

Trees and Development

Local Planning Scheme No. 3
Amendment No. 9 and Local Planning Policy 6.11

Background

Trees help shade and cool our City, influence health and wellbeing and improve the look, feel and liveability of our neighbourhoods. Our trees are a highly valued asset and an essential resource; however tree loss in the City of Stirling is significant and increasing each year. As our canopy cover declines so do the benefits our trees provide.

To help increase tree canopy and ensure we achieve our vision for 2030 of cool, liveable suburbs into the future, Council adopted Amendment No. 9 and Local Planning Policy 6.11 'Trees and Development' on 11 October 2016. The amendment sets out new design requirements for trees on development sites and aims to ensure **all new developments valued at over \$100,000 in the City includes at least one tree per 500m² of land.**

The Amendment has been approved by the Minister for Planning and came into effect on 24 October 2017.

How does Scheme Amendment 9 affect new developments in the City?

For land with a significant tree, there is a requirement to either retain it, or plant one new advanced tree for every 500m² (or part thereof) of land being developed.

For land without a significant tree, there is a requirement to plant one advanced tree for every 500m² (or part thereof) of land being developed.

All trees, either newly planted advanced trees or significant trees being retained, must be surrounded by a 9m² deep planting zone per tree to allow growth to maturity.

These requirements apply to all Development Applications with a value over \$100,000.

With the introduction of Scheme Amendment 9, am I still required to have a street tree?

Yes. In accordance with Local Planning Policy 6.11, the Council may still impose a condition of development approval to require the planting of an advanced tree, at the applicant's cost, on an abutting road reserve. This is in addition to the requirement to retain or plant one tree per 500m² or part thereof on land being developed.

If my property is less than 500m², do I need to plant a tree?

Yes. The requirement is for one tree per 500m² or part thereof (refer table below):

SITE AREA	NUMBER OF ADVANCED TREES TO BE PLANTED (OR EXISTING TREES RETAINED)
Up to 500m ²	1
501m ² - 1,000m ²	2
1,001m ² - 1,500m ²	3
1,501m ² - 2,000m ²	4
Over 2,000m ²	for every 500m ² (or part thereof)

If my application has been approved can I remove tree/s that were conditioned to be retained or planted?

No. Trees are required to be maintained to allow for the tree/s grow to maturity and provide value to your property including shade and visual amenity.

What happens if the tree becomes unhealthy or dies?

If the tree becomes unhealthy you should consult a suitably qualified arborist to determine what action is required to improve its health, in order to retain it. If the tree dies, it should be safely removed and a new advanced tree planted in its place.

Please contact the City's Parks and Sustainability Business Unit prior to removing or replacing any planted tree subject to a condition of development approval. If a tree is removed or not planted by an applicant the City will become aware through annual aerial monitoring of the tree canopy within Stirling and may initiate compliance action against the landowner relating to noncompliance with their development approval.

Significant trees

What is a significant tree?

A significant tree is a woody plant, at least four (4) metres tall and meets one of the following criteria:

- a. For a single trunk species, a trunk circumference of at least 500mm at a height of one (1.0) metre above ground level; or
- b. For a multi trunk species, a trunk circumference of at least 250mm of two or more stems, at a height of one (1.0) metre above ground level.

The City will generally not accept palm or cactus species as significant trees for retention (or new advanced trees for installation).

How do I protect retained significant trees during construction of my development?

Trees which you have chosen to retain on your land, and trees on the adjacent verge, must be protected from accidental or wilful damage during demolition and construction.

A Tree Protection Zone (TPZ) will need to be established around each tree; as a minimum, this should cover 2.4 metres by 2.4 metres around the tree trunk.

Storage, excavation, parking of vehicles and machinery, dumping of waste, and any other activities harmful to the tree are prohibited within the Tree Protection Zone. The TPZ should be fenced, typically with four panels of temporary construction fencing (each 2.4 metres wide by 1.8 metres high). Footings and bracing to the fencing should be located above ground.

In some cases, the City may require the Developer to submit a Management Plan that outlines how the tree will be retained and protected.

I have a significant tree on my property that I would like to retain, although I am worried it may pose a risk to my development. What are my options?

Retaining a significant tree and integrating it into your development can provide an excellent outcome for both the future occupants, and the neighbourhood. With some early planning, a new property can be designed and constructed around a significant tree in such a way that it will not pose any substantial risk to the development, or damage to the tree.

If you are concerned about the risk that a significant tree may pose, it is recommended you engage a professional arborist (not a tree lopper) to undertake a Quantified Tree Risk Assessment (QTRA).

