, proposed usage, location and weather conditions during and after sowing
 - 2.1. **Distribution:** 2 equal sowings at right angles to each other
 - 2.1.1. **Sports Pitches:** 4 equal sowings

335 Grass sowing season

1. **Grass seed generally:** April to October, taking account of advice from seed supplier.

340 Pre-emergent herbicide

1. **Description:** FOR ALL SEEDED AREAS
 - 1.1. **Exclusion Zones:** Exclusion zone to watercourses, including appropriate 50m offset .
2. **Standard:** Pesticide Safety Directorate approved. Glyphosate shall not be used in SDCC parks / open spaces.
3. **Application rate:** In accordance with manufacturer's written recommendation.
 - 3.1. **Timing:** Immediately after sowing.

352 Edges to seeded areas

1. **Description:** ADJACENT TO TREE PITS AND HEDGEROWS
2. **Timing:** After seeded areas are well established.

3. Edges: Clean straight lines or smooth curves.
 - 3.1. Mulch and soil: Draw back to permit edging.
4. Arisings: Remove.
5. Completion: Respread soil and mulch.

Protecting/cutting

530 First cut of amenity grassed areas and play areas

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

590 Cleanliness

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

Maintenance

610 Failures of seeding/ turfing

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

620 Maintaining

1. Description: AMENITY GRASS AREAS
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: 50 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: Mulch and spread evenly over cut areas
6. Trimming: All edges.
 - 6.1. Arisings: Remove.
7. Weed control: Substantially free of broad leaved weeds.
 - 7.1. Method: Hand pulling.
8. Stones brought to the surface: Remove regularly.
 - 8.1. Size: Exceeding 25 mm in any dimension.
9. Areas of settlement: Make good.

10. Watering: When instructed

650 Maintaining meadow grassed areas

1. 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: June/ July
 - 3.2. Height of first cut: 100 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: 100 mm
5. Trimming: All edges.
 - 5.1. Arisings: Remove.
6. Watering: When instructed

Ω End of Section

Q31

External planting

General information/ requirements

112 Site clearance generally

1. **General:** Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
2. **Stones:** Remove those with any dimension exceeding 50 mm.
3. **Contamination:** Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
4. **Vegetation:** Clear scrub to ground level by flail mowing and remove arisings; retain and protect trees indicated on drawings
5. **Large roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.
6. **Additional requirements:** Remove all other items as approved by CA in location of grass seeding areas.

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.

130 Mechanical tools

1. **Restrictions:** Do not use within precautionary protection areas of trees to be retained or 100 mm of new tree and plant stems.

145 Watering

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

150 Water restrictions

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

160 Notice

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

170 Soil requirements

1. Type
 - 1.1. Planted beds: Planting bed soil system, as section Q28
 - 1.2. Hedgerows: Hedgerow soil system, as section Q28
 - 1.3. Tree pits, shrub pits and other backfilling: Plant pit backfilling soil 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 relevant parts of BS 3936 The National Plant Specification
7. Species: True to name.
8. Origin/ Provenance: Only the origins/provenances in Table 8.6 of the Forestry Standards Manual will be approved.

The Contractor must check with, and seek written approval from, the Forest Service before purchasing plants with origins/provenances other than those listed and registered material in a category "Source Identified". Generally the First Choice for all woodland tree species should be 'Registered Irish material'.
9. Definition: Origin and Provenance have the meaning given in the National Plant Specification.
10. Plant Passports: Copies of all plant passports must be supplied to the client for all relevant trees and plants.

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).

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: Type of container and country of origin.
3. **Plant Passports:** Copies of full Plant Passports to be provided for each plant.

255 Plants/ Trees reserved at supplier's premises

1. **Types/ Species:** All.
2. **Predelivery inspection:** Give notice.
3. **Labelling:** Identify inspected plants/ trees as reserved for use on this project.

260 Plant/ Tree substitution

1. **Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering:** Submit alternatives, stating:
 - 1.1. Price.
 - 1.2. Difference from specified plants/ trees.
2. **Approval:** Obtain before making any substitution.

265 Plant handling, storage transport and planting

1. **Standard:** To CPSE 'Handling and establishing landscape plants'.
2. **Frost:** Protect plants from frost.
3. **Handling:** Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
4. **Plant packaging:** Black polyethylene bags
5. **Packaging of bulk quantities:** Pallets or bins sealed with polyethylene and shrink wrapped
6. **Planting:** Upright or well balanced with best side to front.

280 Treatment of tree wounds

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

285 Protection of existing grass

1. **General:** Protect areas affected by planting operations using boards/ tarpaulins.

- 1.1. Excavated or imported material: Do not place directly on grass.
- 1.2. Duration: Minimum period.

290 Surplus material

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

Preparation of planting beds/ planting materials

300 Herbicide

1. Description: TO CLEAR EXISTING VEGETATION
2. Locations: For all seeded areas.
3. Type: Suitable for suppressing perennial weeds. Glyphosate shall not be used in SDCC parks / open spaces.
4. Timing: Allow fallow period before cultivation.
 - 4.1. Duration (minimum): As manufacturer's recommendation

305 Weed control

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

385 Bark Mulch

1. Description: TO TREES AND HEDGE
2. Manufacturer: Enrich, or acceptable equivalent
 - 2.1. Product reference: Fine Bark Mulch, or acceptable equivalent.
3. Type: 75mm depth of fine bark mulch
4. Timing: Lay after planting.
5. Watering: Water soil thoroughly before laying.

Planting shrubs/ herbaceous plants/ bulbs

445 Manually Planting bulbs/ Corms/ Tubers

1. Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
2. Naturalized planting in existing grassed areas
 - 2.1. Planting: Neatly remove a plug of turf and replace after planting.

450 Mechanically Planting bulbs/ Corms/ Tubers

1. Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
2. Naturalized planting in existing grassed areas
 - 2.1. Planting: Bulbs to be spread across full specified area in a naturalised pattern and not noticeably linear and at the specified densities.
 - 2.2. Limitations and hazards: Machine operator to be aware of slope profiles in relation to machine limitations.
 - 2.3. Compaction and Rutting: Rutting of ground and compaction is not acceptable.

470 Hedges

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

471 Naturalized hedges

1. **Planting:** In trenches large enough to take full spread of roots. Set out plants evenly.

480 After planting

1. **Watering:** Immediately after planting, thoroughly and without damaging or displacing plants or soil.
2. **Firming:** Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
3. **Top dressing:** Mulching and top dressing system, as paragraph 385 and section Q28.
 - 3.1. **Depth:** 75 mm depth of fine bark mulch

Planting trees

500 Tree planting

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

505 Tree pits

1. **Sizes:** 500 mm wider than, and the same depth as the rootball
2. **Sloping ground:** Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
3. **Excavated material:** Separate topsoil and subsoil material and stockpile for backfilling.
4. **Pit bottoms:** Excavate with slightly raised centre: Break up base to a depth of 150 mm.
5. **Pit sides:** Scarify.
6. **Backfilling material:** Topsoil, as section Q28 for tree pits in Soft Landscaping.

