

Erection of twelve flats at:

CHIPPENDALE WAYE, UXBRIDGE

FOR KEARNS HOMES LTD

LANDSCAPE MANAGEMENT PLAN
TO ACCOMPANY DRAWING NRS LC-2847-01

REV A OCTOBER 2021

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1.0 OVERVIEW

1.1 MANAGEMENT RESPONSIBILITIES

- 1.21 On completion, the developer will employ a professional landscape contractor to maintain the landscaped areas. As a minimum requirement maintenance and management visits will be undertaken to meet the enclosed schedule of operations and will continue in perpetuity with a review at the end of each five-year period. Copies of this management plan to be made available to the managing agents and contractors alongside a full set of the planning approved drawings.
- 1.22 it would not be suitable to include green walls within the proposals for the following reasons: The only available wall space clear of windows is on the North side and heavily shaded by the building and difficult to establish new planting. Quality long term structures to support living green walls are expensive and beyond the budget for this type of development.

2.1 MANAGEMENT OBJECTIVES

- 2.11 Successfully establishing a framework of new trees and hedges through the development site to provide maturity, screening, visual amenity and to enhance the ecology.
- 2.13 To create a sense of ownership and community in the new development by creating an attractive and successful communal landscape.
- 2.15 To provide and maintain an attractive and visually appealing, robust landscape setting to the development and to integrate the new buildings and hard surfaces into the existing landscape.
- 2.16 To maintain the best standards in landscape maintenance and horticultural practice resulting in beautifully presented and ecologically managed grounds of the highest quality

2.20 CHARACTER AREAS

2.21 GROUP AND SPECIMEN TREES

Proposed tree planting complements the proposed character of each space within the landscape scheme and is suitable in size and form for its location and the species suits the climatic conditions present on site. The tree strategy follows the principles below:

Includes a broad range of species which provides greatly increased biodiversity, wider range of habitats and resilience to climate change

Uses the principle of 'right-tree, right-place' using species which are appropriate in their eventual form, size and vigour so that they will achieve maturity without complications or the requirement for significant pruning

Utilise existing Legacy trees into the design to create instant impact and structure.

Visual: to create visual interest, structure, focal points, movement, seasonal and horticultural interest (e.g. flowers, fruits, texture, shape etc) to create visual interest, structure, focal points, movement, seasonal and horticultural interest (e.g. flowers, fruits, texture, shape etc) creating and reinforcing the character of different areas, park entrances etc Biodiversity:

2.22 ORNAMENTAL SHRUBS AND HERBACEOUS PLANTS

The shrub and ground flora planting will define each of the key areas within the landscape scheme. Ornamental planting will primarily consist of low-level shrubs and herbaceous plants.

2.23 HEDGES AND GREEN CORRIDORS

Informal single species evergreen flowering hedge for interest and separate car parking areas with interest for pollinators. These also create visual amenity, structure within the landscape and relief from hard surface and built form.

3 **LANDSCAPE MANAGEMENT**

3.1 The purpose of maintaining and managing the site is to encourage the satisfactory establishment and long-term viability of the landscape proposal. It is recognized that soft landscaping is a living dynamic system and it may be appropriate to vary the proposals as the scheme develops. The following disciplines and procedures should be observed in the successful establishment and development of the soft landscaping proposals.

3.2 **MANAGEMENT SCHEDULE**

The following schedule of operations indicates tasks and inspections to be carried out within the first five-year period and in perpetuity at five-year intervals thereafter as detailed more thoroughly within the landscape maintenance specifications below.

YEARS 1 & 2

MARCH TO OCTOBER – weekly maintenance visits

OCTOBER TO MARCH – fortnightly maintenance visits

TASK

Litter collection and removal
Weed control (by hand)
Fertilizer to tree and shrub beds (organic)
Watering
Top up mulch
Check plant supports and stakes
Tie in climbers and wall shrubs
Pruning spring flowering shrubs
Pruning summer flowering shrubs
Thin out planting
Formative pruning to species lists
Tree works
Hedging
Leaf clearance
Plant replacements
Grass cutting

FREQUENCY

each visit, empty bins
each visit
annually applied in March
as required to establishment
as required to establishment
March and September
Fortnightly in growing season
Following flowering/to species list
March/April/ to species list
not required
not required
Watering as required
Annual, avoid nesting season
each visit Oct-Dec
November dead & diseased
to specification details

Edging grass areas
 Inspect fences
 Inspect gullies
 Sweeping roads and paths
 Landscape management review by committee

each visit
 annual
 monthly
 monthly
 annual to establishment

YEARS 3 & 4

MARCH TO OCTOBER – weekly maintenance visits

OCTOBER TO MARCH – fortnightly maintenance visits

TASK

Litter collection and removal
 Weed control (by hand)
 Fertilizer to tree and shrub beds (organic)
 Watering
 Top up mulch
 Check plant supports and stakes
 Tie in climbers and wall shrubs
 Pruning spring flowering shrubs
 Pruning summer flowering shrubs
 Thin out planting
 Formative pruning to species list
 Tree works
 Hedging
 Leaf clearance
 Plant replacements
 Grass cutting
 Edging grass areas
 Inspect fences
 Inspect gullies
 Sweeping roads and paths
 Landscape management review by committee

