



LIZARD

Landscape Design and Ecology

LONG TERM SOFT LANDSCAPE MANAGEMENT PLAN

GRANGE ROAD

Netley, Hampshire

Elivia Homes

Prepared by	AS
Checked by	KM
Document Reference	LLD2859-LAN-REP-001
Date	10 November 2023
Revision	02
Reason of Issue	Planning Issue

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1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned to prepare a detailed Landscape Design Scheme for the proposed residential development at Grange Road, Netley, Hampshire. As part of this proposal, a Long Term Soft Landscape Management Plan has been compiled to provide management and maintenance prescriptions for the proposed soft landscape scheme and the communal open spaces.

1.1 The Long-Term Soft Landscape Management Plan has been prepared by Antonino Surace Landscape Architect (BA Hons, MALA) at Lizard Landscape Design and Ecology, Worthing.

1.2 The Soft Landscape Management Plan includes:

- Information about existing site conditions and surrounding landscape;
- Description of the Scheme Proposals;
- Long-Term Design and Management Objectives;
- Landscape Management Responsibilities;
- Landscape Management Prescriptions;
- Annual and Long-Term Management Schedule
- Soft Landscape Maintenance Specification (NBS Q35)

Proposed Development

1.3 The development proposals are understood to encompass 89 no. residential properties with associated circulation and landscape.

1.4 The development would benefit from an extensive area of Public Open Space in the north-east of the site, including a Local Equipped Area of Play (LEAP).

1.5 The communal areas and streetscape would be sympathetically developed with a coordinated hard and soft landscape scheme, including tree planting.

1.6 The hard and soft landscape scheme would facilitate Sustainable Urban Drainage Scheme through permeable vehicular surfaces and planting of the detention basin.

2.0 EXISTING SITE INFORMATION

- 2.1 The proposed development site comprises a series of equestrian paddocks and pastoral fields, located off Grange Road, in the northern edge of the village of Nettley Abbey, Hampshire (*Grid Reference: SU45780915*). Access to the site is off Grange Road, in the south-eastern corner of the field.
- 2.2 The topography within the site falls gently towards the north-west; ranging from some a 23.4 m aOD in the south-east to some 17.2 m in the north-west. Beyond the site boundary, the ground level continues to fall into an area of woodland and shallow valley adjoining the site.
- 2.3 Soils on site are described as 'Freely draining slightly acid loamy soils' (*SoilScapes, Cranfield University*). The investigation works on site reveals the soil conditions to be a mantle of topsoil and River Terrace Deposits overlying the Selsey Sand Formation and Marsh Farm Formation. The topsoil layer is described as brown gravelly clayey silt (*Ground Gas Risk Assessment, Geo-Environmental Services, 2016*).

Existing Site Vegetation

- 2.4 Most of the site is dominated by semi-improved grassland, which has regularly been grazed by horses.
- 2.5 The site boundaries are largely defined by mature tree lines and hedgerow, often with associated scrub and tall ruderal vegetation. The dominant species comprise pedunculate oak (*Quercus robur*), horse chestnut (*Aesculus hippocastanum*), willows (*Salix* spp), elm (*Ulmus* spp.), false acacia (*Robinia pseudoacacia*), blackthorn (*Prunus spinosa*), holly (*Illex aquifolium*), hawthorn (*Crataegus mongyna*), cherry laurel (*Prunus laurocerasus*), bramble (*Rubus fruticosus* agg) and buddleja (*Buddleja davidii*). The hedgerow is largely comprised of bramble and ivy (*Hedera helix*)
- 2.6 A stand of Japanese knotweed (*Fallopia japonica*) was noted in the north-eastern corner of the site.

Surrounding Landscape

- 2.7 The site is bound in the north by Westwood Local Nature Reserve. It comprises a shallow wooded valley and largely open fields beyond, being a result of restoration of the former gravel workings and landfill site. The remaining surrounding areas, to the east, south and west, comprise low-density residential areas. The village of Netley Abbey is located to the south and east of the site.
- 2.8 The areas surrounding the site to the east, north and west fall within the Netley Abbey Conservation Area, which was first designated in 1981 and enlarged in 1992. The houses within the Conservation Area are Victorian or post Victorian. In the neighbouring vicinity, there are the remains of the 13th century Cistercian Abbey of St Mary and 16th century Netley Castle, with their own distinctive architecture.

3.0 PROPOSED LANDSCAPE SCHEME

- 3.1 The landscape proposals for the residential development at Grange Road include a coordinated hard and soft landscape scheme, encompassing the residential streets and areas of communal open spaces.

Landscape Design and Management Objectives

- 3.2 The Soft Landscape Management Plan sets out long-term objectives for delivery and safeguarding of amenity, functional and ecological values, through prescribed landscape maintenance and management operations. The long-term design and management objectives include:

- Creation of attractive landscape and amenity spaces requiring limited maintenance;
- Contribution to local ecology through sympathetic selection of plant species and creation of habitat opportunities, including slow worm;
- Definition of character of the street scene through creative choice of hard landscape finishes, boundary treatments and planting within the communal areas and private front gardens;
- Provision of inspiring areas of play and public open space;
- Safeguarding successful establishment of the soft landscape;
- Achieving dense plant cover to impede weed growth;
- Maintaining visual amenity and habitat opportunities;
- Keeping appropriate height and spread of plants to maintain unobstructed circulation and to prevent nuisance;
- Ensuring healthy plant growth, flowering and fruit development for the benefit of wildlife;
- Keeping the hard and soft landscape free from debris and dead plant material.

Landscape Design Strategy

Boundary Treatment

- 3.3 A clear typology of boundary treatments would assist in defining the character of the street scene and demarcate the ownership between the private and communal areas.
- 3.4 The site benefits from the existing mature vegetation defining the boundary and filtering the views. A metal weldmesh fence of robust construction would be erected along the northern edge of the site to prevent uncontrolled access to the adjacent land. The urbanizing character of such fence would be softened by native mixed-species vertical planting.
- 3.5 The boundaries of domestic front gardens would be defined by metal railings or low picket fencing and reinforced with low hedges and shrub planting. The planting of front gardens would soften the built form and contribute to the character of the street scene.
- 3.6 The quality and perception of streets would be catered for through the sympathetic definition of boundary treatment to the rear of properties. The domestic rear gardens abutting the communal areas would be fenced by 1.8 m brick walls, softened with shrub and ground cover planting. Privacy of each property would be ensured with the close-board timber fencing.
- 3.7 Grass verges along the access road would be bordered by timber knee railing, to prevent uncontrolled parking.

Hard Landscape Finishes

- 3.8 The character of street scene would largely be defined by the architecture and choice of hard landscape materials, complemented by the coordinated soft landscape scheme.
- 3.9 The access roads and private drives would be surfaced with permeable block paving to facilitate sustainable storm water management. The use of grey colour has been proposed sparingly to limit the absorption of heat. More earthy tones of buffs, browns and reds have been chosen instead. The colour of surface finish has also been used to define functional zones, including Home Zones and the Communal Square in the heart of the development.

- 3.10 The domestic zone has been highlighted with the use of flag paving with riven-style finish. Each property would benefit from its own patio and a maintenance access path at the rear of each plot.
- 3.11 The footpath to the communal open space and play area would be surfaced with compacted aggregate to ensure appropriate means of access whilst maintaining very informal and rural character. Where impact absorbing surfacing is required, this would be through recycled rubber chippings, to minimize maintenance and topping up of loose fill.