526 Underground guying for:

1. **Description:** ALL TREES
2. **Manufacturer:** [GreenBlue Urban Ltd](#) (Greenleaf Ireland) or equal approved
 - 2.1. **Contact details**
 - 2.1.1. **Address:** Ivy House
24a Church Road
Londonderry
Ireland BT47 3QQ
 - 2.1.2. **Telephone:** +44 (0)28 7134 5620
 - 2.1.3. **Web:** www.greenblue.com / www.greenleafireland.com
 - 2.1.4. **Email:** sales@greenleafireland.com
 - 2.2. **Product reference:** [Arborguy Root Ball Guying](#)
3. **Type:** SASLCB
4. **Anchoring system:** 3 no timber dead-man anchors
5. **Installation:** Ensure tree is positioned correctly and vertically prior to tightening guy line tensioners.
6. **Training:** Installer to receive training from supplier prior to installation, irrelevant of previous experience. Evidence of training to be provided to ER for approval.

556 Triple staking for underground guying failures

1. **Description:** For trees where the underground guying has not been successful for whatever reason. To be agreed with the ER before installing.
2. **Staking**
 - 2.1. **Position:** Equidistantly around the tree position, min 300mm from the trunk.
 - 2.2. **Driving:** Vertically at least 600 mm.
3. **Height of stakes:** Cut off to approximately 600 mm above ground level
4. **Horizontal bracing:** Rubber belting with spacers, nailed to stakes within 25 mm of top of stake
5. **Tying:** Secure rubber belting around tree stem firmly without causing constriction or chafing. Ensure tree is supported from all directions
6. **Nails for fixing belts and webbing:** To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads

576 Tree pit surfacing – loose fill

1. **Surfacing material:** Mulch, as paragraph 385 and section Q28.
2. **Area:** 600 mm radius circle
3. **Depth:** 75 mm
4. **Watering:** Water soil thoroughly before laying.
5. **Installation:** Ensure the base of the tree stem is kept free from loose filled material.

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 planting maintenance period - 12 months after Practical Completion.
2. **Frequency of maintenance visits:** Monthly during growing season

720 Failures of planting

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

740 Cleanliness

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

750 Planting maintenance generally

1. **Weed control:** Maintain weed free area around each tree and plant.
 - 1.1. **Diameter (minimum):** 600mm radius around the tree trunk.
2. **Precautions:** Ensure that trees and plants are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
3. **Firming up:** Gently firm loosened soil around trees/ plants. Straighten leaning trees/ plants.
4. **Trees:** Spray crown when in leaf during warm weather.

- 4.1. Timing: After dusk.
5. Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
 - 5.1. Broken or missing items: Replace.
 - 5.2. Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
 - 5.3. Ties: Adjust to accommodate growth and prevent constriction or abrasion.
 - 5.4. Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
 - 5.5. Frequency of checks: At each scheduled maintenance visit
6. Watering: As required for healthy establishment, depending on weather conditions

760 Planting maintenance – pruning

1. General: Prune trees to promote healthy growth.
 - 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. Trees: Remulch.
4. Depth (minimum): 75mm

Ω End of Section

Q35 Landscape maintenance

Generally

105 Maintenance objectives

1. Location: Site Area
 - 1.1. Duration: One year (12 months).
 - 1.2. Frequency:
 - Amenity Grass: Minimum of 25 visits per year
 - Meadow Grass: Twice per year
 - Trees and Hedges: Minimum of 12 times (once per month)
2. Aims: Improved landscape visual amenity, establishment of new planting, site safety and cleanliness, and to provide wildlife habitat and increase biodiversity.
3. Restrictions: Public access required at all times.
4. Results: Well maintained amenity areas, adequate establishment of tree and planting beds, and grassed areas.

110 Notice

1. Give notice before
 - 1.1. Application of herbicide.
 - 1.2. Application of fertilizer.
 - 1.3. Watering.
 - 1.4. Each site maintenance visit.
2. Period of notice: 7 days

120 Reporting

1. Report to be provided to the ER after each maintenance visit to include:
 1. Detailing the works carried out.
 2. Any issues encountered and how these were resolved.
 3. Any issues that need the ER/Client's attention.
 4. Minimum of 10 photos showing the works that were carried out.

130 Reinstatement

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

155 Watering

1. Supply: 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

190 Litter

1. **Extraneous rubbish not arising from the contract work:** Collect and remove from site on each site visit.

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.

198 Pesticides

1. The use of pesticides should be avoided if at all possible. Should this not be feasible for some reason the below measures are to be followed. Notice of at least 7 days should be given before the use of any pesticides.
2. Directive 2009/128/EC, establishes a framework to achieve the sustainable use of pesticides ("the SUD") by reducing the risks and impacts of pesticide use on human health and the environment. Statutory Instrument (S.I.) 155 of 2012, gives effect to Directive 2009/128/EC by way of regulating the training and registration requirements for advisors, distributors, equipment inspectors and users of Plant Protection Products (PPPs) in Ireland. Since the 26th November 2015, only a Department of Agriculture, Food and the Marine (DAFM) registered professional user can apply PPPs that are authorised for "Professional Use" regardless of the quantity or the method of application. (Note: Product labels clearly identify where the product is specifically authorised for professional use only)

In order to ensure compliance, all Contractors and Sub Contractors must adhere to the following requirements:

- Any staff who apply PPPs designated as 'Professional Use' on the label, irrespective of method of application or quantity applied must be registered as a Professional User (PU) with DAFM.
- To register as a PU, staff must have an appropriate qualification that is recognised by DAFM and have submitted an application to DAFM via the following website - PRCD - Professional User Registration (agriculture.gov.ie).
- Registration of your staff is not complete until your staff member has been notified by DAFM of their individual PU number. To purchase PPPs, staff must produce their PU number at the point of purchase.
- Professional users must have their pesticide application equipment, i.e., their sprayers (except knapsack/handheld sprayers) inspected and certified by a DAFM-registered Equipment Inspector.
- Sprayers must be calibrated at least once per year.
- Pesticide application records must be kept for at least 3 years of all sprays applied.

- Plant protection product storage requirements must be adhered to by PU.
- Integrated pest management (IPM) must be implemented and records must be maintained that demonstrate how IPM was applied.
- Comply with restrictions of use in sensitive area. Officers of the Pesticide Controls Division of the DAFM may inspect LAs/PUs for compliance with the SUD. During inspection, LAs/PUs may be requested to provide:
 - Training certificates for all staff who apply professional use PPPs.
 - Test certificates for all sprayers used (except knapsack sprayers).
 - Calibration details for all sprayers.
 - Copy of pesticide application records.
 - Copy of IPM records.
 - Information on best management practices in relation to the filling of the sprayer, disposal of remnants, disposal of tank washings, etc, and
 - Specific area risk assessment, as appropriate (see below).

Restrictions on use in sensitive areas

National legislation (Regulation 12 of S.I. No. 155 of 2012 as amended by S.I. 438 of 2019) provides for restricted use of PPPs in specific areas:

- a) Areas used by the general public or vulnerable groups (public parks, hospitals, public schools, public playgrounds etc.),
 - b) Areas designated as "Special Protection Areas" under the Wild Birds Directive;
 - c) Areas designated as "Special Areas of Conservation" under the Habitats Directive.
- Plant protection products should not be used in these areas, unless
- (i) a risk assessment has clearly shown that their use is necessary, and
 - (ii) appropriate risk management measures have been put in place.

