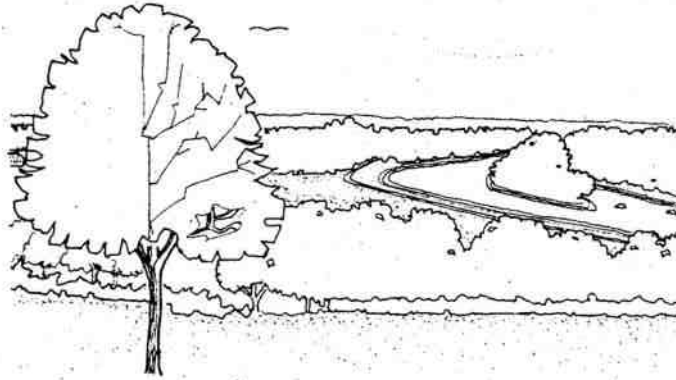


DESIGN GUIDELINES

TREES: LANDSCAPE DESIGN, PLANTING & CARE



This leaflet is one of a series on urban design topics, produced as supplementary planning guidance to the Council's Unitary Development Plan. It provides guidance on the use of trees in landscape design and nature conservation, and on the choice of trees, how to plant them and how to take care of them.

Information on planning regulations in relation to trees is given in Planning Information Leaflet No. 5, Trees: Legislation and Procedure, which covers consents needed for work to trees protected by Tree Preservation Orders or within conservation areas, trees on development sites and the Council's tree planting programme. Further advice on planting can be found in Design Guideline Leaflets referred to under references.

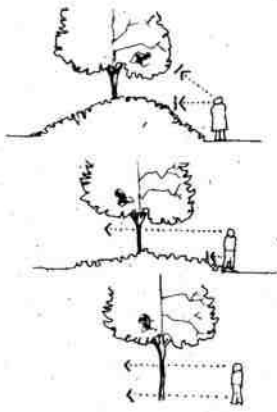
LANDSCAPE DESIGN

The abundance of trees is one of the Borough's greatest assets. They soften the hardness of buildings and streets, adding life and colour to the urban landscape and enhancing open spaces. The Council has identified in its Unitary Development Plan areas that would benefit from further tree planting, but to ensure that the borough retains its character, new planting is needed to replace trees lost through disease, age and development. Tree planting in a small garden can make an appreciable difference to the appearance of an area as well as adding to the enjoyment of the garden.

In addition to their intrinsic value, trees and shrubs can be put to specific use, as indicated on the sketches over the page. The list on pages 4-5 indicates some trees available with a few of their landscape characteristics.

In small scale planting schemes, such as private gardens, trees provide focal points of interest whereas shrubs provide screening, enclosure, and visual interest at a lower level. Climbing plants are particularly good at screening ugly features such as garages and blank walls and fences, and are especially useful where ground space is at a premium. Ground cover plants may provide a useful alternative to grass, particularly where maintenance is a problem or ground conditions are difficult, for example in shade under trees.

Where space permits, ground levels can be modified through mounding, for the purposes of emphasising planting, screening and enclosure.



Trees may limit views into upstairs windows

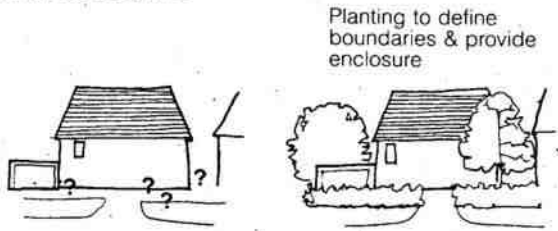
High shrubs &/or mounding: physical & visual barrier at a lower level

Low planting: physical barrier or deterrent only

Trees alone: provision of spatial definition only, rather than screen or physical barrier

Relationship between trees & other planting

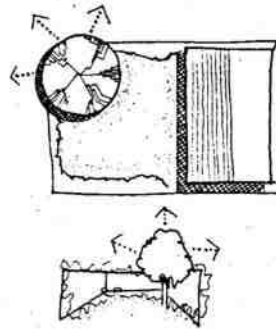
Enclosure



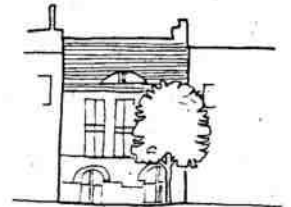
Planting to define boundaries & provide enclosure

The definition and containment of exterior spaces, by trees and buildings for example, is essential to the enjoyment of the urban landscape. The principle can be applied to the domestic scale as well.