FREQUENCY

each visit, empty bins
 each visit
 annually applied in March
 as required to establishment
 as required to establishment
 Remove from yr. 3, check roots
 Fortnightly in growing season
 Following flowering/to species list
 March/April/ to species list
 annual review
 to species requirements as pec
 formative and remedial pruning
 Annual, avoid nesting season
 each visit Oct-Dec
 November dead & diseased
 to specification details
 each visit
 annual
 monthly
 monthly
 annual, year on improvements

YEAR 5

MARCH TO OCTOBER – weekly maintenance visits

OCTOBER TO MARCH – fortnightly maintenance visits

TASK

Litter collection and removal
 Weed control (by hand)
 Fertilizer to tree and shrub beds (organic)
 Watering
 Top up mulch
 Check plant supports and stakes
 Tie in climbers and wall shrubs
 Pruning spring flowering shrubs
 Pruning summer flowering shrubs
 Thin out planting
 Formative pruning to species list
 Tree works
 Hedging
 Leaf clearance
 Plant replacements
 Grass cutting
 Edging grass areas
 Inspect fences

FREQUENCY

each visit, empty bins
 each visit
 annually applied in March
 as required to establishment
 as required to establishment
 new tree planting only
 Fortnightly in growing season
 Following flowering/to species list
 March/April/ to species list
 annual review
 to species requirements as pec
 H&S and maintenance pruning
 Annual, avoid nesting season
 each visit Oct-Dec
 November dead & diseased
 to specification details
 each visit
 annual

Inspect gullies	monthly
Sweeping roads and paths	monthly
Landscape management review by committee	annual, year on improvements

4 SOFT LANDSCAPE SPECIFICATIONS

4.1 MULCHING

Mulched areas are to be topped up as necessary using the same material as was originally specified to maintain the original specified depth until such time as canopy closure occurs.

4.2 FERTILISING

The Maintenance operative shall make a yearly application of slow release fertilizer to all ornamental shrub areas and tree pits.

4.3 WEED CONTROL

In the course of the routine maintenance visits, maintenance operatives shall undertake the weed control necessary to keep the site in a neat, tidy and weed free condition and to allow specified species to develop free from unnecessary competition.

4.4 GROUND FLOOR PLANTED AREAS

Planted areas comprising trees, shrubs, hedges and herbaceous, groundcover and climbers shall be maintained in accordance with the general conditions.

4.4.1 Only limited thinning of planting is expected to the planted scheme. Any thinning should be carried out with the aim of allowing ornamental plants to thrive, groundcovers / low plants space to grow without competing for space and to encourage flowering and removing dead stems from perennials.

4.4.2 Specimen trees should be pruned clear of vassal suckers and side growths and crown-lifted gradually to produce strong specimens with clean boles up to the first desired lateral branches. Tree ties to be checked annually for signs of restriction and stakes checked for stability. Stakes and ties should be permanently removed after three years or once the tree is securely rooted.

4.4.3 Maintenance of the ornamental shrub areas shall follow the general guidelines, with pruning according to species and form, in order to clear dead wood, promote healthy growth and produce desired naturalistic form.

GRASS AREAS

4.5 The are no areas of amenity grass on the development site. Areas of dry riverbank and wildflower to be managed as described in 4.2

4.6 WATERING & PLANT REPLACEMENTS

4.6.1 Following a twelve-month defects period the property owners will be responsible for maintaining the planning approved scheme to the private gardens and communal areas.

Planting failures to be reviewed annually up to a period of three years following

installation and replanted according to specification in the first planting season from November to March following their demise.

TRANSPORT AND HANDLING

- 4.7 Transport and handling shall be carried out in accordance with season and good horticultural practice.

Transport and handling shall comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.

- 4.8 TREES GENERALLY

All plants shall be true to name and character and shall be supplied as bare-rooted, root-balled or container grown. Unless otherwise stated all trees shall be supplied root balled. They shall be grown and handled according to good horticultural practice and according to all current UK Government and EC regulation. The grower shall be expected to carry out thorough and rigorous production methods to ensure that the trees are of the highest standard.

- 4.9 ROOT-BALLED TREES

Root-balled trees shall be adequately supported by wire mesh, Hessian, or other suitable material to prevent collapse of the root ball. The root ball shall be minimum 600mm diameter and sufficient size to contain the fibrous roots. Trees which have a collapsed root ball to expose major parts of the root system shall be rejected by the Landscape Maintenance Contractor on delivery or replaced if damaged during handling on site.

- 4.10 CLEAR STEM TREES

All clear stem trees shall have a full and well-developed crown with uniform leaf coverage appropriate to their age and species. All shall bear a single central leader. Unless otherwise stated, they shall have a 1.8m clear stem height.

