# City of Provo City of Provo Selection Guide & Tour

2015 Edition



"The tree which moves some to tears of joy is in the eyes of others only a green thing that stands in the way. Some see Nature all ridicule and deformity, and some scarce see Nature at all. But to the eyes of the man of imagination, Nature is Imagination itself."

William Blake, 1799, The Letters

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#### **About This Book**

Provo City has a long-standing tradition of planning for and taking care of our beautiful urban forest. The urban forest is a very important component of our City's infrastructure. A great example of this is that Provo has been a Tree City USA for over 30 years. Daily we receive many benefits from the trees in the urban forest including: Trees improve our airquality by purifying the air, generating oxygen and sequestering carbon. They also provide shade which cools our urban areas, reduces energy consumption and lowers cooling costs, to name a few. We hope you enjoy and use this revised Tree Selection Guide and Tour, as we continue to move forward together taking care of this precious natural resource that is important component of the great quality of life we share in Provo.

Respectfully, Ty Nielsen, Forester





#### **Guide Developed by:**

Scott Bunker, Assistant Director, Provo City Power Ty Nielsen, Forester Joseph Sharp, Design

Provo City Forestry Division: (801) 852-6920 • 251 West 800 North provopower.org/forestry

#### **Self Guided Tour**

This book is designed not only to serve as a directory to help residents learn more about trees, but also it is designed to be a self-guided tour. The address of each tree is provided at the bottom of every page. If you wish to take a closer look at any of these trees, you can go see them for yourself. Additionally, the back section of this book contains information on other notable trees located here in Provo. These trees cannot be planted as street trees (because of size and

visibility issues), but they are very unique. If cared for, these trees can grow quite well in Provo. Many of the trees included in this section are particularly interesting because they are fairly rare in this area. We especially recommend looking at the following:

Giant Sequoia European Larch Blue Atlas Cedar Tabletop Elm

#### **Classes of Trees**

The trees in this book have been divided up into four different classes. The classes vary according to the height, width, and required spacing of each tree. The classes further indicate where it would be appropriate to plant each particular species of tree.

Class I: These are smaller trees which normally do not reach a large height or trunk diameter. Most can be planted beneath or near power lines and in parking strips (area between the side walk and street curb) that are at least four feet wide. Typical spacing between Class I trees is 20 to 30 feet.

Class II: These are trees that are usually considered medium sized and are normally planted for their shade and aesthetic contribution. These trees are not for planting under power lines or in parking strips less than six feet wide. Typical spacing between Class II trees is 25 to 30 feet.

Class III: Many of these trees are long lived and attain a large height and trunk diameter. When selecting a tree from this class, be sure there is ample room to accommodate it at maturity. These trees are not for planting under or near power lines or in parking strips that are less that 10 feet wide. Typical spacing between Class III trees is 30 feet or more.

Other Notable Trees: These trees can be purchased and planted in yards, but they are not approved for planting in parking strips or underneath power lines. Although the trees are not offered for planting by Provo City, they are an interesting facet of our community.

#### Street Tree Selection Guide

Trees are a valuable component of our city. Trees clean the air we breath, muffle city noise, harbor wildlife, cool houses with their dense shade, and increase property values. But perhaps most of all, trees provide a natural beauty which softens the harsh city landscape. Trees truly enhance the quality of life for all of Provo's residents.

Unfortunately, not all trees are properly planted or cared for. Many problems that property owners have with trees are a result of planting the wrong tree species in the wrong location. Growth characteristics, including height, spread, and branching structure, limit the usefulness of some trees in certain locations. Power lines, streets, buildings, and sidewalks also limit the space available for tree growth and must be considered when selecting a tree. Planting the wrong tree near any of these structures could cause problems with the structure itself and with the health of the tree. Our goal should be to choose a tree that is well matched to the planting site so that it survives and becomes an asset to the community.

#### How to Select a Tree

Shade trees vary greatly in their growth characteristics. Learning about a tree's shape, mature height, and spread will help in selecting the right tree for the right place. The first step is to consider the planting site. Once the location has been chosen, it is then time to choose a tree from this guide that will best fit the location.

# The following questions will help you in selecting a tree:

- What is the desired use of the tree?
   Aesthetics, shade, vision or sounds screen?
- What are the environmental conditions of the site selected for the planting? Full or partial sun? Soil type? Micro-climate?
- What height and width do the trees reach at maturity? This will help avoid conflicts with structures, traffic, etc.
- What overhead and underground utilities are in close proximity to the selected planting site?
- What is the growth rate of the selected tree species? Fast growing trees tend to be weak-wooded and hazardous.
- Is the tree adapted to the area? Many tree varieties will grow locally if planted in the right location.
- What are the aesthetic effects you desire from the tree? Flowers, colorful summer or fall foliage, shape?
- Is there adequate irrigation? Sprinkling or drip systems.

The trees recommended in this guide are generally tolerant of local temperature extremes (hardiness) and have characteristics that make them useful as street trees. Most trees produce flowers, fruit or seeds and leaves that drop at some point in their annual life cycle. There is no tree that is truly cleanup free, but there are some trees that produce significantly less mess than others. Each tree in this guide is listed with its botanical and common names followed by a brief description and pertinent general information.

#### How to Plant a Tree

The best way to ensure a healthy and safe street tree is to start by planting the tree correctly. There are only a few things to remember when planting. Please follow these planting directions:

- For any questions contact the Forestry Department (801) 852-6920 prior to planting any tree in a parking strip.
- Select one of the species in the Street Tree Selection Guide for planting.
- Before choosing the planting location contact Blue Stakes (1-800-662-4111) for location of underground utilities.
- Dig the planting hole at least twice the width of the root ball and only as deep as the root ball. A very important rule of thumb is that it is better to plant the tree a little too high than a little too low.
- To remove a tree from a container, gently lay it down. Push on the sides and bottom of the container to break contact between the root ball and container. Hold the trunk near the surface of the soil and push/pull the container away from the root ball. Slide the container off the root ball. Do not pull on the trunk. If the root ball is too large for this process it may be necessary to cut the container off after the tree is placed in the planting site.
- Prune circling or protruding roots and remove twine from canopy.
- Handle the root ball with extreme care.
   Minimize as much as possible any crumbling, cracking, and splitting of the root ball.

