Landscape Management & Maintenance Specification

Ashbourne Road, Cheadle Keepmoat

BM3 Architecture

D902

Planning Issue

November 2017

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- A National Building Specification, Q35 Landscape Maintenance
- BM3 Drawing Maintenance Responsibility Plan –D901 & Planting Plan D900A

Prepared for

Keepmoat

November 2017

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1.0 Introduction

This document has been prepared by BM3 Architecture on behalf of Keepmoat in support of landscape proposals for a residential development at Ashbourne Road, Cheadle. The document should be read in conjunction with BM3 drawings: Soft Landscape – D900A & Maintenance Responsibility Plan –D901.

This specification sets out the maintenance and aftercare regimes required for the establishment of landscape components, habitats and infrastructure for the Public Open Space (POS) as part of the planned proposals for Ashbourne Road, Cheadle.

The specification is comprised of several elements including; aims and objectives, maintenance prescriptions and scheduling of works. Combined, these aspects will assist in regulating the management and maintenance regimes of the operators at Ashbourne Road, Cheadle.

2.0 Aims & Objectives

The aim is to offer the appropriate maintenance techniques to both existing landscape features and the proposed landscape works.

The overall objectives of the management specification are as follows:

- To improve the overall ecological value of the Site and encourage the long term health of all new landscape elements for the benefit of the users and the local wildlife:
- To enhance the hedgerow boundaries around the site.
- To maintain a clean and tidy finish to all external areas including all elements of soft landscaping, grass sward and tree planting;
- To ensure best horticultural and health and safety practices at all times;
- To ensure methods employed to enhance and encourage wildlife, wherever possible;
- To identify early defects in the landscaping and address these quickly by working collectively with the Land Owner.

3.0 Maintenance Contract

The site comprises of 4 key areas; The Public Open & Incidental Spaces including the SUD's area, The Private Dwellings, The Highways and the Private Woodland. The maintenance of the site will remain in four key parts which will be maintained by the by the Local Authority, tenants/owners of the dwellings and by a management company. For the first 12 months following completion the Residential, The SUD's and the Public Open Spaces and incidental areas including the woodland will be maintained by Keepmoat under the conditions of the building contract. Upon completion of the rectification period the Residential area will be maintained by tenants/owners of the dwellings, the public open spaces & incidental spaces will be privately maintained by a Management Company, the Woodland will be the responsibility of the land owner and the Highways will be maintained by the local highways authority. Maintenance works will be inspected regularly on Site during this time by an official representative of the Land Owner. A plan can be found in the Appendix showing specific areas.

The landscape maintenance appointment will be made with a Standard Term Contract; JCLI Contract for Landscape Maintenance Works 2012. The contractor must be a current member of BALI, Constructionline and/or CHAS.

It is the responsibility of the contractor to fully understand the location, context, access / egress and types of maintenance works required before tendering and undertaking works on site.

4.0 Management Specification

The contractor is to produce Health & Safety Method Statements for all operations including the composting of materials and disposal of arisings off site.

All materials and workmanship are to be to the highest possible standards in accordance with relevant good practice and cost effectiveness.

All operatives are to be appropriately skilled and experienced for the type and quality of work required and its context, especially where Control of Substances Hazardous to Health (COSHH) is applicable.

Only tools and machinery suitable for the defined tasks are to be utilised. All machinery must be correct and in optimum condition to carry out the works.

All arisings are to be carted off site and disposed of appropriately under current legislation at a tip sourced by the contractor. All grass clippings, unless otherwise instructed, are to be collected and also disposed of offsite.

All planting and grass sward areas are to be watered as necessary to ensure their continued thriving especially during drought conditions. Contractor will be able to access clean water supply via external stand pipes or taps.

5.0 General Arrangements

The Land Owner shall ensure through periodic checks that any landscape maintenance works carried out by the appointed company is undertaken to all external areas and new planting in the said maintenance period. It is recommended inspection checks are carried out on monthly intervals, or twice monthly in the summer periods.

The Land Owner shall ensure that any landscape contractor employed shall carry out any tree and grass replacements that may be necessary during the contract.

No tree/shrub shall be removed without specific instructions from the Land Owner as stated within their written agreement. Existing trees are to be retained, protected and undisturbed throughout the contract, unless specifically stated in the schedule below.

All weeds will be cut down and removed off site to a tip found by the contractor. The site will be cleared of all loose debris, rubbish and foreign matter of any kind and removed to tip found by the contractor.

