

Land to the rear of 27 North Bersted Street

**LANDSCAPE DESIGN STATEMENT, REPORT &
SPECIFICATION FOR LANDSCAPE AND PLANTING
PROPOSALS**

Rev 3. 04/05/2016 Rev. 22/05/2017

CLIENT: Knightsgate (UK) Ltd



Sorbus aucuparia
'Sheerwater Seedling'

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Important: to be read in conjunction with landscape plan no. 243/NB/15D

1.0 INSTRUCTIONS

Instructions:

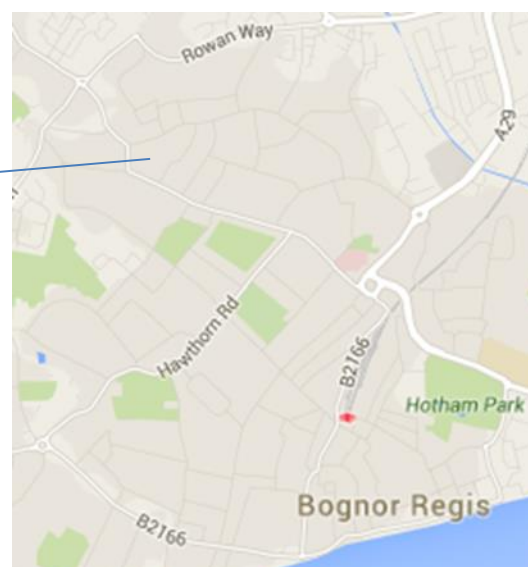
Report No.: 243/NB/15R

David Meagher Landscape Architecture Ecology and Arboriculture Consultants have been instructed to carry out the landscape design and report for the construction of 10 detached houses on 0.7 ha developmental land, grid reference SU92715, A disused growing area with ancillary buildings comprising caravans, greenhouses and outbuildings and former pepper nursery now used for growing wood and log storage.

2.0 GENERAL

The site lies two kilometres North West of Bognor Regis Town Centre. The proposed housing is located behind a residential unit located in North Bersted Street which is used for general storage of materials most the result of tree work carried out locally. The commercial growing of peppers has ceased, the area is now used informally by the occupant for passive leisure but has become overgrown with hedgerows dominated by black thorn encroaching into the site. The soil is light sandy alluvium with underlying clay and neutral to slightly acid in ph. The proposal is to construct between 10 high quality residential units with associated landscape infrastructure.

3.0 LOCATION



4.0 LANDSCAPE STATEMENT AND PROPOSED LANDSCAPE TREATMENT

The landscape design has been informed by ecology and arboriculture reports and recommendations.

The landscape design takes in factors such as screening and privacy both in terms of views into the site by occupants from the neighbouring new housing complex adjacent to the North West Boundary and existing mature housing whose rear gardens back onto the proposed development and the need for a sustainable approach.

For these reasons a new mixed native hedge to both increase diversity and prove a visual screen is proposed. The new hedge will be sheltered by back garden fencing at the rear of the proposed gardens.

Infrastructure planting needs to be robust but also offer a degree of seasonality as well as ecosystem service linking elements to Bersted Brooks LNR without becoming a maintenance burden. Smaller native varieties of trees or trees with an upright or fastigate habit have been proposed. Trees and shrubs which will withstand the rigours of urban pressures such as trampling, heat reflection and periods of drought. Trees are primarily native so add to the habitat and ecosystem. Planting is designed to complement the new buildings as well as provide a quality urban landscape, softening and screening buildings and carparks. The objective is to provide low maintenance planting which includes species growing locally which add wildlife value and provide a visual amenity for residents.

An informal play area if required by the planning authority has been included in the appendix (Appendix 2).

4.1 Tree Planting

The trees comprise species native to Britain – an upright variety of Mountain Ash (*Sorbus aucuparia* ‘Sheerwater Seedling’), Silver Birch (*Betula pendula* ‘fastigiata’), and *Acer campestre* (Field Maple) and *Crataegus monogyna* (Hawthorn) to be grown as a standing trees among hedgerow species. An upright variety of alder (*Alnus cordifolia fastigiata*) to be grown as hedgerow tree and in grass areas provides an ecological bridge to similar species at Bersted Brooks LNR.. An ornamental cultivar of the native hawthorn (*Crataegus monogyna* ‘Paul’s Scarlet’) and the crab apple (*Malus tschonoskii*) complete the trees used in the scheme.

4.2 Shrub Planting

Shrubs have been used for foliage (e.g. Variegated Phormium,) and fruit and flowers, together with seasonal quality autumn colour (e.g. *Malus tschonoskii*), stems (Silver Birch) spring and summer flowering (*Narcissus pseudonarcissus*, *Cistus* ‘Silver Pink’).

4.3 Hedgerows

A hedgerow mix has been selected from native species to add to local biodiversity, important to bees and invertebrates. The mix is intended to provide seasonal interest as well as provide an additional security barrier located behind board on board (hit and miss) fencing associated with rear gardens but also on the North West Boundary. Species used for the proposed hedgerow are Guelder rose and Dog Rose for spring and summer flowering, Field Maple as an important species for ecology, exhibiting autumn colour, and species with nectar important for pollinators and source of berries as food for birds in the form of holly, Myrobalan and hawthorn. The existing hedges are to be ‘grubbed up’ after the nesting season has finished). New Hedges are to be trench planted in a double staggered row stake. All planting is to be watered thoroughly, to full ground capacity, immediately after planting. (See planting specification 7.1).

4.4 Damp Meadow

An area has been set aside which is centrally located adjacent to the North West boundary hedge. Measuring around 100m² native wild flowers are to be planted as ‘plugs’ generally are more successful than the sowing of wild flower seed mixes, species such as primroses and hardheads. (See plant specification 7.1)

4.5 Mulch

Weed inhibitor and water conservation: apply 75 mm amenity bark to all planted areas.

4.6 Fencing (see appendix 9)

Rear Domestic Gardens: to provide privacy and security - 2.4 metre soft wood hit and miss fencing painted and finished to a painted colour to complement house designs.

Front Gardens and Northern West Boundary and to entrance/service road – 1.2 metre post & rail - to delineate front garden boundaries and to delineate hedge planting, to delineate both sides of lawns on entrance to housing complex. The 1.2 metre oak post and rail fencing untreated with two rails.

4.7 Entrance (See appendix)

Signs in keeping with street architecture should greet the entrances.

4.8 Lighting (see appendix 10)

Discreet lighting to complement modern design housed in bollards and positioned in gardens as well as wall mounted lighting mounted to the housing units themselves.

4.9 Gates:

Gated entrance: If a gated entrance is considered, fire access service and delivery vehicles need to be considered.

5.0 PAVED AREAS (see appendix 7)

It is recommended that driveways are treated differently to the main entrance road and pedestrianised footpath.

This report proposes that individual drives are laid with resin bound gravel, with threshold to front doors and porches in Portland finished flag stones. Pedestrian pavements in buff coloured concrete flagstones are accompanied by the main road entrance laid in free draining/permeable block work similar to Marshalls Driveline 'Priora'.

6.0 SERVICES

This report & its associated plan subject to revision due to engineering plans for services which had not been competed at the time of publishing the report and landscape plan (services such as gas electricity water, broadband etc.).

7.0 SUSTAINABILITY AND LOCAL PROVENANCE

Where possible native trees and plants should be supplied from local sources with local provenance. Materials should be sourced locally to minimise carbon footprint.

This report also recommends the design of integrated bin store, water butts, cycle storage and compost bins. Fencing to be sourced from well managed woodlands FSC® certified. Where possible containerised plants should be sourced from peat free nurseries, or nurseries with reduced peat usage. Mulch should be used to establish plants to conserve water.

7.1 Plant schedule

PLANT SCHEDULE AND SPECIFICATION					
Ornamental Planting @4 plants per m ² unless specified in notes		No. of plants	Plant /Pot Size (cms) no. of breaks (brks)	Root Condition	Notes (BR- Bare root)
Cistus 'Silver Pink'		44	30-45 3 brks	2L	
Rosa rugosa 'Alba'		93	30-45 bushy	3L	BR in season
Rosa rugosa 'Frau Dagmar Hastrup'		48	30-45 bushy	3L	
Viburnum 'Eve Price'		2	45-60 3 brks	3L	
Phormium 'Tricolor'		3	45-60 several shoots	3L	BR in season
Hebe 'Green Globe'		21	30-45 bushy	3L	
Rosmarinus officinalis		15	45-60 4 brks	3L	
Lavandula 'Hidcote'		28	30-45 bushy	2L	
Skimmia 'Rubella'		48	30-45 3 brks	2L	
Brachyglottis greyi		53	20-30 3 brks	2L	
Hedgerow species (planted in a staggered double rows)		No. of plants	Size	Percentage of mix (%)	BR in season Bare root. 1+2 whips/ Transplants
Hawthorn		360	60-90cms	20%	BR
Field Maple		360	60-90cms	20%	BR
Myrobalan		360	60-90cms	20%	BR
Holly		270	40-60cms 2/3 Litre pot	15%	BR
Guelder Rose		270	60-90cms	15%	BR
Dog Rose		180	60-90cms	10%	BR
Bulbs		No.	size	No. per sq. metre	Notes
Narcissus pseudonarcissus		1000	5-6 cms	20	
TREES				Root Condition	
Abb./ Name	Girth/Height (m)				
Sorbus aucuparia 'Sheerwater Seedling	10-12cms/3.0-3.5	3	Selected standard	Rootballed	Clear stem
Betula pendula 'Fastigiata'	10-12cms/3.0-3.5	6	Selected standard	Root balled	Clear stem
Acer campestre	10-12cms/3.0-3.5	5	Selected standard	Root balled	Clear stem
Alnus cordifolia fastigiata	10-12cms/3.0-3.5	13	Selected standard	Rootballed	Clear Stem
Malus tschonoskii	10-12cms/3.0-3.5	3	Selected standard	Rootballed	Clear Stem
Crataegus monogyna 'Paul's Scarlet'	10-12cms/3.0-3.5	3	Selected standard	Rootballed	Clear Stem
Crataegus monogyna	10-12cms/3.0-35	2	Selected Standard	Rootballed	Clear Stem

7.2 Damp Meadow plug planting

Damp and Wet Meadow at a ratio of 10% per species @ five plugs per square metre. Approx. 500 plug plants 50 plants per species. Cuckooflower (*Cardamine pratensis*), Meadowsweet (*Filipendula ulmaria*), Bugle (*Ajuga reptans*), Selfheal (*Prunella vulgaris*) and Ragged Robin (*Lychnis flos-cuculi*) Primrose (*Primula vulgaris*) Devil's-bit Scabious (*Succisa pratensis*) Meadow Cranesbill (*Geranium pratense*) Black or common knapweed or hardhead (*Centaurea nigra*) Oxeye daisy (*Leucanthemum vulgare*) Substitute plants: Field Champion, Red Champion, Purple Loosestrife, Hemp Agrimony. Planting should take place Late August to mid-November or March/ April.