Soft Landscape

- 3.12 The proposed site layout and setting have prompted the creative design of the soft landscape scheme. The generous provision of planting within the development would provide visual amenity, reinforce the green infrastructure and provide opportunities for wildlife.
- 3.13 The domestic front gardens would be shaped with ornamental shrub planting and herbaceous perennials and, together with street tree planting, would deliver a high-quality street scene. Each plot will benefit from its own tree planting in the rear garden, in line with the local policies, whilst the residents will have freedom in adding their personal touch.
- 3.14 The design of open green spaces would bolster the habitat opportunities provided by the existing mature vegetation and proximity to woodland. A native wildflower grassland habitat would be recreated along the site perimeter for the benefit of invertebrates and pollinators. Shrub and perennial planting would further diversify the vertical structure and provide amenity for the residents. Native mixed-species vertical planting would be introduced along the north of the site with the existing vegetation to blend the security fencing.

Green Spaces and Recreation

- 3.15 The communal open spaces would provide destination for play and informal recreation in a walking distance, for everyone. Great attention would be paid to ensure inclusive environment, regardless of abilities and age.
- 3.16 Integration of landform, natural features and soft landscape would provide stimulating play experience, challenging physical skills and nurturing curiosity.

- 3.17 The provision of external furniture throughout open spaces would provide opportunities to rest, socialize and supervise children at play.

Storm Water Management

- 3.18 Landscape design and civil engineering would work hand in hand to integrate storm water management strategy into the landscape proposal.
- 3.19 Permeable blockwork with underground attenuation capacity would help to manage surface water runoff throughout the circulation scheme. A detention basin integrated into the open green space and planted with native species would also contribute to visual amenity and provide opportunities for habitat creation.

Landscape Management Responsibilities

- 3.20 Delivery of the Long-Term Design and Management Objectives would be safeguarded by implementation of the proposed scheme and by means of regular maintenance.
- 3.21 The management of the communal areas within the estate will be within the responsibility of a Management Company.
- 3.22 The areas of landscape within the Affordable Housing scheme would be within the management responsibility of a Housing Association.
- 3.23 The management of domestic front and rear gardens will be to the discretion of individual residents.

Drawings and Reports

- 3.24 The Soft Landscape Management Plan is accompanied and shall be read alongside the following documentation;
- LLD2859-LAN-DWG-100-104 – Hard and Soft General Arrangement Drawings;
 - LLD2859-LAN-DWG-200-204 – Detailed Planting Plans;
 - LLD2859-LAN-SCH-002 – Detailed Plant Schedule and Specification;
 - LLD2859-LAN-SPE-001 – Soft Landscape Specification.
 - LLD2859-LAN-REP-002 – Soft Landscape Management Plan – Extract for SuDs

4.0 LANDSCAPE MANAGEMENT PRESCRIPTIONS

P1 – Existing Vegetation

Protection and Retention of Existing Trees

- 4.1 The existing mature trees on the site shall be protected during the proposed construction in accordance with the *BS5837:2015 – ‘Tree in Relation to Development and Construction – Recommendations’*. Any defects to the tree not already noted shall be notified to the arboriculturist. Removal of minor deadwood shall be undertaken as required by a qualified tree surgeon in accordance with *BS 3998: 2010 – Tree Works: Recommendations*. Arisings shall be piled on-site to create further habitat where possible. Only the arisings that are free from disease should be left on site for habitat creation.
- 4.2 Any tree surgery works shall be undertaken outside of the bird nesting season (March—August inclusive) or following a check by a suitably-qualified ecologist to ensure no birds’ nests would be disturbed. Any works to limbs over 10.0 cm diameter, tree removal of mature trees or works to the stem shall require prior inspection, and if deemed necessary further bat surveys by the suitably qualified ecologist, to determine whether bats are using the tree and how they may be disturbed by tree surgery works. When appropriate, a licence shall be sought from Natural England when bats are likely to be disturbed. In cases of emergency works, the suitably qualified ecologist shall be consulted to determine the most appropriate action.
- 4.3 Trees shall be subject to ongoing inspection and monitoring, with a recommended frequency of annual inspection (or after any major weather events such as storms or long droughts) by a qualified arboriculturist. Frequency of survey and further action for individual trees shall be determined by the results of the ongoing inspections. Works undertaken shall be the minimum required to maintain tree health and public safety.
- 4.4 For details of means of protection and relevant works to existing trees refer to the Arboricultural Consultant’s documentation.

P1 – Existing Mature Trees and Vegetation – Management Prescriptions

- ***Existing Mature Trees***; The condition of the existing mature trees to the development site boundaries should be monitored each year when in leaf, in order to identify any dead or dying branches within the existing canopy or any areas of significant die-back;
Any dead, dying, or damaged branches, which have been considered dangerous to the safety of people and property, should be removed from the tree trunk by a qualified tree surgeon.

P2 – Proposed Tree Planting

Tree Planting Proposals

- 4.5 The proposals incorporate a coordinated scheme of native and ornamental tree species within the streetscape and the Public Open Space.
- 4.6 Where trees have been proposed within the communal areas in proximity to the dwelling houses, the mature size of trees has been considered. Through reference to the '*Quality Places Supplementary Planning Document*' (*Eastleigh Borough Council, November 2011*), the following tree planting strategy has been assumed:
- Large trees – min. 10 m away from major buildings (dwellings);
 - Medium trees – min. 7 m away;
 - Small trees – these have been proposed to all rear gardens and where no sufficient distance could be secured from buildings, whilst presence of trees would contribute to the character of the streetscene and the vertical structure of the soft landscape.
- 4.7 For species selection and location refer to *LLD2859-LAN-DWG-201-204 – Detailed Planting Plans*; for nursery stock details and specification refer to *LLD2859-LAN-SCH-002 – Detailed Plant Schedule and Specification*.

Proposed Tree Planting – Planting Specification

- 4.8 Planting pits shall be dug to provide appropriate rooting conditions for the proposed trees. The size of tree planting pits and planting method shall be as follows:
- Planting pits should be excavated to the same depth as the trees root system with the root flare or root collar level with the surface of the surrounding existing soil;
 - The tree pit should be excavated square and twice as large as the root ball or container;
 - If the bottom of the planting pit is compacted or there is a soil pan, this should be alleviated by breaking up 150mm of the soil in the bottom of the pit to ensure that there is suitable drainage.
 - If the tree pit sides are compacted, smooth or smeared they should be scarified to loosen the soil;

- During excavation the soil should be separated into topsoil and subsoil in order that during backfilling the soil can be replaced in the same order;
- The tree's root system should be lightly wetted prior to planting;
- The tree should be planted at the correct depth ensuring the root flare is just visible above the soil level and that there has been allowance for any settling of soil levels;
- Backfilling should be added gradually in layers of 150 mm ensuring the tree is held upright. Each layer should be firmed down to remove air pockets within the soil and to aid tree stability but not to excessively compact the soil;
- The final layer of backfilling should not be consolidated, but should be of a sufficient depth to allow for settlement and mulching;
- Refer to '*BS 8545: 2014 – Trees: from nursery to independence in the landscape – Recommendations*' for details on tree planting.

4.9 Where suitable for re-use, backfilling material shall be the site excavated topsoil combined with an organic compost or imported topsoil. The organic compost shall be thoroughly mixed into the backfill or cultivated material at a rate of 1 no. part planting medium to 3 no. parts existing site topsoil.

