

Trees in the landscape



www.treesdirect.co.uk

Advice for planting trees within
the Cornish landscape

Trees in the Landscape

The challenges and opportunities for trees in Cornwall

Trees are one of the urban planner's most useful tools and they can improve an urban space by softening hard landscaping lines. They can provide a setting and framework for a design scheme helping to delineate spaces and providing an often much needed aesthetic value. They can provide separation by introducing both visual and physical barriers between spaces of differing use and can guide movement and aid circulation helping to inform direction and destination.

They can bring a sense of calm to a setting introducing shape and form and increasing biodiversity and visual diversity. Trees also bring a range of other benefits including such factors as improving air quality, regulating air temperatures and providing shade and so their inclusion is encouraged wherever possible.

However planting trees in Cornwall provides particular challenges due to issues such as climatic conditions and local soils so careful consideration needs to be given to the selection of trees to be planted.

Cornwall presents a range of different growing environments for trees from the sheltered valley gardens of the south coast where Champion trees can be found to the exposed north cliffs where ancient stunted trees are shaped by the wind.

There are local variations to tree species found throughout Cornwall and a generic approach is not normally suitable. Many tree species found within mainland Britain are also not typically found growing naturally within Cornwall and generic species lists often cited to achieve higher BREEAM ratings within planning applications may not be appropriate.

On larger development sites where there may be greater scope for tree planting there should be a presumption in favour of using locally native tree species where possible. Internal aspects may incorporate a higher percentage of non-native tree and shrub species where more exotic planting may be appropriate.

Where tree and shrub planting is desired on newly built 'Cornish' hedges, consideration must be given to the width of the structure if it is to be suitable for planting and establishment. Narrow width structures are often unsuitable for planting trees or shrubs. The size of planting stock on hedges should also be carefully considered and numerous smaller trees will have a better chance of survival and can be replaced easily if they fail.

Size of trees

There is always a temptation when designing a landscaping scheme to plant large trees to give instant impact and for the trees to appear in scale with the rest of the development. However the planting of such trees requires intensive aftercare including but not exclusively watering, checking guying systems and removing stakes. It is often the case that such aftercare is not undertaken or not undertaken satisfactorily and so tree losses can be high. Rather than planting a tree which has grown in a sheltered nursery with a restricted root area and placing it in a wind exposed Cornish landscape it is more sustainable to plant smaller whips that can grow in position and adapt to the local conditions.



www.woodlandtrust.org.uk

Climate/ wind

As a relatively narrow peninsula Cornwall is exposed to salt laden winds which can have a devastating impact upon plants growing in open locations by uprooting, scorching leaves and breaking branches. When selecting plants this should be taken in account and salt tolerant and wind firm trees should be considered in exposed locations. This also is an argument against planting larger trees which will need to be guyed and staked to prevent wind blow as they will need time to establish a proportionate root system. It would be better practice to plant smaller trees that can be planted with a complete root system in tact which can then grow and adapt to any wind loading.

Micro-climate and shelter on each individual site can have a significant impact upon the possible success of a tree planting scheme and are important considerations for tree's early establishment, size and species choice.



www.themagicofcornwall.com

Soils

Due to Cornwall's mining heritage many of the local soils are contaminated in areas where there was historically large scale mining for example the Camborne and Redruth area. Any tree planting scheme must take this factor into account and trees should not be recommended without the designer having knowledge of any soil contamination that may be present on site. In addition soils in Cornwall can often be shallow with a thin layer of soil sitting on bedrock and this can obviously have an impact upon tree stability. Exposed sites provide unique challenges and in such cases it may be more appropriate to provide wider planting areas rather than individual trees that may become damaged or windblown.

Trees in the Urban Context

Trees that are to be planted in the urban environment must be given adequate rooting volume to allow them to achieve full growth and this space should be engineered into any scheme. Careful consideration should be given to the location of impervious surfaces and service trenches near to trees and there are available load bearing crate systems that can be designed into a scheme to help to address these issues. Trees also need to be given enough above ground space to allow them to develop mature canopies and this space should be designed into any development scheme.

When it goes wrong!



Plane trees planted at East Hill Pool Cornwall

These trees are heavy standards that were planted into small planting pits in an exposed relatively high altitude location without giving provision for future root growth; they have been in situ for 2 years.

Conclusions

Cornwall presents unique challenges to the landscape designer and the species choice, planting specification and density is crucial to the successful establishment of trees within any landscaping scheme. The main driver for tree selection will be the site specific factors including climate and soil type and notice should be taken of trees in the same vicinity that are growing well.

Cornwall has an individual geographical situation and history it is not the South East or the Midlands and generic schemes for those areas are unlikely to fair well in Cornwall.

Using smaller planting stock is preferable so that trees can grow in situ and adapt to the site conditions as they mature.

Trees planted on exposed sites will need to be protected with the provision of some shelter so that they do not become windblown and this can be in the form of a physical barrier or the use of nurse trees, appropriate spacing or shelter planting.



Tree suggestions but this is not an exhaustive list:

Native/ Naturalised

Sycamore- *Acer psuedoplatanus*
 Sessile Oak- *Quercus petraea*
 English Oak- *Quercus robur*
 Holly- *Ilex aquifolium*
 Hazel- *Corylus avellana*
 Hawthorn- *Crategus monogyna*
 Birch- *Betula pendula* + *pubescens*
 Willow sp- White willow, Goat Willow, Crack Willow
 Alder- *Alnus glutinosa*
 Rowan- *Sorbus aucuparia*
 Lime- *Tilia cordata*

Coastal

Holm Oak- *Quercus ilex*
 Monterey Pine- *Pinus radiata*
 Sycamore- *Acer psuedoplatanus*
 Austrian Pine- *Pinus nigra*

Residential Exotics

Birch- *Betula* sp
 Swamp Cypress- *Taxodium distichum*
 Dawn Redwood- *Metasequoia gyptostroboides*
 Plane- *Platanus occidentalis*
 Gingko- *Gingko biloba*
 Redwood sp
 Lime sp
 Stone Pine- *Pinus pinea*

Woodland Garden

Pear- *Pyrus communis*
 Apple- *Malus* sp
 Walnut- *Juglans regia*
 Hazel- *Corylus avellana*