- After gently placing the tree in the hole, remove wire and burlap if the stability of the root ball allows. If not, remove only the top one or two rows of wire and an equal amount of burlap. Cut vertical slits in the burlap that remains. Do not fold burlap into the hole.
- Use the soil removed from the hole to backfill. Minimize air pockets by removing soil clumps, rocks, sod, and folded burlap.
- Thoroughly water. Allow water to soak deeply into the site.
- Place two to four inches of mulch over the planting site. Avoid direct contact between the mulch and the trunk of the tree. Where possible, mulch should extend out from the trunk of the tree about two to three feet.
- Check moisture content of the backfill and root ball weekly to determine how much and how often to water.

Utah State University Extension Bulletin EC 460, *Selecting and Planting Landscape Trees*, is an excellent reference. Visit any USU Extension office for more information.

#### **Tree Care Tips**

Trees that are planted in the landscape can live a very long time if they are cared for correctly. There are a few steps that can be taken to ensure trees grow well and live longer. If you have any question on the care of trees call the Provo City Forestry Division at (801) 852-6920.

#### **Correct Location:**

One of the most critical steps in making sure a tree does well in your landscape is selecting the right tree for the right place. Make sure there is enough room for the tree to grow to its full size. Also make sure there is enough room for roots to grow. The roots on most trees extend out farther than the canopy of the tree.

#### **Proper Pruning:**

Pruning can ensure the tree grows to the size and shape you want. When performed correctly, it can also improve the structure of the tree. Before pruning any tree make sure you know how to prune it without damaging the tree. Improper pruning can make the tree more susceptible to diseases and insects, weaken the tree, shorten the life of the tree, and take away from the aesthetics of the tree. Pruning near power lines or any other utility lines should only be done by a certified professional. Contact the Provo City Forestry Division (801) 852-6920.

#### **Never Top Trees:**

Topping is the practice of severely cutting back a tree's limbs to stubs larger than three inches in diameter. It is the most hazardous pruning method available. When a tree is topped, it can lead to weakened limbs and even tree death. It also causes the tree to grow many new limbs around the cuts that are made; these limbs grow rapidly and have weak attachments to the tree. These weakly attached limbs become a liability because they often fall off causing property damage or personal injury or death. Finally, trees that are topped are an eyesore in any landscape.

#### Proper Watering Practices:

Established trees need deep watering once a week. When watering use low pressure to help water seep to a depth of at least 12 inches. Young trees need a deep watering every two to three days. Over watering is just as unhealthy for a tree as under watering. Care must be taken to make sure too much water isn't applied. To keep water from evaporating from the soil apply two to four inches of wood chips or organic mulch around the base of the tree.



# **Class I Trees**

The trees in this section are smaller trees which normally do not reach a large height or trunk diameter. They are ideal for planting beneath or near power lines and in parking strips that are at least four feet wide.

#### **Hedge Maple** (Acer campestre)

Height: 25' Spread: 25'

Growth Rate: Slow

This is a smaller tree that has dark green leaves with a little bit of fuzz underneath. Leaves turn yellow and remain late into autumn.

**Advantages:** Withstands many urban conditions. No serious problems with diseases or insects.

**Disadvantages:** Not a good tree under power lines.

40 South 800 West



# Amur Maple (Acer ginnala)



Height: 15' Spread: 15'

Growth Rate: Medium

A tree with leaves that turn red or orange in the fall; it usually has a symmetrical shape.

**Advantages:** Very cold hardy and usually requires little pruning.

**Disadvantages:** Does not live as long as other maples.

500 South 400 West (Northeast Corner)

# (Acer grandidentatum) Bigtooth Maple

Height: 25' Spread: 15'

Growth Rate: Slow

This maple is native to Utah canyons. It is well adapted to our climate. The leaves turn a bright red in the fall, much more colorful than some of the other maple species.

Advantages: A good street tree. Drought tolerant and

withstands cold.

**Disadvantages:** Does not tolerate extremely wet soils.

1980 North 1366 West



# (Acer griseum) Paperbark Maple



Height: 25'
Width: 20'
Growth Rate:
Slow

A graceful tree with cinnamon colored bark, which peels away to reveal reddish brown shades. Leaves turn reddish brown in the fall.



**Advantages:** A pretty tree without many disease or insect problems.

**Disadvantages:** Does not do well in high traffic areas or during drought.

203 East Center Street

#### Trident Maple (Acer buergeranum)

Height: 25' Spread: 25'

Growth Rate: Slow

A small tree with interesting foliage. New leaves emerge bronze and turn a dark green. Fall color is yellow, orange, or red.

**Advantages:** Tolerates drought and urban conditions well. No serious pest problems.

**Disadvantages:** Limited availability. Ice storms and heavy snow can cause damage. Pruning required to shape the tree when young.

Approximately 1300 North Freedom Blvd



#### Red Buckeye (Aesculus pavia)

Height: 20' Spread: 25'

Growth Rate: Medium

Similar in appearance to the horsechestnut tree, this tree is distinguished by its small size. It serves well as a focal point in a landscape.

**Advantages:** Has attractive red flowers that appear in May. Attracts wildlife, primarily birds, butterflies, and bees. Is somewhat shade tolerant.

**Disadvantages:** Is short lived and highly toxic if ingested. Sustains leaf scorch in hot, dry weather.

100 South 600 West



#### (Cercis canadensis) Eastern Redbud



Height: 25' Spread: 25'

Growth Rate: Medium

The trunk of this tree is usually branched at the base with ascending branches and bright pink flowers in early May. It has heart shaped leaves.

**Advantages:** Beautiful pink flowers during the spring.

**Disadvantages:** Susceptible to many diseases and insects.

4350 North Canyon Road

#### (Crataegus phaenopyrum) Washington Hawthorn



Height: 25' Spread: 25'

Growth Rate: Medium

This Hawthorn features reddish-purple leaves in the spring that turn dark green in the summer. Flowers appear in May with fruit in late summer.

