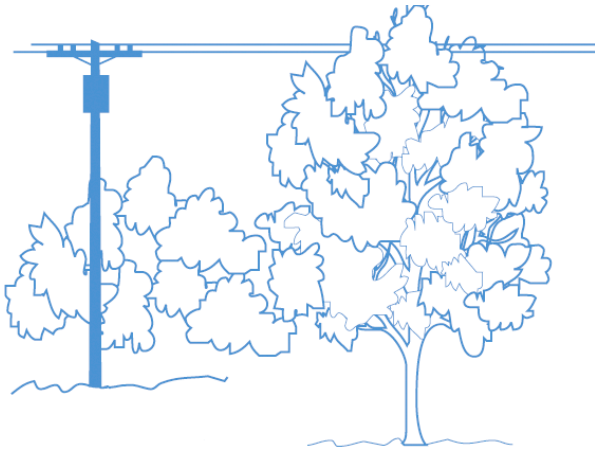


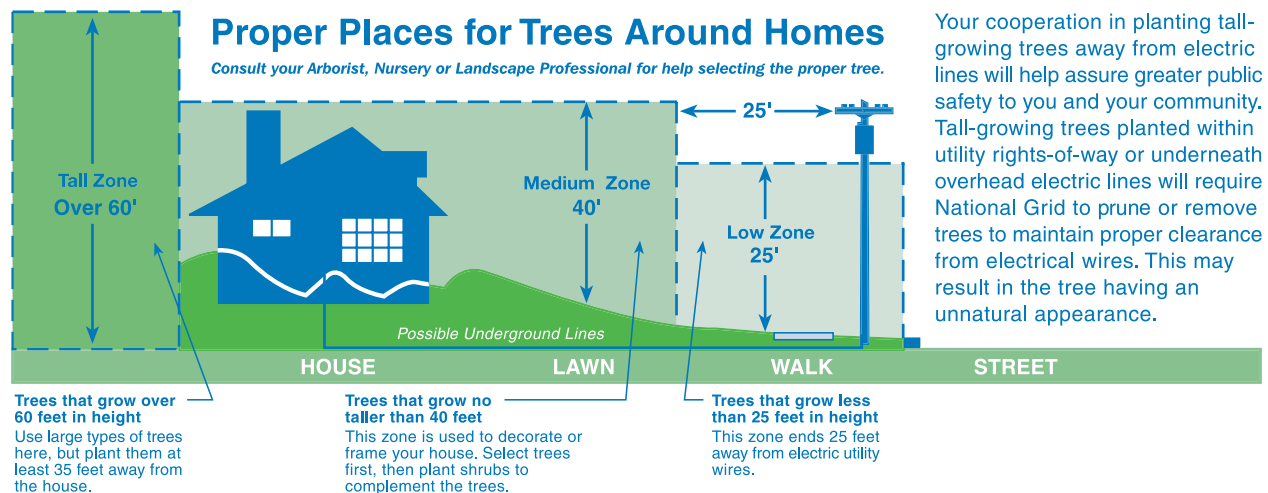
# How to Avoid Tree & Utility Line Conflicts When Selecting and Planting Trees



Determining where to plant a tree is a decision that should not be taken lightly. Many factors need to be considered prior to planting. When planning what type of tree to plant, remember to look up, as well as down, to determine where the tree will be located in relation to both the overhead and underground utility lines. The location of these lines will have a direct impact on your tree and planting site.

The ultimate mature height of the tree to be planted must be within the available overhead growing space. Proper tree species selection and placement will assure the avoidance of utility line conflicts in the future.

To assist you in making a decision on what type of low growing tree species to choose, where to place it to avoid potential conflicts and how to plant it properly, National Grid is providing this fact sheet for your use. This will help assure the tree you plant will not only add beauty to your home, your community and benefits the environment, and contributes to future electric service reliability by avoiding overhead and/or buried lines.



Your cooperation in planting tall-growing trees away from electric lines will help assure greater public safety to you and your community. Tall-growing trees planted within utility rights-of-way or underneath overhead electric lines will require National Grid to prune or remove trees to maintain proper clearance from electrical wires. This may result in the tree having an unnatural appearance.

