Allen Pyke Associates

Landscape Maintenance Specification

The Dice, St. Andrews Park

Landscape architecture | Urban design | Environmental planning

Prepared on behalf of

VSM Uxbridge

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1. Introduction

1.1 This Landscape Maintenance Plan has been prepared by landscape consultants Allen Pyke Associates to discharge conditions 65 of the Outline Planning Consent for The Dice residential development at St Andrews Park, Uxbridge. The conditions require the submission and approval of a schedule of landscape maintenance for a minimum period of 5 years.

1.2 The development is the final residential phase of a proposed mixed used development to the east of Uxbridge town centre.

1.3 The purpose of this document is to set out the overall management objectives for the landscape proposals contained in the scheme submission and describe the long term maintenance required to allow the various types of planting to flourish and reach their design potential. It should ensure that the works undertaken maintain the appearance of the site, enhance the character of the development in the interest of visual amenity and contribute to the character of the local area.

1.4 All references to planting treatments are based on the planning submission drawings:

- 2682-PP-01
- 2682-PP-02

2. Management Responsibilities

2.1 The landscape contractor will be responsible for replacement of stock during the 12 months defects period following implementation of the planting scheme. Beyond this period responsibility for management and maintenance of the various planting areas will be handed over to a management company, the local authority or householders.

2.2 Responsibility for the maintenance of planting within front gardens will be conferred to the private owners of individual properties.

3. Design Objectives

3.1 The landscape proposals, which have been developed with the Landscape and Planning Officers at the London Borough of Hillingdon, respond to the context of the site and the design of the buildings and seek to create an attractive setting for residents and visitors to the proposed development and to put in place a manageable scheme that will not present a burden on human and natural resources.

3.2 Planting Types

The planting proposals include the following planting types:

- Trees
- Specimen shrubs
- Medium height shrub borders
- Low/groundcover shrub
- Herbaceous borders
- Ornamental hedges
- Climbers
- Amenity Grass
- Long grass / Wildflower seeding

3.3 Specific Objectives:

- To soften communal areas and enhance public amenity.
- To create an attractive setting for the development.
- To offer a landscape structure complementary to the scale of the newly built houses and the existing avenue of mature trees.
- To provide a visual buffer between public/private spaces and neighbouring buildings and development sites.
- To provide year-round visual interest.
- To break up areas of hard surface treatment.
- Provide green frontages throughout the development.
- To personalise individual properties and create a sense of ownership.
- To define private boundaries.

4. Management Objectives

4.1 The overall objectives of the landscape strategy and its management can be summarised as follows:

- To provide an attractive setting for the new development and enhance public amenity through appropriately designed spaces;
- To provide public access to and within the public realm and adjacent District Park;
- To add diversity to the existing tree stock and avoid over reliance on one species of tree.
- Through best horticultural practice, to ensure all plants are regularly maintained to promote growth and vigour.
- To ensure that existing trees within and adjacent to the boundary of the site are routinely monitored and managed using, as required, specialist arboricultural advice and methods.
- To ensure that:
    - the health and safety of operatives and the public are considered at all times,
    - tidiness is maintained all year round through the careful removal of litter and weeds etc and through selective thinning, topping up mulch, replacement of plant failures etc

- all management and maintenance practices consider issues of sustainability through the responsible use of natural resources such as water and limit the use of chemicals to a minimum.

4.2 Years 1-5

It is intended that the implementation of this management plan will help to fulfil the design objectives over the first 5 years. Management objectives should be reviewed on an annual basis to ensure that they are being achieved and maintenance operations should be refined over the period to respond to improvements in equipment and horticultural aids and to suit changes in the growing needs of plant stock and in local site situations.

4.3 Years 5+

The Landscape Maintenance Contractor (LMC) responsible for the site in the long time (years 5+) following the plan period should keep to the spirit of the original design objectives whilst responding in a sensitive and practical way to issues which may arise in future years. The management plan should be reviewed and adjusted accordingly to ensure the design objectives are maintained in the longer term. The management company and occupiers should continue to maintain their properties in perpetuity in a manner appropriate to the well being of the plant stock and attractive appearance of their property and the estate.

5. Maintenance Specification

5.1 Description of work

5.1.1 The purpose of maintaining and managing the site is to encourage the satisfactory establishment and long term viability of the landscape proposals.

5.2 Standard of Work

5.2.1 The Landscape Maintenance is to be carried out to a high and consistent standard. Planted areas must be kept neat and clean in appearance at all times, weed and litter free, with all planting in a healthy state. The LMC shall ensure that the works themselves do not cause inconvenience or danger to users of the site and that any potential Health and Safety issues are raised with the Client and all necessary measures are taken accordingly.

5.3 British Standards

5.3.1 All materials, workmanship and horticultural terms shall comply with the current, appropriate British Standards unless specifically stated in this specification. The LMC shall prevent damage to and protect as necessary, existing paving, buildings, fitments, utilities and all existing plants. Any damage caused thereto shall be made good by the LMC at their own expense.

5.4 Protection of People

5.4.1 The site is open and accessible to the public. No operations or arisings should obstruct or interfere with public access and care must be taken to ensure that all relevant notice periods, signage and protection measures are in place to ensure that the public are not put at risk as a result of any activity associated with the management and maintenance of the development.

