

## Q35 Landscape maintenance

To be read with Preliminaries/ General conditions.

### GENERALLY

#### 105 MAINTENANCE OBJECTIVES

- Location: Camberwell Green.
  - Duration: One year, three years for trees.
- Aims:
  - Enhanced landscape quality;
  - Improved landscape visual amenity;
  - Provide wildlife habitat and increase biodiversity; and
  - To encourage natural woodland regeneration.
- Restrictions: n/a.
- Results: As scheduled.

#### 110 NOTICE

- Give notice before:
  - Application of herbicide.
  - Application of fertilizer.
  - Watering.
  - Each site maintenance visit.
- Period of notice: 7 days.

#### 130 REINSTATEMENT

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

#### 140 CONTROL OF MAMMALIAN PESTS

- Specialist firms: Submit proposals.
  - Method: Submit proposals.

#### 155 WATERING

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

#### 160 WATER RESTRICTIONS

- 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

- General: Unless specified otherwise, dispose of arisings as follows:
  - Biodegradable arisings: Remove to recycling facility.
  - Grass cuttings: Remove from site.
  - Tree roots and stumps: Remove from site.
  - Shrub and tree prunings: Remove to recycling facility.
  - Litter and nonbiodegradable arisings: Remove from site.

## 180 CHIPPING OR SHREDDING

- General: Not permitted on site.

## 181 MECHANICAL EQUIPMENT

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

## 190 LITTER

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

## 195 PROTECTION OF EXISTING GRASS

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

## 197 CLEANLINESS

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

**GRASSED AREAS**

## 210 MAINTENANCE OF GRASSED AREAS

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

## 220 GRASS CUTTING GENERALLY

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

## 225 TREE STEMS

- Precautions: Do not use mowing machinery closer than 100 mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.

## 235 BULBS AND CORMS IN GRASSED AREAS

- Before flowering: Do not cut.
- Interval between end of flowering and start of grass cutting (minimum): Six weeks.

## 250 LEAF REMOVAL

- Operations: Collect fallen leaves.
- Special requirements: Remove by hand raking.
- Disposal: Remove from site for recycling.

- 265 MOWING GENERAL AREAS
- Grass height: Maintain between 50 and 75 mm.
  - Arisings: Remove from site.
- 309 EDGES TO SEEDED AREAS
- Location: Planting beds and around newly planted trees.
  - Timing: After seeded areas are well established.
  - Edges: Cut to clean straight lines or smooth curves. Draw back soil to permit edging.
  - Arisings: Remove.
- 311 RE-FORMING GRASS EDGES
- Location:
    - Paths;
    - Planting beds; and
    - Service access covers.
  - Standard: To BS 7370-3.
  - Finishing: Damaged parts of turned turf top dressed with suitable soil and seed mix matching the sward.
  - Support: Not required.
- 320 LEVELLING HOLLOWS AND BUMPS IN TURF
- Standard: To BS 7370-3, clauses 12.4 and 12.5.
- 330 SELECTIVE HERBICIDE
- Location: All lawns.
  - Herbicide: Suitable for suppressing perennial weeds, type to be approved before application.
  - Areas not to be sprayed: Bulb and corm planted areas when in leaf and wildflower.
- 340 SPOT WEEDKILLING IN ROUGH GRASS AREAS
- Herbicide: Suitable for suppressing perennial weeds, type to be approved before application.
  - Operations: Spot treat all broad leaved weeds.
- 345 CONTROL OF JAPANESE KNOTWEED
- Operations: Spot treat in June and September during suitable weather conditions and when plants are growing vigorously.
  - Herbicide: Glyphosate.
  - Application: In accordance with the Environment Agency 'Code of Practice for the management, destruction and disposal of Japanese knotweed'.
  - Arisings: In accordance with the Environment Agency 'Code of Practice for the management, destruction and disposal of Japanese knotweed'.
- 350 FERTILIZER - SPRING APPLICATION
- Type: Slow release.
  - Application rate: 60 g/m<sup>2</sup>.

**380 REINSTATEMENT OF DAMAGED LAWNS**

- Damaged turf: Remove to a depth of 40 mm.
- Preparation: Cultivate substrate to a fine tilth.
- Reinstatement: Contractor's choice of returfing or topsoiling and reseeding:
  - Returfing: Quality and appearance to match existing.
  - Reseeding: Fill with fine topsoil to BS 3882 multi purpose class, free from stones, debris and weeds. Reseed with a seed mix to match existing grass in quality and appearance.
- Protection and watering: Provide as necessary to promote successful germination and/ or establishment.

