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Landscape Management Manuel

(refer to Drawing No: LP/SHSBHRE/020 A)

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January 2023

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Landscape Management Manual

A) Introduction

- i) This Management Manual has been produced on behalf of Site Owner to provide a guide to the continued maintenance and development of landscape areas at 'South Hatch Stables, Burgh Heath Road, Epsom' after Practical Completion.
- ii) This manual provides a guide to management principles and to the standards required by the Site Owner.
- iii) The document has been written to assist those who supervise and carry out the landscape management work and to demonstrate to interested parties the intended level of commitment to establishing and maintaining landscape areas. The manual is intended for use by individuals or companies who have an understanding of landscape maintenance and of the general terms and standards stated and required by the Site Owner. The manual has been produced in three sections, as follows:

iv) Section One – Management Objectives

- A statement of management intent and objectives in respect of the elements concerned i.e. grass, shrubs etc. and their general functions.

The first section is a statement of the Site Owners Management Objectives, indicating the intent and function – use of the various elements and the general practices of establishment to be adopted over the first five years of establishment.

v) Section Two – Elements of Works (Specification)

- A written description of the tasks, methods and standards of workmanship and materials.

The second section – Elements of Works – is a written description of the tasks and workmanship required, which provides an explicit and concise description of the maintenance operations i.e. the works to be carried out to the specific elements. The first part of Section Two forms a general guide to scope and conditions of works.

vi) Section Three – Schedules

- Schedules of operational tasks (elements) indicating their frequency.

This fourth section is a series of schedules that provide an easy reference to specific tasks and frequency of operation.

As stated, this manual covers the first five-year period from the completion of the maintenance/defects period – Post Practical Completion – though it will be generally applicable in the description of works elements beyond this period and specific references are made to works post the five-year period within the 'Schedules'.

Section One – Management Objectives

1a) The site is made up of various designed elements:

- Grass Areas
- Ornamental Shrub and Herbaceous Areas
- Native Shrub Areas
- Hedges
- Trees (existing and proposed)

They all have a function to perform in the overall design and use of the site and an objective in terms of establishment. The following paragraphs summarise the main functions and the key objectives for the maintenance of each element over a five-year period:-.

- 1b) • Grass Areas
To create (or retain) open areas within the site for use by horses (stables area) and workers, residents and visitors (stable and residential areas). To be used for recreation, to be visually interesting or to increase access around the site.

Objective is to establish (level) grass areas which have a complete foliage cover and prevent the incursion of weed (or unwanted) species. Tolerant of pedestrian wear.
- 1c) • Ornamental Shrub and Herbaceous Areas
Amenity, screening and ground cover functions. Occurs through the majority of the site and species are generally planted in groups to form an integrity of foliage cover and a dominant form in the landscape. A variety of heights, forms and seasonal display give interest all year round.

Objective is to establish shrubs and herbaceous species with a good display and prevent the incursion of weed (or unwanted) species.
- 1d) • Native Shrub Areas
Amenity, screening and ground cover functions. Occurs generally to the site boundaries and species are generally planted in groups to form an integrity of foliage cover in the landscape. A variety of heights, forms and seasonal display give interest all year round as well as providing native species which offer wildlife benefits – nesting sites, a food source (flower and fruit) and shelter.

Objective is to establish shrub species, reduce or prevent the incursion of weed (or unwanted) species and maximise the areas for wildlife.
- 1e) • Hedges
Amenity and screening functions. Located so as to create structure, form and year round interest through the site. To have wildlife benefits as for nesting and shelter and as a food source (flowering hedges). Hedges are both evergreen and deciduous.

Objective is to establish hedges as closely trimmed and with integral canopies to create strong structural elements and prevent the incursion of weed (or unwanted) species.

- 1f) • Trees
Amenity, screening and wildlife functions. Located as visual focal points within the site, to provide a food source or nesting shelter sites or to enhance screening within or through the site.
- Objective is to maintain existing trees and establish young trees keeping the bases weed free, undertake necessary pruning and water or feed as necessary.

Section Two – Elements of Works (Specification)

2) General Conditions

2.1 Scope of Works

The maintenance of both soft and hard landscape features as described in this Specification (Section 2), Schedules (Section 3) and the as built drawings (currently as shown on Landscape Plan - LP/SHSBHRE/020 A). All works to be undertaken on behalf of the Site Owner.

The works involve, but are not limited to, the following maintenance tasks: Grass cutting and cultural operations, weeding of shrub and herbaceous areas, checking trees stakes and ties, tree pruning, hedge cutting, herbicide application, watering and litter collection.

2.2 Materials and Work

The materials used and the work done shall comply with the relevant British Standard and Codes of Practice.

Where requested by the Site Owner, the Contractor shall provide a Certificate, stating that the materials in question are fully in accordance with the Specification.

2.3 Standards of Workmanship

The contractor shall maintain each site to the highest standards of workmanship and material supply and must bear in mind any access limitations or user constraints.

The contractor shall supply appropriately skilled and experience operatives for the type and quality of work and be familiar with the terms of this manual. The contractor shall supply a suitable experienced and qualified foreman, who shall attend site at each and every visit. The foreman must be able to interpret and act on instructions given by the Site Owner or their agents.

