

CREST NICHOLSON

ARBORFIELD, PARCEL O2

LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN

FOR TENDER

Date: August 2024

CLIENT Crest Nicholson.

PROJECT Arborfield, Parcel 02

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1. PRELIMINARIES

- 1.1 This Landscape Management and Maintenance Plan shall be read in conjunction with all other Contract Documents; including all Drawings and Standard Forms of Tender. Any queries arising in respect of this document, are to be referred to the Landscape Architect.

References:

- a. All references to the "Management Company (MC)" within this document shall mean the organisation (private or otherwise) to which overall responsibility for the site is devolved upon satisfactory completion of the site works by the Housing Developer.
- b. All references to the, "LPA" within this document shall mean the Local Planning Authority. This is Wokingham Borough Council.
- c. All references to the "Housing Developer" within this document shall mean Crest Nicholson Chiltern Ltd.
- d. All references to the "Specialist subcontractor/sub consultant/maintenance contractor" within this document shall mean the organisation/s employed by the MC to undertake works within the development on their behalf.
- e. All references to the "Architect" within this document shall mean the leader of the professional team who is responsible to the Client under the terms of the contract.
- f. All references to the "Engineer" within this document shall mean the engineers employed by the client to take overall responsibility for engineering concerns, including the setting of site levels and drainage matters.
- g. All references to the "Landscape Architect" within this document shall mean David Jarvis Associates Ltd or their representatives.
- h. All references to the "development/site/envelop" within this document shall mean the Arborfield, Parcel 02 development scheme as set out in the approved planning documentation.
- i. All references to, "existing trees" or "existing tree stock" within this document shall mean those identified as being onsite prior to the commencement of site work which are to be retained as set out in the approved planning documentation.
- j. All references to the, "hardscape" within this document shall mean all hard surfaces, boundary treatments, walls and enclosures.
- k. All references to the, "RR" within this document shall mean the Risk Register which shall form part of the Health and Safety file and/or folders for the site within which the site and play area inspection and audit sheets shall be stored. This will detail all individual site items and elements, their general condition, together with [any] remedial action required. Items not requiring immediate attention, will be submitted 2 weeks prior to, but for, discussion at the AMMR.
- l. All references to the, "AMMR" within this document shall mean the Annual Management and Maintenance Review, which shall include as a format for discussion the Risk Register (RR), out of which will derive the AMP.
- m. All references to the, "AMP" within this document shall mean the Annual Maintenance Plan. This shall be informed by the RR, but decided at the AMMR, unless matters of an urgent nature require an immediately actionable response. For example, site items or elements man made or natural that put site users at an unacceptable level of risk arising from their use or presence on site require an immediately actionable response.

- n. All references to the “Public Realm” within this document shall mean those areas that are ‘accessible to all’ within this private development that do not constitute ‘trespass’ onto another proprietor’s private property. Examples include, but may not be limited to, access corridors (roads & footpaths) into, and out of, the development, multiple-use car parking courts and amenity style planting for enjoyment by all.
- o. All references to the “Private Realm” within this document shall mean those areas where access is typically (but not always) restricted to use by the proprietor alone, and where uninvited access, may constitute, ‘an Act of Trespass’. Examples may include a private garden space and/or private parking at the front of a property whereby use is for the obvious and explicit use by the proprietor of the property, usually differentiated by some form of boundary demarcation and/or signage separating it from use by multiple users.
- p. All references to “multiple-use parking courts” within this document shall mean all parking courts accessible to all where access would not necessarily constitute an, ‘Act of Trespass’ and where, *‘car park facilities are made available for use by multiple users [of that particular unit/block of flats etc.] often differentiated by white lining alone’*.

1.2 The Main Contractor shall note that David Jarvis Associates Ltd Landscape Management and Maintenance Plan, together with any associated drawings and specifications, are composite drawings based on information, drawings and correspondence from (but not necessarily limited to) the following:

- a. Crest Nicholson Chiltern Ltd. (Client)
- b. Pegasus Design (Planning Architects)
- c. Currie Design (Technical Architects)
- d. Shape Engineering (Civil Engineers)
- e. Loveday Lighting (Lighting Engineers)

here-in-after referred to as the Design Team.

Responsibilities

- 1.3 *Compliance*; all workmanship shall be strictly in accordance with the Clauses of this document. All specified works are to be in accordance with DJA drawings and compliant with what follows.
- 1.4 *Health & Safety*; the Contractor is deemed to be conversant with his obligations applicable under all relevant health and safety legislation at the time of the works on site and shall be fully compliant with them.
- 1.5 *British Standards*; all work is to be carried out in accordance with the latest edition of the following:
 - a. BS 1722 - Fences. (All relevant parts).
 - b. BS 3882: 2015 - Specification for topsoil and requirements for use.
 - c. BS 3936-1: 1992 - Nursery stock. Specification for trees and shrubs.
 - d. BS 3936-7: 1989 - Nursery stock. Specification for bedding plants.
 - e. BS 3936-10: 1990 - Nursery stock. Specification for ground cover plants.
 - f. BS 3998: 2010 - Tree work. Recommendations.
 - g. BS 4043:1989 - Recommendations for transplanting root-balled trees.
 - h. BS 4428: 1989 - Code of practice for general landscape operations (excluding hard surfaces).
 - i. BS 5709: 2018 - Gaps, gates and stiles. Specification.

- j. BS 5837: 2012 - Trees in relation to design, demolition and construction. Recommendations.
- k. BS 7370-1: 1991 - Grounds maintenance. Recommendations for establishing and managing grounds maintenance organizations and for design considerations related to maintenance.
- l. BS 7370-2: 1994 - Grounds maintenance. Recommendations for the maintenance of hard areas (excluding sports surfaces).
- m. BS 7370-4: 1993 - Grounds maintenance. Recommendations for maintenance of soft landscape (other than amenity turf).
- n. BS 7533 - Pavements constructed with clay, natural stone or concrete pavers. (All relevant parts).
- o. BS 8545 – Trees: from nursery to independence in the landscape – Recommendations.

together with the latest amendments of all these and all other relevant British Standards.

- 1.6 *Biosecurity / Pests and Diseases*; take necessary precautions to prevent the introduction and spread of plant pests and diseases by following the latest biosecurity policies and guidance. This applies to site hygiene, plant sourcing and necessary plant passports, plant handling and storage, identification and notifications where applicable.
- 1.7 All work requiring the use of herbicides in or near water bodies shall require consent from the Environment Agency (EA) using form and guidance note AqHerb01 'Agreement To Use Herbicides In Or Near Water'. The contractor should also be NPTC certified and understand the correct health and safety requirements and take all precautions to protect wildlife, people, animals, protected plants and the aquatic environment.
- 1.8 The Contract Administrator (CA), reserves the right to condemn any work which appears unsatisfactory; due to poor workmanship or, non-compliance with this documentation. The sub-contractor shall, at his own expense, make good any defects or liabilities to the satisfaction of the CA, and shall be responsible for all the consequential costs resulting from his failure to comply with this documentation."
- 1.9 *Responsibility*; Non-approval or non-acceptance shall not relieve the Contractor of his responsibilities under the contract for the quality of materials and standard of workmanship in the works.

2. INTRODUCTION

Planning Context

- 2.1 David Jarvis Associates Ltd. has prepared this document as part of the landscape technical submission for the Arborfield, Parcel 02 development. This landscape management and maintenance plan (LMMP) details the landscape management intent and maintenance operations for the public open space and provides a prescription for the management operations within.