## Recommended Small Trees for Planting Under Low Overhead Utility Lines or Confined Spaces

Urban Trees Recommended for USDA Planting Zones 6 and Below

Common name	Scientific name	Zone	Mature Height**	Crown Shape	Comments
<b>Trident Maple</b>	<i>Acer buergeranum</i>	6a	20'-25'	round	variable fall color (yellow-red), low branched, will require pruning for street tree use
	var. 'Street Wise'	6a	20'-25'	oval	can be trained to single stem; burgundy Fall color
<b>Hedge Maple *</b>	<i>Acer campestre</i>	5b	20'-25'	round	adapted to compaction, will sustain severe pruning; several new cultivars available
	var. 'Queen Elizabeth'	5b	20'-25'	upright oval	vigorous grower
	var. 'Schichtel's Upright'	5b	20'-25'	narrow oval	narrower crown form
	var. 'St. Gregory'	5b	20'-25'	upright oval	strong central leader, smooth bark
<b>Globe Norway Maple *</b>	<i>Acer platanoides</i> 'Globosum'	4a	15'-18'	dense round	top grafted on 6-7' standard; yellow Fall color
<b>Amur Maple</b>	<i>Acer tartaricum</i> ssp. <i>Ginnala</i>	3a	15'-25'	rounded	often multi-stemmed, but can be trained/specified for single stem; variable Fall color
	var. 'Betzam', aka 'Beethoven'	3a	15'-25'	narrow upright	10-15' wide crown, deep hunter green leaves; red samaras (seeds); gold-red Fall color
	var. 'Embers'	3a	15'-25'	rounded	red seeds, red Fall color
	var. 'Flame'	2	15'-25'	rounded	seed grown, variable form; can be trained to quality low branched/multi-stem tree
	var. 'Mozzart', aka 'Mozart'	2	15'-25'	pyramidal	symmetrical form; strong central leader; red Fall color
<b>Tartarian Maple</b>	<i>Acer tartaricum</i>	3	15'-25'	rounded	multi-stemmed, irregular, but can be trained/specified for single stem; variable Fall color
	var. 'Rubrum'	3	15'-25'	rounded	blood-red Fall color
<b>Shantung/Painted Maple *</b>	<i>Acer truncatum</i>	5a	25'-35'	round	spring color purplish-red changing to green
	var. 'Kiethsform', aka 'Norwegian Sunset'	5a	25'-35'	upright oval	yellow/orange Fall color; more drought tolerant than Norway Maple
	var. 'Warrenred', aka 'Pacific Sunset'	5a-5	25'-35'	rounded upright	bright yellow/orange early Fall color; finer branched
<b>Serviceberry</b>	<i>Amelanchier</i> spp.	3b-4	20'-30'	oval	edible fruit, early white flowers, red to yellow fall color
	var. 'Autumn Brilliance'			oval	heavy flowering, bright red-orange Fall color; good heat/drought tolerance
	var. 'Cole's Select'			narrow	15' wide crown; glossier, smaller green leaves; orange-red to red Fall color
	var. 'Cumulus'			narrow	15-18' wide crown; faster growing; yellow to orange-scarlet Fall color
	var. 'Majestic'			oval	fast growing; irregular multi-stem form; copper-orange Fall color (hard to find tree form!)
	var. 'Princess Diana'			oval	bright red, long lasting Fall color; (difficult to find in tree form!)
	var. 'Refzam', aka 'Reflections'			narrow	10-15' wide crown; heavy flowering
	var. 'Robin Hill'			narrow	12-15' wide crown; heavy flowering, pink buds, early bloomer; bronze tinged leaves
	var. 'Snowcloud'			narrow	15' wide, open crown; blue-green leaves in Summer, copper-orange to scarlet in Fall