5.5 Use of chemicals

5.5.1 The LMC must ensure that all approvals and measures are in place for the use of any chemicals eg herbicides or pesticides on the site.

5.5.2 The LMC shall ensure that any chemical application is undertaken by a trained operative who has a current NPTC certificate and in accordance with the manufacturer's directions and with the Approved Code of Practice for the Safe Use of Pesticides for Non-Agricultural Purposes where they apply. They shall ensure at all times that the public, store employees and their own staff are not subject to any hazard from the use of chemicals, and that all equipment, containers and materials are kept in a secure place when on site and not in use, and that all empty containers, etc are removed from site at the end of each day. They will be liable for any loss or damage caused by misuse of chemicals, especially with regards to third persons.

5.6 Cleanliness

5.6.1 At the end of each day of each visit, the LMC shall remove from site all rubbish, trimmings, and superfluous materials, leaving the works in a clean and tidy condition. Particular attention shall be paid to ensuring all areas of hard surfacing are left in a clean condition, free from any soil, mud, leaves, cuttings and plant prunings.

5.7 Programme of operations and Site visits

5.7.1 The LMC shall follow the Programme of Operations as listed within the Maintenance Specification (see Appendix C) and shall visit the site sufficient enough to carry out the maintenance duties as specified in this document and a minimum of once month (see Appendix B for Maintenance visit report sheet).

5.7.2 On confirmation of their appointment to carry out the works the LMC shall provide a comprehensive programme of dates when they intend to visit the site for management approval. Should such dates be substituted during the course of the Contract, due to inclement weather, the LMC shall notify the Site Supervisor to agree a suitable alternative date or dates.

5.7.3 Additional visits may be required during periods of low rainfall, to carry out necessary watering with the agreement of the Client.

5.8 Operating Conditions

5.8.1 The LMC shall order their works to take account of any specific ground and weather conditions required for maintenance works.

5.8.2 Chemical applications shall only be undertaken in suitable weather conditions as described by manufacturers.

5.9 Watering

5.9.1 The LMC shall ensure that they are conversant with the positions of watering point(s) on site. They shall include for transporting water in an appropriate manner to the areas where it is required wherever necessary. The LMC shall be responsible for ensuring that all planting is sufficiently watered to maintain healthy growth.

5.9.2 The LMC will be responsible for monitoring any restrictions or 'hose pipe bans' and shall at all times seek to ensure that at all other times watering is undertaken to maintain vigour but so as not to waste resources.

5.9.3 Manual irrigation of the trees will be via an integrated watering hose wrapped around the root ball. Watering will be carried out as required, with daily visits during periods of dry weather greater than one week.

5.10 Pest and Disease

5.10.1 The LMC shall notify the Landscape Architect / Client of any pest or disease problems occurring which affect the vegetation on site. They shall implement appropriate treatment as agreed to coincide with normal maintenance visits, where possible. All operations shall comply with statutory safety requirements. All diseased wood, prunings etc. shall be removed from site and burnt.

5.10.2 The LMC shall advise the Landscape Architect / Client of all trees and plants found to be dead, dying, vandalised or not growing vigorously.

5.11 Insurance

5.11.1 The LMC shall be fully insured for Public Liability and shall provide details of the amount of cover with their tender.

Protective clothing

5.12.1 Appropriate protective clothing shall be used by the LMC's operatives at all times and they shall comply with the Health and Safety at Work Act.

5.12 Mulching

5.13.1 All areas of hedges, shrubs and ground cover are to be mulched. 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 at ground level occurs.

5.13 Fertilising

5.14.1 The LMC shall make a yearly application of slow release fertiliser to all ornamental shrub areas and tree pits.

5.14 Weed Control

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

5.15.2 Weeding may be carried out either by hand, machine, herbicide and/or by a combination of all three consistent with the other requirements of this maintenance specification.

5.15.3 Where herbicides are to be used, it is the LMC's responsibility to ensure that the herbicide they propose to use is appropriate for the purpose and location. Use of herbicides will be in accordance with the manufacturer's recommendations and in strict accordance with the latest Control of Substances Hazardous to Health (COSHH) regulations. Unless otherwise approved, only contact / translocated herbicides shall be used (see clause 4.1).

5.15.4 Weeds and other debris will be removed from site at the end of each visit.

5.15 Litter

5.16.1 At every maintenance visit the LMC shall remove all litter from planted areas and cart to the LMC's tip. During autumn all fallen leaves should be collected and removed from grass and hard surfaces.

5.16 Replacement Planting

5.17.1 Where plants fail they should be replaced in accordance with the specifications on the original drawings listed in section 1 and in Appendix A. Planting should be replaced in suitable weather conditions during the next winter planting season.

6. Specific Operations

6.1 Existing Trees

Objectives:

- To retain the existing trees as a landscape feature within the wider landscape character area.
- To maintain and enhance habitats of existing wildlife populations.

