



# TREE GUIDE

# TABLE OF CONTENTS

|   |              |
|---|--------------|
| <b>Tree Guide Information</b>           | <b>3</b>     |
| <b>Tree Forms / Tree Class</b>          | <b>4-6</b>   |
| <b>Tree Planting / Tree Maintaining</b> | <b>7-11</b>  |
| <b>Tree Planting Locations</b>          | <b>12-19</b> |
| <b>Tree Characteristics</b>             | <b>20-21</b> |
| <b>Class I Trees</b>                    | <b>22</b>    |
| <b>Class II Trees</b>                   | <b>34</b>    |
| <b>Class III Trees</b>                  | <b>47</b>    |
| <b>Evergreen Trees</b>                  | <b>58</b>    |
| <b>Park Strip Trees</b>                 | <b>67</b>    |
| <b>Columnar Trees</b>                   | <b>68</b>    |

# TREE GUIDE



## Why select the right tree?

The purpose of this Street Tree Selection Guide is to provide specialized information about each tree and their specific properties for different areas of use and planting around Alpine, Utah. Trees are a very important component to our city. Trees clean the air and cool the environment around our homes and businesses. Trees increase property values and provide a natural beauty in our city, which harbors a great quality of life for all of Alpine's residents.

## Tips for Producing a Tree Healthy City

This Guide Book will help you answer some of these important questions;

**Q: What is the use for the tree?**

A: Aesthetics, Screening, Shade

**Q: What is the character of the tree at maturity?**

A: Height, Width, Shape

**Q: What are the environmental conditions?**

A: Full Sun, Partial Sun, Type of Soil

**Q: What overhead and underground utilities are near planting location?**

A: Power, Water, Sewer, Gas, Telephone, Fiber

## Learn how to select the correct tree

The trees recommended in this guide are tolerant of local temperatures and have qualities to be a great tree.



"PLAN BEFORE YOU PLANT"

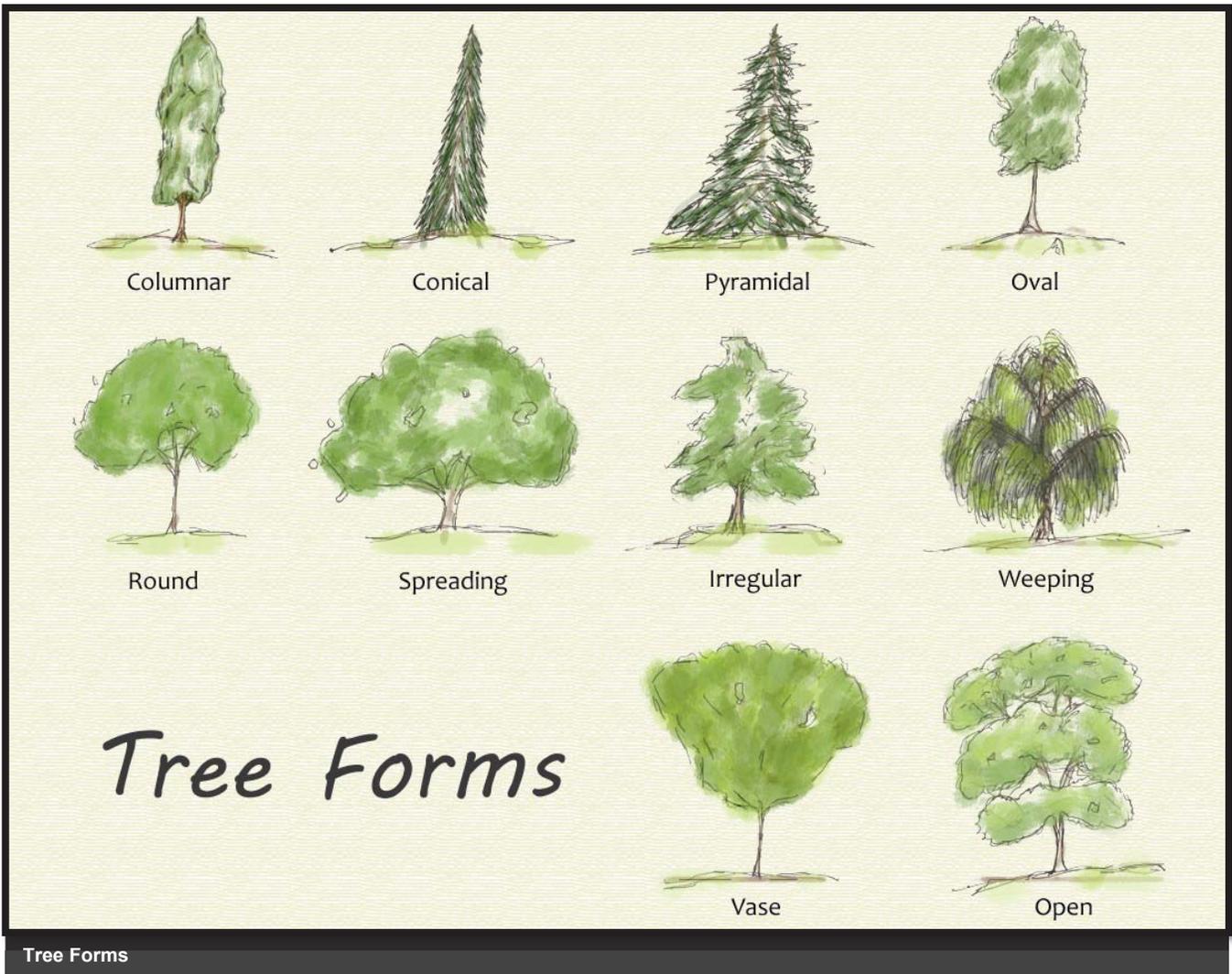
*"Picking the right tree is essential to it's health and longevity. If a tree is not in the right soil, hardiness zone, or proper area for mature growth, the tree suffers. If severe pruning has to take place, stress to the tree happens, which can cause susceptibility to disease and death."*

- PKJ Design Group, L.L.C

## IN THIS GUIDE

- Tree Forms and Class
- Tree Planting Instructions
- Tree List and Characteristics

# TREE FORM / CLASS



## Tree Forms

The tree forms pictured here are examples of tree shapes at maturity. It should give you a good idea of how the tree will look and help you plan its place in your landscape. These forms are referred to under the tree characteristics in this guide.

You will find specific heights, crown spreads and other tree characteristics found under the description of each tree.

### How to Select a Tree

Shade trees are very different in growth and characteristics from one to another. Learning about a tree's shape, mature height, and spread will help in selecting the correct tree for the correct location.

## No Cleanup

Most trees produce flowers, seeds and leaves that will drop during part of their natural life cycle. No tree is truly cleanup free, but this guide will help you choose ones that produce less than others.



Round Form

## Conifers

Conifer trees provide year round greenery, screening, and serve as excellent wildlife sanctuaries. They generally should not be pruned and therefore need large growing areas away from buildings, sidewalks, and driveways. Space varies with species.



Pyramidal Form

## Tree Class

**Class I** - 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 6 feet wide.

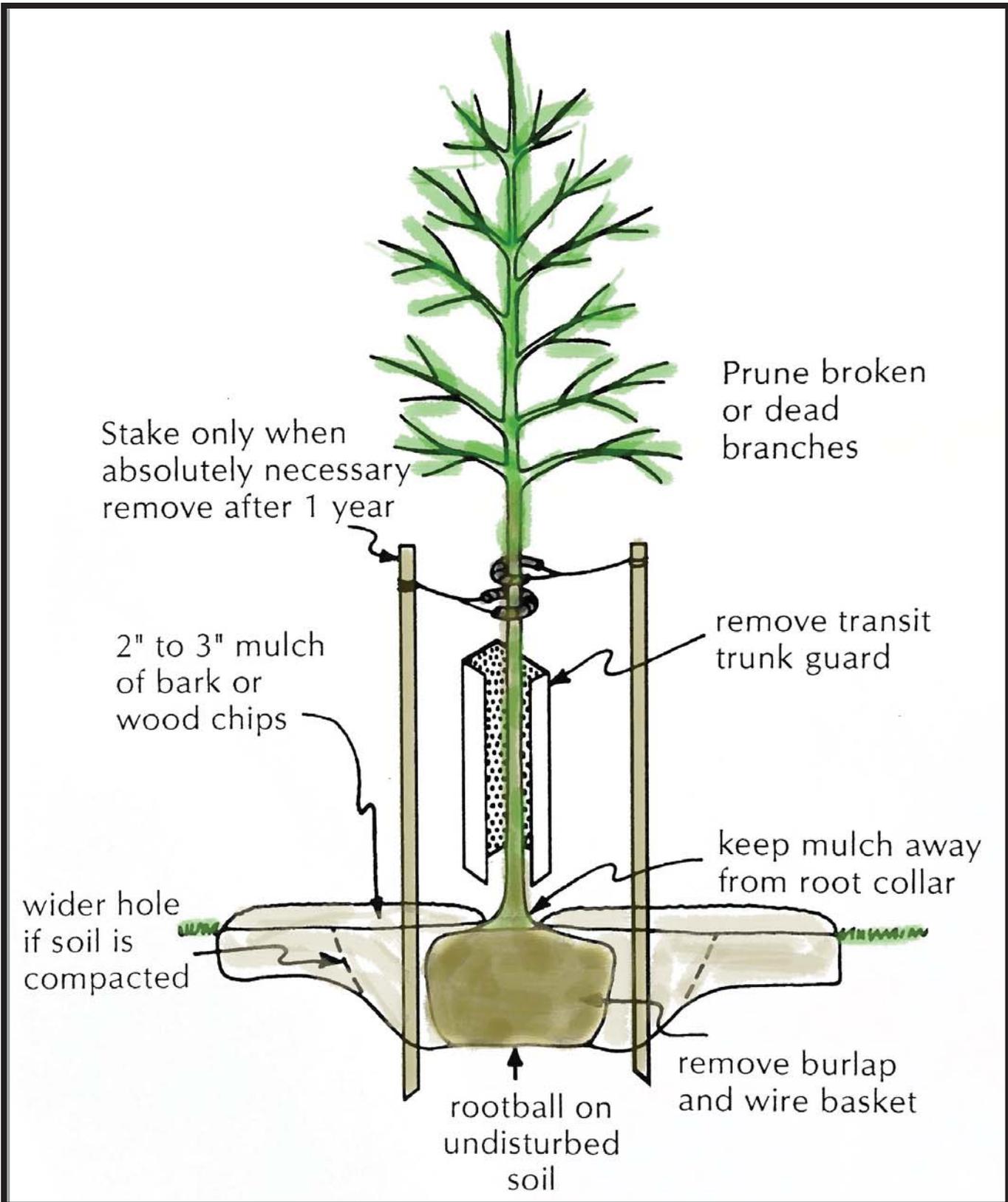
**Class II** - Medium sized trees that are valued for their aesthetic and shade contributions. These trees are not for planting under power lines or in parking strips that are less than 6 feet wide.

