



Specification

Standards

Where an appropriate British Standard Specification or British Standard Code of Practice, issued by the British Standards Institution, is current at the date of tender, the Contractor is required to ensure that all goods and materials used or supplied and all workmanship shall be at least in accordance with that standard. In all cases, the standard of workmanship is to be to the satisfaction of the Landscape Architect.

Safeguarding the Works and Protection of the Public:

The works shall be carried out in such a manner as to ensure the safety of the Works and the public, and so as to cause as little inconvenience as possible to the public and adjoining owners, and process shall include for all necessary precautions to that end.

No loose or unstable or otherwise dangerous part of the Works is to be left unsupervised at any time. The site is to be made safe at the end of each day and protected and marked where necessary to prevent injury to any person.

An injury to persons shall be notified immediately to the Landscape Architect by the telephone and a written report submitted to him within seven days of the occurrence.

The contractor shall ensure that they have public and employers liability insurance cover of a minimum of five million pounds for any one claim.

WEED CONTROL

Vegetation Clearance by application of herbicide

Timing of this contract requires that action to eradicate existing weed infestation throughout all areas prior to undertaking earthwork. The contractor shall ensure that a translocating herbicide is selected which will be effective during the time of the year and applied in accordance with the manufacturer's guidance.

The treatment for total herbicide control shall kill all growth including root systems. The contractor shall not commence any cultivation where herbicide has been applied until the vegetation has been effectively controlled.

Landscape Operations

Unless otherwise specified hereafter or indicated on the drawings, general landscape operations shall be executed in accordance with the recommendations of BS4428 General Landscape Operation.

Imported Topsoil

Topsoil shall comply with BS3882: 2007 and shall have a pH value of between 5.5 and 7.5. Topsoil shall be good quality medium top split loam easily moulded when moist. It must be neither too sticky nor leave a smooth polished surface when smeared. It shall be free from chemical or other pollutants, and not contain stones or flints in excessive quantities, or clay, sand, gravel, chalk or lime, nor may it include rubbish or other extraneous matter, pernicious weeds or couch grass nor roots or top-growth of trees or shrubs. No organic material derived from a sewage works will be accepted as topsoil.

The contractor shall prior to undertaking grass reinstatement and tree/shrub planting that there is adequate soil depths in respect to both element of work. For example - soil depth for grassland shall be at a minimum depth of 150mm. For general shrub planting at 300mm depth. All trees to be pit planted in 1000 x 1000 x 1000, unless otherwise stated or instructed.

The contractor shall supply a sample load of topsoil for approval prior to commencing operation. The sample, if approved, shall be set on one side to remain as indicative of the quality required until the top soiling is completed. The client as requested that certification from the contractors supplier confirming that the soil being imported is First Rate Topsoil and is free of contamination, pernicious and noxious weeds or any other pollutants. Contractor to provide analytical breakdown of soil metal compositions which makes certain of soil (s) imported.

The spreading of topsoil shall only be done in dry weather and when ground conditions are right, unless in exceptional circumstances, the Landscape Architect authorised otherwise. No claim for delay due to the above will be sustained. Topsoil and subsoil in heaps or dumps shall not be stiled so as to damage or impede water courses or other drainage, so long as they are capable of remaining in operation and are not generally affected by the re-spreading and re-grading of the site.

Any consolidated material is to be broken up to a depth of 400mm and the top 100mm reduced to a fine tilth suitable for final shaping with a graded blade (particle size 10mm and below). All undesirable material brought to the surface including stones larger than 50mm in any dimension, root, tufts of grass and foreign matter is to be removed off site to the contractors approval landfill site and/or recycling plant.

Preparation needs to be carried out when the soil is dry and manageable. Any consolidated material is to be broken up to 300mm depth and the top 50mm of all soil reduced to a fine tilth suitable for final shaping with a grading blade (particle size 10mm and below). All undesirable material brought to the surface including stones larger than 50mm in any dimension, root, tufts of grass and foreign matter is to be removed off site.

GRASS SEEDING

Season

Seeding shall be carried out only during calm weather conditions when the season and soil conditions are suitable.

Seed Bed Preparation

Prior to sowing a fine tilth shall be prepared up to 25mm in depth by raking or harrowing all debris brought to the surface over a 25mm in dia, shall be stone picked and removed to the Contractors own tip.

