

# **Specification for soft landscape works: construction and maintenance**

**New build small concept Premier Inn**

**Buxton**

**SK17 9NW**

***NBS Landscape***

The National Building Specification

The Old Post Office

St Nicholas Street

Newcastle upon Tyne

NE1 1RH

<http://www.thenbs.com/products/nbsLandscape/index.asp>

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## PLANTING SCHEDULE

Refer to the landscape drawing

### Shrub beds

24 no.	<i>Cotoneaster dammeri</i>	20 – 30, C2	2 plants per m <sup>2</sup> , to form part of the bed outside the office as shown on the drawing
18 no.	<i>Euonymus fortunei</i> "Emerald and Gold"	20 – 30, C2	3 plants per m <sup>2</sup> , to form the bed to the east of the existing right of way to the south of the drawing, a gap is to be left for mower access as shown on the drawing
18 no.	<i>Euonymus fortunei</i> "Emerald Charm"	20 – 30, C2	3 plants per m <sup>2</sup> , to form the bed to the west of the existing right of way to the south of the drawing as shown on the drawing
46 no.	<i>Lavandula angustifolia</i> "Hidcote"	20 – 30, C2	3 plants per m <sup>2</sup> , to form the rear of the bed underneath the office window and bedroom windows as shown on the drawing
36 no.	<i>Lonicera pileata</i>	20 – 30, C2	3 plants per m <sup>2</sup> to form a bed on the corner of the footpath to the south east of the site as shown on the drawing
40 no.	<i>Skimmia japonica</i> "Rubella"	20 – 30, C2	3 plants per m <sup>2</sup> , to form the front edge of the bed underneath the office window and bedroom windows as shown on the drawing

### Hedgerows

42 no.	<i>Elaeagnus X ebbingei</i> "Gilt Edge"	40 – 60, C2	2 plants per lin m, to form a 21 m long hedge to the north western boundary of the site
48 no.	<i>Ligustrum ovalifolium</i> "Aureum"	40 – 60, C3	2 plants per lin m, to form a 24 m long hedge to the north eastern boundary of the site

### Trees

1 no.	<i>Acer rubrum</i> "Scanlon"	12 – 14	to be planted as shown on the landscape drawing post-construction when damage cannot occur
1 no.	<i>Betula utilis jacquemontii</i>	Multi-stemmed, container grown, 2.5 – 3.0 m tall	to be planted as shown on the landscape drawing

TBC m <sup>2</sup>	To be laid to turf	Area to be calculated and turfed post-construction when damage cannot occur
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## Q28 TOPSOIL AND GROWING MEDIA

### 310 PREPARATION OF UNDISTURBED TOPSOIL

Standard: In accordance with **BS 4428 - Code of practice for general landscape operations (excluding hard surfaces)**

- Hard ground: Break up thoroughly.
- Clearing: Remove visible roots and large stones with a diameter greater than 50 mm.
- Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
- Fallow period (minimum): One month.
- Weed control: At appropriate times treat with a suitable translocated non-residual herbicide.

### 330 SURPLUS TOPSOIL TO BE RETAINED

- Generally: Spread and level on site:
  - Locations: Throughout the site any areas where topsoil is required for re-profiling/re-grading banks, as directed by CA.
  - Protected areas: Do not raise soil level within root spread of trees that are to be retained.

### 340 IMPORTED TOPSOIL TO BS 3882 Specification for topsoil and requirements for use

- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- Standard: To **BS 3882 Specification for topsoil and requirements for use**
- Grade: General purpose.
- Source: Contractor's choice as approved by CA.
- Submit: Declaration of analysis including information detailing each of the relevant parameters given in BS 3882, clause 6 and table 2.
- Additional analyses: Not required.

