

# PINE KNOB MANOR HOMES III

## TREE PLANTING REQUESTS

These are the guidelines for Co-owners to follow when requesting new trees. Per our Arborist, these are the recommendations:

- Evergreen trees require full sunlight (6 hours). Must have 15' to 25' of space - width
  - Serbian Spruce (*Picea omorika*)
  - White Spruce (*Picea glauca*) - can tolerate a wetter condition (ie: sprinkler systems)
  - Black Hills Spruce (*Picea glauca Densata*)
  - Concolor Fir (*Abies Concolor*) - gives the blue tone
  - Arborvitae Green Giants (*Thuja Green Giant*) – can grow up to 3 feet per year - can tolerate partial sun
- Japanese Lilac Tree (*Syringa reticulata*)
- Rainbow Pillar Sweet Gum Tree
- Purple Leaf Beech Tree (*Fagus sylvatica 'Atropunicea'*)
- NO flowering pears.
- IF crabapples are planted, they must be rated at “Excellent” for resistance to Apple Scab disease, and preferably “Excellent,” and a minimum of “Good” for the following: Fire Blight, Mildew, and Cedar-apple rust.
- *Minimize* the number of overall Maples – too many are being planted and maples are the preferred host of the next major invasive insect on the horizon – Asian Longhorn Beetle.

**Any other requests will require the Arborists approval.**

**As a reminder, please submit an Architectural Approval Form to our Association Manager for approval of any trees you wish to plant.**

The following guidelines should be used by yourself or whomever you have planting your replacement trees - info from [treesaregood.org](http://treesaregood.org)

- New Tree Planting Information
- Proper Mulching Techniques Information

# New Tree Planting

Information on proper practices for planting a tree with a nine-step approach to successful planting and establishment.

*Purchasing a tree is a lifelong investment. How well this investment grows depends on the type of tree selected and the planting location, the care provided during planting, and the follow-up care after planting.*

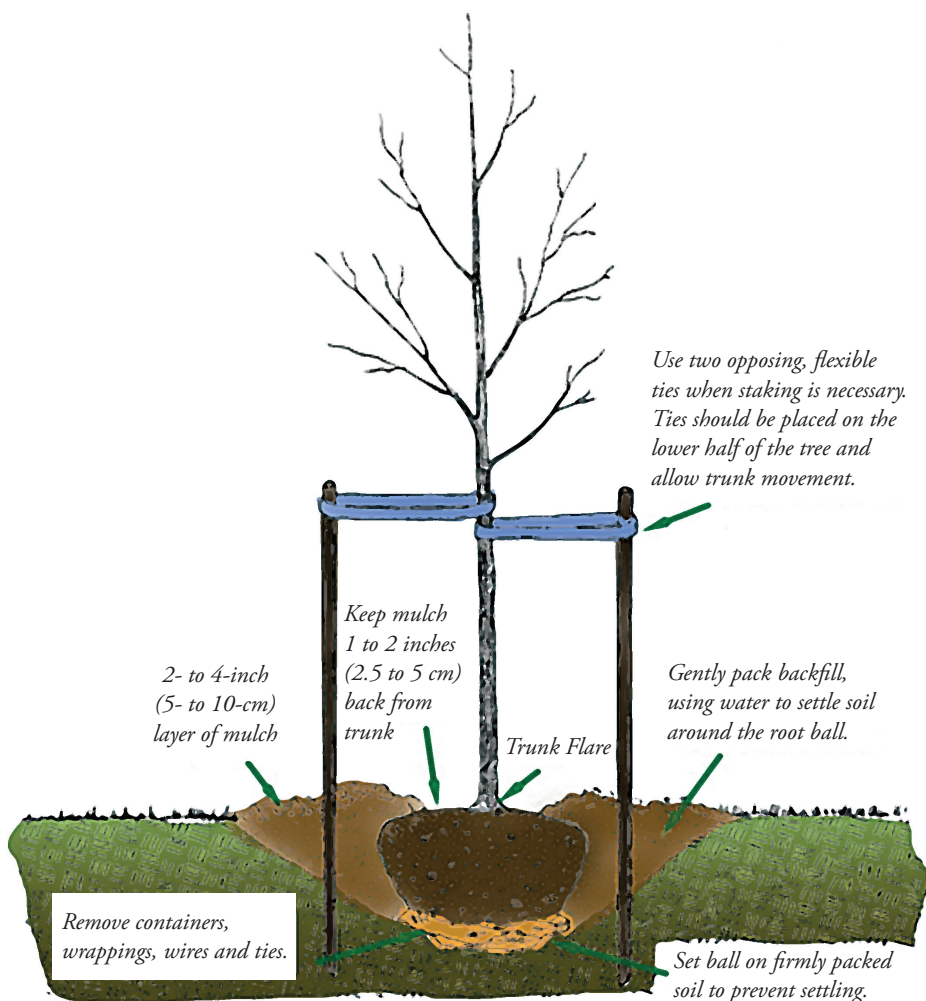
## When to Plant

Ideally, trees are planted during the dormant season — in the fall after leaf drop or in early spring before budbreak. Weather conditions are cool and allow plants to establish roots in the new location before spring rains and summer heat stimulate new top growth. Healthy balled and burlapped or container trees, however, can be planted throughout the growing season if given appropriate care. In tropical and subtropical climates where trees grow year round, any time is a good time to plant a tree, provided that sufficient water is available.