**Advantages:** Attractive fruits, flowers, and foliage. Very tolerant to urban stress.

**Disadvantages:** Sharp thorns on lower branches. May cause a dieback in the grass planted under the canopy. Heavy snow can break the branches.

550 South 200 East

#### English Hawthorn (Crataegus laevigata)



Height: 15' Spread: 15'

Growth Rate: Slow

This hawthorn has an attractive growth habit in addition to handsome flowers and fruit. It grows well with very few thorns. For best results as a street tree, choose a stock with a strong central leader.

**Advantages:** Grows well in city conditions. Almost thorn less.

**Disadvantages:** Very susceptible to fire blight.

70 East 800 North

#### Goldenrain Tree (Koelreuteria paniculata)

Height: 25' Width: 20'

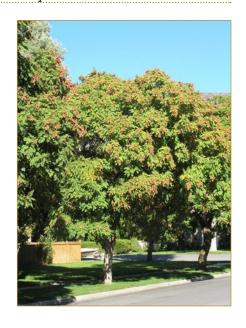
Growth Rate: Fast

Large hanging yellow flowers in summer and papery, lantern-like seed pods make this tree quite unique. Fall color is crimson, bronze.

**Advantages:** Very adaptable to urban environments and does not suffer from any serious insect problem.

**Disadvantages:** Fairly susceptible to some diseases

381 East 400 South



# (Malus spp.) Spring Snow Flowering Grabapple

Height: 20' Spread: 20'

Growth Rate: Fast

This crabapple is a very popular tree with varying degrees of white or red flowers. This particular variety is fruitless.

Advantages: Requires little pruning. Does

not produce messy fruit.

Disadvantages: Susceptible to fire blight.

100 South 50 East (Across the Street from County Complex)



#### Flowering Plum (Prunus cerasifera)



Height: 20' Spread: 15'

Growth Rate: Medium

Each spring, pink flowers emerge before the leaves. The foliage is a deep purple.

**Advantages:** Beautiful dark purple leaves. Drought tolerant.

**Disadvantages:** May have weak branching structure. Prone to many diseases.

Northwest Corner of 300 West 400 North

# Flowering Cherry (Prunus serrulata)

Height: 25' Spread: 20'

Growth Rate: Medium

Vase shaped branching and beautiful floral display are characteristics of this tree. Deep green foliage is attractive in spring and summer.

**Advantages:** Provides beautiful floral displays. Drought resistant.

**Disadvantages:** Sensitive to pollution and has a relatively short life.

600 South 300 East



#### (Prunus virginiana) Flowering Chokecherry

Height: 25' Spread: 20'

Growth Rate: Medium

"Canada Red" has leaves that emerge green and turn purple in early June. Good natural branching. Suckering at base can occur following establishment. Amur, Shubert, and Mayday are other good varieties.

**Advantages:** Extremely hardy. Beautiful and colorful fruit, leaves, and flowers.

**Disadvantages:** Lives for only 20-25 years. Susceptible to various insects and black knot.

300 West 700 North (Northeast Corner of the Small Park)



# (Syringa reticulata) Japanese Tree Lilac



Height: 25' Spread: 15'

Growth Rate: Medium

This tree has stiff branches with reddish brown bark. Flowers produce an attractive summer fragrance

**Advantages:** Relatively pest free.

**Disadvantages:** Somewhat susceptible to powdery mildew and lilac borer, but much less than common lilac.

251 West 800 North

#### Lavalle Hawthorn (Crataegus x lavallei)

Height: 20' Spread: 20'

Growth Rate: Medium

This is a hybrid Hawthorn tree that produces nice white flowers in the spring and red fruit in the fall.



**Advantages:** Adaptable to many different pH levels in soils. Produces a pretty flower and fruit with the fruit persistent into the winter.

**Disadvantages:** Not as durable of a tree as other Hawthorn species. Intolerant of shade and is occasionally damaged by cold weather.



435 East 2200 North

#### Silk Tree (Albizia julibrissin)

Height: 35' Spread: 30'

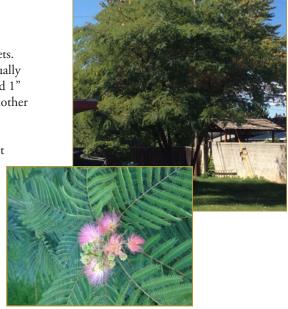
Growth Rate: Fast

The Silk Tree has very fine small leaflets. The flower is very interesting, it is usually pink and has pink stamens that extend 1" or more. The chocolate mimosa is another variety that has purple leaves.

**Advantages:** A unique tree that is not often planted in Provo. Attractive, fine leaves and distinct flowers.

**Disadvantages:** Leafs out late in the season. Can be a messy tree.

80 East 2019 North



# (Acer tataricum) Tatarian Maple

Height: 20' Spread: 20'

Growth Rate: Medium

It is a multi-stemmed small shrub to tree growing from 13 to 20 feet. Blooms in April. The amur maple is a subspecies. They differ in the deep green glossy, lobed leaves of the Amur.

**Advantages:** Easily grown in moist, organically rich, well drained soils in full sun to part shade. Some tolerance for drought. Performs best in areas with cool summer climates.

**Disadvantages:** Verticillium wilt, stem canker, leaf spot, tar spot, and anthracnose may appear. Watch for mites, aphids, scale, leafhoppers, and caterpillars.



350 South 700 West

# (Acer truncatum) Norwegian Sunset Maple



Height: 25' Spread: 20'

Growth Rate: Medium

Acer Truncatum commonly called Shangtung maple is native to China. Features medium Green leaves to 5 inches across that have five triangular lobes. Leaves emerge reddish purple in the spring but matured dark green. Good fall color features attractive shades of yellow and orange, sometimes with purples and reds mixed in. Leaves maybe truncate at the base as suggested by the species name.

**Advantages:** Excellent small landscape tree or street tree. Specimen around the home for patios and small areas.

Disadvantages: No serious insect or disease problems.

491 West 700 North



# **Class II Trees**

The trees in this section are considered medium sized. These trees are valued for their aesthetic and shade contributions.

