

**20 Chearsley Road, Long Crendon**

**Planting Implementation  
and  
Management Plan**

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## 1. Introduction

1.1 This appendix has been prepared to support a planning application for an indoor swimming pool at dwelling at 20 Chearsley Road, Long Crendon.

1.2. This appendix is structured as follows:

- **Section 2:** Sets out details of species which shall include, plant mixes, planting densities and initial sizes of trees, transplants and shrubs;
- **Section 3:** Plant sources;
- **Section 4:** Soiling works
- **Section 5:** Plant implementation;
- **Section 6:** Timetable for implementation

## 2. Details of Species Mix

2.1. The proposed species mix is outlined in Table 1 below.

Table 1: Species mix			
Trees	Size	Density	Spec
Gleditsia triacanthos Sunburst	14-16cm girth	As shown	Container grown or root balled
Koelreuteria paniculata	12-12cm girth	As shown	Container grown or root balled
Liquidamber styraciflua	14-16cm girth	As shown	Container grown or root balled
Quercus ilex	14-16cm girth	As shown	Container grown or root balled
<b>Shrubs</b>			
Bergenia Fire and Ice	10-15cm	6 per sq.m.	2Lt
Daphne 'Eternal Fragrance'	15-20cm	3 per sq .m.	3Lt
Euonymus japonicus 'Himalaya'	15-20cm	3 per sq.m.	3Lt
Heuchera 'Lime Marmalade'	10-15cm	5 per sq.m.	2Lt
Lavendula Hidcote Blue	15-20cm	5 per sq.m.	2Lt
<b>Hedge</b>			
Chamaecyparis lawsonianan	1.5m	2 per lin m	15Lt
Euonymus japonicus 'Jean Hugues'	30-40cm	4 per lin m	3Lt
<b>Native hedge</b>			
Acer campestre	60-90cm	5 per lin m	Bare root
Corylus avellana	60-90cm	5 per lin m	Bare root
Cornus sanguinea	60-90cm	5 per lin m	Bare root
Crategus monogyna	60-90cm	5 per lin m	Bare root
Euonymus europaeus	60-90cm	5 per lin m	Bare root
Prunus spinosa	60-90cm	5 per lin m	Bare root
Viburnum opulus	60-90cm	5 per lin m	Bare root

## 3.0 Plant Sources

- 3.1. Plant supply shall be obtained from a nursery that are members of the Horticultural Trades Association Nursery Certification Scheme and approved by the project landscape architect.
- 3.2. Plants grown to BS3936 Nursery stock specification and lifted / stored and handled in accordance with BS8545.
- 3.3. All tree stock shall be inspected prior to deliver to ensure it complies with Table 1, p.21, BS 8545:2014

#### **4.0 Soiling Works**

- 4.1 Due to the confined working area to protect the retained trees on site the existing topsoil will be stripped and removed from site for implementation on another local development.
- 4.2 Soil for the general landscape planting and seeding works shall be approved imported subsoil to make up levels if required and approved multi-purpose topsoil only. The development will be undertaken with imported material only and thus no Soil Resource Plan has been prepared.
- 4.3 Imported topsoil shall be in accordance with BS3882: Multi-Purpose Grade, from an approved local source, shall accord with the above quality control and shall be analysed to determine the following parameters:
- particle size analysis and stone content;
  - pH and electrical conductivity values;
  - exchangeable sodium percentage;
  - major plant nutrients (N, P, K, Mg);
  - organic matter content;
  - C:N ratio;
  - heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn);
  - soluble sulphate, elemental sulphur, acid volatile sulphide;
  - total cyanide and total (mono) phenols;
  - aromatic and aliphatic TPH.
  - suspected PAHs.

#### **5.0 Plant implementation**

- 5.1 Planting operations shall be undertaken in accordance with Horticultural Trades Association "Handling and Establishing Landscape Plants" (Parts I-III) and BS8545
- 5.2 Refer to Davies Landscape Architects NBS Specification for planting specification and is provided at **Appendix 1** of this document.

#### **6.0 Timetable for Implementation**

- 6.1. The Landscape implementation shall be undertaken during the following periods:
- Deciduous bare root hedging plants : Late October to late February;
  - Container grown plants: At any time if ground and weather conditions are favourable.