### 342 IMPORTED TOPSOIL

- Quantity: Main contractor to provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- Source: Already on site provided by main contractor.
- Size in any dimension (maximum): Main contractor will have removed any stones larger than 50mm but soil to be screened for stones larger than 20 mm.
- Stone content by dry weight (maximum): 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. Remove

### 355 COMPOST

- Standard: In accordance with **BSI PAS 100 - Compost specification**.
- Supplier: Submit proposals.
  - Product reference: Submit proposals.
- Type: Sanitized and stabilized compost.
- Horticultural parameters:
  - pH (1:5 water extract): 7.0-8.7.
  - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
  - Moisture content (m/m of fresh weight): 35-55%.
  - Organic matter (minimum): 25%.
  - Grading (air dried samples): 99% passing 25 mm screen, and 90% a 10 mm screen mesh aperture.
  - Carbon:Nitrogen ratio (maximum): 20:1.
- Texture: Friable.
- Objectionable odour: None.
- Composting Association certification: Required.
- Submit: Declaration of analysis.
- Additional analyses: Not required.



- Samples: Not required.
- Application rate: In accordance with manufacturer's instruction.
- Timing: Apply prior to cultivation.
- Depth – 50 mm depth to ornamental planting beds

### **395 PEAT**

Peat or products containing peat: Do not use

### **690 HANDLING TOPSOIL**

- Aggressive weeds: Give notice and obtain instructions before moving topsoil.
- Plant: Select and use plant to minimize disturbance, trafficking and compaction.
- Contamination: Do not mix topsoil with:
  - Subsoil, stone, hardcore, rubbish or material from demolition work.
  - Other grades of topsoil.
- Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
- Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit as defined by BS 3882, Annex N2.

### **700 SPREADING TOPSOIL**

- Temporary roads/surfacing: Remove before spreading topsoil.
- Layers:
  - Depth (maximum): 150 mm to grass area, 450 mm to shrub area, 800 mm to tree
  - Gently firm each layer before spreading the next.
- Depths after firming and settlement (minimum): 150 mm to grass area, 450 mm to shrub area.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

### **705 SPREADING TOPSOIL**

- Temporary roads/surfacing: Remove before spreading topsoil.
- Layers:
  - Wildflower Areas no topsoil required
  - Seeded / Turf areas: 150mm unless otherwise specified in Section Q30
  - Groundcover planting areas: 350mm
  - Ornamental shrub planting areas: 450mm
  - Depth to tree pits: as specified in section Q31
  - Gently firm each layer before spreading the next.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

### **710 LOOSE TIPPING OF TOPSOIL**

- General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.
- Depths after settlement (minimum): as above Clause 700.

### **910 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT**

- Above adjoining paving or kerbs: 25 mm.
- Below dpc of adjoining buildings: Not less than 150 mm.
- Shrub areas: Higher than adjoining grass areas by 50 mm.
- Within root spread of existing trees: Unchanged.
- Adjoining soil areas: Marry in.
- Thickness of turf or mulch: Included.



## Q30 SEEDING AND TURFING

### General information and requirements

#### 115 SEEDED AND TURFED AREAS

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

#### 120 CLIMATIC CONDITIONS

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

#### 145 WATERING

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

#### 150 WATER RESTRICTIONS

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

#### 160 NOTICE

- Give notice before:
  - Setting out.
  - Applying herbicide.
  - Applying fertilizer.
  - Preparing seed bed.
  - Seeding or turfing.
  - Visiting site during maintenance period.
- Period of notice: 5 working days.

#### 170 SETTING OUT

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

### Preparation

#### 205 PREPARATION MATERIALS

- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- Certification of source, analysis, suitability for purpose and absence of harmful substances:
- Submit.
  - Certified materials: Sanitized and stabilized compost.
- Give notice: before ordering or using.

#### 210 HERBICIDE FOR ALL GRASSED AREAS

- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation.

#### 212 SEED BED CLEANING BEFORE SOWING ALL GRASSED AREAS

- Operations: Remove weeds by hand weeding and hoeing, Kill pernicious weeds with selective contact herbicide.