Maintenance:

- Refer to Appendix D - 'Phase 2 Remedial Tree Works' by Chaffin Tree Works for specific recommendations for tree species.
- Re-pollarding of existing Horst Chestnuts to be carried out every 5-10 years in order to maintain a good tree structure, benefit tree health and ensure trees do not impact on buildings.
- Existing Hornbeam avenue on Grays Road should be monitored. Minor works, such as crown lifting to maintain clear stem should be carried out every 2-5 years.

6.2 New Trees

Objectives:

- To ensure early establishment and healthy growth.
- To create a well-shaped framework for future balanced growth.

Maintenance:

- Where trees are located within a plant bed keep a 0.75m diameter circle around base of tree free of weeds by hand or chemical control throughout the year. Where trees are located within grass areas a 1.0m diameter should be maintained free of both weeds and grass. These areas should be mulched.
- Check for pest and disease attack throughout the growing season and treat by hand or chemical control.
- Inspect monthly to monitor health of trees and immediately after major storm events.
- Keep trees upright and check for root firmness in spring and autumn.
- Prune trees to remove any dead, damaged or diseased shoots and to formatively prune to create a balanced form in spring and autumn.
- Maintenance of the trees shall include tightening of the underground guying systems (if specified) to maintain an upright orientation, with racket tensioners and turnbuckles greased to ensure smooth future operation.
- Specimen trees should be pruned clear of any basal suckers and side growths and crown-lifted gradually to produce strong specimens with clean boles up to the first desired lateral branches, typically 1.8m.
- Ensure canopies overhanging highways are no lower than 5m and signs and lighting are not obscured.

6.3 Medium height shrub borders, specimen shrubs and low/groundcover shrub and herbaceous borders

Objectives:

- To ensure early establishment and healthy growth.
- To maintain a dense canopy cover.
- To maintain year round appearance and visual interest.

Maintenance:

- Keep planted beds in a weed free condition and remove emerging weeds throughout the growing season. Weed control should be reduced as the planting grows together and the ground planting spreads.
- Check for pest and disease attack throughout the growing season and treat by hand or chemical control.
- Generally shrubs should be pruned after flowering to encourage even bushy growth and dense canopy. Cut out dead wood in winter.
- Check for root firmness in spring and autumn.
- Contain growth of vigorous species to avoid choking of neighbouring planting.

6.4 Ornamental Hedges

Objectives:

- To ensure early establishment and healthy growth.
- To establish and encourage a well formed structure and hedgerow characteristics.
- To provide structure to streetscape.
- To maintain year round appearance and visual interest.

Maintenance:

- Keep planted areas in a weed free condition and treat emerging weeds appropriately throughout the growing season.
- Check for pest and disease attack throughout the growing season and treat by hand or chemical control.
- Prune hedges to maintain a height of 1.2m and even clipped form. Cut out dead wood in winter.
- Check for root firmness in spring and autumn.

6.5 Amenity Grass

Objectives:

- To create an attractive and even grass sward with uniform height and colour.

Maintenance:

- Mowing to be carried out using appropriate machinery throughout the growing season.
- Sward heights to be kept within the following limits:
    - 25 – 40mm (April – August)
    - 40 – 60mm (Rest of year)
- All grass edges beside roads, hard landscape finishes and buildings to be kept neat and tidy throughout the year.
- Grass areas may be treated to control invasive or unsightly weed growth in spring and late summer.
- Compacted areas to be aerated in autumn.
- Reinstate bare patches by re-turfing or scarifying and re-seeding in spring or autumn.
- Remove litter and fallen leaves throughout the year.

6.6 Long Grass / Wildflower Seeding

Specific objectives

- To create an attractive grass sward with varying height and colour, that is tolerant of shading from adjacent buildings and existing trees.
- To provide areas of increased habitat and foraging opportunities for wildlife.

Maintenance Operations

- Refer to planting plans for the proposed extent of seed mix.
- Cutting to be carried out using an appropriate heavy duty strimmer, scythe, or suitable large wheeled, rotary mower to avoid injury to wildlife.
- Remove any litter, debris, stones and earth clods larger than 25mm in any dimension prior to mowing.
- Following establishment of the seed, where there is enough growth of either weeds or sown species, the first year of mowing should be regular and as per Amenity Grass maintenance operations – <u>all arisings are to be collected and removed</u>.
- The requirements in the first year are to control excessive weed growth and reduce competition from aggressive and/or non-native grasses. Where persistent weeds are a problem dig-out by hand.
- Sward heights in the first year of mowing are to be kept within the following limits:
    - 25-40mm (April – August)
    - 40-60mm (Rest of year)
- In the second year from sowing, mowing should be relaxed to produce a single "hay crop" cut to a height of 40-75mm, taken in mid-summer (typically at the end of June), to allow the meadow to flower and set seed. Arisings should be spread around the meadow area, turned over and left to dry on site, to allow for the dispersal of seeds – this should then be removed within 7 days of cutting.

- If desired, following this main cut, an additional two cuts to maintain a sward height of between 40-75mm may be undertaken, up until the end of November.
- In the following years (2 years +) from seeding/establishment, mowing can be reduced to a minimum of three times a year. The midsummer "hay crop" cut and spreading of arisings and a further two autumn cuts (if desired) up until the end of November to help keep the sward between 40-75mm.
- No fertiliser or nutrients to be added at any time.
- Overseed if required with additional appropriate EM3 – Special General Purpose Meadow Mixture (supplier Emorsgate Seeds) if slow to establish or excessive bare patches appear. All overseeded areas should follow the same establishment regime as adjacent areas (regular mowing in year 1 and then progressively relaxed mowing following establishment).