Specimen planting

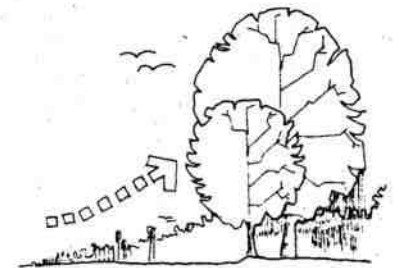


A single tree can make a small space seem larger. Shrubs & climbers can obscure boundaries, having a similar effect at a lower level.



In domestic situations it is often not possible to plant more than one or two trees. The specimen tree can provide a focal point in a small space and contrast with or emphasise the building form. A tree in a confined space can extend the apparent boundaries of a site, as well as providing practical advantages such as privacy or summer shade. **BUT IT IS IMPORTANT TO ALLOW ENOUGH SPACE FOR TREES**, taking account of their eventual size – and the effect on neighbouring property should be assessed before planting trees close to a boundary. Advice should be sought if in doubt. Sometimes it is possible to maintain large trees in contained spaces by removal of lower branches.

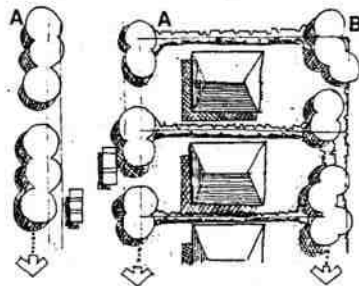
Nature conservation



Native tree species attract wildlife and add to the diversity of habitat which the Council is anxious to maintain; see the table on pages 4 and 5.

The process of natural succession in which open land, if left alone, develops into woodland via grassland and shrub can be mirrored in planting schemes using native species where possible. Sites can be effectively managed to speed up this process, which can result in flourishing habitats for many types of wildlife, which are particularly attracted to the indigenous plants. Young seedlings would normally be used for this type of planting, within the shelter of a suitable shrub layer, as would occur naturally. For more information see Design Guidelines leaflets 8 and 9 on Nature Conservation.

Extending existing lines of trees & planting provides continuity



Frontage planting



Planting to form a backdrop



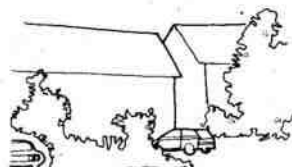
Screen planting



Views from upstairs windows improved, privacy increased

Trees, shrubs & mounding provide excellent screens & psychological barriers to sources of noise

The appearance of car parking areas can be softened by planting



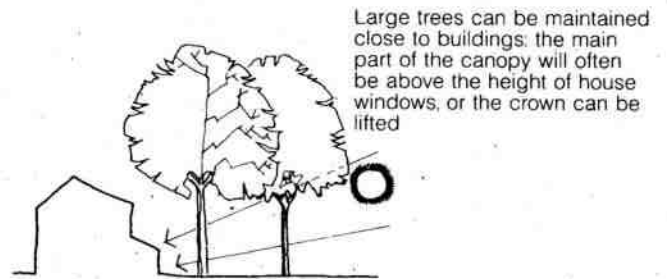
TREE SELECTION

Space does not allow for detailed information on different species but some useful references are indicated at the end of this leaflet. Some of the main considerations in selecting trees are:-

Site requirements

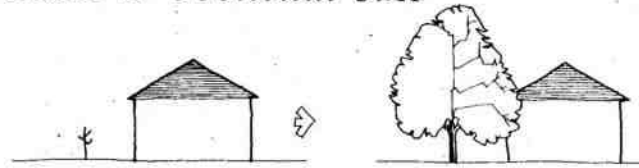
Tree selection must take account of site conditions, including the amount of sun, exposure and type of soil, proximity to water etc. Existing trees growing well nearby may provide clues as to suitable planting. Look for trees that appear attractive throughout the year, rather than just when they are flowering. References, at the end of this leaflet, give information on the suitability of trees for particular site conditions. Nurseries and nursery catalogues are other useful sources of information.

