

Allen Pyke Associates

LANDSCAPE MANAGEMENT PLAN

Pollards Nursery, Lake Lane, Barnham

Prepared on behalf of

Redrow Homes Southern Counties

Ref: 2600-MP-01-PI

Date: June 2015



Landscape architecture



Urban design



Environmental planning

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I. INTRODUCTION AND MANAGEMENT RESPONSIBILITIES

- I.1. This Landscape Management Plan has been prepared by landscape consultants Allen Pyke Associates for the residential development at Pollards Nursery, Barnham. The site is located to the west of the village on a component of a plant nursery. The development consists of 107 residential units. Properties comprise of a range of unit types varying in size from 2 to 2.5 storey, 3 to 5 bed, detached, semi-detached and terraced housing with associated private gardens. There is associated parking and incidental open space throughout the scheme. A significant feature of the development is the retained boundary vegetation and a hedgerow that forms the spine to a new area of public open space.
- I.2. The purpose of this document is to set out the overall management objectives for the common external areas and retained structural vegetation, and to describe the long term maintenance required to allow the planting to flourish and reach its design potential.
- I.3. All references to planting treatments are based on the planning submission drawings:
 - 2600-LA-01 to 04 Landscape General Arrangement
 - 2600-PP-01 to 04 Planting Plan
 - 2600-LA-05 Masterplan
- I.4. All front and rear gardens of individual properties will be conveyed to house purchasers/tenants. These purchasers/tenants will then be responsible for maintaining their own property in a neat and tidy condition.
- I.5. Until private areas are conveyed or the Management Companies take over, Redrow Homes will be responsible for maintaining all the above areas and will be responsible for replacement of defective stock in accordance with the planning conditions.

2. MANAGEMENT OBJECTIVES

- 2.1. The site shall be managed as a high quality amenity area maintaining an attractive, tidy and safe finish to all landscape elements. The proposed structure planting will give a cohesive site character, provide a visual buffer between public and private spaces and provide green framework to the new built development. (Housing Association properties will be subject to separate management regimes within their curtilage).
- 2.2. The proposed planting shall enhance the biodiversity and nature conservation interests.

- 2.3. Redrow Homes, the Management Company and the Purchasers/Tenants shall ensure establishment and long-term health of all landscape elements for the benefit of residents and visual amenity of the area.
- 2.4. Best Health & Safety practices shall be used at all times.
- 2.5. In order to monitor standards and make amendments where required, it is expected that Redrow Homes, and subsequently, the Management Company will review the management work (with reference to this document) at least quarterly with the maintenance team for the first year and annually thereafter.

3. MAINTENANCE VISITS

- 3.1. There shall be a minimum of 20 maintenance visits per year prior to handover to householders and Management Company to ensure plant establishment. Visits shall be twice weekly during March to October, and monthly during the rest of the year. Additional visits may be needed to deal with extreme weather conditions or specific horticultural requirements.

4. GENERAL

- 4.1. All materials and workmanship are to be to the highest possible standards and shall be in accordance with relevant British Standards, good horticultural and arboricultural practices, and the landscape specification.
- 4.2. Redrow Homes or the Management Companies shall employ suitably qualified staff for all work and when using sprays and mechanical equipment. All equipment shall be kept in a sound condition, fit for use and purpose.
- 4.3. Redrow Homes, the Management Companies and their appointed contractors shall comply with all relevant Health & Safety regulations and good working practices.
- 4.4. Redrow Homes and the Management Companies shall take care when work is beside any structure or paved area and will, at their own cost, be responsible for making good damage however caused.
- 4.5. All work shall be carried out while soil and weather conditions are suitable.
- 4.6. Weeds, prunings, leaves, rubbish and other arisings shall be removed from site at the end of each visit. No material shall be left on site, and the area shall be left in a neat and tidy condition after each visit.