7. Maintenance Operations Schedule

7.1 A schedule of the main maintenance operations to be carried out throughout the year is included in Appendix C.

APPENDIX A

PLANTING SPECIFICATION FOR REPLACEMENT PLANTS

A1.0 PERFORMANCE AND MATERIAL

A1.1 TRANSPORT AND HANDLING

A1.1.1 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.

All packages shall be adequate to protect the plants and prevent their drying out or damage of any kind during transportation.

All plants must be in a turgid condition and stacked in such way that breakage or crushing by the weight of the plants above or securing ropes will not occur in transit.

The plants shall be loaded in a manner suitable to facilitate simple unloading techniques which are not labour intensive and minimise risk of damage.

The growers' price shall be taken to include packaging and carriage within a 500 mile radius from the growers' nursery.

Protect plants/trees from frost. Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.

Plant packaging: co-extruded polythene bags. Packaging of bulk quantities: pallets or shrink wrapped

A1.2 TREES AND SHRUBS

A1.2.1 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 container grown. 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.

A1.2.2 Trees shall have a well developed, balanced head, either well-branched or with an upright central leader and laterals depending on species and habit. Branch framework shall consist of a minimum of 5 main branches with lateral shoots. Trees shall have a good fibrous root system and shall have been transplanted as scheduled to build up main roots with laterals and fibre.

Insulation wrapping shall overlap to form a double thickness and shall be securely bound with cord. All branches are to be tied to avoid damage during lifting, transit and off-loading.

All trees are to be loaded to avoid breaking or crushing during the lifting, transit and off loading. During lifting, loading and off-loading, trees shall only be lifted by the root-ball which shall be supported by chains, straps or a frame. In addition, support shall be provided on the main stem to control movement of the tree during lifting. No tree shall be lifted by means of the trunk of main stem.

A1.2.3 ROOT-BALLED TREES

Root-balled trees shall be adequately supported by wire mesh, hessian, or other suitable material to prevent collapse of the rootball. The rootball 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 will be rejected by the Landscape Architect / Landscape Contractor on delivery or replaced if damaged during handling on site.

A1.2.4 CONTAINER GROWN TREES

Container grown trees shall be supplied in rigid containers or air pots. All trees shall have been grown in containers for at least one full growing season prior to delivery.

The root systems 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.

The compost used will hold sufficient reserves of nutrients to maintain the plants 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 a reasonable moisture content. The compost shall not contain peat.

A1.2.5 CONTAINERISED TREES

When requested to containerise the plants, the plants shall be placed in containers of appropriate size and managed to encourage the continued development of the plants to ensure they 'root through'. Specification for the development and condition of the trees shall be as above.

A1.2.6 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.

A1.2.7 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.

A1.2.8 All plants supplied shall come from nurseries accredited by the HTA as grown in accordance with the National Plant Specification. If the Landscape Maintenance Contractor wishes to use plants imported

from overseas or supplied from non-accredited nurseries then approval from the Landscape Architect must first take place.

A1.3 OTHER MATERIALS

A1.3.1 LABELS

Provide each tree/plant or group of trees/plants of a single species or cultivar with supplier's labelling for delivery to site, showing:

- The full botanical name

- Total number

- Number of bundles

- Part bundles

- Supplier's name

- Employer's name and project reference

- Plant specification, in accordance with the scheduled National Plant Specification categories

Label all trees/plants in accordance with the relevant part of BS 3936.

A1.3.2 PLANTING COMPOST

Shall comprise suitable humus-forming material such as leaf mound, spent mushroom compost, composted bark, or other suitable organic material. Use of peat is not permitted.

Planting compost shall be obtained from an approved source and the Landscape Maintenance Contractor shall notify the Landscape Architect of the material content proposed to use before carting to site.

An analysis of the compost should be obtained and supplied to the Landscape Architect prior to its approval.

A1.3.3 POLYMER

Shall be 'Broadleaf P4' Agricultural polymer or equivalent approved. Available from Agricultural Polymers Ltd, Pillar and Lucy House, Merchants Road, Gloucester GL1 5RG.

A1.3.4 ROOT DIP

Shall be 'Broadleaf' root dip as supplied by Agricultural Polymers Ltd or equivalent approved.

A1.3.5 ANTI-DESICCANT SPRAY

Anti-Desiccant spray shall be a liquid, pine oil based (25% W-WDI-L -P-methene) anti-transpirant mixed in accordance with the manufacturers instructions. The type of anti-desiccant shall be stated by the supplier.

A1.3.6 CHEMICAL FERTILISER

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

A1.3.7 TREE STAKES

Unless specified trees are to be secured by stakes. 14-16cm girth trees and below by a single stake to be secured at low level (≤500mm) and 18-20cm girth trees and above to be double staked with cross bar of flexible biodegradable webbing within 25mm of top of stake. Stakes to be placed outside of the rootball and extend at least 450mm into the ground. Once the tree has established stakes are to be removed.