WHERE SPACE PERMITS, larger-growing trees make more of a contribution to townscape and landscape than smaller varieties. For the small garden however, the choice is restricted by the proximity of buildings, and drains and other underground services. Possible loss of light should also be considered.



This does not mean that large trees near buildings should be removed; careful pruning can usually overcome problems of this sort. It takes many years for replacement planting to take the place of mature trees, so existing trees should be retained where possible.

Scale & eventual size

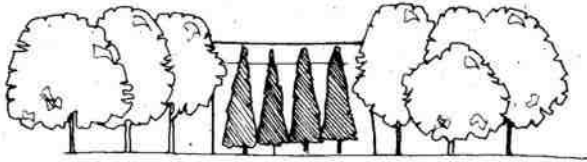


A selective list of trees is given below.

PROPER NAME	COMMON NAME	SOME CHARACTERISTICS & USES		
LARGE TREES (20m+ eventual height)				
<i>Acer platanoides</i>	Norway maple	fast-growing, spring flowers, autumn colour		
<i>Aesculus hippocastanum</i>	Horse chestnut	bold foliage, flowers, autumn colour, large spaces		
<i>Ailanthus altissima</i>	Tree of heaven	fast-growing, distinctive foliage, light shade		
<i>Castanea sativa</i>	Sweet chestnut	distinctive bark & foliage, open branching		
<i>Fagus sylvatica</i>	Beech	stately form, autumn colour, large spaces or hedge		N
<i>Fraxinus excelsior</i>	Ash	fast-growing, light crown & bark, exposed, damp sites		N
<i>Liquidambar styraciflua</i>	Sweet gum	star-shaped foliage, striking autumn colour		
<i>Pinus sylvestris</i>	Scots pine	native conifer, orange-red bark, open branching	E	N
<i>Quercus species</i>	Oak	imposing spreading crown, large spaces		N*
<i>Robinia pseudoacacia</i>	False acacia	fast-growing, graceful form, light foliage		
<i>Tilia species</i>	Lime	graceful form, avenues, some are aphid resistant		N*
MEDIUM TREES (10-20m eventual height)				
<i>Acer campestre</i>	Field maple	winged fruits, autumn colour, groups, hedge		N
<i>Alnus species</i>	Alder	waterside, fast-growing, very tolerant of wet sites		N*
<i>Betula species</i>	Birch	light crown & bark, may be closely planted in groups		N*
<i>Carpinus betulus</i>	Hornbeam	graceful branching, narrow & columnar forms, hedge		N
<i>Catalpa bignonioides</i>	Indian bean tree	spreading form, large leaves & flowers, late in leaf		
<i>Fraxinus ornus</i>	Manna ash	rounded appearance, fragrant flowers		
<i>Gleditsia triacanthos</i>	Honey locust	graceful, light foliage, 'Sunburst': yellow leaves smaller		
<i>Populus tremula</i>	Aspen	leaves attractive in wind, open crown, autumn colour		N
<i>Prunus avium 'Plena'</i>	Wild cherry	Ornamental cherry qualities + good shape, larger		N
<i>Salix alba 'sericea'</i>	Silver willow	waterside, fast, distinctive form, silver foliage		
<i>Sorbus aria</i>	Whitebeam	rounded form, silvery leaves, flowers, groups		N
<i>Sorbus aucuparia</i>	Rowan	berries & flowers, autumn colour		N
SMALL TREES (→ 10m eventual height)				
<i>Acer davidii, A. griseum</i>	Ornamental maples	striped or peeling bark, striking autumn colour		
<i>Crataegus monogyna</i>	Hawthorn	fragrant flowers, fruit, hedge, screen, autumn colour		N
<i>Eucalyptus niphophila</i>	Snow gum	distinctive grey bark & leaves, graceful form		
<i>Ilex aquifolium</i>	Holly	dense foliage to ground, berries, hedge, screen	E	N
<i>Magnolia grandiflora</i>	Evergreen magnolia	fragrant flowers, sheltered specimen (by wall e.g.)	E	
<i>Picea pungens 'Koster'</i>	Blue spruce	colour & foliage contrast (blue/grey), specimen	E	
<i>Prunus/Malus species</i>	Cherry/crab/apple	<i>P. subhirtella 'Autumnalis'</i> flowers Nov-Mar		
<i>Prunus padus</i>	Bird cherry	similar features to Wild cherry, but smaller		N
<i>Pyrus species</i>	Pear	flowers, some have silver leaves, fruit		
<i>Rhus typhina</i>	Stag's horn sumach	leaf shape, dramatic autumn colour, very small tree		
<i>Salix caprea</i>	Goat willow	large catkins in spring (silver-female, gold-male)		N

