Utility Line Clearance at SCE&G

No single tree is perfect for all locations and purposes. Therefore, when planting a tree, pick a type that is best suited to the purpose. Also, give special consideration to the tree's future effect on buildings, sidewalks, streets, lawns and utilities.

A common problem for SCE&G and many other utilities is tall trees growing directly under or near power lines. These conditions could result in service interruptions to customers or serious accidents to the crew members repairing the line. In an effort to avoid service interruptions and accidents, SCE&G contracts with professional line clearing companies to trim and remove trees near SCE&G facilities. This work is done on a regular basis and helps the company maintain a safe and reliable electric system.

Trees interfering with power lines must be trimmed to avoid interruption in service to our customers.

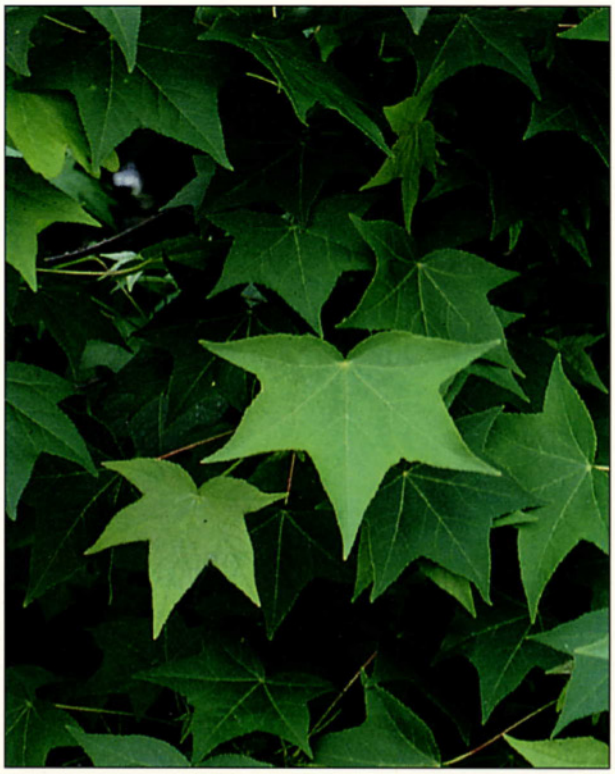
Tree Selection

Trees may be classified by size as small, medium or large. Small trees are generally less than 25 feet tall when mature. They are best planted 15 to 20 feet from your house, in narrow planting strips less than 4 feet wide between sidewalks and street curbs, and on power line right of ways.

Medium trees are generally 25 to 50 feet tall when mature. They are best planted 20 to 25 feet from your house, in medium planting strips 4 to 8 feet wide between sidewalks and street curbs, and at least 30 feet from power lines.

Large trees are generally greater than 50 feet tall when mature. They are best planted 30 to 35 feet from your house, in large planting strips greater than 8 feet wide between sidewalks and street curbs, and at least 40 feet from power lines.

SCE&G recommends that only small trees with mature heights less than 25 feet be planted on power line right of ways, excluding service lines. Service lines



are those that go from the pole on the street to the service connector on your house.

The proximity of tall-growing trees to power lines generally determines the extent of required trimming. Therefore, trees planted near power lines will require more trimming than trees planted away from power lines. Also, it is not recommended that trees or shrubs be planted on inaccessible utility easements (areas between lots that do not have street access). These areas should be kept clear for safety and access.

Trimming Techniques

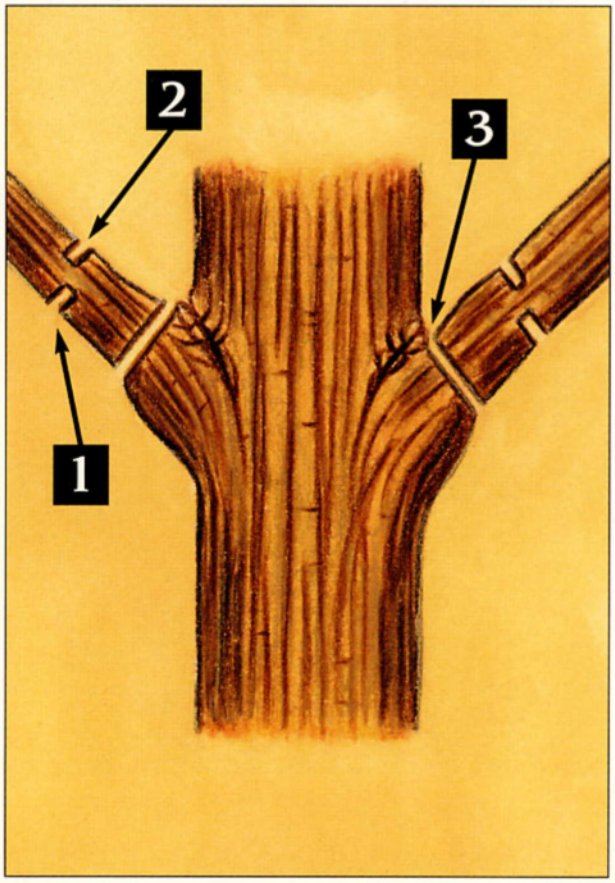
Knowing the proper and improper methods for trimming trees is very important to the future growth, health and appearance of the tree. The illustrations on this page show the proper technique for trimming a tree. Three important steps to follow are:

1. **Make an undercut to prevent bark tearing.**
2. **Make an overcut to remove the limb.**
3. **Remove the resultant stub, leaving the branch collar.**

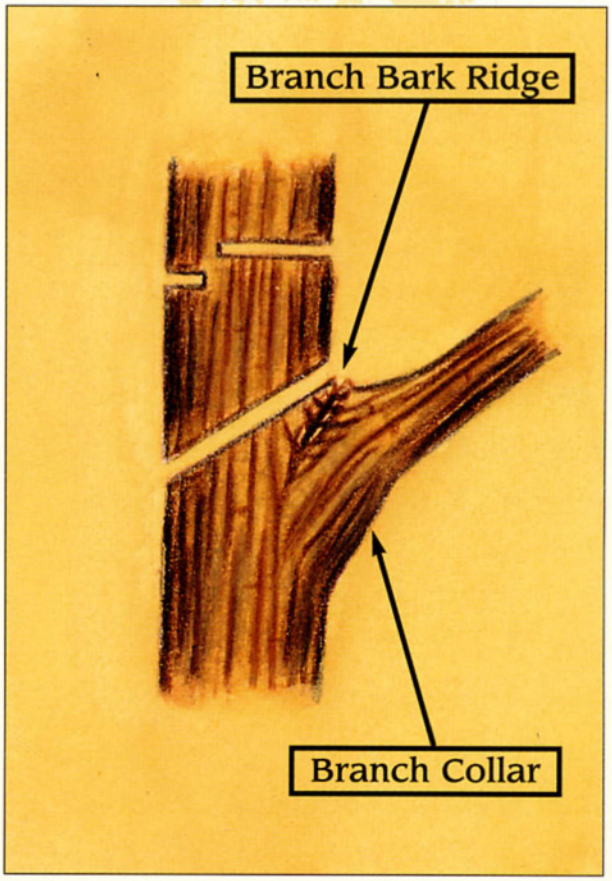
Note that vertical tree stems (called leaders) and horizontal branches (called laterals) are cut at their forks or crotches where branches meet the tree's trunk or other branches.

This accepted arboricultural trimming technique is known as *natural target pruning*.

The photos on page 11 show improper and proper removal of both a leader and a lateral limb. Note in the photos of improper



Removing a lateral

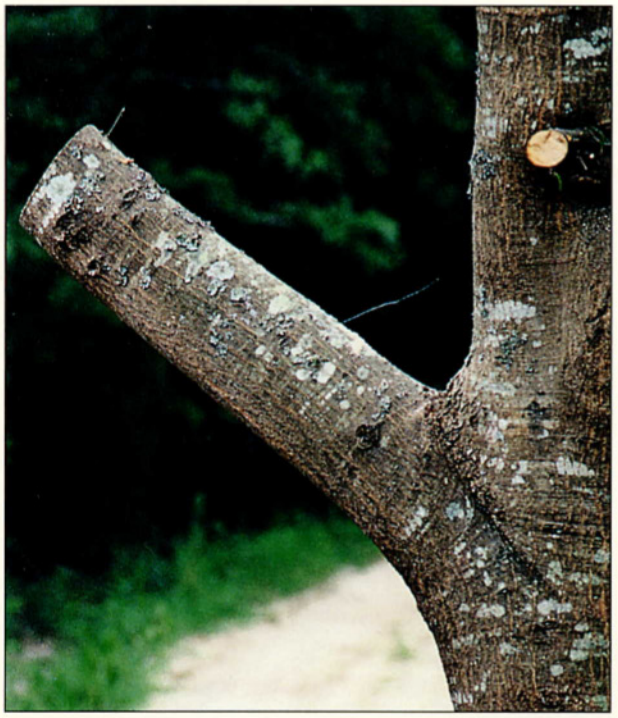


Removing a leader

cuts that stubs were left. Stubs can result in vigorous growth called *suckers*, and may allow damaging insects and disease to enter the tree. Also, suckers are weakly attached to the stubs which leads to damage from high winds, snow or ice. Note in the photos of proper cuts that stubs were not left.

Improper leader cut

Proper leader cut



Improper lateral cut

Proper lateral cut

Proper cuts aid in rapid and complete wound closure over time. Complete wound closure protects the tree and helps prevent damaging decay. Early stages of proper wound closure are indicated by an even ring of growth around the cut.

The photo on the left shows the beginning stages of proper wound closure. The photo on the right shows the completed wound closure.

The results of improper pruning can greatly shorten the life of a tree.

Trimming Types

Trimming for electric line clearance may be divided into two basic types. If a tree is under the line, it is top-trimmed. If a tree is to the side of the line, it is side-trimmed. Both types of trimming are best accomplished with natural target pruning. In both trim types, the goal is to leave the limbs which best direct the future growth safely away from the lines. This is called *directional pruning*.

An improper top trim. Note that improper cuts left many stubs.

A proper top trim. Note that most cuts are leaders cut back to laterals.

The photo on the right shows an improper side trim. Note the stubs left on the tree trunk. A proper side trim is shown on the far right. Note that limbs were cut back to the tree trunk to avoid leaving stubs.

A special form of top trimming, sometimes called "V" trimming, is used when multiple leaders are present. It is better to remove limbs in the center of the tree to proper size laterals and leaders than to leave stubs. An example of this special form of top trimming is shown in the photo below.

A proper top trim using the "V" trimming method.