Operatives must be courteous, polite and helpful if approached by any member of the public or site user. The Site Owner reserves the right to have any operative removed from the site, for any reason, and if in their opinion the operatives conduct or appearance is inappropriate, this action will not be unreasonable exercised.

All operations necessary for the performance of the works shall be carried on so as not to interfere unnecessarily or improperly with members of the public or horses or with the access to roads, car parking spaces or footpaths.

All works shall be carried out without unreasonable noise and disturbance. The contractor shall indemnify the Site Owner from and against any liability for damages on account of noise or other disturbances created while carrying out the works.

2.4 Approved Chemicals

Herbicides and Pesticides

All herbicides and pesticides used must be approved under the Control of Pesticides Regulations 1997 or any subsequent updated Regulations. Contractors must conform fully to C.O.S.H.H. (or any other relevant Health and Safety regulation) assessments for all chemicals used and all operatives must hold a recognised certificate of competence to apply the specified chemical(s). All chemicals used shall be non-toxic – under normal use – to human beings, birds and animals. The selection of the chemical chosen must be by a BASIS qualified operative and be the least hazardous for the job. The Contractor is responsible for obtaining all the relevant permissions and giving notification to all relevant bodies e.g. The Environment Agency of the intent to use a selected chemical.

The Contractor must inform - and obtain permission from - the Site Owner at least 48 hours prior to the application of a chemical. They shall specify the spraying location, type of chemical, the method of application they intend to use and the reason for the control. The Contractor shall not apply any pesticide in conditions which might cause drifting of the chemical. Any damage caused by incorrect application shall be replaced at the Contractor's expense. The contractor shall make full provision for the supply and erection of suitable signage and/or barriers whilst works are in progress.

All chemicals must be stored safely by the Contractor when not in use and empty containers removed from site and disposed of safely. No chemicals to be deposited into waters bodies or watercourses.

2.5 Fertilisers

All fertilisers shall be supplied by the contractor and are to be applied during suitable weather conditions and at the manufacturers recommended rates. In the choice of material to be used – which must be approved by the Site Owner prior to application – the contractor is to ensure its suitability for its intended use and be mindful to use environmentally friendly materials and methods.

The contractor shall ensure that no damage occurs to plant material as a result of incorrect application. The contractor at this expense shall replace any plant material so damaged.

All chemicals must be stored safely by the Contractor when not in use and empty containers removed from site and disposed of safely. No chemicals to be deposited into waters bodies or watercourses.

2.6 Machinery and Tools

Use only machinery and tools suitable for the site conditions and work to be carried out. Use hand tools around trees, plants and in confined spaces where it is important to use machinery. The contractor shall make full allowances for minor handworks defined within the scope of works or as defined in this manual.

The contractor shall ensure that all mechanically propelled vehicles and/or machines are licenced in accordance with the Vehicles Excise and Registration Act 1994 and are properly taxed and that all operatives hold the required class of driving licence for their use.

The contractor shall ensure that no vehicles or machinery are left unattended whilst on the site.

The contractor shall ensure that, except in freezing or drought conditions, each vehicle receives a thorough wash of all external areas at least once per week. Where relevant – for instance where machinery moves between different sites – vehicles or machinery may need to be thoroughly cleaned and disinfected to prevent the spread of any infections or diseases.

Vehicles and machinery or tools are not to be re-fuelled whilst on grass areas and the contractor shall avoid damage to grassed, planted or paved areas caused by dripping oil or fuel from vehicles, machinery, or tools, both when in use or parked/stored. Machines to be used for grass cutting shall be fitted with grass tyres.

2.7 Services

Care shall be taken not to disturb or damage any cables, conduits, pipes or fittings belonging to any Statutory Undertaking, Local Authority or private party.

Any damage to such cables shall be reported to the Site Owner immediately and shall be made good at the contractor's expense and in accordance with the Bylaws or regulations of the relevant authorities and or statutory undertakers.

Before commencing work the contractor shall satisfy themselves as to the positions and depths of such cables, conduit is and underground pipework etc. and shall instruct his staff accordingly.

2.8 Vandalism

The contractor shall report any acts of vandalism, and particular acts relating to plant stock immediately on discovery to the Site Owner. The contractor shall submit a report to the Site Owner indicating the area, the material lost and a fully itemised cost of repair or replacement and the earliest date the contractor can affect the remedial works and await instructions from the Site Owner.

Any claims received later than one month following an alleged incident or cannot be proved as acts of vandalism must be replaced at the contractor's expense and in line with the original specified requirements.

2.9 Environmental Defects

Where during the course of the works the contractor observes the presence of any significant defect, pest or disease, in the inorganic or organic materials or structures on site they shall report such findings to the Site Owner immediately for their action.

2.10 British Standards

Except where otherwise specified all materials and workmanship shall be in accordance with the appropriate current British Standard.

2.11 Good Practice

Where and to the extent that materials, products and workmanship are not fully specified, they are to be:

- Suitable for the purpose of the works stated herein and or reasonably to be inferred from the manual
- in accordance with good horticultural practice, including relevant provisions of current BSI documents relating to landscape or other associated works.

