



LANDSCAPE SPECIFICATION

2004/5025/P

42-44 BELSIZE PARK
LONDON, NW3

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on behalf of
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28 January 2003

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LANDSCAPE SPECIFICATION

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D20 EXCAVATING AND FILLING

To be read with Preliminaries/General conditions.

FILLING**510A HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS:**

- Do not import or 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.

705 DRAINAGE LAYER

Material: Well washed 10mm single size gravel to BS 882 placed on bottom of concrete deck below planted areas.

Depth: 100mm.

707 SOIL SEPARATORS

Material: Synthetic fibre water permeable membrane to prevent fines entering the drainage layer.

Product Reference: Terram 1000 or similar approved.

Laying: Over drainage layer with 100mm turn up at edges of deck structure. Overlaps 400mm minimum.

TOPSOIL AREAS

- 810** GRADE SUBSOIL to smooth flowing contours and to achieve the specified finished levels of the topsoil. Excavate locally as necessary for areas of thicker topsoil. Small planting beds located in general landscape areas may be excavated separately at a later date.

- 820A** LOOSEN SUBSOIL using appropriate method to promote free drainage, when ground conditions are reasonably dry.

840 IMPORTED TOPSOIL FOR all areas

- Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
To BS 3882, grade: General purpose
- Source Local
- Provide a declaration of analysis including information detailing each of the relevant parameters given in BS 3882, clause 6 and table 2 for the grade of topsoil specified.
- Include in the declaration the following additional analyses: *Record of visual examination*
 - *pH*
 - *Electrical conductivity*
 - *Particle size analysis*
 - *Stone content*
 - *Organic matter content*
 - *Total nitrogen*
 - *Phytotoxic & zootoxic metals*
 - *Extractable Phosphorous, Potassium & Magnesium*
 - *Report on suitability of the soil for planting purposes, with advice and recommendations on soil handling, fertiliser, lime and organic applications etc.*
- Other requirements:

850 CONTAMINATION: Unless specified otherwise:

- Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - Corrosive, explosive or flammable
 - Hazardous to human or animal life
 - Detrimental to healthy plant growth.
- In areas to receive topsoil, do not use subsoil contaminated with the above materials.
- Inform the CA if any evidence or symptoms of soil contamination are discovered on the site, or in topsoil to be imported.

- 855 HANDLING TOPSOIL: When moving topsoil within the site, or when stripping topsoil and importing to site:
- If aggressive weeds are present, obtain instructions from the CA before moving topsoil.
 - Select and use plant to minimize disturbance, trafficking and compaction.
 - Avoid contamination by subsoil, stone, hardcore, rubbish or material from demolition work.
 - Keep different grades of topsoil separate from each other when handling and stockpiling.
 - Inform CA where the depth of topsoil is difficult to determine.
 - Minimize multiple handling of topsoil. Use topsoil immediately after stripping wherever possible.
 - Handle topsoil in the driest condition reasonably possible. Do not handle topsoil during or after heavy rainfall or when it is wetter than the plastic limit as defined by BS3882 Annex N2
- 860 SPREADING TOPSOIL
- Remove temporary roads or surfacing before spreading topsoil.
 - Spread over prepared subsoil in layers not exceeding 150 mm and gently firm each layer before spreading the next.
 - Overall minimum depths after firming and settlement to be:
150mm grass areas, 450mm shrub areas
 - Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.
- 880 FINISHED LEVELS OF TOPSOIL after settlement, unless otherwise stated, to be:
- 0 mm above adjoining paving or kerbs,
 - Unchanged within the root spread of existing trees,
 - Not less than 150mm mm below dpc of adjoining buildings,
 - 0 mm higher for shrub areas than for adjoining grass areas,
 - Married-in with adjoining soil areas.

Q30 SEEDING/TURFING

To be read with Preliminaries/General conditions.

GENERAL INFORMATION/REQUIREMENTS

- 110A SUBSOIL/TOPSOIL: At the time of starting the subcontract work, the areas to be seeded/turfed will be covered by:
- subsoil prepared and levelled as necessary by the Main Contractor so that it is in a suitable state for the cultivation operations specified in this section and placement of topsoil by the Landscape Contractor.
- 120 CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable carry out seeding during April to October.
- 130 MACHINES AND TOOLS: Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.
- 140 WATER will be provided by the Main Contractor up to Practical Completion of the Main Contract Works and/or thereafter by the Employer, in each case subject to availability of supply.
- 142 WATERING GENERALLY:
- Obtain CA's approval before using a supply other than potable mains water.
 - Ensure the full depth of topsoil is thoroughly wetted.
 - Use a fine sprinkler or oscillating spray.
- 145 WATERING:
- Water as necessary to ensure the establishment and continued thriving of all seeding/turfing.
- 150 DROUGHT CONDITIONS: If water supply is or is likely to be restricted by emergency legislation:
- Inform CA without delay and ascertain availability and additional cost of second quality water from a sewage works or other alternative source of supply.
 - If seeding/turfing has not been carried out, do not do so until instructed.
 - If seeding/turfing has been carried out, obtain instructions on watering.

