

Urban Forestry Development Information



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City of Muskego Street Tree Specifications

Plant Stock Specifications

All plant material shall conform to American Standard for Nursery Stock.

All plants shall be protected during all shipments from sun and drying winds.

All plants shall be true to species and variety specified and nursery grown in accordance with good horticultural practices in hardiness zone 5 or lower for at least 2 years.

All plants shall have been freshly dug and trained in development and appearance as to be good quality in form, compactness and symmetry.

All plants shall be sound, healthy, vigorous, well branched and densely foliated at time of leaf out, and free of disease and insects (eggs, larvae, or adults). They shall have healthy, well developed root systems and free from physical damage.

All plants shall be labeled with plant name and size.

Trees with multiple leaders may be rejected. Trees with pruning cuts over 3/4" in diameter that are not calloused may be rejected.

Trees will have a trunk diameter between 1½" to 2½" unless due to a variance particular to a specific species. Measurement shall be taken at 6" above ground level.

Trees shall be a minimum of 7' in height unless due to a variance particular to a specific species.

Trees root systems shall be balled and burlapped.

Ball sizes should always be of a diameter and depth to encompass enough of the fibrous and feeding root system for the full recovery of the plant.

Root balls shall correspond to the following chart.

Trunk Diameter	Minimum Diameter Ball	Ball Depth Minimum
1½"	20"	13.5"
1¾"	22"	15.0"
2"	24"	16.0"
2½"	28"	19.0"

Burlap shall completely cover the root ball and be tightly bound with rope or twine. All materials shall be of a biodegradable nature.

Root flares shall be within 3" of the top of the root ball.

Root balls that are dry, cracked, or broken before or during planting may be rejected.

Species Selection

All tree species shall be selected from the provided City of Muskego Street Tree Species List unless otherwise indicated and approved by the City.

No more than 35% of any one species shall be used on any street. All trees shall be from the large tree species list unless otherwise determined by the Plan Commission that such species do not have the necessary room to grow and develop on the basis of existing conditions. At this occurrence trees from the small tree species list shall be selected for planting.

Plant Certification

All plant material shall comply with State and Federal laws and regulations governing the inspection, shipping, selling and handling of plant stock. A certificate of inspection for injurious insects, plant diseases and other plant pests shall accompany each shipment of plant material. The certificate shall bear the name and address of the source of the stock.

Plant Inspection

Plants shall be subject to inspection for conformity to specifications by the City of Muskego prior to planting.

Tree Planting Specifications

These specifications shall be followed for planting of all trees regardless if done by the City of Muskego or the Subdivider.

All trees shall be planted using the professional guidelines and standards of the International Society of Arboriculture (ISA) and the Wisconsin Arborist Association State Chapter as adopted by the City of Muskego

Planting Hole

Trees shall be planted so that they will not interfere with solar access to south walls, roof tops, underground or overhead utilities, fire hydrants or public street lights.

Diggers Hotline shall be contacted prior to any tree planting procedures.

Planting holes shall be dug in accordance with the attached Planting Diagram.

Planting holes shall be at least 2 - 3 times the diameter of the root ball.

The root ball shall be set to rest on undisturbed soil in the bottom of the planting hole so as to leave the trees root flare at ground level or slightly higher (no more than 1" higher).

Excavated planting holes shall not be left unattended could pose as a safety hazard. Planting holes shall be adequately barricaded.

When soil conditions prove unsatisfactory to the promotion of plant growth, or if underground conflicts exist, an alternate planting location may be selected by the City of Muskego

Planting Operation

All plants shall be moved, lifted or carried by supporting the root ball. Plants shall not be carried by supporting the trunk or branches, nor shall they be dragged. Plants will not be thrown or bounced.

All plants shall be watered daily while in storage.

All plants shall be protected while in transport from sun and drying winds.

All plants shall be planted in the center of the planting hole.

Ropes, strings, baskets, and burlap shall be removed completely from the root ball, unless in so doing will destroy the integrity of the root ball. In this instance, then as much as possible will be removed with at least the upper half of the ball clear of foreign material.

Planting holes shall be backfilled halfway with excavated soil then watered to settle the soil. The remainder of the hole will be filled with the excavated soil.

Planting areas shall be finish graded to conform to the Planting Diagram leaving the trees root flare at ground level or slightly higher (no more than 1" higher).

Secondary roots (adventitious roots) located above the root flare shall be pruned off.

Planted trees shall be mulched with aged wood chip/shredded bark mulch to a depth of 2 - 4". Mulch will be pulled back from against the trunk so as not to exceed 1" in depth.

Trees shall be watered upon completion of mulching.

All planting labels and other foreign objects shall be removed from the trunk, branches, and foliage and removed from the planting site.

Only those trees unable to remain upright after planting shall be staked. Stakes shall be 8' long and driven through the bottom of the planting holes, outside of the root ball. The supporting material shall be a minimum of 2" wide made of a substance which will not injure the bark of the tree (i.e., elastic or webbed strapping). Unless otherwise determined by the Subdivider or Contractor, the stakes and staking material shall be removed by the Homeowner and they may retain them.