2.12 Inspections

Notwithstanding the conditions of this section the contractor must give 48 hours notice to the Site Owner of their intention to begin the following operations:

- Application of herbicide or pesticide
- Application of fertilizer
- Watering
- Each site maintenance visit

2.13 Reinstatement

Reinstate to original condition and within a reasonable period of time (according to season and as agreed with Site Owner), any damage or disturbance occurring during the work, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings.

The contractor shall prior to the autumn period of each year, undertake a review of the site in the respect of any missing plant stock. The schedule should fully identify any missing or failed stock or any which is below the quality required or specified. The schedule will indicate numbers and sizes all in accordance with the original planting plans and the areas on site from which the stock is missing. On production of the schedule the contractor shall submit the schedule to the Site Owner for their approval, comments and amendments, The contractor shall make full allowance for replanting this stock at their own cost after approval of the schedule by the Site Owner.

The clause does not apply to any stock which has been vandalised by others, and which has been properly reported to the Site Owner and recorded as such.

The contractor shall make full provisions and allowances for undertaking replacement/remedial works with due care to the already established plant stock. Prior to the commencement of replanting works the contractor shall

submit a programme for the Site Owners consideration and approval. All replacement/remedial works shall be carried out in accordance with the Soft Landscape Specification.

2.14 Control of Mammalian Pests

Employ only approved firms and methods as confirmed with the Site Owner prior to control being carried out.

2.15 Watering Generally

Obtain the Site owners written approval before using a supply other than potable mains water. Use a fine rose or low pressure hose where appropriate to avoid damaging or loosening plants. After a period of seven continual days when there has been less than a total of 20 mm rainfall or as agreed with the Site Owner, the areas should be carefully watered to avoid scorching plants, surface capping and run-off. Where necessary, loosen soil or form depressions around the stem base of plants to ensure that water reaches the root zone instead of dispersing on the surface.

Ensure the full depth of topsoil is thoroughly wetted and moist to a depth of at least 300 mm. This process should be repeated at intervals sufficient to promote establishment growth, with the prior agreement of the Site Owner.

Unless there are restrictions imposed by the Statutory Undertakers on the use of water for watering plants, the Contractor shall be deemed totally responsible for making special arrangements which may be necessary to ensure adequate watering of plant material. All failures due to inadequate watering of plants shall be replaced at the contractors own cost.

If water supply is or is likely to be restricted by emergency legislation the contractor shall inform the Site Owner without delay and ascertain availability and additional cost of second quality water or other alternative sources of supply.

2.16 Disposal of Arising's Generally

Unless specified otherwise, dispose of arising's from all specified operations by removing from site to an approved recycling facility for composting.

2.17 Chipping or Shredding on Site

The chipping or shredding of materials arising from works on the site shall not be permitted unless prior agreement is obtained from the Site Owner.

2.18 Litter Collection

Collect and remove all extraneous rubbish not arising from the contract work and detrimental to the appearance of the site, including paper, packaging materials, bottles, cans and similar debris. Agreement shall be reached with the Site Owner over the cost of removing items that can be classed as Fly-tipping.

2.19 Protection of Existing Grass

During maintenance operations existing grass areas shall be protected by laying boards or tarpaulins. No excavated materials are to be placed directly onto grass areas.

2.20 Cleanliness

Remove soil and arising's from hard surfaces and leave works in a clean and tidy condition after maintenance operations.

2.21 Bark Mulch

All planted areas (including native shrubs and trees in beds) shall be mulched (topped up) to 75 mm thick once a year, giving an even finished depth of 75mm to 90 mm. The mulch used is to be 20 mm to 45 mm particle size Bark Mulch, containing a minimum of white wood and less than 5% fines. Care shall be taken to avoid covering bulbs or other plant material. Mulch shall be kept off adjoining areas and shall not be piled up against tree stems. Any material failing to meet this specification will be removed and replaced at the contractors own cost.

If weed growth has established prior to mulching, planted areas shall be treated with a suitable herbicide, avoiding any contact with trees and shrubs.

2.22 Grass Areas

Grass General Usually maintenance regimes for grass areas do not vary greatly as they sward establishes over the first five years. All cutting operations should be carried out to 100% of the sward.

Cultivation operations such as scarifying and aeration improve the sward vigour and can lessen the need for herbicides and fertilisers. These operations are applicable only where high quality grass lawns are required for visual appearance i.e. weed free lawns.

For herbicides it should be possible to gradually reduce the frequency of applications over the five year period. In new swards (seeded areas) more weed control is often required, though with turfed lawns initial weed control should not really be required.

2.23 Maintenance of Grassed Areas

Carry out operations in the following clauses as necessary in order to: maintain grass height within the specified range

Maintain ornamental turf and lawns reasonably free from moss, thatch, weeds, frost heave, worm and mole casts and with neat defined edges.

Ensure that soil and grass does not become compacted or waterlogged

Maintain grass in a healthy vigorous condition, free from disease, fungal growth, discolouration, scorch or wilt.

Repair grassed area damaged by trampling, abrasion or scalping during mowing.

Remove litter and fallen leaves regularly to maintain a neat appearance.

Maintain turf in a manner appropriate to the intended use.

2.24 Grass Cutting Generally

Remove litter, rubbish and debris from grassed areas before mowing.