Ensure no mechanised or hand tool equipment is moved across hard or soft surfaces which may otherwise cause damage, scraping or marking which may be permanent. Access must be gained from the point agreed with Land Owner in advance; any deviation must be agreed in advance with the Land Owner. Operating times must be respectful of the local residents.

6.0 General Information / Requirements

Overall Objectives:

To encourage stable and healthy tree growth as well as enhancing the amenity value and ecological benefit.

TREES (EXISTING AND PROPOSED)

Management Objective:

Annual inspection of the trees should be undertaken concurrently with the inspection of trees on the wider site. If additional works are required to promote healthy growth these should be agreed with the Land Owner and actioned as a separate work order.

Existing Trees

There are two existing trees on site as identified in the Arboricultural Method Statement. T1 is a Holm Oak and has a TPO, there are recommendations in the AMS for works on this tree. Crown lift to give 5metres clearance branch height to eastern, southern and western canopies removing minor lateral branches creating wounds of no more than 40mm in dia. T2 is a Yew with no management recommendations. Trees should be inspected annually to ensure good health.

Generally

To encourage the health and vigor of new trees maintaining a well-shaped, neat and overall tidy appearance including around base of the tree.

To prevent overcrowding of tree groups, selective thinning may be applicable and stump removal may be required.

To ensure a balanced age structure within existing tree planting and to plant new trees as directed to prevent group senility.

Tree works are to be undertaken in line with best practice BS 3998.

All operations shall be carried out carefully to avoid damage to the existing trees, new planting or any existing landscape features. These trees shall not at any time be used for anchorage or winching purposes. If working with the tree root zone of any existing trees or new trees observe best working practice guidance of BS 5837:2012, with a standoff of 12 times the diameter of the tree stem.

Any defects or other faults other than tree, shrub or other plant failures which appear within the maintenance period, and are due to materials or workmanship not in accordance with the specification shall be made good by the contractor entirely at his own cost.

Management Operations:

Pruning

If applicable, and as directed, all works to be done in accordance with BS 3998 and should be undertaken by a qualified and professional Arboriculturalist as recognised either by the local authority or the Arboriculturalist Association list of Registered Contractors.

Proof of experience and insurance should be sought by the contractor and evidenced to the Land Owner.

Prune any trees as necessary to remove dead, diseased or damaged shoots to create a balanced form for future growth. Ensure action is agreed in advance with Land Owner with 7 working days notice.

Watering

Water trees with adequate, clean water supplied by the Land Owner throughout summer months (May- September) at minimum fortnightly intervals after any period of four weeks without significant rainfall (less than 5mm). Heavy watering will be required in dry periods.

Water should be kept free from impurities at all times.

Inspect trees to ensure that they are not over watered at any time. Any plants lost due to water-logging or drought shall be replaced at no extra cost to the Land Owner.

Ivy Infestation

Ivy infestations are not acceptable where wind risk may be a concern. The form of the tree can also be affected and it is therefore proposed to remove Ivy infestation on trees if evident on site during this period.

Arisings

Remove all arisings off site for appropriate disposal as per current legislation.

Inspection

Monitor all trees at each maintenance visit and report any anticipated issues, defects, damage or works to the Land Owner for consideration and action. Ensure this monitoring is undertaken by suitably experienced operative.

SHRUB & HEDGE PLANTING

Management Objective:

To establish healthy thriving plants and encourage strong growth. Prune shrubs/hedge to encourage dense, bushy growth and maintain planting areas feed free at all times.

Water shrubs/hedges with adequate, clean water supplied by the Land Owner throughout the summer months (May - September) at minimum fortnightly intervals after any period of four weeks without significant rainfall (less than 5mm). Heavy watering will be required in dry periods.

Management Operations:

The hedges will be cut twice a year winter pruning programme (November to March inclusive) undertaken before 31st October and Spring/Summer pruning programme undertaken before 31st January.

The native hedge will be cut once during the Spring/Summer pruning programme undertaken before 31st January.

Minor pruning to shrubs for dead or damaged wood shall be carried out as necessary; an inspection for this will be undertaken at each inspection and actioned appropriately at that visit. Wounds exceeding 25mm diameter must not be treated with a sealant.

All plants will be regularly inspected for wind firmness and firmed in as necessary at the same time. This shall be undertaken at each maintenance visit. Stakes shall likewise be checked for firmness.

Where feasible, an application of an approved residual weed killer will be permitted, applied as per the manufacturer's instructions, on areas that have been cleared of all weed growth and before further germination takes place.

All planting must be watered as required to maintain healthy growth following planting, during the maintenance period and substantially during periods of hot weather and drought. Remove all arisings off site and dispose at tip found by contractor as per current legislation.