Tree Staking

- 4.10 Tree staking is to be Long Single Staking. The stake shall be positioned close to the tree on the windward side and driven vertically at least 300 mm into bottom of pit before planting. Backfilling should seek to consolidate material around stakes.
- 4.11 The stake shall extend above ground level to a maximum of one third of the total height of the tree. The tree shall be secured firmly but not rigidly to the stake with one adjustable tie plus spacer within 50 mm of the top of the stake with a 25 mm long 13ertimizer clout nail.

Rootball Fixing System – Multi-stem Trees.

- 4.12 Multi-stem trees to be 13ertimizer with a rootball fixing system including 3 no. steel anchors, 13ertimizer wire with a tensioner and rootball holding mats. Rootball Fixing System to be installed according to the chosen Supplier's instructions.

Mulching – Applied to Trees and Ornamental Planting Areas

- 4.13 Organic mulch to be applied to proposed trees within grassland areas. Organic mulch comprising of well composted organic material, wood chips, or bark, shall be free of pests, disease, fungus, weeds and foreign material. The organic mulch shall be matured for a minimum of 16 weeks. Organic mulch shall consist of graded fines to a maximum particle size of 40 mm with approximately 70% particle size 5mm to 40 mm, 30 % particle size less than 5 mm.
- 4.14 Trees within planting area would be mulched as per the ornamental planting mulch proposal.
- 4.15 Clear all weeds, water soil thoroughly and mulch all planting pits to 50-100 mm after settlement. Pit planted trees and notch planting tree positions shall be mulched around the base of the plant material to a 500 – 700 mm diameter circle.

Watering

- 4.16 In order to establish newly planted trees, the proposed planted trees should be watered fortnightly throughout the Spring / Summer Period; May / June / July / August / September. 20 litres should be applied to each tree at each watering visit. Thereafter, water as deemed necessary only where natural precipitation levels are insufficient in order to maintain healthy dense growth.

Tree Ties

- 4.17 All rubber tree ties should be checked to each tree twice a year; Spring and Autumn. Rubber tree ties should accommodate the tree girth. The tree ties should also not draw the tree stake into the trunk of the tree, potentially causing abrasion. Tree ties should be fitted so that the tree trunk and tree stake are located comfortably side by side and aligned. Replace and refit rubber tree ties / tree stakes and tree guards if necessary.

Pruning

- 4.18 Tree planting should be checked for dead, dying, or damaged branches and stems annually.
- 4.19 Trees should also be checked for shape, form, and size within the site areas and adjacent to the property and highway footpaths. Where min. clear stem height has been specified, this should be maintained by removing any low branches or growth within the lower tree trunk.
- 4.20 Trees should be pruned accordingly, if required, outside of the bird nesting season, during the late Winter or Autumn.

P2 – Proposed Tree Planting – Management Prescriptions

- **Tree Planting – Mulching;** Trees within Ornamental Planting should be maintained with mulch to the base of the trees. Mulch layer to be checked annually;
- **Defects;** Replace dead trees as required.
- **Tree Watering;** Nursery Stock Tree Planting to be watered fortnightly throughout May / June / July / August / September; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient; provide 20 ltr/ tree/ visit;
- **Tree Ties;** Check fitting of tree guards and rubber tree ties including tree stakes; check twice per year; Spring and Autumn;
- **Tree Pruning;** Prune dead and damaged branches annually; February or September, in order not to disturb nesting birds.

P3 – Proposed Planting to Site Boundary

Boundary Planting

- 4.21 A section of native mixed-species shrub planting and trees have been proposed to the gap in the boundary vegetation along the eastern edge of the site. The security fence along the northern edge of the field would be planted with a native mixed-species climber planting.
- 4.22 The Long-term management objective for the boundary shrub planting should be to achieve a dense shrub mosaic with developed standard trees. The vertical planting along the northern boundary should cover the fence and help it blend with the existing vegetation.
- 4.23 For species selection refer to *LLD2859 -LAN-DWG-201-204 – Detailed Planting Plan*; for nursery stock details and specification refer to *LLD2859 -LAN-SCH-002 – Detailed Plant Schedule and Specification*.

Time of the Year for Planting

- 4.24 Planting works must be undertaken during an appropriate time of year. Bare-rooted trees and shrubs / whips and transplants should be planted between late October/ November to late March.
- 4.25 Container-grown climbers can be planted at any time, if ground and weather conditions are favourable.

Shrub Planting Out

- 4.26 The proposed shrub planting to be notch-planted at specified densities. The roots of plants should be carefully inserted and spread downwards, while the notch is kept open with a spade.
- 4.27 Container-grown climbers should be planted in pits which are twice as big as their container and no deeper than the container. Climbers should be planted some 0.4 m away from the supporting structure/ fence.

Climbing Plants – Training

- 4.28 To ensure successful establishment of planting material and good coverage, climbing plants require training and directional fixing against their supporting structures. Maintain a tidy, untangled growth by spread out new growth and control of side shoots. The shoots should be spread evenly across the weldmesh panels and twined carefully around the wires.

Boundary Planting Watering

- 4.29 In order to establish the boundary shrub planting, the plants should be watered fortnightly throughout the summer season in the first two years of establishment during May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit. Thereafter, water as necessary where natural precipitation levels are insufficient to maintain healthy dense growth.

Boundary Planting Mulching

- 4.30 Organic mulch comprising of well composted organic material, bark or wood chips would help control weeds and reduce evaporation from the soil during the establishment period.
- 4.31 Mulch shall be free of pests, disease, fungus, weeds and foreign material. The organic mulch shall be matured for a minimum of 16 weeks. Organic mulch shall consist of graded fines to a maximum particle size of 40 mm with approximately 70% particle size 5mm to 40 mm, 30 % particle size less than 5 mm.
- 4.32 Clear all weeds, water soil thoroughly and mulch planting areas to a depth of 50-100 mm after settlement.
- 4.33 Mulch should be topped up and checked annually during Spring.

Boundary Planting Weeding

- 4.34 The planting area should be kept clear of all weeds at the base of the plant material. The planting area should be kept weed free to facilitate establishment of plant stock. This should be done by either hand weeding or application of a non-residual herbicide application, taking care not to spray or scorch existing plant material. The native shrub planting should be cleared of all weeds annually, in Spring or Autumn.

Boundary Planting Trimming and Pruning

- 4.35 The proposed boundary planting should be trimmed to achieve a dense growth and height consistent with the existing vegetation.
- 4.36 To ensure good coverage, climbing plants require regular removal of unwanted growth. Carry out pruning and thinning annually in accordance with species individual requirements.
- 4.37 During the first two years of establishment, the native shrub plants should be lightly trimmed to encourage vigorous and dense growth. Pruning should be carried out to avoid disturbance to nesting birds, in early February.
- 4.38 Long-term maintenance pruning should be then carried out in two-to-three-year cycle at the same time of the year to avoid bird nesting season and enable successful flowering and fruit formation to support local wildlife. Care must be exercised to avoid cutting back tree transplants within the mix.

Boundary Planting Inspection

- 4.39 Shrubs and trees shall be planted at the locations proposed and maintained in a healthy state, with any diseased or dying specimens replaced as appropriate. Condition of shrubs shall be inspected upon every maintenance visit, and as a minimum at the beginning and end of each growing season.