- 4.12 FEATHERED TREES

All feathered trees shall be fully furnished with single leader and well-developed laterals to ground level with uniform and full leaf coverage appropriate to their age and species.

- 4.13 CONTAINER GROWN SHRUBS

All plants will be true to name and character and shall be supplied container grown. They shall have been grown and handled according to good horticultural practice and to all current UK government and EC regulations.

All plants shall be well developed and bushy and grown in a container for at least one full growing season prior to delivery.

The root system will thoroughly permeate the contents of the container with clear evidence of the proper establishment of a healthy fibrous root system within the full volume of the container. Plants showing signs of being pot bound or waterlogged will not be acceptable.

They shall show a high degree of extension growth typical to the species or type and appropriate to the specified container size.

The compost will hold sufficient reserves of nutrients to maintain the plant in a satisfactory condition for a reasonable period of time after leaving the growers nursery. The compost shall be free from any perennial weeds and have reasonable moisture content. The compost shall not contain peat from UK Sites of Special Scientific Interest or the equivalent from other countries.

All plants shall on delivery be free from diseases and pests and materially undamaged. All plants shall be properly hardened off before delivery.

OTHER MATERIALS

4.14 PLANTING COMPOST

Shall comprise suitable humus-forming material such as leaf mould, spent mushroom compost, composted bark, or other suitable organic material.

4.15 CHEMICAL FERTILISER

Manufacturer and reference: Sierrablen Flora

Apply evenly over all areas to be planted at rates appropriate to planting type to manufacturers specification.

4.16 TREE STAKES

75-100mm pressure treated full round stakes driven vertically into firm ground at least 600mm to 1000/1200mm finished height

4.17 TREE TIES

Greenleaf 'Naturetie' or rubber spacers and adjustable strapping to suit tree girth.

4.18 BARK MULCH

Shall consist of matured, well composted British conifer bark with an even particle size distribution between 5-35mm. All dust and fine material to be expended. The mulch shall contain less than 5% wood. The mulch shall be pest, disease and weed free and be free of Methyl Bromide contamination.

4.19 IMPORTED TOPSOIL

To BS 3882, grade: Premium Source site.

INSTALLATION AND WORKMANSHIP

4.20 GENERALLY

4.20.1 All work specified in this section shall be carried out in accordance with BS 4428: 'General Landscape Operations'.

4.21 SEASON

All containerised shrubs and trees will be planted during suitable conditions. Root-balled trees will be planted during the October-March planting season.

4.22 PLANTING CONDITIONS

All planting works shall be carried out in accordance with the agreed programme when soil and weather conditions are suitable and as directed by the Landscape Architect. No planting shall be carried out when the ground is frozen, snow covered, waterlogged or excessively dry.

4.24 CULTIVATION

Areas to feature ornamental material shall have all weeds killed prior to planting. Beds shall be dug by hand to a minimum depth of 300mm, breaking down all lumps, incorporating planting compost and polymer as specified below, then forking, raking and collecting and removing from site all weeds and any debris greater than 50mm

diameter. The surface is to be left with a medium tilth (particles less than 10mm diameter) with smooth, flowing contours, removing all minor hollows and ridges.

4.25 TREE PITS / TRENCHES

Pits or trenches shall be prepared before trees arrive and the Landscape shall ensure that during periods of intense and prolonged frost suitable measures shall be taken to protect the bottom and sides of the pits / trenches and piles of topsoil from becoming frozen.

For trees with root-balls, pits / trenches are to be excavated to a depth of 750mm and should be adjusted at planting to ensure a depth of 225mm greater than the depth of root ball and 250mm backfill around the sides of the root ball.

During the digging operation, topsoil should be stripped first and put aside for re-use; subsoil and unusable material should be carted away to tip.

The bottom of the tree pit should be broken up to a depth of 300mm to assist drainage and root penetration. Compacted glazed sides of pits resulting from the use of mechanical diggers in heavy soils should also be roughened.

4.26 SHRUB AND HERBACEOUS PLANTING PLANTING COMPOST

A 50mm thick consolidated layer of planting compost shall be spread over shrub beds and well worked into the soil during cultivation.

4.27 PLANT SPACING

Plant spacing shall be carried out in accordance with drawings. The aim will be to space the plants evenly so that when established they will completely fill the areas indicated as precisely as possible.

4.28 PLANTING SHRUBS AND HERBACEOUS

Plants shall be planted at the same depth as previously grown, with care being taken to avoid any damage to the root system and stems. Sufficient soil shall be taken out from the bed to enable roots to be fully spread. Plants shall be placed in position showing their best side to the front, their roots to be fully spread out and packed around the fine soil. Care shall be taken to avoid breaking up the root ball of pot grown shrubs, but plants that have become pot bound shall have their roots gently eased out.