- 4.7. Under no circumstances shall arisings, wood, rubbish etc. be burnt on site or be disposed of through refuse bins provided on site for occupants.
- 4.8. Entomological or disease infestation shall be dealt with as required and shall be checked at each visit. Control shall be either by spraying with approved chemicals, pruning all dead wood by cutting back to an outward pointing bud or by removal of the affected plants.
- 4.9. Watering during the first two years after planting may be necessary during times of drought in summer months and, when watering is required, it shall be carried out on a regular basis to suit climatic conditions. If conditions are severe or soils are particularly free-draining, careful monitoring and more frequent watering may be necessary to maintain good plant health and avoid plant failure.
- 4.10. All shrubs/hedges shall be pruned to remove deadwood, overhanging/ tangled and damaged branches. Winter flowering shrubs shall be pruned in spring. Shrubs flowering in March-July shall be pruned immediately after the flowering period and shrubs flowering in July-October shall be cut back to old wood in winter. Shrubs that require spring pruning to provide seasonal colour shall be pruned in March and shrubs that require seasonal pruning to promote continual flowering will be pruned appropriately.
- 4.11. Plants shall be re-firmed when necessary to ensure that plants are securely planted and upright.
- 4.12. Bark mulch levels shall be maintained, being topped up when necessary to a minimum depth of 50mm. Any spillages shall be swept back on to the bed from surrounding areas, ensuring no plants are smothered.
- 4.13. Edge valleys in beds shall be maintained and grass edges shall be cut at each maintenance visit.

5. TREES

Specific objectives:

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

Maintenance Operations:

- 5.1. In the first two years following planting, new trees are to be closely monitored at each maintenance visit to ensure that they are upright, firm, stable and in good health.

- 5.2. Checks shall be made to ensure all stakes, and ties of planted trees are properly adjusted at each maintenance visit. Between years 3-5 tree stakes shall be removed once trees have established and are root firm.
- 5.3. Trees shall be watered to field capacity in the first and second years of planting, taking into account prevailing weather conditions and hot dry periods. They should be watered with the use of a hose being left to run slowly down the irrigation tube until the pit reaches full capacity. Careful monitoring during watering shall be necessary to minimise the risk of failures, leaks or damage to property.
- 5.4. Any damaged or dying branches shall be removed using the standard methods appropriate for the work. Any dead, dying or defective trees shall be replaced in the following dormant winter period, refer to Section 15 Plant Replacement.
- 5.5. Trees planted in grass areas shall have a 1000mm diameter circle around the trunk which should be maintained, free of weeds and be mulched as in shrub beds until the tree is no longer vulnerable to damage from mowing equipment.
- 5.6. Trees planted along the boundary are to be monitored and phased removal and replacement of weaker specimens over a period of 5 years will allow the boundary to be significantly strengthened.

6. NATIVE PLANTING MIXES

Specific objectives:

- Allow native species to develop a natural shape
- Encourage dense coverage through pruning, cultivating, watering when required, fertiliser application, incorporating organic matter and mulching
- To maintain appearance and visual interest

Maintenance Operations:

- 6.1. All beds shall be maintained substantially free of weeds. Work shall be done either manually or with appropriate selective weed killer in accordance with manufacturer's recommendations. If weed killer is used the dead weeds shall be removed at the next maintenance visit. Care must be taken to avoid damage to adjacent planting and grass.

7. HEDGE PLANTING

Specific objectives:

- To ensure early establishment and healthy growth.

- To create a well-shaped framework for future balanced growth.
- To maintain and manage appearance/height as specified on approved plans.

Maintenance Operations:

- 7.1. All beds shall be maintained substantially free of weeds. Work shall be done either manually or with appropriate selective weed killer in accordance with manufacturer's recommendations. If weed killer is used the dead weeds shall be removed at the next maintenance visit. Care must be taken to avoid damage to adjacent planting and grass.
- 7.2. Hedging shall be trimmed after flowering, as in 4.10 and again if necessary in autumn to maintain a 'hedge' shape at the height appropriate to the species and location. Hedges shall be pruned either manually or by machine in a manner which ensures full leaf coverage over the plant and all arisings shall be removed from site

8. SHRUBS

Specific objectives:

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

Maintenance Operations:

- 8.1. All shrub beds shall be maintained substantially free of weeds. Work shall be done either manually or with appropriate selective weed killer in accordance with manufacturer's recommendations. If weed killer is used the dead weeds shall be removed at the next maintenance visit. Care must be taken to avoid damage to adjacent planting and grass.
- 8.2. Once established, shrubs shall be selectively thinned or reduced in height as appropriate by removal or pruning to allow room for growth and avoid overcrowding/overshadowing. Care shall be taken to avoid over pruning and so creating obvious gaps in the shrub beds.
- 8.3. Ground cover plants shall be clipped or pruned if necessary to give a neat and tidy finish and contained within the planting bed. Work to remove dead vegetation shall be carried out during the winter months.

