

**Schedule "A" – Tree Bylaw No.
Adopted**



**MUNICIPALITY OF STRATHROY-CARADOC
TREE PLANTING POLICY**

The municipality recognizes that trees beautify the landscape, reduce the impact of extremes in weather, provide habitat for wildlife, add value to property and contribute to a healthy environment. Council encourages municipal operations that are considerate of these values and benefit through the Tree Bylaw and Tree Planting Policy.

The Council of the Municipality of Strathroy adopted a Tree Bylaw in order to regulate the planning, maintenance, removal and preservation of trees.

In accordance with the Tree Bylaw, this document provides guidance with respect to planting trees on public property and provides a list of trees which are acceptable for planting. (Appendix A). Other trees may be considered subject to acceptance with under the guidance of tree professionals.

This document has been drafted for new development; however, can be used as a general guideline for all planting on public property. Developers will also receive Strathroy-Caradoc Servicing Standards along with this Policy for new subdivisions and new development.

POLICY

At Development Agreement Stage

Security

Security is required to ensure that funds are available in the event of default by the developer. Currently, this is a standard subdivision development requirement and will continue to be required in the amount of \$25.00 per linear metre of street frontage (both sides) within the plan of subdivision, plus a 15% administration fee.

At or Before Assumption

The developer will provide at least 1 tree and the required soil habitat for each residential unit (single, semi-detached, townhouses) built.

Planting Plan

The developer will submit a planting plan showing actual planting locations (with all site amenities known and shown on the plan) and proposed species of trees (common and Latin names shown). **The services of an Ontario Registered Professional Forester (R.P.F.) or a member of the Ontario Association of Landscape Architects (L.A.) in good standing must be retained.** This will ensure that an appropriate planting plan is in place which considers species diversity, tree form, location, design and soil conditions. The planting plan must be **stamped by the R.P.F. or L.A.** and be shown on the standard plan of subdivision drawing or grading plan which shows lot dimensions (particularly frontages) as prepared by the consulting engineer. The plan will be reviewed and approved by Municipal Staff. The plan is to be submitted to the Municipal Building and Planning Department for review.

Guidelines for Planting Plan Preparation

Trees should be shown approximately every 8m – 15m where practical and where growing space is available. Since large trees contribute more to the environment than small ones, the largest tree that fits the location is to be planted, considering eventual size at maturity. All trees are to be planted on Municipal property.

The following guidelines will assist:

Lot Width Considerations

- ❖ Plant one tree per lot centred approximately in the green space between the side yard property boundaries.
- ❖ Where lot width is less than or equal to 9M (30 ft), plant one tree per lot selecting an ornamental or medium shade, depending on spatial constraints, from the Approved Street Trees list. Attached as Appendix A.
- ❖ Where lot width is between 9M (30 ft) and 15M (50 ft), plant one tree per lot selecting a medium shade tree or Large shade tree species from the Approved Street Trees list (Appendix A).

- ❖ Where lot width is 15M (50 ft) or larger, plant one tree per lot selecting a large shade tree from the Approved Street Trees list (Appendix A).

		LOT WIDTH		
		<9.0 m. (<30')	9 – 5 m. (30-50')	>15.0m. (>50')
BLVD. WIDTH	>2.0m. (>6 ft)	Ornamental or Medium Shade	Medium or Large Shade	Large Shade
	1.5-2.0 m. (4'-6')	Ornamental or Medium Shade	Medium Shade	Medium Shade
	1.5 m. (<4')	NO TREE	NO TREE	NO TREE
NO SIDEWALK		Ornamental or Medium Shade	Medium Shade	Large Shade
OVERHEAD HYDRO PRESENT		Ornamental	Ornamental	Ornamental

Curb To Property Line Considerations

- ❖ Where no sidewalks exist or where sidewalk construction is not planned, trees are to be shown one meter outside the private property boundary on municipal property.
- ❖ Where a boulevard between curb and sidewalk exists, that is greater than 2.0 m. (6 Ft), trees are to be shown in the centre of the boulevard – assuming no overhead utility.
- ❖ Where a boulevard between curb and sidewalk exists that is 1.5 m. (4 ft) to 2.0 m. (6 ft) ornamental or medium shade trees are to be shown in the centre of the boulevard.
- ❖ Trees are not to be planted on boulevards which are less than 1.5m (4 ft) wide.