**Appendix 1 – Landscape NBS Specification**

20 Chearsley Road, Long Crendon

Soft Landscape Specification

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## Q28

# Topsoiling

### 250A Subsoil surface preparation

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1. Imported subsoil in accordance with BS8601: 2013 'Specification for Subsoil and Requirements for Use'
2. Subsoil spread to the following depths ;
3. 450mm for Grass and shrub planting
4. Loosening:
  - 4.1. When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm to promote free drainage.
5. Stones: Immediately before spreading topsoil, remove stones larger than [75] mm.

### 380 Contamination

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1. General: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
  - 1.1. Corrosive, explosive or flammable.
  - 1.2. Hazardous to human or animal life.
  - 1.3. Detrimental to healthy plant growth.
2. Subsoil: In areas to receive topsoil, do not use subsoil contaminated with the above materials.
3. Give notice: If any evidence or symptoms of soil contamination are discovered on the site, or in topsoil to be imported.

### 410 Handling topsoil

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1. Aggressive weeds: Give notice and obtain instructions before moving topsoil.
2. Plant: Select and use plant to minimize disturbance, trafficking and compaction.
3. Contamination: Do not mix topsoil with:
  - 3.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
  - 3.2. Other grades of topsoil.
4. Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.
5. Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit: as defined by BS 3882, Annex N2

### **430 Loose tipping of topsoil**

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1. General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.
2. Depths after settlement (minimum): 150mm to grass areas, 300mm to all shrub planting beds and tree planting areas

### **450 Finished levels of topsoil after settlement**

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1. Shrub areas: Higher than adjoining grass areas by: 25mm.
2. Thickness of turf or mulch: Included.

Ω End of Section

## **Q30**

### **Seeding/turfing**

#### **General information/requirements**

##### **115 Seeded and turfed areas**

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1. Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
2. Appearance: A closely knit, continuous ground cover of even density, height and colour.

##### **120 Climatic conditions**

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1. General: Carry out the work while soil and weather conditions are suitable.

##### **145 Watering**

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1. Quantity: Wet full depth of topsoil.
2. Application: Even and without displacing seed, seedlings or soil.
3. Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing.

##### **150 Water restrictions**

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1. Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

#### **Preparation**

##### **231 Peat**

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1. Peat or products containing peat: Do not use.

##### **250 Cultivation**

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1. Compacted topsoil: Break up to full depth.
2. Soil ameliorant/ Conditioner/ Fertilizer: Fully incorporate into topsoil to a depth of: 100 mm
3. Tilth: Reduce top 100 mm of topsoil to a tilth suitable for blade grading, particle size 10 mm (maximum).

4. Material brought to the surface: Remove stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass, rubbish and debris.

## **260 Grading**

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1. Topsoil condition: Reasonably dry and workable.
2. Contours: Smooth and flowing, with falls for adequate drainage. Remove minor hollows and ridges.
3. Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
4. Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than: 100mm
5. Give notice: If required levels cannot be achieved by movement of existing soil.

## **270 Fertilizer for**

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1. Description: For all amenity grassed areas
2. Types: Apply both:
  - 2.1. Superphosphate with a minimum of 18% water soluble phosphoric acid.
  - 2.2. A sulfate of ammonia with a minimum of 20% nitrogen.
3. Application: Before final cultivation and three to five days before seeding/turfing.
4. Coverage: Spread evenly, each type at 70 g/m<sup>2</sup>, in transverse directions.

## **280A Final cultivation for all grass areas**

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1. Seed bed: Reduce to fine, firm tilth with good crumb structure.
  - 1.1. Depth: 25 mm.
  - 1.2. Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
  - 1.3. Remove surface stones/earth clods exceeding:
    - 1.3.1. All Areas: 10 mm
2. Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

## **Seeding**

### **310 Grass seed**

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1. Description: For all amenity grassed areas

2. Mixture: Germinal A19
3. Rate of application: 40g

### **319 Quality of seed**

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1. Description: For all grassed areas
2. Freshness: Produced for the current growing season.
3. Certification: Blue label certified varieties to EC purity and germination regulations. When requested, submit an Official Seed Testing Station certificate of germination, purity and composition.
4. Samples of mixtures: Submit when requested.

### **330 Sowing**

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1. General: Establish good seed contact with the root zone to promote healthy, consistent growth.
2. Method: To suit soil type, proposed usage of grassed area, location and weather conditions during and after sowing.