Native species (N) Evergreen (E) Some are native species (N*)

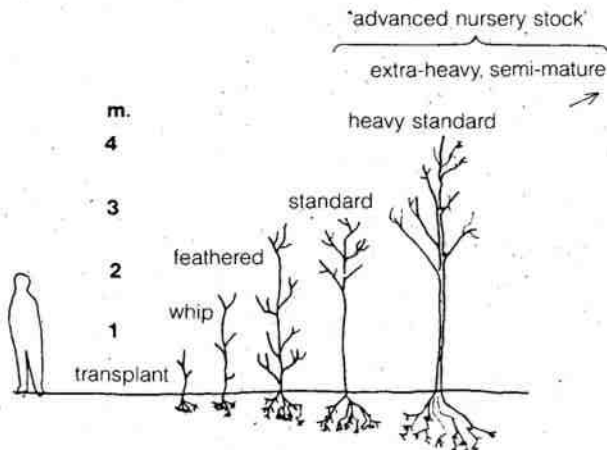
Form, texture & colour



The overall shape of a tree may be used to reflect or contrast with the form of a building. Dense trees are useful for screening, whilst an open textured tree, such as a False acacia, would be appropriate close to a building. Conifers provide a contrasting form, texture and colour to typical deciduous trees but need to be used with discretion. Extensive coniferous planting in this area tends to look out of place and where used for screening, tends to have the opposite effect – of drawing attention to the object to be screened. Colour possibilities include colour of leaf, bark, flowers, berries or autumn tints. These can be effectively related or contrasted to the colours of buildings or of other trees and plants.

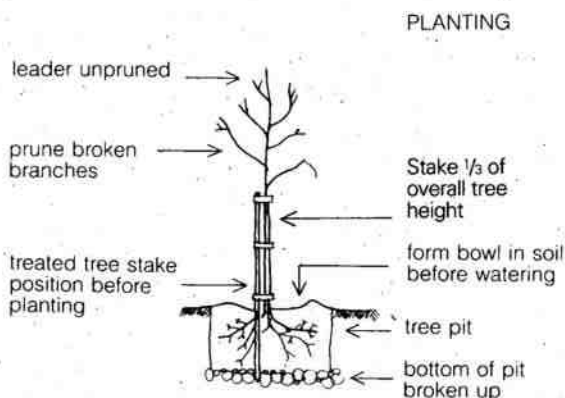
TREE PLANTING

Planting is best carried out between mid October and the end of December, although planting throughout the winter is possible as long as the soil is not waterlogged or frozen. Trees purchased with their roots in containers can be planted at any time provided that they are well watered during dry periods.

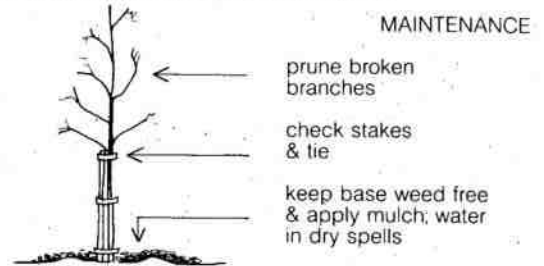


Some categories of trees available from nurseries

Trees may be obtained from nurseries in a wide range of sizes. The largest sizes of trees – “advanced nursery stock” – are the most resistant to vandalism and make the best visual contribution in the short term. More manageable for private gardens, for example, are “standards”, “half standards” or “feathered” trees if a clear stem is not required. They will require less attention initially than larger sizes. Very young trees – “whips” and “transplants” – closely planted, can be used effectively and economically to establish a planting framework. It may be necessary to incorporate more mature trees in a planting scheme to relate to the scale of buildings in the short term.