	var. 'Spirzam', aka 'Spring Glory'		10'-15'	very narrow	8-10' wide crown; grey-green leaves in Summer, amber-orange Fall color
	var. 'Trazam', aka 'Tradition'			oval	good branching, strong center leader; heavy fruiting; grey-green foliage
<b>American Hornbeam</b>	<i>Carpinus caroliniana</i>	3b	30'	round	"muscle" bark, good orange-red fall color; slow to establish; difficult to transplant
<b>Eastern Redbud *</b>	<i>Cercis canadensis</i>	5b	20'-30'	open, spreading	edible, pink, very early Spring flowers; typically multi-stemmed; heart shape leaves
	var. 'Forest Pansy'	6		open, spreading	typically smaller, slower growth; red-purple Spring leaves, bronze Summer foliage
	var. 'Northern or Minnesota Strain'			open, spreading	more cold hearty; limited availability
	var. 'Whitebud'			open, spreading	faster growth rate; white flowers; lighter green foliage
<b>Corneliancherry Dogwood *</b>	<i>Cornus mas</i>	4	20'	round - oval	multi-stemmed; showy early small yellow flowers; heavy fruiting (litter may be a nuisance!)
	var. 'Golden Glory'			narrow upright	larger fruit; red-purple Fall color
<b>American Smoketree</b>	<i>Cotinus obovatus</i>	5a	20'-30'	oval -round	low branching, multi-stemmed tree; 6-10" light, puffy, pyramidal Spring flower; color variable
<b>Thornless Cockspur Hawthorn *</b>	<i>Crataegus crus-galli</i> var. <i>inermis</i>	4a	20'-25'	round	white flowers, bright red persistent fruit
	var. 'Cuzam', aka 'Crusader'		15'	round	wider in form, smaller in height
<b>Washington Hawthorn *</b>	<i>Crataegus phaenopyrum</i>	4a	20'-30'	round	white flowers; thorny; reddish-purple fall color ; insect & disease prone; 'usually' multi-stem
	var. 'Princeton Sentry'			upright	faster growing; almost thornless; relatively pest free
	var. 'Manbeck Select'			round	improved tree form selection
	var. 'Lustre'			oval	faster growing; fewer thorns
	var. 'Fastigata'			round	glossy, dark green foliage in Summer
	var. 'Vaughn'			round	NOT recommended for use due to thorniness and disease problems
<b>Ohio Pioneer Hawthorn *</b>	<i>Crataegus punctata</i> var. <i>inermis</i>	4-5a	20'-25'	round	white spring flowers, purplish red fall color, thornless; prone to disease/insect problems
	var. 'Aurea'			round	yellow fruiting variety (difficult to find!)
<b>Winter King Hawthorn *</b>	<i>Crataegus viridis</i> var. 'Winter King'	4-5a	20'-30'	oval	thorny, white flowers, purple and scarlet fall color, fruit persists
<b>Golden Desert European Ash *</b>	<i>Fraxinus excelsior</i> 'Aureaefolia'	4b-5a	20'-30'	rounded	leaves emerge yellow, become yellow-green; twigs/young stems golden yellow
<b>Leprechaun Green Ash *</b>	<i>Fraxinus pennsylvanica</i> 'Johnson'	3	15'-20'	dense, rounded	top grafted on 4-6' stems; Anthracnose resistant
<b>Goldenrainree *</b>	<i>Koeleruteria paniculata</i>	5b	30'-40'	irreg. rounded	pest free; 12" pyramidal, mid-summer, yellow flower clusters
<b>Emerald Sentinel Sweetgum</b>	<i>Liquidambar styraciflua</i> 'Clydesform'	5	30'	narrow pyram.	relatively pest free; yellow-orange Fall color; fruit persists & litter may be a concern