## 226A COMPOST FOR ALL GRASSED AREAS

- Type: Sanitized and stabilized compost or as advised by CA.
- Standard: In accordance with **PAS 100**.
- Supplier: Submit proposals.
  - Product reference: Contractor's choice.
- Standard: To **PAS 100**.
- Horticultural parameters:
  - pH (1:5 water extract): 7.0-8.7.
  - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
  - Moisture content (m/m of fresh weight): 35-55%.
  - Organic matter content (minimum): 25%.
  - Grading (air dried samples): 99% passing 25 mm screen, and 90% passing 10 mm screen mesh aperture.
  - Carbon:Nitrogen ratio (maximum): 20:1.
- Texture: Friable.
- Objectionable odour: None.
- Composting Association certification: Required.
- Declaration of analysis: Submit
- Samples: Not required.
- Application rate: 25 mm thick layer.
- Timing: Apply prior to cultivation.

## 250 CULTIVATION

- Compacted topsoil: Break up to full depth.
- Soil ameliorant/conditioner/fertilizer: Fully incorporate into topsoil to a depth of 150 mm.
- Tilth: Reduce topsoil to a tilth suitable for blade grading.
  - Depth: 150 mm.
  - Particle size (maximum): 10 mm.
- Material brought to the surface: Remove stones and clay balls larger than 20 mm in any dimension, roots, tufts of grass, rubbish and debris.

## 260 GRADING

- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
  - Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150 mm.
- Give notice: If required levels cannot be achieved by movement of existing soil.

## 280 FINAL CULTIVATION

- Timing: After grading and fertilizing.
- Seed bed: Reduce to fine, firm tilth with good crumb structure.
  - Depth: 25 mm.
  - Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
  - Remove surface stones/earth clods exceeding:
    - General areas: 20 mm.
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

## Seeding

### 310 GRASS SEED FOR GRASSED AREAS

- Mixture: 35% Chewings fescue, 35% Slender red fescue, 20% Smooth stalked meadow grass, 10% Brown top bent.
- Application rate: 35 g/m<sup>2</sup>.



### 319 QUALITY OF SEED FOR ALL GRASSED AREAS

- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties.
  - Standard: EC purity and germination regulations.
  - Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- Samples of mixtures: Submit when requested.

### 330 SOWING

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

### 335 GRASS SOWING SEASON

- Grass seed generally: April to June or August to October.

### 340 PRE-EMERGENT HERBICIDE FOR ALL GRASSED AREAS

- Standard: Pesticide Safety Directorate approved.
- Application rate: In accordance with manufacturer's written recommendation.
  - Timing: Immediately after sowing.

### 352 EDGES TO SEEDED AREAS ADJACENT TO PLANTING BEDS AND TREE PITS

- Timing: After seeded areas are well established.
- Edges: Clean straight lines or smooth curves.
  - Mulch and soil: Draw back to permit edging.
- Arisings: Remove.
- Completion: Re-spread soil and mulch.

## Protecting / cutting

### 510A PROTECTIVE FENCING

- Location to be advised by CA
- Fencing type: post and wire fence with netting.
  - Height: 1.1 m.
- Erection: On completion of seeding/turfing.
- Removal: After grass is well established. Fencing will remain the property of the Contractor.

### 530 FIRST CUT OF GRASSED AREAS

- Timing: When grass is reasonably dry.
  - Height of initial growth: 50 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 20 mm in any dimension: Remove
- Height of first cut: 35 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site unless otherwise instructed.

### 590 CLEANLINESS

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





## Maintenance

### 610 FAILURES OF SEEDING/TURFING

- Defective materials or workmanship: Areas that have failed to thrive.
  - Exclusions: Theft or malicious damage.
- Method of making good: Re-cultivation and reseeding/re-turfing.
- Timing of making good: The next suitable planting season.

### 620 MAINTAINING GRASSED AREAS

- Maximum height of growth at any time: 50 mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 35 mm.
  - Arisings: Remove unless otherwise instructed.
- Bulb planting areas: Do not cut until bulb foliage has died down.
- Trimming: All edges.
  - Arisings: Remove.
- Weed control: Substantially free of broad leaved weeds.
  - Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
  - Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: As necessary to ensure successful establishment.