4.29 PRUNING

Immediately after planting, cut back carefully any damaged, dead or diseased branches. Remove any weak, thin or malformed growth and treat wounds greater than 25mm diameter with a fungicidal sealant.

5 MAINTENANCE SPECIFICATIONS

5.1 Introduction

The works consist of the maintenance and management of the new high-quality amenity planting, including trees, hedges, shrubs, bare-root transplants, herbaceous planting and turfed areas. The outline works to be maintained are detailed on drawing nr LC-717-01 accompanying this Maintenance and Management Plan.

The works shall be maintained by the responsible Landscape Contractor from

practical completion for the Defects liability as follows;

Trees - 24 months from practical completion

Shrubs/Herbaceous Planting - 12 months from practical completion

Turfed areas - 12 months from practical completion or

Until works are signed over to the appointed Estate Management Company where appropriate. At this point the responsibility will transfer to that party.

5.2 Landscape Contractor

A suitable specialist Landscape Contractor, employed by the Estate Management Company, shall carry out the works described in this specification. The proposed Landscape Contractor shall be a full member of the British Association of Landscape Industries and shall only be selected from the list of approved Contractors.

5.3 Machines and Tools

Machines and tools are to be used that are 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.

5.4 Workmanship

Method of Work – the method of executing any of the work in this specification and schedules unless specifically mentioned, is at the discretion of the Landscape Contractor and the Estate Management Company.

5.4.1 Good Practice

Where and to the extent that materials, products and workshop are not fully specified they are to be suitable for the purposes of the works states in or reasonably to be inferred from the contract documents, and in accordance with good horticultural practice, including the relevant provisions of current British Standard documents. Maintenance standards should reflect the development's high-quality image. The Contractor shall keep all planting area weed free, plants vigorous and healthy, and the overall landscape environment neat and tidy.

5.5 Chemicals Legislation

Pesticides include herbicides, insecticides, fungicides and plant growth regulators. The use of pesticides is governed by legislation. The Landscape Contractor must comply with 'The Control of Pesticides Regulations 1986' made under the 'Food and the Environment Protection Act 1985', 'The Control of Substances Hazardous to Health Regulations 1988' made under the 'Health and Safety at Work Act 1974' and any other legislation enacted during the contract period.

All pesticides must be products on the current list of Agricultural Chemicals Approval Scheme. All pesticide users shall comply with the conditions of approval relating to use clearly stated on the product label.

The Contractor must comply with all relevant Codes of Practice issued by DeFRA. In particular, where work is near water, comply with the 'Code of Practice for the Use of Herbicides on Weeds in Watercourses and Lakes'. Written approval from the Environment Agency (EA) should be obtained prior to the use of pesticides within these areas.

5.5.1 Certificates

A recognized nominated storekeeper's certificate of competence (BASIS) is required by a Contractor storing more than 200 litres of pesticides. All pesticides transported or

stored in the Contractor's vehicles (regardless of quantity) shall be locked in a separate storage compartment in the vehicle or within a lockable container in 'pickups' that are bolted to the floor of the vehicle.

A Certificate of Competence (National Proficiency Training Certificate) must be held by the Contractor applying pesticides and handed to the Estate Management Company prior to commencement on site. Only Certificate of holders shall mix, apply and dispose of pesticides and other chemicals on the site.

5.5.2 Use of Pesticides

Notification of at least 24 hours shall be given to the Estate Management Company of the Contractor's intention to carry out application of pesticides. The Contractor shall select the most appropriate and effective method for each particular area or situation or for any particular use or specific work and shall notify the Estate Management Company of the type of pesticide, active ingredient, and method and timing of application.

The Contractor shall keep a written logbook detailing all uses and pesticide applications carried out and a copy shall be submitted to the Estate Management Company for record.

The Contractor is required to notify the public of any pesticide application. A warning sign shall be posted at the entrance to the areas to be treated. Where contained solely within planting beds the sign shall be placed adjacent to edges in noticeable positions. Details of the application and a contact person shall be indicated on the sign.

The Contractor shall in accordance with COSHH Regulations protect employees and other persons, including the public, who may be exposed to substances hazardous to health.

5.5.3 Protection

The Landscape Contractor shall in respect of the maintenance works and adjacent areas of the site used by him in the course of the contract ensure that:

- Adequate protection of existing and newly planted / turfed areas is erected and maintained to prevent damage.
- There is appropriate making good on removal of any protective measures on completion.
- There is repair of any damage to adjacent and existing site works and features.
- All hard surfaces used are kept, protected, clean and tidy.
- All protective fencing at the end of the 12/24 months defect liability period will be removed.

5.6 Watering

After Practical Completion of the main contract the Landscape Contractor appointed shall supply all necessary hose attachments and fittings to keep the infrastructure landscape grass, planting and trees watered.