9. HERBACEOUS PLANTING

- 9.1. For most herbaceous species, a single cut can be carried out in early spring after the risk of frost has passed (generally March onwards). Leaving dried flowers heads over winter provides visual

interest and provides a food source for seed eating birds and insects. Shelter is also found for wildlife in dead foliage over winter.

9.2. Pruning:

- In spring cut stems close to the 'crown' or 'dormant' top of the plant, avoiding the removal of new shoots.
- Tidy up the base of the plant, removing dead foliage and debris.
- Remove all material from site.
- Apply a 50mm layer of coarse mulch, 150-300mm away from stems. This will help moisture retention in the soil and contribute to weed suppression.
- Many perennials respond well to dead heading throughout the summer as heads begin to fade. This will produce more blooms within that season e.g. Echinacea, Helleborus. Repeat as necessary.
- Leave dried flower head over winter for relevant species e.g. Miscanthus sinensis 'Red Chief'.

9.3. Fertilising:

- One application, just before or at the time of spring growth.
- A balanced fertiliser is required, one high in Phosphorus (which encourages blooming as well as strong roots and disease resistance). Fertilisers high in nitrogen should not be used as nitrogen promotes excess foliage at the expense of flowers and roots which can result in weak stems. (NPK 10-20-10 balance would be suitable).

9.4. Watering:

- In the first year thorough watering once a week is required, checking for a dry soil surface during wetter periods.
- Established plants will need watering during dry spells, check for a dry soil surface between watering.
- Carry out a thorough watering of the roots of the plant. Light watering may encourage surface rather than deep roots, leaving plants more susceptible to drought.

9.5. Weeding:

- Spot treat persistent weeds with glyphosate, remove one month later.
- Or, remove by hand pull.

- Ensure a consistent layer of mulch is present.

9.6. Staking:

- Taller species will require staking in early spring/ summer to maintain an upright form e.g. Lysimachia.

9.7. Dividing:

- Divide plants every two to three years to maintain healthy growth and avoid overcrowding. To be carried out in spring when the soil is dry enough to work and before new growth and flowering occurs or for those species e.g. Helleborus that require autumn division, carry out dividing in September/October.

10. GRASSED AREAS

Grass areas are divided into two specific mowing regimes:

- Well Maintained Grass for Front Gardens
- Frequently Mown Grassed Areas for Amenity Use

WELL MAINTAINED GRASS FOR FRONT GARDENS

Specific objectives:

- To create a level, attractive and even grass sward with uniform height and colour for high for domestic use.
- To enhance appearance and visual interest

Maintenance Operations:

- 10.1. A maximum of 30 cuts per year shall be carried out using approved machinery. The maintenance visits shall take place either weekly or fortnightly during the growing period to maintain the sward length within the limits of 25mm and 60mm. The clippings shall be collected and removed from site unless otherwise agreed, and at all times the areas shall be maintained in a tidy condition.
- 10.2. All edges of grass areas, against footpaths, roadways, trees, posts, shrub borders and any other obstruction shall be kept neat and tidy. Edges shall be cut at least at each alternative main grass cut, i.e. once every two weeks.
- 10.3. When necessary grass areas shall be sprayed with a suitable approved selective herbicide in accordance with the manufacturer's recommendations to control weed infestation. Alternatively,

spot treatment weeding of isolated weed growth may be carried out by hand or herbicide application. Arisings shall be removed from site.

- 10.4. Fertiliser shall be applied at manufacturer's recommended rates once a year in April.
- 10.5. Reinstatement by re-seeding of damaged, defective or bare areas shall be carried out as appropriate. Any dips or holes within the grass shall be filled as above to restore even falls and reseeded as necessary.
- 10.6. Where necessary compacted areas shall be aerated with appropriate equipment in October.
- 10.7. At no time shall machinery get closer than 500mm to any tree trunk. Damage must be avoided to trunks when using a strimmer.

FREQUENTLY MOWN GRASSED AREAS FOR AMENITY USE

Specific objectives:

- To create a level attractive and even grass sward with uniform height and colour.
- To create a transitional grassed area between the less maintained amenity grassland and the well maintained housing areas.