Scope and Purpose

- 2.2 The aim of the LMMP is to provide a set of aims and objectives for the management of the existing and proposed features on site. These determine the appropriate management prescriptions required, and is accompanied by a work schedule to provide an overall long-term management strategy.
- 2.3 The management strategy is to ensure the long-term viability of both existing and proposed habitats and planting and to achieve the overall design intent of the scheme. It should ensure planning conditions are met, as a minimum, and exceeded if at all possible, to create a balanced and well managed site, that enhances the existing biodiversity where possible, that is attractive, safe and secure; both for the people who live there and for visitors to the site.
- 2.4 The LMMP is divided into two main sections to consider the proposed components separately and include:

Section 6 – Management of Proposed Soft Landscape Components

Section 7 – Management of Proposed Hard Landscape Treatments

3. EXISTING SITE AND PROPOSED DEVELOPMENT

Site Background and Existing Features

- 3.1 The Parcel 02 application site adjacent Arborfield Garrison, Berkshire comprises an area of approximately 4.88Ha. It is located to the south of Biggs Lane opposite the fully occupied Parcel 01 within the Lakeside Character Area of the Arborfield Garrison Strategic Development Location as detailed within the outline planning approval.
- 3.2 It lies approximately 4km from Wokingham town and is close to the nearby settlements of Arborfield, Arborfield Cross and Barkham. The overall site consists of the main Garrison complex, Hazebrouck Barracks and Rowcroft barracks.
- 3.3 Existing onsite green infrastructure is to be retained where possible. However, this falls outside the Parcel 02 application boundary and so is not considered further within this report.

Proposed Development

- 3.4 The site comprises proposed tree, hedge, and mixed native scrub planting, ornamental mixed planting beds, and limited amenity greenspace with species rich and/or wet grassland, together with hardscape material detailing.

Overall Management Aims and Objectives

- 3.5 Aims and Objectives:
- a. To provide and maintain an attractive/visually appealing and robust landscape setting to the development, particularly along the main access roads and frontages.
 - b. To maintain a secure and decorative physical enclosure to the site and parts thereof.
 - c. To help partially screen the new development, provide privacy and define plot boundaries in order to create a visually interesting development cell.
 - d. Provide recreational opportunities for the nearby residents within the framework of the existing and proposed habitats.
 - e. To maintain and enhance existing biodiversity and green ecological corridors throughout the site. Manage and enhance the habitat types and ensure their future longevity.
 - f. To maintain health and safety requirements to all publicly accessible areas of public open space for all residents and visitors.
 - g. To be compliant with current biosecurity policy and encourage the use of locally sourced and grown planting stock. Any replacement planting shall be native and include seeds and plants from local sources of provenance. All plant stock to be sourced from a supplier certified to be pest and disease free and in accordance with Plant Passport / Animal and Plant Health Agency (APHA) and current DEFRA requirements. Supplier information / certification to be retained for a period of not less than 12 years and must be made available upon request.

4. GENERAL MAINTENANCE AND MANAGEMENT PROCEDURE AND MONITORING

Responsibilities

- 4.1 The management and maintenance of the public open space will be the responsibility of the Landscape Contractor in the first year following practical completion.
- 4.2 Beyond the first year the responsibility for management will fall to the residential property management company appointed by the housing developer.
- 4.3 All management contracts will be agreed and reviewed by the management company.

Procedure and Monitoring

- 4.4 The management company will control general landscape maintenance operations through an Annual Management and Maintenance Review (AMMR) undertaken at the end of October. It is suggested that this process can be used both prior to and post adoption.
- 4.5 Prior to the AMMR, an inspection of the development parcel will be carried out to inform the AMMR of potential future action required.
- 4.6 The purpose of the annual autumn review is to provide a singular point in time whereby precedents and priorities for management and maintenance requirements pertaining to the development can be decided, broadly, for the year ahead, at a time (should more immediate need for rectification of defects be required) when impacts upon vegetation and ecology can be minimised as they enter their dormant phase over the winter months.
- 4.7 The inspection shall determine the nature and extent of the following and be recorded on the Risk Register (RR) (timing as Management Review):
 - a. General appearance and condition of existing and proposed plant material and tree stock for planting disease, damage or health.
 - b. Vandalism.
 - c. General appearance & condition.
 - d. Any invasive species.
 - e. Any evidence of protected species.
 - f. Works required under the AMP.
- 4.8 Completion of the risk register (RR) by the Contractor should be undertaken by the contractor's onsite representatives.
- 4.9 Items brought to the MC's attention, through the process of monitoring and recording on the Risk Register or through third parties that identify and place members of the general public at medium to high risk, should be actioned immediately rather than waiting for the AMMR.
- 4.10 It is proposed that the timing of the RR be discussed at the AMMR to allow for adjustment as required by site conditions (including after major weather events such as storms, high winds, snowfall etc.) and the MC's Public Liability Insurance policies. If required, the frequency of items within the RR would be revised (not less than annually), to better manage the risk to the public. Forthcoming maintenance operations would therefore be adjusted accordingly.

- 4.11 AMMR's will continue to take place beyond and into the medium and long-term timeframes. An assessment of the prevailing situation and conditions on site will determine the need for any further changes to the management plan or operations.
- 4.12 Safety issues reported by the general public shall also be investigated as soon as practicably possible and remedial works undertaken as necessary. Annual reviews of tree planting shall take place in October/November prior to tree work being carried out.

Report to the MC

- 4.13 A reporting, booking in and out procedure and pro-forma are to be agreed with the client/MC prior to the commencement of any maintenance contract and/or works in order to ensure proper compliance with procedures on site and Health and Safety legislation.

Management Review

- 4.14 Recognise, acknowledge and act upon any items arising from monitoring by amending the maintenance operations listed below or by instructing agreed and discreet works packages.

5. GENERAL SOFT LANDSCAPE MAINTENANCE OPERATIONS

- 5.1 The following describes (but may not be limited to) the type of operations the maintenance contractor may reasonably be expected to undertake during the course of his duties on site. Additional works may be as instructed by the MC at their specific request.

General Maintenance Operations

General Pruning Operations – Existing and Proposed Planting

- 5.2 Pruning operations for trees and shrubs shall have the following objectives:
- To remove any dead, dying or diseased wood, rubbing/crossing/broken branches and stems, and/or potentially weak or tight forks.
 - To maintain clearances above and within footpaths, seating/car parking/grassed areas and building lines to a height of 2.5m.
 - To achieve satisfactory shape and extent of growth: trees, well balanced head suitable to form of tree whether ex-current or de-current; shrubs, healthy bushy growth that promotes ornamental features such as flowers, fruit, autumn/stem colour, etc.
 - To remove suckers or other unwanted growth.
 - As the trees mature, lifting and thinning of crowns may become necessary.
- 5.3 Prune in accordance with good horticultural and arboricultural practice at the appropriate time of year having regard to the species taking care to observe the following objectives:
- When removing branches do not damage or tear the stem or bark.
 - Keep wounds as small as possible and cut cleanly back to sound wood.
 - Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Prune larger branches neither flush, nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide in accordance with BS 3998: 2010, Section 7, taking care to remove in small sections and lower to ground with ropes and slings.
 - Formatively prune by means of thinning, trimming and carefully shaping each specimen appropriately to species, location, season, and stage of growth, in order to leave a well-balanced natural appearance.
 - Use clean sharp secateurs, hand saws or other approved tools and trim off ragged edges of bark or wood with a sharp knife.
 - Do not prune: young trees during the late winter/early spring sap flow period; woodland whips or feathered trees, leave to attain full height; hedge plants possessing a leading shoot best left to obtain their planned height (e.g.) *Fagus sylvatica*, *Carpinus betulus*, *Taxus baccata* *Thuja* spp., most columnar conifers and *Ilex* spp. However, lateral branches of these species should be cut back moderately to ensure a dense habit.
 - Prune *Prunus* species trees in summer (May-July) whilst tree sap is rising to help prevent the tree from getting silver leaf disease. Prune *Betula* species in late summer / autumn (Sept-Oct) as can bleed sap if pruned in late winter.