- 160 NOTICE TO CA: Make advance arrangements with CA to give him the opportunity of being present during:
Setting out
Application of herbicide
Application of fertilizer
Preparation of seed bed
Seeding or turfing
Each site visit during maintenance period.
- 170 SETTING OUT: Clearly mark boundaries of seeding/turfing areas and obtain approval before starting work.
- 192 APPROVAL OF PESTICIDES
The Contractor shall obtain the approval of the Environment Agency prior to the use of all pesticides on the site due to the proximity of the river.

PREPARATION

- 205 PREPARATION MATERIALS GENERALLY:
- Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
 - Submit to the CA a supplier's certificate for the following materials and obtain approval before ordering or using the materials: n/a
 - The certificate must provide the following information:
Source of supply
Analysis of content
Confirmation of suitability for proposed purpose
Confirmation of absence of harmful substances.
- 210 HERBICIDE:
Apply a suitable type to perennial weeds and allow period of time to elapse as recommended by manufacturer before cultivation.
- 231 PEAT: Do not use peat or products containing peat.
- 250A CULTIVATION:
- Break up any compacted topsoil/subsoil to full depth.
 - Reduce top 100 mm of all topsoil or subsoil (for wild flower areas) to a tilth suitable for blade grading (10 mm down particles).
 - Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.

260 GRADING:

- When topsoil is reasonably dry and workable grade to smooth, flowing contours, with falls for adequate drainage, removing all minor hollows and ridges.
- Unless otherwise stated, finished levels after settlement to be 25 mm above adjoining paving, kerbs, manholes etc.
- Topsoil levels may be adjusted by blade grading ensuring that there is nowhere less than 100 mm of topsoil. If the required levels cannot be achieved by movement of the existing soil, obtain instructions.

275A FERTILIZER: Seven to ten days before seeding/turfing and before final cultivation apply pre-seed 6-9-6 +2%Fe spring fertiliser - e.g. Levington PS5 or similar approved evenly over all areas to be seeded/turfed, at 70g/sq m.

280 FINAL CULTIVATION:

- After grading and fertilizing carry out further cultivation to reduce top 25 mm to a fine firm seed bed with good crumb structure.
- Rake with chain harrow, drag mat or hand rake to a true, even surface, lightly firmed but not over compacted, removing all stones and earth clods more than 50mm mm in any dimension on general areas and 25 mm on fine lawns.
- Extend cultivation into any adjacent existing grass areas to ensure full marrying in of levels.
- Obtain approval of appearance of prepared soil areas before seeding/turfing.

TURFING

400 CULTIVATED TURF FOR all areas

- Supplier and reference: Interseeds or similar approved
- Seed mixture sown: PRO 20 (65% Cert. Lifall or Wilma Chewings Fescue, 25% Cert. Liprosa slender c.r. fescue, 10% Cert. Highland browntop bent).
- Properties of soil used for turf production: -

420 DELIVERY AND STORAGE:

- Take all necessary precautions to avoid drying out and deterioration of turf.
- Arrange supply of turf to avoid excessive stacking.
- Do not stack to a height of more than 1 m.
- Use turf which shows any signs of deterioration without delay or lay out on topsoil and keep moist.

423 SAMPLE TURF: Make arrangements for CA to inspect turf for all areas and obtain approval before delivery.

425 SAMPLE AREA: Lay a sample of 5 sq m of turf for areas in Q30:405A and obtain approval before proceeding. The approved sample may form part of the permanent work.

430 TURFING GENERALLY:

- Lay turf during autumn or early winter at times agreed with CA
- Lay turf within 18 hours of delivery in spring or summer and within 24 hours of delivery in autumn or winter.
- Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Lay turf with broken joints, well butted up, working from planks laid on previously laid turf. Do not stretch turf.
- Use whole turves at edges. Trim to a true line.
- Adjust levels by raking out or infilling with fine soil, and ensuring full contact with the substrate.
- Consolidate by lightly and evenly firming with wooden beaters as the laying proceeds. Do not use rollers.
- Dress turf with finely sifted topsoil/peat/sand and brush well in to completely fill all joints.
- Thoroughly water the completed turf immediately after laying. Check by lifting a corner of turf that water has penetrated to the soil below.

