



WINDSOR SQUARE CANOPY

The Windsor Square Tree Information Packet

Compiled by Windsor Square Canopy
2003 Edition

Welcome to Windsor Square and its wonderful world of worthy trees, worthy of your love and care.

In the hope that you will find it helpful, your Windsor Square Tree Committee, known as "Windsor Square Canopy," has assembled this packet of useful information.

Here are a few quick tips:

- Matching Trees in your parkway increase the beauty and the **value** of your home.
- Though the parkway is city property, you are responsible for your parkway tree.
- If you don't already have a tree in your parkway, we encourage you to plant one. Please be sure the new tree you plant is the tree designated for your block in the Master Plan of Parkway Trees.
- Around the base of your tree, maintain 2 feet clear of grass and weeds. This will allow your tree to breathe and will protect it from weed whackers.
- When your tree needs trimming it is best to engage a professional. It is illegal to "top" or "hat-rack" a park-way tree.
- New palm trees must be 10 feet tall or higher (to protect children from sharp palm fronds.)

On behalf of the Windsor Square Association, thank you for helping to keep Windsor Square beautiful.

The Benefits of Trees

It's not hard to see that trees are one of the most important components of attractive residential and commercial streets.

The colors, forms and textures they add help to soften and bring natural character to cityscapes, but the beauty of trees is more than skin deep. Beyond aesthetics, the benefits trees provide are many and varied. Let's take a closer look at the important role trees play in our lives.

- The trees in our back yards, on our streets, and in our parks provide a cleaner, cooler environment.
- Trees remove carbon dioxide from the air and produce life-supporting oxygen.
- By providing shade, moisture and wind-breaks, trees decrease the amount of energy needed to cool and heat our homes and offices.
- Trees help clean the air by trapping dust and pollen.
- Trees help reduce storm water run-off and help prevent soil erosion.
- Trees help reduce urban noise pollution by acting as sound barriers.
- Trees provide homes for birds and wildlife.
- Trees beautify our surroundings, enhance our sense of well-being and alleviate stress.
- Tree canopies help protect us from exposure to the sun's rays.
- Tree planting and care provide one of the few opportunities to experience and nurture nature in urban areas.
- Tree planting and care projects bring neighbors together and foster community pride and a sense of ownership.
- Trees provide cool places for kids to play on school grounds, in parks and in back yards.
- Trees planted strategically around homes can reduce energy consumption by 15 to 35 percent, saving con-summers up to \$240 a year.
- Homeowners can increase the value of their property as much as 20 percent by planting trees and enhancing the landscape.
- Trees need less water than lawns and their shade can significantly reduce the water requirements of other landscape plants.
- In commercial areas, trees can boost business and tourism by providing shadier, more inviting sidewalks and parking lots.
- Tree planting, care, and management generate jobs in both the public and private sectors.
- Trees are a wise investment - they increase in dollar value and provide greater environmental benefits as they mature.
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Take Care of Your Street Tree!

Street trees are part of the urban forest. Trees make our City attractive, lower the temperature, clean the air, conserve energy, prevent flooding and bring our neighborhood together.

“Trees add more to the quality of life and value to adjacent properties than any other comparable investment” Supt. Robert W. Kennedy, Los Angeles City Tree Division 1991.

Did you know that realtors report that an attractive, mature street tree can increase the value of your property by almost five percent? If your tree matches all the other trees on the block, your value can be much more.

Even though your neighbors or the City may have planted your street tree, you are responsible for its maintenance. Take care of your street tree.

Leave 2 feet of soil around the base of your tree free of grass and weeds. There is no need for pavers around the base of the tree.

Generally speaking mature trees don't need watering as they use deep ground water. Newly planted trees need special care (see “How to Care for Your Newly Planted Parkway Tree”). Direct sprinklers away from your trees; too much water at the base of the tree will create crown rot and fungal growth. Of course, in a drought year deep water all your trees.