Maintenance Operations:

- 10.8. Mowing shall be carried out between 12 and 14 times per year using approved machinery. The maintenance visits shall take place once in March, if required then twice in April to September and then once in October if required. The clippings shall be let fly and must be evenly distributed over the whole surface and at no time shall the layer of clippings be to such a depth that they affect the growth of the grass. Clippings shall be removed from all paths and roads and taken off site.
- 10.9. All edges of grass areas, against footpaths, roadways, trees, posts, shrub and whip borders and any other obstruction shall be kept neat and tidy. Edges shall be cut at alternative maintenance operation, i.e. once per month
- 10.10. When necessary grass areas shall be sprayed with a suitable approved selective herbicide in accordance with the manufacturer's recommendations to control injurious or invasive weeds. Alternatively, spot treatment weeding of isolated weed growth may be carried out by hand or herbicide application. Arisings shall be removed from site.
- 10.11. Reinstatement by re-seeding of damaged, defective or bare areas shall be carried out as appropriate. Any dips or holes within the grass shall be filled as above to restore even falls and reseeded as necessary.

- 10.12. Where necessary compacted areas shall be aerated with appropriate equipment in autumn.
- 10.13. At no time shall machinery get closer than 500mm to any tree trunk. Damage must be avoided to trunks when using a strimmer.

11. MEADOW GRASS AREAS

Specific objectives:

- To create an attractive and grass sward with height and colour.
- To provide habitats for reptiles, insects, bee's & butterflies.

Maintenance Operations:

- 11.1. Refer to planting plans for guidance on the proposed extent of seed mix..
- 11.2. The first cut to be carried out using appropriate machinery and then with rotary mower throughout the growing season unless specified otherwise.
- 11.3. Remove any litter, debris, stones and earth clods larger than 25mm in any dimension prior to mowing.
- 11.4. Sward heights to be kept within the following limits: 40 -75mm with two cuts per year.
- 11.5. No fertiliser or nutrients to be added.
- 11.6. Top dress if required with additional appropriate 'EM2 - Standard General Purpose Meadow Mixture' if slow to establish (Supplier Emorsgate Seed).
- 11.7. Year One
- First cut to 5cm March/April (Spring Seeding 1st cut in May)
 - Cut every 2 months or when sward reaches 15cm
 - Final cut September/October
 - Remove all cuttings; Allow cut grass to dry and disperse seed before removing arisings.
 - The requirements in the first year are to control weeds and reduce competition from grasses. Cut the sward to a height of 5 cm every two months or when the sward reaches 15 cm. Remove all cut material to avoid smothering the sward. Where persistent weeds are a problem, spot treat with Glyphosate or dig-out

11.8. Future years

- One cut in September to 15cm
- Remove all cuttings
- All cut grass to dry and disperse before removing arisings
- The requirements in future years is to maintain a species diverse sward of value to wildlife

11.9. The site may require further cuts in the autumn period to remove untidy growth in an extended growing season

12. BULB PLANTING

Specific objectives:

- To create an eye catching seasonal feature.
- To enhance seasonal appearance and visual interest.

Maintenance Operations:

- 12.1. Grass shall not be cut within areas of bulb planting until six weeks after bulbs have flowered. Grass and bulb leaves shall be cut firstly to approximately 100mm and arisings raked up and removed from site. The area shall then be cut to the length of the surrounding grass either immediately or within two weeks of the first operations. All arisings shall be raked off and removed from site.
- 12.2. Where necessary weak/damaged grass shall be over seeded as appropriate immediately after the bulb leaves and grass have been cleared.

13. AQUATIC PLANTING

Specific objectives:

- To create new wetlands for the enjoyment of the public.
- To manage all wetland habitats to encourage a range of species such as amphibians, mammals, aquatic insects and birds

Maintenance Operations:

- 13.1. To promote new growth reeds will be cut back on rotation between September and January so that each bed is not cut more than once in two years.
- 13.2. Aquatic planting will be managed to ensure that the cover is less than 10% and that open water covers 90%.

I 3.3. Culverts will be maintained in good working order so as to allow movement of water in the system to prevent stagnation in the ditches. Encroachment of vegetation will be monitored and cleared at least twice a year or as necessary.

I 3.4. No fertiliser or nutrients will be added.

I 4. EXISTING WOODLAND

Specific objectives:

- To retain the existing woodland as a landscape feature within the wider landscape character area.
- To maintain and enhance habitats of existing wildlife populations.
- To create a green buffer around the new development.

Maintenance Operations:

I 4.1. The existing woodland provides a good habitat for many species of wildlife and birds. Removal of broken branches or standing deadwood should only be carried out where it represents an unacceptable risk to people.

I 4.2. Fallen trees provide a valuable habitat for woodland insects and small mammals and should not be removed or broken up unless necessary for safety reasons.

I 4.3. Canopy ivy should be selectively thinned out to permit light to reach ground level. Areas of thinning should take place in rotation.