450 NEWLY PLANTED TREES: Neatly cut away turf to a diameter of 800 mm around individual trees and leave soil exposed.

PROTECTING/WATERING/CUTTING

520 WATERING: During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler or oscillating spray to maintain healthy growth.

540A FIRST CUT OF GENERAL AREAS: When grass has grown 50mm high, remove debris, litter and all stones and earth clods larger than 25 mm in any dimension, and when grass is reasonably dry, cut with cylinder mower to 25mm. Remove arisings from site.

590 CLEANLINESS: Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition at Practical Completion and after any maintenance operations.

MAINTENANCE

605 MAINTENANCE: Carry out the following operations from completion of seeding/turfing until individual Plots are sold, or as instructed by the CA.

- 610 FAILURES OF SEEDING/TURFING: Bare areas, areas of dead grass and wild flowers that have failed to thrive, which are apparent during the period stated in clause 605, will be regarded as defects due to materials or workmanship not in accordance with the Contract and must be made good by recultivation and reseeded/returfing at times agreed with the CA.
- 620 GRASSED AREAS:
- ALL TURF AREAS: The height of growth must not exceed 30 mm at any time. Cut as and when necessary to a height of 10-15 mm, using a cylinder mower and remove all arisings.
 - Before each cut remove all litter and debris.
 - At the time of each cut, trim all grass edges round the base of trees, manholes, etc. and remove arisings. Sweep all adjoining hard areas clear of cuttings and remove.
 - Keep the sward substantially free of broad leaved weeds by applying a suitable selective herbicide.
 - Water in accordance with clause(s) 145 & 150
- 690A EDGES TO TURF AREAS: Maintain edges to planting beds and around newly planted trees with a suitable edging tool, to clean straight lines or smooth curves. Draw back soil from edges to permit use of edging shears and remove all arisings.

Q31 PLANTING

To be read with Preliminaries/General conditions.

GENERAL INFORMATION/REQUIREMENTS**118 SOIL CONDITIONS:**

- Cultivate and plant into moist friable soil that is not waterlogged.
- Do not plant into frozen or snow covered soil without prior approval of the CA. Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

120 CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost or strong winds. Plant only during the following periods:

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/October or April/May.
- Herbaceous plants (including aquatic and marginal): September/October or March/April.
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.
- Dried bulbs, corms and tubers: September/October.
- Colchicum (crocus): July/August.
- Green bulbs: after flowering in spring.
- Wildflower plugs: late August to mid November or March/April.

130 MACHINES AND TOOLS: Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.**140 WATER:** will be provided by the Main Contractor up to Practical Completion of the Main Contract Works and thereafter by the Employer, in each case subject to availability of supply.**144 WATERING:**

- Obtain CA's approval before using a supply other than potable mains water.
- Ensure the full depth of topsoil is thoroughly wetted.
- Use a fine rose where appropriate to avoid damaging or loosening plants.

145 WATERING: Water as necessary to ensure the establishment and continued thriving of all planting.

- 150 DROUGHT CONDITIONS: If water supply is or is likely to be restricted by emergency legislation:
- Inform CA without delay and ascertain availability and additional cost of second quality water or other alternative source of supply.
 - If planting has not been carried out, do not do so until instructed.
 - If planting has been carried out, obtain instructions on watering.
- 160 NOTICE TO CA: Provide 7 days notice of the following operations, to give the CA the opportunity of being present:
- Setting out
 - Application of herbicide
 - Application of fertilizer
 - Delivery of plants
 - Planting of shrubs
 - Planting of trees into previously dug pits
 - Watering
 - Each site visit during maintenance period.
- 165 PREPARATION, PLANTING AND MULCHING MATERIALS
- GENERALLY:
- Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life, except as specified elsewhere.
 - Submit to the CA a supplier's certificate for the following materials and obtain approval before ordering or using the materials: n/a
- The certificate(s) must provide the following information:
- Source of supply
 - Analysis of content
 - Confirmation of suitability for proposed purpose
 - Confirmation of absence of harmful substances.