**FLOWER BEDS/ SEASONAL BEDDINGS****460 BEDS OF PERENNIALS OR PERENNIALS AND ANNUALS**

- Plant supports: Stake and tie plants using flower canes.
  - Length: 400 mm.
  - Maintain throughout the growing season.
- Gaps in planting: Refill by replanting.
- Watering:
  - New plants: Before and after planting out.
  - Ongoing: As necessary for the continued thriving of all planting.
- Operations at end of growing season:
  - Trim: Older flowering stems of herbaceous perennials.
  - Remove: Redundant plant supports, litter, debris and arisings.
  - Cultivate: Fork over the soil, taking care not to cause undue disturbance to plants.
  - Top dress: Apply fertilizer at a rate of 60 g/m<sup>2</sup>.

**470 FLOWER BEDS GENERALLY**

- Operations:
  - Remove: Dead flower heads, fallen leaves, litter and debris.
  - Weeds: Thoroughly hand weed.
  - Cultivate: Lightly hoe.
  - Trim: Clip grass edges.
- Fungicide: Not required.
- Insecticide: Not required.

**490 THINNING BY REMOVAL OF SURPLUS PLANTS**

- Plants to be thinned: as required.
- Standard: BS 7370-4, clause 3.5.17.1.
- Timing: Thin when foliage of adjacent plants has begun to touch.
- Roots:
  - Disturbance to adjacent plants: Minimise.
  - Soil: Refill holes with topsoil to leave an even graded surface.
  - Mulch: Maintain mulch as original specification.
- Adjacent plants: Make good any minor damage immediately.
- Plants for retention: Select plants with a strong healthy habit.
- Mature planting density: as planting schedule .

## SHRUBS/TREES/HEDGES

### 500 ESTABLISHMENT OF NEW PLANTING

- Duration: One year, three years for trees.
- Weed control:
  - Method: Keep planting beds clear of weeds by maintaining full thickness of mulch.
  - Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.
- Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
- Watering: When instructed.

### 502 ESTABLISHMENT OF NEW PLANTING - FERTILIZER

- Time of year: March or April.
- Type: Organic.
- Spreading: Spread evenly. Carefully lift and replace any mulch materials.  
Application rate: As manufacturer's recommendations.

### 510 TREE STAKES AND TIES

- Inspection/ Maintenance times: As scheduled and immediately after strong winds.
- Stakes:
  - Replace loose, broken or decayed stakes to original specification.
  - If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.
- Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
  - Where chafing has occurred, reposition or replace ties to prevent further chafing.
- Removal of stakes and ties: During spring when no longer required to support the tree.
  - Fill stake holes with lightly compacted soil.

### 515 TREE GUY WIRES

- Inspection/ Maintenance times: Immediately after strong winds.
- Operations:
  - Replace or resecure loose or missing guy wires.
  - Adjust to suit stem growth and to provide correct and uniform tension.
- Removal: Immediately after strong winds.

### 520 REFIRMING OF TREES AND SHRUBS

- Timing: After strong winds, frost heave and other disturbances.
- Refirming: Tread around the base until firmly bedded.
- 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

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

## 545 PRUNING OF EXCESSIVE OVERHANG

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

## 550 PRUNING OF EXCESSIVE HEIGHT

- Timing: As instructed.
- Operations: Remove excessive height As instructed.

## 555 PRUNING TREES AND SHRUBS

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

## 570 FORMATIVE PRUNING OF YOUNG TREES

- Standard: Type and timing of pruning operations to suit the plant species.
- Time of year: Do not prune during the late winter/ early spring sap flow period.
- Young trees up to 4 m high:
  - 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.
  - Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
- Whips or feathered trees: Do not prune.
- Operatives: Member of the Arboricultural Association.

## 575 PRUNING ORNAMENTAL SHRUBS

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

## 580 PRUNING FLOWERING SPECIES OF SHRUBS AND ROSES

- Time of year:
  - Winter flowering shrubs: Spring.
  - Shrubs flowering between March and July: Immediately after the flowering period.
  - Shrubs flowering between July and October: Back to old wood in winter.
- Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.

**600 TRIMMING RAPIDLY ESTABLISHING HEDGES**

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

**620A REMOVAL OF DEAD PLANT MATERIAL**

- Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems. To be disposed of off site.