I 4.4. Limited coppicing should be carried out to the existing woodland edges, subject to detailed assessment of trees, to create a varied woodland edge character and encourage the growth of woodland edge, understorey field level species.

I 4.5. All coppicing/thinning/pruning works are to be undertaken outside of the bird nesting season from February/March to August/September inclusive.

I 5. PLANT REPLACEMENT

I 5.1. An annual inspection of trees and shrubs shall be undertaken in September of each subsequent year after planting to assess the condition of stock and prepare a list of necessary remedial work and replacement planting. The list shall be submitted to Redrow Homes or the Management Companies, as appropriate immediately after the visit with accompanying financial implications. Replacement planting shall be implemented in accordance with the planning requirements for all

plots and in perpetuity for the blocks of flats. Redrow Homes shall be responsible for the replacement planting for the first year after planting, but for the next four years the Management Companies or the Purchaser/Tenant shall be responsible for the replacement of dead or dying plants.

- I 5.2. All work shall be carried out by appropriately qualified horticultural operatives with adequate insurance. All work shall be carried out in accordance with good horticultural practice and B.S. standards. All debris arising from the works shall be removed from site.
- I 5.3. Any new replacement planting shall be tagged so the local authority, Redrow Homes, the Management Companies or the Purchaser/Tenant is aware that these plants will have a further one year's defect liability period. The contractor shall provide Redrow Homes or the Management Companies with a list of replacements and their location after completion.
- I 5.4. Replacement tree and shrub planting, shall take place in the following November-February, dormant winter period during suitable weather conditions. All stock shall be of the same size and species as originally specified.
- I 5.5. Approval of all remedial and replacement work shall be obtained before commencing any remedial work.

I 6. LITTER COLLECTION

- I 6.1. All hard surfacing shall be swept as necessary, and all rubbish removed from site.
- I 6.2. Litter picking/clearance shall take place during each maintenance visit and all waste shall be removed from site.
- I 6.3. During autumn maintenance visits all fallen leaves shall be collected and removed from site

I 7. FENCING/WALLS/RAILING

- I 7.1. All fencing, walls and railings shall be checked for damage/wear and when necessary shall be replaced/repared/ re-stained or painted as appropriate

I 8. HARD SURFACES

- I 8.1. Provide contact number for residents to notify management company of any hazards.
- I 8.2. Inspect the hard landscape areas on a six monthly basis to identify and repair any damaged areas.

- 18.3. Seasonal maintenance (leaf and snow clearance, de-icing).
- 18.4. Surfaces to be kept weed and litter free at all times. Spray paved areas annually with herbicide to keep weed free.
- 18.5. Drainage systems associated with hard surfaces to be inspected annually and maintenance work undertaken as necessary.
- 18.6. Clean paving every 5 years with appropriate cleaning agent. Following cleaning of paving and joints, brush in silica block jointing sand as and when required to all sand bedded paving.
- 18.7. Repair any subsidence or breakages promptly in accordance with best practice, manufacturer's guidance and using matching paving units.
- 18.8. Inspect and repair all edging on a regular basis making good any damage or wear promptly to maintain the good upkeep of the development.

19. PLAY AREA

- 19.1. Establish and maintain a closely cut amenity lawn including on earth mounding.
- 19.2. Maintain year round appearance and tidiness of play area.
- 19.3. Prevent hazards to all users.
- 19.4. Provide contact number for residents to notify Management Company of any hazards.
- 19.5. See Section 10 for maintenance requirements of amenity grass – particular care to be taken when cutting grass on mounds and around play equipment to avoid damaging mounds and play items
- 19.6. See Section 11 for maintenance of meadow areas
- 19.7. Inspect play equipment regularly and repair as required, making good any damage or wear promptly to maintain safety of play area and the good upkeep of the development – frequency of play area inspection to Council specification.
- 19.8. Clear bins and inspect furniture regularly.
- 19.9. Seasonal maintenance (leaf and snow clearance, de-icing)
- 19.10. Surfaces to be kept weed and litter free at all times