### **335 Grass sowing season**

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1. Grass seed generally: April to June or August to October

### **340 Pre-emergent herbicide**

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1. Description: For all amenity grassed areas
2. General: Where soil has not been allowed to lie fallow apply a suitable pre-emergent herbicide immediately after sowing.

### **352 Edges to seeded areas**

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1. Location: Planting beds and around newly planted trees.
2. Timing: After seeded areas are well established.
3. Edges: Cut to clean straight lines or smooth curves. Soil drawn back to permit edging.
4. Arisings: Remove.

## **Q31**

### **External planting**

#### **General information/ requirements**

##### **118A Soil conditions**

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1. Soil for cultivating and planting: Moist, friable and not waterlogged.

##### **120 Climatic conditions**

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1. General: Carry out the work while soil and weather conditions are suitable. Do not plant during periods of frost or strong winds.

##### **125A Times of year for planting**

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1. Shrubs: Late October to late March.
2. Deciduous and conifers trees: October / November.
3. Herbaceous plants: September/ October or March/ April.
4. Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.

##### **130 Mechanical tools**

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1. Restrictions: Do not use within 100 mm of tree and plant stems.

##### **145 Watering**

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1. Quantity: Wet full depth of topsoil.
2. Application: Even and without damaging or displacing plants or soil.
3. Frequency: As necessary to ensure establishment and continued thriving of planting.

##### **150 Water restrictions**

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1. General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

##### **165 Preparation, planting and mulching materials**

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1. General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

2. Certification: Submit a certificate giving supply source, content analysis, confirmation of suitability for purpose and confirmation of absence of harmful substances.
  - 2.1. Certified materials: Manufactured planting media and Imported composts
  - 2.2. Give notice before ordering or using.

## **200 Plants/ Trees – general**

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1. Condition: Materially undamaged, sturdy, healthy and vigorous.
2. Appearance: Of good shape and without elongated shoots.
3. Hardiness: Grown in a suitable environment and hardened off.
4. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
5. Budded or grafted plants: Bottom worked.
6. Root system and condition: To requirements of: The National Plant Specification and balanced with branch system.
7. Species: True to name.
8. Origin/ Provenance: Grown in the United Kingdom for at least one growing season, unless otherwise approved
9. Origin and Provenance have the meaning given in the National Plant Specification.

## **235 Container grown plants/ Trees**

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1. Growing medium: With adequate nutrients for plants to thrive until permanently planted.
2. Plants: Centred in containers, firmed and well watered.
3. Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful planting – root shave where necessary.
4. Hardiness: Grown in the open for at least two months before being supplied.
5. Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

## **250A Supply of plants/ trees**

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1. Suppliers: Members of the Horticultural Trades Association Nursery Certification Scheme. - All Tree shall be inspected prior to delivery to site to ensure compliance with Table 1, p.21, BS 8545:2014.

## **270 Planting generally**

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1. Standard: To HTA 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
2. Appearance: Plant upright or well balanced with best side to front.

## **Preparation of planting beds/ planting materials**

### **300 Herbicide**

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1. Locations: All shrub beds
2. General: Prevent weeds from seeding and perennial weeds from becoming established, by applying a suitable herbicide.
  - 2.1. Delay cultivation as recommended by manufacturer.

### **305 Weed control**

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1. Locations: All planting areas
2. General: Prevent weeds from seeding and perennial weeds from becoming established, by contractor's choice.

### **335A General fertilizer**

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1. Locations: All shrub beds
2. Application: Spread evenly.
  - 2.1. Timing: Immediately before cultivation.
  - 2.2. Coverage: in accordance with soil report and to the top 200mm only

### **357A Soil ameliorant/ conditioner**

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1. Locations: All shrub beds
2. Coverage: to the top 200mm only
3. Timing: Apply prior to cultivation.

### **375A Cultivation**

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1. Compacted topsoil: Break up.
2. Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
  - 2.1. Depth: Top: 250 mm of planting beds.
  - 2.2. Timing: Within a few days before planting.