General Landscape Softworks Maintenance Operations – Proposed Planting

- 5.4 All newly planted landscapes and plant materials therein, shall be managed in accordance with the prescriptions identified below:

- a. *Replacements* – At the end of the growing season, check all plants and remove all dead foliage, dead wood and broken or damaged branches and stems.
- b. Any dead or dying plants will be replaced with equivalent stock and planted during the next planting season replaced for five years from scheme completion for planning compliance. Continual failures of a particular species at a particular locality may suggest general unsuitability for the location. Thereafter plant and replace to ensure continuity of cover. All plant stock to be sourced from a supplier certified to be pest and disease free and in accordance with Plant Passport / Animal and Plant Health Agency (APHA) and current DEFRA requirements. Supplier information / certification to be retained for a period of not less than 12 years and must be made available upon request.
- c. *Plant Support Systems and Protection* – Stakes, ties and guards will be checked regularly and adjusted, repaired or replaced and removed upon successful establishment. Stakes will be removed following a test on sample trees. To test whether trees are root-firm, sample trees within a group (say 10%) shall be untied in spring and monitored over the next growing season. When firmness is proven, remove all remaining stakes and ties, and fill in resulting post holes and remove surplus materials. Where stakes and ties are still necessary, further inspections will be required to adjust and maintain them in good order, ensuring that stems are not damaged.
- d. *Pest and disease* - Treat as necessary/appropriate. Monitor and act up on findings. Where planting shows signs of stress (chlorosis, etc.), identify any underlying problems or signs of stress, disease or damage and take appropriate remedial action. In some instances, it may be necessary to use alternative species better suited to the local conditions.
- e. *Watering* – The Contractor shall ensure that there is no delay in the execution of watering by obtaining all necessary licences and permissions from water companies for the efficient execution of watering. The Contractor shall water all planting undertaken under the Contract, at the frequency necessary to ensure establishment and survival, until all planting works are completed. Plant materials shall be watered immediately after planting. Carry out regular feeding and watering throughout the growing season to promote healthy growth, taking care not to over water or over feed using a fine hose or sprinkler until full depth of topsoil is saturated. Extra Heavy standard/semi mature trees are to be watered weekly from the beginning of the growing season (April/May) and throughout the summer, during the first year of establishment. This can be adjusted depending on the weather. During the establishment period all trees are to be monitored by the management team for signs of die back and dehydration. The CA shall be informed of any apparent signs of overdue stress. Additional watering may be required in periods of drought/dry weather to ensure plant survival. After 10 continuous days without rain during the growing season the trees shall be watered twice a week as above.
- f. *Re-firming* – Ensure that the plant materials remain firmly bedded after strong winds, frost heave and other disturbances. Re-firm by treading around base.
- g. *Weeding* – General: Remove weeds entirely, including roots with minimum quantity of soil and disturbance to plants. Trees: Weed 1m diameter around each plant. Maintain as required to achieve an 80% weed free area to the base of each tree for a period of 5 years, to ensure the trees satisfactory establishment and development. Shrubs and hedges: Base of plant materials to be kept clear of all pernicious weeds and invasive species by hand weeding/spraying/cultivation on a monthly basis. Ensure mulch mats are replaced or repaired as necessary. Remove weeds encroaching mulch mats or coming through planting split/hole. Remove weeds entirely, including roots with minimum quantity of soil and disturbance to plants.

- h. *Mulching* – remove all weeds and maintain mulch to 75mm, by topping up twice a year until superfluous: 1m diameter to tree planting; retained within planting bed for ornamental shrubs and hedging. Rake to a neat, clean condition.
- i. *Fertiliser* – Fertiliser shall not be used where there is pasture grazing. For all other planting areas apply late winter/spring granular fertiliser (a 20:10:10 spring fertiliser at 30g/m²) to ornamental plant stock [only as required] to help establish healthy plant stock. All fertilisers are to be stored and applied in accordance with the manufacturer's instructions. Depending on the vigour and health of the plant, fertiliser applications may be suspended as part of the regular inspection programme.
- j. *Weeds and Herbicide Application* - Herbicide shall not be used where grass is intended for pasture grazing. For all other grasslands, spot removal of perennial weeds or cutting of annual weeds and invasive species will be carried out by cutting, hoeing or hand pulling, with the use of chemicals kept to a bare minimum. If significant patches of persistent weed species (including coarse grasses such as couch or False Oat Grass) occur, an approved folia-acting systemic translocated herbicide or lawn herbicide as appropriate can be used. A selective herbicide (for general application) or non-selective herbicide (for spot treatment) shall be applied in accordance with the manufacturer's instructions taking care not to damage surrounding plants and grass from spray drift. Refer to 1.7 for herbicide use in or near waterbodies. Comply with all current COSHH and Control of Pesticides Regulations guidelines and/or requirements.
- k. *Burning of arisings* - not permitted on site at any time.
- l. *Mammalian pest control* - to be completed by a specialist firm with suitable experience in dealing with the particular pest.
- m. *Removal of arisings* – any infected (diseased or pest) prunings or timber arisings shall be removed off site immediately after cutting and burned or buried at a depth of no less than 2.0m in a location to be approved in writing by the Overseeing Organisation, except diseased arisings affected by diseases described in Arboriculture Research Notes or Arboriculture Research and Information notes issued by the Arboricultural Advisory and Information Service, which shall be dealt with in accordance with the advice published in these notes. Healthy arisings shall be removed from site to a suitable composting facility, or utilised as windrowed brash / creation of reptile hibernacula at the specific direction of the Project Ecologist.
- n. *Litter clearance* - The contractor shall maintain the site to a clean and litter free standard by removing all litter at intervals highlighted within the Schedule.
- o. *Cleanliness* - The site is to be maintained in a clean and tidy manner after any maintenance operations. All arisings are to be removed from hard surfaces so as to avoid any potential slip hazard. Collect accumulations of drifted leaves from the vicinity and from planting beds.

Health and Safety

- 5.5 All works shall be carried out in accordance with the Authority's and the Contractor's own Health and Safety Policy and in accordance with all current Statutory Obligations.
- 5.6 All landscape maintenance operations shall be subject to the preparation and approval of a project specific Risk Assessment and Method Statement prior to commencing any works on site. Copies of these shall be made readily available to each team vehicle attending the Premises. A full copy shall be forwarded [and approved by] the MC, prior to visiting the site.
- 5.7 The contractor shall exercise all reasonable care and consideration towards visiting members of the public in order to provide protection against hazards caused by the required maintenance operations. Examples include [but may not be limited to]:

- a. Appropriate signage used to warn members of the public of the operations taking place.
 - b. Appropriate barriers/method of cordoning off the work site to prevent access by the public may be required for certain maintenance operations.
 - c. Special care and attention shall be exercised by the contractor when working near parked cars.
- 5.8 COSHH assessments shall be completed for all substances hazardous to human health that are to be used on site. These may include [but not necessarily be limited to]: herbicides, pesticides, fertilisers and fuel. Copies shall again be forwarded to the MC for approval prior to commencing works on site.
- 5.9 The Contractor shall also note the following whilst on site:
- a. All personnel are to check in and out of the compound upon arrival/departure.
 - b. The correct PPE appropriate to the maintenance operation to be carried out is to be worn at all times when on site. High visibility waistcoats shall be worn at all times.
 - c. Vehicles and trailers shall be parked in locations so as not to cause parking issues for residents / visiting members of the public.
 - d. No machinery shall be left unattended at any time. All machinery shall be in a serviceable condition and be fit for its purpose.
 - e. Smoking on site shall be allowed in designated areas only.
 - f. No audible music to be played whilst on site.
 - g. No alcohol to be consumed whilst on site.
 - h. All defective and vandalised areas shall be reported with photographic evidence supplied immediately. Areas that may cause harm shall be cordoned off and made safe.
 - i. All contractor's workwear and vehicles shall bear their employer's name upon them.
 - j. Contractors will be allowed access to on site comfort facilities.
 - k. Contractors are required to supply a periodic work schedule for the duration of the rectification period and landscape maintenance period to the Site Duty Manager.
 - l. Contractors must make contact with the MC (Site Duty Manager) in advance of pending visits/attendances.
 - m. Any incidents arising as a result of the contractor carrying out his duties under contract must be reported to the Site Duty Manager with immediate effect.