Site Considerations

- ❖ Plant only ornamental tree varieties under **high voltage** overhead utility wires. Large and medium shade trees are permitted near single phase, street light cable and homeowner service cables. The leader of the tree should not be directly under such wires.
- ❖ No tree is to be shown closer than 2.0 m. (6.7 ft) to a driveway, lead sidewalk going into a property or underground hydro vault (transformer).
- ❖ No tree is to be shown closer than 15.0 m. (50 ft) to a stop sign or traffic signal light.
- ❖ No tree is to be shown closer than 6.0 m. (20 ft) to a street light pole or fire hydrant.

- ❖ Trees only are required for cul-de-sac island or roundabout areas and will be shown on the planting plan. The cost for any shrub or perennial plantings will be at the expense of the developer and will be shown on the planting plan for review and approval in accordance with Municipal guidelines and specifications. Planting of shrubs and/or perennials should coincide with planting of trees. Should this be required in advance of scheduled planting operations by Municipal staff (ie: for model homes, etc.), the developer should discuss the scheduling of this planting with Municipal staff prior to work being carried out.
- ❖ Trees should not be shown in a direct line with the drainage swale between lots.

Design Considerations

Uniform, mature street trees are the most visible and desirable component of our streetscapes. However, to increase resistance to insect and disease problems, tree species must be mixed to avoid a continuous mono-culture situation. Where several phases make up the Plan of Subdivision, the plan should reflect the character of plantings in adjacent phases.

- ❖ No more than five of any one species or variety is to be shown on one side of the street in a row. Trees should be matched one side of the street to the other (maximum of 10 matched trees) to provide a 'closed canopy' effect at maturity.
- ❖ At intersections, a maximum of 24 trees only may be shown in a 'block' (ie: 3 trees on each side of each corner).
- ❖ Where several phases make up the M-Plan, the plan should reflect the character of plantings in adjacent phases.
- ❖ In order to integrate species diversity into each plan, the species mix should endeavour to provide no more than 15% of any one species (percentage of the entire number of trees within the plan). Individual phases may diverge from this percentage if deemed reasonable (ie: cul-de-sac of 12 lots) so long as the overall objective of 15% species mix is maintained within the plan of subdivision.
- ❖ Trees with similar shape, (eg. Vase, oval, upright) are to be selected to provide a closed canopy effect.
- ❖ No species other than those listed in Appendix A are to be shown on the planting plan without prior consultation with Municipal staff. Other species may be considered within the context of the location chosen to place these trees. Take care to recognize all characteristics of the mature tree in making species selections.
- ❖ Trees with large or messy fruit may be planted only in limited situations; trees with large thorns are not permitted and species such as poplar and willow are banned for street tree planting. Coniferous needle-bearing trees or other species will not be planted on the right-of-way where they will cause sight line obstructions but may be considered if the location supports placement of this type of tree.
- ❖ Ash species shall make up not more than 5% of the species mix per plan – no exceptions.

Post Assumption

Planting

Once the planting plan is approved at time of assumption, the Municipality of Strathroy-Caradoc will implement street tree planting before end of warranty of the subdivision through Strathroy-Caradoc tender processes and administration.

Species Substitutions

The Municipality will implement the tree planting plan, as accurately as possible, with the tree species specified. Once the planting plan is prepared, substitutions will be done only as necessary and should not be a common occurrence, with pre-planning. Should species require substitution due to unforeseen circumstances, the Municipality reserves the right to substitute with a suitable species without further consultation or approvals through the developer.

Timely Planting

The Municipality of Strathroy-Caradoc will commit to planting trees within one year of assumption. Any subdivisions assumed prior to October 1 of the current year would be incorporated into the Tender process for planting the following year. If assumptions are processed after that date, they could possibly be planted the following year, depending upon availability of plant material specific to the planting plan, but could not be guaranteed, depending upon when the Tender documents are distributed.

Fee

There are several components which comprise the cash-in-lieu amount charged for street tree planting. The fee must cover all costs associated with implementing the program, including the cost to supply and install the tree, a one (1) year replacement warranty policy and associated administration costs (planning, organizing and implementing of tree planting as well as surveying and compliance checks).

Once the trees are planted, the Municipality will forward an invoice to the developer reflecting the actual cost of planting trees in that subdivision with an additional 15% administration fee (plus all applicable taxes).

At End of Warranty

Fee

Payment for tree planting as invoiced by the Municipality is a requirement at time of end of warranty of the subdivision. If payment is not received, end of warranty will not be granted.