8.0 PLANTING SPECIFICATION

Abbreviation: CA – Commissioning Agent

8.1 soil condition

Cultivate and plant into moist friable soil that is not waterlogged.
Do not plant into frozen or snow covered soil without prior approval of the CA.
The contractor shall provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

8.2 climatic conditions

Carry out the work while soil and weather conditions are suitable for the relevant planting operations.

Do not plant during periods of frost or strong winds.

8.3 Times of year for planting (Trees/shrubs/whips/transplants)

Bare root and rootballed stock to be planted within the winter planting season (October to March).

Seasons are subject to variation and timing should be clarified prior to planting in accordance with advice from the Horticultural trades association

Deciduous trees and shrubs: Late October to late March.
Conifers and evergreens: September/ October or April/ May.
Container grown plants: At any time if ground and weather conditions are favourable

The landscape works shall be carried out within 12 months from the date when the building works are complete.

Seasons are subject to variation and timings should be clarified prior to commencement of planting with the Horticultural Trades Federation
TEL: 011 89 30 31 32

8.4 Machinery and tools

Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impractical to use machinery.

8.5 General watering

Ensure the full depth of the topsoil is evenly and thoroughly wetted. Use a fine rose where appropriate to avoid damage or displacing plants or soil. Water as necessary to ensure establishment and continued thriving of planting. If planting takes place during prolonged hot and dry conditions, the contractor is to ensure the plants are well watered.

8.6 Water restrictions

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.

8.7 Preparation, planting and mulching materials

Preparation, planting and mulching materials must be free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

9.0 IMPLEMENTATION

All works shall be carried out in accordance with this specification and no variation shall be allowed unless specifically authored in writing. All external works and soft landscape shall take place to an agreed programme within the confines of seasonal planting periods.

Planting outside these times shall not be permitted.

It is anticipated the works will be monitored by qualified staff throughout the contract. Upon completion the Local Authority will be informed and be given permission to inspect the site

10.0 SPECIFICATION OF PLANT MATERIAL

10.1 Plants/Trees - General

All species shall be true to name and character and shall be supplied as specified with all the trees origin and provenance meanings given in the National Plant Specification. They shall have been grown and handled according to good horticultural practice and according to all current UK Government and EC regulations. The supplying nursery shall be expected to carry out thorough and rigorous production methods to ensure that the stock is of highest standards.

The conditions of all plants shall be materially undamaged, sturdy, healthy and vigorous

and be of good shape, without elongated shoots. They shall be grown in a suitable environment and sufficiently hardened off prior to delivery to site. They shall be free from pests, diseases, discolouration, weeds and physiological disorders. Budded or grafted plants must be bottom worked.

The root system and condition must be uniform and well developed with fibrous root hairs typical of a healthy tree of the species, age and number of transplantations.

10.2 Trees/Plants

Obtain from approved sources with soil and climatic conditions similar to those prevailing on site. Adequately and carefully pack and protect against mechanical damage, extremes of temperature and drying out. All plant stock will be of British provenance, plant handling and planting to be undertaken in accordance with the following British Standard Specifications and Code of Practice:

Planting will be in accordance with:

BS 3936: 1992 Part 1 Nursery Stock. Specification for Trees and Shrubs.

BS 3936: 1981 Part 10 Nursery Stock. Ground Cover Plants..

Preparation of the planting environment (including decompaction and drainage) in accordance to the standards set out in the British Standard Code of practice for general landscape operations (excluding hard surfaces), in accordance with

BS 4428: 1989 Recommendations for general landscaping operations and follow the Code of Practice for Plant Handling 1985 (Horticultural Trades Association).

10.3 Nursery and Advanced Nursery Stock

All trees shall conform generally to **BS 3936 Part 1** (Nursery Stock Trees) and **BS 4043** (Advanced Nursery Stock Trees) and as further described in the plant schedules. All trees shall be strong growing, shall have reasonably straight, upright stem and accord with the dimensions given in the Schedule with evenly balanced and well developed crowns, with no main branch crossing the crown, and well developed fibrous root structure. All batches of single species shall be uniform in character.

All stems shall be free from abrasions and stem girdling. Stems shall be straight and uniform.

10.4 Feathered Trees

Feathered trees shall be furnished with a single leader and well-developed laterals (except for ashes) to ground level with uniform and full leaf coverage appropriate to their age and species/type. Stems shall be straight and uniform and free from abrasions and stem girdling. All plants shall have a strong fibrous well developed but compact root system with root spread proportional to the size of the tree with a reasonable proportion of fine fibrous rootlets. The roots shall not be torn or lacerated. Birches must be supplied as container grown.

10.4.1 Clear stem tree

All clear stem trees shall have a full and well developed crown with a uniform leaf coverage appropriate to their age and species. All shall bear a single upright straight central leader. Unless otherwise stated, they shall have a 1.8m clear stem height.

10.4.2 Root ball Trees

The trees shall have a good well-formed root ball with dimensions according to the species and size of the tree. The diameter of the root ball is usually at least three times the size of the girth, measured at 1 metre above ground level. Rootballed trees shall be adequately supported by wire mesh and hessian, or other suitable material to prevent collapse of the rootball. The rootball shall be of sufficient size to contain the fibrous roots. Trees, which have a collapsed rootball or expose major parts of the root system will be rejected.

10.4.3 Whips and Transplants

All plants shall conform generally to BS 3936 Part 4 for Forest Trees and as further described in the plant schedule. They shall show a high degree of growth in their stem, shoots, and leaf cover appropriate to their age and species, and shall have a strong and well developed fibrous root structure. The requirements given in the plant schedules constitute a guide to the required heights, and number of breaks (where appropriate) in the lower third. Plants shall be appropriately spaced to allow a full and uniform leaf coverage to develop to the crown, evenly radiated around its stem. Whips shall have a minimum of five breaks.

All plants shall, on delivery, be free from diseases and pests and be materially undamaged.

When requested to containerise the plants, the plants shall be placed in containers of appropriate size. The plants shall be managed to encourage their continued development and to ensure they root through. The compost used will hold sufficient reserves of nutrients to maintain the plants in a satisfactory condition for a reasonable period of time after leaving the growers nursery. The compost shall be free from any perennial weeds and have a reasonable moisture content. The compost shall not contain peat from UK Sites of Special Scientific interest or equivalent from other countries. The compost shall contain the additive SusCon Green, mixed in accordance with the manufacturer's recommendations.

Bare Root Stock shall be dipped into root dip mixed according to the manufacturer's recommendations as soon as is possible after lifting. The stock shall then be bundled in labelled batches, of species, height or individually and the roots placed in a suitable plastic bag, to prevent drying out during transport and prior to planting.

29.0 CONTAINER GROWN SHRUBS

All plants will be true to name and character and shall be supplied container grown. They shall have been grown and handled according to good horticultural practice and to all current UK government and EC regulations.

All plants shall be well developed and bushy and shall have been grown in the same container for at least one full growing season prior to delivery.

All specimen shrubs shall have a balanced, well developed crown with a strong main stem and lateral branches or a minimum of 4 stems arising from the ground level, dependent on species. All specimen shrubs shall be well furnished to ground level, unless otherwise shown.

The root systems will adequately fill the capacity of the container to show clear evidence of the proper establishment of a healthy fibrous root system. Plants showing signs of being pot-bound or waterlogged will not be accepted.

All plants shall show a high degree of extension growth typical of the species or type and appropriate to the specified container size. The requirements given in the plant schedules constitute a guide to the required heights and number of breaks (in the

lowest third of the plants). The plants shall be appropriately spaced to allow a full and uniform branch and leaf coverage to develop, evenly radiating around the pot.

The compost will hold sufficient reserves of nutrients to maintain the plant in a satisfactory condition for a reasonable period of time after leaving the Growers Nursery. The compost shall be free from any perennial weeds and have a reasonable moisture content. The compost shall not contain peat from UK sites of Special Interest or the equivalent from other countries. The compost shall contain the additive SusCon Green, mixed in accordance with the manufacturer's recommendations.

All plants shall be properly hardened off before delivery.

All plants shall on delivery be free from diseases and pests and undamaged

12.0 PLANT MATERIAL: SOURCING

12.1 Plants/Trees-Sourcing

Plants are to be obtained from an approved source confirmed in writing at the time of tender. The plant source/s are to have soil and climatic conditions similar to those prevailing at the site.

If for any reason plant material cannot be obtained as required above, the contractor shall furnish the CA with details of an alternative source of supply, whether from mainland Europe etc. The CA may request additional information as necessary.