Ensure all tools used are sharp and cut the shrubs/hedge so that top is narrower than the base to ensure base will remain clothed in leaves.

Replace any dead or damaged planting matching species and size.

Water planted trees with adequate, clean water supplied by the Land Owner throughout summer months (May - September) at minimum fortnightly intervals after any period of four weeks without significant rainfall (less than 5mm). Heavy watering will be required in dry periods.

Water should be kept free from impurities at all times.

GRASS SWARD AREAS

Management Objectives:

To provide an even stand of vegetation of uniform height and colour comprising of grass species predominantly, although a small percentage of dicotyledonous plants – no more than 5% would be acceptable.

To ensure no damage is inflicted on existing tree trunks whilst undertaking the grass sward maintenance works.

To ensure existing pathways and hard standings are not encroached by grass which would be detrimental to the overall quality or integrity of the features. Remove any self-set grass which would threaten these features for the same reasons.

Management Operations:

Mowing

Mowing is to be carried out using approved machinery to maintain the vegetation height no less than 25mm and no greater than 50mm during April to August. This is to be carried out mowing once in March and October of each year and every 11 days from April to June and then fortnightly until September in the first year. In the second year cutting is to be every fortnight.

Any damage from scalping, trampling or abrasion during mowing are to be re-seeded or returfed.

Do not allow any mechanised mowing equipment within 100mm of any tree trunk and do not take mowers across hard surfacing whilst operational i.e. cutting.

Any slight hollows which appear within the maintenance period due to settlement or other causes shall be top dressed, early in the growing season, with a mixture of fine compost and topsoil lightly rolled in and the grass allowed to grow through.

Hollows repaired in this manner shall be kept watered as necessary until the turf has fully 'married' in.

Grass to be cut to a nominal height of 30mm around obstacles.

Preferred Equipment

Preferred mower would be a rotary mower. All machinery shall be size and type appropriate to the size of the area being mown i.e. best professional practice.

Grass Edge

Before the start of the mowing season in March, grass edge lines including those surrounding obstacles, shall be reformed back to the original edge for a sharp vertical face.

Edges to planting areas or adjacent hard standing areas are to be cut and trimmed with each mowing operation, arisings are to be collected and removed from site to be disposed of at a tip found by the contractor.

Grass around obstacles will be edged with an appropriate mechanical or manual tool.

Dressing

A dressing of fine fishmeal shall be applied as identified in the accompanying maintenance schedule of works at the rate of 60gms/m.

Weeds

The sward shall be maintained weed free by selective weed killer or other equal.

Arisings

Litter, debris and larger accumulated items shall be collected prior to mowing and disposed of off-site at a tip found by contractor.

Leaf collection when necessary during (October to December inclusive) or when health of the sward maybe affected to be removed off site and disposed of at tip found by contractor.

Grass cuttings which fall into planting beds and hard surfaces shall be removed within one hour of cutting.

PERNICIOUS WEEDS / PEST CONTROL

Management Objectives:

All trees and grass area are to be maintained weed, pest and disease free at all times. The contractor is expected to adopt a pro-active approach to pests, diseases and treat accordingly. Any plant losses as a result of pest and disease infestation will be replaced by the contractor.

To ensure existing pathways and hard standings are not encroached by pernicious weeds which would be detrimental to the overall quality or integrity of the features. Remove any self set grass which would threaten these features for the same reasons.

Management Operations:

Herbicide

Where feasible, an application of approved residual weed killer (Glyphosate is not to be used) will be permitted, applied as per the manufacturer's instruction and specified frequency.

Inspection

Undertake bi-annual inspection of site once in April / May and again in August / September to monitor any areas of suspected Japanese Knotweed and Himalayan Balsam and pernicious weeds. Report any new findings to the Land Owner for their action.

Reporting

Report any new Japanese Knotweed and Himalayan Balsam findings to Local Authority Landowner for their record. Action may be instructed under this contract through mutual negotiation with the Contractor.

HARD SURFACES - PATHWAYS & PAVING

Management Objectives:

To ensure that all hard surfaced areas are kept in a neat and tidy condition. Ensure pathways and hard standings are not encroached by pernicious weeds which would be detrimental to the overall quality or integrity of the features. Remove any self set grass/vegetation which would threaten these features for the same reasons.

Management Operations:

Sweeping, Litter, Refuse and Deleterious Material

Areas to be swept and cleared once inclement weather has ceased.

At each maintenance visit the contractor must keep surfaces free of litter, leaves and other debris, remove mud, silt and debris from surface gutters and channels in hard surfaces and empty drainage gullies.