- 2.3. Weather and ground conditions: Suitably dry.
3. Surface: Leave regular and even.
4. Levels:
  - 4.1. As required in section Q28.
5. Undesirable material brought to the surface: Remove, including weeds, roots, stones and clods larger than 50 mm in any dimension, tufts of grass and foreign matter.
6. Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

## **Planting shrubs**

### **401 Regular plant layout**

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1. Spacing: As per drawing
2. Density: A per drawing

### **405 Shrub planting pits**

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1. Timing: Excavate 2 days (maximum) before planting.
2. Sizes: 150 mm wider than roots when fully spread and 300 mm deep
3. Additional requirements: None
4. Pit bottom improvement Break up to a depth of 150 mm.
5. Backfilling material: As clause 476

### **470 Formal hedges**

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1. Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
2. Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

### **476 Backfilling material**

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1. Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required, together with:
  - 1.1. Ameliorant/ Conditioner: Mushroom compost
    - 1.1.1. Coverage: 1 m<sup>3</sup> per 10 m<sup>3</sup> of topsoil
  - 1.2. Fertilizer: To suit soil report recommendations
    - 1.2.1. Coverage: To suit soil report recommendations

## **480 After planting**

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1. Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
2. Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
3. Top dressing: Not required

## **485 Mulching planting beds**

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1. Material: Ornamental bark mulch
  - 1.1. Purity: Free of pests, disease, fungus and weeds.
2. Preparation: Clear all weeds. Water soil thoroughly.
3. Coverage: 50 mm thick.
4. Finished level of mulch: 25 mm below adjacent grassed areas

## **Planting trees**

### **505C Tree pits and tree planting**

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1. Sizes: In accordance with detail on drawing DLA-1017-L-01.
2. Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
3. Pit sides: Scarify.
4. Additional requirements: Percolation test to be undertaken for each tree pit in accordance with BS8545 and any drainage issues addressed accordingly with advice for soil scientist
5. Tree planting - Removal of all non-biodegradable wrappings and cages and the removal of the upper third of biodegradable wrappings and cages prior to backfilling. Root shave container trees (refer to Appendix).-
6. Backfilling material: Incorporate ameliorants.
7. Accessories: Aeration tubes
  1. Installation: With sides vertical.

### **512 Tree pit irrigation and ventilation accessories**

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1. Locations: All tree pits
2. Manufacturer: Greenleaf
  - 2.1. Product reference: Rootrain Metro or similar

3. Type: Perforated plastics irrigation pipe system, 50 mm diameter, in circle above and around sides of rootball, with caps

### **535A Staking to trees**

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1. Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
  - 1.1. Preservative treatment: Not required
2. Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
3. Minimum stake sizes: 75mm diam

### **575A Short triple staking for**

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1. Description: For all trees
2. Staking: Drive stakes at a slight angle away from the tree at least 400 mm below the bottom of the tree pit on 3 sides (equally spaced and angled) of tree position before planting. Consolidate material around stakes before backfilling.
3. Height of stakes: Cut to approximately 600 mm above ground level.
4. Firmly fix with flexible ties and spacers.

### **590B Mulching trees with soft landscaping areas only**

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1. Material: Ornamental bark mulch
  - 1.1. Purity: Free of pests, disease, fungus and weeds.
2. Preparation: Clear all weeds. Water soil thoroughly.
3. Coverage: 75mm depth - In a circular area of 1200 mm radius measured from the tree stem, tapering in depth to 25mm over the root-ball surface

### **750 Planting maintenance generally**

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1. Weed control: Maintain weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of original planting pit.
  - 1.1. Keep planting beds clear of weeds, by: hoeing
2. Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
3. Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.

4. Staking: Check condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Cut back any damaged bark. Tie loose climbers back to support.
  - 4.1. Frequency of checks: Every month
5. Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
6. Trees: Spray crown when in leaf during warm weather. Carry out in the evening.

## **755 Planting maintenance - fertilizer**

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1. Time of year: March or April.
2. Fertilizer: Slow release
  - 2.1. Manufacturer: Contractors choice
  - 2.2. Product reference: Contractors choice
3. Application: Evenly spread, carefully incorporating below mulch materials.
4. Coverage: To suit soil report recommendations

## **760 Planting maintenance - pruning**

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1. General: Prune at appropriate times, to remove dead or dying and diseased wood and suckers, to promote healthy growth and natural shape.
  - 1.1. Prune trees to favour a single central leading shoot.