**Class III** - Large sized trees that are long-lived and have 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.



Tree Class

# TREE PLANTING / MAINTAINING



Planting Detail

# Planting your tree correctly

1. Dig the planting hole at least twice the width of the root ball and only as deep as the root ball. Make sure the tree is planted too high not too low.
2. 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.
3. Prune circling or protruding roots and remove twine from canopy.
4. Handle the root ball with extreme care. Minimize as much as possible any crumbling, cracking, and splitting of the root ball.
5. 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.
6. Use the soil removed from the hole to backfill. Minimize air pockets by removing soil clumps, rocks, sod, and folded burlap.
7. Deeply soak the hole and root ball.
8. Place two to three inches of mulch over the planting area. Avoid direct contact between the mulch and the trunk of the tree.
9. 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.*

## Planting Location

Before choosing the planting location, contact Blue Stakes (1-800-662-4111) for location of underground utilities.

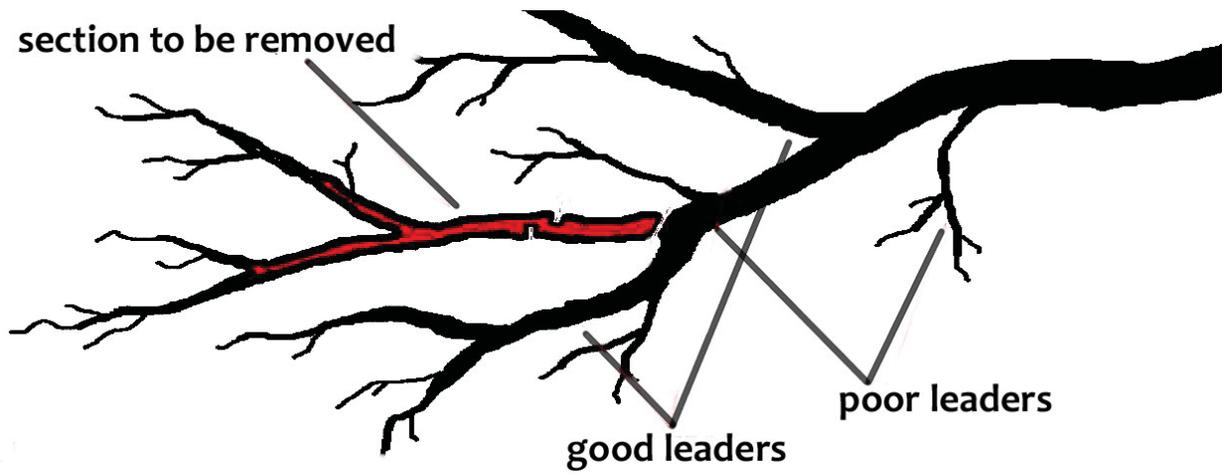


Columnar Form



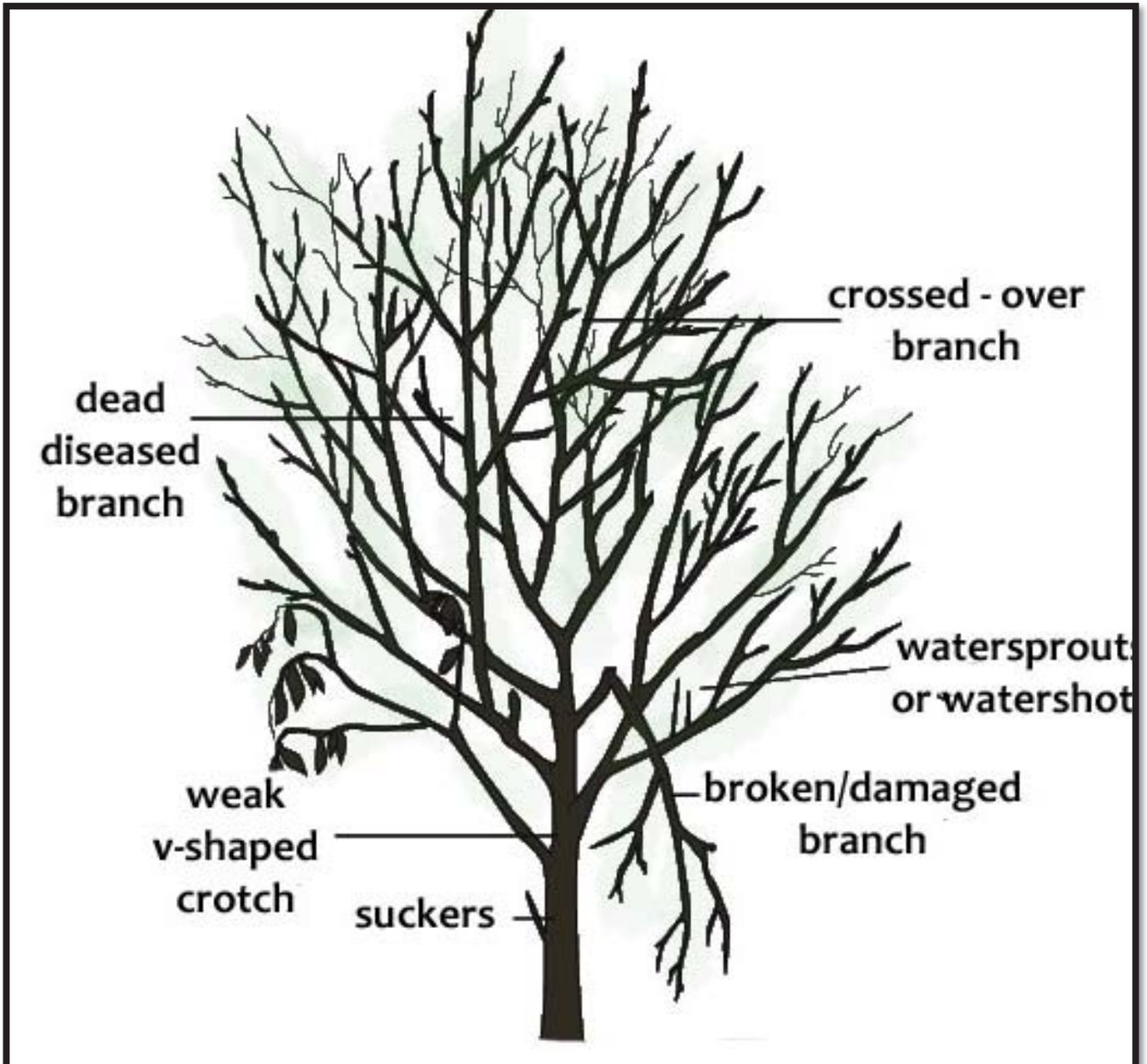
Spreading Form

section to be removed



good leaders

poor leaders



dead  
diseased  
branch

crossed - over  
branch

watersprout  
or watershot

weak  
v-shaped  
crotch

suckers

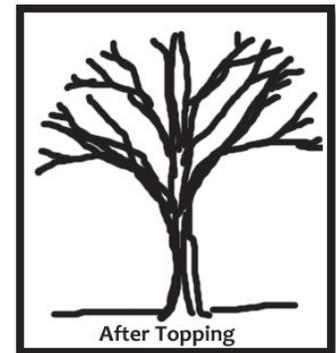
broken/damaged  
branch

# Maintaining Healthy Trees

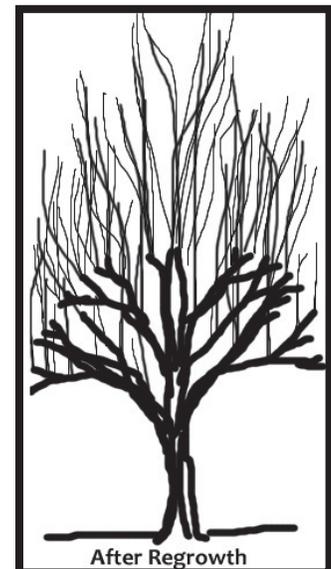
1. **Watering** - Watering the tree regularly during the first year is critical to its establishment. Apply about 1 1/2" of water per week at one time, rather than watering daily. Place a shallow pie pan under the tree canopy and water the area until 1 1/2" accumulates in the pan. Depending on the sprinkler system, it may take 1/2 hour to 3-4 hours. Water from spring to fall and more often during periods of drought.
2. **Mulching** - Mulching is a must! Mulch with wood chips to help retain soil moisture and reduce weeds. It also protects the tree from lawn mowers and weed trimmers. Mulch with 2"-3" of material at a 6' diameter. Keep mulch away from the tree trunk a few inches to avoid trunk rot. As mulch decomposes, it enriches the soil and provides organic matter and beneficial micro-organisms.
3. **Fertilizing** - Fertilizers are naturally or synthetically produced elements applied to the soil or foliage of plants to supply nutrients necessary for normal or accelerated growth. With the exception of nitrogen, fertilizing is usually not required unless a know deficiency exists.
4. **Pests** - Many pest problems occur as a result of improper watering, poor plant stock, or an inferior planting site. Trees that are poorly adapted to a particular site are usually the ones most affected by pests. Choosing the appropriate tree and planting it in an environment capable of sustaining good growth will significantly reduce many pest problems.
5. **Proper Pruning** - Pruning can ensure the tree grows to the size and shape you want. When preformed 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 be done by a certified professional.

## Never Top Trees

Topping a tree is cutting back large tree 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.



These trees become eyesores in the landscape. 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 weak limbs often fall off causing property damage or personal injury or death.