Before engaging an arborist, ensure they are suitably qualified, such as with a Degree or Diploma in Arboriculture, and certification with the International Society of Arboriculture. Tree loppers are not arborists and will not provide you with the expertise you need for your development.

In undertaking a QTRA, the arborist will assess the structure and health of the tree, and calculate the risk of damage from falling limbs. The arborist should provide a report which includes a risk assessment and actions you can take to minimise risk of damage to both the tree and property. This will enable developers and homeowners to balance safety with the benefit of tree retention.

In most cases, the cost of a QTRA will be less than the cost of tree removal.

Advanced trees

What is an advanced tree?

An advanced tree is one with a rootball of 90 litres (or larger), which is at least 2 metres in height and 2 years of age.

The City will accept a tree with a 45 litre rootball in lieu of trees with a rootball of 90 litres, when local native trees are selected.

A list of suggested tree species is available at the end of this document. This is not a definitive list and applicants may suggest other species when submitting plans for a Development Application. Tree sizes are indicative; the site conditions could result in differing tree sizes. Applicants are responsible for researching and selecting species that are suited to their specific requirements and site conditions.

When does the advanced tree need to be planted by?

The advanced tree/s will need to be planted prior to occupation of the development.

Where can I purchase an advanced tree?

Advanced trees (i.e., trees in 90 litre pots) are available from retail and wholesale nurseries. It may be necessary to place a special order some months in advance, to secure the desired species in the required size.

A suggested list of retail nurseries is located at the end of this document.

Can the advanced trees be installed in large pots, instead of in-ground?

No. Pots do not provide a sufficient space for trees to establish properly.

I have purchased land on a previously subdivided lot, and am developing my portion of this lot. Do I need to plant an advanced tree?

When a lot is subdivided and developed by separate owners, each individual property owner will be required to plant advanced trees. For example, if a 700sqm lot is subdivided into three smaller lots, one advanced tree is required on each of the three lots, at the time of constructing a dwelling.

Space requirements for trees and deep planting zones

Why do I need to provide a 9m² deep planting zone for each tree?

Trees need space to grow and a tree's root system is roughly the same size as its canopy. For a tree to be healthy, the roots need access to good quality

uncompacted soil, and sufficient water and oxygen.

9m² is the minimum area required for a medium sized tree to grow healthily.

What configuration is acceptable for the 9m² deep planting zone?

The City encourages the 9m² to be provided as a space 3m by 3m.

The recommended minimum width of the deep planting zone around the tree is 2m (in which case the deep planting zone must be 2m x 4.5m to provide 9m²).

It is recommended that trees be placed centrally within the space provided, and be a minimum of 2m from a building, wall, fence or property boundary (including the front boundary).

What ground treatments are acceptable within the 9m² around the tree?

Any ground treatment which provides the tree with access to good quality soil (minimum 1.2m deep), and allows oxygen and water to infiltrate into the tree's root zone is acceptable. Soil should be a mix of sands, peat, and fertilisers (suited to the desired species of tree), and it should be free of building rubble and any material detrimental to the tree's health.

Acceptable ground treatments within the 9m² soil area include:

- Lawn
- Garden beds
- Organic or inorganic mulch
- Raised decking – providing a 1.2m deep soil area of minimum 9m² is provided below the deck, and footings do not encroach into the soil area. Where decking is proposed around a new or existing tree, the construction details of the decking shall be submitted to the City for approval prior to implementation.

Concrete, brick paving, asphalt and any other impermeable, compacted surfaces are not permitted within the 9m² deep planting zone. The planting zone shall also be free of buildings and other fixed structures such as pergolas, swimming pools, footings, fixtures, underground services (except irrigation for the tree), soakwells etc.

Can the deep planting zone be covered by a roof (even partially)?

No. The entire 9m² area must be open to the air.

Can the 9m² deep planting zone around each tree include the verge or adjoining paved areas or driveways?

No it cannot.

If I choose to retain a significant tree, do I still need the 9m² deep planting zone around it?

Yes. This will help ensure the health of the existing tree.

Tree Location

Can the advanced tree be located anywhere on the development site?

Trees may be planted in private courtyards, common property or communal open space areas. Trees cannot be planted in parking areas on your property, or on the verge.

It is recommended that trees are to be planted a minimum of 2m from a building, wall, fence or property boundary (including the front boundary).

It is also recommended that new trees be planted a minimum distance of 5m from any other tree to prevent a conflict between the canopies.

How to pick the best location for a tree

Trees in the right location can provide shade to cool your home, and help to reduce wind speed. Consider planting your tree where it will provide the most benefit.

