### Approved Tree List for City of Boulder Properties and Public Street Rights of Way

Trees, when properly selected and cared for, are appreciating assets to the City of Boulder. They provide positive impacts and benefits to our ecosystem, economy, and community through cleaning the air and purifying water, providing habitat, and by enhancing our neighborhoods and commercial districts. This document serves to guide planners, developers, landscape architects, and other professionals in proper tree selection for the City of Boulder.

The following trees may not be planted in the public street right-of-way or other City properties due to poor suitability, structural concerns, or invasive qualities:

- Acer negundo (boxelder) with the exception of the 'Sensation' cultivar
- Acer x freemannii (autumn blaze/freeman maple)
- Ailanthus altissima (tree-of-heaven) invasive species
- Elaeagnus angustifolia (Russian-olive) invasive species
- Populus spp. hybrid cottonwoods or aspen
- Pyrus calleryana 'Bradford' (Bradford flowering pear)
- Salix spp. (willow)
- Ulmus pumila (Siberian elm) invasive species
- Multi-stemmed trees
- Weeping or pendulous trees

### The following trees may not be planted in the public Right of Way or City property due to insect and disease concerns:

- Acer platanoides (Norway maple) sunscald susceptibility
- Fraxinus spp. (ash) emerald ash borer
- Gleditsia triacanthos var. inermis 'Sunburst' fungal canker susceptibility
- Juglans spp. (walnut) Thousand Cankers Disease
- Platanus occidentalis (sycamore) anthracnose susceptibility
- Tilia cordata (littleleaf linden) Japanese beetle
- Quercus rubra (northern red oak), Quercus shumardii (Shumard oak), Quercus palustris (pin oak), Quercus ellipsoidales (northern pin oak) kermes scale and drippy blight disease
- Pinus nigra (Austrian pine), Pinus sylvestris (Scotch pine) pine wilt

#### The following trees may not be planted in the public Right of Way but are allowed on other City properties:

- Coniferous trees
- Populus spp. native cottonwoods only (Plains, narrowleaf and lanceleaf); no hybrid cottonwoods or aspen allowed
- Salix spp. (willow) native species only

### **Spacing Requirements:**

- 30-35 feet between medium and large statured shade trees
- 20-25 feet between small statured ornamental trees
- 25 feet from intersections
- 10 feet from streetlights
- 10 feet from alleys, driveways, and fire hydrants
- 10 feet from water meters

Trees not included in this document may not be planted in City parks, City properties, or Public Right of Way without permission from the City Forester. Exceptions may be made on a case by case basis, but not guaranteed. Authorization is needed from Boulder Forestry before planting, pruning, spraying, or removing any tree in the public street right-of-way. This enables Boulder Forestry to keep an up-to-date tree inventory and ensures proper species selection, placement and care of new or existing trees.

# **Approved Deciduous Trees**

Species Name	Common Name	Acceptable Cultivars	Hardiness Zone	Water Needs	Mature Size Category	Mature Height (ft)	Mature Width (ft)	Mature Canopy Area (sq. ft)	Form	Fall Color	Flowers	Fruit	Additional Notes
Acer campestre	hedge maple	Queen Elizabeth	5	low to medium	medium	30	30	707	oval	yellow	insignificant	samara	Tolerates clay soil, air pollution, susceptible to winter dieback in early freezes
Acer glabrum	Rocky Mountain maple		5	low to medium	small	20	15	177	rounded	orange	insignificant	samara	Prefers moist soils
Acer grandidentatum	bigtooth maple	Rocky Mountain Glow	4	low to medium	small	25	25	491	rounded	orange, red	insignificant	samara	Tolerates alkaline soil, drought once established
Acer griseum	paperbark maple		4	medium to high	small	25	20	314	oval	orange, red	insignificant	samara	Tolerates clay soil, intolerant of drought, protect from strong winds
Acer miyabe	miyabe maple	State Street	4	medium	small	40	30	707	oval	yellow	insignificant	samara	Tolerates wet sites, alkaline soils, clay soils
Acer negundo	boxelder	Sensation	3	low to medium	large	40	40	1257	rounded	yellow	insignificant	seedless for cultivar listed	Tolerates clay soil, drought once established, air pollution, alkaline soils
Acer pseudoplatanus	sycamore maple		4	medium	medium	35	30	707	rounded	yellow	insignificant	samara	Tolerates alkaline soils, road salts
Acer saccharum	sugar maple	Fall Fiesta, Legacy, Caddo	4 to 5	medium	large	60	45	1590	rounded	orange	insignificant	samara	Intolerant of soil compaction, road salts, air pollution, some cultivars may develop chlorosis in alkaline soils
Acer tataricum	tartarian maple	Hot Wings, Pattern Perfect	3	low to medium	small	20	15	177	rounded	red, yellow	white clusters	samara	Tolerates soil compaction, clay soil
Aesculus flava	yellow buckeye		4	medium	large	60	40	1257	rounded	orange, yellow	yellow cluster	nut	Intolerant of drought, prone to leaf scorch in hot and dry sites