Where plant material is unobtainable or known to be likely to be unobtainable at the time of ordering, alternatives may be submitted with the tender, stating the price and how they differ from the specifications. Such substitutions may not be acceptable and submission of further alternatives may be required. Obtain approval before making any substitution.

Where alternative species and/or sizes are offered, the contractor must clearly state in their tender, which specified plants/sizes they propose to change.

Single species from more than one source must be of the same clonal type and cultivator, and be similar in form, root structure and size.

12.2 Delivery of Plants

12.2.1 Labelling and information

Plants shall be identified until planting with a label to each plant or group of the same species.

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 and address

Employer's name and project reference or order number

Plant specification in accordance with scheduled National Plant Specification categories.

12.2.2 Pre-delivery inspection

All plant stock is to be inspected at the nursery before supplying samples to site for approval. The contractor shall make full allowances for inspecting the stock with the CA, plus representative at the stated nursery locations and include for full travel costs.

Failure to inspect the nursery stock will not relieve the contractor of his obligations under the specification.

The contractor shall satisfy himself on the quality, health, vigour and numbers of all the stock and its ability to meet the specification and the requirements of the Assignment Agreement (where appropriate).

At the time of the plant inspection visit, at the nursery of origin, the contractor shall make allowances for providing numbered security tags, for use of identifying the stock for the project and individual specimens. Following approval, plants are to be clearly identified with non-perishable labels as being reserved for use on this project.

12.2.3 Unloading on Delivery

The contractor shall supervise the unloading of the plants and shall inspect the plants at delivery.

12.3 Unsuitable or Defective Plants/Trees

Any materials, which in the opinion of the CA do not meet the requirements of the Specification, or are unsuitable or defective in any other way, will be rejected. The minimum sizes in the plant schedules will be strictly enforced.

12.4 Substitute Plants

The tender must be based on plants, which are available. Plants, which are unobtainable are to be clearly identified in the tender and alternatives are to be submitted for approval by the CA, stating species, size, form and price. These substitutes must be the equivalent or better quality than the species specified. Such substitutes may not be acceptable and submission of further alternatives may be required. Obtain approval before making any substitution.

12.5 Plant/Tree handling, Storage and Transport

The contractor shall comply with '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.

Plants/trees shall be handled with care and protected from frost. Protect from mechanical damage and do not subject to shock, eg by dropping from a vehicle.

Plants, which are not to be planted on the day of delivery to the site, are to be stored as follows or by other approved methods:

Bare root trees that are to be stored for subsequent planting shall be stored on site by laying them horizontally, resting the branches on straw bales and covering the root balls with soil and firming well in to prevent air pockets.

Container grown plant material shall be stored upright in a location on site agreed with the CA. Any plant material stored shall be protected from drying winds and watered regularly.

Rootballed plants that are not to be planted within 24 hours of delivery are to be grouped together and their rootballs covered with moist non-peat organic matter suitable for protecting from frost and from drying out.

Watering should continue to keep all plant roots moist until planting can commence.

The contractor shall allow for all costs associated with undertaking correct storage of plant material. The contractor shall operate a method of "just in time" plant deliveries to minimise plant storage on site.

12.6 Treatment of Tree Wounds

The contractor shall ensure to keep all tree wounds as small as possible by cutting cleanly back to sound wood using sharp, clean tools and leaving branch collars. Do not cut flush with stem or trunk. Set cuts so that water will not collect on cut area. Do not apply fungicide/ Sealant unless instructed.

12.7 Protection of existing Grass

In general all existing grass areas are to be protected from planting operations by using boards/ tarpaulins. Do not place excavated or imported materials directly on grass.

13.0 PLANT CONTAINERS – CONTAINERISATION (Holding over) of Trees

The programme for planting of larger trees is not known. The contractor is to provide alternative prices for supply all trees of 14-16 cm and above as containerised.

The contractor shall liaise with the supplier nursery and make all necessary arrangements for the supply and delivery of the approved and tagged tree stock to the contractors own containerisation nursery at the earliest possible time and certainly no later than 2 weeks after tagging.

Trees are to be containerised/held over by either of the methods specified below to ensure their availability with in the proposed site(s) programme of works and to guarantee the stock's survival and establishment on site.

The contractor shall state the preferred method of containerisation/holding over in the tender return.

Tress shall be containerised with spring rings. The contractor shall comply with the supplier's recommendations for installation and use, but shall generally assemble the containers with the cusp holes pointing outwards, to allow the root tips to be air pruned and appropriately sized for the rootball/tree being containerised and the period of holding over.

The following compost mix shall be used within the containers:

50% Fibrous moss peat or suitable alternative 25% Medium bark
12.5% Horticultural grit 12.5% Sterilised loam

SR (Slow Release) base fertiliser 4.536 Kg/m3 consisting of:
5.3% Nitrogen by volume 7.7% Phosphate by volume 10.0% Potash by
volume pH value 6.5

The compost shall be maintained free from perennial weeds.

The contractor shall maintain and guarantee all trees at his own nursery including the installation of a drip irrigation system capable of applying 75-100 gallons per week depending on the prevailing weather conditions until the stock is ready for planting on the particular site. The contractor shall guarantee that the trees will have made sufficient root development for successful planting in line with each site's proposed programme of works.

All trees shall be placed on a gravel bed or similar, and securely held by overhead cables, which should be sheathed in rubber to prevent chaffing.

The containerisation area shall be covered in gravel or similar and shall be placed adjacent to a hard paved access road to enable the trees to be loaded onto suitable road transport irrespective of ground conditions.

14.0 PREPARATION OF PLANTING AREAS/ PLANTING MATERIALS

14.1 Herbicide

The contractor shall prevent weeds from seeding and perennial weeds from becoming established, by applying a suitable herbicide (non-residual). Allow period of time to elapse as recommended by manufacturer before cultivation.

14.2 Weed Control

The contractor shall prevent weeds from seeding and perennial weeds from becoming established, by hand weeding.

14.3 General Fertilizer (Subject to soil tests)

Manufacture and reference:

Enmag

Scotts UK Professional Paper Mill Lane Bramford Ipswich
Suffolk. IP8 4BZ

Tel: 01473 830492

Fax: 01473 830386

Or similar approved

Apply evenly over the soil at 70g/sqm.

14.4 Peat

Do not use peat or products containing peat.

14.5 Soil Ameliorant/ Conditioner

Incorporate the following during cultivation to ornamental planting areas:

(i) Soil conditioner

Eco-mix compost, available from:

Eco-composting Ltd Chapel Lane Parley
Christchurch Dorset. BH23 6BG

Tel: 01202 593601 Fax:

01202 581119

Spread over all planting areas at 50mm depth during cultivation.

Or

Pro-Grow, available from:

Mendip Forestry Ltd Quarry Bank 29a Berkley Road Frome
Somerset. BA11 2 ED

Tel: 01373.465767

Fax: 01373.453131

Spread over all planting areas at 50mm depth during cultivation.

Or similar approved peat free soil improver with soil association approval.

14.6 Soil Ameliorant/ Conditioner (Dried Sewage Sludge)

Incorporate the following during cultivation to all woodland, scrub and hedgerow areas:

Biogran, available from:

SC Technology AG Wessex House Passage Street Bristol. BS2 0JQ

Tel: 0117 9757715

Fax: 0117 9757727

Apply evenly over topsoil at 7-10.00Kg of material per sqm immediately before cultivation and intimately incorporate to full depth of 400mm of topsoil or as Soil Scientist Soil Report recommendations.

14.7 Cultivation

Uncompacted and undisturbed areas of existing field to be planted do not need to be cultivated as plants will be planted into the grass or already agriculturally cultivated areas.

Any compacted topsoil shall be broken up to full depth.

A few days before planting, but in suitably dry weather and ground conditions, cultivate top 300mm of all planting beds, using suitable plant to loosen, aerate and break up the soil into particles of 2-8mm.

Leave surface regular and even, with levels as required in section D20. Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50mm in any dimension, roots, tufts of grass and foreign matter. Do not dig or cultivate within root spread of trees and shrubs to be retained.

15.0 PLANTING SHRUBS

SHRUBS: TO RETAIN UNTIL PREPARATION OF SPECIFICATION FOR TENDER

Pits shall be of a sufficient size to take rootballs, without breaking them, or roots without bending or cramping. Roots shall not penetrate into subsoil when planted.

Plants are to be positioned in the locations and numbers shown on the drawings and placed to achieve even spacing and proper matching of shapes, particularly related to the original growing positions in the nursery. Plants shall be placed in positions showing

their best side to the front. Where two or more plant species are shown in one space, they should be evenly mixed together to achieve the required effect unless otherwise noted on the drawings. Do not plant in straight lines unless indicated on the respective scheme drawings.

Plants shall be planted at the same depth as their nursery mark allowing for settling of soil after planting. They shall be completely vertical and well firmed in after planting. All plants shall be planted so as to adopt a truly vertical position.

Care shall be taken to avoid breaking up the rootball of pot grown shrubs. Plants that have full fibrous rootballs shall have their roots gently eased out.

The topsoil shall be lightly consolidated and firmed around the root collar to eliminate all air pockets.

16.0 AFTER PLANTING

Water plants thoroughly immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants. Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle cambers and no hollows.

16.1 Mulching Planting Beds

Material: Ornamental Bark Mulch
From: Melcourt Industries Ltd
Boldridge Brake
Long Newnton
Tetbury
Glocs.
GL8 8RT

Tel: 01666 502711

Fax: 01666 504398

Or similar approved

Bark mulch shall be from an approved source and a representative sample shall be supplied for approval prior to delivery.

16.2 Weeds and watering

The contractor shall obtain approval from the CA and ensure that all planting areas are weed free and have received residual herbicide, if instructed, before commencing mulching.