200 TREES/PLANTS GENERALLY:

- Materially undamaged, sturdy, healthy, vigorous, of good shape and without elongated shoots.
- Grown in a suitable environment and hardened off.
- Free from pests, diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants to be bottom worked, unless otherwise specified or approved.
- With balanced root and branch systems, root system and condition in accordance with the relevant part of the National Plant Specification.
- True to name.
- Origin/Provenance: n/a
Origin and Provenance have the meaning given in the National Plant Specification.

215 TREES/PLANTS: Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification.

217 SEMIMATURE TREES: To BS 4043, sizes and other criteria as scheduled.
Supplier: to be approved.

225 BULBS/CORMS/TUBERS:

- Firm, entire, not dried out or shrivelled, visually free of pests, diseases and fungus.
- Remove from packaging immediately. If necessary, store for the minimum period of time in a well ventilated, dark, covered location at 18-21degC, away from vehicle exhausts and fruit.

235 CONTAINER GROWN PLANTS:

- Supplied in a growing medium with adequate nutrients for the plant to thrive until permanently planted.
- Centred in the container, firmed and well watered.
- With root growth substantially filling the container, but not root bound, and in a condition conducive to successful transplanting.
- Grown in the open for at least two months before being supplied.
- Grown in containers with holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

260 SUBSTITUTES: The tender must be based on plants which are available. If specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, submit alternatives with tender, stating price and how they differ from the specification. Such substitutions may not be acceptable and submission of further alternatives may be required. Obtain approval before making any substitution.

265 PLANT/TREE HANDLING STORAGE AND TRANSPORT:

- Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.
- Protect plants/trees from frost.
- Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: black poly bags
- Packaging of bulk quantities: sealed pallets/bins

270 PLANTING GENERALLY:

- Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
- Plant upright or well balanced with best side to front.

280 TREATMENT OF TREE WOUNDS:

- Keep wounds as small as possible and cut cleanly back to sound wood using sharp, clean tools. Set cuts so that water will not collect on cut area.
- Do not apply fungicide or sealant unless instructed by the CA.

290 SURPLUS MATERIAL, including subsoil, stones, debris, wrapping material, canes, ties, temporary labelling and prunings to be removed from site.**PREPARATION OF PLANTING BEDS/PLANTING MATERIALS****300 HERBICIDE:**

- Prevent weeds from seeding and perennial weeds from becoming established, by applying a suitable herbicide. Allow period of time to elapse as recommended by manufacturer before cultivation.

341 PEAT: Do not use peat or products containing peat.**355A SOIL CONDITIONER/AMELIORANT: One of the following spread over shrub/tree areas at 1 cu m of material per 10 sq m prior to cultivation:**

- Composted bark, cocoa sheel or coir.
- Manure: Well rotted horse or farmyard dung but not poultry or pig manure.
- Leaf mould: Well rotted broad leaves from deciduous trees but not ash, poplar or sycamore leaves.
- Other well rotted peat free organic material, subject to approval.

375 CULTIVATION:

- Break up any compacted topsoil to full depth.
- Within a few days before planting, but in suitably dry weather and ground conditions, cultivate top 250 mm of all planting beds, using suitable plant to loosen, aerate and break up the soil into particles of 2-8 mm.
- Leave surface regular and even, with levels as required in section D20 and within +/-50mm of levels specified on drawings.
- Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.
- Do not dig or cultivate within the root spread of trees and shrubs to be retained.

PLANTING SHRUBS/HERBACEOUS PLANTS/BULBS**405A SHRUB PLANTING PITS:**

- Excavate not more than 1 day before planting and retain topsoil for re-use where specified.
Pits to be regularly spaced throughout the planted area, with plants in straight lines set diagonally to the edge of the bed.
Size(s): 150mm wider than roots when fully spread and 200mm deep
- Break up bottoms of pits to a depth of 100mm
- Backfilling material: excavated material

435 GROUND COVER PLANTS: When using climbing plants as ground cover, remove canes or other supports and spread stems, pinning to ground where appropriate to ensure good contact to encourage rooting and early establishment.

445 BULBS/CORMS/TUBERS:

- Plant so that the top of the bulb/corm/tuber is at a depth of approximately twice its height with base in contact with bottom of hole. Backfill with finely broken soil and lightly firm to existing ground level.
- When planting in existing grassed areas neatly remove a plug of turf and replace after planting. Scatter naturalized bulbs/corms/tubers at random over the allocated area and plant where they fall.