Aesculus hippocastanum	common horsechestnut		4	medium	large	60	50	1963	oval	yellow	pink to white cluster	nut	Intolerant of drought, prone to leaf scorch in hot and dry sites
Aesculus x carnea	red horsechestnut	Briotti, Fort McNair	4	medium	medium	35	30	707	rounded	yellow	pink upright	nut	Intolerant of drought, prone to leaf scorch in hot and dry sites
Carpinus betulus	European hornbeam	Fastigiata, Frans Fontaine	5	medium	medium	35	25	491	rounded	yellow	insignificant	nutlet	Tolerates air pollution, dry sites, alkaline soils, protect from strong winds
Carpinus caroliniana	American hornbeam		3	medium	medium	30	30	707	rounded	orange, red	insignificant	nutlet	Tolerates clay soil, alkaline soils, dry sites
Carya illinoensis	pecan		5	medium	large	50	30	1257	oval	yellow	insignificant	nut, edible	Tolerates wet sites, alkaline soils, choose stock with northern seed source if possible
Carya ovata	shagbark hickory		5	medium	large	50	30	1963	oval	bronze, yellow	insignificant	nut	Tolerates drought once established, alkaline soils, dry sites
Catalpa ovata	Chinese catalpa		4	low to medium	medium	25	25	491	oval, irregular	yellow	white orchid like	seed pod	Tolerates dry sites, alkaline soils, wet sites, clay soils, and road salts
Catalpa speciosa	western catalpa		5	low to medium	large	65	30	707	oval, irregular	yellow	white orchid like	seed pod	Tolerates drought once established, clay soil, and air pollution
Catalpa x erubescens	purple catalpa		5	low to medium	medium	40	35	962	rounded, irregular	yellow	purple, yellow	seed pod	Tolerates dry sites, alkaline soils, road salts
Celtis laevigata	sugar hackberry	All Seasons, Magnifica	5	low to medium	large	45	40	1257	oval	yellow	insignificant	drupe	Tolerates clay soil, wet soil, air pollution
Celtis occidentalis	common hackberry		3	low to medium	large	50	50	1963	rounded	yellow	insignificant	drupe	Tolerates drought once established, clay soil, wet soil, and air pollution
Celtis reticulata	netleaf hackberry		3	low to medium	small	25	25	491	rounded	yellow	insignificant	drupe	Tolerates alkaline soil, drought.
Cercis canadensis	eastern redbud		4	medium to high	small	25	30	707	rounded	yellow	pink to purple	seed pod	Tolerates clay soil
Cladrastis kentukea	yellowwood		4	medium	medium	40	40	1257	rounded	yellow	white clusters	seed pod	Protect from strong winds