Cut to a neat even finish, without rutting or compaction of the surface, especially when ground conditions are soft.

Leave edges neat and well defined.

Neatly trim all grass edges round the base of lighting columns, manholes and the like. Alongside beds/borders use long handled shears not strimmer's.

Sweep adjoining hard areas clear of arisings and remove.

Do not cut during periods of drought or when ground conditions or grass are wet, without the prior agreement with the Site Owner.

2.25 Tree Stems

Do not allow machinery closer than 100 mm to any tree stem. Avoid damage to tree stems by nylon filament rotary cutters or other mechanical tools.

2.26 Grass Cutting Machines

These must be appropriate to the grass cutting operation required, taking due regard to grass type, mowing specification, ground contour and condition.

Machinery is to be well maintained and correctly adjusted to give a clean even cut without damaging the grass.

2.27 Mowing – Informal Short Grass

Maintain height of grass between 25-50 mm. Cut when necessary using a rotary mower, arisings shall be spread evenly across the cut area, no other depositing of arisings shall be accepted. No rubbish, including shredded rubbish, irrespective of its source, prior to or immediately after the grass cutting operation shall be left.

2.28 Mowing – Informal Long Grass

This is an area beneath the existing mature trees where cutting may be undertaken on a less frequent basis. Cut once a year in September to 50-75 mm height. Cut when necessary using a rotary mower or strimmer, arisings shall be raked up and deposited to waste recycling centre.

No rubbish, including shredded rubbish, irrespective of its source, prior to or immediately after the grass cutting operation shall be left.

2.29 Rolling

Roll with a self-propelled or gang roller to consolidate turf and reduce frost heave, as instructed.

2.30 Spiking

Spike with self-propelled spiker to aerate the soils to a depth of 100 mm at 100 mm centres, during suitable weather conditions. Care shall be taken not to disturb the grass surface or distort levels.

- To be undertaken in informal short grass areas in the October of years 2 and 4.

2.31 Scarifying

Scarify with self-propelled equipment to a depth of 3-9 mm, depending on grass and ground conditions, to relieve thatch conditions and remove dead grass. Two passes shall be made in transverse directions across the area, the passes of the scarifier shall overlap by 200 mm. Remove all arising's.

- To be undertaken in informal short grass areas in the October of years 2 and 4.

2.32 Re-Forming Grass Edges

Reform edges abutting paths, borders, manhole covers and the like with a suitable edging tool, to clean straight lines or smooth flowing curves. Form a clean edge, sloping slightly back from vertical.

Draw back soil from edges to permit the use of edging shears and remove arising's.

2.33 Selective Herbicide

Spray with a suitable selective herbicide to control any broad-leaved weeds in May or (depending on growing conditions) as agreed with the Site Owner. Ensure that any mowing instructions are followed so as to leave a good target area for the herbicide. See Clause 2.4.

- To be undertaken in informal short grass areas in the May of years 2 and 4. Do not spray wildflower or bulb and corm planted areas.

2.34 Fertiliser – Spring Application

- informal short grass areas

Apply a compound soluble fertiliser (e.g. Longlife Standard) 9:7:7 at 35g/m² in April/May of years 2 and 4.

2.35 Fertiliser – Autumn Application

- informal short grass areas

Apply a compound soluble fertiliser (e.g. Longlife Standard) 4:12:12 at 35g/m² in September of years 2 and 4.

2.36 Reinstatement of Lawns

Reinstate worn areas as follows:

Remove the damaged turf to a depth of 75 mm, cultivate soil to a fine tilth and either:

- Re-turf using turf of a quality or appearance to match existing, or:
- Fill with fine topsoil to BS 3882 (2015) Premium Grade, substantially free from stones, debris and weeds, and reseed with a seed mix to match existing grass in quality and appearance
- Provide protection and watering to promote successful germination and/or establishment.

2.37 Trees, Shrubs (including Native Shrubs), Herbaceous Species, Hedges and Climbers.

Generally

The main change which should occur over the first five years, is the reduction in weed control required due to the establishment of the shrubs, hedges and herbaceous species. Consequently the level of chemicals will equally reduce. Due to disturbance newly planted areas are often weedy, due to weed seeds being brought to the soil surface. As shrubs etc. establish and their canopies close over, weed growth should be lessened by the shading from these plants. The need for weed control should diminish over the five-year period.

2.38 Tree Stakes and Ties

Inspect at monthly intervals and carry out the following:

- Check stakes for looseness, breaks and decay and replace as necessary to original specification.
- If a tree with a defective stake has grown sufficiently to become self-supporting – generally within 24-26 months of planting – inform Site Owner and, if instructed, remove stake(s) and tie(s), fill any hole(s) with lightly compacted soil to BS 3882 (2015).
- Adjust, reattach or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing. Where chafing has occurred reposition or replace ties to prevent further chafing.
- Remove redundant tapes, tags, ties, labels and other encumbrances.

2.39 Underground Guying

Adjust tension of ratchet as required.

2.40 Refirming

Check plants during each maintenance visit and ensure that trees, shrubs, hedging plants and herbaceous species remain firmly bedded. These checks are especially important after strong winds, frost heave and other disturbances. Refirm by treading around the base. `Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil (to BS 3882 (2015)) as necessary, and refirmed.