# TREE PLANTING LOCATIONS



# Tree Planting GuideBook - Diagram A

## (Tree Plantings Near Utility Poles)

Class III  
Large Trees  
70'Tall



| 45' min. |

Class II  
Medium Trees  
50'Tall

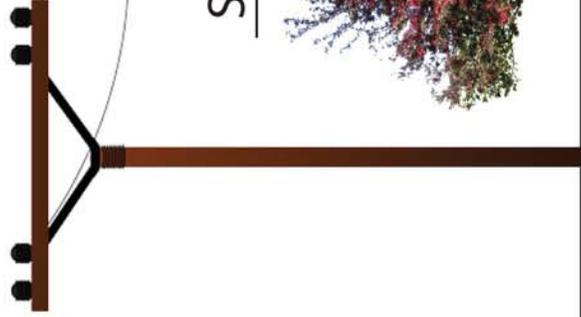


| 35' min. |

Class I  
Small Trees  
30'Tall



| 15' min. |





# Tree Planting Guide Book - Diagram B (Maintaining Clear Zone)

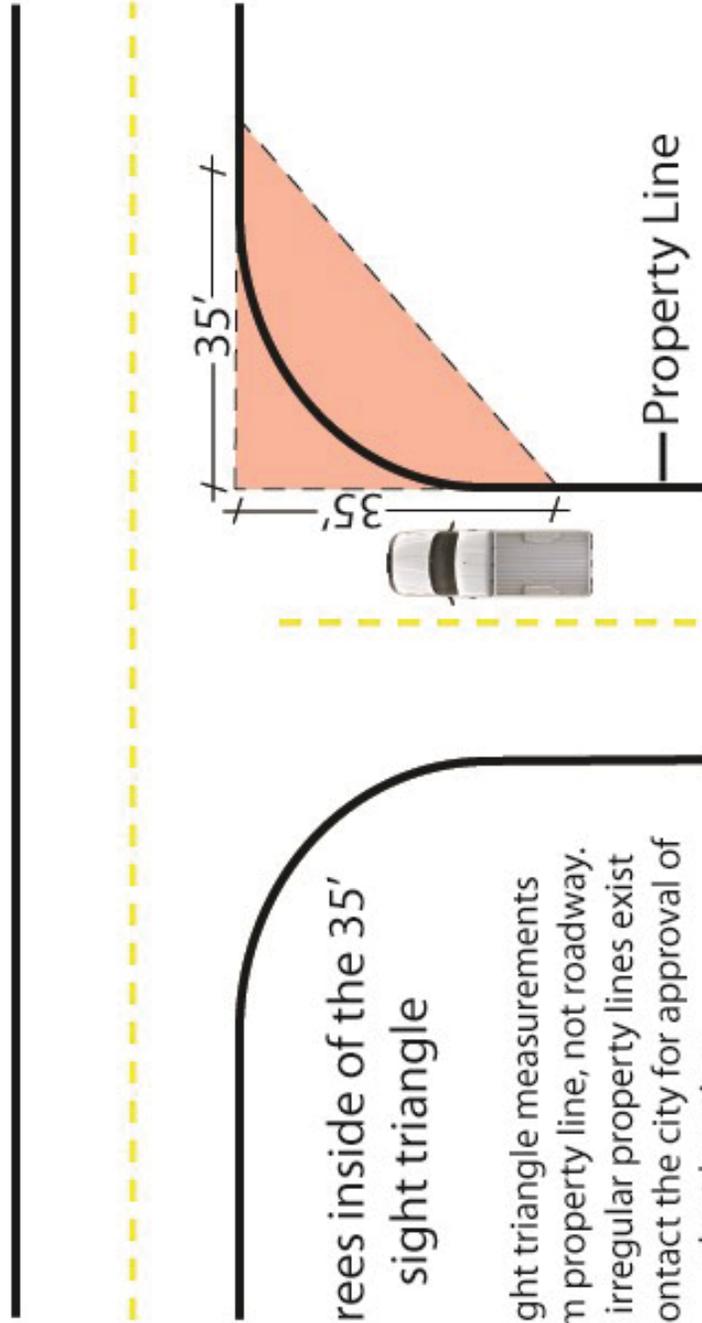


Diagram B



# Tree Planting Guide Book - Diagram C (Maintaining Sight Lines)

Existing trees within the park strips need to be trimmed to maintain a 13.5' minimum clear zone height.

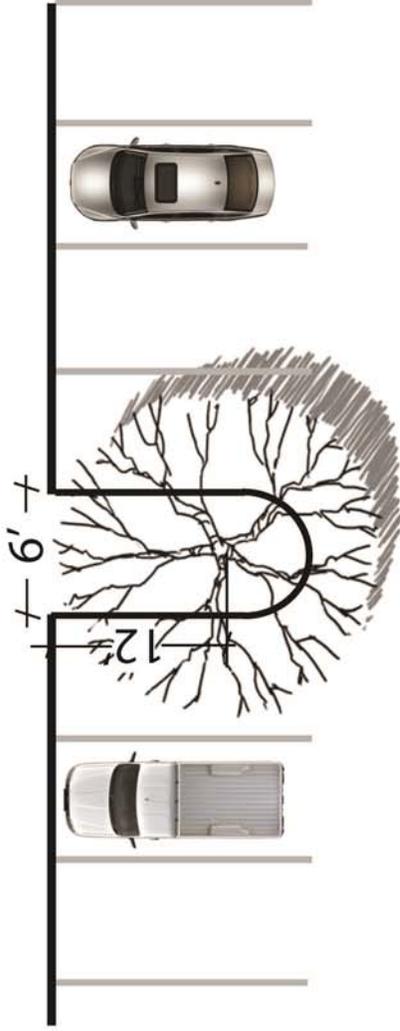


Tree branches shall be trimmed to a minimum height of 13.5' above the curb and gutter and a 8' minimum height above sidewalk.

Diagram C



# Tree Planting Guide Book - Diagram D (Parking Island Tree Placement)

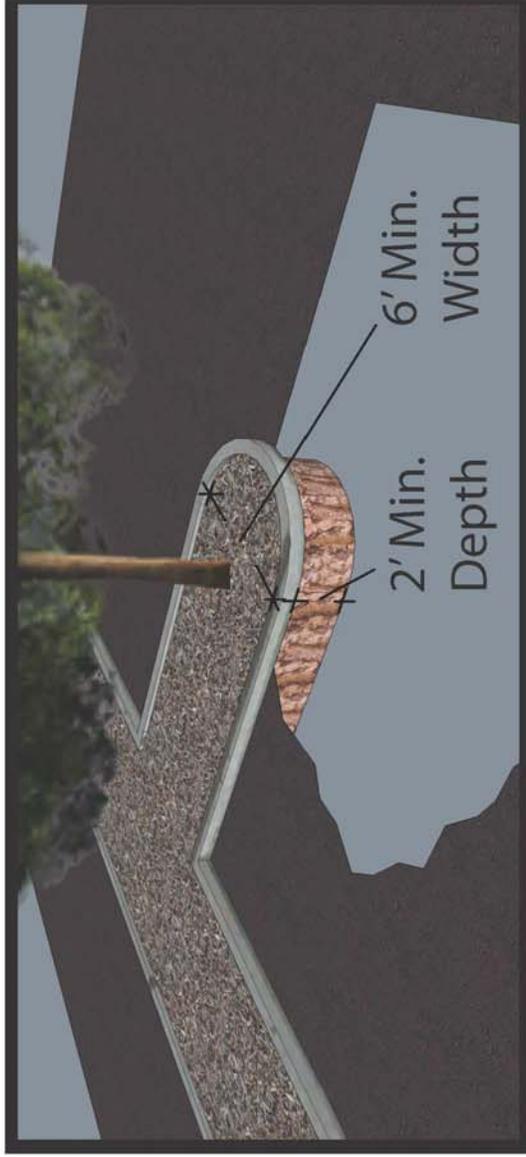


Place tree in parking islands as shown above

---



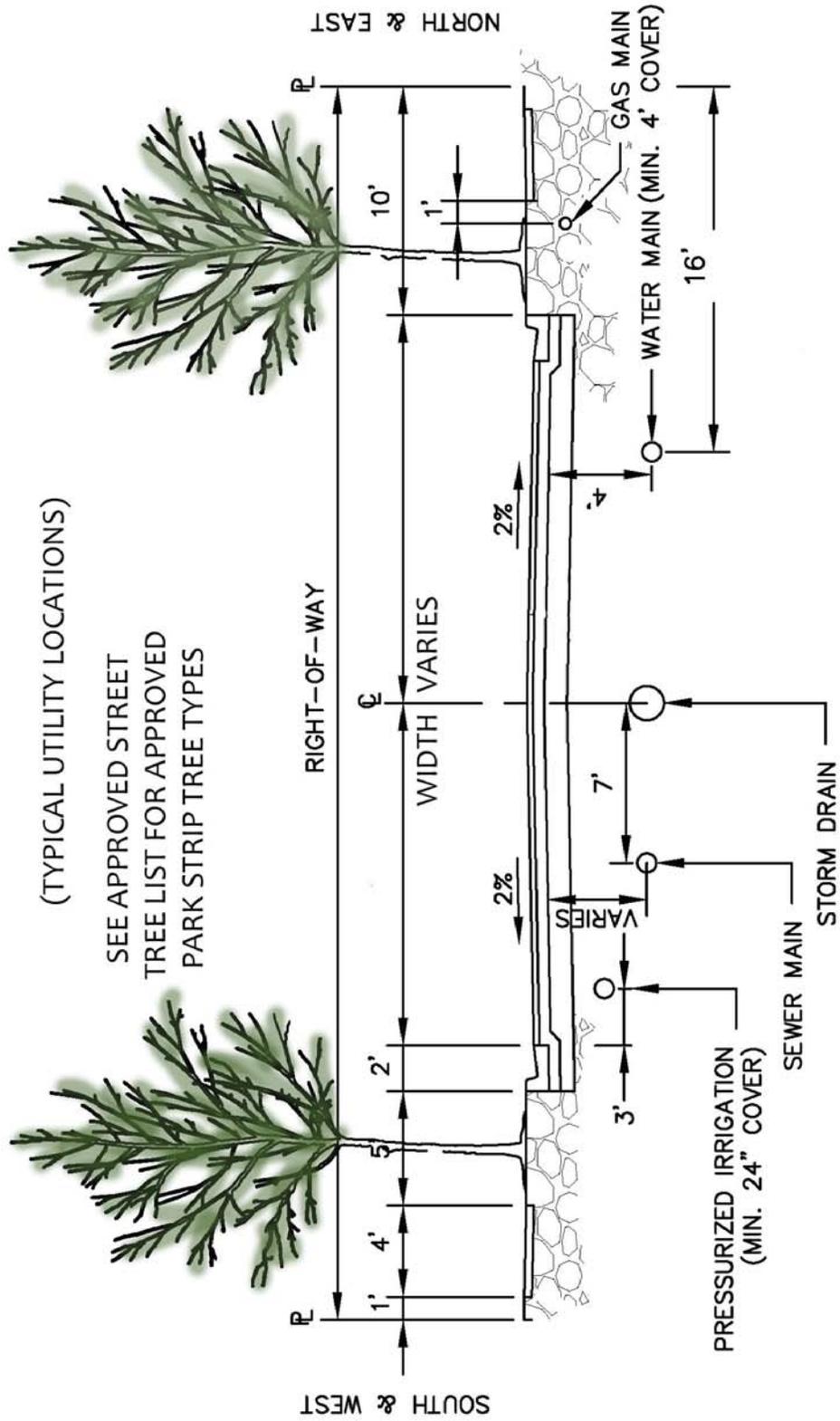
# Tree Planting Guide Book - Diagram E (Minimum Parking Island Area)



