

# Collier County Tree Pruning Guide

Protecting the  
Future  
Through  
Proper Tree  
Care Now



Brochure created by the Collier County Community  
Development and Environmental Services Division  
Code Enforcement Department- Environmental Specialist  
Section



# Collier County Land Development Code

Ordinance 04-41 as amended

4.06.05 J Maintenance of Landscaping



## 1. Pruning

Vegetation required by this Code shall only be pruned to promote healthy, uniform, natural growth of the vegetation except where necessary to promote health, safety, and welfare and shall be in accordance with the current Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices ANSI A300 of the National Arborist Association. Trees shall not be severely pruned in order to permanently maintain growth at a reduced height or spread. Severely pruned trees shall be replaced by the owner. A plant's growth habit shall be considered in advance of conflicts which might arise (i.e. views, signage, overhead power lines, lighting, circulation, sidewalks,

## 2. Maintenance

The owner shall be responsible for the continued maintenance and upkeep of all required landscaping so as to present a healthy plant in a condition representative of the species. Tree and Palm staking shall be removed between six and 12 months after installation. All landscapes shall be kept free of refuse, debris, disease, pests, and weeds and shall be fertilized and irrigated to maintain plants in a healthy condition. Special maintenance requirements necessary to preserve the landscape architect's design intent shall be noted on the planting plan. Ongoing maintenance to prohibit the establishment of prohibited exotic species is required. Any plant materials of whatsoever type or kind required by these regulations shall be replaced within 30 days of their demise and/or removal.

### Three Good Reasons for the Removal of a Tree

The trees are causing damage to structures, such as roots lifting a foundation.

The trees are causing a safety hazard, such as blocking clear sight at an intersection.

The trees are damaging utilities by invading sewer lines or interfering with power lines.

A Tree Removal Permit is required for the removal of planted (cultivated, usually code required) trees from commercial developments and common property (under the control of a homeowner's association) within residential developments. Tree Removal Permits are not required for single-family lots but single-family lots must meet a minimum number of trees/lot requirement based on square footage



#### 4.06.05 A (1) General Landscaping Requirements "What is the size of your lot?"

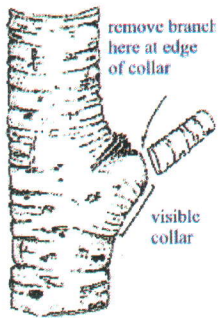
For a single family, duplex, or mobile home lot there is one native canopy tree required per 3,000 square feet of pervious open space per lot with a minimum of two trees. Seventy-five percent of the trees fulfilling the requirement must be native to Florida. Multi-Family developments have as one of their requirements for landscaping one native canopy tree per 2,000 square feet of pervious area excluding preserves.

Lot size (square feet)	#of trees	Min.# Native Trees	Max # Palms
8,999 or less	2	2	0
9,000-11,999	3	3	0
12,000-14,999	4	3	1
15,000-17,999	5	4	1
18,000-20,999	6	5	1
21,000-23,999	7	5	2
24,000-26,000	8	6	2
27,000-29,999	9	7	2
30,000-32,999	10	7	3
33,000-35,999	11	8	3
36,000-38,999	12	9	3
39,000-41,999	13	10	3
42,000-44,999	14	10	4
45,000 or more	15	11	4