Do not use weed killers near your tree; they can poison your tree. Do protect your tree from vandalism. Don't let anyone tack or nail anything to your tree. Don't let anyone use a “weed whacker” near your tree. It is against the law to damage a street tree. Never remove or plant a street tree without a City permit.

Avoid girdle strangulation! When your tree diameter (caliper) is 4 inches in diameter pull out the stake and remove all wires. If the tree sways a little in the wind this is good for the tree (bending helps cambian layer cell growth and encourages a proper taper).

Prune your tree when it needs it but don't over-trim your trees or they may die of shock. Don't make your tree look like a “hat rack” and don't even think of using a chain-saw on your tree. Gentle trimming more frequently is best. If possible, have the trimming done by a certified arborist. Don't trim in the Summer time as it is detrimental to your tree's health.

Before trimming check with the City Street Tree Division at 1(800) 996-2489 for advice and a free trim permit. For general information call the Street Tree Division Central Office at (213) 485-5675.

Have you hugged your tree lately?

Bureau of Street Services

Tree Planting Policies

The Bureau of Street Services manages the portion of the urban forest in the public right-of-way of the City of Los Angeles. A large component of sustainable urban forestry is a tree-planting program.

The Bureau is responsible for determining the proper tree species to be planted, the container size of the tree, and spacing between trees. The Bureau performs new tree plantings, tree removals and replacements. The Bureau also directs and provides permits for developers, non-profit and community groups, and individuals for tree planting projects.

All tree planting requires a no-fee plant permit that is issued by the Bureau. The permit ensures the Bureau may maintain the street tree inventory and manage new plantings.

Selecting the proper tree species for a particular location is the most critical factor when planting in the public right-of-way. The size of the tree well or parkway, the presence of utility lines above or below ground, condition of soil, climatic zone, and other trees in the surrounding area all must be taken into account. A Bureau arborist will conduct an on-site inspection and consult with you to determine the proper tree species.

City of Los Angeles street trees shall be planted using the most current industry standards. Newly planted trees must be staked and tied, provided with a watering moat, and properly watered.

To assist your tree-planting project, the Bureau provides a Street Tree Selection Guide that lists one hundred fifty species approved for the public right-of-way. The guide may be accessed on-line at <http://www.lacity.org/BOSS/streettree/treeguide.htm> or at the Street Tree Division public counter, 600 South Spring Street, Suite 1000, Los Angeles, 90012. This list is not all inclusive and other species may be considered.

Fact sheets regarding proper planting, staking and tying, and watering will be provided with the tree planting permit. These fact sheets and other arboricultural information is available on-line or at the Street Tree Division public counter.

The City of Los Angeles' urban forest is a valuable natural resource that provides many benefits to its citizens. The bureau is dedicated to the preservation and enhancement of the urban forest and is ready to assist groups and individuals in all tree-planting projects.

New Tree Planting

Think of the tree you just purchased as a lifetime investment. How well your tree and investment grows depends on the type of tree and location you select for planting, the care you provide when the tree is planted, and follow-up care the tree receives after planting.

“It’s better to put a \$100 tree in a \$200 hole than to put a \$200 tree in a \$100 hole.”

1. Dig a shallow, broad planting hole. Make the hole wide, as much as three times the diameter of the root ball, but only as deep as the root ball. It is important to make the hole wide because the tree roots on the newly establishing tree must push through surrounding soil to establish. On most planting sites in new developments, the existing soils have been compacted and are unsuitable for healthy root growth. Breaking up the soil in a large area around the tree provides the newly emerging roots room to expand into loose soil to hasten establishment.

2. Identify the trunk flare. The trunk flare is where the roots spread at the base of the tree. This point should be partially visible after the tree has been planted (see diagram). If the trunk flare is not partially visible, you may have to remove some soil from the top of the root ball. Find it so you can determine how deep the hole needs to be for proper planting.