Trees shall not be trunk wrapped when planted in the spring.

Only broken and damaged limbs shall be pruned at time of planting.

Post planting watering shall be the responsibility of the Homeowner.

Location of Street Trees

Subdivider shall prepare a Master Street Tree Planting Plan per development. The plan shall be at a scale of 1" = 100', and shall adhere to the following minimum standards:

Trees must be at least:

30' from any street corner

10' from a driveway

20' from a street light or utility pole

10' from a fire hydrant

10' from a gas/water valve or utility laterals

*30' tree spacing between small tree species

*50' spacing between large tree species

* Tree species selected for the City of Muskego Street Tree Species List.

Clean Up

No debris shall be left at the planting site nor shall any conditions exist after planting as to result in a safety hazard.

Acceptance

The City of Muskego shall perform an inspection of all plant material at a 1 - 3 week interval after planting. Any discrepancies will be noted in plant health and vigor and the Subdivider or Contractor will be notified. Those plants healthy and vigorous will be accepted. A second inspection shall be performed by the City of Muskego at 12 - 18 months following planting to ensure that the trees are in a healthy and flourishing condition.

Guarantee

All plants shall be guaranteed to be healthy and in a flourishing condition for a minimum of 18 months from the date of planting if performed by the Subdivider or Contractor. The guarantee excludes loss due to abnormal weather conditions, vandalism, animal damage, insect/disease, or maintenance negligence. The Subdivider or Contractor shall replace at their cost (one time only) all of those trees found not to be in a healthy, flourishing condition.

Recommended Street Trees - City Of Muskego

Large trees for use in wide planting areas (7'+ width) and where no overhead utilities exist.

<u>Scientific Name</u>	<u>Common Name</u>
Acer x freemanii	Autumn Blaze Maple
Acer rubrum**	Red Maple**
Acer saccharum**	Sugar Maple**
Celtis occidentalis	Hackberry
Fraxinus americana**	White Ash**
Fraxinus pennsylvanica**	Green Ash**
Gingko biloba	Gingko
Gleditsia triacanthos inermis**	Honeylocust**
Gymnocladus dioicus*	Kentucky Coffeetree*
Phellodendron amurense	Amur Corktree
Quercus alba*	White Oak*
Quercus macrocarpa*	Burr Oak*
Quercus robur*	English Oak*
Quercus rubra*	Red Oak*
Tilia cordata	Little Leaf Linden**
Tilia americana cv 'Redmond'	Redmond Linden
Ulmus americana cv	American Elm (Disease Resistant)

* Trees may not be suitable for high traffic areas due to nut and fruit litter.

** Many cultivars exist for these species. Cultivars are used for variety among species and improved performance through characteristics: i.e. shapes, structure, growth habit, insect/disease resistance, absence/persistence of fruit, and color.

cv - abbreviation for cultivar.

Small trees for use in restricted planting areas (4 - 6' width) or areas where overhead utilities exist.

<u>Scientific Name</u>	<u>Common Name</u>
Amelanchier spp.**	Serviceberry**
Carpinus caroliniana	Hornbeam, Muscledwood
Cercis canadensis	Eastern Redbud
Crataegus spp.**	Hawthorn**
Fraxinus pennsylvanica var. Leprechaun	Leprechaun Green Ash
Malus spp.**	Crabapple**
Ostrya virginiana	Ironwood, Hop Hornbeam
Prunus sp.**	Ornamental Cherry and Plum**
Pyrus calleryana**	Callery Pear**
Syringa reticulata	Japanese Tree Lilac

** Many cultivars exist for these species. Cultivars are used for variety among species and improved performance through characteristics: i.e. shapes, structure, growth habit, insect/disease resistance, absence/persistence of fruit, and color.

spp. - abbreviation for species

Recommended Park Trees - City of Muskego, Wisconsin

Large Trees

<i>Acer x freemanii</i>	Autumn Blaze Maple
<i>Acer rubrum</i>	Red Maple
<i>Acer saccharum</i>	Sugar Maple
<i>Aesculus hippocastanum</i> *	Horse Chestnut
<i>Betula nigra</i> ***	River Birch
<i>Betula papyrifera</i> ***	White Birch
<i>Carya ovata</i> *	Shagbark Hickory
<i>Catalpa speciosa</i> *	Northern Catalpa
<i>Celtis occidentalis</i>	Common Hackberry
<i>Fraxinus americana</i> **	White Ash
<i>Fraxinus pennsylvanica</i> **	Green Ash
<i>Fraxinus quadrangulata</i> ***	Blue Ash
<i>Ginkgo biloba</i>	Ginkgo Biloba
<i>Gleditsia tricanthos inermis</i> **	Honey Locust
<i>Gymnocladus dioica</i> *	Kentucky Coffee Tree
<i>Juglans nigra</i> *	Black Walnut
<i>Quercus alba</i> *	White Oak
<i>Quercus bicolor</i> *	Swamp White Oak
<i>Quercus macrocarpa</i> *	Bur Oak
<i>Quercus robur</i> *	English Oak
<i>Quercus rubra</i> *	Red Oak
<i>Tilia americana</i>	Basswood
<i>Tilia cordata</i> **	Little Leaf Linden
<i>Ulmus americana</i> var.	American Elm (disease resistant var.)

