William Cundiff

From: Joel D. Rosenkrantz [jdrose@gis.net]
Sent: Sunday, May 22, 2005 1:39 PM
To: jcs313@juno.com; mullalyconst@aol.com; William Cundiff
Subject: Tree Planting

Following is a list of trees suitable for street planting. At the bottom of the list are trees that should not be planted and/or are not suitable alternatives. All substitutes not on this list must be approved by the Board in advance of planting. Attached are planting instructions for your reference and guidance. Please note that it has been proven through research that younger trees are more adaptable, become established and grow faster than larger/older trees. If you would like to address this issue and propose the use of younger trees in your plantings, please feel free to contact the Board to discuss a change from the specific requirements of the Subdivision Rules and Regs.

Acer (Maples)
- campestre (Hedge)
- rubrum (Red)
- saccharum (Sugar)

Aesculus glabra (Ohio Buckeye)

Aesculus hippocastanum (Horsechestnut)

Carpinus betulus (European Hornbeam)

Fraxinus pennsylvanica (Green Ash)

Gleditsia triancanthos (Thornless Honeylocust)

Liquidambar styraciflua (Sweetgum)

Liriodendron tulipifera (Tulliptree)

Platanus x acerifolia (Planetree)

Quercus (Oak)
- alba (White)
- coccinea (Scarlet)
- palustrus (Pin)
- robur (English)
- rubra (Red)
- velutina (Black)

Sophora japonica (Pagodatree)

Sassafrass albidum (Sassafrass)

Tilia
americana (Basswood)
cordata (Littleleaf Linden)

Ulmus americana (American Elm)
var. Princeton or other new disease resistant Elm

Zelkova serrata (Japanese Zelkova)

Do Not Plant

Acer platanoides (Norway Maple)
saccharinum (Silver Maple)

Fraxinus americana (American Ash)

Pyrus calleryana (Flowering Pear)

Salix (Willow)

Planting and Maintaining Trees and Shrubs

Purpose.

The purpose of these guidelines is twofold. It is intended to protect the town and the contractor from unnecessary liability. A properly planted tree will add beauty and value to any property. A dead tree is a liability to public safety.

When considering the planting and maintenance of woody plants, many of the established cultural guidelines practiced by contractors landscape professionals have undergone closer scrutiny in recent years. Based on research findings and field observations, many of these practices have been modified or changed in order to improve overall plant health. Questions shall be addressed to the Planning Board and/or the Tree Warden for help.

Research has shown that improper planting techniques, particularly planting "too deep" is a major cause of tree mortality in managed landscapes. In addition, research has shown the accepted practices governing the size and shape of the planting hole and the nature of the "backfill" mixture require some modification.

Plant Selection

When choosing plant material it is important to know growth habit and ultimate size, maintenance needs, pest resistance, function and potential invasiveness. The contractor shall plant appropriate species for different locations. Ie. smaller trees under power lines and near houses and larger trees in open areas.

Developed landscape sites have been so modified and the microclimate so changed through buildings, underground wires, pavement, traffic, soil compaction, and so on, that not all native plants may perform as well as others. Choose the "right plant for the right location" using plants from existing plant communities and avoid planting monocultures.

Site Preparation

Because the fibrous or absorbing roots of most woody ornamentals are within the top 10" to 12" of the soil, it is recommended that the planting hole be dug no deeper than the rootball as measured from the **trunk flare** to the bottom of the ball. Holes dug deeper than the rootball often result in settling of the plant to a point above the **trunk flare**. As root development often extends beyond the canopy or dripline, the planting area shall be loosened and aerated at least three to five times the diameter of the rootball when possible.

Planting Hole Preparation

One of the most common errors in tree planting is that the rootballs are either planted too deep or too high, both of which can cause serious problems.

To properly plant balled and burlapped (B&B) plant material, begin by locating the point at which the trunk flare begins. In some cases, the trunk flare junction may be buried in the top of the rootball and it shall be necessary to loosen the burlap at the top of the ball to properly locate the junction. Measuring from the trunk flare to the bottom of the ball will give the correct planting hole depth.

The contractor shall try to maintain the integrity of the rootball until it is secure in the hole. In the event that some of the soil should fall away from the roots, simply proceed with the planting, taking care to ensure that the roots do not dry out from sun or wind. The hole size shall be approximately three times the width of the ball and have sloped sides when possible.

Setting the Plant

The contractor shall carefully set the plant in the hole so that the trunk flare is at, or 1 to 2" above, the existing grade. Once the plant is properly placed, the contractor shall cut away and remove all visible rope and burlap. If the rootball appears in danger of completely collapsing, the contractor shall remove the rope and burlap from only the top one-third of the ball. The contractor shall remove all of the wire basket once the root ball is stable in the planting hole. If the root ball is not stable, the contractor may remove only half of the wire basket in order to preserve the integrity of the root ball. The contractor shall not leave any protruding points of wire which could cause injury.

Backfilling the Planting Hole

Backfilling with soil dug from the planting hole is preferable to mixing the soil with large amounts of organic soil amendments such as peat moss, compost, etc. The addition of an organic soil amendment may be called for if the existing soil is of poor quality, ie. excessively sandy, heavy clay or undesirable fill material. Alternatively, quality topsoil, similar in texture to the existing soil, may be brought in and used for backfill.