Clear all weeds, water soil thoroughly and mulch the whole surface of planting beds with bark at a finished depth of 50mm (1cu m of material per 20 sqm) / 75mm (1cu m of material per 13.3 sqm). Allow for at least 5% settlement after 30 days.

If a 'similar approved' product is proposed, mulch shall consist of predominantly matured British pine bark with an even particle size distribution between 5-35mm, containing no dust or fine material. The mulch shall contain less than 5% wood. The mulch shall be pest, disease and weed free and be free of Methyl Bromide contamination or other additives with available Manganese not exceeding 35ppm. The product shall have been tested in accordance with the requirements of BS4790:1987 for fire resistance.

17.0 GRASS SEEDING AND TURFING

All areas including lawns to gardens, verges and front gardens as indicated on plan unless turfing is considered a viable alternative.

Grass seeding undertaken in spring with trees planted first.

GRASS: Seeding Amenity Grass

Product: A22. Low Maintenance Amenity Grass Seed

Supplier: British Seed Houses. (Tel. 0117 9823691)

Sowing Rate: 35g/m (350kgs/ha)

17.1 Prior to seeding/turfing cultivate

Prior to seeding/turfing cultivate soil thoroughly to 100mm. Leave surface regular and even, removing all humps and hollows and remove all debris and stone over 30mm diameter. Ensure that soil surface marries in to existing hard edges, service covers etc. Apply suitable pre-seeding fertiliser. Firm and rake to fine tilth to prepare a seedbed. Supply and sow specified grass seed at scheduled rate, two equal sowings in transverse directions. Roll and water.

17.2 Cultivated Turf

Supplier: Local reputable supplier.

Product reference: Turf classic.

17.3 Delivery and Storage

- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
- Frosty weather or waterlogged ground: Do not lift turf.
- Delivery: Arrange to avoid need for excessive stacking.
- Stacking height (maximum): 1 m.
- Dried out or deteriorated turf: **Do not use.**

17.4 Inspection of Turf

- **Give notice:** before lifting turf - **Landscape Architect.**

17.5 Turfing Generally

- Time of year: To be agreed.
- Timing of laying:
 - Spring and summer: Within 18 hours of delivery.
 - Autumn and winter: Within 24 hours of delivery.

- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
- Jointing: Laid with broken joints, well butted up. Do not stretch turf.
- Edges: Whole turfs, trimmed to a true line.
- Adjusting levels: Remove high spots and fill hollows with fine soil.
- Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate.

Do not use rollers.

- Dressing, brushed well in to completely fill all joints: Sand as approved. .

Turfing on slope get approval on method prior to starting turfing work.

- Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

17.6 Turfing on Banks Exceeding 30° Slope

- Turf configuration: Diagonal or horizontal.
- Securing turfs:
- Fixings: Proposed method to be approved by LA.
- Frequency of fixings: Method to be approved by LA
- Removal of fixings: After 3 months growth of turf – ensure adequate rooting to old turf in location

17.7 First cut of Grassed Areas

- Timing: When grass is reasonably dry.
- Height of initial growth: 15-20mm.
- Preparation:
- Debris and litter: Remove.
- Stones and earth clods larger than 25 mm in any dimension: Remove.
- Height of first cut: 12mm.
- Mower type: Cylinder mower with rollers and a grass box.
- Arisings: Remove.

Application of fertilizer two days after first cut.

Type: To be confirmed depending on time of year.

18.0 PLANTING TREES

The contractor shall make full allowance for provision of all cranes, lifting tackle, tree collars etc. required for lifting trees into position having confirmed the weight and dimensions of all the trees reserved with the nursery supplier(s). Any use of cranes shall be coordinated with the CA, agree haul routes, types of tracks on vehicles etc. prior to commencing tree deliveries. Make good, at no extra cost to the contract, any damage incurred to finished kerbs, hard standing etc. during planting.

Trees shall be planted at the same depth at which they were previously growing. Great care shall be taken to avoid damage to the root systems, stems and crowns when planting and when removing crates and containers.

Any damaged trees shall be taken off site and replaced at no additional cost. Planting is to be carried out in suitable weather. Stock shall not be planted in conditions of frost, frozen ground, strong wind or heavy rainfall that renders the soil waterlogged or in sticky condition. Wherever possible, planting should take place when the weather is dull and the ground is moist and workable.

18.1 Tree Pits

Mark the centre of each pit with a suitable peg, indicating the species and size on the peg. No tree pits shall be dug until final tree positions have been pegged out and approved by the CA.

Excavate the base of the pit with a slightly raised centre. Retain topsoil for re-use. In sloping ground, maintain horizontal base and vertical sides with no less than minimum specified depth throughout.

Pits shall be prepared just before the trees are planted. On no account shall tree pits be left unfilled. Pits once excavated shall be backfilled with topsoil and only re-excavated immediately prior to planting to accommodate the rootball spread of the tree.

Where necessary increase the above dimensions to ensure that pits are wide enough to accommodate roots when fully spread and an additional 200mm deep to accommodate a 200mm layer of drainage substrate. On no account must tree roots be trimmed or altered in order to be accommodated in any excavation. Any excavated material, which is not topsoil shall be removed from site. Break up bottoms of pits to a depth of 150mm and scarify sides.

Backfill material: as Clause Q31 58511

18.2 Tree Pit Accessories

Form watering hollow around tree bases of a sufficient diameter and height to act as a water 'reservoir' for the tree rootball.

~~For rootballed, bare rooted, containerised and container grown~~ unless otherwise instructed

Standard (include multi stemmed)	900mm square x 600mm deep
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Feathered, light & half standards	
-----------------------------------	--

& specimen shrubs	600mm square x 450mm deep
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Whips	450mm square x 300mm deep
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18.3 Tree pit Drainage (Subject to Infiltration Test Results. Record as Separate Cost Item).

Increase depth of excavation from specified size to allow for aggregate layer, sloping base of pit towards trench. Width of trench 300mm, depth 200mm min. Backfill trench with min. 200mm deep clean gravel or broken stone, with no fines, graded 8-10mm blinded with coarse sand or grit to prevent ingress of fines. Lay perforated pipes, 80mm diameter within drainage trench and connect to surface water drainage connection pipe laid by others. Test for free draining of completed pits before planting.

18.4 Staking Generally

Stakes: Softwood milled round, straight and free from projections and large or edge knots with pointed lower end.

Nails: To BS 1202: part 1, galvanised, minimum 25mm long and 10mm diameter head

Minimum stake size	Overall length of Stake. Stake Diameter.	
--------------------	--	--

Tree size Feathered Stock (Up to 2000mm tall)	1200mm	75mm
Nursery Stock	1500mm	75mm
Advanced Nursery Stock	1200mm	100mm

Where feathered stock is planted in extremely windy and exposed sites, the length of the stake should be increased to 1500mm.

18.5 Short Single Staking

For all Feathered and Nursery Stock (up to 12-14cm girth bare root stock).

Position stake close to tree on windward side and drive vertically at least 300mm into bottom of pit before planting. Consolidate material around stake during backfilling.

Cut stake to approximately 600mm above ground level. Secure tree firmly but not rigidly to the stake with Belts, Pads and Spacers

Belts, Pads and Spacers available from:

J Toms Ltd.

7 Marley Farm

Headcorn Road

Smarden

Ashford

Kent

TN278PJ

Tel: 01233 770 066 Fax: 01233 770 055

Feathered and Standard Nursery Stock and Heavy Standards: Chunky Pad (ref.04) and Special Nylon Reinforced 25mm Rubber belt (ref.B1). Use one nail for fixing and within 25mm of top of stake.

18.6 Short Double Staking

For all Advanced Nursery stock (14-16 & 16-18 cm girth). Drive stakes vertically at least 300mm into the bottom of the pit on either side of the tree position before planting. Consolidate material round stakes during backfilling. Cut stakes to approximately 600mm above ground level.

Secure tree firmly but not rigidly with:

Belts and spacers from:

J Toms Ltd. (as above)

Special Nylon Reinforced 37.5mm Rubber belt (ref.L5) and Rubber Sleeves (RS), cut to length, rubber belt looped around tree stem, through 2 no. rubber spacer sleeves cut to correct length to each stake use one nail fixing per stake.

19.0 BACKFILLING MATERIAL

The following backfilling is for all pits from whips to semi-mature.

The CA reserves the right to inspect all tree pits prior to the contractor backfilling with the specified material/ameliorants.

Top 400mm of backfill to tree pits only:

70% topsoil

30% tree and shrub planting compost

100g/m³ Enmag fertiliser

Tree and Shrub planting compost: Peat free

Backfill pits with approved subsoil up to 400mm from surface and backfill remaining

depth with above topsoil backfill mix. The pits shall be filled in 150mm layers of subsoil finishing with topsoil and ameliorants. Each layer shall be consolidated in the gap between the rootball and the pit. Any subsequent settlement in tree pits shall be allowed for or made good by the contractor at his own expense as a defect during the Maintenance and Defects Liability Period.

Any excavated material, which does not form part of the backfill shall be removed from site.

19.1 Mulching Trees - For Entrance Court Area

Material:

Bark Nuggets From: Melcourt Industries Ltd Boldridge
Brake Long Newnton Tetbury Glocs.
GL8 8RT

Tel: 01666 502711 Fax:
01666 504398

Or similar approved

For all other areas spent mushroom compost 50 mm min. depth.

Bark mulch shall be from an approved source and a representative sample shall be supplied for approval prior to delivery.

The contractor shall obtain approval from the CA and ensure that all planting areas are weed free and have received residual herbicide, if instructed, before commencing mulching.

Clear all weeds, water soil thoroughly and mulch the whole surface of planting beds with mulch material at a finished depth of 50mm (1cu m of material per 20 sqm) / 75mm (1cu m of material per 13.3 sqm). Allow for at least 5% settlement after 30 days.