465 CLIMBING PLANTS:

- Plant 150 mm clear of wall/fence etc. with roots spread outward. Lightly secure branches to support. Retain canes of plants which are too small to reach supports.
- Climber supports: supply and fix timber trellis approx 1.2m x 0.6m wide for all non self-clinging climbers & 2no. horizontal strands of wire 1.0m long fixed to eyes for self-clinging climbers.

480A AFTER PLANTING:

- Water plants thoroughly immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants.
- Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle cambers and no hollows.

485 MULCHING PLANTING BEDS:

- Material: medium/coarse grade bark mulch, free of pests, disease, fungus and weeds.
- Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds with mulch at 1 cu m of material per 20 sq m.

485A MULCHING ORNAMENTAL BOX HEDGE AREAS:

- Material: grey gravel, fine grade (<5mm), locally sourced, clean and free of any contaminants.
- Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds with gravel in layer 50mm thick.

PLANTING TREES**505 TREE PITS:**

- Excavate with slightly raised centre. Retain topsoil for re-use where specified. In sloping ground, maintain horizontal bases and vertical sides with no less than minimum depth throughout.

Size(s):

NURSERY STOCK TREES

Transplant 300mm dia x 250mm deep

Bush whip and small feathered trees 600mm diameter x 450mm deep

Standard and large feathered trees 900mm dia x 600mm deep minimum, 75mm greater than root system when fully spread.

ADVANCED NURSERY STOCK TREES

Heavy standard/EHS trees 1500mm dia x 900mm depth minimum, 250mm greater than root system when fully spread.

SEMI MATURE TREES

Rootballs up to 1000mm dia x 750mm deep, tree pit 1500 dia x 1000mm deep

Rootballs up to 1500mm dia x 750mm deep, tree pit 2000 dia x 1000mm deep

Rootballs over 1500mm dia x 750mm deep, tree pit 500mm wider and 250mm deeper than rootball.

- Break up bottoms of pits to a depth of 250mm and scarify sides.
- Backfilling material: as clause 585
- Accessories: plastic perforated irrigation pipe to be wrapped around rootball of each semi-mature tree and cut off 20mm above finished levels.

525 SEMIMATURE TREES:

- Prepare roots and transplant to BS 4043 unless specified otherwise.
- Backfilling material: As clause 585.
- Support: Duckbill underground tree anchors to size recommended by manufacturer.

535A STAKING GENERALLY:

- Stakes: Softwood, peeled chestnut, larch or oak, free from projections and large or edge knots and with pointed lower end.
- Nails: To BS 1202:Part 1, galvanized, minimum 25 mm long and with 10 mm diameter heads.

- Minimum stake sizes:

Tree/shrub size/type:	Overall length of stake:	Cross section of stake:
Nursery stock (<1.5m high)	1050mm	50mm
Nursery stock (>1.5m high)	1500mm	75mm
Advanced Nursery Stock	1900mm	100mm

555A SHORT SINGLE STAKING FOR ALL NURSERY STOCK TREES

- Position stake close to tree on windward side and drive vertically at least 300 mm into bottom of pit before planting. Consolidate material around stake during backfilling.
- Length above ground level:

Nursery stock (<1.5m high)	300mm
Nursery stock (>1.5m high)	600mm
Advanced Nursery Stock	900mm
- Secure tree firmly but not rigidly to the stake with rubber tie within 25 mm of top of stake.

575A SHORT DOUBLE STAKING FOR: ADVANCED NURSERY STOCK TREES

- Drive stakes vertically at least 300 mm into bottom of pit on either side of tree position before planting.
Consolidate material round stakes during backfilling.
- Firmly fix cross bar on windward side of tree and as close as possible to stem.
- Secure tree firmly but not rigidly to cross bar with rubber adjustable tie.

585 BACKFILLING MATERIAL: A previously prepared mixture of topsoil excavated from the pit and additional topsoil as required, together with:

- Compost/soil conditioner/ameliorant: Peat free compost at 10% backfill volume per tree pit
- Fertilizer: Compound fertiliser (e.g. Fisons Ficote 270 or similar approved) at 2.0kg per m³

590 MULCHING TREES:

- Material: Coarse bark mulch , free of pests, disease, fungus and weeds.
- Clear all weeds, water soil thoroughly, and mulch around each tree in a circular area 1000mm dia at 1 cu m of material per 20 sq m.

PROTECTING/MAINTAINING/MAKING GOOD DEFECTS**710 MAINTENANCE:**

- Carry out the following operations from completion of planting for a period of 1-year or as instructed by the CA.
- Make visits at approximately monthly intervals during the growing season and as necessary to fulfil the requirements of this specification.