3. Place the tree at the proper height. Before placing the tree in the hole, check to see that the hole has been dug to the proper depth, and no more. The majority of the roots on the newly planted tree will develop in the top 12” of soil. If the tree is planted too deep, new roots will have difficulty developing due to a lack of oxygen. It is better to plant the tree a little high, 1-2” above the base of the trunk flare, than to plant it at or below the original growing level. This will allow for some settling (see diagram). To avoid damage when setting the tree in the hole, always lift the tree by the root ball, and never by the trunk.

4. Straighten the tree in the hole. Before you begin backfilling have someone view the tree from several directions to confirm the tree is straight. Once you begin backfilling it is difficult to reposition.

5. Fill the hole, gently but firmly. Fill the hole about 1/3 full and gently but firmly pack the soil around the base of the root ball. Then, if the tree is balled and burlapped, cut and remove the string and wire from around the trunk and top 1/3 of the root ball (see diagram). Be careful not to damage the trunk or roots in the process. Fill the remainder of the hole, taking care to firmly pack soil to eliminate air pockets that may cause roots to dry out. To avoid this problem, add the soil a few inches at a time and settle with water. Continue this process

until the hole is filled and the tree is firmly planted. It is not recommended to apply fertilizer at the time of planting.

6. Stake the tree, if necessary. If the tree is grown and dug properly at the nursery, staking for support is not necessary in most home landscape situations. Studies have shown that trees will establish more quickly and develop stronger trunk and root systems if they are not staked at the time of planting. However, protective staking may be required on sites where lawn mower damage, vandalism or windy conditions are concerns. If staking is necessary for support, two stakes used in conjunction with a wide flexible tie material will hold the tree upright, provide flexibility, and minimize injury to the trunk (see diagram). Remove support staking and ties after the first year of growth. Leave protective staking in place as long as necessary.

7. Mulch the base of the tree. Mulch is simply organic matter applied to the area at the base of the tree. It acts as a blanket to hold moisture, protect against harsh soil temperatures, both hot and cold, and reduces competition from grass and weeds. Some good choices are leaf litter, pine straw, shredded bark, peat moss, or wood chips. A two to four inch layer is ideal. More than four inches may cause a problem with gas exchange. When placing mulch, care should be taken so that the actual trunk of the tree is not covered. This may cause decay of the living bark at the base of the tree. A mulch-free area, one to two inches wide at the base of the tree, is sufficient to avoid moist bark conditions and prevent decay.

8. Follow-up care. Keep the soil moist but not soaked; over-watering will cause leaves to turn yellow or fall off. Water trees at least once a week, barring rain, and more frequently during hot weather. When the soil is dry below the surface of the mulch, it is time to water. Continue until mid-fall, tapering off for lower temperatures that require less frequent watering.

Other follow-up care may include minor pruning of branches damaged during the planting process. Prune sparingly immediately after planting, and wait to begin necessary corrective pruning until after a full season of growth in the new location.

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Available on the web at <http://www2.champaign.isa-arbor.com/consumer/planting.html>

How to Plant a Tree

- 1) Clear turf and other vegetation from an area three times the diameter of the tree container.
- 2) Leave tree in the container, keep soil in container moist and protect from sun until ready to plant.
- 3) Dig a hole twice as wide and about one-inch shallower than the tree's root ball. The shallower hole prevents the tree from settling lower in the hole. When the tree is planted the top of the root ball will be slightly higher than the surrounding soil.
- 4) Dig into and roughen the sides and bottom of the planting hole by hitting them with the edge of the shovel or fork. Smooth walls make it difficult for tiny new roots to penetrate.
- 5) If soil amendments are being used, mix them with soil removed from hole, using one part amendment to three parts native soil. Mix thoroughly before planting and have the mixture ready next to the hole.
- 6) To remove tree from container hit the bottom and sides with a shovel to loosen tree ball, tip it on its side and gently remove the ball. While doing this protect tree branches and leaves.
- 7) Gently loosen root ball and spread outside roots and, if they are tangled or circling, cut them and spread them apart.
- 8) Place the tree in the hole and turn it so that the branches face the best direction to display the tree.
- 9) Straighten the tree by tilting the root ball in the hole.
- 10) Fill the area around the root ball with prepared soil up to the top of hole, packing down the loose soil as you fill and do not cover the top of the root ball with soil.
- 11) Untie and remove square support stake hole with planting soil.