Remove all arisings off site and dispose of at tip found by contractor as per current Legislation at tip found by contractor.

<u>Herbicide</u>

Where feasible, an application of approved foliar acting residual weed killer will be permitted, applied as per the manufacturer's instructions on hard areas twice yearly. The paving should be swept thoroughly twice yearly to remove any debris, once in spring and again in autumn.

Salting – To be undertaken by Land Owner as separate item.

All hard surfaces to be salted before imminent snow and frosty weather, during and after these events as would seem reasonable to ensure reasonable safe pedestrian passage.

Salt shall be applied to all hard surfacing for general public use as per recommended specification and rates prescribed by the Land Owner.

Inspection

Twice yearly, once in the spring and again in the autumn, the contractor is to inspect the existing hard surfaces for wear and tear, failure or fault.

Reporting

Report any damage or deterioration to the Land Owner for immediate action.

REPORTING AND REVIEW PROCESS

In order to monitor and review standards making amendments where required, it is expected that the Land Owner will review the management work (with reference to this document) at least quarterly with the landscape contractor.

All plant failures should be logged and reported to the Land Owner at the first opportunity. Particular attention will be paid to the condition of any hard surfacing, fenced and gates areas, specifically to any collision or damage incurred from the maintenance operation.

Following this annual review any changes or amendments will be made either through additional works clauses or written instruction.

HEALTH AND SAFETY

All workers must exhibit due care and attention at all times when on-site and the employer must conform to all Health and Safety at Work Act responsibilities.

A full risk assessment must be carried out by the contractor to ensure all hazards are identified. This will include identification of potential hazards.

As with any Risk Assessment an action plan should be drawn up and a responsible person identified. Access points should be identified to workers to allow safe access and egress to the site.

CHEMICAL USE

Anyone who uses professional pesticides/herbicides must hold a certificate of competence if using a pesticide if they:

- -were born after 31st December 1964; or
- -are providing a commercial service e.g contractors spraying on someone's on land that is not his or her employers.

Currently, this certificate of competence is the National Proficiency Tests Council (NPTC).

A full risk assessment should be undertaken for each planned chemical application and guidance / best practice issued by the Environment Agency should be regularly updated to staff and observed for each planned chemical application.

TRAINING

The landscape contractor should be required to demonstrate their investment in internal training programmes through Lantra, NPTC and / or CPD records, ensuring the best working practices are complied with.

All staff employed to undertake this prescribed maintenance regime should be trained or training towards NVQ Level 1. Ongoing NVQ training should be encouraged.

At least 1 no. registered and currently accredited First Aider should be on site at any one time throughout the prescribed maintenance during working hours.

7.0 The Schedule

The schedule is based upon a full 52 weeks and should be repeated on an annual basis for a minimum of five years.

The landscape maintenance should include all aspects from the adjacent schedule works. These aspects are included as a minimum; however, scope is not limited to this.

All aspects should be priced on a per visit basis, so that if additional visits are required invoices can be adjusted in a transparent manner.

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Action	Description of works																																						\neg
Grass-G25 (Park area - Provisional)	General amenity out for open space. Grass sward to be maintained fortnightly to length of between 25-50 mm. Edge lawn as required (allow for twice annual								x)	к	x	x	х		x	х)	c	x		x	x	х	1	x	x		x									\prod	
Wildflower Planting	Twice yearly cut, to encourage longer flowering period. Sward to be cut to 75–150mm and left to grow long in interim. (Care should be taken in cutting bund																																						
Beds - shrub prune	Formative Pruning, out back annual growth and ensure access and benches are not obstructed.						П								П															П								П	
Bed - watering	Fortnightly watering (plus extra over in periods of prolonged heat).																																					П	
Bed-mulching	Top up bark mulch as required to 75mm depth							\perp	\perp				\perp		\perp						\sqcup					\perp	Ш			\sqcup		Ш				Ш	\bot	Ш	
Inspect trees	Visual inspection of trees both on-site and along boundaries																																						
Hedge - New	General prune and shape for hedge. Adjust stakes ties and spiral guards. Hand pick weeds from guards and within 150mm of each plant.																																						
Hedge - Native	Prune to 50% height in first year, after that general prune and shape for hedge. Adjust stakes ties and spiral guards. Hand pick weeds from guards and within 150mm of each plant. Replace any failed stock.																																						
Trees - general	Deadwood and crown lift trees where appropriate.																				П									П								П	\Box
Trees - watering	Fortnightly watering (plus extra over in periods of prolonged heat).																																					П	
Trees - epicormic	Inspect for and remove epicormic growth.																																			\Box	\perp	\coprod	
Tree / shrub replacement	Replace all dead / dying trees and shrubs during the first 5 years within following planting season.		,		17.	. 5																										Pi		7 is 1	. 5.				
Woodland	Check tree ties/guards are correctly fitted, any that are broken or perished to be replaced. Weed around base of tree to minimise competition and encourage growth. Prune any dead, diseased or dying material to nearest node.																																						
Site risk assessment- annual	Inspection of trees, surfacing and boundary treatments for possible additional maintenance														П															П								П	\Box
Play Area	An annual check of equipment and surfacing early spring. Then regular fortnightly checks of the area during the summer months.																																						
Hard surfaces	During periods of leaf and blossom fall hard surfaces to be kept leaf and blossom free. Weed growth around street trees to be kept to a minimum. General litter pick to be done weekly or as required.																																						