2.41 Tree Guards

Inspect and adjust, reattach or replace loose or defective guards to original specification to prevent chafing

2.42 Tree and Shrub Shelters

Adjust, reattach or replace loose or defective shelters to original specification and to prevent chafing. Remove shelters after 2 years or when the stem/shrub is larger than the shelter diameter, or when instructed by the Site Owner.

2.43 Signs, Site Lines and Windows

Ensure that all windows, site-lines, road and other signage is not obstructed by plant growth, prune as required to maintain visibility.

2.44 Pruning Generally

Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.

Thin, trim and shape appropriately to each species, location, season and stage of growth, leaving a well-balanced and natural appearance.

Use clean sharp secateurs, handsaws or other tools to be approved by the Site Owner.

As part of bio-security measures tools are to be disinfected as required to prevent spreading of any disease or pathogen around the site or to other sites.

Trim of ragged edges of bark or wood with a sharp knife to leave a clean cut. Remove branches without damaging or tearing the stem.

Keep wounds as small as possible and cut cleanly back to sound wood.

Make cuts above and sloping away from an outward facing healthy bud, angles so that water will not collect on the cut area.

Prune larger branches neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide (see BS 3998:2010 - `Tree Work – Recommendations')

Notify the Site Owner of any disease or fungus which is present to either recently planted or established trees.

Do not apply growth retardants, fungicide or sealant unless instructed by the Site Owner.

2.45 Formative Pruning of Young Trees

Do not prune whips or feathered trees.

Do not prune during the late winter/early spring sap flow period unless specified otherwise either due to specific tree species or due to damage to trees that must be corrected at the earliest opportunity.

Crown prune young trees – up to 4.0 m height – by removing dead, damaged or diseased branches and crossing or rubbing branches to preserve a well-balanced crown. Where required reduce selected side branches by one third, remove duplicate or competing leaders to preserve a well-balanced head, ensure the development of a single strong leader and potential weak or tight forks. In each case cut back to live wood as instructed.

Extensive pruning of young trees and any surgery to larger trees must be carried out by a member of the Arboricultural Association or a suitably qualified specialist agreed with the Site Owner.

2.46 Pruning Ornamental and Native Shrubs

Prune to encourage healthy and bushy growth and desirable ornamental or wildlife features e.g. flowers, fruit, autumn colour and stem colour.

Many evergreen and deciduous shrubs require little or no regular pruning other than to maintain shape, remove diseased or damaged branches and to keep them within bounds. Any light spring pruning shall be carried out from March onwards or after the risk of frost has passed.

Shrubs grown for their winter stem effect such as Cornus shall be cut down annually in the spring on a 2-3 yearly cycle just as growth is about to commence, Generally Cornus species to within 50-100 mm of ground level. In undertaking pruning in this manner a crop of young stems is thrown up and these colour brightly and remain decorative when the shrub is out of leaf.

Remove all suckers by cutting back level with the source stem or root.

Where required prune shrubs adjacent to footpaths and roads to encourage healthy and bushy growth, to maintain shape and to keep them within bounds.

2.47 Pruning Flowering Species

Refer to individual species but generally:

Winter flowering species to be pruned in spring

Shrubs flowering between March and July immediately after the flowering period.

Shrubs flowering between July-October back to old wood in winter.

2.48 Herbaceous Plant Material (including grasses)

Where possible – and depending on species – dead stems, grass stalks and flowers shoots may be retained to provide overwintering and shelter sites for insects as well as some sculptural visual interest. In this instance this material to be removed in Spring once the risk of frost has passed or regrowth of the plant is established.

Otherwise after flowering the flowering shoots shall be removed to the first leaf and all debris shall be removed from site.

Species such as Alchemilla and Geranium may be hard pruned down to ground level towards the end of their flowering period to remove vegetative growth and encourage the production of a compact vegetative mound over the winter period. All vegetative debris to be removed from site.

Otherwise vegetative material to be removed down to approximately 30cm from ground level in November and all debris removed from site.

2.49 Trimming Rapidly Establishing Hedges

Allow to reach planned height as rapidly as possible, trimming back lateral branches moderately to establish the required shape.

2.50 Trimming Slowly Establishing Hedges

Cut back hard in June and/or September both sides to encourage bushy growth down to base level.

Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

2.51 Climbers

Generally - Prune back or tie in to support attached to adjacent wall or structure.

Trim shoots of self-clinging climbers – such as ivy – in late winter/early spring where required.

Twining climbers – such as Clematis or Jasmine – to be pruned as necessary to retain with available space and avoid conflict with pedestrians or vehicles.

2.52 Removal of Dead Plant Material

At each maintenance visit, check all shrubs and herbaceous species and remove all dead or damaged foliage, branches or stems.

2.53 Remove and Replace Dead Plants

As soon as possible, and in any case within the current or next planting season or as instructed by the Site Owner. In accordance with Clause 2.13 – Reinstatement.

2.54 Weed Control – Generally

Remove and/or prevent plant growth that is not required in the landscape. Maintain beds and trees bases weed free, as indicated in the Schedules – Section 3.