Security

Once payment for street tree planting has been received (as invoiced), the developer will be released from all obligations in this regard and the Building and Planning Department will be authorized to release all securities held for such.

Other

Public Relations

Should home owners inquire about tree planting operations, the developer will explain that trees will be planted post-assumption. Further inquiries may be directed to the Municipality of Strathroy-Caradoc.

Community Development Department
Municipality of Strathroy-Caradoc
52 Frank Street
Strathroy, On N7G 2R4

(519) 245-1070

Procedure Summary

- ❖ The developer will submit security amount at time of development agreement;
- ❖ The developer will provide a planting plan for review and approval at time of assumption;
- ❖ Municipal staff will ensure the planting of the trees between assumption and end of warranty of the subdivision;
- ❖ The Municipality will invoice the developer for tree planting operations;
- ❖ The developer will forward payment as invoiced to the Finance Division, Municipality of Strathroy-Caradoc;
- ❖ Municipal staff will acknowledge receipt of payment and communicate to the Building and Planning Department that all requirements with regards to tree planting have been met for the area being assumed;
- ❖ Municipal staff will authorize release of securities held;
- ❖ **Payment for street tree planting is a requirement at end of warranty. If payment has not been received, end of warranty will not be awarded and securities will continue to be held until such time as payment is received.**

APPROVED STREET TREES

APPENDIX A

The selection of trees for individual locations is a difficult process. It must give careful consideration to the neighbourhood and the existing conditions including soil type and volume, moisture, available growing space above ground, proximity to hard physical plant (hydro wires, gas, lighting, hydrants, vaults, sidewalks) and future rooting and growing space demands.

In recommending the species in the table we recognize that they are not all suitable for all locations. Carefully select the species which possesses the characteristics which most closely meet the environmental conditions of each site. As well, not all cultivars of each species are listed. The design professional may suggest species not listed, and they will be reviewed by Municipal staff through the approval process.

Other Considerations:

- | | |
|---------|---|
| STRESS | - Consider the tolerance to conditions such as compacted soil, diseases, drought, insects and road salt spray; |
| TIME | - Consider which species can be transplanted/moved at specific times in the year (example: Spring only for some species such as Oak and Red Maple); |
| NATIVE | - Consider the suitability of trees indigenous to this region where possible as site conditions allow; |
| FRUIT | - Consider the size and season and abundance of fruit produced by some species making them less desirable in specific locations; |
| DISEASE | - Consider the potential for widespread mortality and costly removal and replacement programs generating public and political complaints with trees such as Norway maple (Verticillium wilt) American elm (Dutch Elm Disease) and Austrian Pine (Diplodia tip Blight). Avoid mass planting of single species. |

VARIETY:

In an effort to promote long term sustainability, cost effective block trimming operations and increase ability to manage street tree risk management, we encourage a variety of tree species on each and every street. We also support aesthetically pleasing street tree designs and therefore encourage the planting of tree species mixtures which have similar form.

APPROVED STREET TREES

APPENDIX A

* *top rated*

TREE NAME	NATIVE	GENERAL COMMENTS	FORM	SIZE
Acer campestre Hedge Maple	Non-native	Compact form/trunk suckers require extra maintenance/best on dry alkaline soil/yellow fall colour	Rounded	Medium
Acer ginnala Amur Maple (Single Stem only)	Non-native	Compact form/red & yellow face colour/lots of seeds/tends to sucker/specify single stem form	Founded	Ornamental
Acer platanoides Norway Maple	Non-native	Surface roots conflict with and turf/girdling roots/aphid and wilt problems. Not to be used near river corridors as seeding is heavy.	Rounded	Medium
'Columnar	Non-native	Narrow form, 60' potential. For use where crown growing space is restricted.	Columnar	Medium
'Crimson King'	Non-native	Dark maroon foliage all season	Rounded	Medium
'Deborah'	Non-native	Red foliage in spring and fades to dark green by late summer/girdling roots	Rounded	Medium
'Emerald Queen'	Non-native	Excellent upright form	Rounded	Medium
'Olmsted'	Non-native	Good narrow form	Columnar	Medium
'Schwedleri'	Non-native	Red foliage in spring & fades to dark green by late summer	Rounded	Medium
'Erectum'	Non-native	Short lateral branches, very narrow form	Columnar	Medium
'Superform'	Non-native	Excellent upright & tight form	Oval	Medium
Acer pseudoplatanus Sycamore Maple	Non-native	Very pollution and salt tolerant/cankers cause high maintenance	Oval-Rounded	Large
*Acer rubrum Red Maple 'October Glory' 'Red Sunset'	Native to Canada	Green summer foliage & yellow to red fall colour/tolerates wet soil	Oval-Rounded	Medium
Acer tataricum Tatarian Maple (Single Stem Only)	Non-native	Good red & yellow fall colour/tends to sucker/lots of seeds	Rounded	Medium
Aesculus glabra Ohio Buckeye	Non-native	Untested in London area and may suffer winter problems/likes moist soil	Oval	Medium