These trees are not for planting under power lines or in parking strips that are less that six feet wide.

#### (Acer platanoides) Norway Maple

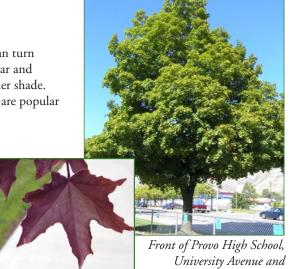
Height: 45' Spread: 35'

Growth Rate: Medium

Has dark green summer foliage that can turn yellow in the fall. This is a very popular and well known tree. Creates dense summer shade. 'Crimson King' and 'Crimson Sentry' are popular purple leaf cultivars.

**Advantages:** Does well after being transplanted. Creates lots of shade during hot summers.

**Disadvantages:** Dark shade and shallow roots may prevent the growth of grass in lawns. Seedlings may become weeds in lawns.



# (Acer pseudoplatanus) Sycamore Maple

Height: 30' Spread: 25'

Growth Rate: Medium

A tree that is very similar to the Norway maple with leaves that resemble those of the American Sycamore.

**Advantages:** Tolerant to many different environmental conditions.

**Disadvantages:** Requires pruning in order to maintain its shape.

329 North 400 West



Bulldog Blvd.

#### Black Maple (Acer nigrum)



Height: 45' Spread: 25'

Growth Rate: Slow

Is similar to the Sugar Maple but more tolerant of our local climate and soil conditions. Foliage has a drooping form and fall color is reddish orange.

**Advantages:** Tolerates heat and drought well.

**Disadvantages:** Sensitive to road salt and compaction.

342 North 500 West

#### **Common Hackberry** (Celtis occidentalis)



Height: 45' Spread: 35'

Growth Rate: Fast

Stately, vase shaped tree with a straight trunk and bright green foliage turning yellow in the fall. A reliable tree under windy conditions.

**Advantages:** Very drought tolerant. Tolerant to wind, alkaline soil, salt, and air pollution. A good specimen tree.

**Disadvantages:** Dark purple fruit may drop in the fall.

150 North 600 East on the West Side of Farrer School

#### (Ginkgo biloba) Ginkgo / Maidenhair Tree

Height: 40' Spread: 30'

Growth Rate: Slow

Distinctive, fan-shaped light green leaves are soft in appearance. Autumn color is bright yellow. One of the most ancient trees on earth.

**Advantages:** A fruitless tree. Tolerates urban stresses. Excellent fall color and usually free of pests.

**Disadvantages:** Female plant can produce a foul odor in its fruit as it gets older. Fruit can cause dermatitis in some people.

383 South 400 East



# (Gleditsia triacanthos) Honeylocust



Height: 45'
Spread: 40'
Growth Rate: Fast

A hardy tree with finely textured leaves. Produces filtered shade.

**Advantages:** Tolerant of salt, heat, drought, and other urban stresses. The small leaves provide shade without killing the grass underneath.

**Disadvantages:** Somewhat susceptible to a variety of pests, but trees are generally hardy.

800 North 600 East (Southwest Corner)

#### Kentucky Coffeetree (Gymnocladus dioicus)

Height: 55' Spread: 35'

Growth Rate: Medium

An uncommon tree that is open spreading and produces short seed pods. The cultivar "Expresso" is mostly seedless and more vase-shaped.

**Advantages:** A hardy tree that is adaptable to urban conditions. Remarkably free of diseases and insects

**Disadvantages:** Seeds may become a cleanup issue in older trees.

Approximately 645 North 600 East



#### Fruitless White Mulberry (Morus alba)

Height: 40' Spread: 35' Growth Rate: Fast

A fruitless tree that has become quite common in Utah

Advantage: Tolerant of heat and alkaline soil. Tolerant of compacted soils.

**Disadvantages:** Somewhat weak wooded. Susceptible to very low, cold temperatures. May require a lot of pruning to maintain its form.

835 North 900 West



#### (Metasequoia glyptostroboides) Dawn Redwood



Height: 70' Spread: 35'

Growth Rate: Fast

Deciduous fern-like foliage give the tree a fine texture. The bark is a reddish-brown.

**Advantages:** A very interesting tree that is somewhat adaptable to different environments. Cleanup of the small fallen leaves has not been a problem.

**Disadvantages:** Growth is reduced on alkaline soils. Susceptible to a canker disease and mites while under stress.

200 North 400 East

# (Sophora japonica) Japanese Pagoda



Height: 35' Spread: 30

Growth Rate: Slow - Medium

Has a round canopy with white/yellow flowers in late summer. Produces a pod like fruit.

**Advantages:** Tolerant of urban conditions. One of the few trees that flowers in late summer.

**Disadvantages:** Can cause constant cleanup because the leaves, flowers, and fruit parts fall at different times. Susceptible to a variety of pests.

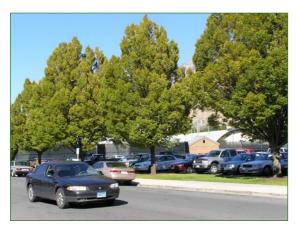
90 South 400 East

#### European Hornbeam (Carpinus betulus)

Height: 40' Spread: 30'

Growth Rate: Slow-Medium

Exceptional tree for street planting. Has a formal appearance requires little pruning. Fall color is yellow/orange. Bark is smooth gray. 'Fastigiata' is a columnar variety.



**Advantages:** Relatively low maintenance. Can be used for a wide variety of situations.

**Disadvantages:** Occasionaly suffers from the two-lined chestnut borer which shortens the life of the tree.

Approximately 150 East 800 North (Across from Brick Oven)

#### European Beech (Fagus sylvatica)



Height: 30-40' Spread: 25-35' Growth Rate: Slow

Dark green to purple glossy foliage. Bark is smooth gray. The 'Pendula' variety should not be planted in parking strips. There are several different beautiful varieties. "Tri-Color" has green leaves with pink edges.