Appendix A – National Building Specification, Q35 Landscape Maintenance GRASSED AREAS - GENERAL INFORMATION/ 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 seedbed.
 - Seeding or turfing.
 - Visiting site during maintenance period.
- Period of notice: One week

170 SETTING OUT

- Boundaries of seeding/turfing areas: Mark clearly.

PREPARATION

180 CHEMICALS GENERALLY:

- Use only where specified or approved, and then only products on the current list of the Agricultural Chemicals Approval Scheme.
- Where work is near water, drainage ditches or land drains, comply with the Ministry of Agriculture, Fisheries and Food 'Code of Practice for the use of herbicides on weeds in water courses and lakes'.
- Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.

210 HERBICIDE GENERALLY:

Type: Suitable for suppressing perennial weeds.

231 PEAT

Peat or products containing peat: Do not use.

270 FERTILIZER FOR ALL GRASSED AREAS:

- Types: Apply both:
 - Superphosphate with a minimum of 18% water □ soluble phosphoric acid.
 - A sulphate of ammonia with a minimum of 20% nitrogen.
- Application: Before final cultivation and three to five days before seeding/turfing.
- Coverage: Spread evenly, each type at 70 g/m², in transverse directions.

MAINTENANCE

310 MAINTENANCE:

 Duration: Carry out the operations in clauses 610 to 685 from completion of seeding/ turfing until handover or as instructed by the CA.

320 FAILURES OF SEEDING/TURFING:

- General: Grassed areas that have failed to thrive (unless due to theft or malicious damage), during the period stated in clause 590+591, will be regarded as defects due to materials or workmanship not in accordance with the Contract. Make good by re cultivation and reseeding/ re turfing.
- Timing of making good: Submit proposals.

330 MAINTAINING GRASSED AREAS:

- Maximum height of growth at any time: 50mm
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 25mm
- Arisings: Remove

- Trimming: At the time of each cut, trim all grass edges, including round the base of trees, manholes, etc. and remove arisings.
- Weed control: Keep the sward substantially free of broad leaved weeds by applying a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
- Areas of settlement: Make good.
- Watering: As clause 145

350 FERTILIZER FOR ALL GRASSED AREAS:

- March application: 15:10:10 Spring turf fertilizer at 35 g/m².
- September application: 5:10:10 Autumn turf fertilizer at 50 g/m².

REMEDIATION WORKS

PREPARATION

410 CHEMICALS GENERALLY:

- Use only where specified or approved, and then only products on the current list of the Agricultural Chemicals Approval Scheme.
- Where work is near water, drainage ditches or land drains, comply with the Ministry of Agriculture, Fisheries and Food 'Code of Practice for the use of herbicides on weeds in water courses and lakes'.
- Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.

420 PREPARATION MATERIALS

- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- Certification: Submit certificate giving supply source, content analysis, confirmation of suitability for purpose and confirmation of absence of harmful substances:
 - Certified materials: Sewage sludge
 - Give notice before ordering or using.

430 HERBICIDE GENERALLY:

Type: Suitable for suppressing perennial weeds.

440 FERTILIZER FOR ALL GRASSED AREAS:

- Types: Apply both:
 - Superphosphate with a minimum of 18% water □ soluble phosphoric acid.
 - A sulphate of ammonia with a minimum of 20% nitrogen.

- Application: Before final cultivation and three to five days before seeding/turfing.
- Coverage: Spread evenly, each type at 70 g/m², in transverse directions.

450 GRASS SEED FOR GENERAL GRASS AREAS:

- Mixture: BSH A16
- Supplier and reference: British Seed Houses mix A16 or similar
- Rate of application: 18 30g/m²

Increase rate of application by 50% for slopes exceeding 1:3.