Alternative methods such as cultural control measures should always be considered in the first place. In cases where a risk assessment has shown that pesticide use is necessary, low-risk or biological PPPs should be used where possible. If there are no suitable low-risk or biological PPPs, other PPPs may be used but the use of PPPs classified as an acute hazard to the aquatic environment (Hazard class: Aquatic Acute, Category 1) should be avoided where possible.

In all cases involving the use of pesticides in specific areas, the onus of proof will be on the user to show, in a documented risk assessment, that there were no viable alternatives and that appropriate risk management measures were put in place. Risk assessment records may be requested during DAFM inspections.

An example risk assessment is available at:

<https://www.pcs.agriculture.gov.ie/media/pesticides/content/sud/professional/RiskAssessmenttemplateexampleforSpecificareas010422.pdf>

Guidance on best practice measures and responsible pesticide use in public areas is available on our website at the following location –

www.pcs.agriculture.gov.ie/media/pesticides/content/sud/ResponsiblePesticideUsePublicAmenityGardenAreas200217.pdf

Please visit <http://www.pcs.agriculture.gov.ie/sud/professionaluserssprayeroperators/> for more information on the use of PPPs or alternatively, please contact the Pesticide Control Division at pesticideregisters@agriculture.gov.ie.

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. Amenity Grass: Maintain reasonably free from moss, excessive thatch, weeds, frost heave and, worm casts.
 - 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.

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.
2. Mulch: Maintain 600mm radius of 75mm depth of fine bark mulch around the base of all trees.

255 First cut of Pitches

1. Description: SPORTS PITCHES
2. Height of initial growth: 50mm
3. Preparation
 - 3.1. Debris and litter: Remove.
 - 3.2. Stones and earth clods larger than 12 mm in any dimension: Remove
 - 3.3. Rolling: Following stone removal, roll in dry conditions using an approved flat roller.
4. Height of first cut: 40 mm
5. Mower type: Rotary
6. Arisings: Remove from site to a licenced facility.

255 First cut of - All Amenity Grassed Areas and play Areas

1. Description: ALL AMENITY GRASSED AREAS AND PLAY AREAS
2. Height of initial growth: 50 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: 25 mm
5. Mower type: Rotary
6. Arisings: Remove from site to a licenced facility.

262 Mowing sports fields

1. General: Carry out mowing with a well-sharpened cylinder mower. The grass shall not be allowed to grow longer than 35-40mm. During periods of strong growth this may require mowing more than

once a week. Carry out additional mowing with a well-sharpened rotary mower. Allow for every second cut to be carried out with a rotary mower if necessary.

2. **Height of cuts:** 30mm
3. **Frequency:** Carried out weekly to maintain at a length of no more than 40mm and to avoid clumps or piles of grass gathering on the surface at any time.
4. **Arisings:** Remove from site to a licensed facility. Any accumulated clippings shall be raked off immediately after mowing.

265 Mowing amenity grass areas and grassed play areas

1. **Grass height:** Maintain between 25 and 50 mm
2. **Arisings:** Remove
3. **Boundaries:** All boundaries to be strimmed and arisings collected every second grass maintenance visit, minimum 12 times per year. The 'boundaries' include the interface with boundary walls, railings and hedge to the edge of the park, and the interface with the play areas, ball wall, Teenspace and Skatepark.

272 Maintaining meadow grassland areas

1. **Preparation:** Before each cut remove litter and debris.
2. **Height and frequency of cut**
 - 2.1. **Time of cut:** Single cut in October
 - 2.2. **Height of cut:** 100 mm
3. **Trimming:** All edges.
 - 3.1. **Arisings:** Remove.

295 Spiking

1. **Location:** Any areas suffering from water logging or compaction.
2. **Timing:** As necessary to relieve water logging/compaction whilst not contributing to further compaction or rutting.
3. **Operations:** Aerate the soil and improve surface water penetration.
4. **Depth (minimum):** 100 mm or deeper if required.

309 Edges to seeded areas

1. **Location:** Adjacent to planting beds.
2. **Timing:** After seeded areas are well established.
3. **Method:** Cut to clean straight lines or smooth curves. Draw back soil to permit edging.
4. **Arisings:** Remove.

310 Re-forming grass edges

1. **Location:** All 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.

350 Fertilizer – spring application

1. **Type:** Slow release
2. **Application rate:** 60 g/m²

355 Fertilizer – Pitches

1. Type: Sports grade 21-5-6 fertiliser or similar.
2. Application rate: 60 g/m²
3. Frequency: 4-6-week cycle depending on growth.

Shrubs/trees/hedges

500 Establishment of new planting

1. Duration: 1 year (12 months)
2. Weed control
 - 2.1. Method: Keep planting beds clear of weeds by maintaining full thickness of mulch.
 - 2.2. Area: Maintain a weed free area around each tree, radius of 600mm.
3. Watering: As necessary for the continued thriving of all planting and to maintain healthy growth.

502 Establishment of new planting – fertilizer

1. Time of year: March or April.
2. Type: Slow release
3. Spreading: Spread evenly.
 - 3.1. Application rate: 60 g/m²

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
2. Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.

555 Pruning trees and shrubs

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

570 Formative pruning of young trees

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

630 Dead and diseased plants

1. Removal: As soon as possible
2. Replacement: In the next suitable planting season

645 Weed control generally

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

690 Maintenance of loose mulch

1. Thickness (minimum): 75 mm.
 - 1.1. Top up: Twice per year
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 hand weeding.
4. Weed membrane: Inspect and refit weed membrane where required.

695 Fertilizing established trees and shrubs

1. Time of year: During April or May
2. Type of fertilizer: Slow release
3. Application: Spread evenly.
 - 3.1. Rate: 60 g/m²

705 Winter leaf removal

1. Operations: Collect fallen leaves from paved areas.
2. Arisings: Remove

Tree work

810 Tree work generally

1. Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
2. Protection: Avoid damage to neighbouring trees, plants and property
3. 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

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

820 Prevention of wound bleeding

1. **Standard:** To BS 3998.

825 Prevention of disease transmission

1. **Standard:** To BS 3998.

830 Cleaning out and deadwooding

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

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.

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.

Hard landscape areas/fencing

910 Hard surfaces and safety surfacing

1. **Herbicide:** Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings. Glyphosate shall not be used in SDCC parks / open spaces.
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. **Wood chip safety surfacing::** Remove weeds, litter, leaves and debris, and level off. Top up as necessary.
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.

920 Fencing

1. **Fences:** Inspect and repair to maintain as installed.

930 Graffiti removal

1. **Method:** Submit proposals.

940 General:

1. Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for a further 10 years.
2. Provide a schedule of any ongoing maintenance problems experienced during the Maintenance Period.