P3 – Proposed Boundary Planting – Management Prescriptions

- **Proposed Boundary Planting – Weeding;** Maintain planting areas weed free; check annually, Spring / Autumn;
- **Proposed Boundary Planting – Mulch Top-up;** Maintain mulch to min. 50 mm depth; check annually; Spring;
- **Proposed Boundary Planting – Trimming and Pruning;**
Carry out for first two years annually during early February;
Long-term maintenance should be then carried out at the same time, in 2-3-year cycle;
Cut at least 2 cm above the previous year's growth.
- **Proposed Boundary Planting – Planting Watering;** Carry out fortnightly during April/ May / June / July / August / September for establishment of new planting and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient; provide 10 ltr/ m²/ visit.
- **Proposed Boundary Planting – Long-term Management;** Manage proposed planting to achieve height consistent with existing vegetation.
- **Proposed Boundary Planting – Inspection;** Inspect min. twice per year, at the beginning and end of each growing season or upon every maintenance visit.

P4 – Proposed Hedge Planting

Hedge Planting

- 4.40 The soft landscape scheme includes hedge planting within the private front gardens and to the communal areas, particularly along brick boundary walls.
- 4.41 For species selection and location refer to *LLD2859 -LAN-DWG-201-204 – Detailed Planting Plan*; for nursery stock details and specification refer to *LLD2859 -LAN-SCH-002 – Detailed Plant Schedule and Specification*.

Planting Pits

- 4.42 The size of hedge shrub planting pits or trenches shall be twice as large as container/ root protection and no deeper than the container. Container-grown hedge stock should be planted at some 0.5 m centres.
- 4.43 Instant hedge troughs for planting around the pumping station should be planted in line, along the wall, leaving sufficient offset from the wall and its foundations to facilitate effective rooting.

Hedge Weeding

- 4.44 Where feature hedge shall be planted, the planting area should be kept clear of all weeds at the base of the plant material. The hedge planting should be kept weed free by either hand weeding or application of a non-residual herbicide application, taking care not to spray or scorch existing plant material. The hedgerow planting within the development should be cleared of all weeds annually; Spring or Autumn.

Hedge Mulching

- 4.45 Organic mulch comprising of well composted organic material, wood chips, or bark, shall be free of pests, disease, fungus, weeds and foreign material. The organic mulch shall be matured for a minimum of 16 weeks.
- 4.46 Clear all weeds, water soil thoroughly and mulch all planting areas to a depth of 50-100 mm after settlement.
- 4.47 Mulch should be topped up and checked annually in Spring.

Hedge Trimming and Pruning

- 4.48 The appropriate pruning strategy and objectives address the proposed function and character of hedges. The Long-term management objective for the hedge planting should be to achieve a dense and consistent growth. The proposed hedges should be trimmed to eventually achieve the following heights:
- Front garden hedges: 1.0 – 1.2 m
 - Communal areas and parking courts: 1.5 – 1.8 m height.
 - Hedge around pumping station: 1.8 m height.
- 4.49 Tall hedges cut into tapered sides (A-shape) are able to shed heavy snow falls. They also allow more light to reach the lower sections of the hedge helping to keep the base dense. Low front garden hedges can be trimmed uniformly, without tapering.
- 4.50 During the two years of hedge establishment, plants should be lightly trimmed in winter (deciduous species) or in spring (evergreen species) to maintain shape and form. Light trimming shall encourage vigorous and dense growth.
- 4.51 Cutting hedges at the same height and width every year can result in loose and ‘gappy’ bottom. Cutting at least 2 cm above the previous year’s growth encourage a more bushy and denser growth.
- 4.52 Long-term maintenance pruning of formal hedges in communal areas should be undertaken annually to keep the hedges tidy and to prevent obstruction to footpaths and sight lines. Regular maintenance trimming should be undertaken in late summer (July- August for best and long-lasting results, but regard should be taken on nesting birds).
- 4.53 The objective for the instant hedge along the wall to pumping station is to achieve immediate screening and height. After the two years of establishment, the hedge is to be maintained as naturalized hedge for the benefit of local wildlife. The long-term maintenance pruning should be carried in out in two-to-three-year cycle in February to enable successful flowering and fruit formation to ensure food resource for wildlife.
- 4.54 Pruning should be carried out to avoid disturbance to nesting birds (bird nesting season: March – August).

Hedge Planting Watering

- 4.55 In order to establish the hedgerow planting, the plants should be watered fortnightly throughout the summer season in the first two years of establishment during May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit. Thereafter, water as necessary where natural precipitation levels are insufficient to maintain healthy dense growth.

Hedge Planting Litter Collection

- 4.56 All hedgerow planting areas should be checked on a regular basis for litter collection. All rubbish to be removed from the site, while fallen leaves shall be taken to the local compost facility or disposed in line with the local waste management policy.

P4 – Proposed Hedgerow Planting – Management Prescriptions

- **Proposed Hedgerow – Weeding;** Maintain hedgerow planting areas weed free; check annually, Spring / Autumn;
- **Proposed Hedgerow – Mulch Top-up;** Maintain mulch to all hedgerow planting areas; check annually; Spring;
- **Proposed Hedgerow – Trimming and Pruning;**
Light trimming of hedgerow transplants to stimulate vigorous and dense growth; Carry out for first two years annually during February;
Long-term maintenance should be then carried out annually or in 2-3-year cycle, subject to species composition. Prune formal hedges in late summer for best results and naturalized hedges for wildlife in February to enable flowering and fruit formation.
Cut at least 2 cm above the previous year's growth.
- **Proposed Hedgerow – Planting Watering;** Fortnightly during April/ May / June / July / August / September for establishment of new hedgerow planting; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient; provide 10 ltr/ m²/ visit.
- **Proposed Hedgerow – Litter Collection;** Collection as required, during regular maintenance visits.
- **Proposed Hedgerow – Long-term Management;** Maintain hedgerows at prescribed heights and shape.

P5 – Proposed Ornamental Planting Areas.

- 4.57 The planting areas are to ensure the visual amenity and sensory stimulation within the communal areas and provide additional opportunity to increase biodiversity within the site. The mixed native and ornamental planting would play an important role within areas of play, where it would reinforce the experience of play and give opportunities to stimulate imagination and appreciation of natural environment.
- 4.58 The ornamental planting to front gardens of proposed dwellings is aimed to introduce immediate visual impact for the new residents and complement the composition of the streetscene. The residents will have opportunity to improve upon the proposed private spaces to express their individual character and preferences.
- 4.59 The proposed planting scheme within the communal areas and the streets have been composed to enhance the outdoor space whilst requiring limited attention for maintenance.
- 4.60 For species selection and location refer to *LLD2859-LAN-DWG-201-204 – Detailed Planting Plans*; for nursery stock details and specification refer to *LLD2859-LAN-SCH-002 – Detailed Plant Schedule and Specification*.

Setting Out

- 4.61 The Ornamental Planting material shall be set out throughout the proposed locations in staggered fashion, in accordance with densities specified.

Times of Year for Planting

- 4.62 Planting works must be undertaken during an appropriate time of year as set out below:

Planting Type	Time of the Year
Conifers and evergreens	September / October or April / May
Herbaceous plants	September / October or March / April
Container grown plants	At any time if ground and weather conditions are favorable
Dried bulbs, corms and tubers	September/ October
Green bulbs	After flowering in spring

Planting Pits

- 4.63 The size of perennial and shrub planting pits shall be twice as large as container/ root protection and no deeper than the container.

Mulching

- 4.64 Organic mulch comprising of well composted wood chips shall be free of pests, disease, fungus, weeds and foreign material. The organic mulch shall be matured for a minimum of 16 weeks. Organic mulch shall consist of graded fines to a maximum particle size of 40 mm with approximately 70% particle size 5mm to 40 mm, 30 % particle size less than 5 mm.
- 4.65 Clear all weeds, water soil thoroughly and mulch all planting areas to a depth of 50-100 mm after settlement.
- 4.66 Mulch should be checked annually during Spring and topped up as required.