451 MEADOW GRASS SEED FOR ORNAMENTAL GRASS AREAS:

- Mixture: BSH UK Native 1
- Supplier and reference: British Seed House UK Native Mix 1 or similar
- Rate of application: 3□5 g/m²
 - Increase rate of application by 50% for slopes exceeding 1:3

452 QUALITY OF SEED FOR GENERAL GRASS AREAS:

- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties to EC purity and germination regulations and the Department for Environment, Food and Rural Affairs Higher Voluntary Standard.
- When requested, submit an Official Seed Testing Station certificate of germination, purity and composition.
- Samples of mixtures: Submit when requested.

460 SOWING:

- General: Establish good seed contact with the root zone to promote healthy, consistent growth.
- Method: To suit soil type, proposed usage of grassed area, location and weather conditions during and after sowing.

470 SOWING SEASON:

Grass seed generally: Sow seed in calm weather during April or September/October

480 PRE-EMERGENT HERBICIDE:

- General: Where soil has not been allowed to lie fallow apply a suitable pre emergent herbicide immediately after sowing.

490 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. Soil drawn back to permit edging.
- Arisings: Remove.

PLANTING - GENERAL INFORMATION/ REQUIREMENTS

- 510 CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable for the relevant operations. Planting shall only be carried out during the period Nov. 1st 31st March. Exceptionally the CA may extend this period if ground, weather and conditions for planting are favourable.
- 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.
- 530 WATER: The contractor shall allow for the provision of water, water carts, or hoses with a fine hose attachment or sprinkler which shall be allowed to run until the full depth of the top soil in the tree pits, plant beds and trenches, has reached field capacity i.e. 'The amount of water required by previously saturated soil once full drainage has ceased.'
- 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 class water from a sewage works or other approved source.
- If planting has not been carried out, do not do so until instructed.
- If planting has been carried out, obtain instructions on supply of water.
- NOTICE TO CA: Make advance arrangements with CA to give them the opportunity of being present during:
 - Application of fertiliser
 - Each site visit during maintenance period.

550 CHEMICALS GENERALLY:

- Use only where specified or approved, and then only products on the current list of the Agricultural Chemicals Approval Scheme.
- Where work is near water, drainage ditches or land drains, comply with the Ministry of Agriculture, Fisheries and Food 'Code of Practice for the use of herbicides on weeds in water courses and lakes'.
- Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.
- 560 PROTECT existing grass during planting operations by laying boards or tarpaulins. Do not place excavated material directly on to grass.
- 570 CLEANLINESS: Remove soil from all hard surfaces and grassed areas and leave the works in a clean tidy condition at Completion.

580 ORGANIC BARK MULCH:

- The organic mulch shall comprise of composted wood chips or bark free of fungi, diseases, Methyl Bromide contamination and foreign material. It shall be matured for a minimum of 16 weeks, naturally heat treated where temperatures have exceeded 50°C for a minimum period of 14 days followed by a period of stabilisation pH range to be of 4.5 □ 5.8.
- Where required organic bark mulch shall be maintained at a depth of 75mm after settlement, care being taken to dish the mulch around the base of each plant. Where shown trees and shrubs in grassed areas shall be mulched to a minimum depth of 75mm after settlement and minimum diameter of 500mm. Particle size shall be 15□ 125mm. there shall be no dust or fine material and shall contain less than 5% wood material.
- A 1kg sample shall be submitted to the CA for approval before the bark is delivered in bulk. The sample shall be accompanied by a certificate certifying source, grade and freedom from disease and contamination. The certificate shall also state that the mulch has not been chemically treated or sterilised.
- In the event of dry conditions, individual tree pits and entire planting beds shall be thoroughly watered **before** the mulch is applied in addition to watering in on planting. The Contractor will be deemed to have allowed for this possibility in his tender rates.
- The Contractor shall supply and spread any additional mulch needed which shall conform to the Specification.
- FAILURES OF PLANTING (Post Completion): Any trees/shrubs/plants which are dead, dying or otherwise defective at the end of the relevant period(s) stated in the Contract will be regarded as defects due to materials or workmanship not in accordance with the Contract. They must be replaced by approved equivalent trees/shrubs/ plants at the next suitable planting season unless otherwise instructed.
- FAILURES OF PLANTING: Post Completion maintenance of the planting is to be carried out by the Landscape Contractor as specified in this section. Any trees/shrubs/plants which are dead, dying or otherwise defective at the end of the Maintenance Period will be regarded as defects due to materials or workmanship not in accordance with the Contract. They must be replaced by approved equivalent trees/shrubs/plants at the next suitable planting season unless otherwise instructed. This will not apply if the defects are caused by malicious damage after Completion.