A1.3.8 TREE TIES

All ties to be biodegradable.

A1.3.9 MULCH

Shall consist of medium grade, well composted bark of British origin with an even particle size distribution between 5-35mm. All dust and fine material to be expended. The mulch shall contain less than 1% wood. The mulch shall be pest, disease and weed free and be free of any contamination.

Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds with 50mm settled layer of mulch.

The mulch shall be from an approved source and representative sample of the mulch shall be supplied for approval prior to delivery to site.

A2.0 INSTALLATION AND WORKMANSHIP

A2.1 GENERALLY

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

A2.2 STORAGE

A2.2.1 If the plants are not to be planted within 24 hours of delivery, bare root plants shall be heeled in by placing the roots in a prepared trench, covering them with fine soil and firming well or watering in to prevent air pockets. Container grown plant material will be stored upright in a location on site agreed with the Landscape Architect and /or Client. Any plant material stored on site shall be protected from drying winds, frost and shall be watered.

A2.3 ANTI-DESICCANT SPRAY

A2.3.1 All trees planted in full leaf, evergreens and deciduous material planted out of season, shall be treated with anti-desiccant spray according to the manufacturers instructions no more than 3 days before lifting.

A2.4 SEASON

A2.4.1 All containerised shrubs and trees will be planted with prior agreement of the Landscape Architect and/or Client. Root-balled plants and trees will be planted during the October-March planting season.

A2.5 PLANTING CONDITIONS

A2.5.1 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.

In the event of the planting taking place during prolonged hot and dry conditions, the Landscape Maintenance Contractor is to ensure that the plants are well watered to ensure successful establishment.

A2.6 WORK BY MACHINE OR HAND

A2.6.1 All operations herein after described may be carried out by suitable machines or by hand. Any work in confined or awkward spaces or areas or which it is impracticable to carry out by machine for any reason shall be executed by hand.

A2.7 APPLICATION OF HERBICIDE

A2.7.1 All planting areas shall have all weeds killed prior to planting with the exception of any areas containing existing native vegetation which is to be retained and additional planting added.

A2.8 PLANTING GENERALLY

A2.8.1 The Landscape Maintenance Contractor shall be responsible for setting out all areas of planting to the satisfaction of the Landscape Architect and shall rectify any errors in setting out at their own expense. Replacement plants shall be planted in the numbers indicated on the original drawings or as or as directed by the Landscape Architect and shall be evenly spaced for a group of any one plant species. Whilst rigid accuracy in spacing and setting out is not essential, the Landscape Maintenance Contractor will be expected to achieve the general distribution of plants as shown on the drawing.

A2.8.2 No planting shall take place unless the ground is free of perennial weeds. Carefully position the root-balls of all plants and trees to suit their original growth habit and consolidate the soil firmly around them. All plants are to have the same relation to the ground as they had in their original nursery position. Great care should be taken to avoid damage to the root system, and stem when planting. The rootball around pot grown plants, evergreens etc. shall not be disturbed. If damage to the root is done, the root shall be cut cleanly with a knife.

A2.9 CULTIVATION

A2.9.1 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, 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. Finished levels after settlement shall be 30mm above adjoining paving or kerbs, not less than 150mm below the dpc of adjoining buildings and smoothly merged with adjoining soil areas. Finished topsoil grading shall be approved by the Landscape Architect prior to commencement of planting.

A2.10 TREE PLANTING

A2.10.1 SETTING OUT

Light stakes or canes are to be placed at all tree positions, as marked on the drawings; the right is reserved to adjust the exact position of the trees after they have been set out on site. Forty-eight hours notice shall be given before tree pits or trenches are to be dug in order that the Landscape Architect may approve or adjust the positions.

A2.10.2 TREE PITS / TRENCHES

Pits or trenches shall be prepared before trees arrive and the Landscape Maintenance Contractor 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.

During the digging operation, all subsoil and topsoil should be separated and put aside for re-use.

Compacted glazed sides of pits resulting from the use of mechanical diggers in heavy soils should also be roughened.

A2.10.3 BACKFILL

Backfill is to consist of excavated material and ameliorated with BS 3882 Premium Grade Topsoil (or equivalent to any current BS) and slow release fertiliser at manufacturers recommended rates if required, following soil report recommendations.

Any surplus excavated from the pits / trenches is to be removed and either spread in location as agreed with the Landscape Architect or removed from site as decided by the Landscape Architect.

The backfilling shall be firmed down after 75-100mm covers the roots and shall be built up in layers, leaving the final level 30mm higher than adjacent levels after settlement. Any subsequent settlement over tree pits / trenches shall be allowed for or made good by the Landscape Maintenance Contractor at their own expense.

The Landscape Architect reserves the right to inspect all pits and trenches prior to the Landscape Maintenance Contractor being allowed to backfill.

All trees shall be watered thoroughly immediately after backfilling.

The tree shall be set in the centre of the pit or trench.

Any damaged roots should be cut to sound growth. The trees should be vertical and parallel to the stake where this method of securing is indicated, and on the leeward size. Trees and shrubs shall be planted at the depth at which they have been previously growing.

The depths at the centre of the pits shall be adjusted to ensure that the trees are planted to the depth of the nursery soil mark on the stem, and this shall be maintained on the finished ground level to allow for settlement after planting.