### 685A MAINTENANCE FERTILIZER FOR ALL GRASSED AREAS

- Apply fertilizer (sanitized and stabilized compost) if grass establishment is poor.



## Q31 EXTERNAL PLANTING

### General information and requirements

#### 100 BEST PRACTISE

- Follow the recommendations set down in BS 4428: 1989 Code of Practice for General Landscape Operations unless stated otherwise in this specification

#### 111 TOPSOIL DEPTH

- Ensure the topsoil depth as specified in clause Q28 / 705.

#### 112 SITE CLEARANCE GENERALLY

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 100 mm.
- Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- Vegetation: seek instruction on cutting back/clearance of existing vegetation.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Additional requirements: approval from Landscape Architect/CA.

#### 118 SOIL CONDITIONS

- Soil for cultivating and planting: Moist, friable and not waterlogged.
- 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

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

#### 125 TIMES OF YEAR FOR PLANTING

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/October or April/May.
- Container grown plants: At any time if ground and weather conditions are favourable.
  - Watering and weed control: Provide as necessary.

#### 130 MECHANICAL TOOLS

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

#### 145 WATERING

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

#### 150 WATER RESTRICTIONS

- 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

- Give notice before:
  - Setting out.
  - Applying herbicide.



- Applying fertilizer.
- Delivery of plants/trees.
- Planting shrubs.
- Planting trees into previously dug pits.
- Watering.
- Visiting site during maintenance period.
- Period of notice: 1 week.

#### 165 PREPARATION, PLANTING AND MULCHING MATERIALS

- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
  - Certification of source, analysis, suitability for purpose and absence of harmful substances: Submit.
    - Certified materials: Sanitized and stabilized compost, bark mulch.
- Give notice before ordering or using.

#### 200 PLANTS / TREES – GENERAL

- Condition: Materially undamaged, sturdy, healthy and vigorous.
- Appearance: Of good shape and without elongated shoots.
- Hardiness: Grown in a suitable environment and hardened off.
- Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants: Bottom worked.
- Root system and condition: Balanced with branch system.
  - Standard: *The National Plant Specification*.
  - Species: True to name.
- Origin/Provenance: Local provenance.  
Definition: Origin and Provenance have the meaning given in the *National Plant Specification*.

#### 215 PLANTS / TREES – SPECIFICATION CRITERIA

- Name, forms, dimensions, provenance and other criteria: As scheduled and defined in the *National Plant Specification* [www.gohelios.co.uk/nps/nps.aspx](http://www.gohelios.co.uk/nps/nps.aspx)

#### 235 CONTAINER GROWN PLANTS / TREES

- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
- Plants: Centred in containers, firmed and well watered.
- Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
- Hardiness: Grown in the open for at least two months before being supplied.
- Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

#### 245 LABELLING AND INFORMATION

- 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:
  - Full botanical name.
  - Total number.
  - Number of bundles.
  - Part bundles.
  - Supplier's name.
  - Employer's name and project reference.
  - Plant specification, in accordance with scheduled National Plant Specification categories.
- Additional information: Submit on request: additional information as requested by the landscape architect, may include the following: date supplied (including consignment details or reference), type of container, potting dates, propagation method and date, pruning date, details regarding origin or provenance (including country of origin), name or designation of rootstock of budded or grafted plants..



## 246 LABELLING AND INFORMATION

- Standard: to Horticultural Trades Association *The retailers code of practice for potentially harmful plants (2000)*

## 260A PLANT / TREE SUBSTITUTION

- Plants/trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
  - Price.
  - Difference from specified plants/trees.
- Approval: Obtain the approval of the landscape architect before making any substitution. Proposed substitution may not be acceptable and submission of further alternatives may be required.

## 265 PLANT HANDLING, STORAGE TRANSPORT AND PLANTING

- Standard: To principles of *Handling and establishing landscape plants* as first published by **The Committee for Plant Supply and Establishment**, now on-line at [www.gohelios.co.uk/nps/handling\\_establishment.aspx](http://www.gohelios.co.uk/nps/handling_establishment.aspx)
- Frost: Protect plants from frost.
- Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Coextruded polyethylene bags with black interior and white exterior.
- Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
- Planting: Upright or well balanced with best side to front.