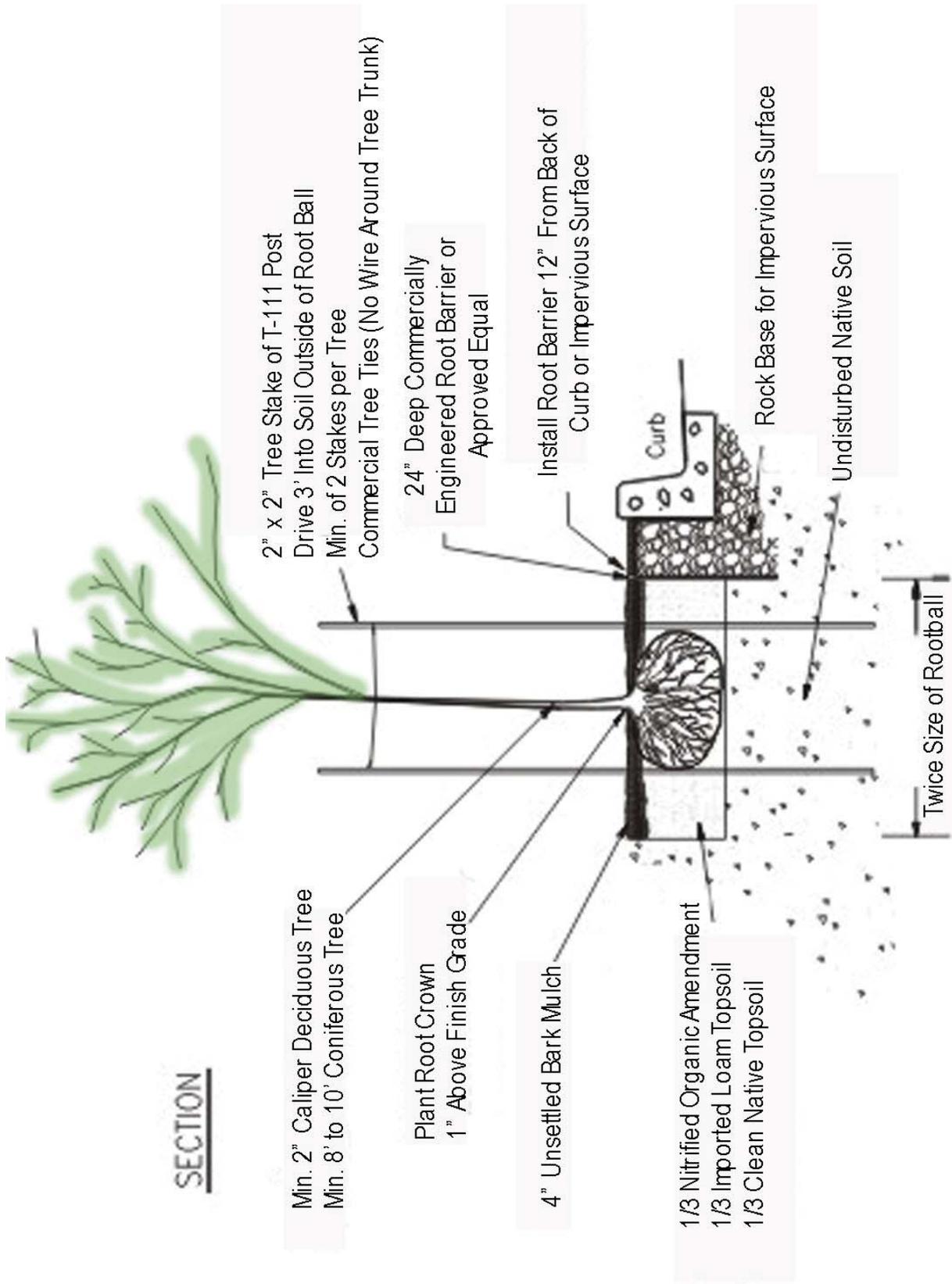
- 2' Minimum depth of soil
- 6' Minimum width of parking island

To ensure tree health within a parking island, a minimum amount of 120 sq. ft. surface area must be installed with each tree. Class I or Class II

Diagram E



**SECTION**



# TREE CHARACTERISTICS

# Symbol Legend



Solar Friendly

Trees that maximize the sun's rays year-round. Solar friendly trees provide shade during the summer and a large percentage of sunlight penetration during the winter.



Drought Tolerance

No tree can survive in permanently dry soil. Some tree species, however, are more tolerant of dry soil conditions than others.

 Low Water    
  Moderate Water    
  Higher Water



Wildlife Friendly

Trees that attract wildlife.



Deer Resistant

Trees that tend to repel deer from eating them.



Street Tree

Trees that are appropriate to plant in the right-of-way along streets due to growth habit.



Utility Friendly

Trees that are appropriate due to growth habit and lower height to plant under utility lines.



Windbreaks

Trees that help screen and deflect winds

## Symbol Legend

## Tree Characteristics

Located at the side of each illustrated tree page there are boxes and symbols denoting additional information about that particular tree. These symbols are explained above.

## Submittal Process

If you would like to discuss planting and placement of a tree that is not recommended in this guide book, please submit to the Planning Department the full name of the proposed tree with placement location on your property. It will then be under review on a case by case basis.

## Drought Tolerance

Lower water demand does not mean a tree can survive in permanently dry soil. All trees prefer a somewhat moist soil for optimum health and maximum growth. To protect your investment, be sure to water trees regularly in hot, dry periods.



Irregular Form

**Know what's below.**   
**Call 811 before you dig.**  
**BLUE STAKES OF UTAH**  
 UTILITY NOTIFICATION CENTER, INC.  
[www.bluestakes.org](http://www.bluestakes.org)  
 1-800-662-4111



# CLASS I

These trees 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 five feet wide. Typical spacing between Class I trees is 30 to 40 feet .

| Class I   |   | <b>Hedge Maple</b> |                        |  |  |
|---|---|--------------------|------------------------|--|--|
| Acer Campestre  |   |                    |                        |  |  |
|   |   | <b>Family</b>      | Aceraceae              |  |  |
|   |   | <b>Form</b>        | Broad, rounded         |  |  |
|   |   | <b>Size</b>        | 35' Spread 35' Height  |  |  |
|   |   | <b>Fall Color</b>  | Yellow                 |  |  |
|   |   | <b>Seed</b>        | Wings very wide spread |  |  |
|   |   | <b>Flower</b>      | Insignificant          |  |  |
| <b>Characteristics</b>  | Deciduous, very round crown and densely branched  |                    |                        |  |  |
| <b>Growing Conditions</b>   | Zone: 5 to 8, medium moisture, well-drained soils in full sun to part shade.  |                    |                        |  |  |
| <b>Growth Rate</b>  | Medium  |                    |                        |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems.  |                    |                        |  |  |
| <b>Common Varieties</b>   | Carnival', 'Elegant', 'Elsrijk', 'Evenly Red', 'Field Maple', 'Jade Patina', 'Louisa Red Shine', 'Metro Gold', 'Nanum', 'Postelense', 'Pulverentum', 'Queen Elizabeth', 'Royal Ruby', 'Schichtel's Upright', 'St. Gregory', 'William Caldwell'. |                    |                        |  |  |
| <b>Where to See</b>   | Native to Europe, Africa, and western Asia  |                    |                        |  |  |

| Class I   |  | <b>Trident Maple</b> |                                |  |  |
|---|--|----------------------|--------------------------------|--|--|
| Acer buergerianum   |  |                      |                                |  |  |
|   |  | <b>Family</b>        | Aceraceae                      |  |  |
|   |  | <b>Form</b>          | Oval to rounded                |  |  |
|   |  | <b>Size</b>          | 35' Spread 35' Height          |  |  |
|   |  | <b>Fall Color</b>    | Yellow, orange, red            |  |  |
|   |  | <b>Seed</b>          | Wings parallel; fall maturing. |  |  |
|   |  | <b>Flower</b>        | Insignificant                  |  |  |
| <b>Characteristics</b>  | Deciduous, oval to rounded small tree  |                      |                                |  |  |
| <b>Growing Conditions</b>   | Zones 5-9, Fairly drought resistant. Shade intolerant.                               |                      |                                |  |  |
| <b>Growth Rate</b>  | Low  |                      |                                |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems.   |                      |                                |  |  |
| <b>Common Varieties</b>   |  |                      |                                |  |  |
| <b>Where to See</b>   | Native to China  |                      |                                |  |  |

| Class I   |   | Amur Maple   |                   |                                       |
|---|---|--|-------------------|---------------------------------------|
| Acer ginnala  |   |  |                   |                                       |
|  |                                      |  | <b>Family</b>     | Aceraceae                             |
|   |   |  | <b>Form</b>       | Rounded                               |
|   |   |  | <b>Size</b>       | 20' Spread 20' Height                 |
|   |   |  | <b>Fall Color</b> | Yellow to red                         |
|   |   |  | <b>Seed</b>       | 2 parallel wings, 3/4" to 1" long     |
|   |   |  | <b>Flower</b>     | Yellow-white and fairly inconspicuous |
| <b>Characteristics</b>  | Deciduous, broad, rounded outline, typically multistemmed   |  |                   |                                       |
| <b>Growing Conditions</b>   | Zones 2-8, Moderately shade tolerant.   |  |                   |                                       |
| <b>Growth Rate</b>  | Medium  |  |                   |                                       |
| <b>Disease and Pests</b>  |   |  |                   |                                       |
| <b>Common Varieties</b>   | Compactum', Durand Dwarf', 'Embers', 'Emerald Elf', 'Flame', 'Mandy', 'Red Fruit', 'Summer Splendor', var. semenovii. |  |                   |                                       |
| <b>Where to See</b>   | Native to central and northern China, Manchuria, and Japan  |  |                   |                                       |