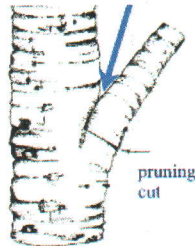


## Pruning Cuts

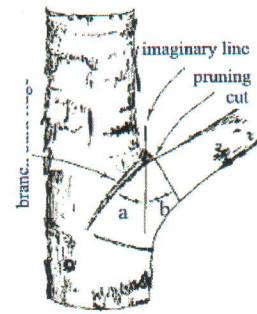
visible collar



Live branches present three possible situations

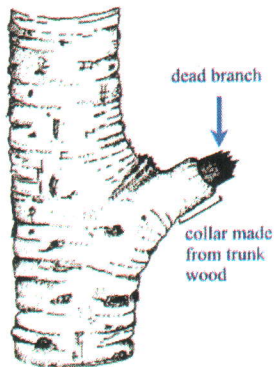


no visible collar

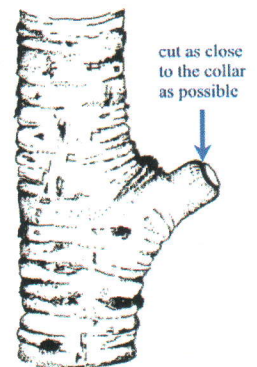


With dead branch removal the collar of a tree trunk wood begins to grow out onto a dead branch that remains on the tree. Be sure not to cut into this collar. Cutting into the collar amounts to cutting into the trunk. Removing dead branches is good for the health of trees. Cut all dead branch tissue from the tree, but do not injure the collar.

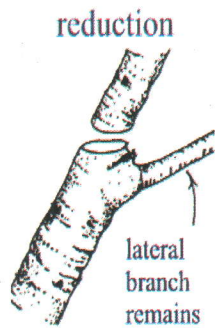
before pruning



after pruning

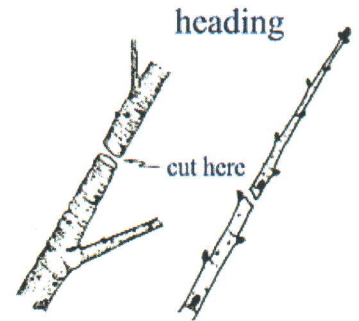






## Stem Reduction

Reduction cut (also referred to as a drop-crotch cut) removes a stem back to a lateral branch that is at least one-third the diameter of the cut stem. Sprouts commonly follow a reduction cut, especially if a large portion of the live foliage was removed with the cut. Reduction cuts are used to reduce the length of a stem or branch.



Appropriate reduction

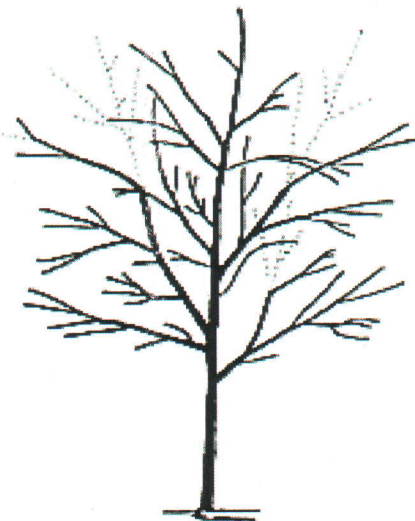
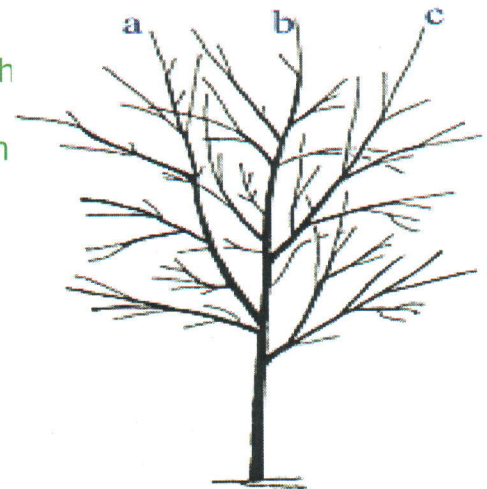
Inappropriate reduction

## Structural pruning of shade trees

**Objective:** Increase structural integrity by pruning to one dominant leader.

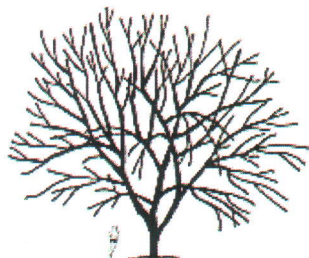
**Problem** - Before pruning a young/medium tree it has three developing leaders or co-dominant stems (a, b and c). These are likely to develop into multiple leaders, which are considered weaker than trees with one trunk. Large maturing trees usually perform best and last longest if they grow with one main leader. Structural pruning helps the tree develop one main trunk.