## 280 TREATMENT OF TREE WOUNDS

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

## 285 PROTECTION OF EXISTING GRASS

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

## 290 SURPLUS MATERIAL

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

## Preparation of planting beds and planting materials

### 300 HERBICIDE: AMENITY / SHRUB / TREE PLANTING

- Locations: as directed by landscape architect.
- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.  
Duration (minimum): As manufacturer's recommendation.

### 335 GENERAL FERTILIZER: SANITIZED AND STABILIZED COMPOST

- Locations: Shrub and tree planting pits.
- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Application: Spread evenly.
  - Timing: Immediately before cultivation.
  - Rate: as manufacturer's recommendation.



### 341 PEAT

- Peat or products containing peat: Do not use.

### 361 COMPOST: SANITISED AND STABILIZED COMPOST

- Locations: Shrub beds.
- Type: Sanitized and stabilized compost.
- Manufacturer/Supplier: Submit proposals.
  - Product reference: Submit proposals.
- Standard: To **PAS 100**.
- Horticulture parameters:
  - pH (1:5 water extract): 7.0-8.7.
  - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
  - Moisture content (m/m of fresh weight): 35-55%.
  - Organic matter content (minimum): 25%.
  - Grading (air dried samples): 99% passing 25 mm screen, and 90% passing 10 mm screen mesh aperture.
  - Carbon:Nitrogen ratio (maximum): 20:1.
- Texture: Friable.
- Objectionable odour: None.
- Composting Association certification: Required.
- Application: Spread evenly.
  - Timing: Apply prior to cultivation.
  - Rate: 25 - 50 mm thick layer.
- Other requirements: None.

### 375 CULTIVATION

- Compacted topsoil: Break up to full depth.
- Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
  - Depth: top 350 mm of planting beds.
  - Timing: Within a few days before planting.
  - Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels: 25 mm above adjoining paving or kerbs.
- Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50 mm.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

## Planting shrubs / herbaceous plants / bulbs

### 400 RANDOM PLANT LAYOUT

- Spacing: Evenly avoiding straight lines.
- Density: As scheduled.

### 401 REGULAR PLANT LAYOUT

- Spacing: As planting schedule.
- Density: As scheduled.

### 405 SHRUB PLANTING PITS

- Timing: Excavate 1-2 days (maximum) before planting.
- Sizes: 150 mm wider than roots when fully spread and 200 mm deep.
- Pit bottom improvement fork over, incorporating soil ameliorant/conditioner at 50 g/m<sup>2</sup>.
- Backfilling material: Reuse excavated material.



#### 410 NOTCH PLANTING

Notching: Make a vertical 'I', 'L', 'T' or 'H' notch.

– Depth: To accommodate full depth of roots.

Waterproofing membrane below soil: Do not puncture.

Planting: Insert plant at specified water depth, close notch and firm surrounding soil to ensure good root hold into substrate.

#### 470 FORMAL HEDGES

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

#### 476 SHRUB, HERBACEOUS AND BULB BACKFILLING MATERIAL

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required:
- Ameliorant/Conditioner: Sanitized and stabilized compost to ornamental planting.
  - Application rate: To manufacturer's/supplier's recommendations.

#### 480 AFTER PLANTING

- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- 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.
- Top dressing: Not required.  
Depth: Not required

#### 485 MULCHING PLANTING BEDS WITH ORNAMENTAL SHRUBS AND TREES:

- Material: Medium grade bark mulch.
  - Purity: Free of pests, disease, fungus and weeds.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: 50 mm depth.
- Finished level of mulch: 30 mm above adjacent grassed or paved areas.

#### 486 SHRUB PROTECTION

Manufacturer: Tubex or similar approved

– Product reference: Contractor's choice

Colour: Green.

Support: Single bamboo cane or timber stake.

General: Ensure that protection methods do not impede natural movement of shrub or restrict growth.