19.2 Tree Protection

In general ensure that protection methods do not impede natural movement of trees or restrict growth.

Contractors to provide proposals for approval for guards to feathered trees 14-16, 16-18 and 18-20.

20.0 NATIVE HEDGEROWS

20.1 Woodland Work Generally

Before any works are carried out check for below and above ground services, including land drainage, in the vicinity. Give notice if they may be affected and obtain instructions before proceeding. All works shall comply with Forestry and Arboriculture Training and Safety Council Safety Guides.

20.2 Hedgerow

Hedges are to be trench planted in a trench 450mm wide X 300mm deep planting in a double staggered row at 330m centres with 300mm between rows, backfilling with the excavated material incorporated with a general purpose slow release fertilizer at a rate of 100gms/M2 Each plant is to be fitted with a clear plastic spiral rabbit guard secured to a bamboo cane support. Any container grown or root balled plants are to be fitted with a suitable tree shelter secured to stake. All planting is to be watered thoroughly,

to full ground capacity, immediately after planting. Water as shrubs.

20.3 Notch planting Transplants into Woodland and Scrub Planting Areas in Turf of

Existing Field

Prior to planting, cut turf to less than 50mm height and remove arisings. Transplants shall be notch planted into the turf. Cut and upturn a turf of minimum 250 mm square. Make a vertical slit from the centre of the turf, to the side away from the prevailing wind, deep enough to accommodate full depth of roots. Plant transplant, close notch with root collar at ground level and firm the soil. Larger nursery stock to be pit planted. Water-in to field capacity.

20.4 Notch Planting Transplants into cultivated Woodland Planting Areas

Plants shall be notch planted into the previously cultivated area.

The topsoil shall be lightly firmed around the root collar to eliminate all air pockets. All plants to be watered-in to field capacity.

Larger nursery stock to be pit planted.

Water-in to field capacity.

21.0 PRUNING ON COMPLETION OF PLANTING

Immediately after planting, carefully cut back any damaged, dead or diseased branches, remove any weak, thin or malformed growth. If requested additional pruning shall be carried out immediately and as requested.

Prune deciduous trees at time of planting by shorting side shoots and competing leaders and removing unwanted shoots to give a well-balanced branch system;

Where necessary reduce head by removal or shortening of shoots.

22.0 TREE AND SHRUB SHELTERS - WOODLAND AND SCRUB PLANTING

22.1 Guards

Guards shall be:

Acorn Shelterguard Plus for Transplant tree species, colour brown (or similar approved)

—

80-110mm diameter, 600mm height for transplants.

Acorn Shelterguard Plus for Transplant shrub species, colour brown (or similar approved) -170-200mm diameter, 600mm height.

Acorn Shelterguard Plus, cut pieces 300 mm diameter, 600 mm height for Ligustrum.

Where plant sizes allow, welded shelters shall be used. Where plant sizes do not allow the accommodation of welded shelters, they shall be supplied as cut pieces/ rolls to allow fitting around the plants on site.

600mm height spiral guards 63mm diameter for all larger stock.

From: Acorn Planting Products

Little Money Road
Loddon
Norwich
NR14 6JD

Tel: 01508 528763 Fax: 01508 528775

Or similar approved

Guards except 300 mm diameter to be securely fixed to 1no. 25mm x 25mm square sawn, 1.2m overall length hardwood stakes (chestnut or oak) with 2 nylon ties per plant at 300mm centres. 300 mm diameter guards to be fixed with 2no. Stakes.
Where the stock is planted in extremely windy and exposed sites, the length of the stake should be increased to 1.5m.

From: Amenity Land Services Ltd
Long Lane,
Wellington,
Telford,
Shropshire.
TF66HA

Tel. 01952 641949 Fax. 01952 247369

Or similar approved

22.2 Tree and Shrub Shelter – Hedgerow Planting

Guards shall be Acorn 600mm height spiral guards 38mm for transplants, 63mm diameter for all larger stock.

From: Acorn Planting Products
Little Money Road
Loddon
Norwich
NR14 6JD. Tel: 01508 528763 Fax: 01508 528775

Or similar approved

694 MULCH - WOODLAND, SCRUB & NATIVE MIX PLANTING

Material: Spent Mushroom compost

Or similar approved

Mulch shall be from an approved source and a representative sample shall be supplied for approval prior to delivery.

The contractor shall obtain approval from the CA and ensure that all planting areas are weed free and have received residual herbicide, if instructed, before commencing mulching.

Clear all weeds, water soil thoroughly and mulch on area of 300 mm diameter for each planting station with mulch at a finished depth of 50mm (1cu m of material per 20 sqm). Allow for at least 10% settlement after 30 days.

23.0 INSPECTIONS

Notwithstanding the conditions of this section the contractor must give 48 hours' notice to the CA of his intention to begin the following operations:

Setting out

- Application of herbicide

- Application of fertiliser
- Delivery of plants
- Planting shrubs
- Planting of trees
- Watering

24.0 PRE PRACTICAL COMPLETION MAINTENANCE

24.1 Generally

The Contractor shall make allowances for maintaining the works installed for the period prior to Practical Completion.

Contractor is responsible for protecting seeded and planted areas. If fencing is the chosen form of protection use chestnut pale fencing. Maintain fencing until grass/planting is well established then remove and reinstate ground. Make good any damage to grass until area is accepted. The fencing will remain the property of the contractor.

The works shall include, but not be limited to, the following operations.

24.2 Watering

During establishment ensure that sufficient water is applied to all planted and grass areas to maintain healthy growth. Carry out watering of shrub areas using a fine rose or sprinkler until full depth of topsoil is saturated to field capacity.

24.3 Pests and Diseases

The contractor shall maintain the works free from any pests and diseases and apply approved chemicals in accordance with manufacturer's recommendations.

24.4 Cleanliness

The contractor shall remove soil from all hard surfaces and leave the works in a clean, tidy condition at Practical Completion. All hard surfaces are to remain free from any litter and grass clippings, mulch, etc.

24.5 Vandalism and Theft

Prior to the issue of the Certificate of Practical Completion the contractor shall be responsible for all losses to the works resulting from vandalism and theft or a lack of protection.

24.6 Replacements

Reinstate to original condition and within a reasonable period of time (according to season), any damage or disturbance occurring during the period up to practical completion, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings. This includes replacing topsoil to the correct levels if subsidence or settlement occurs.

24.7 Weeding

Weed hard and soft areas by hand or by chemical means, as appropriate to the ground and plant establishment conditions.

All rubbish, roots, weed and stones exceeding 25mm shall be collected and removed on a regular basis during the pre-practical completion maintenance visits.

24.8 Replacements

The contractor shall replace with approved equivalent trees/shrubs/plants, all dead, dying, defective plants, vandalised and stolen material in accordance with the Specification and to the approval of the CA, before Practical Completion can be certified. If, for unavoidable seasonal or climatic reasons, it is not possible/practicable to replace plants before Practical Completion, the contractor must agree to undertake replacements as soon as possible during the next suitable planting season unless instructed otherwise.

25.0 SUNKEN AREAS

The contractor shall reinstate sunken areas of planting beds and tree pits to the specified levels.

26.0 BULB PLANTING/ CORMS/ TUBER/PLUG PLANTING

26.1 Planting instruction

Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole. - Backfilling: Finely broken soil. Lightly firm to existing ground level. Naturalized planting in existing grassed areas: Scattering: Random. Plant bulbs/ corms/ tubers where they fall or in drifts.

Planting: Neatly remove a plug of turf and replace after planting.

26.2 Aftercare

Bulbs will be planted evenly and to a uniform appropriate depth, with the growing point uppermost, using a trowel or bulb planter. If climatic conditions are likely to impair establishment, plants must be irrigated immediately after planting with sufficient water to reach the root mass without damaging plants or soil structure.

The Contractor will be responsible for supplying the appropriate irrigation equipment, and monitoring the application of water. This will be part of the Standard Service. After planting all compacted areas shall be tidied by lightly pricking through with a fork or hoeing and all surrounding areas left neat and tidy.

All post planting operations should occur without damaging the plants, lawn or surrounding areas. Bulb and Corm Supply. The Contractor shall supply all bulbs and corms in accordance with British Standards, currently BS 3936 Nursery Stock, Part 9 (Bulbs, Corms and Tubers), or its European equivalent.

All bulbs and corms supplied shall be pest and disease free, without any signs of rot, and must be clean and firm. All bulbs and corms must be supplied in the numbers and varieties specified, to the correct sizes and certificates must be provided stating freedom from all pathogens and pathological disorders. All bulbs and corms shall be purchased from a recognised and reputable bulb supply firm.

The CA has the authority to reject any bulbs, bag of bulbs or the whole of the consignment should they fail to reach the Specification standards in any way. No payment shall be made in respect of any or all bulbs or corms rejected by the Property Manager.

The Contractor shall bear the cost of any bulb or corm losses, for whatever reason, excluding vandalism following planting, including bulbs not true to type, form or colour, and will replace bulbs considered unsatisfactory by the Contract Manager with identical species to those originally specified and to that stage of development. The defects liability period for bulbs and corms is 3 months. If the bulbs are of an unacceptable standard to the Property Manager the Contractor will make good the work at this own expense.

26.3

Planting Depth 22 Cell-grown plants shall be planted with the top of the root plug covered by 10-20 mm of planting medium.