Watering shall be undertaken as necessary to ensure that trees, grass and plants remain healthy, establish and grow. Emergency legislation restricting the use of water from the mains during drought conditions, the Landscape Contractor shall arrange the collection and application of suitable second-class water for irrigation purposes, by bowser or other means, from approved source to deliver to site and apply as specified

5.7 TREE MANAGEMENT

5.7.1 Tree work

Tree management to include work to existing trees on site, proposed trees and replanting of legacy trees from outside the Site. The Contractor shall be responsible for mainlining tree stock.

5.7.2 Preambles

Prior to starting work the Estate Management Company and Contractors shall agree the trees that are to receive work. Prior to, during and after work the Contractor should avoid damage to neighbouring trees, plants and property.

All works should be in accordance with BS:3998 2010 and Forestry and Arboricultural Training and Safety Council Safety Guides. All operatives undertaking chainsaw work must hold appropriate certification and should be approved members of the Arboricultural Association.

As a general rule, wherever possible, management should be as minimal as possible, subject to meeting health and safety requirements. Any works to the trees is to be carried out in accordance with the legal agreement for the site and therefore following consultation and written consent from the Local Planning Authority (LPA).

5.7.3 *Tree Stakes and Ties*

The Contractor should check on a two monthly basis the condition of Tree Stakes and Guys. In addition, further inspections should be carried out immediately after strong winds. Stakes – replace loose, broken or decayed stakes to original specification. If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.

Ties – Adjust, refix or replace loose or defective ties, allowing for growth and prevent chaffing. Where chaffing has occurred, reposition or replace ties to prevent further chaffing. Removal of Stakes and Ties – remove stakes and ties two years after planting. Fill stake holes with lightly compacted soil.

5.7.4 Tree Guys

The Contractor should check on a two monthly basis the condition of Tree Guy Wires. In addition further inspections should be carried out immediately after strong winds. Operations – replace or re-secure loose or missing guy wires. Adjust to suit stem growth and to provide correct and uniform tension. Removal – two years after planting.

5.7.5 *Re-firming Trees and Specimen Shrubs*

Re-firming Trees and Shrubs – shall be carried out after strong winds, frost heave and other disturbances. To re-firm the Contractor should tread around the base until firmly bedded. Any collars in the soil at the base of tree stems, created by tree movement should be broken up by fork, avoiding damage to roots. The voids should be backfilled with topsoil and re-firmed.

5.7.6 *Tree Guards and Grills*

Tree Guards – loose or defective guards; adjust, re-fix or replace to original specification and to prevent chafing. Visit on a minimum of two occasions per annum.

5.7.7 *Formative Pruning*

Formative pruning of young trees – This work should be undertaken to ensure the successful establishment of the trees. The works should not be carried out during the late winter/early spring sap flow period.

Young trees up to 4m high should be crown pruned 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.

Extensive pruning of young trees and any surgery to larger trees must be carried out by an approved member of the Arboricultural Association or other approved specialist.

5.7.8 *Cleaning Out and Dead wooding*

Remove:

- Dead, dying, or diseased wood, broken branches and stubs.
- Fungal growths and fruiting bodies
- Rubbish, windblown or accumulated in branch forks
- Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
- Other unwanted objects, e.g. tree houses, swings.
- Climbing plants

5.7.9 *Cutting and Pruning Generally*

All the tools used should be appropriate, well maintained and sharp. Final pruning cuts – do not use chainsaws on branches of less than 50 cm diameter. When using handsaws, cut in one continuous operation to form a smooth cut surface. Do not use anvil type secateurs.

When removing branches do not damage or tear the stem.

Keep wounds as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area. When cutting, cut at fork

or at the main stem to avoid stumps wherever possible.

Large branches – remove only if unavoidable. Remove in small sections and lower to the ground with ropes and slings. Dead branches and stubs – when removing do not cut into live wood. Unsafe branches – remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions. Disease of fungus – give notice if detected. Do not apply fungicide or sealant unless instructed.

Bark Damage – wounds – do not attempt to stop sap bleeding. Gently remove ragged edges and remove splintered wood from deep wounds as small as possible. Give notice if there is any liquid or flux oozing from apparently healthy bark.

Cavities in Trees – Cavities should be investigated. Old cavities in mature trees should be left alone subject to health and safety audit. New cavities are likely to have been made by woodpeckers and may reflect nesting in which case disturbance is illegal.

Where the extent of a cavity is not visible, there is also a risk a bat or bats may be present. Such cavities should be notified but no further action taken without advice from a suitably qualified ecologist. For new small cavities in ornamental species, where bats or nesting birds are obviously absent, rubbish and rotten wood should be removed. The cavity should be probed to find the extent of any decay and give notice. The cavities should not be covered.

Stack all wood arising from the works in neat piles in areas to be agreed with the ecologist to provide invertebrate habitat opportunities.

5.7.10 *Crown Reduction/Shaping*

In general cut back selectively to lateral or sub lateral buds or branches to retain flowing branch lines without leaving stumps. The extent of the works will be as instructed by the client

5.7.11 *Crown Lifting*

Removing branches: remove whole branches back to the stem, or cut lower portions of branches back to lateral or sub lateral buds or branches. Do not leave stumps.