Weeding

- 4.67 All ornamental planting areas should be maintained weed free throughout the maintenance period. A layer of mulch should impede establishment and growth of persistent weeds as well as reduce evaporation from soil. Upon establishment and closure of plant cover, weed growth would likely be impeded as well.
- 4.68 It is recommended that ornamental planting areas should be cleared of all weed growth either by hand weeding or by the application of a non-residual herbicide application. Weed growth to be checked bi-monthly throughout the year; March – October.

Plant Debris

- 4.69 The proposed landscape scheme has been designed to reduce the need for deadheading and regular maintenance of the communal areas. The spent flowers and dried flower heads can be left over the Winter and removed at the beginning of the following season.
- 4.70 All plant debris to be cleared from the soft landscape areas and disposed in line with the local waste management policy.

Watering

- 4.71 Ornamental Planting areas, the ornamental planting material should be watered fortnightly throughout the summer season in the first year of establishment, during May / June / July / August / September. 10 litres per metre square should be applied fortnightly throughout the summer season at each maintenance visit. Thereafter, water as deemed necessary only where natural precipitation levels are insufficient in order to maintain healthy dense growth.

Pruning and Trimming

- 4.72 Shrub plant material should be lightly trimmed and pruned to maintain vigorous and dense growth during early establishment. Plant material should be checked for size and space adjacent to the footpaths and paving. Pruning and trimming should be undertaken annually, according to individual species requirements:
- Shrubs flowering in Winter – prune in Spring;
 - Shrubs flowering in Spring and early Summer – prune immediately after the flowering period;
 - Shrubs flowering in Summer and Autumn – prune back to old wood in Winter;
 - Shrubs with ornamental winter shoots – coppice in Spring
- 4.73 All planting areas should be checked on a regular basis for litter collection. All planting areas should be cleared of litter as required. All litter to be removed from site.

P5 – Proposed Ornamental Planting Areas – Management Prescriptions.

- ***Planting Area Weeding***; Maintain Ornamental Planting areas weed free; check bi-monthly and repeat as necessary;
- ***Planting Area Pruning***; Pruning and trimming; lightly prune / trim plant materials to all soft landscape areas annually according to individual species requirements;
- ***Planting Area Mulch Top-Up***; Maintained mulch levels to a depth of 50-100 mm; check annually Spring;
- ***Watering***; Water plant material fortnightly during the summer season for the first year of establishment; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient; provide 10 ltr/ m²/ visit.
- ***Litter Collection***; Collection as required.

P6 – Wildflower Grassland Seeded Areas

Wildflower Grass Seed Mix – Generally

- 4.74 The soft landscape proposals seek to benefit local wildlife, including invertebrates and reptile populations. Wildflower grassland areas would be created to the site perimeter to enhance the habitat mosaic within the development and facilitate migration of fauna within the area.
- 4.75 For selection of mixtures and location refer to *LLD2859-LAN-DWG-201-204 – Detailed Planting Plan*; for sowing rates and mix specification refer to *LLD2859-LAN-SCH-002 – Detailed Plant Schedule and Specification*.

Sowing

- 4.76 Seed is best sown in the autumn (September/ October) or spring (March/ April). The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, seed can be divided into two or more parts and sown in overlapping sections. The seed should not be incorporated or covered, but firmed in with a roll, or by treading, to give good soil/seed contact.

Wildflower Grassed Areas Cutting – First Year of Establishment

- 4.77 Newly sown meadows should be mown regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wildflowers. Undertake first cut in March/ April and then undertake regularly allowing to grow to some 150 mm.

Wildflower Grassed Areas Cutting – After Establishment

- 4.78 Once established, the wildflower grassed areas are to be allowed to develop and flower throughout the Spring and Summer growing season. No cutting shall occur in this period. The wildflower grass seeded areas are to be cut in August or early September, of each maintenance year to a height of 50 – 75 mm. Mow or graze the re-growth through to late autumn/winter to some 50 – 75 mm and again in spring, if needed.
- 4.79 Arisings are to be left in-situ for 7 days before removal. The wildflower grassland arisings could potentially either be composted on site, composted locally, or otherwise removed from site to a local authority green waste recycling facility.

- 4.80 For details regarding maintenance of proprietary flowering grassland mixtures refer to supplier's recommendations.

P6 – Wildflower Grassland Areas – Maintenance Prescriptions

- 4.81 **Wildflower Grassland Areas**; Cutting until establishment (first year): first cut in March/April to 40 mm; then cut regularly when some 150 mm tall;
Cutting when established: September of each maintenance year; 50-75 mm height;
Mow or graze the re-growth through to late autumn/winter to some 50 – 75 mm and again in spring, if needed.

P7 – Seeded Grass Areas

Grassed Areas – Generally

- 4.82 The soft landscape proposals cater for open grassed areas suitable for recreation and fertilizer. Grass areas within the streetscape would be seeded with 'flowering lawn' mix to maximise opportunities for wildlife within the soft landscape. Swathes of bulbous perennials would be planted within the lawns to add dramatic aspect throughout the year. This would have to be accounted for when managing the grassed areas with bulbs planted.
- 4.83 For selection of mixtures and location refer to *LLD2859 -LAN-DWG-201-204 – Detailed Planting Plan*; for sowing rates and mix specification refer to *LLD2859 -LAN-SCH-002 – Detailed Plant Schedule and Specification*.

Time of Sowing

- 4.84 Sow grass seed mixtures between April – October, whilst optimal month in the UK are April, May, June.

Grassed Areas – Cutting

- 4.85 The cutting regime of the grassed areas should vary throughout the year. The recommended cutting regime should vary for amenity lawns and flowering lawns to road verges in order to promote establishment of flowering component of the latter. The grass should be maintained to a height of 35 mm. The cutting regime should be as follows:

- **Initial Cut; Early Spring:**

Wait until the seedling are approximately 50mm in height and then lightly firm the soil preferably by using a light roller or the roller on a lawn mower.

Recreational Lawns/ Amenity Lawns/ Flowering Lawns: Some two days after firming the soil cut to tidy grassed areas to 1/3 of height.

- **Regular Cutting:**

Recreational Lawns/ Amenity Lawns: April / May / June / July / August / September / October.

Cutting Regime; when required throughout the Spring / Summer season to a height of 25 mm;

Caution: Do not cut areas of bulb planting in grass until leaves die down: June/ July;

Flowering Lawn (Verge): cut fortnightly throughout the Spring and relax the regime from June; then cut when required after 4-8 weeks.

- **Final Cut:**

Recreational Lawns/ Amenity Lawns/ Flowering Lawns: November; Final cut to tidy Grassed Areas to 40 – 50 mm height.

Grassed Areas – Bare Patches

- 4.86 Grassed areas which fail to establish or become bare due to wear should be top dressed with sandy loam topsoil and seeded with matching Grass Seed Mix as specified. The bare areas that are re-seeded should be temporarily fenced off to enable establishment. Bare patches should be re-seeded in March / April or September / October. The grassed areas should be checked for bare patches bi-annually; Spring and Autumn.

Grassed Areas Fertiliser

- 4.87 A fertilizer application should be made annually to the Amenity Lawns during Spring and Autumn as follows;
- In March apply NPK 15: 10: 10; Spring Turf Fertiliser at 35 g / m² or equal and approved;
 - In September apply NPK 5: 10: 10; Autumn Turf Fertiliser at 35 g / m² or equal and approved.
- 4.88 No fertilisers nor ameliorants shall be applied to areas seeded with Flowering Lawn mix.