| Class I   |   | Bigtooth Maple   |                   |  |
|---|---|--|-------------------|--|
| Acer grandidentatum   |   |  |                   |  |
|  |    |  | <b>Family</b>     | Aceraceae                                      |
|   |   |  | <b>Form</b>       | Shrubby or tree-like                           |
|   |   |  | <b>Size</b>       | 25' Spread 15' Height                          |
|   |   |  | <b>Fall Color</b> | Bright orange-red to red                       |
|   |   |  | <b>Seed</b>       | U-shaped, double-winged, wings spread slightly |
|   |   |  | <b>Flower</b>     | Yellow, no petals, small, inconspicuous        |
| <b>Characteristics</b>  | This is the common maple that gives Logan Canyon and other Utah foothill and mountain locations their outstanding fall color. |  |                   |  |
| <b>Growing Conditions</b>   | Zones 4-7, Withstands high soil pH  |  |                   |  |
| <b>Growth Rate</b>  | Medium  |  |                   |  |
| <b>Disease and Pests</b>  |   |  |                   |  |
| <b>Common Varieties</b>   | Rocky Mountain Glow'  |  |                   |  |
| <b>Where to See</b>   | Native from southern Idaho south to Mexico and east to Texas, including much of Utah in mountainous locations.                |  |                   |  |

| Class I   |  | <b>Paperbark Maple</b>   |                   |  |  |
|---|--|--|-------------------|--|--|
| Acer griseum  |  |  |                   |  |  |
|  |   |  | <b>Family</b>     | Aceraceae                                    |  |
|   |  |  | <b>Form</b>       | Oval to oval-rounded                         |  |
|   |  |  | <b>Size</b>       | 25' Spread 30' Height                        |  |
|   |  |  | <b>Fall Color</b> | Red  |  |
|   |  |  | <b>Seed</b>       | 1" to 1-1/2" long; pubescent; wings at 60 to |  |
|   |  |  | <b>Flower</b>     | Insignificant                                |  |
| <b>Characteristics</b>  | Is a small, deciduous tree with slender upright branching. It is particularly noted for its exfoliating copper orange to cinnamon reddish/brown bark |  |                   |  |  |
| <b>Growing Conditions</b>   | Zone 4 to 8, Easily grown in average, slightly acidic, medium moisture, well-drained soil  |  |                   |  |  |
| <b>Growth Rate</b>  | Low  |  |                   |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems.   |  |                   |  |  |
| <b>Common Varieties</b>   | Cinnamon Flake', 'Gingerbread', 'Molly Fordham'  |  |                   |  |  |
| <b>Where to See</b>   | Native to China.   |  |                   |  |  |

| Class I   |   | <b>Maple Tatarian</b>  |                   |                                  |  |
|---|---|--|-------------------|----------------------------------|--|
| Acer tataricum  |   |  |                   |                                  |  |
|  |    |  | <b>Family</b>     | Aceraceae                        |  |
|   |   |  | <b>Form</b>       | Shrubby or tree-like             |  |
|   |   |  | <b>Size</b>       | 20' Spread 20' Height            |  |
|   |   |  | <b>Fall Color</b> | Yellow or red                    |  |
|   |   |  | <b>Seed</b>       | 3/4" to 1" long; wings parallel; |  |
|   |   |  | <b>Flower</b>     | Yellow-white or creamy           |  |
| <b>Characteristics</b>  | Typically grows as a small, upright spreading tree. a substitute for Amur maple.  |  |                   |                                  |  |
| <b>Growing Conditions</b>   | Zone: 3 to 8, Drought resistant and fairly adaptable. Shade intolerant.   |  |                   |                                  |  |
| <b>Growth Rate</b>  |   |  |                   |                                  |  |
| <b>Disease and Pests</b>  | Verticillium wilt, stem canker, leaf spots, tar spot and anthracnose may appear. Watch for aphids, borers, scale, leafhoppers, caterpillars and mites. Plants have escaped cultivation and naturalized by self-seeding in certain parts of the eastern U.S. |  |                   |                                  |  |
| <b>Common Varieties</b>   | Rubrum'.  |  |                   |                                  |  |
| <b>Where to See</b>   | Native to southeastern Europe and western Asia  |  |                   |                                  |  |

| Class I   |  | <b>Red Buckeye</b> |   |
|---|--|--------------------|---|
| Aesculus Pavia  |  |                    |   |
|  |  | <b>Family</b>      | Sapindaceae                                 |
|   |  | <b>Form</b>        | Rounded                                     |
|   |  | <b>Size</b>        | 15' Spread 15' Height                       |
|   |  | <b>Fall Color</b>  | Loses leaves early (late September)         |
|   |  | <b>Seed</b>        | Smooth, light brown, globular seed capsules |
|   |   | <b>Flower</b>      | Showy narrow-tubular                        |
| <b>Characteristics</b>  | Deciduous clump-forming shrub or small tree with an irregular rounded crown.       |                    |   |
| <b>Growing Conditions</b>   | Zone: 4 to 8, well-drained soil in full sun to part shade                          |                    |   |
| <b>Growth Rate</b>  | Average  |                    |   |
| <b>Disease and Pests</b>  | Leaf blotch can be a significant problem   |                    |   |
| <b>Common Varieties</b>   |  |                    |   |
| <b>Where to See</b>   | North America  |                    |   |

| Class I   |   | <b>Silk Tree</b>  |                       |
|---|---|-------------------|-----------------------|
| Albizia julibrissin   |   |                   |                       |
|  |                                 | <b>Family</b>     | Fabaceae              |
|   |   | <b>Form</b>       | Vase shape            |
|   |   | <b>Size</b>       | 50' Spread 40' Height |
|   |   | <b>Fall Color</b> | No notable fall color |
|   |   | <b>Seed</b>       | Flat bean-like        |
|   |                                  | <b>Flower</b>     | Pink                  |
| <b>Characteristics</b>  | Small to medium sized, deciduous tree with a spreading, often umbrella-like crown                                   |                   |                       |
| <b>Growing Conditions</b>   | Zone: 6 to 9, Tolerant of heat, dryness, high soil pH and salinity. Shade intolerant.                               |                   |                       |
| <b>Growth Rate</b>  | High  |                   |                       |
| <b>Disease and Pests</b>  | Wilt is a serious problem in many areas. Also susceptible to mimosa web worm.                                       |                   |                       |
| <b>Common Varieties</b>   | Charlotte', 'Durazz', 'E.H Wilson', 'Flame', 'Ishii Weeping', 'Merlot Majik', 'Summer Chocolate', 'Tryon', 'Union'. |                   |                       |
| <b>Where to See</b>   | Native from China to Iran, but heavily planted and naturalized in the southeastern U.S.                             |                   |                       |

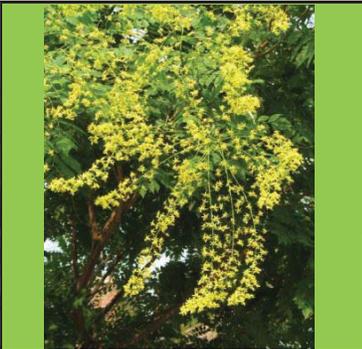
| Class I   |  | <b>Eastern Redbud</b>   |                                     |
|---|--|---|-------------------------------------|
| <i>Cercis canadensis</i>  |  |   |                                     |
|  |   |  | <b>Family</b> Fabaceae              |
|   |  |  | <b>Form</b> Rounded                 |
|   |  |   | <b>Size</b> 30' Spread 35' Height   |
|   |  |   | <b>Fall Color</b> Yellow            |
|   |  |   | <b>Seed</b> Brown, hard             |
|   |  |  | <b>Flower</b> Purple-pink, pea-like |
| <b>Characteristics</b>  | Is a deciduous, often multi-trunked understory tree. It is particularly noted for its stunning pea-like rose-purple flowers  |   |                                     |
| <b>Growing Conditions</b>   | Zone: 4 to 8, medium moisture, well-drained soils in full sun to part shade.   |   |                                     |
| <b>Growth Rate</b>  | Medium   |   |                                     |
| <b>Disease and Pests</b>  | Canker can be a significant disease problem. Verticillium wilt, dieback, leaf spots, mildew and blights may also occur. Insect pests include Japanese beetles, tree hoppers, leaf hoppers, caterpillars, borers, webworms and scale. |   |                                     |
| <b>Common Varieties</b>   | Alba', 'Appalachian Red', 'Covey', 'Dwarf White', 'Flame', 'Forest Pansy', 'Northland Strain', 'Pinkbud', 'Royal White', 'Rubye Atkinson', 'Silver Cloud', 'Tennessee Pink', 'Traveller', 'Withers Pink Charm'.                      |   |                                     |
| <b>Where to See</b>   | Native to most of the eastern U.S. (not Utah)  |   |                                     |

| Class I   |   | <b>English Hawthorn</b>   |   |
|---|---|---|---|
| <i>Crataegus laevigata</i>  |   |   |   |
|  |                  |  | <b>Family</b> Rosaceae                                |
|   |   |  | <b>Form</b> Rounded                                   |
|   |   |   | <b>Size</b> 20' Spread 20' Height                     |
|   |   |  | <b>Fall Color</b> Yellow-orange to brown              |
|   |   |  | <b>Seed</b>   |
|   |   |  | <b>Flower</b> Sometimes white, but often pink, or red |
| <b>Characteristics</b>  | It is a small, low-branching, deciduous tree that is noted for its profuse spring bloom.            |   |   |
| <b>Growing Conditions</b>   | Zone: 4 to 7, Best grown in moist but well-drained soils in full sun.                               |   |   |
| <b>Growth Rate</b>  | Medium  |   |   |
| <b>Disease and Pests</b>  | Susceptible to a large number of insect and disease problems  |   |   |
| <b>Common Varieties</b>   | Autumn Glory', 'Crimson Cloud', 'Paul's Scarlet', 'Plena', 'Rosea', 'Rosea Flore Plena', var rubra. |   |   |
| <b>Where to See</b>   | Native to Europe and northern Africa  |   |   |

| Class I   |   | <b>Hawthorne Lavalle</b>   |                   |                            |  |
|---|---|--|-------------------|----------------------------|--|
| Crataegus LaVallei  |   |  |                   |                            |  |
|  |  |  | <b>Family</b>     | Rosaceae                   |  |
|   |   |  | <b>Form</b>       | Small oval to rounded tree |  |
|   |   |  | <b>Size</b>       | 25' Spread 18' Height      |  |
|   |   |  | <b>Fall Color</b> | Dark purple or brown       |  |
|   |   |  | <b>Seed</b>       |                            |  |
|   |   |  | <b>Flower</b>     | White                      |  |
| <b>Characteristics</b>  | Erect & less densely branched than other hawthorns. Flower has unpleasant smell   |  |                   |                            |  |
| <b>Growing Conditions</b>   | Zones 4-8, well-drained soils in full sun   |  |                   |                            |  |
| <b>Growth Rate</b>  | Medium  |  |                   |                            |  |
| <b>Disease and Pests</b>  | Susceptible to cedar hawthorn rust and fireblight                                 |  |                   |                            |  |
| <b>Common Varieties</b>   | 'Lavalle'.  |  |                   |                            |  |
| <b>Where to See</b>   |   |  |                   |                            |  |