**625 CLIMBING PLANTS**

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

**630 DEAD AND DISEASED PLANTS**

- Removal: As soon as possible.
- Replacement: Within two weeks.

**635 REINSTATEMENT OF SHRUB/ HERBACEOUS AREAS**

- Dead and damaged plants: Remove.
- Mulch/ matting materials:
  - Carefully move to one side and dig over the soil, leaving it fit for replanting.
- - Do not disturb roots of adjacent plants.
- Replacement plants:
  - Use pits and plants: To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
  - Additional requirements: None.
- Dressing: Slow release fertilizer:
  - Type: Organic.
  - Application rate: As manufacturer's recommendations.

**645 WEED CONTROL GENERALLY**

- Weed tolerance: Weed to clear ground every two weeks.
- Adjacent plants, trees and grass: Do not damage.

**650 HAND WEEDING**

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

**655 WEED CUTTING BY HAND OR MACHINE**

- Undesirable grass, brambles and herbaceous growth: Cut down cleanly to a maximum height of 25 mm.
- Herbicides: Remove arisings before application.

**657 HERBICIDE TO KILL REGROWTH**

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

- 665 WEED CONTROL WITH WINTER HERBICIDE
- Type: Suitable residual soil acting herbicide.
  - Time of year: Unless otherwise agreed, complete before end of March.
  - Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
- 670 WEED CONTROL WITH SUMMER HERBICIDE
- Type: Suitable foliar acting herbicide.
  - Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
- 675 DIGGING OVER
- General: Dig over beds. Do not damage existing plants, bulbs and roots.  
Depth of dig (minimum): 150 mm.
- 680 SOIL AERATION
- Compacted soil surfaces:
    - Prick up: To aerate the soil of root areas and break surface crust.
    - Size of lumps: Reduce to crumb and level off.
    - Damage: Do not damage plants and their roots.
- 685 SOIL LEVEL ADJUSTMENT
- Level of soil/mulch at edges of beds: Reduce to 50 mm below adjacent grass or hard surface.
    - Arisings (if any): Spread evenly over the bed.
- 690 MAINTENANCE OF LOOSE MULCH
- Thickness (minimum): 50 mm.
    - Top up: as required.
  - Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
  - Weeding: Remove weeds growing on or in mulch by hand weeding.
- 695 FERTILIZING ESTABLISHED TREES AND SHRUBS
- Time of year: During April or May.
  - Type of fertilizer: Slow release.
  - Application: Spread evenly.
    - Rate: As manufacturer's recommendations.
- 705 WINTER LEAF REMOVAL
- Operations: Take down temporary leaf fences. Collect accumulations of drifted leaves from the vicinity and from planting beds.
  - Arisings: Remove to recycling facility.



## TREE WORK

### 810 TREE WORK GENERALLY

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

### 815 ADDITIONAL WORK

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

### 820 PREVENTION OF WOUND BLEEDING

- Standard: To BS 3998, clause 8.

### 825 PREVENTION OF DISEASE TRANSMISSION

- Standard: To BS 3998, clause 9 and Appendix B.

### 835 CUTTING AND PRUNING GENERALLY

- Tools: Appropriate, well maintained and sharp.
- Final pruning cuts:
  - Chainsaws: Do not use on branches of less than 50 mm diameter.
  - Hand saws: Form a smooth cut surface.
  - Anvil type secateurs: Do not use.
- Removing branches: Do not damage or tear the stem.
- 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.
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible.
  - Large branches: Remove only if unavoidable.
    - Remove in small sections and lower to ground with ropes and slings.
- Dead branches and stubs: When removing, do not cut into live wood.
- Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
- Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

### 845 CROWN LIFTING

- Clearances: Remove branch systems to give clearance.
  - Height: 2.5 m above footpaths.
- Removing branches: Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

**850 CROWN THINNING**

- Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches.
- Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown.
  - Quantity: 15 %.
- Cutting: Make no cuts of more than 50 mm diameter.
  - Branches: Cut back to lateral or sublateral buds or branches without leaving stumps.
- Appearance: Leave a uniform and well balanced structure of branches and foliage.