**Solution** - Reduce the length of (subordinate) leaders 'a' and 'c' using a reduction cut to encourage leader 'b' to grow faster. This will help leader 'b' become the dominant trunk by slowing growth on leaders 'a' and 'c' and allowing more sunlight to reach 'b'. In most cases on large-maturing trees, branches in the lower 15-20 feet of the tree should be kept smaller than half the trunk diameter using this technique.

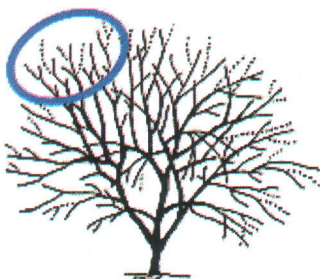


This moderate pruning treatment is similar to the light pruning treatment. The main difference is here we are more aggressive. Larger holes are left in the canopy following moderate pruning. This might be appropriate if trees cannot be pruned for several years, or if they might never be pruned again.

before thinning



remove indicated branches



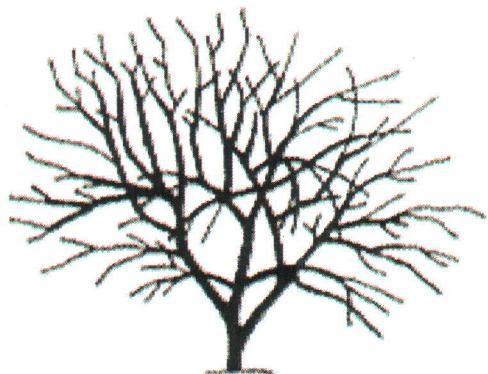
## Thinning the canopy

**Objectives:** **1)** Thinning allows sunlight to penetrate to interior foliage which will help keep interior branches alive. As a result, the diameter of the main branches stronger. **2)** Thinning also can reduce the incidence of foliage diseases by increasing air flow and allows more light to reach the ground beneath the tree. **3)** More air passes through the canopy instead of pushing against it, so trees may resist storm damage better.

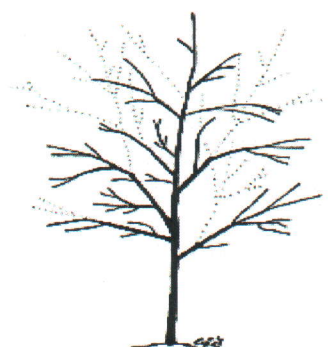
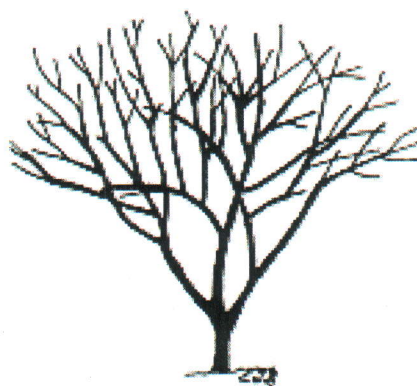
After thinning, the outer portion of the canopy is thinner. Little has changed on the interior of the canopy because few branches were removed from there.

Removing only lower and interior branches result in a weak tree. This so-called lions tailing causes problems. **DO NOT** prune trees in this manner.

after appropriate thinning



after inappropriate thinning





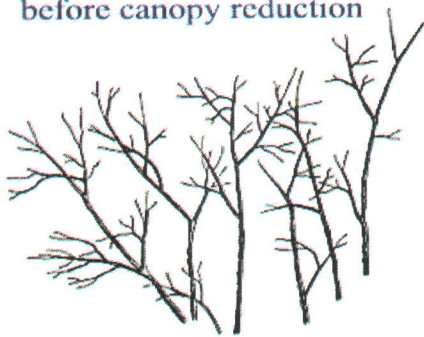
## Reducing the canopy

**Objectives:** There can be several objectives of reduction pruning 1) reduce tree size Trees shall not be severely pruned in order to permanently maintain growth at a reduced height or spread according to Collier County Code; 2) reduce a portion of the tree to provide clearance from a structure; 3) reduce a portion of the canopy to minimize risk of failure.