27.0 MEADOW MAINTENANCE REGIME

27.1 Cutting

Cut 3-5 metres in from base of newly planted hedgerow using a strimmer yearly at the following times in dry weather conditions with evenly curved or sinuous edges:

- Once in autumn (late August to September)
- Once in early spring (late March to early April)

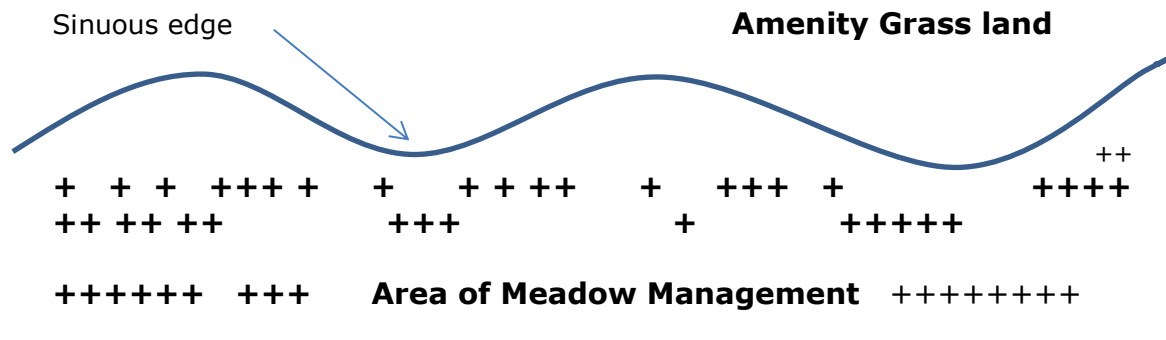
Form a sinuous or curved edge to meadow planted areas.

27.2 Meadow management

Meadow grass cutting adjacent to North West Boundary:

Grass to be cut yearly following flowering late August early September and cuttings removed following seed set and dispersal. Arisings to be left to dry until removal to allow seeds to separate from parent plant and fall to ground.

Meadow + plug plants



Hedge

Plan View

28.0 SCREENING NEIGHBOURING PROPERTIES

28.1 Need for screening

The view from two properties over a neighbouring garden is unsightly. These properties overlook a caravan located in a neighbouring garden in the south west corner of the development site. Screening solutions range from the installation of mature plant material to the more costly installation of frames or structures for climbing plants. Terracing the rear of the proposed back gardens by increasing levels with retaining walls which can then be planted is another alternative. A simpler solution is to create a banked or sloped area which can be planted with plants such as evergreen bamboos. Screening at ground level can be enhanced by creating a garden design which contains trellis and planting in the foreground i.e. closer to the property. (See appendix 11).

Appendix 1 Landscape Design & Planting Plan

Appendices:

- 1. Landscape Design and Planting Plan**
- 2. Informal Play equipment**
- 3. Tree Planting – Standard detail**
- 4. Wildflower Plug plants**
- 5. Mulch Supplier**
- 6. Resin Bound Gravel with brick edging - drives**
- 7. Permeable block paving – entrance/service road**
- 8. Threshold/porch/front door paving & pedestrian pavement**
- 9. Fencing – picket fencing**
- 10. Lighting**
- 11. Screening Solutions**

Appendix 1 Landscape Proposals



Appendix 2 Informal Play Equipment

Informal Play Area – Forestry Commission Leaflet:

[http://www.forestry.gov.uk/pdf/engplay-idea-5.pdf/\\$FILE/engplay-idea-5.pdf](http://www.forestry.gov.uk/pdf/engplay-idea-5.pdf/$FILE/engplay-idea-5.pdf)

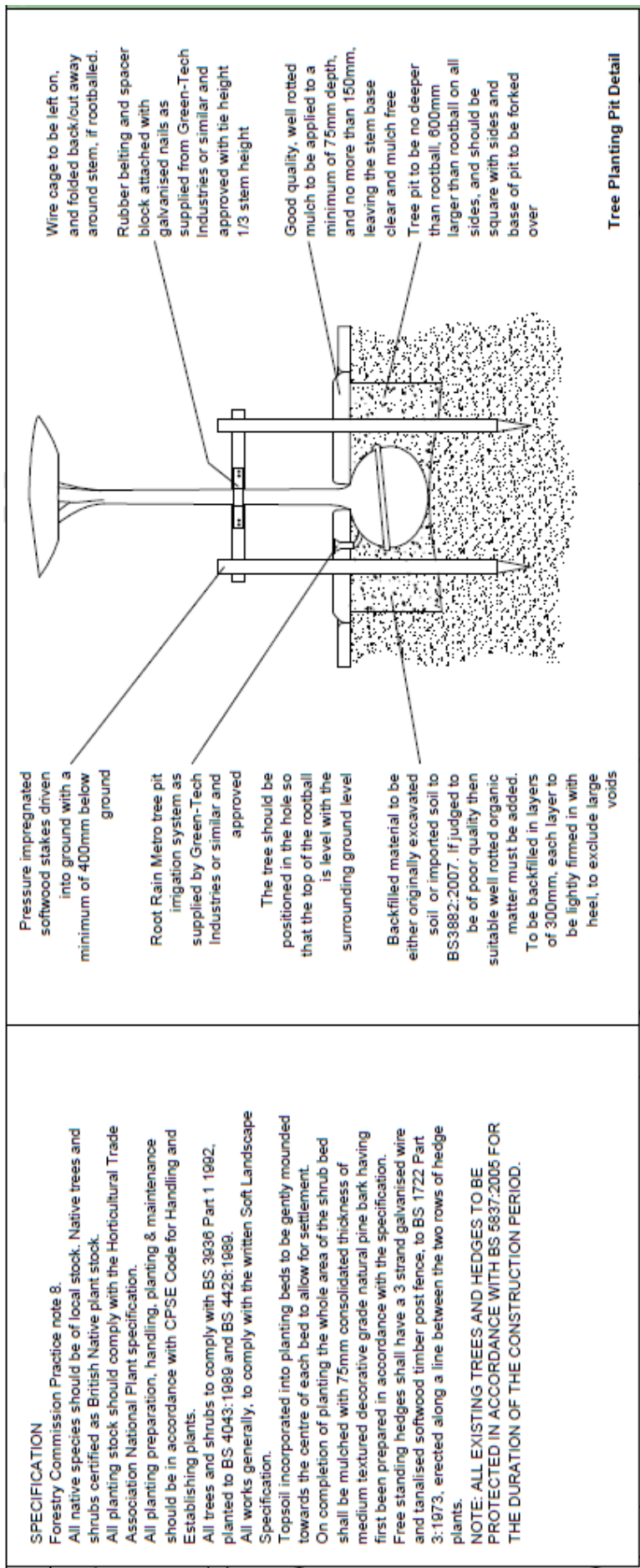


Logs have been notched

Arrangement of logs as climbing frame.

- Logs to be laid on shingle base over laid by terram sheet to assist drainage.
- Logs de-barked and notched to provide stability.
- All protrusions to be removed with no sharp edges.
- Trunks to be straight and of similar circumference
- Trunks to be free from disease and preferably be of a hard species (Oak, Ash Beech)

Appendix 3 Tree Planting – standard detail

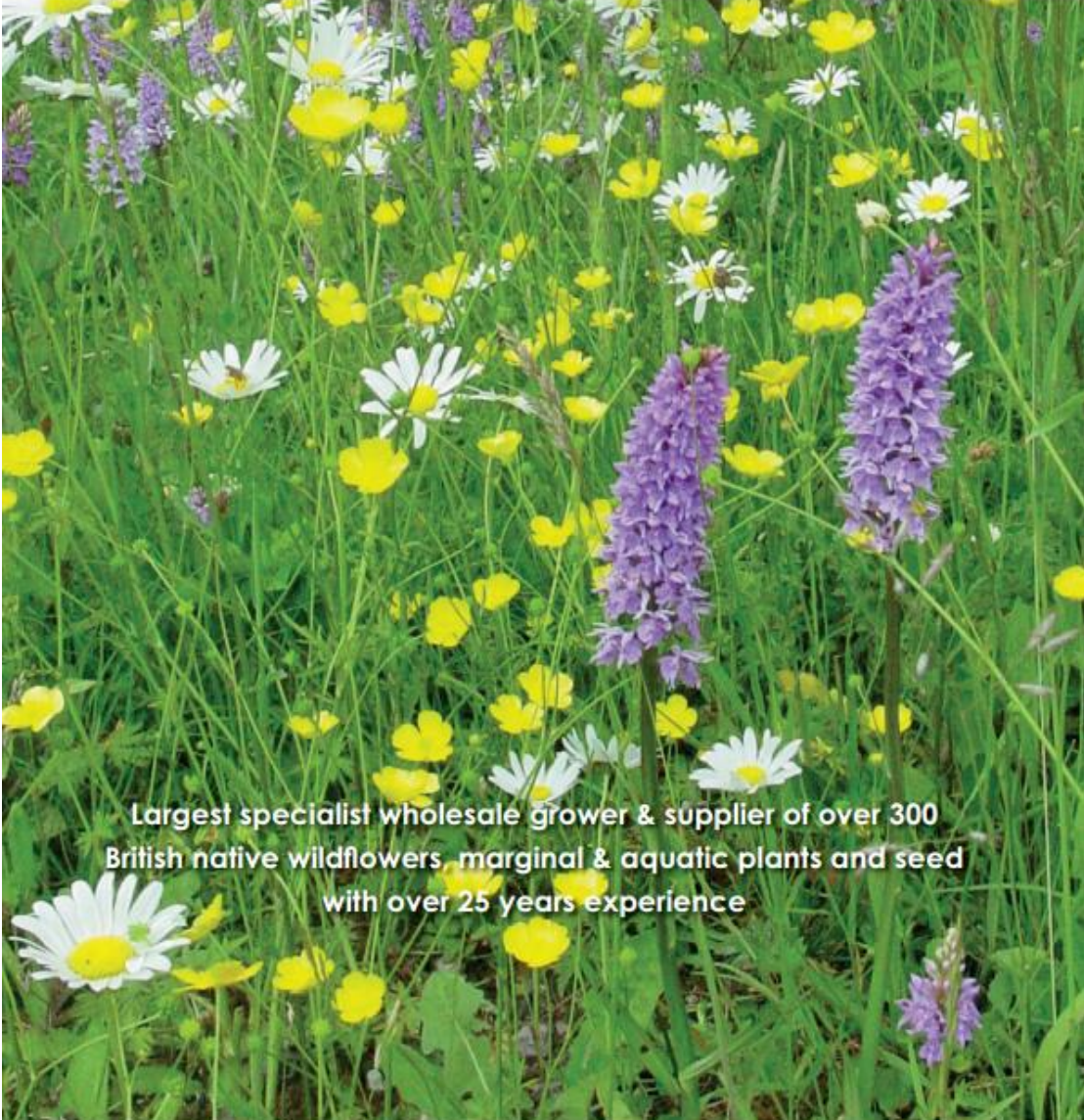


Drawing no.