720A FAILURES OF PLANTING:

- Excepting theft or malicious damage after practical completion, any trees/shrubs/plants that have failed to thrive, which are apparent during the period stated in clause 710, will be regarded as defects due to materials or workmanship not in accordance with the Contract.. Unless otherwise instructed they must be replaced by approved equivalent trees/shrubs/plants at the earliest opportunity.
- Replacements must match the size of adjacent or nearby plants of the same species or should match the original specification, whichever is the greater.

740 CLEANLINESS: At completion and at each visit, remove soil and other debris from all hard surfaces and grassed areas and leave the works in a clean tidy condition.

750A PLANTING MAINTENANCE: carry out maintenance of the planted areas as follows:

- Maintain a weed free area around each tree, minimum diameter the larger of 1 m or the surface of the original planting pit. Keep all planting beds clear of weeds, by use of suitable herbicides. Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows, taking care not to reduce depth or effect of mulch.
- Ensure that trees and shrubs are not damaged by the use of mowers, nylon filament rotary cutters and similar powered tools.
- Every 3 months check condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Cut back any damaged bark.
- Spray crown of trees when in leaf during warm weather. Carry out in the evening.
- Prune back dead wood on all plants in accordance with good horticultural practice.
- Maintain mulch to depths specified.
- Remove rubbish/litter from planted areas and maintain in a neat and tidy condition.

760 PLANTING MAINTENANCE - PRUNING: Prune at appropriate times, to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape. Prune trees to favour a single central leading shoot, unless specified otherwise.

765 PLANTING MAINTENANCE - WATERING: Water in accordance with clause(s) 145 & 150 , using a fine rose or sprinkler until full depth of topsoil is saturated.

790 FINAL MULCHING: At the end of the period stated in clause 710:

- Ensure that the soil is thoroughly moistened prior to remulching, applying water where necessary.
- Remulch the whole surface of planting beds as specified in clause 485 at 1 cu m of material per 20 sq m.
- Remulch trees as specified in clause 590 at 1 cu m of materials per 20 sq m.

Q35 LANDSCAPE MAINTENANCE

To be implemented until individual Plots are sold, or as otherwise instructed by CA

GENERALLY

- 110 NOTICE TO CA: Provide 10 days notice of the following operations, to give CA the opportunity of being present:
Application of herbicide
Application of fertilizer
Watering
Each site maintenance visit.
- 130 REINSTATEMENT: Reinstate to original condition and within a reasonable period of time (according to season), any damage or disturbance occurring during the work, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings.
- 140 CONTROL OF MAMMALIAN PESTS: Employ only approved firms and methods.
- 150 WATERING GENERALLY:
- Obtain CA's approval before using a supply other than potable mains water.
 - Ensure the full depth of topsoil is thoroughly wetted.
 - Use a fine rose or low pressure hose where appropriate to avoid damaging or loosening plants.
 - Where necessary, loosen soil or form depressions around the stem base of plants to ensure that water reaches the root zone instead of dispersing on the surface.
- 155 WATERING: Water as necessary to ensure the continued thriving of all planting.
- 170 DISPOSAL OF ARISINGs GENERALLY: unless specified otherwise, dispose of arising from all specified operations by removing from site.
- 190 LITTER COLLECTION: Collect and remove all extraneous rubbish not arising from the contract work and detrimental to the appearance of the site, including paper, packaging materials, bottles, cans, and similar debris.
- 197 CLEANLINESS: Remove soil and arising from hard surfaces and leave the works in a clean, tidy condition after maintenance operations.