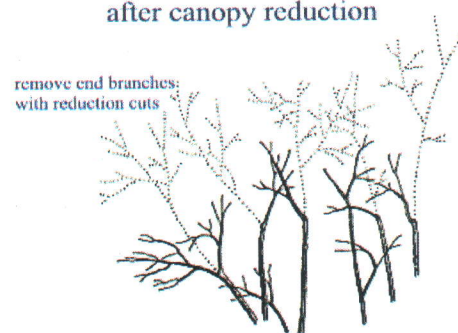
This is a portion of the top of a tree showing six main branches before canopy reduction. Appropriate canopy reduction removes branches and stems from the outer portion of the canopy back to lateral branches at least one-third the diameter of the removed stems or branches.

The next portion of the tree at left with the end section of the branches removed to reduce the size of the tree. Removed branch sections are shown as dotted lines. Note that there are live, unpruned branches left on the edge of the new, smaller canopy, and no heading cuts were used. Properly done, this provides a more pleasing, unpruned natural look to the tree compared to topping. Many people would not know a canopy was reduced in size following appropriate moderate canopy reduction.

before canopy reduction



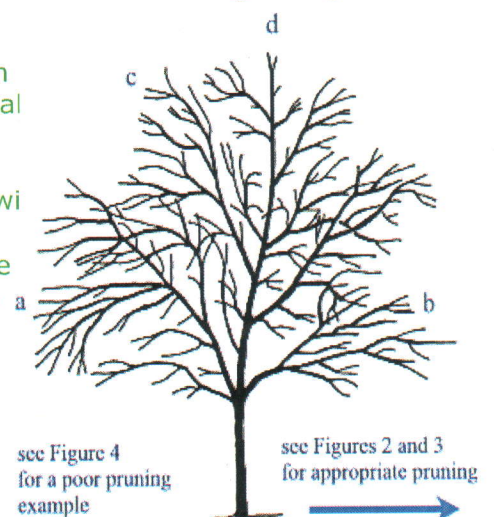
after canopy reduction



## Raising or lifting the canopy

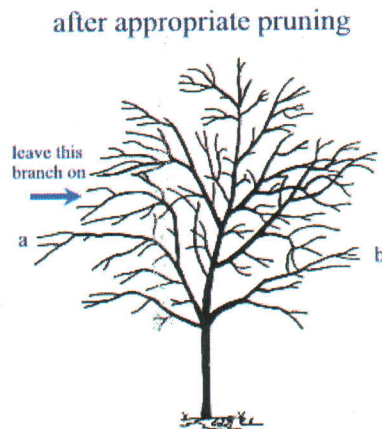
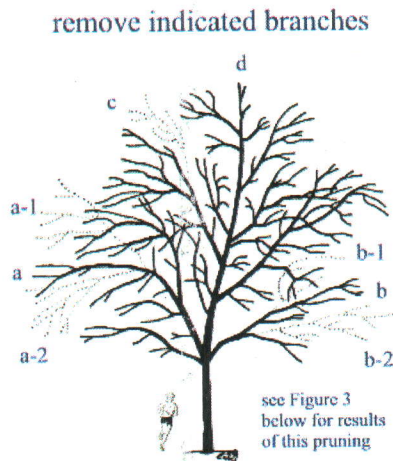
**Objectives:** 1) Keep low branches small with regular reduction cuts so that trunk wounds are small when branches are eventually removed. 2) Prevent low branches from growing up into the canopy by reducing or removing upright-growing stems and branches. **Figure 1:** Problem - Branches are drooping low and will be in the way of pedestrians or vehicles. The low branches will eventually have to be removed so shorten them now to prepare for this. Allowing them to grow unchecked could result in them growing to a large diameter. Decay could result if the large diameter branch is removed later.

before pruning



## Properly Raising Canopy Cont'

**Figure 2:** Subordinate lower vigorous branches 'a' and 'b' by removing upper and lower lateral branches a-1, a-2, b-1 and b-2. Removing a-1 and b-1 ensures that these branches will not grow up to become part of the permanent canopy. This is important because left unpruned; these branches are likely to remain vigorous, forming weak co dominant stems. Removing a-2 and b-2 helps to lift the canopy to provide clearance. Subordinate branch 'c' because it will compete with the leader 'd'.