All cages, platforms, ties etc. shall be removed. All wrappings shall be removed, unless damage is likely to result from this operation, in which case, wrappings shall be left in place and the surplus cut away. Wrapping around top of any rootball should be loosened.

Trees with the crown tied-in may have the fastenings removed and the branches freed before or after planting at the discretion of the Landscape Maintenance Contractor.

A2.11 SHRUB AND HERBACEOUS PLANTING

A2.11.1 PLANTING COMPOST

A 50mm thick consolidated layer of planting compost shall be spread over shrub beds and well worked into the soil during cultivation. Prior to delivery, the Landscape Architect shall approve a sample load for quality.

A2.11.2 POLYMER

Polymer shall be incorporated into the soil during cultivation at the manufacturers recommended rates.

A2.11.3 SETTING OUT

Planting beds shall be pegged out in accordance with the planting plan. Figured dimensions shall be taken for preference, but where these are not given and the limits are not defined by paths, paving or other works, scaled dimensions may be used.

A2.11.4 PLANT SPACING

Plant spacing shall be carried out in accordance with the contract drawings. The Landscape Architect reserves the right to adjust the exact position of specimen shrubs after they have been pegged out. The aim will be to space the plants evenly so that when established they will completely fill the areas indicated as precisely as possible. The extent of the area to be filled by each species shall first be defined by plants spaced around the perimeter. The remaining plants shall then be used to fill the centre of the area in an informal manner avoiding straight lines and regular geometric patterns.

A2.11.5 PLANTING SHRUBS AND HERBACEOUS

Plants shall be planted at the same depth as previously grown, with care being take 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 rootball of pot grown shrubs, but plants that have become pot bound shall have their roots gently eased out. The plants shall be gently shaken to allow the fine soil to surround the roots. As the rest of the soil is returned it shall be well consolidated and firmed around the roots to eliminate all air pockets.

A2.12 COMPLETION OF PLANTING

A2.12.1 PRUNING

Immediately after planting, cut back carefully any damaged, dead or diseased branches and remove any weak, thin or malformed growth back to a healthy bud for shrubs or herbaceous plants or to the branch collar for trees.

A2.12.2 WATERING

Water all trees and plants thoroughly immediately after planting until field capacity is achieved.

A2.12.3 MULCH

After watering spread a minimum 50mm deep layer of bark as specified above over all plant beds. The mulch shall be moist at application. After mulching, all stems, particularly of ground cover species shall be arranged above the surface of the mulch.

A2.12.4 REPLACEMENT OF PLANTS

The Landscape Maintenance Contractor shall make good, at their own expense, all losses of trees, shrubs and other material from whatever cause other than vandalism during planting Losses will be judged on whether plants are actively growing during the late summer period after planting when a plant check will be made by the Landscape Architect.

Replacement stock shall be of a standard to that specified above and in the original specification showing vigorous growth and free from disease.

A2.12.5 MAINTENANCE OF NEWLY PLANTED TREES AND SHRUBS AND HERBACEOUS PLANTS

The Landscape Maintenance Contractor shall maintain the replacement planting to the same standard as the rest of the planting and in line with the maintenance and management document.

The Landscape Maintenance Contractor shall maintain and guarantee the plants from the time of planting and for the 12 months and subsequently in accordance with the contract.

APPENDIX B

THE DICE, ST. ANDREWS PARK

SITE MAINTENANCE VISIT REPORT

DATE:	
CONTRACTOR:	
CONTRACTORS REP:	
TIME ARRIVED:	
TIME DEPARTED:	
SITE ADDRESS:	
DESCRIPTION OF WORK COMPLETED:	
SIGNED - (Contractor)	
SIGNED - (Client)	
COMMENTS FOR ATTENTION OF LANDSCAPE ARCHITECT/ CLIENT:	

APPENDIX C – MAINTENANCE OPERATIONS SCHEDULE

NO	TASK	J	F	M	A	M	J	J	A	S	O	N	D	NOTES
1.0	**GENERAL PLANTING AREAS**													
1.0.1	Litter collection and removal from site	■	■	■	■	■	■	■	■	■	■	■	■	Keep litter free at all times
1.0.2	Weed control (by hand)		x	■	x	■	■	■	■	■	x	■		And as necessary
1.0.3	Weed control (chemical)					■		■						
1.0.4	Fertiliser to trees, shrubs, herbaceous			■										
1.0.5	Watering				■	■	■	■	■	■	■			Daily if required in summer
1.0.6	Top up mulch					■					■			To 75mm as required
1.0.7	Firm up plants			■						■				
1.0.8	Check ties, supports, guying etc			■						■				
1.0.9	Pest & disease control			X	X	X	X	X	X	X	X			As required
1.0.10	Pruning to shrubs and hedges		X	X	X	X	X	X	X	X	X	X		As required for species
1.0.11	Dead head shrubs/ herbaceous					■	■	■	■	■				Weekly as required
1.0.12	Thin out planting										■			As required
1.0.13	Lift/ divide herbaceous										■			As necessary for species
1.0.14	Replacement planting (all plant types)	X	X	X								X	X	By agreement as above
1.0.15	Works to trees		X											