Common name	Scientific name	Zone	Mature Height**	Crown Shape	Comments
<b>Flowering Crabapple *</b>	Malus spp.	3-4			various cultivars (some may be disease resistant):
	var. 'Adams'	4a	20'	round	buds deep pink, flowers deep pink, profuse
	var. 'Adirondack'	4	18'	vase	bright red fruit 1/2" diameter, dark green leathery leaves
	var. 'American Spirit'	4	18'	round	deep rose flower, persistent red 1/2" fruit
	baccata, var. 'Jackii'	3a	20'	round	flowers are white fragrant and early, fruit is deep red-purple
	var. 'Cardinal'	4	16'	broad spread.	flowers bright pink-red purple, fruit deep dark red, leaves deep glossy purple-red
	var. 'Centurion'	4	20'	narrow oval	flowers rose red, bright red persistent 5/8" diameter fruit, leaves reddish
	var. 'Dolgo'	3b	30'	oval	flowers white, fruit bright red, edible 1-1/2" in diameter, leaves glossy green
	var. 'Donald Wyman'	4	20'	round	flowers white, abundant, fruit glossy bright red, abundant
	var. 'Doubloons'	4	18'	dense oval	flowers white, double fruit bright lemon-yellow, abundant
	floribunda	4b	20'	round	flowers pink fading to white, profuse, 1-1/2" diameter, fruit yellow-red
	var. 'Harvest Gold'	4	20'	oval	flowers white double, fruit gold, abundant, persistent
	var. 'Henry Kohankie'	4	20'	round	flowers pink-white, fruit glossy red, ellipsoid, persistent, edible
	var. 'Indian Summer'	4a	18'	round	flowers rose red, fruit persistent bright red 5/8" diameter, buds purple
	var. 'Liset'	4a	15'	columnar	flowers pink-red 1-1/2" diameter, fruit dark red, leaves reddish
	var. 'Ormiston Roy'	4a	20'	oval - round	pink-rose bud, white flower, yellow 3/8" diameter persistent fruit, green leaf
	var. 'Prairifire'	4	20'	oval - round	crimson bud, pink-rd flower, orange-red persistent 1/2" fruit, leaves age to red-green
	var. 'Professor Sprenger'	4	20'	oval - round	pink bud, white fragrant flower, orange-red persistent 1/2" diameter fruit, green leaf
	var. 'Purple Prince'	4	20'	round	carmine bud, rose red flower, persistent maroon 3/8" fruit, purple-bronze leaf
	var. 'Red Jewel'	4	15'	oval	pink-white bud, white flower, persistent bright red 1/2" diameter fruit, green leaf
	var. 'Robinson'	4	25'	oval	crimson bud, deep pink flower, dark glossy red 3/8" fruit, red aging to bronze leaf
	var. 'Royal Raindrops'	4	20'	upright spread.	pink bud, bright pinkish flower; persistent red 1/4" fruit; purple cut-leaf, orange-red Fall
	var. 'Sentinel'	4	18'	narrow oval	red buds, white-pink flower, persistent bright red 1/2" fruit, dark green glossy leaf
	var. 'Strawberry Parfait'	4	18'	vase	red buds, large pink flower, yellow 3/8" fruit, red aging to green leaf
	var. 'Sugartyme'	4	18'	oval	pink bud, white fragrant flower, red persistent 1/2" diameter fruit, green leaf
	x zumi 'Calocarpa'	4a	20'	round	bright red, persistent 3/8" diameter, leaves large green, dense canopy
<b>Persian Parrotia *</b>	Parrotia persica	5	20'-30'	pyra.-round	relatively pest free; red-purple new foliage to green in Summer, yellow-red in Fall
	var. 'Ruby Vase'	4	20'	upright-vase	foliage emerges ruby red in Spring, persisting through Fall
<b>Accolade Flowering Cherry</b>	Prunus sargentii + subhirtella	5a	20'-25'	round-vase	deep rose-pink bud, semi-double pink flowers, attractive bark