Seed Mixes (If by seed application)

The following seed are to be used. An 80 grammes sample of seed mix shall be supplied by the Contractor for approval prior to use, together with a copy of the seed merchant's invoice.

Area for private gardens use seed mix A19 - supplied by British Seed Houses (BSH).

The total quantities of seed required shall be divided in half, each half being machine broadcast or sown evenly by hand in transverse directions to provide a total rate of sowing as shown above. The seed shall not be drilled. After sowing, the seed shall be lightly chain harrowed or hand raked into the immediate surface and rolled with a Cambridge Ring Roller. The contractor must allow for decomposition of consolidated ground prior to undertaking work earmarked for grassland and or trees and shrub plantations.

Turf

Full removal of existing material, cultivated 'Tull preparation', & supply and lay low maintenance good quality turf, to be supplied by a specialist grower.

Note - All areas to receive grass reinstatement, shall be thoroughly prepared to good horticultural practice prior to laying of turf.

PLANTING OPERATIONS

Storage and Protection

The contractor shall be responsible for ensuring that all plant material arrives on site in prime condition and shall take all necessary steps to ensure that plant material is correctly and adequately stored and is protected on site prior to planting out. Prior to final planting, the Landscape Architect shall inspect plant material and will reject damaged or otherwise unhealthy or poor material. Any material rejected shall be immediately replaced by the Contractor at his own expense. Under no circumstances shall plant material be stored on site for a period exceeding seven days.

The Contractor shall prepare an area on site sufficient for heeling-in plant material and storage of other materials. The security and tidy appearance of this area shall be the responsibility of the Contractor throughout the period of the contract.

The Contract Administrator (CA) shall be notified as soon as plant material has been delivered to the site.

PLANTING GENERALLY

Planting shall be carried out in accordance with the drawings and/or schedules as well as in accordance to BS 4043, BS 4428 and BS 5837.

The number of each species and variety of plants will be evenly distributed over the allocated areas, making due allowance for adjacent groups. The contractor shall clearly mark boundaries of planting areas, peg out beds and positions of plants and obtain approval of all setting out before commencing any planting.

Tree and shrub planting shall be carried out between 30th October and 31st March following, unless otherwise stated or instructed.

Planting operations shall be suspended when the soil is waterlogged, very wet or frost bound. Also periods of drought, frost or adverse windy conditions.

Planting Preparation

Pits for tree planting shall be excavated 1000 x 1000 x 1000mm with the bottom 150mm being broken up subsoil. Excavated material other than topsoil be set aside for re-use or removal from site. Standard trees to have underground geying (if root balled trees) other trees staked & tied. All trees to have coil pipe irrigation system. Unwanted material, surplus material to be removed off site to contractors tip.

The pits shall be backfilled with 50% well draining loamy topsoil to BS 3882 and 50% peat free tree planting compost (Mycorrhiza to be used).

The backfilled mixture must be thoroughly firmed down among the roots as planting proceeds.

Plants shall be set upright to the same depth as grown in the nursery and given adequate root spread, with soil carefully firmed around the plant and well watered at time of planting. Plants must not be damaged during the planting operations and must be set in their final position as soon as possible after lifting from the nursery.

For native planting and hedgerows, where appropriate, plants shall come as bare root stock and notch planted (unless plants are supplied as container grown). Plants roots shall be planted in sufficient holes and adequate depth (notched) to avoid exposed roots, firmed and planted in an upright position. (Tree/shrub guards and or shields maybe appropriate for rural areas).

Climbing plants shall be secured to line wire support/horticultural ties/twine. Line wire to be 2-3mm plastic coated on galvanisation secured to vine screws. Screws set at 2m centres, and size of vine screws to be appropriate for plant species specific. Plant stems carefully trained/secured to line wire by purpose horticultural ties or twine with all labels removed. Allow for all fixture and fittings, installation etc.

Mulching

All shrub plantations - ornamental or native plantations, hedgerows as well as bases to amenity trees to receive medium grade bark mulch to a depth of 75mm. Bark mulch to be approved by CA or Client prior to implementation.

Watering

All plants shall be watered at the time of planting at the rate of 40 litres per tree and 15 litres per shrub, as & when required during the first 3 years and in accordance with the maintenance programme.