**855 CUTTING TREE ROOTS**

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

**860 REMOVING TREES, SHRUBS AND HEDGES**

- Standards: To BS 3998, Appendix A and Health & Safety Executive (HSE)/ Arboricultural and Forestry Advisory Group Safety Leaflets.
- Existing services: Check for below and above ground services. Give notice if they may be affected.
- Shrubs and smaller trees: Cut down and grub up roots.
- Tree stumps:
  - Removal: Remove mechanically to a minimum depth of 300 mm below ground level.
  - Removal by winching: Give notice. Do not use other trees as supports or anchors.
- Protection: Avoid damage to neighbouring trees, plants and property.
- Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
- Filling holes:
  - Material: Use as-dug material and/ or imported soil as required.
  - Finishing: Consolidate and grade to marry in with surrounding ground level.

**865 BARK DAMAGE**

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

**HARD LANDSCAPE AREAS/FENCING****900 SNOW CLEARANCE**

- Clearance: On reaching a depth of 5 mm.
- Deicing: To footpaths.
  - Material: Rock salt to BS 3247.
  - Timing: On snow reaching a depth of 5 mm.
  - Application rate: Spread evenly at a rate of As manufacturer's recommendations.

**910 HARD SURFACES AND GRAVEL AREAS**

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

**920 FENCING**

- Fences: Inspect and repair to maintain protection against intruders.

**930 GRAFFITI REMOVAL**

- Method: Pressure wash.
- Subsequent treatment: Not required.
  - Finish: n/a.

## Q40 Fencing

To be read with Preliminaries/ General conditions.

### FENCING SYSTEMS

#### 310A RECYCLING STATION ENCLOSURE

- Refer to drawing 1485-G710-DT-00-312
- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Standard: To BS 1722-5, type BW 150.
- Height: As drawing 1485-G710-DT-00-312.
- Wood: Softwood.
  - Treatment: Alkaline Copper Quaternary (ACQ).
  - Finish: Exterior wood stain, as section M60.
- Boards/ rails: As drawing 1485-G710-DT-00-312.
- Posts: As drawing 1485-G710-DT-00-312.
- Centres of posts (maximum): As drawing 1485-G710-DT-00-312.
- Method of setting posts: As drawing 1485-G710-DT-00-312.
- Accessories: As drawing 1485-G710-DT-00-312.
- Conformity: Submit manufacturer's and installer's certificates, to BS 1722-5.

#### 340 STEEL VERTICAL BAR FENCING

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Standard: To BS 1722-9.
- Height: to match existing.
- Verticals: to match existing.
- Centres of verticals: to match existing.
- Posts: to match existing.
  - Finish: Primed ready for site painting.
  - Colour: RAL 9005 jet black.
- Centres of posts (maximum): 2.8 m.
- Method of setting posts/ stays/ legs: As drawing DT-00-311.
- Accessories: None.
- Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

#### 340A EXISTING STEEL VERTICAL BAR FENCING

- Manufacturer: n/a.
  - Product reference: n/a.
- Standard: To BS 1722-9.
- Height: tbc.
- Verticals: tbc.
- Centres of verticals: tbc.
- Posts: tbc.
  - Finish: Primed ready for site painting.
  - Colour: RAL 9005 jet black.
- Centres of posts (maximum): 2.8 m.
- Method of setting posts/ stays/ legs: As drawing DT-00-311.
- Accessories: None.
- Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

## **GATES, POSTS AND STILES**

### **560A STEEL BUTTERFLY GATES POSTS**

- Refer to drawing 1485-G710-DT-00-311
- Manufacturer: Submit proposals.
- Standard:
  - Domestic gates: To BS 4092-1.
  - Steel palisade gates: To BS 1722-12.
- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Materials and workmanship: As section Z11.
- Finish: Primed ready for site painting.
  - Colour: RAL 9005 jet black.
- Jointing: Welded.
- Fittings: to match existing.
- Finish: Primed for painting.
- Method of fixing: As drawing 1485-G710-DT-00-311.
- Accessories: As drawing 1485-G710-DT-00-311.

## **EXECUTION**

### **710 INSTALLATION GENERALLY**

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

### **715 COMPETENCE**

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

### **720 SETTING POSTS IN CONCRETE**

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

### **740 SETTING POSTS IN EARTH**

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

### **750 DRIVEN POSTS**

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

**766 ARRIS RAILS**

- Fixing:
  - Rail end section: Shaped to adequately fill the post mortice or recess.
  - Recessed posts: Rails bolted to each post.
  - Top rails: Fixed at both ends using One 8 mm diameter bolt .
- Rails with split ends: Replace.