### Planting trees

#### 500 ANTI-DESICCANT FOR CONIFERS / EVERGREENS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice
- Application: Dip in or thoroughly spray before delivering to site. Spray again soon after planting.
  - Do not apply in wet or frosty weather.
  - Ensure full coverage of underside of foliage.

#### 505 TREE PITS

- Sizes: 85 mm deeper than root system and wide enough to accommodate roots when fully spread.
  - Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 150 mm.
  - Treatment: Soil ameliorant worked into pit bottoms.
- Pit sides: Scarify.



- Backfilling material: Reuse excavated material.
- Accessories: Short single staking as clause 545.

#### **505B TREE PITS STANDARD AND SELECTED STANDARD**

- Sizes: 900 mm diameter x 600 mm deep.
  - Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 150 mm.
- Pit sides: Scarify.
- Backfilling material: Reuse excavated material.
- Accessories: Short single staking as clause 545.

#### **510 TREE PIT ROOT BARRIERS**

- Locations: Wherever the installed rootball will be within 2.0 m of a building foundation, wherever the installed rootball will be within 3.0 m of an existing underground service route or for trees planted within hard surface.
- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Depth of top of root barrier below finished soil level: to be confirmed.
- Installation: With sides vertical.

#### **535 STAKING GENERALLY**

- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
  - Preservative treatment: Not required.
- Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- Stake size (minimum): 50 mm diameter.

#### **545 SHORT SINGLE STAKING FOR LIGHT STANDARD / STANDARD TREES**

- Staking: Position stake close to tree on windward side and drive vertically at least 300 mm into bottom of pit before planting.
  - Backfilling: Consolidate material around stake.
- Height of stakes: Cut off just below lowest branch of tree.
- Ties: Adjustable ties.
- Tying: Secure tree firmly but not rigidly to stake with one tie within 25 mm of top of stake.

#### **586 TREE BACKFILLING MATERIAL**

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required.
- Fertilizer: Slow Release fertiliser.

#### **590 MULCHING ORNAMENTAL TREES**

- Material: Medium grade bark mulch.
  - Purity: Free of pests, disease, fungus and weeds.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: 50 mm depth.
- Finished level of mulch: 30 mm below adjacent grassed or paved areas.

#### **590A MULCHING TREES, TRANSPLANTS AND HEDGEROWS**

- Material: Medium grade bark mulch.
  - Purity: Free of pests, disease, fungus and weeds.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: In a circular area of 500 mm radius measured from the tree stem.
- Finished level of mulch: 50 mm below adjacent grassed or paved areas.



## 595 TREE PROTECTION

Manufacturer: Tubex or similar approved

– Product reference: Standard round shelter

Type: HDPE tree guards.

Material: HDPE.

Size: 0.6 m high x 130 mm diameter.

Colour: Green.

Support: Single timber stake.

General: Ensure that protection methods do not impede natural movement of trees or restrict growth.

## Protecting / maintaining / making good defects

### 710 MAINTENANCE

- Duration: Carry out the operations in the following clauses from completion of planting until the end of the defects liability period.
- Frequency of maintenance visits: Monthly during growing season.

### 720 FAILURES OF PLANTING

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

### 730A PROTECTIVE FENCING LOCATION

- Location: To be confirmed by CA
- Fencing type: Post and wire fence with Netting.
  - Height: 1100 mm.
- Erection: On completion of planting.
- Removal: Fencing will remain the property of the Contractor. Remove and refill post holes following acceptance of rectified defects.

### 740 CLEANLINESS

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

### 750 PLANTING MAINTENANCE GENERALLY

- Weed control: Maintain weed free area around each tree and shrub.
  - Diameter (minimum): The larger of 1 m or the surface of original planting pit.
  - Keep planting beds clear of weeds: By hoeing/maintaining full thickness of mulch.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Staking: Check condition of stakes, ties, guys and guards.
  - Broken or missing items: Replace.
  - Rubbing: Prevent.
  - Ties: Adjust to accommodate growth.
  - Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
  - Frequency of checks: Every 3 months.
- Firming up: Gently firm loosened soil around trees/shrubs. Straighten leaning trees/shrubs.