6. MANAGEMENT OF PROPOSED SOFT LANDSCAPE COMPONENTS

- 6.1 This incorporates all 'publicly accessible' soft landscape and boundary treatments (where applicable) including tree planting, shrub and herbaceous beds, scrub planting, screen planting, hedge planting and grassland.
- 6.2 The management requirements for new planting will need to change as the planting establishes and begins to mature. Three phases are identified as below. However, as these definitions are not mutually exclusive (of one another) a programme of monitoring will be necessary to ensure the LMMP aims and objectives are effectively realised.

Proposed Planting Management Phases

- 6.3 *Short Term (1-3yrs)*; the initial establishment period will require more frequent maintenance operations to ensure planting thrives without competition and planting sundries are maintained. Cosmetic and/or functional pruning operations may be carried out during this timeframe to ensure the overall aims and objectives are met and to ease the maintenance burden over medium to long term timeframe. Management examples may include removal of crossing/rubbing branches to maintain general tree health, removal of tree supports once wind firm, crown reduction to maintain appearance, or removal of branches to manage conflicts both 'on' and 'off' site.
- 6.4 *Medium Term (3-10yrs)*; as the development establishes and matures, the management regime will shift to ensure longevity. Pruning and/or other operations may be required. Precise timing will be dependent on a programme of monitoring to ensure effective maintenance is carried out at the appropriate time.
- 6.5 *Long Term (10-25+yrs)*; as the development moves towards maturity, continual periodic monitoring will ensure that effective maintenance is carried out at the appropriate time in order to maintain site health and safety.

Proposed Street Trees and Specimen Trees

Management Aims and Objectives

- 6.6 The following shall be observed:
- The aftercare of the trees should be tailored to their size requirements and ensure a safe and healthy development whilst promoting their wildlife value.
 - To maintain health and safety requirements to all publicly accessible areas of public open space for all residents and visitors.
 - Maintain bark mulch and weed control.
 - To control the spread of pests and diseases.

Management Prescriptions

Short Term Management

- 6.7 Refer to Section 5 for general maintenance operations.
- 6.8 In late autumn of each year the site will be inspected and a programme of work for the next twelve months agreed. Actions required might include practices such as formative pruning and replacement of stock.

Medium to Long Term Management

- 6.9 Continue to monitor and act upon findings to ensure the aims and objectives continue to be met. Follow the tree work guidelines given in Section 5.

Proposed Ornamental Hedgerow Planting

Management Aims and Objectives

- 6.10 The following shall be observed:
- Maintain the hedgerow to encourage healthy establishment and a neat shape.
 - Prevent the spread of undesirable species.
 - Avoid ingress onto public paths.
 - Keep hedgerow base litter free.

Management Prescriptions

Short Term Management

- 6.11 Refer to section 5 for general maintenance operations.
- 6.12 Pruning - Pruning the hedgerow shall have the following objectives:
- To remove any dead, dying or diseased wood.
 - To remove suckers or other unwanted growth.
 - To achieve a regular height of 1.2m with trimmed edges and top.
 - Formal hedgerow along site boundaries - to a maximum height of 200mm above the adjoining fence with trimmed edges and top.
- 6.13 Carry out formative pruning in the first two years to promote dense hedge growth as below:
- Deciduous hedgerows with dominant leader (apical dominance) e.g. *Carpinus* spp., *Fagus sylvatica* etc.: usually exhibit two growth spurts during the year - one main flush during spring and a second, smaller flush in late summer. The leader should therefore be left to achieve desired height (1.2m) before 'topping' the hedge. In order to keep the hedge tidy, side branches can be trimmed to achieve desired shape (box) after first (Spring) & second flush (during September) but before the leaves change colour and fall. This process is then repeated until the desired shape, form & size (1.2m tall x 0.5m wide) is achieved.
 - Deciduous /semi-evergreen hedgerows with bushy habit (decurrent, weak apical dominance) e.g. *Ligustrum* spp.: trim top & sides at regular periods throughout the spring & summer growth period to maintain a neat tidy appearance.

Medium to Long Term Management

- 6.14 Continue to weed seasonally.
- 6.15 Maintenance pruning shall include:
- Evergreen hedgerows (upright plants e.g. *Ligustrum*, *Griselinia*) – annually trim the top and sides to maintain the desired shape and height through the summer (May to September).
- 6.16 Protection – Remove (remnants of) tree and shrub guards before they start to restrict growth.
- 6.17 Once good establishment of the hedgerow planting areas has been achieved, the density of the planting can be reduced if required by selective thinning to prevent encroachment onto adjacent pathways.

- 6.18 Contractors should be aware of the legal protection afforded to breeding birds/nests, amphibians and bats/bat roosts. Some formal hedgerow maintenance pruning will be required during the bird nesting season (March-August inclusive). If completed regularly these operations should not be invasive or directly affect nesting birds or wildlife. However, the hedgerows should be inspected prior to any works being carried out to ensure that nesting birds aren't present or will not be disturbed. If birds are present the pruning should be left until the young have fledged the nest.

Proposed Native Field Hedgerow Planting

Management Aims and Objectives

- 6.19 The following shall be observed:
- a. Maintain the hedgerow to encourage healthy establishment and a good shape.
 - b. Prevent the spread of undesirable species.
 - c. Avoid ingress onto public paths.
 - d. Include native planting to promote and enhance the existing site biodiversity. Seeds and plants should be from local sources of provenance.
 - e. Keep hedgerow base litter free.

Management Prescriptions

Short Term Management

- 6.20 Refer to Section 5 for general maintenance operations.
- 6.21 Pruning - Pruning of native hedges shall have the following objectives:
- a. To remove any dead, dying or diseased wood.
 - b. Pruning of hedgerows should encourage the development of tall "A" shaped, full hedgerows (at least 2.4m in height and at least 1.5 metres in width), with a dense base cover.
 - c. To remove suckers or other unwanted growth.
- 6.22 Prune in accordance with good horticultural and arboricultural practice.
- 6.23 Heavy pruning shall be carried out in the first year to encourage bushy side growth, thereafter; pruning will be carried out on a 3 year cycle. Avoid trimming all hedgerows in the same year, cutting no more than a third of the hedgerow in any year. Leave a minimum of 1m strip of uncultivated land between the hedgerow and cut grass. Pruning shall be carried out at the correct time having regard to the species and maintenance objectives above.

Medium to Long Term Management

- 6.24 Protection – Remove (remnants of) tree and shrub guards before they start to restrict growth.
- 6.25 Once good establishment of the hedgerow planting areas has been achieved, the density of the planting can be reduced by selective thinning if required.
- 6.26 Continue to weed seasonally.
- 6.27 A review of the hedgerows shall take place to determine if there are any sections that are deteriorating with gaps (of 1m or more), hollow bottoms and die back. Plant any gaps 1m or wider within the hedgerow using 60-80cm whips to match those existing species.