MAINTENANCE

- 610 PLANTING MAINTENANCE: During the Maintenance Period carry out maintenance of the planted areas as follows:
- Make visits during the growing season and as necessary to fulfil the requirements of this specification (March, May, June, August, September and December).
- Prune plants at appropriate time to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape. Dress cut ends exceeding 25 mm diameter with fungicidal sealant.
- 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 hose or sprinkler until full depth of topsoil is saturated. Allow for 9 No. waterings.
- Spray crown of trees when in leaf during warm weather. Carry out in the evening.
- 611 MAINTENANCE INSTRUCTIONS: Before the end of the Maintenance Period, submit typewritten instructions recommending procedures to be established by the Land Owner for maintenance of the planting work for one full year.

700 TREE PIT IRRIGATION:

- Semi mature trees to have 1 N° irrigation/aeration pipe per tree installed at the time of planting.
- Inlet to finish with ground surface in planted areas.
- Inlet to be set 30mm below adjacent grass areas to allow maintenance mowing/strimming.

710 WATERING:

The Contractor shall water in all plants at his own discretion and shall maintain the healthy growth of all plant material. Watering shall be sufficient to return the planting pit or trench to field capacity, i.e. "the amount of water retained by previously saturated soil once full drainage has ceased".

720 FIRMING UP:

- All trees and shrubs to be firmed up during the first week after planting.

STAKING GENERAL

PRESERVATION OF TIMBER:

A staining treatment shall be applied to the wood surface of tree stakes. One coat shall be applied annually, according to manufacturer's instructions. One coat shall be applied at appropriate time / date in March or April (do not apply in rain, snow or frosty weather). Any new cuts in timber shall receive two coats of stain. Stain to be used shall be: Sadolin's 'Ebony' woodstain or similar approved.

810 STAKING: General

- Stakes to be made firm in a vertical position.

REMEDIATION WORKS

900 TREES/PLANTS GENERALLY:

- Obtain from approved source(s) with soil and climatic conditions similar to those prevailing on site.
- Adequately and carefully pack and protect against mechanical damage, extremes of temperature and drying out.
- When requested by CA to provide a certificate that plants comply with this specification.

910 PLANT MATERIAL:

- Plant material shall comply with BS 3936: Part 1, Part 4, Part 5.
- Where requested by the CA, the Contractor shall provide a certificate to the effect that all materials, trees, shrubs and plants supplied are in accordance with the specification. Trees shall be true to size and description, and shall be good well formed, healthy specimens free from disease and damage to stems, branches, roots and foliage. They shall be nursery grown in the United Kingdom (unless otherwise agreed with the CA) and shall have been regularly transplanted. The Contractor shall inform the CA of the location of supply, so that the plants can be inspected prior to delivery to site, if the CA so wishes.
- The Contractor shall obtain plants and plant material, from approved suppliers, (The supplier is to be approved by the CA in writing before ordering commences), ordering early enough to ensure that specified plants are available for planting at the correct times. No extension of time will be granted because of late ordering. Proof of ordering may be asked for by the CA.
- All stock shall be fully hardy and at least one plant from each species in each delivery batch shall be clearly marked using a permanent marking system.
- Only where certain species of plant material can be proved unavailable will the contractor be permitted to substitute alternative species of equal quality and cost, or make an equitable adjustable of price for any cost differential.
- All substitutions shall be of the nearest equivalent species and variety to that originally specified and subject to prior approval in writing of the CA and approval for any cost differential.
- Any approval should be obtained at the earliest possible date, and if requested after the acceptance of the tender, then the CA retains the right to:□
 - a) Locate an alternative source that the Contractor must use.
 - b) Substitute for an alternative plant if available, or
 - c) Instruct the Contractor to delay the planting of that particular species until the following planting season, at no extra cost.

920 PLANT HANDLING:

- All plants shall be lifted, packed and handled in accordance with BS 3936: Part 1, Part 4, Part 5, BS 4043, the CPSE recommendations for Plant Handling, with this Clause.
- Prior to planting all plant material shall be stored and sorted at a location approved by the CA.

- All bare root stock including that in sealed airtight packaging shall be heeled into moist soil immediately upon delivery.
- During storage the Contractor shall ensure that the plants do not dry out and that they are adequately protected from physical or frost damage.
- Barerooted plants shall have their entire root system dipped via thoroughly mixed Broadleaf Fine Rootdip/water solution immediately on lifting at the nursery. Dilution is to be strictly in accordance with the manufacturer's instructions. A certificate from the supplier will be required verifying that the specification has been adhered to.