- 12) If the tree needs support or protection from winds or other hazards such as mowers or bicycles, etc., you will need to stake the tree. Place a stake on either side of the tree outside the root ball area. The stakes should be no taller than necessary to hold the tree upright.
- 13) Secure the tree to the stakes with ties. Make sure the tree is loose in the ties to be able to sway in the winds. The stakes and ties can usually be removed after one year. If the tree trunk needs ongoing protection from mechanical injury you can purchase or make a protective barrier around the base of the tree trunk. An even better solution would be to provide a large mulched basin around the tree trunk.
- 14) With the remaining soil, form a doughnut shaped watering basin around the edge of the root ball to direct water to the roots of the tree.
- 15) Fill the basin three times with water allowing the water to completely drain through each time.
- 16) Cover the planting area with a layer of mulch two inches deep or more.
- 17) The tree's watering requirements depend on the soil conditions and rain. Heavy clay soils often have poor drainage and can damage roots if over-watered, while sandy soils drain quickly and need relatively frequent watering. Before you water, dig a small hole and check the soil moisture at the edge of the root ball to see if it is wet. If it is wet, wait a few days before watering and check again. If the root ball feels dry, water more frequently and after a few tries, you will learn how long your soil takes to dry out.
- 18) When watering, water deep because deep watering encourages deeper root systems and makes the tree more drought tolerant and less likely to damage driveways, curbs, patios, and pipes. Place a hose inside the watering basin, turn the water on to a slow trickle and leave it on for several hours or even over night, giving the tree from ten to fifteen gallons of water. To slow evaporation, water in the early morning or in the evening.

Root Guards

In every town and city buckled sidewalks, cracked driveways and roadways, uprooted paths and even damaged home foundations and patios are the result of conflict between hardscapes and tree roots. Root guards are a mechanical barrier that redirect root growth downward, eliminating the surface rooting that damages expensive hardscapes and creates a hazard.

Root guards redirect roots to prevent hardscape damage, the cost of which to repair can be extreme. A recent sidewalk survey of residential and collector streets in San Jose, California, found 2,274,400 square feet of sidewalk damage with an estimated repair cost of \$14.3 million.

Root guards take advantage of the natural growth habits of roots. Tree roots are opportunistic, meaning they will grow wherever adequate conditions exist that supply oxygen, water and other nutrients. As a root tip travels out from the root ball the tip will come in contact with the barrier. Unable to penetrate through the barrier the root will turn and eventually come in contact with the vertical 90° ribs that are spaced every six inches. The root tip then travels along the length of the rib before finally exiting underneath the barrier. This process of guiding the root down and then out from underneath the barrier enables the tree to grow to its full potential while eliminating the surface rooting and buttress root effect that damages hardscapes and utilities.

Where the root travels once it is underneath the barrier is determined by many factors including soil compaction, drainage and soil type. Some roots may begin to return to the surface; however the capacity of those roots to cause damage is negated. A root that has traveled down the length of the barrier and exited underneath has passed what is known as the Zone of Rapid Taper (ZRT). This area causes most hardscape damage. The ZRT is the buttress root effect where surface roots close to the trunk swell as they age. Root guards divert this buttress growth below grade thereby preventing damage.

Root guards are available from many retail garden supply stores

Adapted from <http://www.deeproot.com/whatis.html>

How to Water and Care for Your Newly Planted Parkway Tree.