**Advantages:** A beautiful tree that adds variety to the land-scape. Can withstand shade.

**Disadvantages:** Some varieties suffer from sun scorch on the trunk when exposed to full sun.

2778 North Oneida Lane

# (Liquidambar styraciflua) Sweetgum

Height: 75' Spread: 65'

Growth Rate: Medium

This tree has a straight trunk with grayish bark. The root system is shallow and very widespreading. It has interesting leaves that are almost star shaped. Also produces a bur-like fruit that is persistent on the tree into the winter.

**Advantages:** Can produce many bright colors. Very symmetrical when younger.

**Disadvantages:** Prone to a variety of pests and diseases. This tree does not do very well in Provo because of the cold temperatures and the high soil pH.



#### (Fagus sylvatica) "Purpurea Tricolor" Dawych Beech



300 East 400 North

Height: 30' Spread: 20'

Growth Rate: Medium

'Purpurea tricolor' is extremely attractive, smaller form featuring HiColor variegation. Full, it typically emerges in the spring as purple with pink margins, changes to dark bronze—green with pale pink, later white in the margins in the summer and finally turns bronze to gold in the fall.

**Advantages** Easily grown in deep moist, organically rich, well-drained soils in part shade. Some tolerance for drought.

**Disadvantages:** No serious insect or disease problems. Beech scale is an occasional problem. Watch for Japanese beetles. Bores may attack stressed trees. The variegated leave may scorch in the hot afternoon sun.

#### Mountain Ash (Sorbus americana)

Height: 35' Width: 30'

Growth Rate: Slow

A small tree with white, cream, or pinkish flowers. Produces a red fruit that persist into the winter.



**Advantages:** A good small landscaping tree. Color provides for diversity in the landscape.

**Disadvantages:** A relatively short service life. Often susceptible to fire blight, borers, and a variety of other pests, particularly when stressed.

389 South 600 East



#### European Alder (Alnus glutinosa)

Height: 45' Spread:

Growth Rate: Fast

The European Alder is a tree that is very good for wet sites or sites that are otherwise infertile. It is able to use nutrients in the soil in ways that other plants can't.

**Advantages:** Grows in very moist and infertile sites.

**Disadvantages:** Does not do well in the stress of urban environments. Susceptible to leaf miners.

Approximately 850 North 160 West (University Villa Apartments)



#### (Taxodium distichum) Bald Cypress

Height: 60' Spread: 45'

Growth Rate: Moderate

A unique tree that has a buttressed bark. The leaves are small needles but are deciduous. Knees are formed only when planted near a body of water.

**Advantages:** Tolerant of urban conditions. Somewhat unusual tree that has not been planted much in this area.

**Disadvantages:** Availability is somewhat limited. Does not do well in soils with a pH above 7.5.

115 East 200 North



#### (Fagus sylvatica) Tricolor Beech

Height: 30' Spread: 25'

Growth Rate: Slow

Dark green foliage with pink color on the outside of the leaf. Bark is smooth gray.

**Advantages:** A beautiful tree that adds variety to the landscape. Can withstand shade. Unique multicolored leaves.

**Disadvantages:** Some varieties suffer from sun scorch when exposed to full sun.

1375 North 380 West



#### Littleleaf Linden (Tilia cordata)

Height: 45' Spread: 40'

Growth Rate: Medium

A pyramidal tree with sturdy upright growth. Has very fragrant yellow summer blossoms.

**Advantages:** More heat and drought tolerant than other Lindens.

**Disadvantages:** Susceptible to a wide variety of pests, especially aphids. However, treatment is seldom needed.

300 West 700 North (Northeast Corner of the City Park)



# Avalanche Birch (Betula x 'Avalzam')



Height: 35' Spread: 25'

Growth Rate: Medium-Fast

This is a relatively fast growing tree that provides lots of shade. The bark is brown but turns to white as the tree gets to be about three inches in caliper.

**Advantages:** Resistant to the bronze birch borer that is a problem in other birch trees.

**Disadvantages:** Can cause a small amount of debris on cement.

419 North 500 East



# **Class III Trees**

Trees in this section are typically long-lived. They attain large heights and trunk diameters. These trees are not for planting under or near power lines or in parking strips that are less than 10 feet wide. When selecting a tree from this class, make sure there is ample room to accommodate it at maturity.

#### Tulip Tree / Poplar (Liriodendron tulipifera)

Height: 80' Spread: 45'

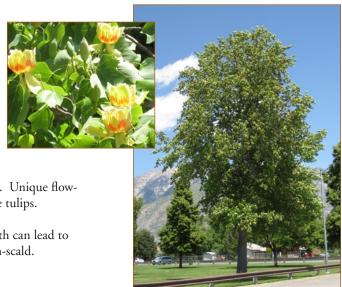
Growth Rate: Fast

A large tree of the magnolia family. Flowers born high in the tree. Leaves are bright green and resemble a tulip.

**Advantages:** A beautiful tree in landscape situations. Unique flowers and leaves that resemble tulips.

**Disadvantages:** Fast growth can lead to weak wood. Subject to sun-scald.

750 West 900 North



#### Swamp White Oak (Quercus bicolor)



Height: 50' Spread: 35'

Growth Rate: Medium

Leaves are green on top and dusty white underneath. Leaves turn brown in fall. Grows well in local soil conditions, does exceptionally well in moist soils.

**Advantages:** Tolerates drought, salt, and soil compaction in urban environments.

**Disadvantages:** Acorns can be a maintenance problem. Slightly susceptible to various pests. Chlorosis may occur in alkaline soils.

300 South 700 West (North Side of Franklin Elementary School)

# (Quercus macrocarpa) Bur Oak

Height: 70' Spread: 65'

Growth Rate: Slow

A grand tree with large lobed leaves. Adaptable to a wide range of conditions. A valuable tree for urban wildlife.

**Advantages:** Adaptable to a wide range of conditions and tolerant of dry soils, air pollution, and temperature extremes.

**Disadvantages:** Acorns can be a maintenance problem in some years. Transplant shock may last several years, causing slow growth.