The extent of the works will be as instructed by the Estate Management Company. In general, for clearance remove branch systems to give clearances as follows: 2.5m above pathways, 3m above cycleways, above vehicle carriageways.

5.7.12 *Crown Thinning*

When removing branches, remove inward growing, crossing, rubbing, dead and damaged branches. When thinning selectively remove an agreed percentage of secondary and small live branch growth evenly throughout the crown. When cutting, make no cuts of more than 50mm diameter. Cut portions of branches back to lateral or sub lateral buds or branches without leaving stumps. The appearance should be uniform with a well-balanced structure of branches and foliage. The extent of the works will be as instructed by the Estate Management Company.

5.7.13 *Tree Inspection*

Review the existing and newly planted trees at regular intervals to maintain the longevity of the tree stock on site. Remove all stakes and ties after year 2.

5.8 SHRUB BED MAINTENANCE

5.8.1 *Litter*

The Contractor shall remove litter from all shrub areas. All arisings shall be collected and removed from site at the end of each work period and taken to the designated location for disposal. Remove, using correct horticultural practices, all fallen flowers, leaves and other debris. All cultivated areas shall be cleared of litter and other debris on each maintenance visit.

5.8.2 *Edging*

The Contractor shall maintain the edges of all shrub beds in a neat and tidy appearance by using a half moon edging iron on one occasion between October and March. Bed soil shall be pushed back and left at a 45-degree angle from the edge, starting slightly below surrounding levels. The edges of beds abutting grassed areas shall be slightly sloped to avoid a vertical or undercut appearance. The shape and size of the bed edge shall not be altered by this operation. All litter, arisings and

similar debris shall be removed from the adjacent channel for disposal in order to leave the channel neat and tidy following each visit.

This operation shall be carried out in conjunction with Specification 12 of the Grass Maintenance Regime.

5.8.3 *Ornamental Shrub Areas*

Remove, using correct horticultural practices, all fallen flowers, leaves and other debris. All cultivated areas shall be cleared of litter and other debris.

The Contractor shall prune shrubs in accordance with species correct procedures in order to prevent obstructions to paths, roads, signs, steps, sight lines, windows, doors and other similar situations and to allow access as directed by the Estate Management Company.

The Contractor shall at each visit remove all dead, damaged, infested, reverted or diseased branches and stems using correct horticultural practices. The Contractor shall otherwise prune all plant material at the correct pruning time.

Any plants grown for winter stem colour or similar effects, as specified by the Estate Management Company shall be pruned at the optimum time to provide the maximum display.

All dead shrubs and plants shall be removed and the Estate Management Company advised. The Estate Management Company may instruct the Contractor to supply and plant new plant material in accordance with the Planting Specification, at the same time as the plant material is removed or as specified by the Estate Management Company within the planting season.

Remove weeds by pulling, hoeing and raking, avoiding damage to stems, branches and plant roots, leaving a clean weed free surface cultivated to a medium tilth. No herbicides shall be used.

5.9 **Pruning**

5.9.1 *Generally*

This represents general guidelines for pruning. The Contractor shall note that pruning methods differ with species, cultivar, maturity and the exact position of the shrub. If the Contractor is in any doubt about the appropriate method to be used, then the advice of the Estate Management Company shall be sought.

Pruning of individual shrubs shall be carried out using skilled labour only and adopting correct horticultural practice. The purpose of pruning is to build a strong framework, keeping shrubs healthy and vigorous, maintaining the shape and balance, ensuring the maximum amount of flowering wood is produced and that the shrubs do not create a nuisance or danger. All pruning shall be carried out to the highest horticultural standards using secateurs, loppers and other method approved by the Estate Management Company. Cuts shall be made to an outward pointing buds. Suckers shall be removed at their source on the roots of affected shrubs. Reverted branches shall be treated in a similar manner. All areas adjoining footpaths and other surfaces shall be swept/raked following pruning works at the end of each work period, leaving the area neat and tidy.

The Contractor shall allow when pruning shrubs in order to prevent obstructions to paths, roads, signs, steps, sightlines, windows, doors and other similar situations, and to allow access.

The Contractor shall remove all dead, damaged, infested, reverted or diseased branches and stems, using correct horticultural practices.

If a shrub is winter berry-bearing, pruning shall not be carried out until March or until there are no berries remaining (whichever is the sooner). When pruning is undertaken, care shall be taken to leave as many berries as possible and at least 2" (60mm) of the previous year's growth, to allow flowering the following year.

5.9.2 Pruning Schedule

Slow Growing Specimen

If pruning is required, it will only involve light shaping and shall be carried out February to March

Spring Flowering

All wood which has borne flowers shall be removed. Young wood shall be retained to ripen and produce flowers in the following year. Thin out crowded and crossing shoots and remove weak growth. Pruning shall be carried out after flowering in May to July.