Newly planted parkway trees require special attention mostly with regard to watering. After planting and staking, the trees need to be watered regularly to prevent the root ball from drying out. The amount of water is normally an amount that will fill the well inside the berm provided by the installers. Frequency of watering will depend on the time of year and/or the degree of normal evaporation. Three times a week when the weather is very hot might be necessary but hardly ever more than that, as one does not want to over-water either. During hot weather it's a good idea to check your tree two or three times a week during hot weather. Check the soil next to the tree two or three inches below grade. If the soil is moist, then skip a day or two of watering. If it is dry, it is time to water. Poorly draining soil (clay) retains significant moisture and one needs to be careful not to over water. Clay soils are common in Windsor Square so be sure to check carefully if your soil is retaining too much water. During the rainy season, watering will be much less frequent, depending on rainfall.

The first year is the most critical and lack of watering is the most common reason for plant failure during this time. The second year is less critical, but still very important, and the tree may be able to withstand longer dry-out periods, but the tree is still not yet self-sufficient. By the third year the tree should be established and will require infrequent summer water and supplemental water during the rainy months only during periods of dry weather. Keep in mind that certain trees will always require extra summer water, Tulip Trees being the clearest example.

Also, do not plant anything within the tree well: no grass, lawn or turf, no flowers or any other planting, as these will all compete and interfere with the surface feeder roots of your tree. Keep all machinery away from your tree, including lawn mowers, weed whackers and leaf blowers, which are illegal in Los Angeles within 500 feet of a residence. A direct hit from any kind of machinery can kill your tree. If you are unsure what to do contact your block captain for further help.

Ivy and Climbing Vines

Information Sheet: The Growth of Ivy and Climbing Vines Planted on the Parkway Area Adjacent to Your Property.

The use of ivy and other vine-like plants for ground cover in parkways adjacent to your property serves a useful aesthetic and soil erosion purpose. However, if permitted to grow uncontrolled, these plants create two serious problems.

Most of these plants tend to mat and result in unsafe walking conditions for pedestrians, especially those leaving parked vehicles. Secondly, the subject plants will eventually attach themselves to and grow up into parkway trees. Because the vines grow faster than the trees, the end result is overgrowth and eventual suffocation of the tree. The purpose of this information sheet is to point out this condition and enlist your assistance in preventing this condition from occurring.

Your assistance and understanding will be appreciated. Should you desire additional information, please contact the Street Tree Division of the Bureau of Street Services. The address is 600 S. Spring Street, Suite 1000, Los Angeles, CA 90014. The telephone number is (213) 485-5675.

Why Topping Hurts Trees

Topping is perhaps the most harmful tree pruning practice known. Yet despite more than 25 years of literature and seminars explaining its harmful effects, topping remains a common practice. This brochure explains why topping is not an acceptable pruning technique, and offers some better alternatives.

- **Topping will not make trees safe; it actually creates hazardous trees.**
- **Topping makes a tree more susceptible to storm damage.**
- **Topping is: abuse, vandalism, dangerous, expensive, mutilation, ugly.**
- **Topping is a waste of money.**

• **What is topping?**

Topping is the indiscriminate cutting back of tree branches to stubs or lateral branches that are not large enough to assume the terminal role. Other names for topping include "heading," "tipping," "hat-racking," and "rounding over."

The most common reason given for topping is to reduce the size of a tree. Often homeowners feel that their trees have become too large for their property. People fear that tall trees may pose a hazard. Topping, however, is not a viable method of height reduction, and certainly does not reduce the hazard. In fact, topping will make a tree more hazardous in the long term.

• **Topping stresses trees**

Topping often removes 50-100% of the leaf-bearing crown of a tree. Since the leaves are the "food factories" of a tree, this can temporarily "starve" a tree. The severity of the pruning triggers a sort of survival mechanism. The tree activates latent buds, forcing the rapid growth of multiple shoots below each cut. The tree needs to put out a new crop of leaves as soon as possible. If a tree does not have the stored energy reserves to do this, it will be seriously weakened and may die.