Ensure that the methods used do not cause any damage to adjacent plants, trees or grass.

2.55 Hand Weeding

Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to trees, plants, mulched surfaces and bulbs and leaving the area in a neat, raked and clean condition.

2.56 Weed Control with Herbicide

Apply a suitable foliar acting translocated herbicide being dependent on season, maturity of stock and location. The timing and number of treatments should ensure that weeds are prevented from shedding any seeds. Refer to Clause 2.4-2.5 for chemicals and operative requirements.

Reapply as necessary to maintain required level of weed control. Allow the recommended period before clearing arising's and taking to waste recycling point.

2.57 Leaf Removal

Remove fallen leaves by hand from plant beds, lawns and by sweeping hard surfaces. Use of leaf blowers is permitted.

2.58 Fertilising Trees and Shrubs

Apply a compound, slow release fertiliser – e.g. ICL Enmag CRF 11-21-9+6MgO- as follows:

- Trees – 100g/m² to each tree at spring in years 2 and 4. The top dressing should cover the whole rooting area plus at least one metre beyond the spread of branches.
- Shrubs – 70g/m² to each shrub area at springtime in year 2 and 4. The top dressing should cover the area of each rootball and 500 mm diameter circle around the shrub.

2.59 **Tree Work**

2.60 Tree Work – Generally

Before starting work verify with the Site Owner, which trees, shrubs and hedges are to be removed or pruned.

Avoid damage to neighbouring trees, plants and property.

Carry out all works affecting trees in accordance with the relevant recommendations in BS 3998:2010, unless otherwise specified or instructed by the Site Owner.

Comply with Forestry and Arboriculture Training and Safety Council Safety Guidelines.

When removing branches, cut as shown in BS 3998:2010, Vertical branches to have no more slope on the cut surface than is necessary to shed rainwater.

Leave trees with a well-balanced natural appearance.

Work involving chainsaws must only be carried out by holders of a Certificate of Competence.

Tree work must only be carried out by a member of the Arboricultural Association whose is qualified to the required standard and who is approved by the Site Owner.

2.61 Prevention of Bleeding

Comply with recommendations set out in BS 3998:2010.

2.62 Prevention of Disease Transmission

Comply with relevant Bio-Security recommendations or guidelines such as those set out by BS 3998:2010 and the Bio-Security Statement prepared by the Arboricultural Association.

2.63 Cleaning Out and Dead wooding

Remove:

Dead, dying or diseased wood, broken branches and stubs.

Rubbish, windblown within the tree canopy 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

Climbing plants (including ivy) as instructed or agreed with the Site Owner.

2.64 Cutting and Pruning Generally

Use appropriate well maintained sharp tools.

For final pruning cuts:

- Do not use chainsaws on branches of less than 50 mm diameter.
- When using handsaws, cut in one continuous operation to form a smooth cut surface.
- Do not use anvil type secateurs.

Remove branches without damaging or tearing the stem.

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

Cut at the fork, branch junction or main stem to avoid stumps or stubs where possible.

Remove large branches only if instructed by, or agreed with, the Site Owner. Remove in small sections and lower to ground with ropes and slings.

Do not cut into live wood when removing dead branches and stubs.

Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions. Check for naturally occurring braces and manage these in association with the management of any included bark junctions.

Notify the Site Owner of any disease or fungus which is present on the trees. So not apply fungicide or sealant unless instructed by the Site Owner.

2.65 Crown Reduction/Shaping

Cut back selectively to lateral or sub lateral buds or branches to retain flowing branch lines and a natural shape and without leaving stubs.

2.66 Crown Lifting

Remove branch systems to give clearance of 2.5-3.0 m over footpaths and 3.5 m over the access roads or as directed by the Site Owner.

Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sub-lateral buds or branches without leaving stumps.

2.67 Crown Thinning

Remove inward growing, crossing, rubbing, dead and damaged branches. Selectively remove secondary and small live branch growth - up to a maximum of 30% of canopy growth – evenly throughout the crown, making no cuts of more than 50 mm diameter. Cut portions of branches back to lateral or sub-lateral buds or branches without leaving stubs. Leave a uniform and well-balance structure of branches and foliage.

2.68 Cutting Tree Roots

Excavate using hand held tools only.

Do not cut roots without approval of the Site Owner.

Notify the Site Owner if roots exceeding 25 mm diameter are exposed.

Form clean smooth cuts with a handsaw or bypass secateurs, minimising the wound area and avoiding ragged edges. Pare cut surfaces smooth with a sharp knife.

Cover cut roots with clean sharp sand (not building sand) prior to backfilling with the original topsoil or new topsoil to BS 3882 (2015).

2.69 Bark Damage

Do not attempt to stop sap bleeding from wounds.

Inform the Site Owner if liquid, bleeding of flux is observed oozing from apparently healthy bark.

Gently remove ragged edges and remove splintered wood from deep wounds, but keep wounds as small as possible.

2.70 Cavities in Trees

Clear away rubbish and rotten wood. Probe the cavity to find the extent of any decay, report to Site Owner and await instructions.

Unless instructed by the Site Owner to not drain water filled cavities or remove wood from inside cavities.