While backfilling the hole, the contractor shall tamp the soil lightly to avoid leaving air pockets. However, the contractor shall not pack the soil so firmly as to drive out all the fine air spaces needed for a well-aerated soil. As an alternative to tamping the soil, the contractor may water the soil halfway through the backfill process and allow it to drain. When the water has drained away, resume backfilling and water again thoroughly.

Before the contractor has completed the backfilling, the contractor shall smooth the surface soil and check to ensure that the trunk flare is completely exposed.

Watering

Water is a critical factor to the successful establishment of landscape plants. Excess or insufficient water will impede the formation and/or elongation of new roots. After planting, the contractor shall water the planting area deeply. The contractor shall water weekly during the entire first growing season for the plants to become established. The contractor shall be responsible to water all plant material until the subdivision is accepted by the town or if not a subdivision, during the entire guarantee period (presently one year) as established in the industry. If standard practices change in the industry so shall the contractor abide. Rainfall alone may not provide adequate, consistent moisture necessary for establishment. Alternative watering practices may be allowed under approval of the Board with the Tree Warden. Such practices may include Tree Gators, underground or above ground drip irrigation. Above ground irrigation (sprinklers) shall not be considered appropriate watering practices since they do not water the roots of the plants.

Staking

Most experts agree that staking is not necessary for all trees. Trunk strength, size of the canopy, wind direction and site traffic problems should all be considered before staking a tree. Research has shown that staked trees may develop a smaller root system and decreased trunk taper. If the rootball is stable in the soil, then it may not need to be staked. However, if the root ball is unstable and staking is required, the contractor shall attach stakes one third of the height of the tree or at the first branch union and allow some sway. Stakes shall be removed after one growing season unless the tree is still not stable. If the tree is not stable after one growing

season, the contractor shall adjust the stakes and cabling as necessary and re-check after another growing season has ended. Guy wires shall be of adequate size to secure the tree but not hinder all movement. The bark of the tree shall be protected by some form of wrap or Arbor Tape. Rubber hose and similar products shall not be allowed as they can injure the bark of the tree.

Mulching

Mulching is a cultural practice that can be of benefit in the landscape when done correctly. Improper mulching can impair plant health and lead to the decline of the plant material.

Organic mulch shall be placed in a wide band, approximately twice the diameter of the rootball, over the root zone and no more than 2 to 4" deep tapering to, but not touching, the trunk. Mulch piled up against the trunk may cause rotting of the bark and can create entry points for insects or disease organisms. Field mice may also inhabit deep mulch and feed on the bark.

Pruning

After transplanting, prune only broken or damaged branches. Top pruning to compensate for root loss is no longer recommended. It is important to leave as much foliage on the tree as possible because carbohydrates and other products produced by photosynthesis in the leaves are necessary for root system regeneration and development.

Tree Wrapping

The bark on a tree or shrub is as important as skin to an animal. It acts as a barrier to exclude insects and disease organisms from the vascular system which lies directly under the bark. Some bark injuries may occur as a result of damage from the sun (sunscald) or temperature extremes (frost cracks). For many years it has been a common practice to use tree wrap on newly planted or thin-barked trees in an effort to reduce sun or temperature damage to the bark. Research has found that some tree wraps may not provide the protection that was originally intended. In addition, some tree wraps retain excess moisture beneath the wrap; this may encourage fungal or bacterial growth, especially if there were pre-existing wounds in the trunk. Tree wrap shall be removed at time of planting or until activity that could injure the trunk of the tree has ceased.

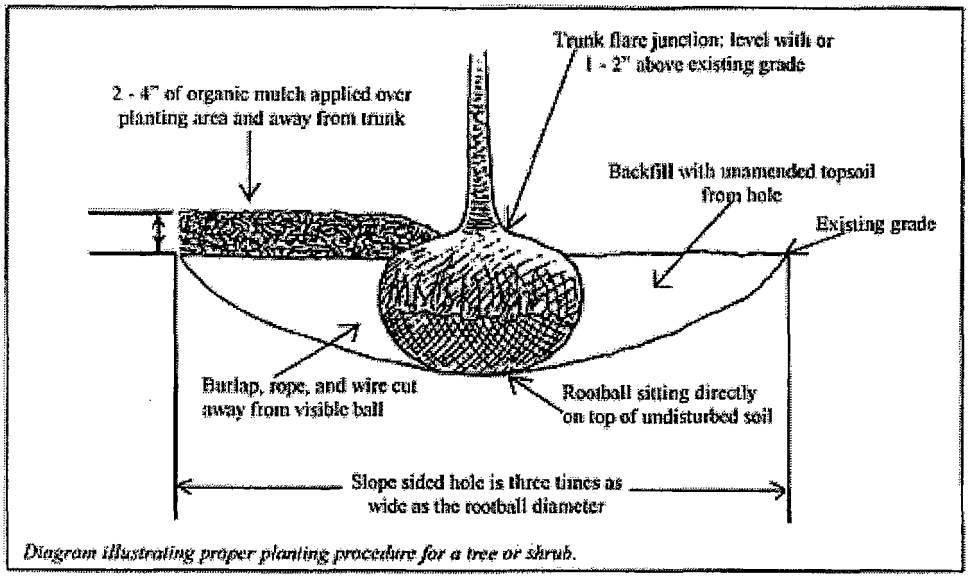

Diagram illustrating proper planting procedure for a tree or shrub.