A stressed tree is more vulnerable to insect and disease infestations. Large, open pruning wounds expose the sapwood

and heartwood to attack. The tree may lack sufficient energy to chemically “defend” the wounds against invasion. Some insects are actually attracted to stressed trees by chemical signals.

•**Topping Causes Decay**

The preferred location to make a pruning cut is just beyond the branch collar at the branch's point of attachment. The tree is biologically equipped to close such a wound provided the tree is healthy enough and the wound is not too large. Cuts made along a limb, between lateral branches, create stubs with wounds that the tree may not be able to close. The exposed wood tissues begin to decay. Normally a tree will “wall off” or compartmentalize the decaying tissues. But few trees can defend the multiple severe wounds caused by topping. The decay organisms are given a free path to move down through the branches.

•**Topping Can Lead to Sunburn**

Branches within a tree's crown produce thousands of leaves to absorb sunlight. When the leaves are removed, the remaining branches and trunk are suddenly exposed to high levels of light and heat. The result may be sunburn of the tissues beneath the bark. This can lead to cankers, bark splitting and death of some branches.

•**Topping Creates Hazards**

The survival mechanism that causes a tree to produce multiple shoots below each topping cut comes at great expense to the tree. These shoots develop from buds near the surface of the old branches. Unlike normal branches that develop in a “socket” of overlapping wood tissues, these new shoots are only anchored in the outermost layers of the parent branches.

The new shoots grow very quickly, as much as 20 feet in one year, in some species. Unfortunately, the shoots are very prone to breaking, especially during windy conditions. The irony is that while the goal was to reduce the tree's height to make it safer, it has been made more hazardous than before.

•**Topping Makes Trees Ugly**

The natural branching structure of a tree is a biological wonder. Trees form a variety of shapes and growth habits, all with the same goal of presenting their leaves to the sun. Topping removes the ends of the branches, often leaving ugly stubs. Topping destroys the natural form of a tree.

Without the leaves (up to six months of the year in temperate climates) a topped tree appears disfigured and mutilated. With the leaves, it is a dense ball of foliage, lacking its simple grace. A tree that has been topped can never fully regain its natural form.

• **Topping is Expensive**

The cost of topping a tree is not limited to what the perpetrator is paid. If the tree survives, it will require pruning again within a few years. It will either need to be reduced again, or storm damage will have to be cleaned up. If the tree dies it will have to be removed. Topping is a high maintenance pruning practice.

There are some hidden costs of topping. One is the reduction in property value. Healthy, well maintained trees can add 10-20% to the value of a property. Disfigured, topped trees are considered an impending expense.

Another potential cost of topped trees is the potential liability. Topped trees are prone to breaking and can be hazardous. Since topping is considered to be an unacceptable pruning practice, any damage caused by branch failure of a topped tree may lead to a finding of negligence in a court of law.

• **Alternatives to Topping**

There are times when a tree must be reduced in height or spread. Providing clearance for utility lines is an example. There are recommended techniques for doing this. If practical, branches should be removed back to their point of origin. If a branch must be shortened, it should be cut back to a lateral that is large enough to assume the terminal role. A rule of thumb for this is to cut back to a lateral that is at least 1/3 the diameter of the limb being removed.

This method of branch reduction helps to preserve the natural form of the tree. However, if large cuts are involved, the tree may not be able to close over and compartmentalize the wounds. Sometimes the best solution is to remove the tree and replace it with a species that is more appropriate for the site.

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Available on the web at:

<http://www2.champaign.isa-arbor.com/consumer/topping.html>

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Street Tree Division of the Bureau of Street Services
600 S. Spring Street, Suite 1000
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213-485-5675 (Main Number)
800-996-2489 (Tree trimming)
800-996-2489 (planting, removal, and root-pruning
permits)
LA Department of Street Services Home Page:
<http://www.cityofla.org/BOSS/>

The Windsor Square Association Website
<http://www.windsorsquare.org>