- Trees: Spray crown when in leaf during warm weather.
  - Timing: After dusk.
- Watering: As necessary to ensure establishment and continued thriving of planting.

#### 750A PLANTING MAINTENANCE GENERALLY

- Carry out maintenance of the planted areas.

##### General

- Keep all beds and the base of trees and hedges clear of weeds by cultivating and use of approved herbicides. Where requested and in the absence of mulch, fork over beds as necessary to keep soil loose, with approved cambers and no hollows.
- Keep all beds clear of litter and rubbish.

##### Staking

- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Regularly check condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust ties if necessary to accommodate growth. Cut back any damaged bark with sharp knife. Prevent further damage.
- Tie climbers to supports where necessary.
- Carry out regular checks on all advanced stock tree.
- Firm up all trees and shrubs and straighten plants affected by the wind.

##### Watering

- Ensure that sufficient water is applied to maintain healthy growth. Suggest to CA when watering may be required and when instructed carry out using a fine rose or sprinkler until full depth of soil is saturated.
- Water newly planted standard trees once in every one to three weeks during the growing seasons when the weather is dry, thoroughly soaking the mulch and soil to full planting depth.
- Spray crown of trees when in leaf during warm weather. Carry out in the evening.

##### Plant Checks

- Remove dead flowering heads and stems from bulbs and herbaceous plants. Remove clippings.
- Clip and shape herbaceous plants where necessary to ensure neat and tidy appearance.
- Clip and shape formal hedges to ensure neat and tidy appearance.
- Regularly check for and cut back dead material around bases of grasses, bamboo and ferns to ensure neat and tidy appearance.
- Regularly check for and cut back dead material to bases of marginal aquatic plants to ensure neat and tidy appearance.

#### 760 PLANTING MAINTENANCE - PRUNING

- General: Prune to promote healthy growth and natural shape.
  - Dead, dying, diseased wood and suckers: Remove.
  - Timing: As appropriate to the species.
  - Trees: Favour a single central leading shoot.
- Arisings: Remove.

#### 780 MAINTENANCE INSTRUCTIONS

- 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 defects liability period.

#### 790 FINAL MULCHING

- Timing: At end of the maintenance period.
- Watering: Ensure that soil is thoroughly moistened prior to re-mulching, applying water where necessary.
- Planting beds: Re-mulch.



- Depth (minimum): 50 mm.
- Trees: Re-mulch.
  - Depth (minimum): 50 mm.



## Q35 LANDSCAPE MAINTENANCE

### Generally

#### 105 MAINTENANCE OBJECTIVES

- Location: All Landscaped areas.
  - Duration: 3 years.
- Aims: Enhanced landscape quality and Improved landscape visual amenity.
- Results: Adequate establishment in accordance with the grant scheme contract.

#### 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: Reinstall to original condition.

#### 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 root zone.
- 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.

#### 170A DISPOSAL OF ARISINGS

- General: Unless specified otherwise, dispose of arisings as follows:
  - Biodegradable arisings: Remove to recycling facility unless otherwise instructed.
  - Grass cuttings: seek advice from CA about removing from or spreading on site.
  - Tree roots and stumps: seek advice from CA about removing from or spreading on site.
  - Shrub and tree prunings: seek advice from CA about removing from or spreading on site.
  - Litter and non-biodegradable arisings: Remove from site unless otherwise instructed.

#### 181 MECHANICAL EQUIPMENT

- General: Minimize.
- Prohibited equipment: As advised by CA.
- Timing: As advised by CA.

#### 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.

### 211 MAINTENANCE OF GRASSED AREAS

- Standard: To *BS 7370-3:1991 Grounds maintenance. Recommendations for maintenance of amenity and functional turf (other than sports turf)*. Carry out maintenance appropriate to each category of turf, as follows:
  - Objectives: To BS 7370-3, table 6.
  - Programme: To BS 7370-3, clause 11.
  - Mowing methods: To BS 7370-3, table 3.