The planting pit must be large enough to accommodate the root ball. The bottom of the pit should be broken up to aid drainage, and mixed with compost and slow-release fertilizer. All but the youngest trees will require supporting and a treated stake should be positioned before planting. The tree can then be planted and backfilled with a 2:1 mixture of topsoil and compost. Good quality topsoil should be free of large stones and building rubble. Secure the tree to the stake with a tree tie designed to adjust as the tree grows.



The area at the base of the tree should be kept free of weeds and watering will be necessary during dry periods following planting. A surface mulch (e.g. forest bark, gravel) will aid moisture retention at the base of the tree. These measures are particularly important for the first three years or so, until the tree is established.

Tree ties should be adjusted as necessary and stakes checked periodically. They can be removed when the tree is established after about three years.

TREE PRUNING

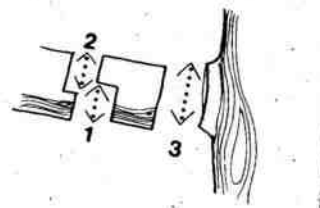
Pruning selectively removes branches, while retaining a good shape for the tree as a whole. For example, pruning can be carried out to admit more light, or remove overhanging branches or dead wood.

Young trees may require pruning to retain the main (leading) shoot and maintain the balance of the tree, or to remove crossing or damaged branches. For mature trees, it is often necessary to prune to maintain the health of the tree – or to accommodate the tree, to allow it to grow close to a building or admit more light.

When any work to trees is proposed, first check whether the tree is covered by a Tree Preservation Order (TPO) in which case the Council's permission will be required. If the tree is not subject to a TPO, but is in a Conservation Area, the Council should be notified before any work is carried out. There are some minor exceptions, but if in doubt telephone the Council's tree preservation officer on 020 8891 7808 (East) or 020 8891 1411 (Ext 4356) (West).

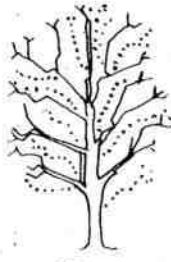
Major work on mature trees is best left to qualified tree surgeons, otherwise irreparable damage can be done. The following guidelines indicate some types of work that can be carried out.

Branch removal

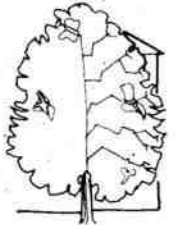


This should be carried out in three stages (see diagram) to avoid damaging bark on the rest of the tree. The final cut should be slightly proud of the trunk or branch to aid healing. Treating cuts with fungicidal sealant is no longer recommended. Removal of the top of the main trunk or extensive cutting back of side branches is not an alternative to careful pruning and will result in unsightly growth. Any pruning should aim to retain or restore the shape and balance of the tree.

Crown Thinning and Lifting



CROWN THINNING
a proportion of branches are removed throughout the tree, with other branches left unpruned



CROWN LIFTING:
lower branches are removed just outside the branch bark ridge close to the trunk

With thinning, whole branches may be removed close to the trunk and the remaining branches are left unpruned, or partially removed, allowing the shape of the tree to be maintained whilst reducing density. Crown lifting involves removing the lower branches, for example to admit light or remove an obstruction.

Other work to trees includes bracing and cabling, where large branches or divided trunks can be strengthened, removal of dead or diseased wood and shape restoration.

Major operations should be carried out between late September and February, avoiding heavy frosts, and preferably by reputable tree surgeons - a list is available from the Planning Department, telephone 020 8891 7808 or 020 8891 1411 Ext 4356. Minor works can be done at any time.

Some trees should not be pruned in the Spring because this may cause excessive bleeding; these include Birch, Maple and Walnut which should be pruned when in full leaf. Cherry and Plum trees should be pruned in the early part of the Summer. The shape of many conifers grown as trees may be adversely affected by pruning. Restrict this if possible to maintaining a leading shoot or removal of deadwood.

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- L. B. RICHMOND Planning information leaflet:
5: Trees: Legislation & Procedure.
Design Guidelines leaflets:
2: Car Parking in Front Gardens.
8: Wildlife in Gardens.
9: Nature Conservation & Development.
Tree Strategy

LONDON BOROUGH OF RICHMOND UPON THAMES DESIGN GUIDELINE LEAFLET NO. 5

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