P7 – Seeded Grass Areas – Maintenance Prescriptions

- **Grass Cutting;** Initial cut early Spring; Recreational Lawns/ Amenity Lawns: April / May / June / July / August / September / October. Cutting Regime; as and when required throughout the Spring / Summer season to a height of 35 mm;
- **Bare Patches;** Re-seeding annually; Spring and Autumn;
- **Fertiliser;** Amenity Lawns/ Recreational Lawns; annually; Spring and Autumn.

P8 – Detention Basin Maintenance

- 4.89 For details of the proposed detention basin and maintenance prescriptions relevant to safeguarding the hydraulic performance, refer to Drainage Engineer's documentation.

Detention Basin – Planting

- 4.90 The vegetation to the banks of the detention basin would be established through the introduction of pre-grown grass and wildflower turf, to avoid erosion. The forebay of the detention basin would be planted with a mixed-species native planting.
- 4.91 For species selection refer to *LLD2859-LAN-DWG-202-203 – Detailed Planting Plans*; for nursery stock details and specification refer to *LLD2859-LAN-SCH-002 – Detailed Plant Schedule and Specification*.

Wildflower Grassland Turf – Cutting Regime

- 4.92 The wildflower grassland turf is to be allowed to develop and flower throughout the Spring and Summer growing season. No cutting shall occur in this period. The turf is to be cut to a height of 25-50 mm, in September or by early October of each maintenance year.
- 4.93 For details regarding maintenance of proprietary flowering grassland mixtures and pre-grown turf refer to supplier's recommendations.
- 4.94 Arisings should be removed from site in line with the local waste management policies.

Forebay Planting – Weeding

- 4.95 Native planting to the forebay area should be maintained weed free throughout the maintenance period. Native planting to the detention basin forebay shall be managed to maintain an appropriate balanced marginal vegetation mosaic.
- 4.96 Planted species shall be thinned and maintained in equal proportion such that no single species becomes dominant. Thinning to be undertaken annually by hand in October/ November. Arisings shall be placed temporarily (24-48 hours) in near proximity to allow invertebrates or amphibians to disperse and seek refuge. Arisings shall then be removed from site in line with the local waste management policies.

- 4.97 Marginal vegetation shall be managed on a periodic (3 yearly) basis to maintain the extent of coverage such that proportion of adjacent habitat is sustained. Marginal vegetation, where necessary, shall be reduced in extent, by hand, to that originally implemented.
- 4.98 Vegetation removal to be undertaken annually by hand in October/ November. Arisings shall be placed temporarily (24-48 hours) in near proximity to allow invertebrates or amphibians to disperse and seek refuge. Arisings shall then be removed from site in line with the local waste management policies.
- 4.99 Planting areas should be cleared of all weed growth by hand – chemical weed control must be prohibited within the detention basin.
- 4.100 Weed growth to be checked bi-monthly throughout the year; March – October.
- 4.101 Lightweight organic mulch should not be used within the detention basin as this floats and may clog outlets.
- 4.102 Arisings should be removed from site in line with the local waste management policies.

Fertiliser

- 4.103 The application of fertilisers within the detention basin is prohibited, to prevent undesired nutrient loadings promoting growth of competitive weeds.

Litter Removal

- 4.104 The detention basin should be checked on a regular basis for litter, to prevent blockage of inlets and outlets. The detention basin should be checked and cleared of litter as required, on every maintenance visit. The required frequency should then be reviewed, based on realistic needs of the development.

P8 – Detention Basin Planting – Maintenance Prescriptions

- ***Turf Cutting***; Cut annually in September / October, to a height of 25-50 mm;
- ***Marginal Planting: vegetation thinning***; vegetation to be thinned annually; October – November;
- ***Marginal Planting: vegetation reduction***; vegetation to be reduced every third year; October – November;
- ***Weeding***; Check bi-monthly throughout the year; March – October.

5.0 SOFT LANDSCAPE MAINTENANCE SPECIFICATION

Q35 Landscape Maintenance

Generally

110 Notice

- Give notice before:
 - Application of herbicide.
 - Application of fertilizer.
 - Watering.
 - Each site maintenance visit.
- Period of notice: 2 days.

130 Reinstatement

- Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstatement to original condition.

155 Watering

- Supply: Potable mains water.
- Quantity: Wet full depth of topsoil.
- Application: Do not damage or loosen plants.
- Compacted soil: Loosen or scoop out, to direct water to root zone.
- Frequency: As necessary for the continued thriving of all planting.

160 Water Restrictions

- General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

170 Disposal of Arisings

- General: Unless specified otherwise, dispose of arisings as follows:
 - Biodegradable arisings: Remove to recycling facility.
 - Grass cuttings: Remove to recycling facility.
 - Tree roots and stumps: Remove to recycling facility.
 - Shrub and tree prunings: Remove to recycling facility.
 - Litter and non-biodegradable arisings: Remove from site.

190 Litter

- Extraneous rubbish not arising from the Contract Work: Collect and remove from site.

197 Cleanliness

- Soil and arisings: Remove from hard surfaces.
- General: Leave the works in a clean, tidy condition at completion and after any maintenance operations.

Grassed Areas

210 Maintenance of Grassed Areas

- General: Maintain turf in a manner appropriate to the intended use.
- Soil and grass:
 - Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
 - Waterlogging and compaction: Prevent.
 - Damage: Repair trampling, abrasion or scalping.
- Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
 - Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
- Litter and fallen leaves: Remove regularly to maintain a neat appearance.

211 Maintenance of Grassed Areas:

- Standard: To BS 7370-3. Carry out maintenance appropriate to each category of turf, as follows:
 - Objectives: To BS 7370-3, table 6.
 - Programme: To BS 7370-3, clause 11.
 - Mowing methods: To BS 7370-3, table 3.

220 Grass Cutting Generally

- Before mowing: Remove litter, rubbish and debris.
- Finish: Neat and even, without surface rutting, compaction or damage to grass.
- Edges: Leave neat and well defined. Neatly trim around obstructions.
- Adjoining hard areas: Sweep clear and remove arisings.
- Drought or wet conditions: Obtain instructions.

225 Tree Stems

- Precautions: Do not use mowing machinery closer than 100 mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.

226 Tree and Plant Stems

- Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
 - Operations close to stems: Complete using hand tools.

235 Bulbs and Corms in Grassed Areas

- Before flowering: Do not cut.
- Interval between end of flowering and start of grass cutting (minimum): Six weeks.

250 Leaf Removal

- Operations: Collect fallen leaves.
- Disposal: Remove from site for recycling.

255 First Cut of: Grassed Areas

- Height of initial growth: 50 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 1/3.
- Mower type: To be agreed with contractor.
- Arisings: Remove.

256 First Cut of Wildflower Grassland Meadow

- Height of initial growth: 50-75 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove.
- Height of first cut: 40-60 mm.
- Mower type: Contractor's choice.
- Arisings: Remove.

265 Mowing General Areas

- Grass height: Maintain between 25 and 50 mm.
- Arisings: Remove.