<b>Snow Goose Cherry</b>	Prunus 'Snow Goose'	5	20'-25'	upright	white flowers, foliage green aging to yellow-red in Fall; fruit is 1/4" blue-black
<b>Canada Red Chokecherry</b>	Prunus virginiana	2b	25'	oval-upright	white flowers, foliage green aging to dark maroon, edible fruit
<b>Dancer Ornamental Birchleaf Pear *</b>	Pyrus betulaefolia 'Southwood'	4	30'	round	flowers 3 weeks later than most P. calleryana; reportedly Fireblight resistant
<b>Edgewood Callery Pear *</b>	P. calleryana x P. betulaefolia 'Edgedell'	4	30'	round	leaves emerge with purple tint, silvery green through Summer, red-purple in Fall
<b>Jack Callery Pear *</b>	Pyrus calleryana 'Jaczam'	4	15'-20'	oval; dense	glossy green to gold-red leaves in Fall; 1/2" yellow-green fruit
<b>Jill Callery Pear *</b>	Pyrus calleryana 'Jilzam'	4	15'-20'	round	olive green to gold leaves in Fall; 1/2" yellow-green fruit
<b>Valiant Callery Pear *</b>	Pyrus calleryana 'Valzam'	4	25'-30'	upright-pyram.	glossy hunter green to crimson red leaves in Fall; 1/4" tan fruit
<b>Cleveland Pride Callery Pear *</b>	Pyrus calleryana 'Clepipzam'	4	25'-30'	pyramidal	salmon/pink leaves in Spring to olive green to burgundy leaves in Fall; 1/4" tan fruit
<b>Korean Sun Pear *</b>	Pyrus fauriei 'Westwood'	4	15'-20'	round	reddish-orange leaves in Fall; leaves drop earlier than P. calleryana
<b>Mountain Frost Ussurian Pear *</b>	Pyrus ussuriensis 'Mountain Frost'	3	20'-25'	oval - round	large, showy white clustered flowers; 1"-1 1/2" green-yellow fruit (if cross pollinated)
<b>Prairie Gem Ussurian Pear *</b>	Pyrus ussuriensis 'MorDak'	3	20'-25'	oval - round	large, showy white clustered flowers; 1"-1 1/2" green-yellow fruit (if cross pollinated)
<b>Globe Black Locust *</b>	Robinia pseudacacia 'Globe' or 'Inermis'	4	20'	round; dense	late Spring flowering (possibly flowerless); spineless; medium to blue-green leaves
<b>Bessoniana Black Locust *</b>	Robinia pseudacacia 'Bessoniana'	4	30'	oval	late Spring flowering; essentially spineless; medium to blue-green leaves; central leader
<b>Swedish Mountain Ash *</b>	Sorbus intermedia	5b-6a	25-35'	round	green upper leaf/grayish white undersides; orange-red fall color
<b>Columnar Oakleaf Mountain Ash *</b>	Sorbus thuringiaca	3b	25-35'	oval-pyram.	dark green upper leaf/whitish undersides; rusty orange-yellow fall color
	var. 'Fastigiata'	3b	25-35'	narrow pyram.	more narrow pyramidal crown form
<b>Japanese Tree Lilac *</b>	Syringia reticulata	3a	20'-25'	oval	large cream colored flowers in late June; good for use in large containers
	var. 'Ivory Silk'	3a	20'-25'	upright	dense; compact; heavy flowering; fast growing; cherry-like bark
	var. 'Summer Snow'	3a	20'-25'	round	glossy leaves; heavy flowering
	var. 'Regent'	3a	20'-25'	upright	glossy leaves; heavy pure white flower producer
<b>Summer Sprite Littleleaf Linden *</b>	Tilia cordata 'Halka'	4	15'-20'	narrow pyram.	may grow slower than the species; fragrant, mid-Summer flowers (attracts bees!)
<b>Siebold Viburnum</b>	Viburnum sieboldii	5-4	15'-20'	open	often considered a large shrub, with pruning can have tree-like form; white late Spring flowers
<b>Wireless Japanese Zelkova *</b>	Zelkova serrata 'Schmidtlow'	5	25'	broad vase	exfoliating bark; less likely than species to have poor branch structure; Elm-like appearance