300 South 700 West (East Side of Franklin Elementary School)



#### (Quercus robur) English Oak

Height: 55' Spread: 45'

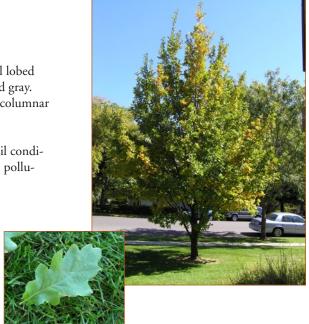
Growth Rate: Medium-Fast

A long lived stately tree with small lobed leaves. Thick bark is furrowed and gray. Variety 'fastigiata' has an upright, columnar form.

**Advantages:** Tolerant of many soil conditions and resistant to drought and pollution.

**Disadvantages:** Golden oak scale can be fatal but occurs infrequently.

300 South 700 West (North Side of Franklin Elementary School)



#### American Linden (Tilia americana)

Height: 55' Spread: 35'

Growth Rate: Medium

Large, heart-shaped leaves in dense canopy. Fragrant summer blossoms. Variety "Redmond" has a more pyramidal form and faster growth.

**Advantages:** Reasonably adaptive to urban conditions. A very dependable growth habit.

**Disadvantages:** Intolerant of salt and somewhat sensitive to air pollutants. Older trees drop fruits for several weeks, causing litter problems.

710 North 380 West



# Common Horsechestnut (Aesculus hippocastanum)

Height: 60' Spread: 45'

Growth Rate: Medium

Provides dense summertime shade and showy flowers in May. Produces a chestnut fruit.

**Advantages:** Tolerant of urban conditions. A long service life.

**Disadvantages:** Susceptible to leaf scorch during hot summers if under stressful conditions. Also susceptible to many pests.

112 South 400 East



#### (Tilia tomentosa) Silver Linden

Height: 60' Spread: 40'

Growth Rate: Medium

The leaves of the tree are white on the underside, giving this tree its name. The trunk is also gray and smooth in its younger years. When older the bark becomes more furrowed.

Advantages: Tolerates heat, drought and pollution well.

Disadvantages: Susceptible to aphids.

415 North 800 West



#### (Platanus x acerifolia) London Planetree / Sycamore

Height: 90' Spread: 60'

Growth Rate: Fast

A towering tree with strong roots and branches. Bark peels off in patches. Leaves persist through fall and early winter. 'Bloodgood' is a common disease resistant cultivar.

Advantages: A very hardy tree. Tolerates drought and compacted soil.

**Disadvantages:** Litter from the tree may be a maintenance problem. Will heave sidewalks. Fairly susceptible to many pests.

381 Fast Center Street



#### Lacebark Elm (Ulmus parvifolia)



Height: 50' Spread: 30'

Growth Rate: Medium

This tree has flaky bark and smaller leaves than the American Elm. Is often confused with the Siberian Elm, which is not approved for planting in parking strips.

**Advantages:** Very resistant to Dutch Elm

Disease. A high tolerance to

urban stress.

**Disadvantages:** May heave sidewalks if planted too close.

300 East 720 North

#### Red Oak (Quercus rubra)

Height: 80' Spread: 65'

Growth Rate: Medium

A large medium growing tree. It has dark gray bark and requires a little more water than burr oak.

**Advantages:** A strong tree that is tolerant of urban conditions. Produces a nice red color in the fall.

**Disadvantages:** As the tree matures its leaves become chlorotic (leaves turn an unnatural bright green).

440 South 600 East



#### (Zelkova serrata) Japanese Zelkova



Height: 50' Spread: 30'

Growth Rate: Fast

Easily grown in average, medium wet, well - drained soils, in full sun. Established trees tolerate some drought. Prefers rich, moist loams. Generally tolerant of urban conditions.

Advantages: Japanese Zelkovia is a medium to large deciduous tree, typically growing two 52-80 feet tall with spreading, generally upward – branching, vase shaped crown. It is noted for its graceful shape, clean foliage, attractive bark and resistance to Dutch Elm Disease. The Zelkova has in fact been promoted in recent years as a substitute for American elm (Ulmus Americana) because of its resistance to the elm disease.



**Disadvantages:** No serious insect or disease problems. Highly resistant to Dutch Elm Disease. Phloem necrosis. wilts and cankers may occur. Insect visitors include leave minor, beetles and scale. Spider mites can be a problem in hot, dry summers.

105 North 500 West

#### American Elm (Ulmus americana)

Height: 90' Spread: 90'

Growth Rate: Medium

This is a large graceful tree that used to be widely planted throughout the United States. Most of these trees have been killed by Dutch elm disease.

**Advantages:** Highly tolerant to urban conditions. A very large, graceful tree.

**Disadvantages:** Severely susceptible to Dutch elm disease. Also susceptible to Phloem necrosis. Only varieties resistant to these diseases should be planted. Trees must be continually monitored for signs of these diseases.

500 West Center Street. (Southwest Side of Pioneer Park)





#### (Catalpa speciosa) Northern Catalpa

Height: 60' Spread: 55'

Growth Rate: Fast

A fast growing tree with large heart-shaped leaves and conspicuous white flowers in June. Produces a fruit in a long pod.

**Advantages:** Withstands hot dry conditions. Can be planted in a variety of environments.

**Disadvantages:** Fairly weak wood and branch breakage is common. The fruit can be messy.

798 West 500 North



# (Fagus grandifolia) American Beech



Height: 60' Spread: 55'

Growth Rate: Slow

A beautiful tree that is similar to the European Beech but larger in size. Has smooth gray bark and leaves turns golden bronze in the fall.

**Advantages:** A beautiful tree that adds variety to the landscape. Can withstand shade.

**Disadvantages:** Some varieties suffer from sun scorch when exposed to full sun.

Located on BYU Campus, for more information see http://treetour.byu.edu

# **Drought Tolerant Trees**

The following trees are drought tolerant and are approved for planting in parking strips.