Ω End of Section

Q40 Fencing

Fencing systems

210 Wooden post and rail fencing

1. **Manufacturer:** Contractor's choice
 - 1.1. **Product reference:** See Dwg. C-005, Detail 5. Submit proposals.
2. **Standard:** To BS 1722-7, type SPR 11/3.
3. **Height:** 1100 mm
4. **Wood:** Sawn softwood timber
 - 4.1. **Sizes:** Posts: 1800x150x75mm
Rails: 3600x38x87mm
 - 4.2. **Treatment:** Pressure treated to provide a 25-year service life.
 - 4.3. **Site applied treatment:** Preservative required to post treatment cutting or drilling.
5. **Maximum centres of posts:** 1.8 m
6. **Method of setting posts:** Driven to a minimum depth of 600 mm
7. **Accessories:** 2no. 100mm flat head round wire galvanised nails driven on the skew for each rail at every post.
Chainlink Gauge: Line Wire - Ø6mm, Aperture 50mm x 50mm, PPC finish, fixed with 40 mm x 4 mm diam. galvanised staples.
8. **Gates:** 1.2m wide weldmesh pedestrian gates, with self closing adjustable hinges and slam plate. Max 50mm clearance at base.
9. **Vehicle access:** Double leaf mesh swing gates as per Paragraph 510 and Dwg. C-005, Detail 6.
10. **Conformity:** Submit manufacturer's and installer's certificates, to BS 1722-7.

340 Steel vertical bar fencing - Bow-in-bar railing

1. **Description::** Bow in Bar Railings
2. **Manufacturer:** Irish Fencing Services, or acceptable equivalent.
 - 2.1. **Product reference:** Bar in Bow Railing, see Dwg. C-005, Detail 1 & 1A.
3. **Standard:** To BS 1722-9.
4. **Height:** To match existing, approx. 1.4m overall, panel height 1325mm.
5. **Verticals:** 20mm diameter round bar to match existing.
6. **Centres of verticals:** 120mm maximum to match existing.
7. **Rails:** To match existing, 2 no horizontal flat rails 50 x 10mm punched for each infill. Bars welded whole way around at each punched hole
8. **Posts:** To match existing, 70 x 70 x 3mm RHS with 200 x 150 x 10mm baseplate and welded steel caps.
9. **Struts:** To match existing, 50x50x3mm fixed to back of post and concreted into ground.
10. **Centres of posts (maximum):** To match existing.
11. **Method of setting posts/ stays/ legs:**
 - Stub Wall Mounted: Post bolted to concrete stub walls with 4no. M10x100 concrete screws. Stay arms set in concrete as per Engineer's drawings and specification.
 - Ground Mounted to Hedge: Posts set in concrete to manufacturer's recommendations. Stay arms set in concrete as per Engineer's drawings and specification.
12. **Finish:** Hot dipped galvanised to BS EN9 ISO 1461:2009 after fabrication and subsequently electrostatically powder coated to BS EN 13438 in a plant complying to EN 1722 Part 16.

- 12.1. Colour: RAL 9005 Black to match existing.
- 13. Fixings: 50x50x5mm angle cleats and 10mm anti vandal bolts and nuts.
- 14. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

341 Steel vertical bar fencing - Bow Railing

- 1. Description:: Bow Railings
- 2. Manufacturer: Irish Fencing Services, or acceptable equivalent.
 - 2.1. Product reference: Bow Railing, see Dwg. C-005, Detail 1.
- 3. Standard: To BS 1722-9.
- 4. Height: To match existing, approx. 1.4m overall, panel height 1325mm.
- 5. Verticals: 20mm diameter round bar to match existing.
- 6. Centres of verticals: 120mm maximum to match existing.
- 7. Rails: To match existing, 2 no horizontal flat rails 50 x 10mm punched for each infill. Bars welded whole way around at each punched hole
- 8. Posts: To match existing, 70 x 70 x 3mm RHS with 200 x 150 x 10mm baseplate and welded steel caps.
- 9. Struts: To match existing, 50x50x3mm fixed to back of post and concreted into ground.
- 10. Centres of posts (maximum): To match existing.
- 11. Method of setting posts/ stays/ legs: Post bolted to concrete stub walls with 4no. M10x100 concrete screws concrete screws. Stay arms set in concrete as per Engineer's drawings and specification.
- 12. Finish: Hot dipped galvanised to BS EN9 ISO 1461:2009 after fabrication and subsequently electrostatically powder coated to BS EN 13438 in a plant complying to EN 1722 Part 16.
 - 12.1. Colour: RAL 9005 Black to match existing.
- 13. Fixings: 50x50x5mm angle cleats and 10mm anti vandal bolts and nuts.
- 14. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

342 Steel vertical bar fencing - Goal Storage Compounds

- 1. Manufacturer: Irish Fencing Services, or acceptable equivalent.
 - 1.1. Product reference: Solid Round Bar Railing, see Dwg. C-008.
- 2. Standard: To BS 1722-9.
- 3. Height: 2,400mm, including 75mm gap to ground at base.
- 4. Verticals: 20 mm diameter round bar, blunt top
- 5. Centres of verticals: 100mm maximum spacing between bars.
- 6. Rails: 50x10 MSF flat rails, base rail 75mm above ground level, top rail 200mm below down of verticals.
- 7. Posts: 80 x 40 x 3mm RHS, 3,000mm overall height (2,400mm above ground, 600mm below ground), 2,750m centres
- 8. Centres of posts (maximum): 2,750m centres
- 9. Method of setting posts/ stays/ legs: Posts embedded 600 mm with minimum 100 mm concrete cover.
- 10. Finish: All steel hot dipped galvanised to BS EN9 ISO 1461:2009 after fabrication and subsequently electrostatically powder coated colour RAL 9005 Black to BS EN 13438 in a plant complying to EN 1722 Part 16. Corrosion class C4 min. of ISO 12944, Qualisteelcoat standard.
 - 10.1. Colour: RAL 9005 Black
- 11. Accessories:
 - 1. Welded steel caps to posts.

- 2.
12. **Fixings:**
 1. 50x50x5MM angle cleats.
 2. M10 x 60 cup sq. bolt with shear off nut.
13. **Gates:** Double leaf swing gates
 - 13.1. **Size:** 7,000mm between posts, 3,470mm wide gates. 2,325mm high
 - 13.2. **Frame:** 80x80x3mm SHS
 - 13.3. **Intermediate Supports:** 80x40x3mm RHS
 - 13.4. **Fixings:**
 1. Corner gussets
 2. 180° open 32x150mm adjustable hinges with anti lift secure bolt and shear off nut
 - 13.5. **Accessories:**
 1. 20mm diameter M.S. lockable drop bolts to both gates.
 2. 42mm diameter CHS drop bolt receivers at closed position and required in open positions at agreed position on site.
 3. Shoot bolt locking system.
 4. Gate stop.
 - 13.6. **Posts:** 200x200x6.3 SHS, 3,200mm overall height (2,400mm above ground, 800mm below ground).
 - 13.7. **Method of setting posts:** Posts embedded 800 mm with minimum 100 mm concrete cover.
14. **Conformity:** Submit manufacturer's and installer's certificates, to BS 1722-9. Specialist shop drawings to be submitted for approval of CA prior to placing orders.

Gates, posts and stiles

510 Dog Park Gates

1. **Manufacturer:** Irish Fencing, or acceptable equivalent
 - 1.1. **Product reference:** Leaf Mesh Gates, see Dwg. C-005, Detail 6.
2. **Size:**
 - Vehicular Gates: Double Gates, 1,100mm high x 1,900mm wide each, overall 4,000mm between posts.
 - Pedestrian Gates: 1,100mm high x 1,000mm wide each, overall 1,100mm between posts
3. **Materials:** Steel gate and posts - 60x60x3mm SHS gate frame, with 656 Kinsale mesh infill.
 - 3.1. **Treatment:** Hot dipped galvanised to BS EN9 ISO 5709:2009 after fabrication and electrostatically powder coated in RAL 9005 Black in a plant complying to EN 1722 Part 16 .
4. **Fittings:**
 1. Angle cleats
 2. 10mm anti vandal bolts and nuts
 3. Clamp clips for mesh with anti tamper bolts.
 4. 90° open 22x150mm adjustable hinges with anti lift secure bolt and shear off nuts.
5. **Accessories:**
 1. Drop bolts to both vehicle gates with accompanying receivers
 2. Shoot bolt locking system to vehicle gates
 3. Gate stops.
 4. Robust, adjustable automatic closers to pedestrian gates.
6. **Posts:** 100 x 100 SHS, 4,000mm apart for vehicle gates.
100 x 100 SHS, 1,100mm apart for pedestrian gates.