GRASSED AREAS

- 210A MAINTENANCE OF GRASSED AREAS: If Contract includes grass within curtilage of individual properties, carry out operations in the following clauses as necessary in order to:
- Maintain grass height within the specified range.
 - Maintain ornamental turf and lawns reasonably free from moss, thatch, weeds, frost heave, worm and mole casts, and with neat well defined edges.
 - Ensure that soil and grass does not become compacted or waterlogged.
 - Maintain grass in a healthy vigorous condition, free from disease, fungal growth, discoloration, scorch or wilt.
 - Repair grassed areas damaged by trampling, abrasion or scalping during mowing.
 - Remove litter and fallen leaves regularly to maintain a neat appearance.
 - Maintain turf in a manner appropriate to the intended use.
- 211 MAINTENANCE OF GRASSED AREAS: Carry out the maintenance operations in BS 7370:Part 3, clause 11 and as specified in the following clauses, appropriate to the relevant categories of turf:
- To achieve the maintenance objectives in BS 7370:Part 3, table 6.
 - Using appropriate mowing methods to BS 7370:Part 3, table 3, to maintain the grass height(s) within the range(s) specified in BS 7370:Part 3, table 1.
- 215 ESTABLISHMENT OF GRASSED AREAS - WATERING: Water in accordance with clause 155.
- 220 GRASS CUTTING GENERALLY:
- Remove litter, rubbish and debris from grassed areas before mowing.
 - Cut to a neat even finish, without rutting or compaction of the surface, especially when ground conditions are soft.
 - Leave edges neat and well defined.
 - Neatly trim all grass edges round the base of lighting columns, manholes, and the like.
 - Sweep adjoining hard areas clear of arisings and remove.
 - Do not cut during periods of drought, or when ground conditions or grass are wet, without the prior agreement of the CA.
- 225 TREE STEMS: Do not allow mowing machinery closer than 100 mm to any tree stem. Avoid damage to tree stems by nylon filament rotary cutters or other mechanical tools.

- 230 GRASS CUTTING MACHINES: must be appropriate to the grass cutting operation required, taking due regard to grass type, mowing specification, ground contour and condition. Machinery is to be well maintained and correctly adjusted to give a clean even cut without damaging the grass.
- 235 BULBS AND CORMS: Where these occur in grassed areas in the locations described or shown on drawings, do not commence the maintenance cutting of bulb planted areas until 6 weeks after they have flowered, or as instructed.
- 250 LEAF REMOVAL: Remove fallen leaves from all areas by sweeping with a motorized vacuum sweeper or rotary brush sweeper.
- 260 MOWING LAWNS: Maintain height of grass between 25 and 50 mm. Cut when necessary using cylinder mower and remove from site all arisings.
- 287 TOP DRESSING TO GRASS AREAS
Apply top dressing of:
9:7:7 Spring/summer turf fertilizer at 40g/sq m or equivalent once in each of April to August. Between September to March apply one application of 5:10:10 Autumn/winter turf fertilizer at 40g/sq m or equivalent. Do not apply if rootzone is dry.
- 310 RE-FORMING GRASS EDGES:
- Re-form edges abutting paths, borders, manhole covers and the like with a suitable edging tool, to clean straight lines or smooth flowing curves. Form a clean edge, sloping slightly back from vertical.
 - Draw back soil from edges to permit the use of edging shears and remove arisings.
- 320 LEVELLING HOLLOWS AND BUMPS IN TURF: Level using the methods in BS 7370:Part 3, clauses 12.4 and 12.5.
- 325 RELIEVING SURFACE COMPACTION IN TURF: Relieve using the methods in BS 7370:Part 3, clause 13.5.
- 330 SELECTIVE HERBICIDE:
- Spray with a suitable selective herbicide.
 - Do not spray wild flower or bulb and corm planted areas.
- 340 SPOT WEEDKILLING: Walk through rough grass areas with a suitable portable applicator and spot treat weeds with a suitable herbicide. Take particular care to treat injurious weeds listed in Weeds Act 1959 and Countryside Act 1981..
- 350A FERTILIZER - SPRING APPLICATION: Apply Sierra 'Agroblen Blue' or similar approved to all shrub and tree areas at 50 g/sq.m.

- 380 REINSTATEMENT OF LAWNS: Reinstate worn areas as follows:
- Remove the damaged turf to a depth of 50 mm, cultivate to a fine tilth and either:
 - returf using turf of a quality and appearance to match existing, or:
 - fill with fine topsoil to BS 3882 premium (or as originally laid) grade, substantially free from stones, debris and weeds, and reseed with a seed mix to match existing grass in quality and appearance.
 - Provide protection and watering to promote successful germination and/or establishment.