Most Deciduous/Vigorous Evergreen

One or two old stems shall be removed completely, and the younger flowering shoots shall cut back to the fresh growth of the main branches. Thin out crowded and crossing shoots and remove weak growth. Pruning shall be carried out between

November and March

Stem Effect/Marginal Hardiness

The previous season's wood shall be cut back to within two or three buds of the old wood. Thin out crowded and crossing shoots and remove weak growth during March to April.

5.9.3 Specimen Shrubs in grassed areas

Where groups of specimen shrubs are planted in grass, they should be allowed to form their natural habit with minimal pruning only to balance or where die back or damage has occurred.

5.9.4 Herbaceous planting

All borders shall be kept clear of weeds by hoe, fork or hand weeding as required, avoiding excessive treading of the border. Care shall be taken not to damage the plants' root system. At no time shall weed growth in excess of 5% of the area of the border be tolerated. The Contractor shall ensure that all plants that require staking shall be staked and tied by using pea sticks or similar material and secured with twine or similar. All materials must be approved by the Estate Management Company prior to use. This operation shall be undertaken, as necessary, in accordance with good horticultural practice.

The Contractor may be required to undertake the following operations on specified areas of border between November & March In these areas, plants shall be dug up and split in accordance with good horticultural practice, removing any perennial weed entwined within the plants. The Contractor shall dig over area disturbed by the lifting and splitting operations, using a spade to a depth of 275mm.

The Contractor shall incorporate into the soil approved well-rotted manure. This shall be supplied and applied at a rate of 10kg per square metre and the soil shall then be consolidated and raked prior to planting. The Contractor shall then replant as per plan supplied by the Estate Management Company.

5.9.5 *Cultivate and Supply and Apply Fertiliser*

The planted area shall be forked over lightly in March and a general fertiliser, approved by the Estate Management Company, with an N.P.K. ratio of 7:7:7, shall be supplied and applied at a rate of 35gm per square metre and incorporated into the surface by fork or hoe.

5.10 GRASS MAINTENANCE

5.10.1 GRASS AREAS GENERALLY

All grass cutting shall be carried out by cylinder or rotary machines, or a combination of the two: unless otherwise specified. The Contractor shall notify the Estate Management Company of the machines they propose to use on each of the regimes. The Contractor shall ensure that all machines engaged in this contract are sharp, properly set and operated at the speed in accordance with manufacturer's recommendations. All grass shall be cut cleanly and evenly to the same height as specified in the regimes allocated to each site and without damaging the existing surface or causing a washboard effect. Tractors and ride-on self-powered equipment shall not be operated on sloping ground with the gradient exceeding that recommended by the manufacturer.

The Contractor shall produce and follow a programme of work approved by the Estate Management Company at the commencement of the Contract, in line with the submitted method statements, to ensure that all applicable areas are maintained to the standards

5.10.2 Kerb Edge Maintenance

The Contractor shall cut a clean edge to all grass areas where they meet kerbs; other hard surfaces or gully channels. This operation shall include removing the overgrowth of grass and any soil that is covering the kerb gully channel or any other, hard surface. The Contractor shall collect and remove all arisings to a designated location for disposal at the end of the work period.

5.10.3 Trimming Grass Edges

The Contractor shall cut the overgrowth of grass at edges of cultivated areas and chemical edging channels with long handled shears or mechanical edge trimmers. The grass is to be cut to the same height as the surrounding grass. All edges will be neat and vertical, with no grass overhanging the finished edge. Once per annum the Contractor shall reform and cut back all edges in accordance with

5.10.4 Irrigation of Grass Areas

During periods of prolonged dry weather, the Estate Management Company may instruct the Contractor to water grassed areas, using an irrigation method approved by the Estate Management Company. The Contractor shall provide a rate to ensure that sufficient water is applied to the entire area of grass to moisten the soil to a depth of 125mm.

5.10.5 Fertilising

No fertiliser is to be used on the species-rich amenity lawns or wildflower meadows.

5.10.6 Cutting

A rotary mower to the flat and terraced areas and a strimmer shall be used to top grass when it is 80mm high, to leave a height of 50mm to cut weeds, control the growth of coarse grass and encourage tillering. Where mowing without a box

produces a swathe, this shall be spread evenly to prevent drainage to the growing grass beneath. This applies particularly to grass cut during periods of dull or wet weather.

5.11 HEDGE MAINTENANCE

5.11.1 Preamble

The Contractor shall maintain hedges so that they are neat, tidy, vigorous, dense and do not obstruct or overhang footpaths and roads or encroach on other maintained areas. Cutting shall generally maintain the original profile, both linear and sectional.

All hedges shall be cut using sharp shears, reciprocating handheld cutters or secateurs. The use of tractor mounted hedge cutting equipment during the establishment of new hedges will not be permitted. All cuts shall be clean, and any ragged edges shall be removed using a sharp knife or secateurs.

The Contractor shall ensure that the width of the hedge or any vegetation within it, i.e. brambles, does not present a hazard or obstruction to pedestrians, pavements, roads or signs at any time. The Contractor shall allow for this in their tendered rate.