- 6.28 Hedgerow trimming shall take place every 3 years on a rotational basis. Trimming of all the hedgerows in one year should be avoided, cutting no more than a third of the hedgerow in any year. The hedgerow should be allowed to grow up to and maintained at 2.4-3.6m tall. Hedgerow junctions shall only be trimmed very occasionally in order to provide an alternative habitat.
- 6.29 Sections of new planting should only be lightly trimmed allowing the hedge to increase in size each time. If the hedge is to be laid then side trimming new planting should encourage strong leading shoots up to a suitable height of 2.4-3.6m tall.
- 6.30 Hedgerow trimming shall be carried out at the correct time of year having regard to the species and management objective, but shall exclude the months of March – August, hard frosts and the spring flush.
- 6.31 Occasional standard trees shall be left to add diversity to the hedgerow. Trees shall be pruned to remove diseased wood or dead/ dying wood to maintain clearances above roads. Pruning and general tree management shall be in accordance with good horticultural and arboricultural practices as per Section 4 and 6.
- 6.32 If the hedgerow requires regenerating or to prevent the hedgerows turning into a line of trees then hedge laying followed by further gapping up could be undertaken following consultation with the Ecologist / Arboriculturalist.
- 6.33 Hedge laying should be carried out on a rotation to avoid the loss of large lengths of mature hedgerow habitat. Hedgerow laying shall take place in the winter months November – March avoiding any hard frosts.
- 6.34 The laid hedge should then be left to grow for a further 2 years before any further trimming takes place on a 2-3 year rotation. Successive cutting should maintain some additional width and height each time. If the hedgerow becomes gappy at the base it can be side trimmed for 2-3 years to allow leading shoots to grow on before being laid again. Hedgerow junctions shall continue to be trimmed very occasionally in order to provide an alternative habitat.
- 6.35 The hedge shall be re-laid after a further 10-25 years in light of the monitoring programme.

Proposed Native Scrub Planting

Management Aims and Objectives

- 6.36 The following shall be observed:
- Limit the spread of invasive growth into surrounding habitats.
 - Maintain a mosaic of scrub and open spaces for greater wildlife value.
 - Promote natural regeneration of scrub where habitat expansion is required.

Management Prescriptions

Short Term Management

- 6.37 Refer to Section 5 for general maintenance operations.

Medium Term Management

- 6.38 Protection – Remove (remnants of) guards before they start to restrict growth. Stakes will be removed following a test on sample plants. To test whether plants are root-firm, sample plants within a group (say 10%) shall be untied in spring and monitored over the next growing season.

When firmness is proven, remove all remaining stakes and ties, fill in resulting post holes and remove surplus materials. Where stakes and ties are still necessary, further inspections will be required to adjust and maintain them in good order, ensuring that stems are not being damaged.

- 6.39 Continue to weed seasonally.
- 6.40 Once good establishment of the scrub planting areas has been achieved, initiate a program of selective coppicing of small groups of plants on a 7 year cycle. This should include plants around the edge of the scrub areas.
- 6.41 Generally remove any tree seedlings from the scrub areas to prevent succession to woodland and maintain a small number to be able to mature to provide some diversity.
- 6.42 Regularly cut or mow scrub plants at edges to prevent unwanted spread of scrub area.
- 6.43 *Long Term Management*
- 6.44 Seasonal weeding around new planting growth will be required to prevent smothering. Dense stands of bracken or bramble may be treated with herbicide as per the general maintenance operation guidelines.
- 6.45 Continue the program, of selective coppicing on a 7 yearly cycle, removal of tree seedlings and unwanted edge scrub plants.

Proposed Ornamental Shrubs, Groundcover, Herbaceous and Grasses

Management Aims and Objectives

- 6.46 The following shall be observed:
- a. Ornamental planting should be managed to promote the healthy growth and development of decorative features such as flowers, foliage and stems.
 - b. Allow plants to flower and fruit / set seed
 - c. Prevent the spread of undesirable species.
 - d. Avoid encroachment onto public paths and play areas.
 - e. Keep shrub beds litter free.

Management Prescriptions

Short Term Management

- 6.47 Refer to Section 5 for general maintenance operations.
- 6.48 In late autumn of each year the site will be inspected and a programme of work for the next twelve months agreed. Actions required might include practices such as thinning, coppicing, and/or replacement.
- 6.49 Any losses or damage to shrubs are to be noted and replaced for five years from scheme completion for planning compliance. Thereafter plant and replace to ensure continuity of cover. Continual failure of a species at a particular locality may suggest general unsuitability for the location.
- 6.50 Carry out formative pruning in the first two years to promote bushy growth as below:
- a. Specimen shrubs - only requires light trimming and shaping in the first few years.
 - b. Young shrub planting - only requires light trimming and shaping in the first few years.

- c. Evergreen planting - in mid-spring before growth starts.
- d. Deciduous early flowering shrub planting – trim after flowering.
- e. Deciduous mid-summer flowering shrub planting – trim in early to mid-spring.
- f. Winter flowering shrubs – trim in spring.
- g. Species with coloured stems/large foliage (e.g. Cornus) - In the second or third spring coppice plant in Feb-March to 7.5cm from the ground and thin outside shoots.
- h. Lavandula - prune annually to keep a compact shape after flowering in late summer.
- i. Herbaceous – Dead head to prolong flowering (e.g Monarda, Rudbeckia, Salvia, Stachys). Annually cut down after flowering ceases.
- j. Herb planting – Cut back Allium sp. down to ground after flowering. Lightly trim Thymus after flowering.
- k. Ornamental Grasses (Deciduous) – Trim to ground level before growth starts in early spring (except Pennisetum which grows later and therefore needs cutting in April).
- l. Ornamental Grasses and Sedges (Evergreen and Semi Evergreen) – Annually trim and comb through spent flower stalks, unsightly scorched foliage or diseased leaves individually in Spring, taking care not to cut any new season's growth.
- m. Ferns – Remove any dead or unsightly fronds before the new unrolling leaf tips appear.

Medium to Long Term Management

- 6.51 Continue to monitor and act upon findings to ensure the aims and objectives continue to be met. The annual review will determine future management operations; this may include selective thinning, additional planting/replacements and further dividing.
- 6.52 Carry out maintenance pruning as below:
- a. Specimen shrubs – only require light trimming to maintain shape and prevent leggy growth. Remove branches that overhang adjacent paths / drives. Prune as per deciduous early flowering shrubs below.
 - b. Evergreen shrubs – large and slow growing shrubs will require little pruning except the removal of unhealthy, dead, diseased or damaged shoots and unsightly/badly positioned shoots. Formal clipped evergreen planting (e.g. Lonicera nitida) shall require shaping and trimming to maintain the desired form and size. Prune in mid-spring just before new growth begins, or until flowering has finished (winter/early spring flowering).
 - c. Deciduous early flowering shrub planting – prune after flowering and remove some stems to ground level to avoid becoming too bushy. Remove spindly and twiggy growth right back. Remove at least 20% of old stems to the base.
 - d. Deciduous mid-summer/autumn flowering shrub planting – prune in early to mid-spring the previous year's flowering stems to within 1-2 buds of old wood.
 - e. Winter flowering shrubs – prune in spring.
 - f. Species with coloured stems/large foliage (e.g. Cornus) - cut back every 2-3 years in Feb - March to the previous coppice stubs. Fertilise each spring to support new growth.
 - g. Lavandula planting – prune established plants after flowering in late summer to remove flower stalks and 2.5cm of the current year's growth maintaining some green growth. If plants become old and woody they should be replaced.
 - h. Herbaceous - continue to deadhead flowers and annually cut after flowering ceases. Divide perennials to control their spread. If space in the bed they can be replanted.

- i. Herb planting – cut back or trim. Regularly divide or thin the *Mentha* sp. to prevent the plant becoming invasive.
 - j. Ornamental Grasses and Sedges (Deciduous and Evergreen) – cut back or trim as per formative pruning above. Divide plants to control their spread and outgrown their space. Replant if an alternative space is available in the bed.
 - k. Ferns – continue to remove any dead or unsightly fronds before the new unrolling leaf tips appear. Divide plants in early spring when they become too large.
- 6.53 Advise client when thinning of groundcover planting may be necessary and await instruction before carrying out this work so as to maintain ornamental shrub areas.
- 6.54 Continue to weed seasonally.
- 6.55 Contractors should be aware of the legal protection afforded to breeding birds/nests, amphibians and bats/bat roosts. Some larger shrub maintenance pruning will be required during the bird nesting season (March-August inclusive). If completed regularly these operations should not be invasive or directly affect nesting birds or wildlife. However, larger shrubs should be inspected prior to any works being carried out to ensure that nesting birds aren't present or will not be disturbed. If birds are present the pruning should be left until the young have fledged the nest.