**770 SITE CUTTING OF WOOD**

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

**780 MAKING GOOD GALVANIZED SURFACES**

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

**790 SITE PAINTING**

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

**COMPLETION****910 CLEANING**

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

**920 FIXINGS**

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

**930 GATES**

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

## Q50 Site/street furniture/equipment

To be read with Preliminaries/ General conditions.

### 196A TELESCOPIC BOLLARDSF9

- Refer to drawing 1485-G710-DT-00-303
- Manufacturer: Furnitubes or equal and approved ([www.furnitubes.com](http://www.furnitubes.com)).
  - Product reference: TPR600 large round.
- Material: Steel.
  - Finish as delivered: powder coated .
  - Colour: RAL 9005 Jet Black.
- Height above ground: 850mm.
- Special features: none.
- Method of fixing: Concrete base with manufacturer's standard lockable socket.

### SITE AND STREET FURNITURE

### 220 BENCHESF1

- Manufacturer: Lost Art or equal and approved ([www.lostart.co.uk/cartmel.htm](http://www.lostart.co.uk/cartmel.htm)).
  - Product reference: Cartmel bench.
- Material: Cast iron and Wood.
  - Finish: As manufactured.
  - Colour: None.
- Size: As manufactured.
- Accessories/ Special requirements: None.
- Method of fixing: As drawing DT-00-304.

### 220A BENCHESF2

- Manufacturer: Broxap or equal and approved ([www.broxap.com](http://www.broxap.com)).
  - Product reference: Willenhall BX14 4015-BP.
- Material: Steel and Wood.
  - Finish: As manufactured.
  - Colour: None.
- Size: As manufactured.
- Accessories/ Special requirements: None.
- Method of fixing: As drawing DT-00-304.

### 230A PICNIC TABLES F8

- Manufacturer: Broxap or equal and approved ([www.broxap.com](http://www.broxap.com)).
  - Product reference: Springfield BX17 4015 or similar approved.
- Material: Wood.
  - Finish: As manufactured.
  - Colour: None.
- Size: 1.8 m long.
- Accessories/ Special requirements: None.
- Method of fixing: Submerged fixing, anchored into concrete base.

**240 LITTER BINSF3**

- Manufacturer: Broxap or equal and approved ([www.broxap.com](http://www.broxap.com)).
  - Product reference: Derby Double BX50 2550-DD-SS.
- Material: Stainless steel.
  - Finish: As manufactured.
  - Colour: RAL 9005 Jet Black.
- Accessories/ Special requirements: None.
- Method of fixing: As drawing DT-00-303.

**350A BAT BOXB1**

- Manufacturer: Schwegler (<http://www.schwegler-natur.de/>) or equal and approved.
  - Product reference: Bat Box 2F, Schwegler Woodcrete Boxes.
- Material: SCHWEGLER wood-concrete.
  - Finish: As manufactured.
  - Colour: Black, grey front panel.
- Accessories/ Special requirements: Concealed, vandal proof fixings.
- Method of fixing: Tree-mounted.

**350B BIRD BOXB2**

- Manufacturer: Schwegler (<http://www.schwegler-natur.de/>) or equal and approved.
  - Product reference: Nest Box 1B, Schwegler Woodcrete Boxes.
- Material: SCHWEGLER wood-concrete.
  - Finish: As manufactured.
  - Colour: Classic Brown.
- Entrance hole: 32 mm
- Accessories/ Special requirements: Concealed, vandal proof fixings.
- Method of fixing: Tree-mounted.

**INSTALLATION****510 CONCRETE FOUNDATIONS GENERALLY**

- Standard: To BS 8500-2.
- Concrete: to engineer's specification.
- Admixtures: Do not use.
- Foundation holes: Neat vertical sides.
- Depth of foundations, bedding, haunching: Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.

**515 SETTING COMPONENTS IN CONCRETE**

- Holes: 250 x 250 x minimum 300 mm deep.
- Components: Accurately positioned and securely supported.
- Concrete fill: Fully compacted as filling proceeds.
- Concrete foundations exposed to view: Compacted until air bubbles cease to appear on the upper surface, then weathered to shed water and trowelled smooth.
- Temporary component support: Maintain undisturbed for minimum 48 hours.

**530 PRESERVATIVE TREATED TIMBER**

- 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.
- Heavily worked sections: Re-treat.



**550 DAMAGE TO GALVANIZED SURFACES**

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

**560 SITE PAINTING**

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