APPENDIX A

ANNUAL MAINTENANCE OPERATIONS MATRIX

	J	F	M	A	M	J	J	A	S	O	N	D
General Operations:												
Weeding	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Watering				✓	✓	✓	✓	✓	✓			
Litter removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Removal of fallen leaves									✓	✓	✓	✓
Re-firming plants (as required)		✓	✓							✓	✓	
Pest and disease control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replacement Planting	✓	✓	✓							✓	✓	✓
Grass Areas:												
Mowing – front garden			✓	✓	✓	✓	✓	✓	✓	✓		
Mowing – amenity areas 12-14 cuts			✓	✓	✓	✓	✓	✓	✓	✓		
Mowing – bulb areas					✓	✓	✓	✓	✓	✓		
Rake mown lawns (as required to keep tidy)			✓	✓	✓	✓	✓	✓	✓	✓		
Aerate and scarify lawn areas			✓						✓			
Apply fertiliser to lawn areas			✓						✓			
Form edges to lawn areas (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Over-seed sparsely germinated grass areas				✓	✓				✓	✓		
Shrub Areas and Hedges												
Pruning (timing dependant on species)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Top up mulch (after first year & replanting)			✓									
Thin out planting										✓		
New & Existing Trees & Native Hedgerows:												
Check condition and treat (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pruning for good habit & safety (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check, adjust, repair trees stakes & ties		✓			✓			✓			✓	
Apply fertiliser and mulch to new trees			✓									
Annual monitoring									✓			
Hard Landscape Areas & Enclosure:												
Weeds in hard surfaces - spray with herbicide					✓	✓	✓	✓	✓			
Clear litter, debris and fallen leaves	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gullies etc - keep clear (as required)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fencing and gates - check condition & repair	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: This table lists the key routine operations required during both the defects and long term maintenance periods together with an indication of when they should be undertaken throughout the year. It should be noted that the table should be used as a guide to times only. It does not include every operation listed in the specification but all checking and intermittent maintenance actions should occur during the routine visits. The contractor is responsible for the appearance and condition of the landscape areas and should be prepared to undertake specific maintenance tasks outside the above periods throughout the year to satisfy management or safety objectives.

APPENDIX B

SPECIFICATION FOR REPLACEMENT PLANTING: GENERAL INFORMATION/ REQUIREMENTS

112 SITE CLEARANCE GENERALLY

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with largest dimension exceeding 75mm.
- Contamination: Substances injurious to plant growth including subsoil, rubble, fuel, and lubricants.
- Vegetation: Clear dead surface vegetation by hand.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Additional requirements: Remove all rubbish and debris from site.

118 SOIL

- Soil for cultivating and planting: Moist, friable and not waterlogged.
- Frozen or snow covered soil: Provide additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

120 CLIMATIC CONDITIONS

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

125 TIMES OF YEAR FOR PLANTING

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/ October or April/ May.
- Herbaceous plants (including aquatic and marginal): September/ October or March/ April.
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.
- Dried bulbs, corms and tubers: September/ October.

130 MECHANICAL

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

145 WATERING

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

165 PREPARATION, PLANTING AND MULCHING MATERIALS

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

200 PLANTS/ TREES - GENERAL

- Condition: Materially undamaged, sturdy, healthy and vigorous.
 - Appearance: Of good shape and without elongated shoots.
 - Hardiness: Grown in a suitable environment and hardened off.
 - Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
 - Budded or grafted plants: Bottom worked.
 - Root system and condition: To requirements of National Plant Specification and balanced with branch system.
 - Species: True to name.
- Origin and Provenance have the meaning given in the National Plant Specification.

215 PLANTS/ TREES - SPECIFICATION CRITERIA

- Name, forms, dimensions, provenance and other criteria: As scheduled and defined in the National Plant Specification.

235 CONTAINER GROWN PLANTS/ TREES

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

245 LABELLING AND INFORMATION

- General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
 - Full botanical name.
 - Total number.
 - Number of bundles.
 - Part bundles.
 - Supplier's name.
 - Employer's name and project reference.
 - Plant specification, in accordance with scheduled National Plant Specification categories.

250 SUPPLY OF PLANTS/ TREES

- Suppliers: Members of the Horticultural Trades Association Nursery Certification Scheme.

260 PLANT/ TREE SUBSTITUTION

- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
 - Difference from specified plants/ trees.
- Further alternatives: Proposed substitutions may not be acceptable and submission of further alternatives may be required.
- Approval: Obtain written approval from the Local Authority before making any substitution.

265 PLANT/ TREE HANDLING, STORAGE AND TRANSPORT

- Standard: To HTA 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.
- Frost: Protect plants/ trees from frost.
- Handling: Handle plants/ trees with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Black polyethylene bags.
- Packaging of bulk quantities: May alternatively use pallets.