Grassland Generally

Grass Maintenance Operations Generally

- 6.56 Maintenance of grass areas will be as described in BS 7370: Part 3, 1991 in suitable weather conditions and shall have the following objectives:
- a. Any shrinkage and/or depressions, bare patches and other failed areas will be rectified in accordance BS 7370-3; if returfing: Clause 12.2, if reseeding: Clause 12.6.
 - b. Humps, bumps and hollows will be rectified in accordance with BS 7370-3, clauses 12.4 and 12.5, quality and appearance to match the existing.
 - c. Prior to any grass cutting operations commencing, all litter and obstructive debris shall be removed.
 - d. Fertiliser – Spring and autumn application granular fertiliser shall be applied only as required to help establish a healthy sward. (In March of each year apply a 9/7/7 fertiliser at 35g/m². In September of each year, apply a 3/12/12 fertiliser at 35g/m²). All fertilisers are to be stored and applied in accordance with the manufacturer's instructions. Depending on the vigour and health of the plant, fertiliser applications may be suspended as part of the regular inspection programme. Fertiliser should not be applied to areas of species rich grassland.
 - e. No burning, shredding or chipping on site will be allowed.
 - f. Generally, allow naturally colonizing species to emerge where appropriate e.g. in low maintenance grass / species rich grassland, but remove invasive 'weed' species.
 - g. Within amenity and close mown grass areas prevent the encroachment of large herbaceous or scrub species, keeping amenity grassland areas free of flower stalks and weed species.
 - h. Any damage caused during cutting such as trampling, rutting, abrasion or scalping should be repaired at the earliest opportunity to maintain an attractive sward.
 - i. Litter and excessive fallen leaves should be removed regularly to maintain a neat appearance.
 - j. DO NOT USE mowing machinery or nylon filament rotary cutters closer than 100mm to tree stems. For operations close to stems, use hand tools. N.B. USE OF HAND TOOLS WILL

GENERALLY NOT BE REQUIRED IF TREES ARE MULCHED IN ACCORDANCE WITH THE SPECIFICATION AND THIS DEPTH IS MAINTAINED OVER and BEYOND THE RECTIFICATION PERIOD.

- k. Soft edges to seeded areas adjacent to shrub planting beds and HS+ trees are to be cut back to clean straight lines and/or smooth curves as directed by the planting plan geometry. Soil is to be drawn back and mulch topped up as required in compliance with the specification.
- l. Grass should be removed from all hard surfaced areas, paths, pavements and gravel/mowing strips to prevent the build-up of moss/lichen/slippery surfaces/nutrient enrichment.
- m. If standing water occurs, aeration with a spiked roller or other approved implement having tines which penetrate 50-100mm into the soil surface shall be carried out once per month between September and April inclusive on all areas.

6.57 Time of first cut - Mar/Apr after Autumn sowing or Jun/Jul after Spring sowing.

6.58 Monitor grass erosion annually and reinstate damaged or worn areas. Resow failed areas of grassland with original specification seed mix. Protect with temporary fencing until sufficiently established for intended use and water as necessary.

6.59 For bulb planting swathes in grass the frequency of grass cutting is to be adjusted so that the grass can be left to grow longer around the bulbs and is cut a minimum of 6 weeks after the season flowering has finished. Therefore after winter and spring flowering the grass shall be cut from June and after summer flowering from September.

Amenity Grassland

Management Aims and Objectives

6.60 The following shall be observed:

- a. Amenity grassland forms the majority of the grassland area and shall be managed more intensively in order to provide more formal recreational space.
- b. Maintain a safe useable surface for public use.
- c. Standard grassland refers to the majority of the amenity grassland.
- d. Close Mown refers to the mown paths shown on the proposals plan.

Management Prescriptions – Standard

Short to Long Term Management

6.61 Grass areas will be maintained in suitable weather conditions as Category E grass in accordance with the Tables 1, 2 and 6 of BS7370: Part 3 1991, but mown monthly to 50mm between April and November with a maximum allowable height of growth of 100mm, but with cuttings removed.

6.62 The standards to be achieved for short amenity grass shall be as follows, abstracted from Table 6 of BS7370: Part 3 1991:

- a. Total ground cover (by area) to be at least 75%.
- b. No stones or hard litter at the surface with a diameter greater than 25mm.

Management Prescriptions – Close Mown

Short to Long Term Management

- 6.63 Grass areas will be maintained in suitable weather conditions as Category D grass in accordance with the Tables 1, 2 and 6 of BS7370: Part 3 1991, i.e. mown weekly or fortnightly to 25mm between April and November with a maximum allowable height of growth of 50mm, but with cuttings removed.
- 6.64 The standards to be achieved for short amenity grass shall be as follows, abstracted from Table 6 of BS7370: Part 3 1991:
- a. Total ground cover (by area) to be at least 80%.
 - b. No stones or hard litter at the surface with a diameter greater than 25mm.

Turf grassland

- 6.65 Turf grass shall be cut to 25mm and watered immediately after installation. Continue to water the grass to ensure establishment during the first growing season.
- 6.66 Once established maintain the grassland as per amenity grass above.
- 6.67 Apply a spring lawn fertiliser in the second growing season.

Species Rich / Wet Grassland

- 6.68 Successful establishment of species rich grassland is usually dependant on low nutrient soil status and minimising competition from ruderal weed species; either, derived from within the existing weed seed soil bank; or, from ex-situ aeolian derived sources. The following objectives shall be realised:
- i. Spray off existing vegetation and/or pernicious weeds (if present & required) using a suitable fast acting, systemic, non-residual herbicide treatment before undertaking spring deep ploughing. Once spring deep ploughing is complete, leave the ground fallow for as long as practically possible to help dry out any weed rootstocks.
 - ii. At final cultivation, create a fine stale seed bed by repeat harrowing and rolling to reduce ground to a fine, tilth with good crumb structure. On completion ground should be of even surface that is friable, lightly firmed but not over compacted.
 - iii. Thoroughly mix and sow seed to avoid separation between wildflower and grasses.
 - iv. Roll to ensure good contact between the seeds and the soil.
 - v. Ensure good weed management practices to prevent wildflower being out competed by ruderal 'weed' species. Appropriate treatments are site and location specific and could include cultural, mechanical, or chemical methods of control depending on the weed seed bank present.

Short Term Management

- 6.69 Grass areas will be maintained in suitable weather conditions as Category H grass in accordance with the tables 1, 2 and 6 of BS7370: Part 3 1991, i.e. mown once a year with no maximum allowable height of growth once established (i.e. the first flowering season shall be sacrificed to prevent the more vigorous grasses outcompeting the less vigorous wild flowers).
- a. The standards to be achieved for the sward stated above shall be as follows, abstracted from Table 6 of BS7370: Part 3 1991:
 - Total ground cover (by area) to be at least 40%.
 - No stones or hard litter at the surface with a diameter greater than 75mm.
 - b. Oversow with the same seed mix as necessary.
 - c. First growing season -
 - i. Time of first cut: March/April after autumn sowing or May after spring sowing.

- ii. Height of first cut: 50mm.
- iii. Maximum allowable grass height: 75mm.
- iv. Frequency of subsequent cutting (minimum): Every 8 weeks to 50mm high with a maximum allowable height of 150mm until September/October. Final cut to 50mm high.
- v. Remove cuttings to avoid smothering the sward.
- vi. Weed management: spot spray/weed wipe perennial weeds with a selective herbicide after first sowing.
- d. Second growing season –
 - i. Time of cut: Single cut late September.
 - ii. Height of cut: 75mm.
 - iii. Cut arisings to be left on the ground for 2 days to allow seed heads to dry and fall to ground for re-establishment, then removed from site.