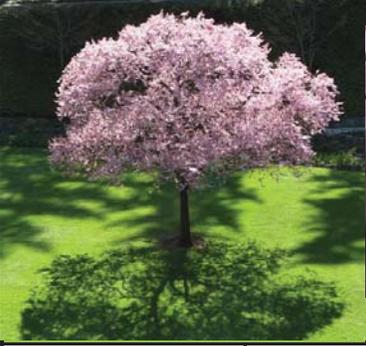
| Class I   |   | <b>Washington Hawthorn</b>   |                   |                                       |  |
|---|---|--|-------------------|---------------------------------------|--|
| Crataegus phaenopyrum   |   |  |                   |                                       |  |
|  |    |  | <b>Family</b>     | Rosaceae                              |  |
|   |   |  | <b>Form</b>       | Rounded                               |  |
|   |   |  | <b>Size</b>       | 30' Spread 30' Height                 |  |
|   |   |  | <b>Fall Color</b> | Orange to red                         |  |
|   |   |  | <b>Seed</b>       |                                       |  |
|   |   |  | <b>Flower</b>     | White & bright orange-red when mature |  |
| <b>Characteristics</b>  | It is a small, low-branching, deciduous tree. Noted for its attractive flowers and foliage  |  |                   |                                       |  |
| <b>Growing Conditions</b>   | Zones 3-8, Best grown in moist but well-drained soils in full sun.  |  |                   |                                       |  |
| <b>Growth Rate</b>  | Medium  |  |                   |                                       |  |
| <b>Disease and Pests</b>  | Good resistance to cedar-apple rust. Fire blight, fungal leaf spots, powdery mildew, cankers and apple scab are occasional problems |  |                   |                                       |  |
| <b>Common Varieties</b>   | Clark', 'Fastigiata', 'Manbeck Select', Princeton Sentry™, 'Vaughn'.  |  |                   |                                       |  |
| <b>Where to See</b>   | Native to much of the eastern U.S.  |  |                   |                                       |  |

| Class I   |  | Rose of Sharon Tree  |                       |  |  |
|---|--|--|-----------------------|--|--|
| Hibiscus syriacus   |  |  |                       |  |  |
|   |  | <b>Family</b>  | Malvaceae             |  |  |
|   |  | <b>Form</b>  | Vase                  |  |  |
|   |  | <b>Size</b>  | 15' Spread 15' Height |  |  |
|   |  | <b>Fall Color</b>  | Green                 |  |  |
|   |  | <b>Seed</b>  | Inconspicuous         |  |  |
|   |  | <b>Flower</b>  | Trumpet shaped        |  |  |
|   | <b>Characteristics</b>   | Deciduous clump-forming shrub or small tree, tubular flowers appear in spring. |                       |  |  |
| <b>Growing Conditions</b>   | Zone 5-9, Full Sun / Partial Shade, Moist and Well-drained soils.                  |  |                       |  |  |
| <b>Growth Rate</b>  | Medium; a 13"-24" or less per year.  |  |                       |  |  |
| <b>Disease and Pests</b>  | Aphids, Japanese Beetle, Leaf Spots  |  |                       |  |  |
| <b>Common Varieties</b>   | Helene, Diana  |  |                       |  |  |
| <b>Where to See</b>   |  |  |                       |  |  |

| Class I   |  | Goldenrain Tree   |                       |  |  |
|---|--|-------------------|-----------------------|--|--|
| Koelreuteria paniculata   |  |                   |                       |  |  |
|   |  | <b>Family</b>     | Sapindaceae           |  |  |
|   |  | <b>Form</b>       | Rounded               |  |  |
|   |  | <b>Size</b>       | 40' Spread 40' Height |  |  |
|   |  | <b>Fall Color</b> | Yellow to orange      |  |  |
|   |  | <b>Seed</b>       | Black, hard, pea-like |  |  |
|   |  | <b>Flower</b>     | Bright yellow         |  |  |
| <b>Characteristics</b>  | Small, open-branching, irregularly-shaped, deciduous tree                            |                   |                       |  |  |
| <b>Growing Conditions</b>   | Zones 5-9, Easily grown in average, dry to medium, well-drained soil in full sun.    |                   |                       |  |  |
| <b>Growth Rate</b>  | Medium   |                   |                       |  |  |
| <b>Disease and Pests</b>  | Root rot, leaf spot and canker.  |                   |                       |  |  |
| <b>Common Varieties</b>   | Fastigiata', 'September', Stadher's Hill'.   |                   |                       |  |  |
| <b>Where to See</b>   | Native to China, Japan, and Korea  |                   |                       |  |  |

| Class I   |   | <b>Goldenchain Tree</b> |                         |
|---|---|-------------------------|-------------------------|
| Laburnum x watereri   |   |                         |                         |
|  |   | <b>Family</b>           | Fabaceae                |
|   |   | <b>Form</b>             | Rounded                 |
|   |   | <b>Size</b>             | 30' Spread 30' Height   |
|   |   | <b>Fall Color</b>       | Unremarkable fall color |
|   |   | <b>Seed</b>             | Poisonous               |
|   |   | <b>Flower</b>           | Bright yellow           |
| <b>Characteristics</b>  | Is noted for its pendulous axillary racemes of yellow, wisteria-like flowers .  |                         |                         |
| <b>Growing Conditions</b>   | Zones 5-7, grown in rich, medium moisture, well-drained soils in full sun to part shade.  |                         |                         |
| <b>Growth Rate</b>  | Medium  |                         |                         |
| <b>Disease and Pests</b>  | Twig blight is an infrequent but potentially serious disease. Canker and leaf spot are lesser disease problems. Watch for aphids and mealybugs. |                         |                         |
| <b>Common Varieties</b>   | Alford's Weeping', 'Aureum', 'Pendulum', 'Vossii'.  |                         |                         |
| <b>Where to See</b>   | Central, southern, and eastern Europe   |                         |                         |

| Class I   |  | <b>Flowering Crabapple</b> |                               |
|---|--|----------------------------|-------------------------------|
| Malus   |  |                            |                               |
|  |    | <b>Family</b>              | Rosaceae                      |
|   |    | <b>Form</b>                | Rounded                       |
|   |  | <b>Size</b>                | 20' Spread 20' Height         |
|   |    | <b>Fall Color</b>          |                               |
|   |    | <b>Seed</b>                |                               |
|   |    | <b>Flower</b>              | White, pink, red, or purplish |
| <b>Characteristics</b>  | Is a genus of about 35 species of deciduous trees  |                            |                               |
| <b>Growing Conditions</b>   | Zone 4 to 8, grown in medium moisture, well-drained, acidic loams in full sun  |                            |                               |
| <b>Growth Rate</b>  | Medium   |                            |                               |
| <b>Disease and Pests</b>  | Scab, fire blight, rusts, leaf spot and powdery mildew. pests are of lesser concern and include tent caterpillars, aphids, Japanese beetles, borers and scale. |                            |                               |
| <b>Common Varieties</b>   | Numerous varieties.  |                            |                               |
| <b>Where to See</b>   |  |                            |                               |

| Class I   |  | <b>Flowering Plum</b>  |                   |                       |  |
|---|--|--|-------------------|-----------------------|--|
| Prunus cerasifera   |  |  |                   |                       |  |
|  |   |  | <b>Family</b>     | Rosaceae              |  |
|   |  |  | <b>Form</b>       | Rounded               |  |
|   |  |  | <b>Size</b>       | 25' Spread 30' Height |  |
|   |  |  | <b>Fall Color</b> | No fall color         |  |
|   |  |  | <b>Seed</b>       | Round                 |  |
|   |  |  | <b>Flower</b>     | Pink or white         |  |
| <b>Characteristics</b>  | It only exists in cultivation except for the situations where it has escaped gardens   |  |                   |                       |  |
| <b>Growing Conditions</b>   | Zones 5-8, medium moisture, well-drained loams in full sun to part shade.  |  |                   |                       |  |
| <b>Growth Rate</b>  | Medium   |  |                   |                       |  |
| <b>Disease and Pests</b>  | Susceptible to a large number of insect and disease pests  |  |                   |                       |  |
| <b>Common Varieties</b>   | 'Alfred', 'Atropurpurea', 'Clark Hill Redleaf', 'Festeri', 'Hessei', 'Hollywood', 'Krauter Vesuvius', 'Mt. St. Helens', 'Newport', 'Nigra', 'Purple Pony', 'Purpusii', 'Thundercloud', 'Vesuvius'. |  |                   |                       |  |
| <b>Where to See</b>   |  |  |                   |                       |  |