SHRUBS/TREES/HEDGES

- 500 ESTABLISHMENT OF NEW PLANTING: During the initial establishment of newly planted trees and shrubs, carry out maintenance of the planted areas as follows:
- 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. Keep planting beds clear of weeds, by hoeing and screefing, removing all weeds. Herbicide treatment will not be accepted. Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows, taking care not to reduce depth or effect of mulch.
 - Spray crown of trees when in leaf during warm weather. Carry out in the evening.
- 510 TREE STAKES AND TIES: Inspect as scheduled and after strong winds , and carry out the following:
- Check stakes for looseness, breaks and decay and replace as necessary to original specification. If a tree with a defective stake has grown sufficiently to become self supporting, inform CA and, if instructed, remove stake(s) and fill the hole(s) with lightly compacted soil.
 - Adjust, refix or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing. Where chafing has occurred, reposition or replace ties to prevent further chafing.
 - Where stakes are longer than half the height of the clear stem of the tree, cut the stake to this height in spring and retie to tree firmly but not tightly with a single tie.
 - Remove redundant tapes, tags, ties, labels and other encumbrances.
 - Remove stakes and ties when no longer required to support tree.
- 515 TREE GUY WIRES: Inspect as scheduled and after strong winds , and carry out the following:
- Replace or re-secure loosened or missing guy wires.
 - Adjust tension of guy wires to suit stem growth and to provide correct and uniform tension.
 - Remove guy wires when instructed

- 520 REFIRMING: Ensure that trees and shrubs remain firmly bedded after strong winds, frost heave and other disturbances. Refirm by treading around the base. 'Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary, and refirmed.
- 540 PRUNING GENERALLY:
- Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.
 - Thin, trim and shape appropriately to each species, location, season, and stage of growth, leaving a well balanced natural appearance.
 - Use clean sharp secateurs, hand saws or other tools approved by the CA. Trim off ragged edges of bark or wood with a sharp knife.
 - Remove branches without damaging or tearing the stem.
 - Keep wounds as small as possible and cut cleanly back to sound wood. Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Prune larger branches neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
 - Notify the CA of any disease or fungus. Do not apply growth retardants, fungicide or sealant unless instructed by the CA.
- 545 PRUNING OF EXCESSIVE OVERHANG: Remove as scheduled any growth encroaching onto grassed areas, paths, roads, signs, sightlines and light fittings.
- 555 PRUNING TREES AND SHRUBS: Except where specified otherwise, prune as recommended by BS 7370:Part 4, clauses 3.6.3 to 3.6.5.
- 570 FORMATIVE PRUNING OF YOUNG TREES:
- Do not prune whips or feathered trees.
 - Do not prune during the late winter/early spring sap flow period, unless specified otherwise.
 - Crown prune young trees up to 4 m high by removing dead branches and reducing selected side branches by one third to preserve a well balanced head, ensuring the development of a single strong leader and the removal of duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
 - Extensive pruning of young trees and any surgery to larger trees must be carried out by a member of the Arboricultural Association or a specialist approved by the CA.

- 575 PRUNING ORNAMENTAL SHRUBS:
- Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
 - Remove all suckers by cutting back level with the source stem or root.
- 580 PRUNING FLOWERING SPECIES:
- Winter flowering shrubs in 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 in early spring to encourage basal growths and a balanced, compact habit.
- 605 TRIMMING SLOWLY ESTABLISHING HEDGES:
- Cut back hard in June and September to encourage bushy growth down to ground level.
 - Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.
- 620 REMOVAL OF DEAD PLANT MATERIAL: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.
- 625 CLIMBING PLANTS:
- Remove excess growth by pruning, to ensure that (in addition to the requirements of clause 545 where relevant) signs, light fittings, doors and windows are kept clear at all times.
 - Attach insecure growth to supporting wires or structures using plastic coated wire.
 - Check and repair as necessary supporting structures of climbing plants.
- 632 REMOVE DEAD PLANTS: as soon as possible, and replace in the next scheduled round of replacement planting.
- 650 HAND WEEDING: Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to trees, plants, mulched surfaces and bulbs and leaving the area in a neat, raked, clean condition.
- 657A HERBICIDE TO KILL REGROWTH: Generally, all weed growth to be cleared by hand but, if instructed by CA, then the Contractor shall:
- Apply a suitable foliar acting herbicide to kill regrowth.
 - Allow the recommended period before clearing arisings.

- 660 TREE AND PLANT STEMS: Do not allow nylon filament rotary cutters or other mechanical tools closer than 100 mm to the stem of any tree or plant. Complete operations close to stems using hand tools.
- 680 SOIL AERATION: Prick up trodden or otherwise compacted soil surfaces using a fork to aerate the soil of root areas. Do not damage plants and their roots.
- 690 MAINTENANCE OF MULCH:
- Top up with same type of mulch to thickness of 50 mm.
 - Sweep up and replace mulch spilling onto adjacent areas and, if not contaminated with weeds or rubbish, return to planted area.
 - Remove weeds growing on or in mulch by hand weeding or herbicide.
- 705A WINTER LEAF REMOVAL:
- Remove leaf fall from paved areas to prevent it becoming a hazard. .
 - Arisings: Remove from site to licensed tip.