Medium to Long Term Management

- 6.70 Continue the mowing regime as detailed below to develop vigorous wildflower grassland. Over-sow with the same seed mix as necessary to achieve the management objectives.
- 6.78 Grass areas will be maintained in suitable weather conditions as Category H grass in accordance with the tables 1, 2 and 6 of BS7370: Part 3 1991, i.e. mown once a year with no maximum allowable height of growth.
- a. Third Growing Season Onwards
 - i. Time of cut: Single cut late September.
 - ii. Height of cut: 75-100mm.
 - iii. Cut arisings to be left on the ground for 2 days to allow seed heads to dry and fall to ground for re-establishment, then removed from site.
 - iv. Control invasive weed species by further cutting or herbicide treatment as above.
 - v. Oversow with the same seed mix as necessary.

7. MANAGEMENT OF PROPOSED HARD LANDSCAPE TREATMENTS

- 7.1 This incorporates all 'publicly accessible/accessible to all' hard surfacing and boundary treatments (where applicable) including paving, street furniture and other publicly accessible structures and / or features.

General Management Aims and Objectives

- 7.2 The following shall be observed:
- a. To provide and maintain an attractive/visually appealing and robust landscape setting to the development all year round.
 - b. To maintain furniture in a safe and good condition.
 - c. To maintain health and safety requirements to all publicly accessible areas of public open space for all residents and visitors. Maintaining surfaced paths in a safe condition.
 - d. Create a litter free environment.
 - e. The contractor should maintain the visual appearance and safety of play structures, play hard surfaces and play elements in accordance with original design intention.

Surfacing

General Management Prescriptions

- 7.3 Standards of maintenance and procedures shall be generally in accordance with BS7370 Part 2: 1994 "Recommendations for the Maintenance of Hard Areas (excluding sports surfaces)" category C.
- a. Weekly inspections to determine the need for maintenance operations.
 - b. Sweeping and litter collection – every 7-14 days.
 - c. Stain removal – complete within 7-14 days.
 - d. Remove leaves from paths, hard surfaces and play areas upon leaf fall.
 - e. Weed and moss growth control – so that it doesn't exceed 3% of paved area and 10% of the length of joints within it. Spot spray weeds with non-residual herbicide to remove pernicious weeds. Use strictly in accordance with manufacturer's instructions and comply with all current COSHH and Control of Pesticides Regulations guidelines or requirements.

Kerbs and Edge Restraints

- 7.4 Maintenance of all the hard surfaces shall include making good the kerb or edge restraint. If any such units are loose, broken or out of line or level by 6mm or more, the restraint shall be lifted and reset to the original alignment replacing units as necessary.

Block, Cobble, Sett and Flag Paving

- 7.5 The block paving should be identified as 'Setts and Cobbles' and the flag paving as 'Precast Concrete Slab Paving' within Table A1 inspection and maintenance checklist.
- 7.6 If the paving becomes loose, fill gaps to original specification of either sharp sand or mortar and reset.
- 7.7 If any repair is required as a result of damage or settlement or units are loose, broken or no longer true to line, form and level by 6mm or more, the paving slabs/paviours/hard surfacing shall be made good by resetting to the original alignment in accordance with the original detail specification and

where relevant BS 6717: Part 3: 1989 – Precast concrete paving blocks: Code of Practice for Laying. Broken units to be replaced on a like-for-like basis.

- 7.8 For flexible paving - brush over annually with kiln dried jointing sand until superfluous and joints become effectively sealed.
- 7.9 For permeable paving – brush over annually with 2-6.3mm grit in accordance with (the latest version of) BS EN 13242 until superfluous and joints become effectively stabilised and sealed.

Bitmac Paving

- 7.10 The bitmac should be identified as 'bituminous surfacing' within Table A1 inspection and maintenance checklist.
- 7.11 The weeds should be removed by the application of an approved herbicide once a year and regrowth spot treated as necessary.
- 7.12 Repair asphalt as required to the original specification.

Loose Gravel Infill

- 7.13 The gravel should be identified as 'Loose gravel' within table A1 inspection and maintenance checklist.
- 7.14 As required top up gravel to maintain minimum specified depth.

Drainage channels/gullies/conduits

- 7.15 Check for uneven/insecure/broken channels/gullies/conduits. If any such units are loose, broken or no longer true to line, form and level by 6mm or more, the restraint shall be lifted and reset to the original alignment replacing units as required.
- 7.16 Keep all gullies, drainage channels, conduits, or similar, free flowing by rodding or specialist cleaning operative. Frequency: Annually or as notified/required.

APPENDIX 1 - LANDSCAPE MAINTENANCE SCHEDULE

3237 - LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN SCHEDULE

[illegible]

ST=Short term MT=Med. term LT=Long term			DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X YEARLY	AS REQUIRED	SPRING			SUMMER			AUTUMN			WINTER			
											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	
	ST-LT	Strim, cut down or mow hedgerow margin to create a rough grassland habitat on a 2-3 year rotation						*															
	MT-LT	Inspect for weed growth and hand weed as necessary					*																
	ST-LT	Inspect and treat any pests and diseases								*													
	ST-LT	Replace dead or damaged plants								*													
	ST-LT	Inspect hedgerow after extreme weather to ensure it is safe								*													
	MT-LT	Cut hedge in subsequent seasons on a 3 year rotation and cut no more than a third of the hedgerow at one time. Allow to grow to 2.4-3.6m tall						*															
	MT-LT	Preserve height if necessary by thinning crown / pruning leaders to desired height						*		*													
	MT	Reduce density of planting by selective thinning on rotation once good establishment of planting achieved						*		*													
	LT	Lay hedgerow to reduce gaps and prevent turning into a line of trees								*													
	LT	Plant up gaps in the hedgerow using similar local species - Deciduous								*													
INDIVIDUAL TREES - NEWLY PLANTED																							
	ST	During dry periods water trees twice a week as necessary		*twice						*													
	ST	Individual trees - water once a week during the first year		*																			
	ST	Individual trees - outside of growing season only water to establish healthy growth								*													
	ST	Monitor tree growth when watering for signs of overdue stress and overwatering		*																			
	ST	Inspect and top up mulch as required				*																	
	ST	Inspect for weed growth and hand weed as necessary				*																	
	ST-MT	Inspect and refirm planting as required				*																	
	ST-MT	Check and repair / replace tree stakes, ties, guards and canes. Remove as required (medium term)				*																	
	ST-MT	Remove snow from light limbed trees to prevent limbs breaking and branches splaying								*													
	MT-LT	Inspect for weed growth and hand weed as necessary					*																
	ST-LT	Annual review visit to determine any required tree work, particularly close to public areas						*															
	ST-LT	Replace dead or damaged plants - Evergreen								*													
	ST-LT	Replace dead or damaged plants - Deciduous								*													
	MT-LT	Prune Betula species only								*													
	MT-LT	Prune Prunus species only								*													
	LT	Bat Survey undertaken prior to any tree works or tree pruning on mature trees								*													
	LT	Prune trees and other remedial tree work - bats present								*													
	LT	Prune trees and other remedial tree work - no bats present								*													
		Box head trees only																					
	ST-LT	Clip to maintain box shape twice a year						*															
PROPOSED ORNAMENTAL HEDGEROW PLANTING																							
	ST	Water plants as necessary for the first year		*						*													
		Container shrubs/ ready hedge																					
	ST	Water plants once a week during the first year. Adjust as necessary to prevent overwatering.		*																			