**Figure 3: Good solution executed** - Lower branches were subordinated to slow their growth so they won't droop as quickly and get in the way. Subordinating instead of removing a large branch (removing is shown in Figure 4) is more attractive and is better for the tree. The slower growth on 'a' and 'b' means these branches will eventually be small in diameter compared to the trunk. This is desirable should these branches have to be removed later because there is less chance for trunk decay. Branches 'a' and 'b' might have to be subordinated at a later date to further slow their growth. The large, inner branch was left on branch 'a' because it was not growing upright and it originates from the inner portion of the canopy. The branch 'a' could also be cut back later to this more

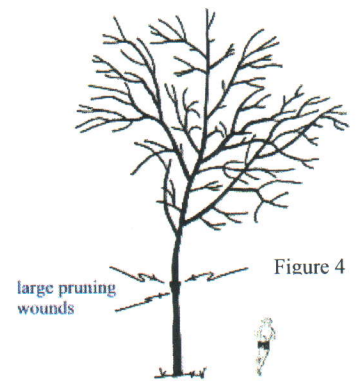


## Cleaning the canopy

**Objectives:** Reduce conditions in the tree that could place people or property at risk.

**Figure 4:** Removing the three lower branches entirely leaves large pruning wounds that could initiate trunk decay. The tree also looks as though it was pruned, a situation often associated with poor tree care carried out by untrained workers. Raising the canopy all at once could also cause tree failure by leaving too much weight at the top of the tree. To avoid lack of balance after canopy raising the distance between the bottom and top of the canopy should be at least  $\frac{2}{3}$  the height of the tree. Removing three large branches all at once from the same position on the tree could also cause trunk defects such as decay and cracks.

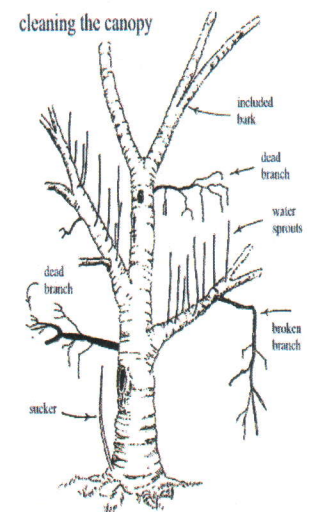
after too much pruning



**Included bark: Problem** - There is included bark in the branch union making the union weak. Branch 'a' is more likely to split out from the tree because of included bark. **Solution** - 1) Either remove branch 'a' entirely back to the base of the included bark, 2) reduce the weight on the end of branch by removing lateral branches toward the end of the branch, 3) consider shortening branch 'a' with a reduction cut, or 4) consider installing a cable system.



**Dead or touching branches: Solution** - Remove detached, dead, broken, and diseased branches especially those more than one inch in diameter. Never remove the swollen expanding collar growing around the base of dead branches. Cut just to the outside of this collar. If two branches touch, remove or shorten one of them so they no longer touch.





**Water sprouts:** Remove some water sprouts, if you wish. But remember that trees usually produce water sprouts due to a stress like root loss, root damage, storm damage, loss of branches, topping, disease, over-pruning, improper thinning, and other reasons. Determine the cause of sprouting and correct it. It is often best to leave many of the sprouts unless there are more than a dozen or so on a branch. Space the sprouts along the branch by removing some. If too many sprouts are removed at once, they will grow back.