Aesculus hippocastanum Horsechestnut	Non-native	Good spring flower with no fruit/limit use due to disease susceptibility	Rounded	Large
Alnus glutinosa European Alder (Single Stem Only)	Non-native	Showy flower & fruit/tolerant of wet & dry soil	Pyramidal	Medium

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TREE NAME	NATIVE	GENERAL COMMENTS	FORM	SIZE
*Amelanchier Canadensis Shadblow Serviceberry (Single Stem Only)	Native to Canada	Difficult to maintain single stem/4 season interest/tolerates moist soil	Rounded	Ornamental
*Carpinus betulus 'Fastigiata' Fastigate European Hornbeam	Non-native	Oval/vase shaped tree/difficult to transplant/keep away from road salt & spray	Pyramidal-Oval	Medium
Carpinus caroliniana Blue beech or Musclewood	Native to Canada	Difficult to transplant/keep away from road salt & spray/likes wet soil/thin bark and sculptured trunk	Rounded	Medium
Celtis laevigata Sugar Hackberry	Native to Canada	Compact form/good in moist soils	Vase	Large
Celtis occidentalis Common Hackberry	Native to Canada	Requires pruning for witches broom and general form/good substitute for elms	Vase	Large
Cercidiphyllum japonicum Katsura Tree (Single Stem Only)	Non-native	Difficult to transplant/orange fall colour/thin bark/needs supplemental water	Rounded	Large
Cladrastis kentukea (lutes) Yellowwood (Single Stem Only)	Non-native	Few problems/use local seed sources or stock only/prune early	Rounded	Medium
Corylus colurna Turkish Hazel	Non-native	Good form/difficult to transplant/winter interest/needs supplemental water	Pyramidal	Large
*Crataegus (varieties) Hawthorns	Non-native	<u>Thornless & disease resistant</u> varieties only. For use in limited circumstances	Rounded	Ornamental
Fagus sylvatica European Beech	Non-native	Needs moist soil/different leaf colours with varieties/sensitive to activity within root zone/leaves persist through winter/thin bark	Oval-Rounded	Large
Fraxinus Americana White Ash	Native to Canada	Fraxinus species to be no more than 5% of any planting plan. Large tree/tolerates dry soil/susceptible to die back & numerous insects. (Manitoo is an upright variety)	Rounded	Large
Fraxinus pennsylvanica	Native to Canada	Fraxinus species to be no more than 5% of	Oval-Rounded	Medium

Green Ash -'Marshall's Seedless' -'Patmore' -'Summit'		any planting plan. Fast growing/shiny, dark green leaves/five to nine leaflets/adaptable to poor/wet soils/susceptible to Emerald Ash Borer		
*Ginkgo biloba Maidenhair tree (Male variety only)	Non-native	Good yellow fall colour/thin bark/tolerant of city conditions & pollution/slow growing but very large at maturity/virtually pest and disease free	Pyramidal Spreading	Large

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TREE NAME	NATIVE	GENERAL COMMENTS	FORM	SIZE
Quercus alba White Oak	Native to Canada	Needs moist soil/fruit maintenance/needs large space at maturity	Rounded	Large
Quercus robur 'Fastigata' Fastigate English Oak	Non-native	Needs well drained soil/holds leaves through the winter/difficult to transplant/very upright in form-reserve for sites with specific need for this form	Columnar	Large
Quercus rubra English Oak	Non-native	Needs well drained soil/difficult to transplant/large size at maturity	Rounded	Large
Quercus rubra Red Oak	Native to Canada	Needs sandy loam soil/difficult to transplant/more salt tolerant and faster growing than other oaks	Rounded	Large
Sophora japonica Japanese Pagoda Tree	Non-native	Excellent white flower/green stem when young/limit use due to messy characteristics	Spreading	Large
Sorbus aria Whitebeam Mountain Ash	Non-native	Leathery, gray-green leaves/white flowers in May/fall colour varies from pale green to golden brown to reddish	Pyramidal-Oval	Medium
Sorbus aucuparia European Mountain Ash	Non-native	Small flower & orange fruit/disease & insect problems/limit use due to fruit and other problems	Oval	Medium
Sorbus xthuringlaca Oakleaf Mountain Ash	Non-native	Forms a tight, rounded crown/White flowers/red fruit/Leathery dark green leaves	Rounded	Ornamental
*Syringa reticulata Japanese Tree Lilac -'Ivory Silk'	Non-native	Good white summer flower/excellent small specimen	Rounded	Ornamental
Tilia Americana Basswood	Native to Canada	Prefers deep moist fertile soil/will grow on drier heavier soil/needs large space	Oval	Large
Tilia cordata	Non-native	Prefers deep moist fertile soil/will grow on	Oval	Large