ST=Short term MT=Med. term LT=Long term			DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X YEARLY	AS REQUIRED	SPRING			SUMMER			AUTUMN			WINTER			
											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	
		All hedgerows				*																	
	ST-MT	Check and replace mulch mats or top up loose mulch as required				*																	
	ST-MT	Check and repair / replace ties, guards and canes. Remove as required (medium term)				*																	
	ST	Inspect for weed growth and hand weed as necessary				*																	
	MT-LT	Inspect for weed growth and hand weed as necessary					*																
	ST-MT	Inspect and refirm planting as required				*																	
	ST-LT	Replace dead or damaged plants - Deciduous								*													*
	ST-LT	Apply spring fertiliser on an individual species basis							*	*													
	ST-LT	Apply summer herbicide if necessary						*		*													
	ST-LT	Apply winter herbicide if necessary						*		*													
	LT	Plant up gaps in the hedgerow using similar local species - Evergreen								*													
	LT	Plant up gaps in the hedgerow using similar local species - Deciduous								*													
	LT	Reduce density of planting by selective thinning on rotation once good establishment of planting achieved								*													
		Pruning - Deciduous hedges (upright plants)																					
	ST	1st summer -Trim side branches lightly								*once													
	ST	2nd season -Cut back by half in Feb/Mar then trim side branches and the leader shoot once reached desired height in autumn								*once													
	MT-LT	Maintenance -Trim top and side branches						*															
		Pruning - Deciduous hedges (stocky / bushy plants)																					
	ST	1st winter - Cut back by a third on planting								*once													
	ST	2nd winter- Cut back by a third to thicken the base								*once													
	MT-LT	Maintenance -Trim top and side branches after flowering to required height that tapers at the top						*															
		Pruning - Evergreen hedges (conifers and others evergeens)																					
	ST	Uprights - prune all stems by one third after planting and the following year								*once													
	MT-LT	Maintenance - Uprights -Trim top and side branches after flowering to required height						*															
	ST	Other evergreens, conifers - 1st season - Prune side shoots only in the summer								*once													
	MT-LT	Maintenance - Other evergreens, conifers -Trim hedge and leading shoot to required height						*															
ORNAMENTAL SHRUBS, GROUNDCOVER, HERBACEOUS AND GRASSES																							
		General																					
	ST	During dry periods water plants once a week as necessary		*						*													
	ST	Water plants once a week during the first year. Adjust to prevent overwatering.		*																			
	ST-LT	Remove litter and fallen leaves			*																		
	ST-LT	Inspect and top up mulch as required				*																	
	ST	Inspect and re-attach / refirm mulch matting as required				*																	
	ST	Inspect for weed growth and hand weed or cultivate as necessary				*																	
	MT-LT	Inspect for weed growth and hand weed or cultivate as necessary					*																
	ST-MT	Inspect and refirm planting as required				*																	
	ST-MT	Check and repair / replace guards and canes. Remove as required				*				*													
	ST-MT	Remove snow from light limbed shrubs and conifers to prevent limbs breaking								*													

ST=Short term MT=Med. term LT=Long term			DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X YEARLY	AS REQUIRED	SPRING			SUMMER			AUTUMN			WINTER			
											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	
	ST-LT	Remove frost damage from plants						*		*													
	ST-MT	Replace dead or damaged plants - Evergreen								*													
	ST-MT	Replace dead or damaged plants - Deciduous								*													
	MT-LT	Reduce density of planting by selective thinning once good establishment of planting achieved								*													
		Herbaceous planting & Ornamental grasses																					
	ST-LT	Dead head plants to prolong flowering				*																	
	ST-LT	Check plants and remove dead foliage, dead wood, broken or damaged stems						*															
	ST-LT	Cut back spreading / trailing plants after flowering						*															
	ST-LT	Cut back perennials after flowering- spring flowering						*															
	ST-LT	Cut back perennials after flowering- summer flowering						*															
	ST-LT	Deciduous grasses - Cut back to ground level before growth starts						*															
	ST-LT	Evergreen & semi-evergreen grasses - trim old flower stalks, unsightly and diseased foliage						*															
	ST-LT	Remove dead fern foliage before new leaf tips appear.						*															
	ST-LT	Apply spring fertiliser on an individual species basis						*		*													
	ST-LT	Divide perennials, grasses and ferns on an individual species basis						*															
	ST-LT	Divide bamboos						*															
	ST-LT	Divide bearded iris						*															
GRASSLAND - AMENITY (SHORT)																							
	ST-LT	Pick litter, stones larger than 25mm dia prior to cutting								*													
	ST	Water as necessary during the summer								*													
	ST	Cut first time after sowing to 25-50mm high								*													
	ST-LT	CLOSE MOWN - Cut subsequently to 25mm high (max allowed height 50mm)		*	*																		
	ST-LT	STANDARD (WHEN USED WITH CLOSE MOWN) - Cut subsequently to 50mm high (max allowed height 100mm)				*																	
	ST-LT	If bulbs in grass area cut grass as per BULBS section																					
	ST-LT	Roll grassland						*															
	ST-LT	Aerate grassland				*				*													
	ST-LT	Inspect for weed growth and hand weed or cultivate as necessary					*																
	ST-LT	Inspect for weed growth and apply herbicide as necessary								*													
	ST-LT	Oversow grass as necessary following final cut and cuttings removed						*		*													
	ST-LT	Repair eroded areas by rotovating, adding topsoil and reseeding								*													
	ST-LT	Apply a spring fertiliser								*													
	ST-LT	Apply a winter fertiliser								*													
		Turf grassland (Additional requirements for turf establishment only)																					
	ST	Water turf on installation								*													
	ST	Cut grass to 25mm high after installation								*once													
	ST	Continue to water the turf as required during the first growing season								*													
	ST	Continue to water the turf - 2 to three times a week		*2/3																			
	ST	Continue to water the turf - once a week		*																			
	ST	Continue to water the turf - as required								*													
	ST-LT	Cut grass to 25mm high			*																		
	ST-LT	Second growing season and beyond - Apply a lawn fertiliser in the spring								*													
SPECIES RICH / WET MEADOW GRASSLAND																							

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											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	
		WILDFLOWER AND WET MEADOW GRASSLAND																					
	ST	First growing season - cut to 50mm high and then every 2 weeks (remove cuttings)			*																		
	ST	First growing season - final cut - cut to 50mm high (after flowering) - remove cuttings						*															
	ST	Water as necessary during the summer								*													
hay cut 1	ST-LT	Second growing season - 1st cut - hay cut to 100mm high after flowering (leave arisings on ground for 1-7 days, then remove)						*															
		GENERAL																					
	ST-LT	Remove litter and fallen leaves			*																		
	ST-LT	Aerate grassland				*				*													
	ST-LT	Inspect for weed growth and hand weed or cultivate as necessary					*																
	ST	Inspect for weed growth and apply herbicide after sowing								*once													
	MT-LT	Inspect for weed growth and apply herbicide as necessary								*													
	ST-LT	Scarify grassland						*		*													
	ST-LT	Oversow grass as necessary following final cut and cuttings removed						*		*													
	ST-LT	Repair eroded areas by rotovating and reseed								*													
FAUNA																							
		Refer to ecologist for specific advice on the management of water borne species																					
REF	DURATION	HARD LANDSCAPE																					
SURFACES - ALL																							
	ST-LT	Inspect surfacing to determine need for maintenance operations		*																			
	ST-LT	Litter Collection, remove graffiti / stains, sweeping etc.			*																		
	ST-LT	Inspect and repair/ reinstate kerbs, edging and paved surfaces						*															
	ST-LT	Inspect for weed growth and moss and hand weed as necessary					*																
	ST-LT	Inspect for weed growth and moss and apply herbicide as necessary								*													
	ST-LT	Remove arising following herbicide treatment						*															
	ST-LT	Check surface for damage or settlement and repair as required								*													
SURFACES - PEDESTRIAN																							
		Block, Cobble, Sett and Flag Paving																					
	ST-LT	Carry out regular cleaning of paving to prevent algae build up						*															
	ST-LT	Brush over with sharp sand annually						*															
	ST-LT	Pressure wash paving if particularly dirty						*		*													
	ST-LT	Replace chipped, cracked and damaged units to the original specification								*													
	ST-LT	Check surface for settlement, sinking, depressions, waterpooling and wheel ruts. Relevel, rebed and replace surface as required						*		*													
	ST-LT	Repoint or replace jointing sand as required to the original specification								*													
	ST-LT	Apply a paving sealant (urethane-based sealants) if continued joint displacement not due to movement occurs.								*													

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