■ - Critical months for operations. X - Operations to take place subject to site requirements

NO	TASK	J	F	M	A	M	J	J	A	S	O	N	D	NOTES
1.1	**HARD AREAS**													
1.1.1	Sweep mulch from all hard areas		X		X		X		X		X		X	As required
1.1.2	Treat any weeds in paving or edge of paving				X		X		X		X			As required

■ - Critical months for operations. X - Operations to take place subject to site requirements

NO	TASK	J	F	M	A	M	J	J	A	S	O	N	D	NOTES
2.1	**AMENITY GRASSED AREAS**													
2.1.1	Mowing to 30mm max length				■	■	■	■	■	■	■			14-18 cuts per season
2.1.2	Trim / neaten edges				■	■	■	■	■	■	■			
2.1.3	Translocated herbicide					■								
2.1.4	Approved turf fertiliser	■			■									

■ - Critical months for operations. X - Operations to take place subject to site requirement

NO	TASK	J	F	M	A	M	J	J	A	S	O	N	D	NOTES
3.1	**LONG GRASS / MEADOW**													
	FIRST YEAR													
3.1.1	Regular mowing to maintain sward length of between 25-40mm				■	■	■	■	■					First cut to take place following establishment
3.1.2	Regular mowing to maintain sward length of between 40-60mm	■	■	■						■	■	■	■	First cut to take place following establishment
	SECOND YEAR													
3.1.3	"Hay Crop" cut to a height of 40-75mm						■	X	X					Spread arisings following cut, turn over and leave to dry on site. **Remove within 7 days of cutting**
3.1.3	Autumn cut if required									X	X	X		
	2+ YEARS													
3.1.3	"Hay Crop" cut to a height of 40-75mm						■	X	X					Spread arisings following cut, turn over and leave to dry on site. **Remove within 7 days of cutting**
3.1.3	Autumn cut(s)									X	■	■		Up to two cuts if required

■ - Critical months for operations. X - Operations to take place subject to site requirement

APPENDIX D - PHASE 2 REMEDIAL TREE WORKS

St Modwen Homes

St Andrews Park, Uxbridge

Proposed works for phase 2 of remedial tree works, this is to include the pruning of the linear belt of Hornbeams and the line of lapsed mature Horse Chestnut pollards. Please refer to attached site drawings for reference and positions of sites.

Site A: Hornbeams

As an established hedgerow we are aiming to retain the aesthetic appearance of the trees and their contribution to the visual character of the area. Since the tree line has been thinned by the removal of alternate trees, we now aim to make the overall appearance seem more like an avenue of amenity trees.

We aim to achieve this by target pruning in accordance with BS3998: 2010 'Tree works – Recommendations' and will comply with industry best practices. This will include removing no more than 30% of the crown volume of the larger trees and 20-25% of the smaller trees. All trees will be pruned to an aesthetically natural form and we will raise the crowns to a height of 4-5 meters. This will prevent the public from climbing on the trees and will ensure that vehicles will not impact the lower branches when parked under the canopy.

All staff undertaking the works will have full industry training and hold all relevant NPTC qualifications.