Common Name	Botanical Name	Page
Amur Maple	Acer ginnala	8
Bigtooth Maple	Acer grandidentatum	9
Black Maple	Acer nigrum	20
Bur Oak	Quercus macrocarpa	31
Common Hackberry	Celtis occidentalis	20
Eastern Redbud	Cercis canadensis	11
English Oak	Quercus robur	31
Flowering Cherry	Prunus serrulata	14
Flowering Plum	Prunus cerasifera	14
Ginkgo/Maidenhair Tree	Ginkgo biloba	21
Goldenrain Tree	Koelreuteria paniculata	12
Honeylocust	Gleditsia triacanthos	21
Japanese Zelkova	Zelkova serrata	35
Kentucky Coffeetree	Gymnocladus dioicus	22
Lacebark Elm	Ulmus parvifolia	34
Lavalle Hawthorn	Crataegus x lavallei	16
Littleleaf Linden	Tilia cordata	28
London Planetree/Sycamore	Platanus x acerifolia	33
Northern Catalpa	Catalpa speciosa	37
Silk Tree	Albizia julibrissin	16
Silver Linden	Tilia tomentosa	33
Swamp White Oak	Quercus bicolor	30
Sycamore Maple	Acer pseudoplatanus	19
Tatarian Maple	Acer tataricum	17
Trident Maple	Acer buergeranum	10



## Other Notable Trees

The trees in this section are interesting and unique specimens that are currently growing in Provo. They are not approved for planting in parking/planting strips or underneath power lines, but they can be purchased and planted in private yards.

#### Giant Sequoia (Sequoiadendron giganteum)

Height: 70' Spread: 50'

Growth Rate: Slow

This is an amazing tree that can grow to be 170 feet tall. The needles are long and bushy. In California this tree can grow to be over 300' tall.

**Advantages:** A very big tree that can do well in Provo if planted in the right place. Very resistant to disease and insects.

**Disadvantages:** Does not do well in extreme cold or extreme heat. In Utah it will not grow nearly as well as in California.

1191 East 930 North



## European Larch (Larix decidua)



Height: 80' Spread: 30'

Growth Rate: Moderate

This tree is very interesting because it is a a coniferous tree (evergreen) but in the fall the needles change colors to yellow and then fall from the tree. The trees shown are the largest European larches known in the state of Utah.

**Advantages:** Needles turn a brilliant yellow in the fall.

**Disadvantages:** Drops all its needles in the fall.

490 Fast 200 North

# (Prunus subhirtella 'Pendula') Weeping Cherry

Height: 30' Spread: 30'

Growth Rate: Medium

There are several varieties of this tree. It is a pretty tree, especially in landscapes where it can be the focal point.

**Advantages:** Fairly resistant to different pests. Produces flowers in the spring.

**Disadvantages:** The leaves growing to the ground can be annoying and make the yard hard to clean up.

3456 Navajo Lane



# (Cupressus arizonica) Arizona Cyprus



Height: 40-50' Spread: 25-30'

Growth Rate: Medium

Advantages: There is no need to worry about heat waves and water restrictions with this hardy tree. Stands up to the extreme weather conditions that damage and even kill most evergreens. Tolerates hot, dry conditions once established.

**Disadvantages:** Produces wide, dark reddish-brown cones that are  $1-1\frac{1}{4}$ " in diameter. These cones mature at the end of the second year but persist on the tree for many years

531 West 3700 North

#### Bristlecone Pine (Pinus aristata)



Height: Varies (20') Spread: Varies (20') Growth Rate: Very Slow

A very slow growing coniferous tree that has needles that are about 1 inch in length. These trees are the oldest living on the planet. They have been known to live almost 5000 years.

**Advantages:** Can grow in a variety of poor soil conditions. A good small conifer.

**Disadvantages:** Does not tolerate air pollution. Extremely slow growing.

3612 Foothill Drive

## Blue Atlas Cedar (Cedrus atlantica 'Glauca')



Height: 60' Spread: 40'

Growth Rate: Medium

This is a very large tree that needs lots of room to grow. Its needles have a bluish tint and the tree produces a small cone fruit.

**Advantages:** No major pests. Adaptable to a wide variety of soils. Drought tolerant.

**Disadvantages:** Must provide plenty of room to grow, branches grow all the way down to the ground. Roots can lift sidewalks. Only marginally hardy, needs a protected site.

Located on BYU Campus Across the Street from 866 North 580 East

#### (Picea pungens) Colorado Blue Spruce

Height: 50' Spread: 20'

Growth Rate: Slow

The state tree of Utah, does very well in this area. This tree is usually pyramidal in form but sometimes droops as it gets older. The needles are a blue green color. Many different cultivars of this tree exist, including dwarf varieties.

**Advantages:** Does well in many different conditions, is very adaptable. Good wind and sound screen.

**Disadvantages:** Spider mites can be a problem during the summer.

444 South 200 East



(Abies concolor) White Fir

Height: 70' Spread: 30'

Growth Rate: Medium

This is a very tall, thin tree. Its needles are similar to those of Colorado Blue Spruce. Maintains its conical shape well.

**Advantages:** Heat and drought tolerant. Cold hardy. Adaptable and can be grown almost anywhere in the country.

**Disadvantages:** If branches are not trimmed up away from the ground, the shade can kill the grass around it. Does not tolerate poorly drained soil.

715 East 2550 North



## Austrian Pine (Pinus nigra)

Height: 60' Spread: 35'

Growth Rate: Fast

This pine is very dense with dark green needles when it is young with the branches becoming more open as it gets older.

**Advantages:** Very adaptable to many adverse conditions. Does well in poor soil conditions. Not greatly effected by air pollution.

**Disadvantages:** Fairly susceptible to a wide range of diseases and insects.

765 North 400 East



# Ponderosa Pine (Pinus ponderosa)



Height: 80' Spread: 25-30'

Growth Rate: Moderate

As indicated from the name this is a very large and magnificent pine tree. The needles are a light green and about 2 inches long.

**Advantages:** A very hardy tree. Very drought tolerant and long lived.

**Disadvantages:** Needs a lot of room to grow.

300 South 100 East

#### (Pinus sylvestris) Scotch Pine

Height: 60' Spread: 40'

Growth Rate: Slow

This oval shaped pine can be used in lawns as a specimen tree or planted in a row for a wind break. The needles of this tree vary from 1.5 inches to 4 inches in length. Dwarf varieties of this tree are available.