Broadleaf Fine Root Dip or equal approved may be obtained from:

Agricultural Polymers International Limited
Waverley House
Waverley Road
Gloucester
GL2 0SZ

Telephone: 01452 521733

- All materials are to be adequately and carefully packed and protected to survive transport to the site without damage or desiccation during loading, transit, unloading or storage. If any roots, branches or shoots are slightly damaged they are to be carefully pruned. If major damage occurs, the plants shall be rejected and replaced.
- Planting must be carried out as soon as possible after the plants are delivered to the site. Where delay is incurred, plants must be protected against damage. Plants with bare roots should be heeled into moist soil as soon as received. Bare root stock left unprotected from root desiccation will be rejected.
- All trees, (standard and feathered) are to be stored in an upright manner in such a way as to cause no damage to its form or health.
- Container grown stock is to be unloaded from delivery crates and set closely together, protected from wind and watered to stop pots drying out. Plants showing signs of having been crated for more than 48 hours will be rejected. Containerised plants with dry root balls and loose pots will be rejected.
- 930 SUBSTITUTES: The tender must be based on plants that are available. If specified plants are unobtainable alternatives may be submitted 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.
- 940 STORAGE: Plants which are not to be planted on day of delivery to site to be stored as follows or by other approved methods:
- Root balled plants: Place close together and cover root balls with sand, moist peat or wet straw.
- Bare rooted plants: Heel in prepared trenches, cover with soil and water thoroughly.

950 ANTI DESICCANT SPRAY:

- Evergreen species are to be sprayed with anti desiccant applied in accordance with manufacturer's instructions prior to planting and again 3 weeks after planting. Allowance for this operation will be deemed as included in the price. The antidesiccant shall be 'Wilt Pruf S600' as supplied by Synchemicals Limited, Owen Street, Coalville, LE6 2DE (Telephone 0530 510060) or alternative to be approved by the CA.

- 960 PROTECT existing grass during planting operations by laying boards or tarpaulins. Do not place excavated material directly on to grass.
- 970 PLANTING and associated operations shall comply with this clause and with BS 4043, BS 4428, BS 5837.
- 980 SURPLUS MATERIAL, including subsoil, stones, debris, wrapping material and prunings to be removed from site.

WEED CONTROL

990 VEGETATION CONTROL:

- The Contractor shall maintain total vegetation control to each ornamental planting area, in compliance with Clause D20/194 and D20/195.
- Vegetation control shall be carried out on all planted areas.

991 SELECTIVE WEED CONTROL:

- The Contractor shall carry out selective weed control treatment on all Injurious Pernicious and Noxious Weeds in accordance with Clause D20/195.

992 FIRMING OF STAKES AND PLANTS: The Contractor shall:

- Re firm the ground around all plants that have been disrupted by frost, winds, ground disturbance etc.;
- Spread topsoil, obtained from the surrounding ground, as necessary to protect the plants. Plants shall be re□firmed and straightened to an upright position;
- Re ☐ firm all stakes and tree shelter/stakes or adjust where necessary;
- Any surplus discarded materials from the above items shall be removed to the Contractor's tip off site.

930 WATERING:

- The Contractor shall water in all plants at his own discretion and shall maintain the healthy growth of all plant material. Watering shall be sufficient to return the planting pit, trench or bed to field capacity, i.e. "the amount of water retained by previously saturated soil once full drainage has ceased".
- 940 PRUNING: The Contractor shall allow for general pruning to remove vandalised, diseased, dangerous or malformed growth. Pruning operations shall be agreed with the CA before work commences.
- 950 LITTER REMOVAL: The Contractor shall maintain all of the plot areas free from all kinds of litter. All arisings shall be removed to the Contractor's tip offsite.

960 REMOVAL OF TREE STAKES:

- The Contractor shall remove stakes and ties from all trees unless directed by the CA to leave them in place.
- The Contractor shall ensure that the trees are not damaged and that the post holes are closed over.
- All arisings shall be removed and disposed of to the Contractor's tip off site.

970 HARD SURFACES AND GRAVEL AREAS

- Apply a suitable foliar acting or residual herbicide to all hard surfaces and gravel areas. Allow recommended period before clearing arisings
- Sweep hard surfaces to keep free of litter, leaves and other debris
- Remove mud, silt and debris from surface gutters and channels in hard surfaces and empty drainage gullies
- Rake gravel areas to remove litter, leaves and other debris and to reduce potential weed growth. Leave gravel level.

Appendix B – BM3 Drawings - Maintenance Responsibility Plan D901 & Planting Plan D900A