5.11.2 Pruning

The hedge shall be pruned back to the same height, width and general shape as that which existed at the completion of the last approved pruning. The sides of the hedge shall be slightly inward sloping (i.e. wider at the bottom of the hedge than at the top to give more stability) with the top of the hedge level and at right angles to the ends. As a general rule, large-leaved plants, such as Laurel, shall only be pruned by using secateurs or similar approved equipment.

No pruning shall take place when the hedges are in flower unless this has been approved by the Estate Management Company.

Should the Contractor believe that they have been asked to do anything which, in their opinion, is detrimental to the hedge, an obstruction to pedestrians/vehicles, or they consider it appropriate to deviate from the specification, the Estate Management Company shall be notified prior to the work commencing.

The Contractor shall avoid cutting/pruning in March to July to cause minimum disturbance to nesting birds and wildlife, in compliance with the Wildlife and Countryside Act.

5.13 HARD LANDSCAPE

The Contractor shall maintain all hard landscape surfaces weed-free and at no time shall weed growth exceed 5% of any area. Should the Contractor wish to employ any chemical methods for this particular item, it shall be with the written approval of the Estate Management Company.

The Contractor shall check that water is running freely in gullies and drains, reporting any defects or unacceptable obstruction to the Estate Management Company.

The Contractor shall take care to avoid spreading rock salt near and around trees, shrubs, seed and other plant material. Any damage caused by the Contractor's negligence shall be fully reinstated at the Contractor's expense to the Estate Management Company's satisfaction.

5.14 LEAF CLEARANCE

The Contractor shall carry out leaf clearance by hand raking or sweeping or using machinery appropriate to this work and approved by the Estate Management Company.

The Contractor shall ensure that all flowerbeds, shrub beds, grass areas, paths, channels, drains, designated driveways, steps and play areas, or other specified by the Estate Management Company, are kept clear of leaves.

The Contractor shall remove all collected leaves to the designated location for disposal, at the end of each work period. The Contractor shall not leave groupings of collected leaves on site for bulk removal, unless specific approval from the Estate Management Company has been issued in writing.

5.15 LITTER CLEARANCE

5.15.1 Definition of Litter

'Litter' is anything whatsoever which is thrown down, dropped or otherwise deposited in, onto or from any place in the open air to which the public are permitted to have access without payment, unless otherwise by law or done with the written permission of the Estate Management Company. This shall include all items, i.e. beverage containers, fast food packaging, tree branches and animal faeces.

5.15.2 Method of Litter Collection

Methods of litter collection may be by hand, paper picker or mechanical means as approved by the Estate Management Company.

5.16 TREE ESTABLISHMENT AND AFTERCARE

Post planting management and maintenance are important if longevity within the landscape is to be achieved. This management programme should be in place for five years.

5.16.1 IRRIGATION

Any given volume of soil has the capacity to hold a given volume of water. The water holding capacity of the soil should be assessed and taken into account when determining irrigation needs. Maintenance personnel should have access to a tensiometer probe to monitor moisture levels.

The frequency of irrigation is more important than the volume of water given at any one time. Increased water volumes cannot compensate for a lack of watering frequency. This should be accounted for in irrigation plans, the site assessment and subsequent species selection.

Monitoring is recommended if there are 10 consecutive days during the growing season at >25 degrees C. Water should only be added if soil moisture probe values indicate that it would be appropriate to do so.

The frequency and extent of irrigation should take into account the prevailing weather conditions.

5.16.2 FORMATIVE PRUNING

Formative pruning should be carried out in accordance with BS 3998 as required throughout the early years of a tree's life in the landscape. Some of the nursery prepared

branching structure is temporary and formative pruning should be continued until a permanent structurally sound scaffold system of branches typical of the species and appropriate to the site is produced.

6.0 PLANTING SCHEDULE

NR	TREE	SIZE
1	Sorbus commixta 'Embley'	12-14cm girth
NR	PLANT	SIZE
3	Aucuba Rozannie	5-7.5lt
9	Alchemilla mollis	2lt
17	Bergenia Bressingham White	2lt
6	Ceanothus 'Yankee Point	3lt
8	Choisya Aztec pearl	5-7.5lt
9	Caryopteris Kew Blue	3lt
2	Deutzia 'Niko'	3lt
29	Escallonia ivelyi	10lt
18	Geranium macrorrhizum	2lt
3	Hydrangea White wave	5-7.5lt
8	Hebe 'Red Edge'	3lt
14	Luzula 'Aurea'	2lt
6	Prunus l. 'Otto Luyken	3lt
13	Potentilla Sunset	3lt
13	Spiraea 'Little Princess'	3lt
2	Viburnum × juddii	5-7.5lt
RAIN GARDEN PLANTERS		
9	Carex elata	2lt
9	Luzula sylvatica 'Hohe tatra'	2lt
9	Athyrium filix-femina	2lt