7. **Method of setting posts:** Concrete foundation, 450 mm square x 750 mm deep
8. **Hanging:** Max 50mm above ground level.

530 Kissing gates and posts

1. **Manufacturer:** Irish Fencing Services, or acceptable equivalent.
 - 1.1. **Product reference:** Irfen Kissing Gate, see Dwg. C-004, Detail 5.
2. **Standard:** To BS 5709.
3. **Size:** 1270 x 2785mm x 1100mm high with 1025mm opening
4. **Materials:**
 - 4.1. **Posts:** 100 x 100 SHS
 - 4.2. **Frame:** 100 x 50 RHS, 1270 x 2785mm
 - 4.3. **Infill:** 20ø Solid Roundbar
 - 4.4. **Treatment:** Hot dipped galvanised to BS EN9 ISO 5709:2009 after fabrication.
 - 4.5. **Finish:** Electrostatically powder coated in RAL 9005 Black in a plant complying to EN 1722 Part 16
5. **Fittings:**
 - Welded Cleats with M10 x 80 Cup Square
 - 22mm 90° non adjustable Hinges
6. **Method of setting posts:** Erect posts plumb and level in 25n concrete bases minimum size 350 x 350 x 500mm or as recommended by supplier, set 100mm below ground level

560 Steel

1. **Description:** Vehicle Barrier with bar-in bow railing
2. **Manufacturer:** Irish Fencing or acceptable equivalent.
 - 2.1. **Product reference:** Bow-in-Bar Vehicle Access Barrier, see Dwg. C-005, Detail 2.
3. **Size:**
 - 4,860m between posts, 4,540m gate length.
 - 1,800m overall height with 100mm clear space between base of barrier and ground level.
4. **Frame::** 100x100mm RHS
5. **Vertical braces:** 100x50mm RHS
6. **Posts:** Hanging post: 150x150mm RHS
Locking posts: 2no. 100x100mm RHS
7. **Integral Railings:** 20mm diameter round bar @ 120mm maximum c/c spacings, may be less to suit overall spacing.
8. **Jointing:** Welded.
9. **Fittings:** Two hook and eye adjustable hinges and a lockable latch.
10. **Finish:** Hot dipped galvanised to BS EN9 ISO 1461:2009 after fabrication and subsequently electrostatically powder coated to BS EN 13438 in a plant complying to EN 1722 Part 16.
 - 10.1. **Colour::** RAL 9005 Black
11. **Method of fixing:** As Engineer's drawing.

Execution

710 Installation generally

1. **Set out and erect**
 - 1.1. **Alignment:** Straight lines or smoothly flowing curves.
 - 1.2. **Tops of posts:** Following profile of the ground.

- 1.3. **Setting posts:** Rigid, plumb and to specified depth, or greater where necessary to ensure adequate support.
- 1.4. **Fixings:** All components securely fixed.

715 Competence

1. **Operatives:** Contractors must employ competent operatives.
2. **Qualifications:** Submit certification of training.

720 Setting posts in concrete

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

740 Setting posts in earth

1. **Holes:** Excavated neatly, with vertical sides and as small as practicable to allow refilling.
2. **Filling:** Position posts/ struts and replace excavated material, well rammed as filling proceeds.

750 Driven posts

1. **Damage to heads:** Minimize.
 - 1.1. **Repair:** Neatly finish post tops after installation.

760 Nailed wood rails

1. **Length (minimum):** Two bays, with joints in adjacent rails staggered.
2. **Fixing:** Nail each length of rail to each post with two 100 mm galvanized nails.
3. **Rails with split ends:** Replace.

770 Site cutting of wood

1. **General:** Kept to a minimum.
2. **Below or near ground level:** Cutting prohibited.
3. **Treatment of surfaces exposed by minor cutting and drilling:** Two flood coats of solution recommended for the purpose by main treatment solution manufacturer.

780 Making good galvanized surfaces

1. **Treatment of minor damage (including on fasteners and fittings):** Low melting point zinc alloy repair rods or powders made for this purpose, or at least two coats of zinc-rich paint to BS 4652.
2. **Thickness:** Apply sufficient material to provide a zinc coating at least equal in thickness to the original layer.

790 Site painting

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

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

Gates, barriers and parking controls

191 Water Bottle Filler

1. **Description:** Water Refill Station
2. **Manufacturer:** Water Stations Ireland, or acceptable equivalent.
 - 2.1. **Product reference:** Outdoor Waterstation, or acceptable equivalent.
3. **Material:**
 - Grade 316L Stainless steel, 3mm thickness
 - All wettable surfaces and components - non-metallic, non-leeching and WRAS or equivalent spec.
4. **Height above ground:** 1395mm height, 205mm diameter.
5. **Top:** Angled
6. **Special features:**
 - Antibacterial Coating
 - Solar Powered with solar panel mounted on adjacent lighting column.
 - IR activated sensor contactless operation
 - Backflow Prevention
 - 5 Micron Water Filter
 - Internal Ultraviolet lamp
 - Auto flushing.
 - Automatic shut off after thirty seconds
 - IP67 rated electrical enclosures and cabinets
 - Automatic shutdown option at < 3 degrees Centigrade
 - Customisable usage metrics to include as standard:
 1. Total Volume dispensed per water station to date, per month, per day etc.
 2. Kgs of PET saved from landfill.
 3. Quantity of plastic bottles saved from landfill.
 4. The CO2 offset.
 5. The Social Cost of Carbon in Euros attributable to each Water Station.
 6. A cumulative figure for all of the above showing the total figures over a suite of locations.
 7. White labelling option of your user dashboard.
 8. CSV Usage reports are generated automatically.
7. **Method of fixing:** Bolted to below ground 300mm deep and 204mm diameter sleeve set in concrete foundations to Engineer's details.

198 Signage

1. **Manufacturer:** Submit proposals
 - 1.1. **Product reference:** Submit proposals
2. **Material:** Pole: 76mm diameter galvanised steel tube, 3 mm wall thickness.
Sign: 2.5mm aluminium railed signs, Interpretive Signs to have aluminium flatplate to edges.
3. **Height above ground:** 1,800mm poles
4. **Size:** Interpretive: 1no. 1231 x 400mm - twin pole
Play: 3no. 420 x 594mm - single pole
Skate Park: 2no. 420 x 594mm - single pole

MUGA: 2no. fixed to mesh fencing
Ball Wall: 1no. 420 x 594mm - single pole
Dog Park: 1no. 700 x 400mm - single pole

5. **Graphic:** Graphics for signs to be provided by ER.
6. **Accessories:**
 - Pole caps
 - Rail mounting system complete with 76mm arc clips , nuts and bolts.
7. **Method of fixing:** Root, set in concrete base to Engineer's details.