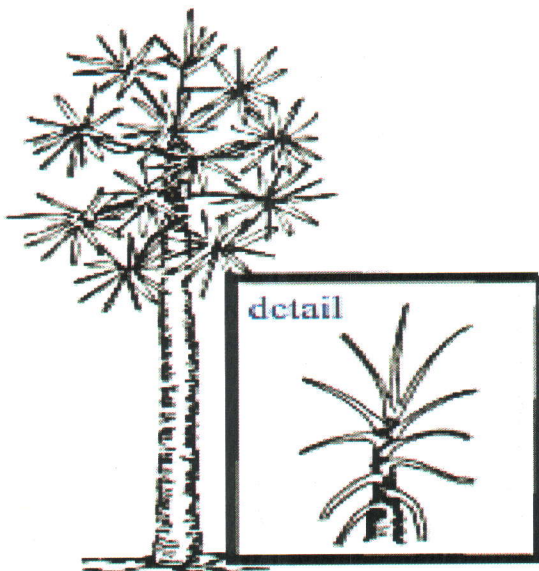
**Suckers:** Remove suckers (sprouts from the base of the plant or from roots) as they appear. Sprays and paints containing NAA (synthetic auxin) applied to the pruning cuts can help reduce subsequent suckering on some species.



## Pruning palms

**Objectives:** Remove dead and dying fronds and developing flowers and fruits to reduce risk and enhance aesthetics.

before pruning

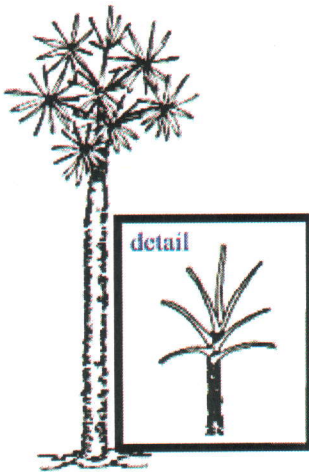


Consider removing lower fronds that are chlorotic or dead. There is no biological reason to remove live green fronds on palms. There is no research supporting the notion that removing live green fronds reduces future pruning requirements.

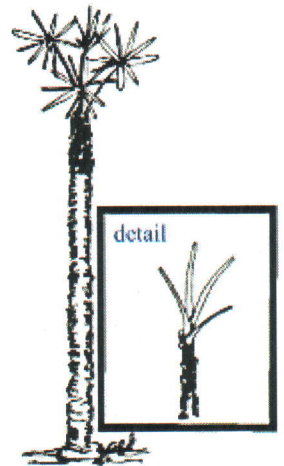


Remove lower fronds that are dead or more than about half chlorotic (an abnormally yellow color of plant tissues, resulting from partial failure to develop chlorophyll, caused by a nutrient deficiency or the activities of a pathogen). Do not remove green fronds or the palm could become stressed. (If you decide to remove green fronds, do not remove those growing horizontally or pointed upward.)

proper pruning



over-pruning



According to the current Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices ANSI A300 of the National Arborist Association ([www.isa.com](http://www.isa.com)). Collier adopted by Collier County Code, **Live healthy fronds initiating at or above 9 o'clock and 3 o'clock should not be removed.**

Fronds removed should be severed close to the petiole base without damaging live trunk tissue. Palm peeling (shaving) should consist of removal of only the dead frond bases at the point they make contact with the trunk without damaging live trunk tissue.



## Credits to this Publication

"Illustrated guide to pruning, second edition  
<<http://hort.ifas.ufl.edu/woody/pruning/prunebook.htm>>" by E. F. Gilman, Delmar Publishers, Albany, NY, 330 pgs.

And

"Horticopia: Illustrated pruning and planting  
<<http://hort.ifas.ufl.edu/woody/pruning/horticopia.htm>>" by E. F. Gilman CD-ROM.

[www.hort.ifas.ufl.edu](http://www.hort.ifas.ufl.edu)

[www.dictionary.com](http://www.dictionary.com)

Photographs by Susan O'Farrell, Environmental Specialist



## For More Information

Collier County Code  
Enforcement

2800 North Horseshoe Dr.  
Naples, FL 34104

Phone (239) 252-2440

Fax (239) 252-2343

[www.colliergov.net](http://www.colliergov.net)

Zoning and Land  
Development  
Review  
2800 North  
Horseshoe Drive  
Naples, FL 34135

Environmental  
Services  
2800 North  
Horseshoe Drive  
Naples, FL 34135