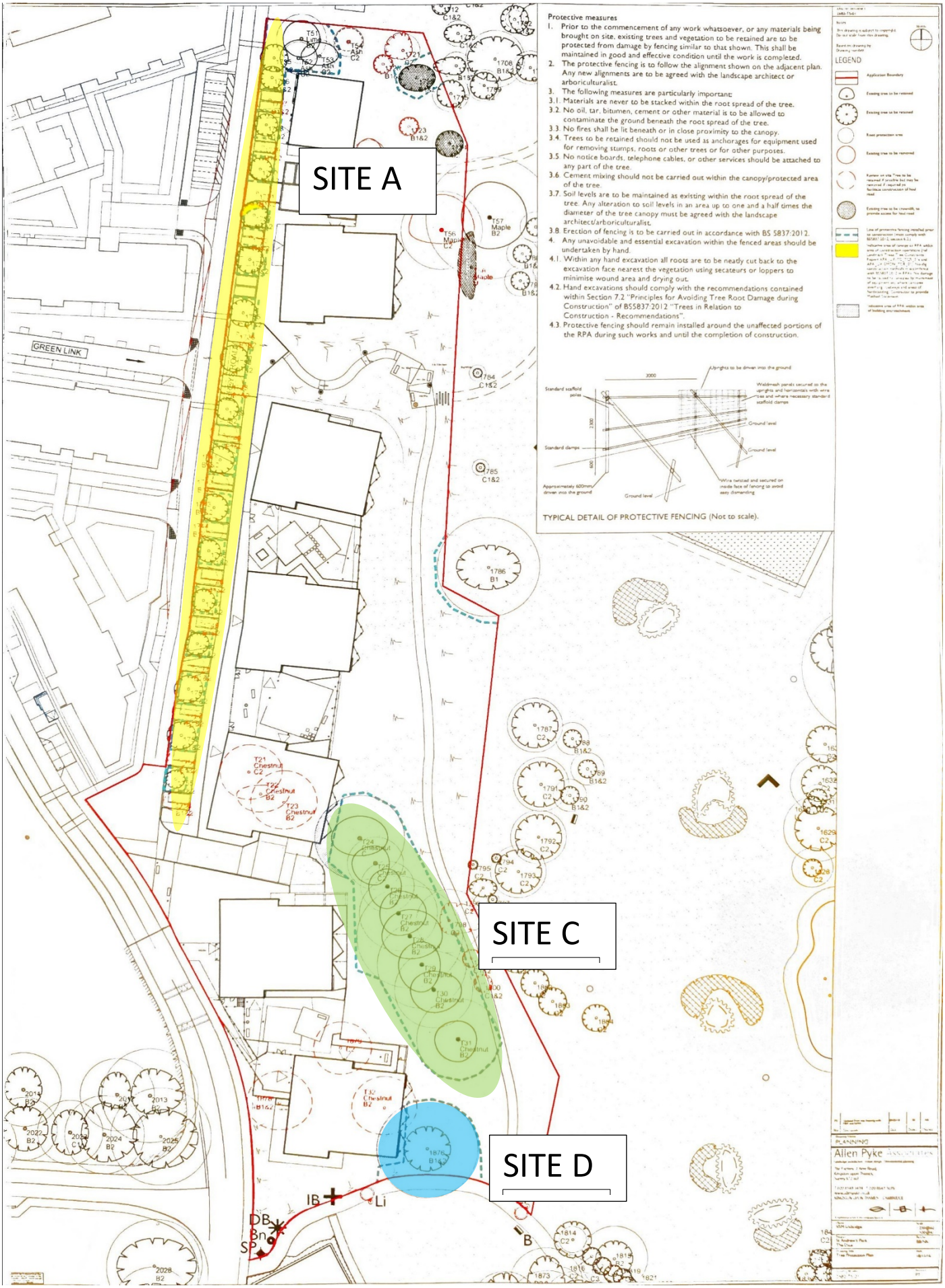
Site C: Line of Horse Chestnuts

As discussed, the first tree in the line (T24) shall be removed. This is mainly down to the poor health of the tree and because there would be an unsustainable relationship between the tree and the adjacent building once it is constructed (the new building would be located within 2m of the stem). The rooting medium surrounding T24 would also potentially be subject to compaction due to the increase in volume of traffic on the adjacent road.

The remaining trees will be pollarded to the historic pruning points at approximately 5-6 metres in height. All work will be carried out in accordance to BS3998: 2010 'Tree works – Recommendations' and will comply with industry best practices. An onsite ecological inspection of each tree will be carried out and any findings will be documented. The proposed work is due to the lapsed nature and condition of the trees. If the trees are left in their current form, branch unions at the historic pollard knuckles will become increasingly weak points in the trees structures and the potential for major branch failure could pose a significant risk for residents of the development. Re-pollarding the trees will mitigate this risk and should prolong the useful life expectancy of the trees (subject to appropriate future management).

Site D: Single Chestnut No1876

This tree will be removed by a soft sectional felling process. It will be removed due to it's poor vitality and the unsustainable relationship between the tree and the adjacent proposed building. If retained the tree would be located within 2 meters of the new building, which would impede working space during the construction phase of development, and would not allow sufficient space for future growth post development. The new building will also encroach of the trees root protection area in contradiction with guidance in BS5837: 2012 'Trees in relations to design, demolition and construction'.


SITE A
SITE C
SITE D
GREEN LINK
Protective measures
1. Prior to the commencement of any work whatsoever, or any materials being brought on site, existing trees and vegetation to be retained are to be protected from damage by fencing similar to that shown. This shall be maintained in good and effective condition until the work is completed.
2. The protective fencing is to follow the alignment shown on the adjacent plan. Any new alignments are to be agreed with the landscape architect or arboriculturalist.
3. The following measures are particularly important:
3.1. Materials are never to be stacked within the root spread of the tree.
3.2. No oil, tar, bitumen, cement or other material is to be allowed to contaminate the ground beneath the root spread of the tree.
3.3. No fires shall be lit beneath or in close proximity to the canopy.
3.4. Trees to be retained should not be used as anchorages for equipment used for removing stumps, roots or other trees or for other purposes.
3.5. No notice boards, telephone cables, or other services should be attached to any part of the tree.
3.6. Cement mixing should not be carried out within the canopy/protected area of the tree.
3.7. Soil levels are to be maintained as existing within the root spread of the tree. Any alteration to soil levels in an area up to one and a half times the diameter of the tree canopy must be agreed with the landscape architect/arboriculturalist.
3.8. Erection of fencing is to be carried out in accordance with BS 5837:2012.
4. Any unavoidable and essential excavation within the fenced areas should be undertaken by hand.
4.1. Within any hand excavation all roots are to be neatly cut back to the excavation face nearest the vegetation using secateurs or loppers to minimise wound area and drying out.
4.2. Hand excavations should comply with the recommendations contained within Section 7.2 "Principles for Avoiding Tree Root Damage during Construction" of BS5837:2012 "Trees in Relation to Construction - Recommendations".
4.3. Protective fencing should remain installed around the unaffected portions of the RPA during such works and until the completion of construction.
TYPICAL DETAIL OF PROTECTIVE FENCING (Not to scale).
LEGEND
PLANNING
Allen Pyke