## **765 Planting maintenance - watering**

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1. General: As clauses: 145 and 150

Ω End of Section



Specification created using NBS Chorus

## **Appendix 2 - Maintenance Operations**

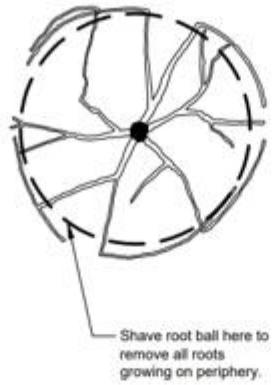
Maintenance Schedule 20 Chearsley Road, Long Crendon		
Landscape elements / habitat types	Action required	Timings
Advanced nursery stock trees	<p>Newly planted tree stock should be inspected for disease by a competent person and inform the Landowner or management company of any major deterioration in the condition of any landscape element.</p> <p>Tree Surgery / Crown reduction as instructed by a qualified arborist. The works should only be carried out by qualified contractors with proof of adequate insurance cover.</p> <p>Pruning of epicormic or basal growth can normally be undertaken by unqualified personnel.</p> <p>By hand weed control by ensuring no weed growth within a 500mm diameter of each tree..</p> <p>Fertilise using suitable non synthetic fertiliser as per manufacturer's instructions..</p> <p>Inspect tree ties and stakes as scheduled and after strong winds. Replace loose, broken ties or decayed stakes to original specification.</p> <p>Remove ties and stakes.</p> <p>Remove dead trees and replace as per original specification.</p> <p>Water all trees during dry periods to ensure establishment, in the occurrence of a drought order watering shall be undertaken by bowser and non-potable water.</p>	<p>Annually – in late autumn</p> <p>Annually inspect and monitor condition of trees. - Sept</p> <p>Annually - Sept</p> <p>Annually - Apr &amp; Aug</p> <p>Till year 4– Apr &amp; Aug</p> <p>Every 3 months</p> <p>End of the second growing season.</p> <p>Annually till year 5</p> <p>During dry periods till end of year 2 from implementation.</p>
Amenity grass sward	<p>Maintain grass area in a manner appropriate to the intended use removing arisings from site.</p> <p>Grass height: Maintain within a range 20 and 45mm and shall be a vigorous sward, free from disease, fungal growth, discolouration, moss, excessive thatch, weeds, frost heave, worm casts and mole hills, scorch or wilt.</p>	<p>As necessary during the growing season</p>
Shrub planting and Grasses	<p>Prune shrubs in accordance with best practise and appropriate to species, removing arisings.</p> <p>Grasses prune previous years foliage to 10cm from ground level</p> <p>Remove weed growth</p> <p>Top up bark mulch</p> <p>Water shrubs during dry periods to ensure establishment, in the occurrence of a drought order watering shall be undertaken by bowser and non-potable water.</p>	<p>Annually between March and April</p> <p>Annually between March and April</p> <p>Monthly to shrub beds.</p> <p>Annually in March till year 4</p> <p>During dry periods till end of year 1 from implementation.</p>

Maintenance Schedule 20 Chearsley Road, Long Crendon		
Landscape elements / habitat types	Action required	Timings
Hedge planting	<p>Weed control by ensuring no weed growth within the hedgerow with a suitable herbicide and used in compliance with manufacturer's instructions.</p> <p>Fertilise using suitable slow release fertiliser as per manufacturer's instructions.</p> <p>Prune hedge planting to reduce the height to the following heights with vertical sides            Euonymus Jean Hugues 0.8m            Lavandula Hidcote Blue 0.3m            Native hedge 1.2m</p> <p>Water buffer planting during dry periods to ensure establishment, in the occurrence of a drought order watering shall be undertaken by bowser and non-potable water</p>	<p>Annually - March &amp; Aug Till year 4</p> <p>Till year 4– Apr &amp; Aug</p> <p>Oct / Nov after year 2 and thereafter in alternate years.</p> <p>During dry periods till end of year 1 from implementation.</p>

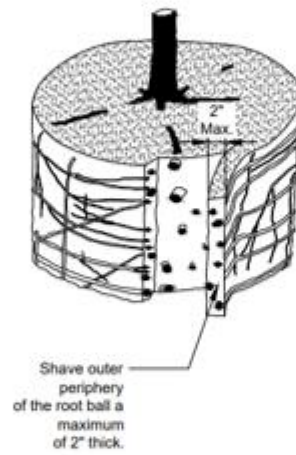


### Appendix 3 – Root Shaving

#### BEFORE SHAVING



#### SHAVING PROCESS



#### SHAVING COMPLETE