272 Maintaining: Wildflower Grassed Areas

- Preparation: Before each cut remove litter and debris.
- Height and frequency of cut in first growing season:
 - Time of first cut: March/April
 - Height of first cut: 40-60 mm.
 - Frequency of subsequent cutting (minimum): Most of the sown species will be slow to germinate and grow and will not usually flower in the first growing season. There will often be a flush of annual weeds from the soil in the first growing season. This weed growth is easily controlled by topping or mowing.
- Height and frequency of cut in second growing season:
 - Time of cut: September.
 - Height of cut: 50 mm.
- Trimming: All edges.
 - Arisings: Remove.
- Watering: When instructed.
- Management once established: In the second and subsequent years the wildflower grassland can be managed in a number of ways depending on the soil fertility.
 - Poor Shallow Soils: On poor shallow soils the wildflower grassland can be managed through one or two cuts towards the end of summer to help maintain diversity and interest.
 - Deeper Soils: Wildflower grassland seeded on deeper soils should be managed through a main summer hay cut in combination with autumn and spring mowing. The wildflower grassland seeded areas are not to be cut from spring through to late July/ August to allow the sown species to flower. After July/August a 'hay cut' with a petrol strimmer to 50 mm height should be undertaken with the hay left to dry and shed seed for 1 – 7 days before being removed from site. Regrowth should be mowed through to late autumn / winter to 50 mm height and again in spring if required.
- Other Requirements: For further maintenance requirements refer to the wildflower grassland seed mix supplier's instructions and recommendations.
- Other Requirements: No soil ameliorant / conditioner or fertilizer to be applied to the wildflower grassland.

309 Edges to Seeded Areas

- Location: Planting beds and around newly planted trees.
- Timing: After seeded areas are well established.
- Edges: Cut to clean straight lines or smooth curves. Draw back soil to permit edging.
- Arisings: Remove.

310 Re-Forming Grass Edges

- Location: Where damage occurs.
- Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

381 Reinstatement of Lawns – Worn Areas

- Damaged turf: Remove to a depth of 40 mm.
- Preparation: Cultivate substrate to a fine tilth.
- Worn or damaged areas: Make good by returfing or reseeding:
 - Returfing standard: To BS 7370-3, Clause 12.2.
 - Reseeding standard: To BS 7370-3, Clause 12.6.
- Turf or seed: To match existing in appearance and quality.
- Protection and watering: Provide as necessary to promote successful germination and/ or establishment.

*Shrubs / Trees / Hedges***500 Establishment of New Planting**

- Duration: to be agreed before entering contract.
- Weed control:
 - Method: Keep planting beds clear of weeds by use of suitable herbicides; maintaining full thickness of mulch and hand weeding.
 - Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.
- Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
- Watering: When instructed.

510 Tree Stakes and Ties

- Inspection / maintenance times: ties should be checked monthly as part of the routine maintenance inspections and immediately after strong winds. Biannual checks shall be made to tree stakes, checking whether the tree can stand unsupported without bending or shifting in the ground. If the tree no longer requires the stake for support, then the stake may be removed (usually after eighteen months to three years of establishment).
- Stakes:
 - Replace loose, broken or decayed stakes to original specification.
 - If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.
- Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
 - Where chafing has occurred, reposition or replace ties to prevent further chafing.
- Removal of stakes and ties: Stakes shall remain in place until the tree can stand unsupported without bending or shifting in the ground – this may take between three months and three years.
- Fill stake holes with lightly compacted soil.

520 Refirming of Trees and Shrubs

- Timing: After strong winds, frost heave and other disturbances.
- Re-firming: Tread around the base until firmly bedded.
- Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and re-firm.

540 Pruning Generally

- Pruning: In accordance with good horticultural and arboricultural practice.
 - Removing branches: Do not damage or tear the stem or bark.
 - Wounds: Keep as small as possible and cut cleanly back to sound wood.
 - Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
- Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well-balanced natural appearance.
- Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
- Disease or fungus: Give notice if detected.
- Growth retardants, fungicide or pruning sealant: Do not use unless instructed.

545 Pruning of Excessive Overhang

- Timing: annually or as instructed by the Landscape Architect.
- Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.

550 Pruning of Excessive Height

- Timing: annually or as instructed by the Landscape Architect.
- Operations: Remove excessive height as instructed.

555 Pruning Trees and Shrubs

- Standard: To *BS 7370-4*.
- Special requirements: shrub planting to be pruned to height specified.

570 Formative Pruning of Young Trees

- Standard: Type and timing of pruning operations to suit the plant species.
- Time of year: Do not prune during the late winter/ early spring sap flow period.
- Young trees up to 4 m high:
 - Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well-balanced head and ensure the development of a single strong leader.
 - Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
- Trees with a narrow crown and columnar / compact form: lateral growth pruned out annually in the autumn, for the first two or three years of establishment, to keep the upright appearance. Once established, only prune if necessary.
- Whips or feathered trees: Do not prune.
- Operatives: Extensive pruning of young trees and any surgery to larger trees must be carried out by an approved member of the Arboricultural Association or other approved specialist.

575 Pruning Ornamental Shrubs (Feature and Defensive Planting)

- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
- Suckers: Remove by cutting back level with the source stem or root.

610 Trimming Tapering Established Hedges

- Time of year: Trim once in July or August having regards to nesting birds.
- Operations
 - Form: Trim carefully and neatly to regular line and shape, with the width at the top less than that at the base.
 - Trim: Remove current growth rather than old wood.
- Tools/ Cutting: Shears or other suitable mechanical cutters

620 Removal of Dead Plant Material

- Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

630 Dead and Diseased Plants

- Removal: As soon as possible.
- Replacement: In the next suitable planting season.

635 Reinstatement of Shrub / Herbaceous Areas

- Dead and damaged plants: Remove.
- Replacement plants:
 - Use pits and plants to original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
 - Additional requirements: Submit details and cost of plants before ordering.

640 Thinning by Removal of Surplus Plants

- Plants to be thinned: as instructed by the Landscape Architect;
- Standard: BS 7370-4:1991.
- Timing: as instructed by the Landscape Architect;
- Roots:
 - Disturbance to adjacent plants: Minimise.
 - Soil: Refill holes with topsoil to leave an even graded surface.
 - Adjacent plants: Make good any minor damage immediately.
- Plants for retention: Select plants with a strong healthy habit.
- Mature planting density: As schedule.

645 Weed Control Generally

- Weed tolerance: Weed to clear ground every two weeks.
- Adjacent plants, trees and grass: Do not damage.

650 Hand Weeding

- General: Remove weeds entirely, including roots.
- Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible.
- Completion: Rake area to a neat, clean condition.
- Mulch: reinstate to original depth.

657 Herbicide to Kill Regrowth

- Type: Suitable foliar acting herbicide to kill regrowth.
- Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

665 Weed Control with Winter Herbicide

- Type: Suitable residual soil acting herbicide.
- Time of year: Unless otherwise agreed, complete before end of March.
- Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

670 Weed Control with Summer Herbicide

- Type: Suitable foliar acting herbicide.
- Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

680 Soil Aeration

- Compacted soil surfaces:
 - Prick up: To aerate the soil of root areas and break surface crust.
 - Size of lumps: Reduce to crumb and level off.
 - Damage: Do not damage plants and their roots.

685 Soil Level Adjustment

- Level of soil/mulch at edges of beds: Reduce to 50 mm below adjacent grass or hard surface.
 - Arisings (if any): Spread evenly over the bed.

690 Maintenance of Loose Mulch

- Thickness (minimum): 75 mm consistent depth.
 - Top up: Every year.
- Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
- Weeding: Remove weeds growing on or in mulch by non-residual herbicide treatment and / or hand weeding.

705 Winter Leaf Removal

- Operations: Take down temporary leaf fences. Collect accumulations of drifted leaves from the vicinity and from planting beds.
- Arisings: remove to a Local Authority Green Waste Recycling Facility.