- Deciduous trees planted to the **north** of your home can provide shade in summer but let winter sunlight through to warm your home.
- Evergreen trees planted to the **west** of your home and garden can help reduce the speed of stormy winter winds.
- Trees planted to the **east** of your garden will help to reduce hot summer winds which are drying and stressful for many garden plants.
- Other considerations include solar access and impact on solar panels, location of underground services and the proximity to building and wall footings.

Compliance

How will the City ensure compliance with the new tree requirements?

The City will impose appropriate conditions on Development Approvals.

The City undertakes yearly aerial monitoring of canopy cover in order to track tree planting and growth. This mapping is sensitive enough to detect the advanced trees required under Scheme Amendment 9.

What is the process for implementing this Policy?

When submitting a Development Application, you must provide a plan that illustrates the location of existing retained tree(s) or new advanced tree(s), and the 9sqm soil area for each tree.

Where new, advanced trees are to be installed, the plan should also include the proposed tree species. Where an existing tree(s) is proposed for retention, photos of the tree should be submitted with the Development Application.

Following approval of the location, soil area, and species by the City, the advanced tree/s will need to be planted by your building/landscape contractor prior to occupation of the development

Upon completion of the development, the owner will be responsible for maintaining the tree(s) to ensure they grow to maturity.

Suggested Species List

The following species list has been prepared to assist developers, builders and home-owners with selection of trees that may be suitable for planting within private property, in accordance with Amendment No. 9 and Local Planning Policy 6.11.

Tree sizes are indicative and the site conditions could result in differing tree sizes. Developers, builders and home-owners are responsible for researching and selecting species that are suited to their specific requirements and site conditions.

Scientific Name	Common Name	Mature Height	Mature Canopy width	WA Native	Australian Native	Exotic	Suited to Coastal Areas	Deciduous	Notes
<i>Agonis flexuosa</i>	WA Weeping Peppermint	Up to 10m	Up to 10m	•			•		For larger sites. Will develop a large trunk.
<i>Agonis flexuosa</i> Burgundy	WA Weeping Peppermint - Burgundy	6m	4m	•					Burgundy/red foliage
<i>Angophora costata</i>	Smooth Barked Apple	10-30m	6-15m		•				Taller tree with limited canopy and root spread.
<i>Banksia integrifolia</i>	Coast Banksia	15m	4-8m	•			•		Bird attracting. Sensitive to phosphorus – avoid planting in lawn
<i>Bauhinia blakeana</i>	Orchid Tree	4m	2m			•			Bird attracting. Sensitive to phosphorus – avoid planting in lawn
<i>Bauhinia purpurea</i>	Orchid Tree	4m	2m			•			
<i>Brachychiton populneus</i>	Kurrajong	10m	5m		•				Not to be used near natural areas or bushland.

Scientific Name	Common Name	Mature Height	Mature Canopy width	WA Native	Australian Native	Exotic	Suited to Coastal Areas	Deciduous	Notes
<i>Brachychiton</i> Bella Donna	Kurrajong Cultivar	8m	4m		•				Not to be used near natural areas or bushland.
<i>Brachychiton</i> Clara Bell	Kurrajong Cultivar	8m	4m		•				Not to be used near natural areas or bushland.
<i>Brahychiton acerifolius</i>	Illawarra Flame Tree	30m	10-15m		•				
<i>Callistemon salignus</i>	White Bottlebrush	6m	4m		•				
<i>Callistemon viminalis</i>	Weeping Bottlebrush	6m	4m		•				
<i>Citrus</i> various species	Lemon, Lime, Mandarin	5-8m	3-6m			•			Produces edible fruit. Dwarf varieties not suitable.
<i>Corymbia eximia</i> nana	Dwarf Golden Gum	10m	6m		•				
<i>Delonix regia</i>	Poinciana	12m	10m			•		•	Slow growing.
<i>Eucalyptus cladocalyx</i> nana	Dwarf Sugar Gum	10m	5m		•				
<i>Eucalyptus decipiens</i>	Redheart	9m	3m	•					
<i>Eucalyptus polyanthemos</i>	Red Box	25m	10-15m		•				For larger sites.
<i>Eucalyptus leucoxylon</i>	Yellow gum	12-15m	7m		•				
<i>Eucalyptus leucoxylon megalocarpa</i>	White Iron Bark	7m	5m		•				
<i>Eucalyptus scoparia</i>	Wallangarra White Gum	8-12m	5-10m		•				
<i>Eucalyptus tottiana</i>	Coastal Blackbutt	15m	5-10m	•			•		
<i>Eucalyptus torquata</i>	Coral Gum	5-8m	6m	•					Local to the WA Goldfields.
<i>Eucalyptus victrix</i>	Coolibah	5-8m	4m	•					Local to the northern WA.