\* (CU-SS = Trees suitable for planting in Cornell University Structural Soil mix)

\*\* Trees over 25' in mature height should be planted at least 25' away from the edge of overhead wires. Not all tree species listed may be available at nurseries, may be in limited production or limited quantities.

Tree list summarized from RECOMMENDED URBAN TREES: SITE ASSESSMENT AND TREE SELECTION FOR STRESS TOLERANCE; 2003 Urban Horticulture Institute, Dr. Nina Bassuk, Deanna Curtis, B.Z. Marranca & Barb Neal; Cornell University, 134-A Plant Science Bldg., Ithaca, NY 14853 [www.hort.cornell.edu](http://www.hort.cornell.edu)

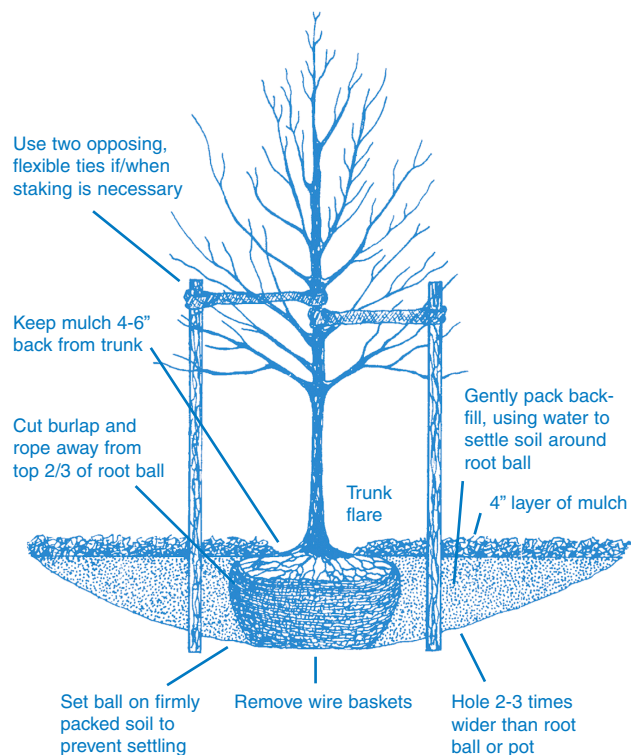
**For more information: Call our Distribution Forestry Department (315) 428-5987, or visit [www.nationalgrid.com](http://www.nationalgrid.com).**

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# Correct Planting Instructions

**NOTE:** In New York State call “Dig Safely New York” at 1-800-962-7962 or “Dig Safe” at 888-344-7233 (in Massachusetts, Rhode Island and New Hampshire) at least 3 full days before you dig...buried lines may be where you least expect them!

**Tree Planting Diagram**



1. Dig a shallow hole, 2-3 times wider than the width of the ball/pot, but no deeper than the depth of the ball/pot.
2. Lift and set the tree carefully into the center of the hole on firm soil. Be sure the top of the trunk flare at the base of the tree is even with grade level, or even 1-2" higher to allow for possible settling. Carefully pull back some soil from the base of the tree to assure the trunk flare and upper layer of roots have not been covered with excess soil. Remove any excess soil back to the original soil level across the top of the ball or pot and raise the ball or pot to the proper level by adding soil to the bottom of the hole.
3. Straighten the tree and back fill the hole 1/3 of the way. Remove all rope or twine from the base of the tree and top of the root ball; cut and remove the upper 2/3 of the burlap and remove the wire basket. Be sure to remove all plastic/nylon twine and synthetic burlap as this material will not rot away and may strangle tree roots. Plastic pots need to be removed completely while peat pots need only be sliced down the sides. Carefully loosen the outer roots from potted containers.
4. Backfill and pack the soil firmly and uniformly in layers around the hole, watering as you go to settle the soil. It is not necessary to amend the soil or add fertilizers at this time. Use the excess soil to create an earthen berm around the ball on the surface just past the root ball to help retain water. Apply a 2-4" layer mulch to the entire area under the tree to help maintain moisture, keeping the mulch 4-6" from the base of the tree.
5. Stake the tree for support, only if absolutely necessary, and do so with 2-3 stakes and wide, soft, loose ties which will allow the tree to move with the wind encouraging faster establishment. Water the tree as needed once the upper soil surface has dried well into the Fall. Do NOT cut the main central leader; prune only dead or damaged limbs; do NOT apply tree paints.

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