Site and street furniture

210 Cycle stands

1. **Manufacturer:** Kent Stainless, or acceptable equivalent.
 - 1.1. **Product reference:** Sheffield Cycle Stand, or acceptable equivalent.
2. **Type:** Single stands
3. **Size:** 895mm height x 800mm width.
4. **Material:** Grade 316 stainless steel 48mm diameter tube with a 2mm wall.
 - 4.1. **Finish:** 320 grit polished.
5. **Method of fixing:** Root, set in concrete base to Engineer's details.

225 Seats - Seat Type 1

1. **Manufacturer:** Streetlife, or acceptable equivalent.
 - 1.1. **Product reference:** Rough&Ready 6 Benches
 - 1.2. **Phone:** +44 (0) 20 30 20 1509
 - 1.3. **Email:** enquiriesUK@streetlife.com
2. **Material:**
 - 70x150mm FSC® virgin hardwood beams and backrests
 - Grade 304 stainless steel support system and fixings
 - Corten steel support legs
3. **Size:** As per drawing BMcGP-C-002, Detail 1, 2,340mm length.
4. **Accessories/ Special requirements:**
 - Stainless steel fixtures and fittings.
 - Low backrest and central armrest.
 - Tamper-proof Streetlock® system in SS for easy replacement of beams.
 - FUN-36 in-ground pad foundations.
5. **Method of fixing:** To Manufacturer's details.

226 Seats - Seat Type 2

1. **Manufacturer:** Streetlife, or acceptable equivalent.
 - 1.1. **Product reference:** Rough&Ready Closed Top Seats, see Dwg. C-002, Detail 2.
 - 1.2. **Phone:** +44 (0) 20 30 20 1509
 - 1.3. **Email:** enquiriesUK@streetlife.com
2. **Material:**
 - 70x150mm FSC® virgin hardwood beams and backrests
 - Grade 304 stainless steel support system and fixings
3. **Size:** As per drawing BMcGP-L-017:

- Practice basketball court seating: 2 no. Straight: 2,000mm length x 600mm width, with low backrests as shown on Dwg. BMcGP-L-017.
 - Half Basketball Court: Angled, inner length 900mm in both directions, outer length 1,333mm in both directions, 600mm width, 108° angle, as shown on Dwg. BMcGP-L-017.
 - Skatepark: Angled, inner length 900mm in both directions, outer length 1,383mm in both directions, 600mm width, 102° angle, as shown on Dwg. BMcGP-L-017.
4. **Accessories/ Special requirements:**
- Stainless steel fixtures and fittings.
 - Low backrests as shown on Dwg. BMcGP-C-002, Detail 2.
5. **Method of fixing:** To Manufacturer's details.

227 Seats - Seat Type 3

1. **Manufacturer:** Streetlife, or acceptable equivalent.
- 1.1. **Product reference:** Drifter Benches
- 1.2. **Phone:** +44 (0) 20 30 20 1509
- 1.3. **Email:** enquiriesUK@streetlife.com
2. **Material:**
- FSC® recycled tropical hardwood 300x300mm beams and 300x150mm backrests
 - Corten steel support legs
3. **Size:** As per drawing BMcGP-C-004:
- Type 3a: 3,000mm length x 620mm width
 - Type 3b: 1,200mm length x 620mm width
4. **Accessories/ Special requirements:**
- Stainless steel fixtures and fittings.
 - Low backrests with steel supports and armrest finished with Corten-effect powder coating to Type 3a.
 - FUN-36 in-ground pad foundations.
5. **Method of fixing:** To Manufacturer's details.

228 Seats - Linear Tiered Feature Bench

1. **Manufacturer:** Streetlife, or acceptable equivalent.
- 1.1. **Product reference:** DB-STR-H2-800-160-CT
- 1.2. **Phone:** +44 (0) 20 30 20 1509
- 1.3. **Email:** enquiriesUK@streetlife.com
2. **Material:**
- FSC® recycled tropical hardwood 300x300mm beams
 - Corten steel support legs
3. **Size:** As per drawing BMcGP-C-003, Detail 1: 8,000×1,580×835mm
4. **Accessories/ Special requirements:**
- Stainless steel fixtures and fittings.
 - FUN-36 in-ground pad foundations.
5. **Method of fixing:** To Manufacturer's details.

229 Seats - Angular Corner Tiered Feature Bench

1. **Manufacturer:** Streetlife, or acceptable equivalent.
- 1.1. **Product reference:** DB-STR-H2-M&L-6535-1710
- 1.2. **Phone:** +44 (0) 20 30 20 1509
- 1.3. **Email:** enquiriesUK@streetlife.com

2. **Material:**
 - FSC® recycled tropical hardwood 300x300mm beams
 - Corten steel support legs
3. **Size:** As per drawing BMcGP-C-003, Detail 2: 6,535×1,710×835mm
4. **Accessories/ Special requirements:**
 - Stainless steel fixtures and fittings.
 - FUN-36 in-ground pad foundations.
5. **Method of fixing:** To Manufacturer's details.

240 Litter bins

1. **Manufacturer:** Larkin Engineering, or acceptable equivalent.
 - 1.1. **Product reference:** MK3 Litter Bin 100L
2. **Material:** Pre-galvanized steel body
 - 2.1. **Finish:** 2-pack polyurethane finish
 - 2.2. **Colour:** RAL 9005 Black
3. **Base::** 1.5mm solid steel
4. **Decal::** Punched with backing plate: 'Litter' text, Tidyman symbol and 'Bruscar' text
5. **Accessories/ Special requirements:**
 - Circular opening
 - Apex roof
 - 100 litre galvanised liner
 - Stainless steel hinges
 - Slam lock
 - Anti-corrosion primer, fire & vandal resistant.
6. **Method of fixing:** Floor mounted

243 DJ Post

1. **Manufacturer:** Playnetic, or acceptable equivalent.
 - 1.1. **Product reference:** DJ-Post (Article number: 90008), or acceptable equivalent, see Dwg. BMcGP C-002, Detail 7.
2. **Material:** Steel
 - 2.1. **Finish:** Hot dipped galvanised to BS EN9 ISO 1461:2009 and electrostatically powder coated to BS EN 13438.
 - 2.2. **Colour:** Large detail: RAL 9005
Body: RAL 9006
Small detail: PMS 0821
3. **Method of fixing:** Base plate bolted to precast concrete foundation to Engineer's and Manufacturer's detail.

345 Proprietary sculpture/ landscape art

1. **Supplier:** Vinci Play, or acceptable equivalent.
 - 1.1. **Product reference:** Robinia poles
2. **Material:** Robinia timber, bark removed, sapwood free, K5 sanded finish
3. **Sizes:** 200m diameter, 4.10m, 4.60m and 5.10m heights above ground, 5° once-weathered top
4. **Finish:** Tops to be painted blue (PMS 0821 Light Blue) as per Dwg. BMcGP-C-002, Detail 5.
5. **Method of fixing:** Pole to be seated in pipe, plumbed and wedged into position, as Engineer's detail.

Installation

510 Concrete foundations generally

1. **Standard:** To BS 8500-2.
2. **Concrete:** As per Engineer's details.
3. **Admixtures:** Do not use.
4. **Foundation holes:** Neat vertical sides.
5. **Depth of foundations, bedding, haunching:** Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.