**Advantages:** Adaptable to many different situations.

**Disadvantages:** Needles can be sharp. Susceptible to several different diseases.

448 East 600 North



#### **Tabletop Elm** (Ulmus americana)

Height: 30' Spread: 100'

Growth Rate: Slow

Planted by Moroni W. Christopherson around 1926, this is one of the historic trees of Provo. It may be difficult to find a tree like it. This particular tabletop elm

is thought to be one of a kind. Homeowners, who like the look of the tree but do not have the space for it, should consider the Camperdown Elm (Ulmus glabra 'Camperdownii').

**Advantages:** Provides lovely shade. A great specimen tree. **Disadvantages:** Large limbs require support braces. Too large to be considered for most residential landscapes. Susceptible to Dutch Elm Disease.

100 South 50 East (The South Side of the County Complex off of 100 South)



# Trees Approved to Plant near Power Lines

The trees in this chart are approved for planting directly under power lines.

Common Name	Botanical Name	Page Number
Amur Maple	Acer ginnala	8
Cockspur Hawthorn	Crataegus crusgalli	Not Featured
English Hawthorn	Crataegus laevigata	12
Flowering Crabapple	Malus spp.	13
Flowering Plum	Prunus cerassifera	14
Red Buckeye	Aesculus pavia	10
Rose of Sharon Tree Form	Hibiscus spp.	Not Featured
Service Berry	Amelanchier canadensis	Not Featured
Smooth Sumac	Rhus glabra	Not Featured
Staghorn Sumac	Rhus typhina	Not Featured
Tatarian Maple	Acer tataricum	17
Trident Maple	Acer buergeranum	10

These trees must be planted at least 10 feet from power lines:

Common Name	Botanical Name	Page Number
Bigtooth Maple	Acer grandidentatum	9
Eastern Redbud	Cercis canadensis	11
Flowering Cherry	Prunus serrulata	14
Flowering Chokecherry	Prunus virginiana	15
Goldenrain Tree	Koelreuteria paniculata	12
Hedge Maple	Acer campestre	8
Japanese Tree Lilac	Syringa reticulata	15
Paperbark Maple	Acer griseum	9
Washington Hawthorn	Crataegus phaenopyrum	11

If you have more questions concerning trees near power lines contact the Forestry Department at (801) 852-6920.

# Trees Not Authorized For Street Planting

The following species are not to be planted in any parking strip in Provo without the written consent of the City Forester. These trees exhibit characteristics including but not limited to: extreme insect or disease susceptibility, soft or brittle wood, and/or limited cold or heat hardiness. Such problems often lead to excessive maintenance costs, hazards to other trees and potential public safety hazards.

Common Name	Botanical Name	Remarks
Black Locust	Robinia pseudoacacia	Extremely suceptible to boring insects. Brittle wood.
Boxelder Maple	Acer negundo	Soft wood that is subject to decay. Harbor box elder bugs which are a nuisance.
Cottonwood, Aspen, and Poplars	Populus	Trees in this family have soft wood and are subject to decay. Shallow roots.
Evergreens		Block clear vision between pedestrians and vehicle traffic. Often spread to wide for parking strips.
Orchard Trees		Fruit drop on sidewalks can be hazardous to pedestrians and a maintenance concern.
Purple Robe Locust	Robinia ambiqua 'Purple Robe'	Very brittle wood. Susceptible to boring insects.
Russian Olive	Eleagnus angustifolia	Thorns, fruit, and growth habit are unsuitable for street tree use.
Siberian Elm	Ulmus pumila	Brittle wood and weak branching. Invasive spread from seeding. Incorrectly referred to as Chinese Elm.
Silver Maple	Acer saccharinum	Becomes chlorotic in our local soils. Soft wood and decay problems.
Sunburst Honeylocust	Gleditsia triancanthos 'Sunburst'	Suceptible to many pests
Thorned Honeylocust	Gleditsia triacanthos	Hazardous thorny branches. Messy seed pods. Select thornless varieties for planting along City streets.
Tree of Heaven	Ailanthus altissima	Very brittle wood and weak branching. Seeding makes this tree invasive.
Willow	Salix	Soft wood subject to decay. Shallow roots. Aphids.

#### **Community Involvement**

#### Neighborhood Tree Planting Project

Groups of five or more households in a neighborhood that have sprinkler systems installed can apply to participate in a tree planting project. Provo City will pay for trees to be planted in parking strips and assist residents in planting the trees. For more information regarding neighborhood tree planting projects please review the application available on Provo City's Urban Forestry Web page: provopower.org/forestry

#### **Heritage Trees of Provo**

Provo City Forestry Division and the Provo City Energy Board are conducting a search for rare or historic trees growing in Provo. These trees are unique from a historical and/or botanical perspective and may be of interest to other citizens. Trees recognized as such will appear on the Heritage Tree List of Provo published by the Provo City Forestry Division. This list will be published on the Provo City's Urban Forestry Web page (provopower.org/forestry). Using a form available on the Provo City's Urban Forestry Web page, citizens may nominate their trees for recognition. For more information regarding the Heritage Trees of Provo Registry, please read through the application form.

#### Big Trees of Provo

Provo City Forestry Division along with the Utah Division of Forestry, Fire and State Lands are conducting a search for large trees growing in Provo. These trees may be of interest to other residents of Provo and the state of Utah because of their unusual size. A Tree that is recognized as the largest of a given species in Provo, as well as its nominator, will appear on the Provo Big Tree Register published by the Provo City Forestry Division. Trees that are large enough to be listed on the Utah State Big Tree Register will be submitted to the State for judging. Forms for nominating a tree for recognition are available on the Provo City's Urban Forestry Web page.

# Tree Replacement Program

Provo City Power's tree replacement program was developed to ensure that the urban forest is continually replenished and improved. Provo City will remove and replace trees that are damaged, unhealthy, hazardous, or near power lines. If you have questions about the Tree Replacement Program please call the City Forester at (801) 852-6920.





**Provo City Forestry Division** 

(801) 852-6920 251 West 800 North provopower.org/forestry