Littleleaf Linden -'Glenieven' -'Greenspire'		drier heavier soil/needs large space		
Tilia x euchlora Crimean Linden	Non-native	Showy & fragrant flowers/fruit messy/suckers from base/limit use – For use in limited circumstances	Rounded	Medium
Tilia tomentosa Silver Linden	Non-native	Larger leaves than Tilia cordata – dark green above, silvery beneath/heat and drought tolerant	Pyramidal- Oval	Medium
Ulmus carpinifolia Smoothleaf Elm -'Homestead' -'Pioneer' -'Sapporo Autumn Gold'	Non-native	Aggressive species/arching form/elm leaf beetle susceptible/limit use due to dutch elm disease	Vase	Large
*Zelkova serrate Japanese Zelkova -'Green Vase' -'Village Green'	Non-native	Rapid growth/narrow branch angles promote fork split/frost susceptibility when young	Vase	Large

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TREE NAME	NATIVE	GENERAL COMMENTS	FORM	SIZE
*Gleditsia triacanthos Var inermis Thornless Honeylocust -'Shademaster' -'Skyline'	Non-native	Provides a filtered shade/susceptible to defoliation by leafhopper/susceptible to canker and other pests and diseases	Spreading	Medium
Gymnocladus dioicus Kentucky coffeetree	Native to Canada	Low branched tree with narrow head/broad, rounded crown/reserve for lawn areas	Oval	Large
Halesia tetraptera Carolina Silverbell	Native to Canada	Low branched tree with narrow head/broad, rounded crown/reserve for lawn areas	Rounded	Medium
Juglans nigra Black Walnut	Native to Canada	Messy fruit/needs large area For use in limited circumstances	Oval	Large
Koelreuteria paniculata Goldenrain tree	Non-native	Good yellow flower & fruit/susceptible to winter damage/weak/Reserve for lawn areas/borderline hardiness	Rounded	Medium
Liriodendron tulipifera Tuliptree	Native to Canada	Good flowers and yellow fall colour/local sources/moist well drained soil/very large tree most appropriate for lawn areas/somewhat weak wooded	Rounded	Large
*Maackia amurensis Amur Maackia	Non-native	Small, round headed tree/slow growing/summer flowering/bronze coloured bark	Rounded	Ornamental
		Good flowers/fruit usually maintenance		

Malus (most) Flowering & Domestic Crab Apple	Non-native	problems/disease & insect problems/tolerates most soils, select fruitless or persistent fruit varieties Spring Snow, Sugar tyme, Snowdrift, Red Jewel, Harvest Gold, Centurion, Radiant, Brandywine, Prince Georges, Profusion, Red Snow, White Candle. For use in limited circumstances	Rounded- Spreading	Ornamental
Phellodendron amurense Amur corktree	Non-native	Good winter texture in bark/lots of black berries/use in protected areas	Spreading	Medium
Platanus x acerifolia London Planetree	Non-native	Frost cracks on trunk/attractive peeling bark/fruit can cause problems/very large at maturity-reserve for large lots and lawn areas	Spreading	Large
Prunus (varieties) Ornamental Cherry/Columnar/ Sargent/Kkwanzan	Non-native	Excellent flowers with no fruit/single stem to be specified/weeping cankers For use in limited circumstances	Vase	Ornamental
*Pyrus calleryana Callery Pear -'Chanticleer'	Non-native	Good flowers/may have good fall colour/lush shinny leaves/fireblight problems	Pyramidal	Ornamental
Quercus macrocarpa Bur Oak	Native to Canada	Large size at maturity-reserve for large lots and lawn areas/fruit drop/difficult to transplant/requires good soils	Rounded	Large