515 Setting components in concrete

1. **Holes:** As per Engineer's details.
2. **Components:** Accurately positioned and securely supported.
3. **Concrete fill:** Fully compacted as filling proceeds.
4. **Concrete foundations exposed to view:** Compacted until air bubbles cease to appear on the upper surface, then weathered to shed water and trowelled smooth.
5. **Temporary component support:** Maintain undisturbed for minimum 48 hours.

520 Setting in earth

1. **Holes:** As small as practicable.
2. **Components being fixed:** Accurately positioned and securely supported.
3. **Buried depth (minimum):** 300 mm
4. **Earth refill:** Well rammed as filling proceeds.

530 Preservative treated timber

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

545 Erection of timber and prefabricated structures

1. **Checking:** 5 days (minimum) before proposed erection date, check foundations, holding down bolts, etc.
2. **Inaccuracies or defects in prepared bases or supplied structures:** Report immediately. Obtain instructions before proceeding.

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.

Ω End of Section

Q52

Play and sports equipment

General

115 Play Equipment - Robinia

1. **Description:** Natural Style Play Equipment
2. **Equipment:** E1: Swing with nest swing x 1 (RB0594)
E2: Swings with Parent & Baby x 1 (RB0542 with RB0520 seat)
E3: Toddler Climbing Unit x 1 (RB1206)
E5: Seesaw x 1 (RB1351)
E6: Embankment Slide x 1 (RB1298)
E6a: Steps to Slide x 10 (RB1235)
E7: Play Table/Slide Platform x 4 (RB13941s)
E9: Single Miniature Zipline x 1 (RB1384)
E10: Rope Swing x 1 (RB0521-1)
E11: Hammock x 1 (RB1347)
E12: Small Climbing Unit x 1 (RB1215)
E13: Large Climbing Unit x 1 (RB1315)
E14: Twin Zipline x 1 (RB1386H)
Or acceptable equivalents.
 - 2.1. **System manufacturer:** Vinci Play or acceptable equivalent
3. **Materials:** : Robinia timber,
Stainless steel,
Steel ropes in polypropylene braid, connected with durable aluminium, stainless steel and/or plastic elements,
Hot-dip galvanized steel construction for swing top frames.
4. **Surfacing:** Engineered Wood Fibre, as section Q26 320.
5. **Standards:** : EN 1176-1:2017
6. **Accessories:** Calibrated stainless steel chains, preventing finger entrapment.
Screws covered with plastic caps and/or stainless steel screws.
Attested, safe seats to swings.

116 Play Equipment - Aeroplane

1. **Equipment:** LE43500U Plane carved out of Douglas timber
 - 1.1. **System manufacturer:** Norna Playgrounds as supplied by Spraoilinn, or acceptable equivalent
2. **Materials:** : Douglas timber.
3. **Surfacing:** Engineered Wood Fibre, as section Q26 320.
4. **Standards:** : EN 1176-1:2017
5. **Accessories:** Screws covered with plastic caps and/or stainless steel screws.

117 Play Equipment - Carousel

1. **Description:** Carousel
2. **Equipment:** E4: Accessible Carousel (PCM157), or acceptable equivalent.
 - 2.1. **System manufacturer:** Kompan or acceptable equivalent
3. **Materials:** :
 - Heavy duty welded carousel chassis of square steel pipes, hot dip galvanized inside and outside.
 - Deck plate of 3mm thick non skid aluminium

- Steel tube rails, hot dip galvanized and powder coated PMS 0821 Light Blue.
 - HPL seat with a thickness of 17.8mm and a unique KOMPAN nonskid surface texture.
4. **Surfacing:** Surface Type 5 (Rubber Bark Mulch), as section Q26 360.
 5. **Standards:** : EN 1176-1:2017
 6. **Accessories:**

Screws covered with plastic caps and/or stainless steel screws.

125 Basketball courts

1. **Description:** FOR 3x3 HALF COURT AND SHOOTING PRACTICE COURT
2. **Equipment:** Basketball post, backboards, hoops and nets as per sections 520 & 521.
3. **Surfacing:** Porous asphalt concrete paving, as per Engineer's Details
4. **Line marking:** White acrylic coated asphalt line marking, as section Q26-250 and to FIBA dimensions as per Dwg BMcGP-C-007.
In court areas to be infilled with a Standard Blue and Light Blue colours as section Q26-250 and Dwg BMcGP-C-007.

140 Multi-use games area

1. **Equipment:** Multi-use games area with two big goals and two integrated baskets and vehicle gate.
 - 1.1. **System manufacturer:** IAE installed by Irish Fencing, or acceptable equivalent.
 - 1.2. **Product Reference::** Duex Ballcourt Mesh Fencing and Goal Ends, or acceptable equivalent as per Dwg. BMcGP-C-007.
 - 1.3. **Enclosure Material:** Galvanized steel to BS EN ISO 1461 , surface finish powder coated in RAL 9005 Jet Black.
Goal mouths to be power coated in white.
2. **Surfacing:** Asphalt with PCC pin kerb edging (Edge 3), as section Q26
 - 2.1. **Line markings:** White acrylic coated asphalt line marking, as section Q26-250 and Dwg BMcGP-C-007. Basketball markings to FIBA dimensions.
3. **Accessories:**
 - Latch and locking mechanism to gates, including lockable drop bolts. Secondary vehicle gate to include a gate stop.
 - Stainless steel nets to basketball hoops, also stainless steel.
 - Floodlighting to Electrical Engineer's specification.
 - Sound deadening rubber washers.
 - Signage - 2no. A1 sized signs with rules and emergency contact details.
4. **Foundations and Fixings:** As per manufacturer's recommendations.

System performance

230 Skatepark design and installation

1. **Design criteria:** Skatepark
 - 1.1. **Population served:** Local and wider community - all ages and capabilities.
 - 1.2. **Frequency of use:** Continuous
2. **Designer and Installer:** Spraoilinn in collaboration with X-MOVE, or acceptable equivalent
 - 2.1. **Spraoilinn contact details:** : Conor Burke
 - Email: conor@spraoilinn.com
 - Phone: 087 624 4620
 - 2.2. **X-Move contact details:** : Andreas Bast
 - Email: a.bast@x-move.net