2.71 Hard Landscape Areas

Hard Surface Areas:

Roads, paths, courtyards and all kerb lines:

- Apply a suitable foliar acting or residual herbicide. Allow recommended period before clearing arising.
- Otherwise remove weed growth by mechanical means such as brushes or machinery.
- Sweep hard and bonded surfaces to keep free of litter, leaves and other debris.
- Remove mud, silt and debris from surface gutters and channels in hard surfaces

3.0 Section Three – Schedules

The following schedules of operational tasks (elements) provide a guide to the required operations, providing an indication of timing and frequency.

Informal Short Grass

<u>Operation</u>	<u>Frequency</u>	<u>Timing</u>	<u>Required Performance</u>	<u>Year</u>
Cut to 25-50 mm; disperse cuttings, approximately fortnightly, Raise height of cut in dry weather	18-26 cuts per year	March-October	Cut 100% of grass area to 25-50 mm height with rotary mower or strimmer - due to slopes and obstacles	All years
Edge with shears	18-26 cuts per year	March-October	Trim 100% of edges adjacent to paths and beds after cutting grass	All years
Edge with edging iron or machine	1 x per year	October	Cut back to original clean lines where soil/grass has encroached onto paths or beds.	All years
Control broad-leaved weeds by an application of selective herbicide	1 x year depending on level of weed growth	May	Apply to 100% of area and allow recommended time for 'take'. 98% of sward to be weed free on completion.	2 and 4

Apply Spring fertiliser – to boost leaf growth	1 x per year	April/May	Apply to 100% of area	2 and 4
Apply Autumn fertiliser – to boost root growth	1 x per year	September	Apply to 100% of area	2 and 4
Spike/slit to improve aeration and then scarify to remove dead moss, grass, weed and surface debris.	1 x per year	October	Carry out to 100% of area. 90% of sward to be thatch free on completion	2 and 4
Remove leaves to prevent grass from dying and allow air movement across the surface.	2 x per week if required	November-December	Carry out to 100% of area. 95% of sward to be leaf-free on completion of each visit	All years

Informal Long Grass

<u>Operation</u>	<u>Frequency</u>	<u>Timing</u>	<u>Required Performance</u>	<u>Year</u>
Cut to 50-75 mm; rake up arising's and dispose of at waste recycling centre. Do not cut in wet weather.	1 cut per year	September	Cut 100% of grass area to 50-75 mm height with rotary mower or strimmer - due to uneven ground and obstacles	All years
Control excessive levels of broad-leaved weeds by an application of selective herbicide	1 x year depending on level of weed growth	May	Apply to 100% of area and allow recommended time for 'take'.	All years
Remove leaves to prevent grass from dying and allow air movement across the surface.	2 x per week if required	November-December	Carry out to 100% of area. 95% of sward to be leaf-free on completion of each visit	All years

Ornamental and Native Shrubs, Climbers and Herbaceous Areas

<u>Operation</u>	<u>Frequency</u>	<u>Timing</u>	<u>Required Performance</u>	<u>Year</u>
Hand weed, as removal of whole weed, including roots is desirable. Number of operations to decrease over the 5 year period.	12 x per year – 1 per month if required	All year round	Carry out to 100% of area. 95% of area to be weed free on completion. Hoeing not to be undertaken as introduces more weed seeds to the surface.	All years
Selective translocated herbicide application to give control of perennial weeds when actively growing. Contact herbicide is effective when no active growth is occurring, but only removes top of plant.	12 x per year – 1 per month if required	All year round as weather and growth dictates	Carry out to 100% of area. 95% of area to be weed free on completion. Carry out after hand weeding only where spaces between desirable plants are sufficient to allow spraying of weeds without damage to plant stock.	All years – though decrease over 5 years.
All planted areas – particularly shrubs – routine pruning to remove unwanted growth adjacent to paths, buildings, in sightlines and obscuring signs.	1 x per	June or as required	Inspect 100% of planted areas and remove growth where necessary. Trimming plants to maintain their natural appearance, shape and habit.	All years.
Shrubs – horticultural pruning to remove dead, dying, diseased and crossing branches; prune to increase display of flowers, fruit or stem colour.	1 x per year.	As required for species	Inspect 100% of planted area and prune as determined by species. Remove dead flower heads/stalks. Majority of evergreens unlikely to require pruning.	All years.
Apply spring fertiliser	1 x per year.	April/May	Apply to 100% of shrubs.	2 and 4

Firming-in and backfilling	1 x per year	April	Inspect 100% of shrubs, climbers and herbaceous areas and straighten up plants which have moved due to frost heave or wind rock.	All years.
Bark Mulch – top up bark mulch to 75 mm depth.	1 x per year	March/April	Inspect 100% of shrubs, climbers and herbaceous areas. Areas to have 100% bark mulch coverage. Mulching is less critical and more difficult as plants mature.	All years until full canopy coverage
Climbers – prune back or tie in to supporting framework – wall or trellis.	1 x per year or as required	March	Inspect 100% of climbers.	All years