Corylus colurna	Turkish filbert		4	low	medium	45	25	491	pyramidal	bronze	insignificant	nut, edible	Tolerates drought once established and most soils but not heavy clay
Crataegus ambigua	Russian hawthorn		4	low	small	20	15	177	rounded	orange	white	berry	Tolerates drought, clay soils, and dry soils. Has thorns
Crataegus lavellei	lavalle hawthorn		4	medium	small	20	15	177	oval	red	white	berry	Has thorns
Crataegus mollis	downy hawthorn		4	low to medium	small	20	15	177	rounded	red	white	berry	Tolerates alkaline soils, clay soils. Has thorns.
Crataegus viridis	green hawthorn	Winter King	4	low to medium	small	20	25	491	rounded	red	white	berry	Tolerates drought, clay soils, and dry soils. Has thorns
Fagus sylvatica	European beech	Purpurea, Tricolor	4	high	large	50	40	1257	oval	bronze	insignificant	nut, edible	Intolerant of wet, poorly drained soils
Gleditsia triacanthos inermis	thornless honeylocust	Imperial, Shademaster, Skyline	3b to 4	low to medium	medium to large  - Depends on variety	60	60	2827	rounded, spreading	yellow	insignificant	seedless for cultivars listed	Tolerates drought once established, clay soil, and air pollution
Gymnocladus dioicus	Kentucky coffeetree	Espresso, Stately Manor	4	low- medium	large	60	40	1257	rounded, irregular	yellow	insignificant	seed pod, seedless cultivars available	Tolerates drought once established, air pollution
Koelreuteria paniculata	goldenrain tree		5	low	medium	35	35	962	rounded, irregular	yellow	yellow clusters	seed capsule	Tolerates drought, clay soil, air pollution
Liquidambar styraciflua	sweetgum		5	medium	large	50	40	1257	oval, irregular	orange, purple, red	insignificant	seed ball	Tolerates clay soil
Liriodendron tulipifera	tuliptree		4	medium	large	60	35	962	oval	yellow	yellow tulip like	seed capsule	Tolerates clay soil, wet soil
Maackia amurensis	Amur maackia		3	low to medium	medium	25	25	491	rounded	yellow	white	seed pod	Adapts to a wide range of soils
Magnolia acuminata	cucumbertree magnolia		4	medium to high	large	55	30	707	pyramidal	bronze, yellow	green, yellow	seed cluster	Intolerant of most urban pollutants
<i>Magnolia</i> Galaxy	galaxy magnolia		4	medium	small	25	15	177	rounded	bronze	pink to purple	seed cluster	Protect from strong winds
Magnolia x soulangiana	saucer magnolia		4	medium	small	20	20	314	rounded	bronze	white to purple	seed cluster	Tolerates clay soil

Malus sylvestris	crabapple	Golden Raindrops, Indian Magic, Prairiefire, Royal Raindrops, Spring Snow, Thunderchild	4	low to medium	Small to Medium — depends on cultivar	varies by cultivar	varies by cultivar	varies by cultivar	rounded	varies on cultivar	varies by cultivar	pome, size varies on cultivar, fruitless cultivars available	Tolerates air pollution, adapts to a wide range of soils. Select cultivar with good to excellent resistance to the following: fireblight, scab, cedar apple rust, and mildew
Morus alba	white mulberry		4	medium	large	40	40	1257	rounded	bronze	insignificant	fruitless cultivars available	Tree permitted in parks but not in the Public Right of Way. Tree attracts wildlife and is not permitted west of Broadway Avenue. tolerates drought once established, air pollution.
Ostrya virginiana	American hophornbeam		3	low to medium	medium	30	25	491	rounded	yellow	insignificant	seed capsule	tolerates drought once established, clay soil
Phellodendron amurense	amur corktree	His Majesty, Macho, Eyestopper	4	medium	medium	30	45	1590	rounded	yellow	insignificant	fruitless cultivar	Tolerates drought once established
Prunus maackii	Amur chokecherry		3	medium	medium	25	20	314	rounded	yellow	white	berry	Excellent cold hardiness
Prunus virginiana	chokecherry	Sucker Punch	3	low to medium	medium	25	15	177	rounded	yellow	white	berry	Tolerates drought, dry soil, shallow and rocky soil
Ptelea trifoliata	common hoptree		3	low	medium	20	20	314	rounded, irregular	yellow	white	seed cluster	Tolerates drought once established, dry soil
Pyrus calleryana	flowering pear	Cleveland Select, Chanticleer, Autumn Blaze	4	low to medium	medium	35	15	177	oval	red	white	drupe	Tolerates drought, clay soil, air pollution
Quercus alba	white oak		3	low to medium	large	65	65	3318	rounded	red	insignificant	acorn	Tolerates drought once established, clay soil, dry soil, shallow and rocky soil
Quercus bicolor	swamp white oak		4	medium	large	55	55	2376	rounded	bronze, orange	insignificant	acorn	Tolerates drought once established, wet soil
Quercus gambelii	gambel oak		5	low	small	20	20	314	rounded, irregular	bronze	insignificant	acorn	Best used as multi- stem