## Planting Stress

Balled and burlapped trees lose a significant portion of their root system when dug at the nursery. As a result, trees commonly exhibit what is known as “transplant shock.” Transplant shock is a state of slowed growth and reduced vitality following transplanting. Container trees may also experience transplant shock, particularly if they have circling or kinked roots that must be cut. Proper site preparation, careful handling to prevent further root damage, and good follow-up care reduces transplant shock and promotes faster recovery.

Carefully follow the nine simple steps below to help your tree establish quickly in its new location. **Note: Before you begin planting your tree, be sure you have located all underground utilities prior to digging.**



- 1. Identify the trunk flare.** The trunk flare is where the trunk expands at the base of the tree. This point should be partially visible after the tree has been planted (see diagram). Remove excess soil from the top of the root ball prior to planting if the root flare is not visible.
- 2. Dig a shallow, broad planting hole.** Holes should be 2 to 3 times wider than the root ball, but only as deep as the root ball. Digging a broad planting pit breaks up the surrounding soil and provides newly emerging tree roots room to expand.
- 3. Remove the containers or cut away the wire basket.** Inspect container tree root balls for circling roots. Straighten, cut, or remove them. Expose the trunk flare, if necessary.
- 4. Place the tree at the proper height.** Take care to dig the hole to the proper depth — and no more. The majority of a tree's roots develop in the top 12 inches (30 cm) of soil. If the tree is planted too deep, new roots will have difficulty developing because of a lack of oxygen. In poorly drained or heavily clayed soils, trees can be planted with the base of the trunk flare 2 to 3 inches (5 to 7.5 cm) above grade. When placing the tree in the hole, lift it by the root ball, not the trunk.

5. **Straighten the tree in the hole.** Before backfilling, have someone view the tree from several directions to confirm it is straight. Once planted, it is difficult to reposition the tree.

6. **Fill the hole gently, but firmly.** Pack soil around the base of the root ball to stabilize it. If the root ball is wrapped, carefully cut



and remove any fabric, plastic, string, and/or wire from around the trunk and root ball to prevent girdling and to facilitate root growth (see diagram). Fill the remainder of the hole, firmly packing the soil to eliminate air pockets that may dry out roots. Further reduce air pockets by watering periodically while backfilling. Avoid fertilization at the time of planting.

7. **Stake the tree, if necessary.** Studies have shown that trees establish more quickly and develop stronger trunk and root systems if they are not staked at the time of planting. Staking may be required, however, when planting bare root stock or planting on windy sites. Stakes may also offer protection against lawn mower

damage and vandalism. One or two stakes used in conjunction with a wide, flexible tie material on the lower half of the tree will hold the tree upright and minimize injury to the trunk (see diagram), yet still allow movement. Remove support staking and ties after the first year of growth.

8. **Mulch the base of the tree.** Mulch is organic matter spread around the base of a tree to hold moisture, moderate soil temperature extremes, and reduce grass and weed competition. Common mulches include leaf litter, pine straw, shredded bark, peat moss, or composted wood chips. A 2- to 4-inch (5- to 10-cm) layer is ideal. More than 4 inches (10 cm) may cause a problem with oxygen and moisture levels. Piling mulch right up against the trunk of a tree may cause decay of the living bark. A mulch-free area, 1 to 2 inches (2.5 to 5 cm) wide at the base of the tree, reduces moist bark conditions and prevents decay.

9. **Provide follow-up care.** Keep the soil moist, but not waterlogged. Water trees at least once a week, barring rain, and more frequently during hot, windy weather. When the soil is dry below the surface of the mulch, it is time to water. Continue until mid-fall, tapering off as lower temperatures require less-frequent watering.

Other follow-up care may include minor pruning of branches damaged during the planting process. Prune sparingly after planting and delay necessary corrective pruning until a full season of growth in the new location has occurred.

Completing these nine simple steps will maximize the likelihood that your new tree will grow and thrive in its new home. When questions arise regarding your tree, be sure to consult your local ISA Certified Arborist or a tree care or garden center professional for assistance.