| Class I   |  | <b>Flowering Cherry</b>  |                   |  |  |
|---|--|--|-------------------|--|--|
| Prunus serrulata  |  |  |                   |  |  |
|  |   |  | <b>Family</b>     | Rosaceae                                       |  |
|   |  |  | <b>Form</b>       | Vase-shaped to rounded                         |  |
|   |  |  | <b>Size</b>       | 25' Spread 25' Height                          |  |
|   |  |  | <b>Fall Color</b> | Bronze and red to undistinguished drab yellows |  |
|   |  |  | <b>Seed</b>       |  |  |
|   |  |  | <b>Flower</b>     | White to pink                                  |  |
| <b>Characteristics</b>  | A medium sized tree, It features non-fragrant white flowers in spring  |  |                   |  |  |
| <b>Growing Conditions</b>   | Zones 5- 9, grown in moist, fertile, well-drained loams in full sun to part shade  |  |                   |  |  |
| <b>Growth Rate</b>  | Medium   |  |                   |  |  |
| <b>Disease and Pests</b>  | Susceptible to a large number of insect and disease pests  |  |                   |  |  |
| <b>Common Varieties</b>   | 'Amanogawa', 'Autumnalis', 'Beni-Hoshi', 'Fugenzo', 'Kwanzan', 'Mt. Fuji', 'New Red', 'Ojochin', 'Okame', 'Prentice Dancer', 'Royal Burgundy', 'Shirofugen', 'Shogetsu', 'Ukon'. |  |                   |  |  |
| <b>Where to See</b>   | Native to China, Japan, and Korea  |  |                   |  |  |

| Class I   |  | <b>Chokecherry</b> |                         |  |  |
|---|--|--------------------|-------------------------|--|--|
| Prunus virginiana   |  |                    |                         |  |  |
|   |    | <b>Family</b>      | Rosaceae                |  |  |
|   |    | <b>Form</b>        | Irregular, oval-rounded |  |  |
|   |  | <b>Size</b>        | 20' Spread 30' Height   |  |  |
|   |    | <b>Fall Color</b>  | Golden yellow to orange |  |  |
|   |    | <b>Seed</b>        |                         |  |  |
|   |    | <b>Flower</b>      | Small, white            |  |  |
| <b>Characteristics</b>  | A small deciduous tree most frequently occurs on wooded slopes, bluffs and ravines   |                    |                         |  |  |
| <b>Growing Conditions</b>   | Zones 2-6, Grow in average, dry to medium, well-drained loams in full sun to part shade.                                       |                    |                         |  |  |
| <b>Growth Rate</b>  | Medium   |                    |                         |  |  |
| <b>Disease and Pests</b>  | Susceptible to a large number of insect and disease pests.   |                    |                         |  |  |
| <b>Common Varieties</b>   | Bailey Select', 'Boughen's Chokeless', 'Canada Red', "Copper Schubert", 'Mini Schubert', 'Purple Jewel', 'Robert', 'Schubert'. |                    |                         |  |  |
| <b>Where to See</b>   | Native to most of the continental U.S., including Utah, and to much of Canada.   |                    |                         |  |  |

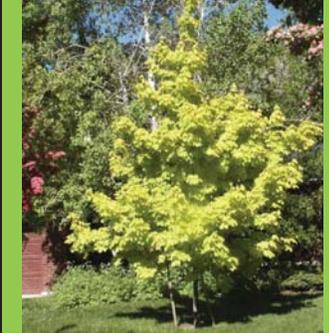
| Class I   |  | <b>Callery Pear</b> |                                      |  |  |
|---|--|---------------------|--------------------------------------|--|--|
| Pyrus calleryana  |  |                     |                                      |  |  |
|   |    | <b>Family</b>       | Rosaceae                             |  |  |
|   |    | <b>Form</b>         | Pyramidal to columnar                |  |  |
|   |  | <b>Size</b>         | 25' Spread 30' Height                |  |  |
|   |  | <b>Fall Color</b>   | Orange, yellow, red, or purple       |  |  |
|   |    | <b>Seed</b>         |                                      |  |  |
|   |    | <b>Flower</b>       | Showy, white; 1/2" to 1" in diameter |  |  |
| <b>Characteristics</b>  | Is an upright-branched ornamental tree. It is noted for its early profuse spring bloom |                     |                                      |  |  |
| <b>Growing Conditions</b>   | Zones 5-9. Grown in humusy, well-drained loam with consistent moisture in full sun     |                     |                                      |  |  |
| <b>Growth Rate</b>  | Medium   |                     |                                      |  |  |
| <b>Disease and Pests</b>  | Susceptible to limb breakage or splitting from strong winds, snow or ice               |                     |                                      |  |  |
| <b>Common Varieties</b>   | Bradford'  |                     |                                      |  |  |
| <b>Where to See</b>   | Throughout the U.S.  |                     |                                      |  |  |

| Class I   |  | <b>Japanese Lilac Tree</b>  |                   |                                     |  |
|---|--|---|-------------------|-------------------------------------|--|
| <i>Syringa reticulata</i>   |  |   |                   |                                     |  |
|  |         |  | <b>Family</b>     | Oleaceae                            |  |
|   |  |  | <b>Form</b>       | Oval-rounded                        |  |
|   |  |   | <b>Size</b>       | 20' Spread 30' Height               |  |
|   |  |   | <b>Fall Color</b> | Yellow to brown                     |  |
|   |  |  | <b>Seed</b>       |                                     |  |
|   |  |  | <b>Flower</b>     | White; held in 6" to 12" long heads |  |
| <b>Characteristics</b>  | Grows as a small tree or large shrub. It has showy, fragrant, creamy white flowers       |   |                   |                                     |  |
| <b>Growing Conditions</b>   | Zones 3-8 medium moisture, well-drained soil in full sun                                 |   |                   |                                     |  |
| <b>Growth Rate</b>  | Medium   |   |                   |                                     |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems.   |   |                   |                                     |  |
| <b>Common Varieties</b>   | Chantilly Lace', 'China Gold', 'Ivory Silk', 'Regent', 'Summer Snow', var. mandschurica. |   |                   |                                     |  |
| <b>Where to See</b>   | Northern China   |   |                   |                                     |  |

# CLASS II

These trees are medium sized trees that are valued for their aesthetic and shade contributions. These trees are not for planting under power lines or in parking strips that are less than five feet wide. Typical spacing between Class II trees is 40 to 50 feet .

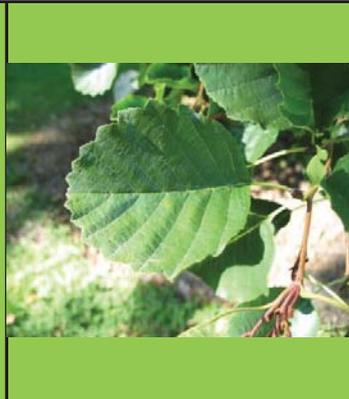
| Class II  |  | <b>Bigtooth Maple</b> |   |  |  |
|---|--|-----------------------|---|--|--|
| <i>Acer grandidentatum</i>  |  |                       |   |  |  |
|   |   | <b>Family</b>         | Aceraceae                               |  |  |
|   |   | <b>Form</b>           | Broad                                   |  |  |
|   |  | <b>Size</b>           | 30' Spread 30' height                   |  |  |
|   |  | <b>Fall Color</b>     | Bright orange-red to red                |  |  |
|   |   | <b>Seed</b>           |   |  |  |
|   |   | <b>Flower</b>         | Yellow, no petals, small, inconspicuous |  |  |
| <b>Characteristics</b>  | It is tolerant of our soil and climatic conditions, and even appears to withstand some drought when planted in the valleys |                       |   |  |  |
| <b>Growing Conditions</b>   | Zones 4-7, Tolerant of our soil and climatic conditions, and even appears to withstand some drought when planted           |                       |   |  |  |
| <b>Growth Rate</b>  | Medium   |                       |   |  |  |
| <b>Disease and Pests</b>  |  |                       |   |  |  |
| <b>Common Varieties</b>   | Rocky Mountain Glow  |                       |   |  |  |
| <b>Where to See</b>   | Native from southern Idaho south to Mexico and east to Texas, including much of Utah in mountainous locations.             |                       |   |  |  |

| Class II  |  | <b>Norway Maple</b> |  |  |  |
|---|--|---------------------|--|--|--|
| <i>Acer Platanoides</i>   |  |                     |  |  |  |
|   |   | <b>Family</b>       | Sapindaceae                                    |  |  |
|   |   | <b>Form</b>         | Broad  |  |  |
|   |  | <b>Size</b>         | 50' Spread 50' Height                          |  |  |
|   |  | <b>Fall Color</b>   | Uniform yellow                                 |  |  |
|   |   | <b>Seed</b>         | Paired seeds with horizontally spreading wings |  |  |
|   |   | <b>Flower</b>       | Monoecious                                     |  |  |
| <b>Characteristics</b>  | Deciduous, rounded crown, densely branched, often wider than tall when open grown  |                     |  |  |  |
| <b>Growing Conditions</b>   | Zone: 3 to 7   |                     |  |  |  |
| <b>Growth Rate</b>  | Medium   |                     |  |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Susceptible to verticillium wilt which is usually fatal. Susceptible to verticillium wilt which is usually fatal. |                     |  |  |  |
| <b>Common Varieties</b>   | Crimson King', 'Crimson Sentry', 'Drummondii' Globosum', 'Emerald Queen', 'Erectum', 'Princeton Gold', 'Schwedleri'                                      |                     |  |  |  |
| <b>Where to See</b>   | Northeastern Europe to Caucasus  |                     |  |  |  |

| Class II  |   | <b>Sycamore Maple</b> |  |  |  |
|---|---|-----------------------|--|--|--|
| Acer pseudoplatanus   |   |                       |  |  |  |
|   |    | <b>Family</b>         | Aceraceae  |  |  |
|   |    | <b>Form</b>           | Broad  |  |  |
|   |   | <b>Size</b>           | 60' Spread 60' Height  |  |  |
|   |   | <b>Fall Color</b>     | Greenish yellow to vibrant scarlet to burgundy                                   |  |  |
|   |   | <b>Seed</b>           | Pairs of samaras (to 2" long) with the wings typically forming a 60 degree angle |  |  |
|   |    | <b>Flower</b>         | Monoecious   |  |  |
| <b>Characteristics</b>  | Deciduous,pyramidal or elliptical when young, becomes more spreading with age, eventually developing a more or less rounded or oval outline |                       |  |  |  |
| <b>Growing Conditions</b>   | Zone: 4 to 7  |                       |  |  |  |
| <b>Growth Rate</b>  | Medium   |                       |  |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Canker is the most significant potential disease problem.  |                       |  |  |  |
| <b>Common Varieties</b>   | 'Atropurpureum', 'Brilliantissimum', 'Erectum', 'Erythrocarpum', 'Leopoldii', 'Prinz Handjery', f. variegatum, 'Worley'                     |                       |  |  |  |
| <b>Where to See</b>   | Northwest/central Europe and western Asia   |                       |  |  |  |