Tree planting method or similar approved

BritishFlora

Planting the Seeds for a Greener Tomorrow



Largest specialist wholesale grower & supplier of over 300
British native wildflowers, marginal & aquatic plants and seed
with over 25 years experience

Tel: 01684 212027 Fax: 01684 578424
E: info@britishflora.co.uk
W: www.britishflora.co.uk



Appendix 5 Bark Mulch Supplier


compostdirect.com
bags of garden goodness, direct to your door

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0 Items - Total £0.00

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Robert from Corwen has just bought Mulch Bulk Bag (apx 900L) Georgia from Nr Tadley has just bought Veggie

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Free delivery

on up to 4 small bags or tools with every bulk bag ordered

Eg: 2 bulk bags add 8 small bags, 3 bulk bags add 12 small bags...






Mulch





A coarse organic surface mulch that will help suppress weed growth and feed the topsoil. Helps insulate and protect root area during frosty periods.

★★★★★ 5 reviews

✓ In stock

[Enter your postcode to view prices](#)

Description	Key Benefits	How to Use	Product Guidance	Reviews
				
				
				



What is mulch?

Mulch is effectively a protective cover for the soil surface. Made from naturally composted organic matter, Compost Direct's range of mulch is peat-free and environmentally friendly. It is graded to 40mm and contains a mix of coarse and fine composted material.

Why use mulch?

Bark mulch brings a number of benefits to the garden, including:

- Ideal for tidying garden borders and flower beds.
- Suppresses weed growth, reducing garden maintenance.
- Preserves soil moisture during hot weather.
- Reduces soil erosion during heavy rain.
- Reduces surface run-off during heavy rain.
- Insulates plant root area during frosty periods.
- Fine material in mulch has soil conditioner properties and will feed the topsoil.
- Attracts worms to the soil.

Transform your garden and buy mulch online with Compost Direct today!

People who bought this also bought...



best seller

Black Gold



best seller

Veggie Gold Compost



Manure

Appendix 6 Resin Bound Gravel effect drive ways edged with brick

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Resin Bound Paving
Permeable Paving
Gallery and Testimonials
Case Studies
News
Contact the Team



Permeable Resin Bound Paving
surfacing for drives, courtyards and paths

For advice, survey and quote call 01273 358177 or [email](#)

Home

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[Design CAD](#)



Have you ever been complimented on your driveway?

Create a beautiful impression with real gravel captured in a strong durable resin

A gravel driveway is such a pleasure to come home to and now you can get that natural stone look without loose chippings getting into your home with resin bound paving.

We are specialists in resin-bound paving
Our guarantee is for 10 years

What is [resin bound paving](#)? - quick and easy to lay

Why choose? see [special benefits](#) - porous and weed free

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Read testimonials and case studies from our home-owner clients [testimonials](#)

Download Clearstone's specification sheets for required base and resin bound paving installation [specification sheets](#)

See our range of natural shingle, crushed granite and quartz [colours](#) set in resin which we



For advice, survey



Appendix 7 Permeable Block Paving - entrance road



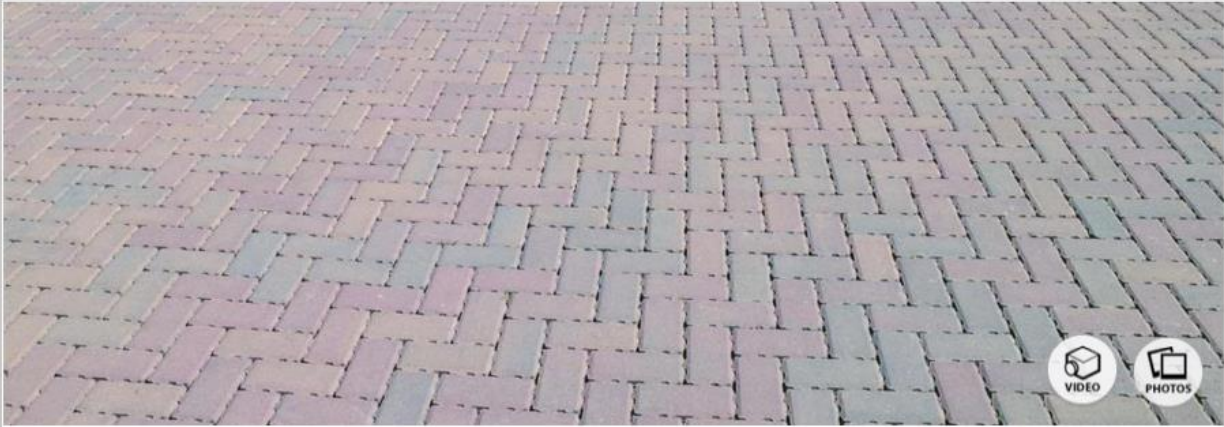
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PRIORA CONCRETE BLOCK PERMEABLE PAVING

24kgCO₂/m²

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Priora is Marshall's original Concrete Block Permeable Paving (CBPP) system, and the best selling system of its type in the UK. Combining the ever popular aesthetics of Keyblok block paving with a source-control SuDS solution, Priora not only looks great but also mitigates flood risk, removes surface water and improves water quality - without the need for additional linear drainage systems.

The Priora system has been proven over 10 years of successfully installed projects. The patented nib on the edge of the Priora blocks creates voids through which water falls into a specially prepared sub-base. The nibs also interlock to enhance surface stability.

Priora is available in 9 different colours and colour top marker blocks are available. A variety of laying patterns can be achieved using the 200x100 blocks.

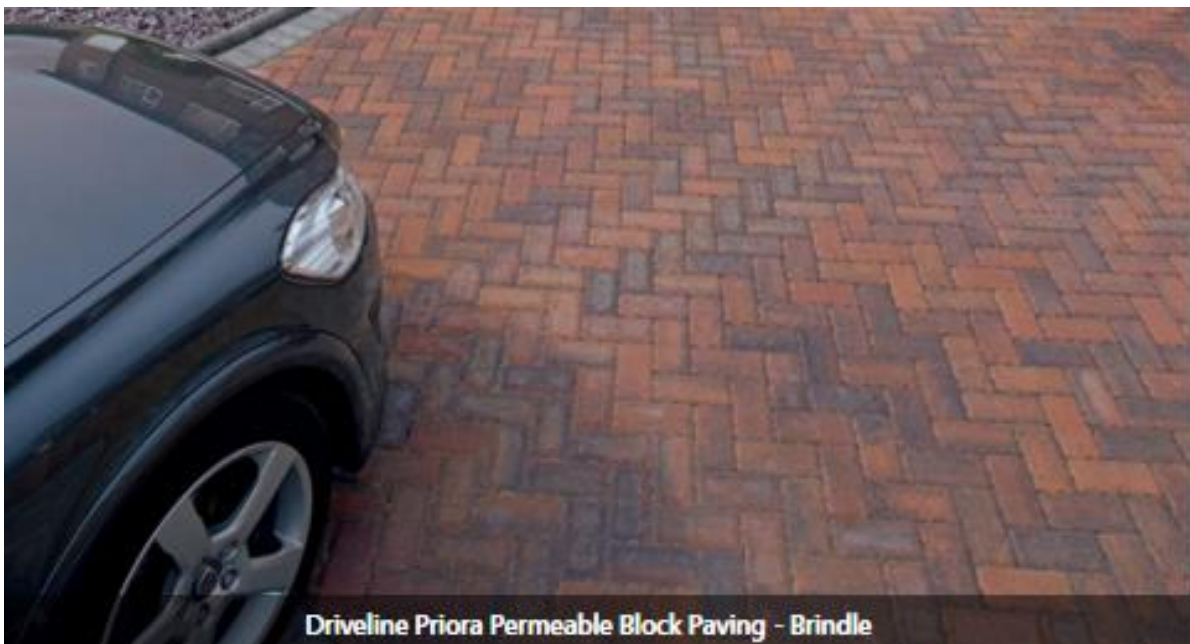
As long as the sub-base is installed to Marshall's specification, Priora is suitable for all loading requirements.

Priora is also available in 2 different Machine Lay formats.