### 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.

### 226 TREE STEMS

- Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
  - Operations close to stems: Complete using hand tools.

### 240 MOWING STRIPS

- Location: Along the base of walls, fences and hedges and as landscape architect drawing.
- Width (approximate): 150 mm.
- Operations: Maintain by applying a suitable herbicide twice during the growing season.

### 250 LEAF REMOVAL

- Operations: Collect fallen leaves.



- Special requirements: None.
- Disposal: Remove from site for recycling unless otherwise instructed.

#### **255 FIRST CUT OF GRASSED AREAS**

- Height of initial growth: 35-50 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 35 mm.
- Mower type: Must be approved by CA.
- Arisings: Remove unless otherwise instructed, generally seek advice.

#### **285A TOP DRESSING**

- Location: to be advice by landscape architect.
- Required only if poor grass establishment.

#### **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.

#### **310 RE-FORMING GRASS EDGES**

- Location:
  - Path edges;
  - Planting bed edges; and
  - Where damage occurs.
- Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

#### **330 SELECTIVE HERBICIDE**

- Location: As recommended.
- Herbicide: Suitable for suppressing perennial weeds.
- Areas not to be sprayed: -.

#### **340 SPOT WEEDKILLING IN ROUGH GRASS AREAS**

- Herbicide: Non-selective systemic type.
- Operations: Spot treat as advised.

#### **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 re-turfing or top-soiling and reseeding:
  - Re-turfing: Quality and appearance to match existing.
  - Reseeding: Fill with fine topsoil to BS 3882 general purpose grade, 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.

#### **381 REINSTATEMENT OF WORN OR DAMAGED LAWNS**

- Worn or damaged areas: Make good by re-turfing or reseeding:
  - Re-turfing standard: To BS 7370-3, Clause 12.2.
  - Reseeding standard: To BS 7370-3, Clause 12.6.



- Turf or seed: To match existing in appearance and quality.
- Protection and watering: Provide as necessary to promote successful germination and/or establishment.

## **Shrubs / trees / hedges**

### **500 ESTABLISHMENT OF NEW PLANTING**

- Duration: Three years.
- Weed control:
  - Method: Keep planting beds clear of weeds by hoeing and screefing.
  - 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.
- Trees: When in leaf, spray crowns during warm weather.
  - Timing: After dusk.
- Watering: As necessary to ensure the establishment and continued thriving.

### **502 ESTABLISHMENT OF NEW PLANTING - FERTILIZER**

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

### **510 TREE STAKES AND TIES**

- Inspection/Maintenance times: Every three months, 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, re fix 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.

### **520 REFIRMING OF TREES AND SHRUBS**

- Timing: After strong winds, frost heave and other disturbances.
- Re firming: 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 re firm.

### **530A TREE / SHRUB SHELTERS**

- Loose or defective shelters: Adjust, re fix or replace to original specification and to prevent chafing.
- Removal: During spring when no longer required to protect the tree.

### **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.

#### **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 or Approved specialist contractor.

#### **575 PRUNING ORNAMENTAL SHRUBS**

- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
- 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.

#### **605 TRIMMING SLOWLY ESTABLISHING HEDGES**

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

#### **620 REMOVAL OF DEAD PLANT MATERIAL**

- 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.

#### **630 DEAD AND DISEASED PLANTS**

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

#### **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: 50 g/m<sup>2</sup>.

#### **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: As specified in previous clauses Q28, Q30, Q31; Give notice before use.

#### **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 wood.

#### **665A 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 wood.

#### **670A WEED CONTROL WITH SUMMER HERBICIDE**

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

#### **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: Every 12 weeks.
- 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.

#### **920 FENCING**

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





#### **925 MAINTENANCE PROGRAMME, POST MAINTENANCE VISIT REPORTS, RECORDING OF FAILED PLANTS**

Prior to the commencement of the maintenance period the contractor must submit a programme of maintenance. The contractor must also submit a report of work undertaken after each maintenance visit and notify the CA of any problems and any failed plants.