270 PLANTING GENERALLY

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

280 TREATMENT OF TREE WOUNDS

- Cutting: Keep wounds as small as possible.
 - Cut cleanly back to sound wood using sharp, clean tools.
 - Leave branch collars. Do not cut flush with stem or trunk.
 - Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

285 PROTECTION OF EXISTING AREAS

- General: Protect areas affected by planting operations using boards/ tarpaulins. Do not place excavated or imported materials directly on grass.

290 SURPLUS MATERIAL

2600-MP-01-PI Pollards Nursery

- General: Remove subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, prunings and other arisings / rubbish.

PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS

- 300 **HERBICIDE**
- Locations: where replacement planting is required.
 - General: Prevent weeds from seeding and perennial weeds from becoming established, by applying a suitable herbicide.
 - Delay cultivation as recommended by manufacturer.
- 305 **WEED**
- Locations: where replacement planting is required.
 - General: Prevent weeds from seeding and perennial weeds from becoming established.
- 335 **GENERAL FERTILIZER**
- Locations: where replacement planting is required.
 - Manufacturer: Scotts UK Professional.
 - Product reference: Enmag.
 - Application: Spread evenly.
 - Timing: Immediately before cultivation.
 - Coverage: 70g/m².
- 341 **PEAT**
- Peat or products containing peat: Do not use.
- 358 **SOIL AMELIORANT/ CONDITIONER**
- Type: Sanitized and stabilized compost.
 - Manufacturer: Contractors choice.
 - Standard: To BSI PAS 100.
 - Horticultural parameters:
 - pH (1:5 water extract): 7.0-8.7.
 - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
 - Moisture content (m/m of fresh weight): 35-55%.
 - Organic matter content (minimum): 25%
 - Grading (air dried samples): 99% passing 25 mm screen, and 90% passing 10 mm screen mesh aperture.
 - Carbon:Nitrogen ratio (maximum): 20:1.
 - Texture: Friable.
 - Objectionable odour: None.
 - Composting Association certification: not required.
 - Coverage: 30mm/m².
 - Timing: Apply prior to cultivation.
- 375 **CULTIVATION**
- Compacted topsoil: Break up to full depth.
 - Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
 - Depth: Top 150mm of planting beds.
 - Timing: Within a few days before planting.
 - Weather and ground conditions: Suitably dry.
 - Surface: Leave regular and even.
 - Levels:
 - To match existing beds.
 - 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.
 - Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

PLANTING SHRUBS/ HERBACEOUS PLANTS

- 400 PLANT LAYOUT - RANDOM/ NATURALIZED
- Spacing: Evenly, avoiding straight lines.
 - Density: As scheduled.
- 405 SHRUB PLANTING PITS
- Timing: Excavate 1-2 days (maximum) before planting.
 - Sizes: 150 mm wider than roots when fully spread and 200 mm deep.
 - Additional requirements: Increase dimensions where necessary to ensure that pits are at least 75 mm deeper than root system and wide enough to accommodate roots when fully spread.
 - Pit bottom improvement Break up to a depth of 150 mm.
 - Backfilling material: previously excavated topsoil.
- 415 ANTIDESSICANT FOR CONIFERS/ EVERGREENS
- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
 - Application: Dip before delivering to site. Spray soon after planting.
 - Do not apply in wet or frosty weather.
- 420 CLIMBING PLANTS
- Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward. Lightly secure branches to supports. Retain canes of plants which are too small to reach supports.
 - Climber supports: as existing. Replace with similar materials if damaged.
- 435 CLIMBING PLANTS USED AS GROUND COVER
- Planting: Remove canes or other supports. Spread stems, pinning to ground where appropriate to ensure good contact for rooting and early establishment.
- 470 FORMAL
- Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
 - Planting: In trenches large enough to take full spread of roots. Set out plants evenly.
- 471 NATURALIZED HEDGES
- Planting: In trenches large enough to take full spread of roots. Set out plants evenly.
- 475 BACKFILLING
- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required.
- 480 AFTER PLANTING
- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
 - 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.
- 485 MULCHING PLANTING BEDS
- 600mm diameter to whips; 1m radius to standard trees; 1.5m radius to larger stock.
 - Material: Melcourt 'Forest' bio mulch.
 - Purity: Free of pests, disease, fungus and weeds.
 - Preparation: Clear all weeds. Water soil thoroughly.
 - Coverage: to a depth of 75mm.
 - Finished level of 50 mm below adjacent grassed or paved areas.