This brochure is one in a series published by the International Society of Arboriculture as part of its Consumer Information Program. You may have additional interest in the following titles currently in the series:

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Why Topping Hurts Trees

E-mail inquiries: [isa@isa-arbor.com](mailto:isa@isa-arbor.com)

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E-mail inquiries: [isa@isa-arbor.com](mailto:isa@isa-arbor.com)



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# Proper Mulching Techniques

Mulching is one of the most beneficial practices a homeowner can use for better tree health.

*Mulches are materials placed over the soil surface to maintain moisture and improve soil conditions. Mulching is one of the most beneficial acts a homeowner can do for the health of a tree. However, improper mulching materials and practices may have little, or even negative, impact on the trees in your landscape.*



## ***Benefits of Proper Mulching***

- Helps reduce soil moisture loss through evaporation
- Helps control weed germination and growth
- Insulates soil, protecting roots from extreme summer and winter temperatures
- Can improve soil biology, aeration, structure (aggregation of soil particles), and drainage over time
- Can improve soil fertility as certain mulch types decompose
- Inhibits certain plant diseases
- Reduces the likelihood of tree damage from “weed whackers” or the dreaded “lawn mower blight”
- Gives planting beds a uniform, well-cared-for look

Trees growing in a natural forest environment have their roots anchored in a rich, well-aerated soil full of essential nutrients and soil microorganisms. The soil is blanketed by leaves, organic materials, and living organisms that replenish and recycle nutrients. This environment is optimal for root growth and mineral uptake. Urban landscapes and new developments, however, are typically harsher environments with poor quality soils, reduced organic matter, and large fluctuations in soil temperature and moisture. Applying a 2- to 4-inch (5- to 10-cm) layer of organic mulch can mimic a more natural environment and improve plant health.

## ***Types of Mulch***

Mulches are available in many forms. The two major types of mulch are inorganic and organic. Inorganic mulches include various types of stone, lava rock, pulverized rubber, geotextile fabrics, and other materials. Inorganic mulches do not decompose and do not need to be replenished often. On the other hand, they do not improve soil structure, add organic materials, or provide nutrients. For these reasons, most horticulturists and arborists prefer organic mulches.

Organic mulches include wood chips, pine needles, hardwood and softwood bark, cocoa hulls, leaves, compost mixes, and a variety of other products usually derived from plants. Organic mulches decompose in the landscape at different rates depending on the material, climate, and soil microorganisms present. Those that decompose faster must be replenished more often. Because the decomposition process improves soil quality and fertility, many arborists and other landscape professionals consider that characteristic a positive one, despite the added maintenance.



## ***Not Too Much!***

As beneficial as mulch is, too much can be harmful. The generally recommended mulching depth is 2 to 4 inches (5 to 10 cm). Unfortunately, many landscapes are falling victim to a plague of overmulching. “Mulch volcanoes” are excessive piles of mulch materials applied around the base of trees. While organic mulches must be replenished over time, buildup can occur if reapplication outpaces decomposition or if new material is added simply to refresh color. Deep mulch can be effective in suppressing weeds and reducing maintenance, but it often causes additional problems.

## ***Problems Associated with Improper Mulching***

- On wet soils, deep mulch can lead to excess moisture in the root zone, which can stress the plant and cause root rot.
- Piling mulch against the trunk or stems of plants can stress stem tissues and may lead to the development of insect and disease problems or stem girdling roots.



- Some mulches, especially those containing fresh grass clippings, can affect soil pH and may eventually lead to nutrient deficiencies or toxic buildups.
- Mulch piled high against the trunks of young trees may create habitats for rodents that chew the bark and can girdle the trees.
- Thick blankets of fine mulch can become matted and may reduce the penetration of water and air.
- Anaerobic “sour” mulch may give off pungent odors, and the alcohols and organic acids that build up may be toxic to young plants.



## Proper Mulching

The choice of mulch and the method of application can be important to the health of landscape plants. The following are some guidelines to use when applying mulch:

- Determine whether soil drainage is adequate and if there are plants that may be affected by the choice of mulch. Most commonly available mulches work well in most landscapes. Some plants may benefit from the use of slightly acidifying mulch, such as pine bark.
- For well-drained sites, apply a 2- to 4-inch (5- to 10-cm) layer of mulch (less if poorly drained). Coarse mulches can be applied slightly deeper without harm. Place mulch out to the edge of a tree's crown or beyond. Remember, if a tree had a say in the matter, its entire root system (which usually extends well beyond the drip line) would be mulched.
- If mulch is already present, check the depth. If sufficient mulch is present, break up any matted layers and refresh the appearance with a rake. Some landscape maintenance companies spray mulch with a water-soluble, vegetable-based dye to add color to faded material.
- If mulch is piled against the stems or tree trunks, pull it back several inches/centimeters so that the base of the trunk is exposed. Composted wood chips can make good mulch, especially when they include some bark and leaves. Fresh wood chips also may be used around established trees and shrubs. Avoid using fine, non-composted wood chips, as soil nitrogen may be taken up by the roots as the wood chips decompose.



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