Small Tree List

Amelanchier spp.**	Serviceberry spp.
Carpinus caroliniana	American Hophornbeam
Cercis canadensis	Eastern Redbud
Cornus alternifolia	Pagoda Dogwood
Crataegus spp.**	Hawthorne spp.
Malus spp.**	Crabapple
Ostrya virginiana	Ironwood
Prunus pennsylvanica	Pin Cherry
Prunus spp.	Ornamental Plum
Syringa reticulata	Japanese Tree Lilac

Evergreens

Juniperus virginiana	Red Cedar
Larix laricina***	Tamarack
Picea abies	Norway Spruce
Picea glauca	White Spruce
Picea pungens	Blue Spruce
Pinus nigra	Austrian Pine
Pinus strobus	White Pine
Thuja occidentalis**	White Cedar

* Trees may not be suitable for high traffic areas due to nut and fruit litter.

** Many cultivars exist for these species. Cultivars are used for variety among species and improved performance through characteristics: i.e. shapes, structure, growth habit, insect/disease resistance, absence/persistence of fruit and color.

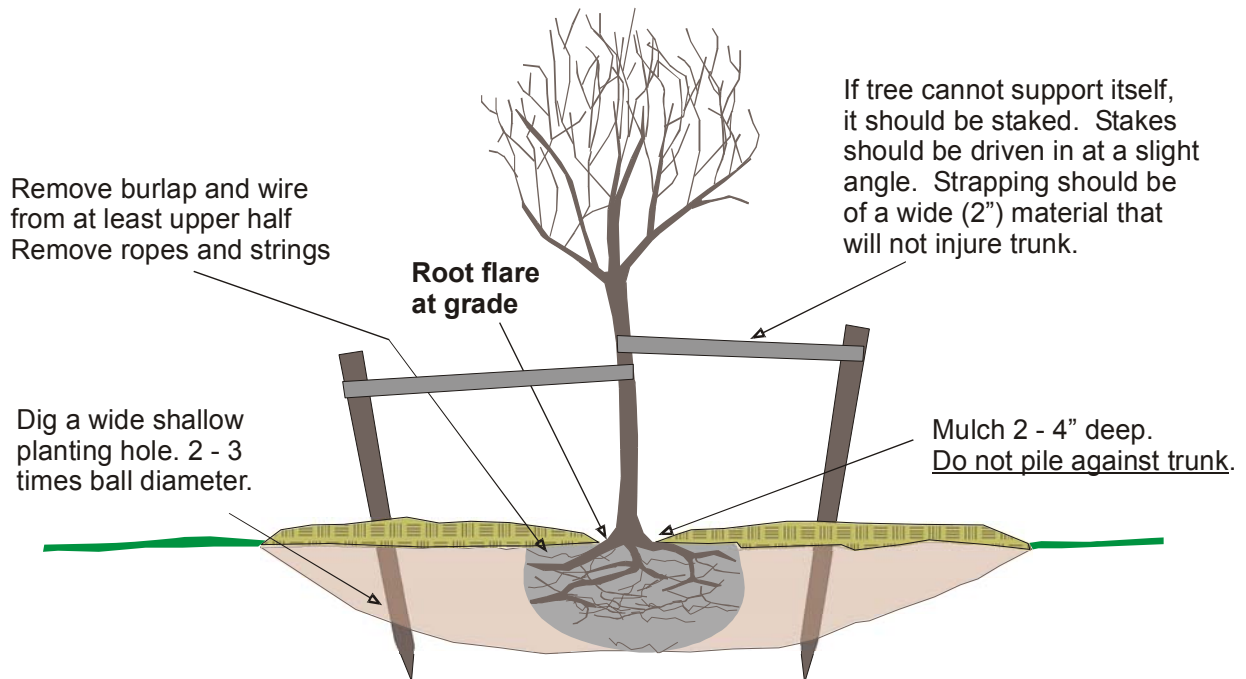
*** Recommended to be used as specimen trees. Due to transplant difficulty and soil requirements they should not be used in large quantities.

spp. - abbreviation for species

var. - abbreviation for variety

Proper Tree Planting Diagram

TREE PLANTING DIAGRAM



NOTES:

Root flare must be visible at grade. Any adventitious or girdling roots are to be pruned off. Burlap, ropes and wire must be cut away from at least the upper half of ball so outward root growth is not impeded. A wide "ring" of mulch is placed around the tree. If staked, strapping is to be removed after one complete growing season.