Plant Failures

All plants (trees & shrubs) shall be replaced during years 1 to 5 if suppressed, dead or defective as per planning conditions (the latter if subject to planning approval/conditions)

Church Road, Landscape Proposal - Scale 1/100

YEARS 1 TO 3 ESTABLISHED MAINTENANCE				
All trees/shrub planting (including grassland) to receive the following:				
Activity	Year 1	Year 2	Year 3	Comments
Watering				According to condition, but in the exception of drought conditions.
Total herbicide	3x	3x	3x	Applied on programme with follow up spot treatment to both soft and hardstandings.
Selective herbicide	1x	1x	1x	Chemical to be agreed prior to application.
Hand weeding	5x	5x	2x	Provisional, but especially carried out at the early stages of planting.
Fertiliser	2x	2x	2x	To be applied to base of trees, shrub beds in Spring & Summer and again Autumn/Winter, as with grassland.
Pruning shrub beds	2x	2x	2x	In accordance with species. Retain groundcover species from becoming invasive from neighbouring plants. Cut back to spray out invasive material species to keep in check and from suppressing key ornamental and native species.
Pruning hedgerows (If Applicable)	6x	6x	6x	To be undertaken on a regular basis to maintain formal appearance and from causing obstruction - but to be carried out bearing in mind nesting of birds (Adhering to the Wildlife and Countryside Act).
Generally	6x	6x	4x	Firming, general tidy up of plants, as needed - replacement of ties/guards.
Replacement planting	Any dead or suppressed plant material to be replaced. Successes of failures with same species then substitute plants to be considered.			On going.
Litter pick	All areas of hard and soft landscaping to be thoroughly litter picked, brushed and arising removed.			

YEARS 1 TO 3 ESTABLISHED MAINTENANCE (Continued)				
All trees/shrub planting (including grassland) to receive the following:				
Grass cut	21x	21x	21x	Regular grass cut regime to commence from late March/early April to end of October. "Cut and Collect".
Tree maintenance Pruning	Formative pruning		Removal of basal growth, dead timber and removal of obstructive branches as well as formative pruning to train tree, as necessary.	
Watering	During drought and or long periods of dry conditions.		As necessary.	
Replacements	As necessary - substitutes when poor establishment of same species.			
Boxed hedgerows (If Applicable)	4x	4x	4x	Retain as a well neat and tidy hedgerow throughout the year. Formative prune to plant establishment. Retain at specific height.
Bark Much to borders	1x	1x	1x	During winter period ensure borders are weed free and top up medium grade bark mulch.

Proposed Shrub Planting	Qty	M²	Size
Hypericum moserianum 'Hedgerow'	44	3	2 Ltr CG
Lavandula 'Spica'	36	3	2 Ltr CG
Yucca filamentosa	2	N/A	5 Ltr CG
Genista Tinctoria 'Plena'	18	3	2 Ltr CG
Phormium Tricolor	4	N/A	10 Ltr CG
Cotoneaster 'Coral Beauty'	41	3	3 Ltr CG
Rosa 'Palmengarten Frankfurt'	40	1.5	BR 5-7 Stems
Hypericum moserianum	38	3	2 Ltr CG
BR = Bare Root, RB = Root Balled, Container Grown - CG			

Soft Landscape Measures	Total
Grassland	200 sqm
Shrub Planting	68 sqm
Hedgerow Planting	15 sqm
Colas Heritage Resin Bond	50 sqm
Total Trees Planted	8Nr

Proposed Tree Planting	Qty	Size
Carpinus betulus 'fastigiata'	2	C 12-14cm
Quercus robur fastigiata koster	7	C 14-15cm
BR = Bare Root, RB = Root Balled, C = Containerised		

KEY

Proposed Trees

Shrub Planting

Proposed Trees

Specimen Shrubs

Grassland

Colas Heritage Resin Bond

Hypericum moserianum 'Hedgerow'

Tree Grille

Andrew Harker Associates
Consultants in Arboriculture

Professional tree and woodland management services				
Project	Proposed Development at Church Road, Liverpool			
Drawing Title	Proposed Landscaping Scheme			
Client	The Keith Davidson Partnership		Dwg No	A
Scale	1/100 @AO	Date	27 Jan 2016	Revision
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