Quercus imbricaria	shingle oak		5	medium	Large	50	50	1963	oval	bronze, red	insignificant	acorn	Tolerates drought once established, adapts to a wide variety of soils
Quercus macrocarpa	bur oak	Bulletproof	3 to 4	low to medium	large	70	70	3848	rounded	bronze	insignificant	acorn	Tolerates drought once established, clay soil, dry soil, choose gall- less tree stock as galls attract yellow jackets
Quercus muehlenbergii	chinkapin oak		3	low to medium	large	50	60	2827	rounded	bronze	insignificant	acorn	Tolerates drought once established
Quercus prinus	chestnut oak		4	low to medium	large	65	65	3318	rounded	red	insignificant	acorn	Tolerates alkaline soils, drought once established
Quercus undulata	wavy-leaf oak		4	low to medium	small	10	5	20	rounded	yellow	insignificant	acorn	Best used as multi- stem
Styphnolobium japonicum	Japanese pagoda tree		5	medium	medium	45	40	1257	rounded	yellow	white	seed pod	Tolerates drought once established, air pollution
Syringa pekinensis	Chinese tree lilac	China Snow	5	low	small	20	15	177	oval	bronze, yellow	white clusters	seed capsule	Resistant to mildew
Syringa reticulata	Japanese tree lilac	Ivory Silk	3	low	small	25	15	177	oval	yellow	white clusters	seed capsule	Tolerates clay soil, urban conditions
Tilia americana	American linden	*check with Boulder Forestry for approved cultivars	3	medium	large	60	40	1257	oval, rounded	yellow	pale yellow	nutlet	Tolerates drought once established, clay soil
Tilia tomentosa	silver linden		5	medium	large	60	40	1257	oval	yellow	pale yellow	nutlet	Tolerates drought one established
Ulmus americana	American elm	*check with Boulder Forestry for approved cultivars (only those resistant to Dutch elm disease & European elm scale allowed)	4	low to medium	large	70	55	2376	vase	yellow	insignificant	samara	Tolerates drought once established, air pollution
Ulmus davidiana	David elm	Discovery	3	low to medium	large	45	45	1590	vase	yellow	insignificant	samara	Tolerates drought once established, air pollution

Ulmus x accolade	accolade elm		4	low to medium	large	55	35	962	vase	yellow	insignificant	samara	Tolerates drought once established, air pollution
Xanthoceras sorbifolium	golden yellowhorn	Clear Creek	5	low to medium	small	20	20	314	rounded	yellow	white	capsule	Tolerates drought one established, adaptable to a wide range of growing conditions

# **Approved Coniferous Trees**

Species	Common Name	Hardiness Zone	Water Needs	Mature Height (ft)	Mature Width (ft)	Mature Canopy Area (sq. ft)	Additional Notes
Abies concolor	white fir	3	medium	55	25	688	Prefers moist soils
Cedrus atlantica	atlas blue cedar	6	medium	50	25	625	Drought tolerant once established, protect from strong winds
Juniperus scopulorum	Rocky Mountain juniper	2	low	40	25	500	Tolerates drought, air pollution
Juniperus virginiana	eastern redcedar	2	low	50	20	500	Tolerates drought, air pollution
Metasequoia glyptostroboides	dawn redwood	4	medium	85	20	850	Approved for street right-of-way planting; Tolerates clay soil, air pollution, wet soil
Picea glauca	white spruce	2	medium to high	50	15	375	Very cold hardy, sensitive to road salt and air pollution
Picea pungens	blue spruce	2	medium to high	50	15	375	Tolerates drought, air pollution
Pinus aristata	bristlecone pine	4	low to medium	15	10	75	Tolerates poor, rocky soils, and alkaline soils
Pinus edulis	pinyon pine	3	low to medium	35	15	263	Tolerates drought
Pinus flexilis	limber pine	4	low to medium	50	30	750	Adaptable to a wide variety of soils
Pinus ponderosa	Ponderosa pine	3	low to medium	90	25	1125	Tolerates drought
Pinus strobiformis	southwestern white pine	4	low to medium	90	30	1350	Prefers moist soils
Pseudotsuga menziesii	Douglas-fir	4	medium	55	25	688	Prefers moist soils
Sequoiadendron giganteum	giant sequoia	6	medium to high	100	40	2000	Intolerant of clay soils, prefers moist, well drained soils
Taxodium distichum	baldcypress	4	medium to high	60	35	1050	Approved for street right-of-way planting; Tolerates clay soil, air pollution