PLANTING TREES

500 ANTIDESSICANT FOR CONIFERS/ EVERGREENS

- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Application: Dip in or thoroughly spray with antidesiccant before delivering to site. Apply again soon after planting.
 - Do not apply in wet or frosty weather.
 - Ensure full coverage of underside of foliage.

505 TREE PITS

- Sizes:
 - Tall standard trees Min 300mm larger than root ball on all sides and beneath.
 - Semi mature trees Min 300mm larger than root ball on all sides and beneath.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 200 mm.
- Pit sides: Scarify.
- Additional requirements: orientated the tree within the tree pit with regard to both its visual effect and the relation of its branch system to adjacent features.
- Backfilling material: Top soil to a depth of 600mm incorporating Enmag at 70g per pit (STD tree) and 140g per pit (SM) with 40mm of peat-free compost mixed into the top soil. The lower part of the tree shall be backfilled with selected sub soil, well broken up to facilitate drainage and root penetration.
- Accessories: As clause 512 .

512 TREE PIT ACCESSORIES

- Locations: All trees.
- Manufacturer: English Woodlands.
 - Product reference: Root Rain.
- Type: Perforated plastics irrigation pipe, 60 mm diameter, in circle above and around sides of rootball, with plastics cap.

525 SEMIMATURE TREES

- Standard: Prepare roots and transplant to BS 4043.
- Backfilling material: As clause 585.
- Support: as clause 535.

535 STAKING GENERALLY

- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - Preservative treatment: to BS 4072.
- Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- Minimum stake sizes:

Tree Size	Overall length of stake:	Height above ground	Diameter of stake
20-25cm+	2200mm	900mm	100mm
16-20cm	1650mm	600mm	100mm
12-16cm	1500mm	600mm	75mm
>12cm	1200mm	450mm	50mm.

575 SINGLE ANGLED 45 DEGREE STAKING FOR ALL TREES

- Staking: Drive stake at an angle of 45 degrees and leaning towards the prevailing wind at least 600 mm into side of tree pit.
- Ties: and pads to be Toms Tree Ties: chunky pad (ref 04) with special nylon reinforced 25mm belt (ref SP3).
- Tying: Secure tree firmly but not rigidly to stake with 1 no. tie approximately 500mm above ground level.

585 BACKFILLING

- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required.

590 MULCHING TREES

- Material: Melcourt 'Forest' bio mulch.
 - Purity: Free of pests, disease, fungus and weeds.
- Preparation: Clear all weeds. Water soil thoroughly.
- Coverage: to a depth of 75mm, over a minimum area of 600mm diameter (whips), 1m radius (standard trees) and 1.5m (larger stock) with the tree in the centre.

PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS

710 MAINTENANCE

- Duration: Carry out the operations in the following clauses from completion of planting until the replacement plants establish and then follow the approved ongoing maintenance and management regime.
- Frequency of maintenance visits: Monthly during growing season.

720 FAILURES OF PLANTING

- General: Plants/ trees/ shrubs that have failed to thrive during period stated in clause 710, will be regarded as defects due to materials or workmanship not in accordance with the specification. Replace with equivalent plants/ trees/ shrubs.
- Replacements: To match size of original specification.
- Timing of making good: During the next suitable planting season.

740 CLEANLINESS

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

750 PLANTING MAINTENANCE GENERALLY

- 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.
 - Keep planting beds clear of weeds, by use of approved non-residual herbicides.
- 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.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- 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.
 - Frequency of checks: At each scheduled maintenance visit.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- Trees: Spray crown when in leaf during warm weather. Carry out in the evening.

755 PLANTING MAINTENANCE - FERTILIZER

- Time of year: March or April.

- Fertilizer: slow release.
 - Manufacturer: Scotts UK Professional.
 - Product reference: Enmag.
- Application: Evenly spread, carefully incorporating below mulch materials.
- Coverage: 50g/m².

760 PLANTING MAINTENANCE - PRUNING

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

765 PLANTING MAINTENANCE - WATERING

- General: As clauses 145.

780 MAINTENANCE INSTRUCTIONS

- General: Before end of the period stated in clause 710, submit printed instructions recommending procedures to be established by the Agent for maintenance of the planting work for one full year:
Provide a schedule of any ongoing maintenance problems experienced during the growing season.

790 FINAL MULCHING

- Timing: At end of the period stated in clause 710.
- Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
- Planting beds: Remulch as clause 485.
Coverage: 75 mm thick.
- Trees: Remulch as clause 590.