Scientific Name	Common Name	Mature Height	Mature Canopy width	WA Native	Australian Native	Exotic	Suited to Coastal Areas	Deciduous	Notes
<i>Hakea laurina</i>	Pin Cushion Hakea	4m	3m	•					Bird attracting. Sensitive to phosphorus – avoid planted in lawn.
<i>Hakea petiolaris</i>	Sea Urchin Hakea	9m	4m	•					Bird attracting. Sensitive to phosphorus – avoid planting in lawn.
<i>Hibiscus tiliaceus</i>	Cottonwood	8m	5m			•			
<i>Hymenosporum flavum</i>	Native frangipani	10m	5m		•				Requires sheltered area.
<i>Jacaranda mimosifolia</i>	Jacaranda	15m	10m			•			
<i>Koelreuteria paniculata</i>	Golden Rain Tree	6m	5m			•			
<i>Lagerstroemia indica</i>	Crepe Myrtle	6m	4m			•		•	
<i>Laurus nobilis</i>	Bay Laurel	15m	3m			•			
<i>Lophostemon confertus</i>	Brush Box	10-20m	5-15m		•				Commonly used as a street tree.
<i>Macadamia integrifolia</i>	Macadamia	15m	8m		•				Produces edible fruit.
<i>Magnolia grandiflora</i>	Southern Magnolia	12-15m	5-8m			•			'Little Gem' variety not suitable.
<i>Melaleuca argentea</i>	Silver Cajuput	10-20m	5-15m	•					Local to the northern WA.
<i>Melaleuca lanceolata</i>	Rottnest Island Tea Tree	10-20m	5-15m	•			•		
<i>Melaleuca leucadendra</i>	Long Leaf Paperbark	20m	12m	•					
<i>Melaleuca linariifolia</i>	Snow in Summer	6-10m	4-6m		•				
<i>Melaleuca viridiflora</i>	Broad Leaf Paperbark	8m	4m	•					Bird attracting.
<i>Metrosideros excelsa</i>	New Zealand Christmas Tree	8m	5m			•	•		

Scientific Name	Common Name	Mature Height	Mature Canopy width	WA Native	Australian Native	Exotic	Suited to Coastal Areas	Deciduous	Notes
<i>Morus</i> various species	Mulberry various species	6m	4m			•		•	Produces edible fruit.
<i>Olea europea</i>	Olive - various species	6-10m	4-6m			•	•		Produces edible fruit.
<i>Pistacia chinensis</i>	Chinese Pistachio	8m	6m			•		•	Orange / crimson coloured foliage in autumn.
<i>Prunus dulcis</i>	Almond	4m	2m			•		•	Produces edible fruit.
<i>Pyrus calleryana</i>	Ornamental Pear	13m	8m			•		•	
<i>Pyrus nivalis</i>	Snow Pear	9m	6m			•		•	
<i>Pyrus ussuriensis</i>	Manchurian Pear	9m	7m			•		•	
<i>Triadica sebifera</i>	Chinese Tallow	8m	3m			•		•	
<i>Tristaniopsis laurina</i>	Water Gum	9m	5m			•			
<i>Ulmus parvifolia</i>	Chinese Elm	10m	6m			•		•	
<i>Zelkova seratta</i>	Japanese Elm	14m	10m			•			

Local Nurseries

The following list of local, retail nurseries is not exhaustive. Developers, builders and home-owners may purchase trees from any reputable nursery of their choosing.

To source the desired tree species, it may be necessary to place an order some months in advance, so it's important to plan ahead.

Nursery	Location	Contact Number	Website	Notes
Arborwest Tree Farm	77 Rousset Road Mariginiup	9405 7740	www.arborwest.com.au	Deciduous, evergreen, fruiting and native trees
Bunnings	Various locations		www.bunnings.com.au	Deciduous, evergreen, fruiting and native trees (may require a special order)
Dawsons Garden World	Various locations		www.dawsonsgardenworld.com.au	Deciduous, evergreen and fruiting trees
Ellenby Tree Farm	439 Sydney Road, Gnangara	9405 4558	http://ellenbytreefarm.com	Deciduous, evergreen, fruiting and native trees
Instant Tree Nursery	18 Henry St, Henley Brook	0499 772 575	www.instanttreenursery.com.au	Deciduous, evergreen, fruiting and native trees
Waldecks Garden Centre	Various locations		www.waldecks.com.au	Deciduous, evergreen and fruiting trees