- Phone: +49 (0) 60 27 / 4 09 33 83 or +49 (0) 1 71 / 7 90 59 06
3. Design parameters:
- 3.1. **Layout:** Please note the initial design layout provided in the tender package is the property of X-MOVE. If an alternative specialist is submitted, a different design achieving the same elements and overall design ethos will need to be submitted for approval.
- 3.2. **Surface type:** 120mm thick concrete slab
1. Strength: 35 N 10 from local supplier.
 2. 1 x layer of reinforced steel mesh (A252) with rebar spacers.
 3. All poured concrete slab to be power floated.
- 3.3. **Asphalt extent:** Minimum 750m²
- 3.4. **Equipment:**
- Street section with banks curbs, ledges, rails and gaps
 - Curved quarterpipe
 - Bank-Hip/Rooftop Ledge
 - Banks/London-Gap/Rail/Quarter
 - Bowl/Waterfalls/Hips/Visor/Extension/Corners
 - Bump
 - Flatrail
- All metal rails, etc to be stainless steel.
- 3.4.1. **Materials:** Concrete with a minimum strength class C35 / 45 and double-layered, with a wall thickness of at least 14cm.
1. Texture: (T3) smooth, closed and largely uniform concrete surface, offset of element joints ≤ 3mm. Frame impression of the formwork element not permitted.
 2. Colour uniformity: (FT2) uniform, large-scale light / dark discoloration.
 3. Flatness: (E3) according to DIN 18202, Table 3, line 6 (5mm to 1m)
 4. Porosity: (P3)
 5. Formwork facing joints: (AF4) no visible joints.
- All steel parts min. 3 mm thickness. Edge protectors, copings, rails and railings to be hot-dip galvanized. Edge protections to be rounded with min. 3 mm, copings and rails 60 mm diameter. Copings to have a superelevation of at least 5mm to max. 20mm, depending on the use and skate element. The ends of square and round rails are to be rounded with min. 3 mm.
- 3.5. **Drainage:** All parts of track to be free draining with no ponding on the concrete, drains and soakaways to be provided as required based on layout.
- 3.6. **Skatepark edges:** Finished with one strip of grass turf.
- 3.7. **Accessories:** A1 size signage to be provided on two galvanised posts.

Products

320 Robinia Logs

1. **Description:** Robinia Logs
2. **Standard:** To BS EN 1176-1.
3. **Manufacturer:** Vinci Play, or acceptable equivalent.
4. **Materials:** Robinia timber poles
5. **Length:** Nominal 1.0m length
6. **Height:** Nominal 1.0m height

7. Width: 15-50cm girth
8. Method of fixing: Set 500mm min. in firm ground.

321 Natural Play Boulders

1. Description: Natural Play Boulders
2. Standard: To BS EN 1176-1.
3. Manufacturer: Submit proposals
4. Materials: Sandstone, rounded glacial, or similar.
 - 4.1. Finish: Smooth and rounded, no sharp edges, slip resistant.
5. Size: Nominal 0.75m-2.0m length x 1.0m max. height
6. Weight: 250-750kg
7. Method of fixing: 25% within ground.

335 Climbing wall

1. Description: Feature Climbing Structure
2. Manufacturer: X-MOVE as supplied by Spraoilinn, or acceptable equivalent
 - 2.1. Product reference: ROX DR1
3. Material: Solid coloured, hand shaped jetcrete/shotcrete structures
4. Size
 - 4.1. Height: 2.8m tallest elements
 - 4.2. Width: 13x16.5m total extents, including safety zones.
5. Finish: Yellow
6. Fixing: Pre formed foundations bases
7. Accessories:
 - Steel ropes and nets in polypropylene braid, connected with durable aluminium, stainless steel and/or plastic elements.
 - Galvanised steel monkey bars

520 Basketball hoop - 3x3 Half Court

1. Description: FOR 3x3 HALF COURT
2. Standard: In accordance with BS EN 1270.
3. Manufacturer: Submit proposals
4. Type: 7
5. Free space: Minimum 1,650mm
6. Overall height: 3,050 mm hoop height
7. Pole: Manufacturer's standard
 - 7.1. Materials: Galvanized steel pole 133 x 4mm, minimum 1.6m overhang
 - 7.2. Finish: Powder coated in RAL 9005 Jet Black
8. Backboard
 - 8.1. Dimensions: 1800x1050mm with FIBA markings
 - 8.2. Materials: 10mm polycarbonate fixed to powder coated steel frame
 - 8.3. Accessories: Support from frame to top corner of backboard required.
9. Ring: Galvanised 20mm smooth rod
10. Net: Stainless steel chain 5mm thick
11. Method of fixing: Set in concrete to manufacturers details.

521 Basketball hoop - Shooting Practice Court

1. **Description:** FOR SHOOTING PRACTICE COURT
2. **Standard:** In accordance with BS EN 1270.
3. **Manufacturer:** OMW Supplies, or acceptable equivalent.
 - 3.1. **Product reference:** IN-GROUND UNIT MODEL 662-330 EURO COURT TRIPLE, or acceptable equivalent.
4. **Pole:** Manufacturer's standard
 - 4.1. **Materials:** Galvanized steel pole 133 x 4mm, minimum 1.6m overhang
 - 4.2. **Finish:** Powder coated in RAL 9005 Jet Black
5. **Backboard**
 - 5.1. **Model:** BACKBOARD MODEL 150, or acceptable equivalent.
 - 5.2. **Dimensions:** 1200x900mm
 - 5.3. **Materials:** 10mm polycarbonate fixed to powder coated steel frame
6. **Ring:** Galvanised 20mm smooth rod
7. **Net:** Stainless steel chain 5mm thick
8. **Method of fixing:** Set in concrete to manufacturers 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.
5. **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:** 250 x 250 x minimum 300 mm deep
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.

730 Setting components in earth

1. **Holes:** As small as practicable.
2. **Components being fixed:** Accurately positioned and securely supported.
3. **Buried depth (minimum):** 300 mm
4. **Earth refilling:** Well rammed as filling proceeds.

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. **Safety:** Regular inspections in accordance with equipment manufacturer's maintenance and inspection instructions, by suitably qualified inspector accredited by the Register of Play Inspectors International (RPiI).
2. **Standard:** Play/Fitness Equipment: To BS EN 1176-1
3. **Timing:** 2 weeks prior to date when work is expected to be practically complete
4. **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:** Play/Fitness Equipment: To BS EN 1176-1
2. Each Works installation will be subject to a Post Installation Inspection by RoSPA, or equivalent certified body, to ensure that the facilities meet current standards and equipment has been correctly installed, comprising checks on:
 - The quality of the installation and equipment finish, including orientation, minimum space requirements, traffic flows, general design safety, general finish and work standards, and recommendations on future inspection and maintenance;
 - All ancillary items for condition, installation, suitability (e.g. Standard compliance where relevant), and safety;
 - Equipment compliance with agreed Standard (e.g. BS EN 1176), correct installation, any missing, damaged or inappropriate parts, and general safety;
 - Surfacing check for correct areas, correct depth for the fall heights involved and correct installation;
 - Risk assessment for risks to users as required by the Safety, Health and Welfare Act 2005 and recommendations for any additional action and special maintenance;
 - Disability Assessment as required by the National Disability Authority Act 1999 and the Disability Act 2005; and
 - Compliance with the Safety, Health and Welfare at Work (Construction) Regulations 2013.

940 Labels

1. **Standard:** Play/Fitness Equipment: To BS EN 1176-1
2. **Labels:** Provide permanent labelling on all types of play equipment.

3. **Location:** Where visible when erected on site.

950 Documentation

1. **Standard:** Play/Fitness Equipment: To BS EN 1176-1
2. **Contents**
 - 2.1. Copies of test reports.
 - 2.2. General product information.
 - 2.3. Installation information.
 - 2.4. Inspection and maintenance information.
3. **Number of copies:** 2
4. **Submission:** 2 weeks prior to date when work is expected to be practically complete

970 Operating tools

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

980 Retensioning ropes

1. **Description:** ON PLAY/FITNESS EQUIPMENT
2. **Timing:** In accordance with equipment manufacturer's maintenance and inspection instructions
3. **Period of notice (minimum):** 3 working days

Ω End of Section