[DOWNLOAD SPECIFICATION](#)

Appendix 8 Paving – threshold to front door/porch & pedestrian areas

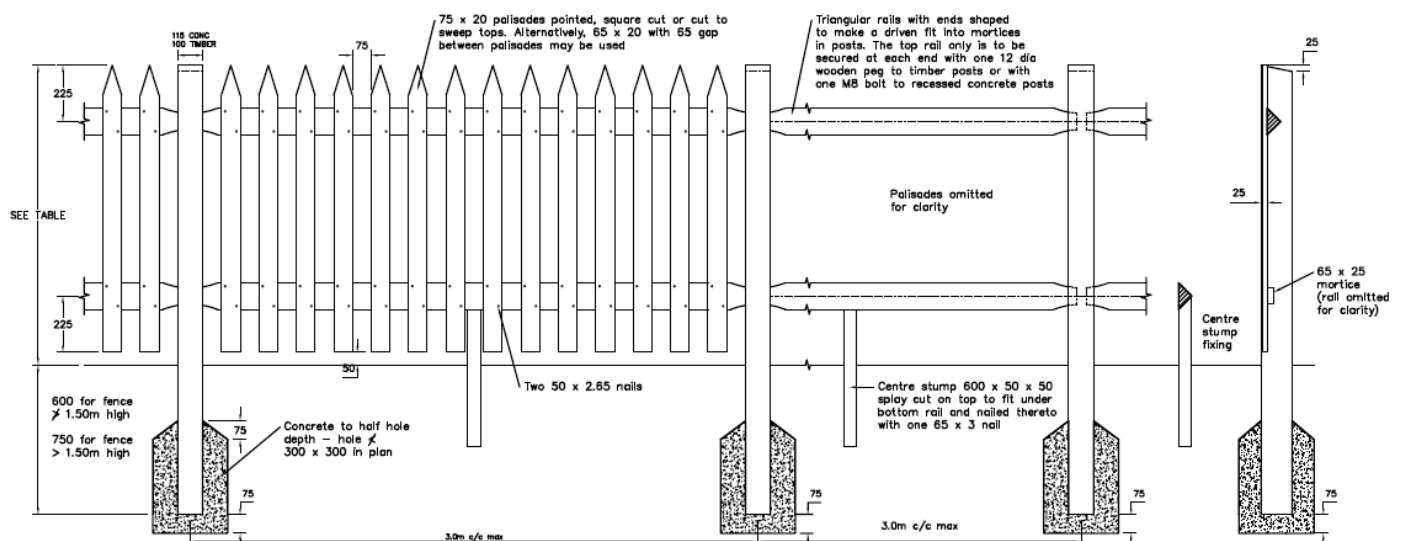
Grey Portland finish (front doors)





Buff Finish (Pedestrian pathways) Lambeth Natural and Saxon Textured Buff

Appendix 9 Palisade fencing detail (white painted or plastic) - grassed areas & delineation of front gardens



NOTES

- Fencing to comply with B.S. 1722.5 and the Specification.
- Height of fence above ground is nominal and shall be varied to achieve a satisfactory vertical alignment.
- Ground shall be trimmed where necessary for bottom of fence.
- Posts and rails to be purpose cut and morticed to facilitate changes in direction.
- Posts to be located on landowner's side of fence.
- Posts shall be provided at intervals not exceeding 3.0m.
- Tops of posts to be rounded or prismoidal, ridged or chamfered 25mm.
- Concrete for foundations to be Grade ST2.
- Post holes to be rammed/backfilled with selected excavated material no sooner than 24 hours after placing concrete.
- All dimensions are in millimetres unless otherwise stated.

TYPICAL ELEVATION (TIMBER POSTS)

TYPICAL SECTION

WOODEN PALISADE FENCE

With concrete posts:

WPC(HEIGHT)

With timber posts:

WPW(HEIGHT)

Where height = height in centimetres –
i.e. WPC 105 is 1.05m high

STANDARD FENCE DIMENSIONS

HEIGHT TO TOP OF PALES/m	NO. RAILS/mm	POST LENGTH/m		POST SECTION/mm	
		TIMBER	CONCRETE	TIMBER	CONCRETE (RECESSED)*
1.05	2	75 x 75	1.65	100 x 100	140 x 115
1.20	2	75 x 75	1.80	125 x 100	140 x 115
1.50	3	75 x 75	2.25	125 x 100	140 x 115
1.65	3	75 x 75	2.40	125 x 100	140 x 115
1.80	3	87 x 87	2.55	150 x 100	140 x 115

* Tapering to 100 x 115

Appendix 9 Picket Fencing:



Step One: Installing the Posts
Dig the appropriate number of holes corresponding to your post quantities into the desired positions of the fence run. Holes should be dug approximately 300 x 800 deep in steps of either 3255 or 1725 depending on your panel sizes. It is important to remember to install the Corner Posts in the correct position and decide on which side you want to leave the gravel board (and panel) to post fixings showing.

Step Two: Installing Intermediate Gravel Boards
Once all posts are set into their fixed positions, lay out the panels and gravel boards next to their intended positions to avoid any misplacements. When attaching the gravel boards, place one end between the post gap and fix into position using 1no. S/S M5 x 95 Lg Security Torx Timber Screw through the post and gravel board as indicated in Figure 1. It may be advisable to pilot drill through the holes of the posts when the gravel board is in position to avoid splitting. Avoid drilling completely through. As illustrated in Figure 1, drill the LH board from 'this' side and the RH board from the other.

Step Three: Installing Corner Gravel Boards
When installing a Gravel Board at a corner, the end of the gravel board needs to be cut flat so it will fit into the swivel bracket provided. The swivel bracket needs to be attached to the end of the gravel board needing to swivel, using 2no. M8 x 50 Bolts & Nuts. When the bracket is fixed to the gravel board attach it to the post bracket using 1no. M8 x 150 bolt through the existing holes in both brackets and fix into place with a nut.

Step Four: Installing the Panels
Attaching the panels to the posts is a simple case of sliding them into place and screwing through the holes in the rails of the panels using 4no. S/S M5 x 95 Lg Security Torx Timber Screws, making sure to go through the spacers on the posts as shown in Figure 1. Once again, it is advisable to pilot drill through the holes in the panel when they are in position to avoid splitting. When attaching panels to the swivel brackets, pilot holes will need to be drilled through the block spacer to suit the position of the holes on the panels as shown in Figure 3.

DO NOT SCALE – IF IN DOUBT ASK

Figure 1

Figure 2

Figure 3

FOR NON 90° CORNERS (CUT BACK CONNECTORS TO SUIT)

PANEL RAILS SCREWED AS PER A STD INTER POST.

1 SWIVEL RAIL CONNECTOR TO SUIT CORRECT ANGLE.

2 TRIM BACK THE CONNECTOR TO SUIT (IF REQUIRED)

3 BUTT RAIL AGAINST THE CORNER POST.

Jacksons FINE FENCING

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⑤ 09/02/10 ④ 26/11/09 ③ 20/11/09 ② 29/10/09 ① 28/10/09 ①	NOTES REV'D NOTES REV'D NOTES REV'D NOTE REV'D DETAIL ADDED Original Issue	Drawn LF Date Checked A TUNE Size A3 Scale NTS U.O.S	TITLE TIMBER PLAYTIME FENCING INSTALLATION DETAILS CUSTOMER Drawing No. J8/01015 Pg 1 of 2
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Appendix 10 Lighting

ILLUMINATED BOLLARD GEO

The Geo illuminated bollard illuminates walkways or planted areas whilst providing guidance for pedestrians and motorists.

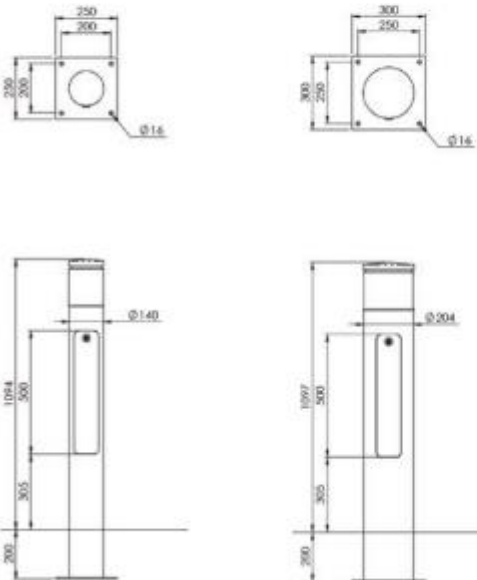
The Geo bollard is perfect for any project requiring high design and exceptional material quality to enhance an urban environment.

The Geo "shadow gap" design theme continues through the bollard, to enhance the sense of place and identity, with the rest of the suite of coordinated street furniture. This enables a consistent project signature to be established and helps minimise visual clutter.

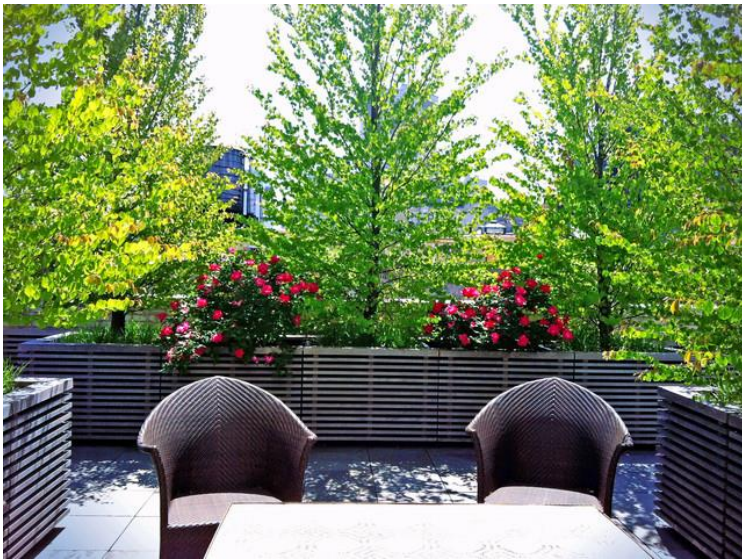
- 316 stainless steel bead blasted cap and brushed body for a robust yet attractive aesthetic
- A variety of options including refractor technology for compact fluorescent lamps and a double cone mirror optic for metal halide
- Long-life LED illuminated and marker offer a maintenance friendly "fit and forget" solution
- ø 140mm and ø 204mm options.



ILLUMINATED BOLLARD GEO



Appendix 11
Screening
Solutions –
formal planted
terraces



Appendix 11 Screening solutions – bamboos and to increase height of screening planted on earth bank or formal terrace