*Tree Work***810 Tree Work Generally**

- Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
- Protection: Avoid damage to neighbouring trees, plants and property.
- Standards: To BS 3998:2010 'Tree Work. Recommendations' and Health & Safety Executive (HSE) 'Forestry and Arboriculture Safety Leaflets'.
- Removing branches: Cut as Arboricultural Association Leaflet 'Mature tree management'. Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
- Appearance: Leave trees with a well-balanced natural appearance.
- Chain saw work: Operatives must hold a Certificate of Competence.
- Tree work: To be carried out by an approved member of the Arboricultural Association.

815 Additional Work

- Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

820 Prevention of Wound Bleeding

- Standard: To BS 3998:2010, Clause 8.

825 Prevention of Disease Transmission

- Standard: To BS 3998:2010, Clause 9 and Appendix B.

830 Cleaning Out and Deadwooding

- Remove:
 - Diseased wood.
 - Fungal growths and fruiting bodies.
 - Rubbish, wind blown 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 retain within existing trees.

835 Cutting and Pruning Generally

- Tools: Appropriate, well maintained and sharp.
- 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;
 - Anvil type secateurs: Do not use.
- Removing branches: Do not damage or tear the stem.
- Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible.
- Large branches: Remove only with prior approval.
 - Remove in small sections and lower to ground with ropes and slings.
- Dead branches and stubs: When removing, do not cut into live wood.
- Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
- Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

840 Crown Reduction / Shaping

- General: Cut back selectively to lateral or sub-lateral buds or branches to retain flowing branch lines without leaving stumps.
- Operations: as instructed by the Landscape Architect.

845 Crown Lifting

- Clearances: Remove branch systems to give clearance.
 - Height: As recommended by *BS 7370-4, clause 3.7.2.3*.
- Removing branches: Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sub-lateral buds or branches. Do not leave stumps.

850 Crown Thinning

- Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches.
- Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown, as instructed by the Landscape Architect.
- Cutting:
 - Branches: Cut back to lateral or sub lateral buds or branches without leaving stumps.
- Appearance: Leave a uniform and well balanced structure of branches and foliage.

855 Cutting Tree Roots

- Excavating: Use hand tools only.
 - Protected area: Do not cut roots within the calculated tree Root Protection Area (RPA) in accordance with BS 5837:2012; 'Trees in Relation to Design, Demolition and Construction – Recommendations'.
- Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
- Cutting:
 - Cutting: Make clean smooth cuts with a hand saw.
 - Wounds: Minimize. Avoid ragged edges.
 - Finishing: Pare cut surfaces smooth with a sharp knife.
- Backfilling:
 - Protection: Cover cut roots with clean sharp sand.
 - Material: Backfill with original topsoil.

860 Removing Trees and Shrubs

- Standards: To BS 3998:2010, Appendix A and Health & Safety Executive (HSE)/ Arboricultural and 'Forestry Advisory Group Safety Leaflets'.
- Existing Services: Check for below and above ground services. Give notice if they may be affected.
- Shrubs and Smaller Trees: Cut down and grub up roots.
- Tree stumps:
 - Removal: Remove mechanically to a minimum depth of 300 mm below ground level.
 - Removal by winching: Give notice. Do not use other trees as supports or anchors.
- Protection: Avoid damage to neighbouring trees, plants and property.
- Work near Retained Trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
- Filling holes:
 - Material: Use as-dug material and/ or imported soil as required.
 - Finishing: Consolidate and grade to marry in with surrounding ground level.

865 Bark Damage

- Wounds:
 - Do not attempt to stop sap bleeding.
 - Bark: Remove ragged edges using a sharp knife
 - Wood: Remove splintered wood from deep wounds.
 - Size: Keep wounds as small as possible.
- Liquid or flux oozing from apparently healthy bark: Give notice.

*Hard Landscape Areas/Fencing:***910 Hard Surfaces and Gravel Areas:**

- Herbicide: Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings.
- Hard surfaces: Remove litter, leaves and other debris.
- Surface gutters and channels: Remove mud, silt and debris.
- Drainage gullies: Empty traps and flush clean.
- Gravel areas: Rake over. Remove weeds, litter, leaves and debris, and level off.
- Repairs to flexible bituminous pavings: In accordance with the original paving specification or BS 7370-2, clause 4.12.
- Stain removal: In accordance with BS 7370-2, table 4.

920 Fencing:

- Fences: Inspect and repair to maintain protection against intruders.

6.0 LANDSCAPE MAINTENANCE AND MANAGEMENT SCHEDULE

Operation	Frequency	Year 1												Year 2	Year 3	Year 4	Year 5
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
Tree Planting																	
Monitoring of existing trees	1 x year				✕									✕	✕	✕	✕
Mulching	1 x year				✕									✕	✕	✕	✕
Watering	1 x every 2 weeks				✕	✕	✕	✕	✕	✕				✕	✕	✕	✕
Checking Tree Guards and Ties	2 x year				✕						✕			✕	✕	✕	✕
Pruning: dead or damaged branches	1 x year		✕							✕				✕	✕	✕	✕
Hedge Planting																	
Checking Tree Guards and Ties	2 x year				✕						✕			✕	✕	✕	✕
Mulching	1 x year				✕									✕	✕	✕	✕
Weeding	1 x year				✕									✕	✕	✕	✕
Litter Collection	Every 2 weeks				✕	✕	✕	✕	✕	✕				✕	✕	✕	✕
Formative Pruning	1 x year		✕											✕	✕	✕	✕
Pruning Established Formal Hedges	1 x year								✕					✕	✕	✕	✕
Pruning Established Hedges for Wildlife	1 x every 2-3 years		✕													✕	
Watering	1 x every 2 weeks				✕	✕	✕	✕	✕	✕				✕	As required	As required	As required

Operation	Frequency	Year 1												Year 2	Year 3	Year 4	Year 5	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
Ornamental Planting																		
Monitoring	1 x month			✕	✕	✕	✕	✕	✕	✕	✕	✕			✕	✕	✕	✕
Weeding	1 x 2 months					✕	✕	✕	✕	✕					✕	✕	✕	✕
Debris Removal	1 x year		✕												✕	✕	✕	✕
Mulching	1 x year				✕										✕	✕	✕	✕
Watering	1 x every 2 weeks				✕	✕	✕	✕	✕	✕				As required	As required	As required	As required	
Flowering Grassland																		
Litter Collection	1 x every 2 weeks				✕	✕	✕	✕	✕	✕				✕	✕	✕	✕	
Cutting (1 st season)	1 x month					✕	✕	✕	✕	✕								
Cutting (when established)	1 x year									✕				✕	✕	✕	✕	
Grassed Areas (Amenity Lawns/ Recreational Lawns)																		
Cutting	1 x every 2 weeks				✕	✕	✕	✕	✕	✕	✕	✕		✕	✕	✕	✕	
Bare Patches (re-seeding)	2 x year				✕						✕			✕	✕	✕	✕	
Fertiliser Application	2 x every year				✕						✕				✕		✕	
Grassed Areas (Flowering Lawn/ Verges)																		
Cutting	1 x every 2 weeks until June; then after 4-8 weeks				✕	✕	✕	✕	✕	✕	✕	✕		✕	✕	✕	✕	

Operation	Frequency	Year 1												Year 2	Year 3	Year 4	Year 5	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
Detention Basin																		
SuDS Turf Cutting	1 x month											✕			✕	✕	✕	✕
Native Planting (forebay)	1 x 2 months														✕	✕	✕	✕
Debris Removal	1 x year		✕												✕	✕	✕	✕
Mulching	1 x year														✕	✕	✕	✕

SuDS Turf Cutting	1 x year										✕			✕	✕	✕	✕
Native Planting (forebay)																	



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