Hedges - Evergreen

<u>Operation</u>	<u>Frequency</u>	<u>Timing</u>	<u>Required Performance</u>	<u>Year</u>
Formal hedges – Prune to encourage lateral growth and bushiness	1 x per year	September - to avoid nesting season	Cut back any vigorous side shoots and leading shoots at top of plants.	All years.
Pruning as a hedge – not to be carried out until hedge is at desired height.	1 x per year	September	Trim 100% of face area to straight and level planes to desired shape and height.	From year 4 onwards.
Light routing pruning to remove unwanted growth adjacent to paths, car parking, buildings, in sightlines and obscuring signs and to maintain form.	1 x per year	July or as required.	Inspect 100% of planted area and remove only growth where necessary.	All years.
Remove all litter and leaves from the base of hedge.	As required		Inspect 100% of hedge and remove litter and leaves to maintain a clean base to all hedging plants.	All years

Apply spring fertiliser	1 x per year	April/May	Apply to 100% of hedging plants.	2 and 4
Weeding of all hedge areas by manual operations	As required	April-September	Inspect 100% of hedge planting and remove weeds by manual method only.	All years
<u>Hedges – Deciduous Species</u>				
<u>Operation</u>	<u>Frequency</u>	<u>Timing</u>	<u>Required Performance</u>	<u>Year</u>
Prune to encourage lateral growth and bushiness	1 x per year	September – to avoid nesting season	Cut back any vigorous side shoots and leading shoots at top of plants.	All years
Pruning as a hedge – not to be carried out until hedge is at desired height.	1 x per year	September	Trim 100% of face area to straight and level planes to desired shape and height.	From year 4 onwards.
Apply spring fertiliser	1 x per year	April/May	Apply to 100% of hedging plants.	2 and 4
Weeding of all hedge areas by manual operations	As required	April-September	Inspect 100% of hedge planting and remove weeds by manual method only.	All years
Light routine pruning to remove unwanted growth adjacent to paths, car parking, buildings, in sightlines and obscuring signs and maintain form.	1 x per year	July or as required	Inspect 100% of planted area and remove only growth where necessary.	All years.
Remove all litter from the base of hedge.	As required		Inspect 100% of hedge and remove litter to maintain a clean base to all hedging plants.	All years
Remove all fallen leaves	As required	November – January	Inspect 100% of hedge planting and remove all fallen leaves.	All years

<u>Trees</u>				
<u>Operation</u>	<u>Frequency</u>	<u>Timing</u>	<u>Required Performance</u>	<u>Year</u>
Tree planting – spot treatment of translocated herbicide to invasive and noxious weeds to non-grassed areas.	4 x per year if required in growing season.	May-September	Inspect 100% of area and treat approximately 100% of area. Areas to be 95% free of weeds on completion.	All years – though reducing by year 5.
Translocated herbicide application to form 300 mm diameter around tree/shelter base in grass	4 x per year	May-September	Inspect 100 of area and form a neat 300 mm diameter around each tree/shelter.	All years = though reducing by year 5
Pruning to remove hazardous unwanted growth adjacent to paths, in sightlines and obscuring signs. Unless hazardous no pruning to be carried out.	1 x per year	June or as required	Inspect 100% of planted areas and remove growth only where necessary.	All years – as required.
Firming in	1 x per year	April or as required	Inspect 100% of trees and straighten up any which have moved due to frost heave and wind rock.	All years
Apply spring fertiliser.	1 x per year	April/May	Apply to 100% of trees	2 and 4
Trees – horticultural (formative) pruning to remove dead, dying, diseased and crossing branches and secondary leaders	1 x per year	As needed for species	Inspect all planted trees and prune as determined by species, the majority of which are unlikely to require pruning.	All years –as required.

Inspect stakes and ties – including underground and above ground guys, adjust as required, allowing for growth. Replace damaged or missing parts.	2 x per year	April and October	Carry out to 100% of planted tree stock. Remove stakes when no longer required – 24-36 months.	All years until their removal.
Mature trees (existing) – inspection of condition by Arboricultural Consultant or qualified Tree Surgeon.	1 x every 5 years	As advised by arborist	Record and inspect 100% of mature trees and report on actions required.	Every 5 years – as required.

General and Horticultural Elements

<u>Operation</u>	<u>Frequency</u>	<u>Timing</u>	<u>Required Performance</u>	<u>Year</u>
Plant Replacements	1 x per year or as instructed	Generally November – March	Inspect 100% of areas and carry out as required, check original planting plan(s). Where persistent failures occur investigate cause/use different species.	All years
Plant health Inspection	12 x per year	All year round	Inspect 100% of stock and carry out remedial action as required. Consult specialist in terms of unidentifiable diseases etc.	All years
Watering – young trees and ornamental planting as instructed	As required	In dry weather or to ensure establishment	Water in early morning or late evening depending on priority.	All years – though reducing by year 5

General site inspection – safety, desire lines, trip hazards to include hard surfaces and fences	52 x per year – 1 x per week.	All year round	Inspect 100% of site and advise Site Owner in writing accordingly.	All years
Litter picking	52 x per year – 1 x per week	All year round	Inspect 100% of site and remove all litter and extraneous matter including dog faeces.	All years
Sweeping footpath and kerb runs, particularly of bark mulch from beds.	52 x per year – 1 x per week	All year round	As above	All years
Weed control in hard surface areas	12 x per year – 1 x per month	All year round	Use suitable translocated herbicide	All years