| Class II  |   | <b>Red Maple</b>  |                          |  |  |  |
|---|---|---|--------------------------|--|--|--|
| Acer rubrum   |   |   |                          |  |  |  |
|   |    | <b>Family</b>   | Aceraceae                |  |  |  |
|   |    | <b>Form</b>   | Broad                    |  |  |  |
|   |   | <b>Size</b>   | 50' Spread 70' Height    |  |  |  |
|   |   | <b>Fall Color</b>   | Orange-red foliage color |  |  |  |
|   |   |  | <b>Seed</b>              |  |  |  |
|   |    | <b>Flower</b>   | Showy                    |  |  |  |
| <b>Characteristics</b>  | Deciduous,pyramidal or elliptical when young, becomes more spreading with age, eventually developing a more or less rounded or oval outline                               |   |                          |  |  |  |
| <b>Growing Conditions</b>   | Zones 3-9   |   |                          |  |  |  |
| <b>Growth Rate</b>  | Medium  |   |                          |  |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Watch for aphids, leafhoppers, borers, scale and caterpillars. Verticillium wilt attacks the vascular system and can be fatal.     |   |                          |  |  |  |
| <b>Common Varieties</b>   | Armstrong', 'Armstrong Gold', 'Autumn Flame', 'Bowhall', 'Brandywine', 'Karpick', 'Northwood', 'October Glory', 'Red Skin', 'Red Sunset', 'Redpointe', 'Scarlet Sentinel' |   |                          |  |  |  |
| <b>Where to See</b>   | Eastern North America from Quebec to Minnesota south to Florida and eastern Texas   |   |                          |  |  |  |

| Class II  |  | <b>Autumn Blaze Maple</b> |                                      |  |  |
|---|--|---------------------------|--------------------------------------|--|--|
| <i>Acer x freemanii</i>   |  |                           |                                      |  |  |
|   |   | <b>Family</b>             | Aceraceae                            |  |  |
|   |   | <b>Form</b>               | Broad                                |  |  |
|   |  | <b>Size</b>               | 40' Spread 55' Height                |  |  |
|   |  | <b>Fall Color</b>         | Greenish-yellow to red               |  |  |
|   |   | <b>Seed</b>               |                                      |  |  |
|   |   | <b>Flower</b>             | Inflorescences in ball-like clusters |  |  |
| <b>Characteristics</b>  | A hybrid of red maple ( <i>A. rubrum</i> ) and silver maple ( <i>A. saccharinum</i> ). It is sometimes difficult to identify a Freeman hybrid because of the complexity of crosses and backcrosses that may occur. |                           |                                      |  |  |
| <b>Growing Conditions</b>   | Zone: 3 to 8   |                           |                                      |  |  |
| <b>Growth Rate</b>  | High   |                           |                                      |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Young plants susceptible to leafhoppers and scale. Borers.  |                           |                                      |  |  |
| <b>Common Varieties</b>   | 'Armstrong', 'Autumn Blaze', 'Autumn Fantasy', 'Celebration', 'Firefall', 'Marmo', 'Morgan', 'Scarlet Sentinel', 'Sienna Glen'   |                           |                                      |  |  |
| <b>Where to See</b>   |  |                           |                                      |  |  |

| Class II  |  | <b>European Alder</b> |  |  |  |
|---|--|-----------------------|--|--|--|
| <i>Alnus glutinosa</i>  |  |                       |  |  |  |
|   |   | <b>Family</b>         | Betulaceae   |  |  |
|   |   | <b>Form</b>           | Broad  |  |  |
|   |  | <b>Size</b>           | 40' Spread 60' Height  |  |  |
|   |  | <b>Fall Color</b>     | Reddish-brown (male), purple (female)  |  |  |
|   |   | <b>Seed</b>           |  |  |  |
|   |   | <b>Flower</b>         | Monoecious; small male flowers, reddish-brown, in 2" to 4" long catkins; purplish female flowers inside an egg-shaped cone |  |  |
| <b>Characteristics</b>  | Small to medium-sized deciduous tree that is distinguished by its gummy young twigs and leaves and its obovate to rounded, glossy dark green leaves (to 4" long) with doubly toothed margins and blunt to sometimes notched apices |                       |  |  |  |
| <b>Growing Conditions</b>   | Zones 3-7  |                       |  |  |  |
| <b>Growth Rate</b>  | High   |                       |  |  |  |
| <b>Disease and Pests</b>  | Canker is the most severe disease problem. Watch for aphids, leaf miner, tent caterpillars lace bugs and flea beetles.   |                       |  |  |  |
| <b>Common Varieties</b>   | 'Aurea', 'Charles Howlett', 'Imperialis', 'Laciniata', 'Pyramidalis  |                       |  |  |  |
| <b>Where to See</b>   | Europe, Northern Africa, western Asia  |                       |  |  |  |

|   |   |                   |                        |  |
|---|---|-------------------|------------------------|--|
| Class II  | <b>European Hornbeam</b>  |                   |                        |  |
| Carpinus betulus  |   |                   |                        |  |
|   |    | <b>Family</b>     | Betulaceae             |  |
|   |    | <b>Form</b>       | Broad                  |  |
|   |   | <b>Size</b>       | 40' Spread 60' Height  |  |
|   |   | <b>Fall Color</b> | Yellow to yellow-green |  |
|   |    | <b>Seed</b>       |                        |  |
|   |    | <b>Flower</b>     | Insignificant          |  |
| <b>Characteristics</b>  | A deciduous, medium sized tree, somewhat pyramidal or oval when young, mature plants are broad and rounded  |                   |                        |  |
| <b>Growing Conditions</b>   | Zones 4-8   |                   |                        |  |
| <b>Growth Rate</b>  | Low   |                   |                        |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems.  |                   |                        |  |
| <b>Common Varieties</b>   | 'Asplenifolia', 'Brownstone', 'Columnaris', 'Columnaris Nana', 'Cornerstone', 'Emerald Avenue', 'Fastigiata', 'Franz Fontaine', 'Globosa', 'Pendula', 'Purpurea |                   |                        |  |
| <b>Where to See</b>   | Europe, Asia  |                   |                        |  |

|   |   |                   |  |  |
|---|---|-------------------|--|--|
| Class II  | <b>European Beech</b>   |                   |  |  |
| Fagus sylvatica   |   |                   |  |  |
|   |    | <b>Family</b>     | Fagaceae   |  |
|   |    | <b>Form</b>       | Broad  |  |
|   |   | <b>Size</b>       | 40' Spread 50' Height                              |  |
|   |   | <b>Fall Color</b> | Golden-yellow to reddish-orange                    |  |
|   |    | <b>Seed</b>       |  |  |
|   |    | <b>Flower</b>     | Monoecious. Flowers inconspicuous, in small groups |  |
| <b>Characteristics</b>  | Large deciduous tree, broad pyramidal shape, trunk is short and branches generally touch ground, slow growth rate   |                   |  |  |
| <b>Growing Conditions</b>   | Zone: 4 to 7  |                   |  |  |
| <b>Growth Rate</b>  | Low   |                   |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Beech scale is an occasional problem. Watch for aphids, Japanese beetles and caterpillars. Distressed trees may be attacked by borers. Beech bark disease, canker and powdery mildew may occur.            |                   |  |  |
| <b>Common Varieties</b>   | Ansoergei', 'Asplenifolia', 'Atropunicea', 'Aurea Pendula', 'Black Swan', 'Cockleshell', 'Dawyck Gold', 'Dawyck Purple', 'Fastigiata', 'Franken', 'Mercedes', 'Pendula', 'Purple Fountain', 'Red Obelisk', 'Riversii', 'Rotundifolia', 'Tricolor' |                   |  |  |
| <b>Where to See</b>   | Central Europe to Caucasus  |                   |  |  |

| Class II  |  | Tricolor Beech   |  |  |
|---|--|--|--|--|
| <i>Fagus sylvatica</i>  |  |  |  |  |
|   |   | <b>Family</b>  | Fagaceae   |  |
|   |   | <b>Form</b>  | Round  |  |
|   |   | <b>Size</b>  | 20' Spread 30' Height                                      |  |
|   |   | <b>Fall Color</b>  | Bronze-gold  |  |
|   |   | <b>Seed</b>  |  |  |
|   |   | <b>Flower</b>  | Monoecious yellowish green flowers bloom in April-May, the |  |
|   | <b>Characteristics</b>   | A large deciduous tree typically growing to 50-60' (less frequently to 100') tall with a dense, upright-oval to rounded-spreading crown. |  |  |
| <b>Growing Conditions</b>   | Zone: 4 to 7   |  |  |  |
| <b>Growth Rate</b>  |  |  |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Beech scale is an occasional problem. Watch for aphids, Japanese beetles and caterpillars. Distressed trees may be attacked by borers. Beech bark disease, canker and powdery mildew may occur. |  |  |  |
| <b>Common Varieties</b>   |  |  |  |  |
| <b>Where to See</b>   | Woodlands in central and southern Europe   |  |  |  |

| Class II  |  | Autumn Purple Ash  |  |  |
|---|--|--|--|--|
| <i>Fraxinus americana</i> 'Autumn Purple'   |  |  |  |  |
|   |   | <b>Family</b>  | Oleaceae   |  |
|   |   | <b>Form</b>  | Oval   |  |
|   |   | <b>Size</b>  | 50' Spread 60' Height  |  |
|   |   | <b>Fall Color</b>  | Purple to yellow-purple  |  |
|   |   | <b>Seed</b>  |  |  |
|   |   | <b>Flower</b>  | Dioecious; small and inconspicuous, arranged in conical clusters; appear in spring before the leaves expand. |  |
|   | <b>Characteristics</b>   | A large deciduous tree, shape is oval in youth, becoming more rounded with age, branches are distributed evenly in the crown |  |  |
| <b>Growing Conditions</b>   | Zones 3-9  |  |  |  |
| <b>Growth Rate</b>  | Medium   |  |  |  |
| <b>Disease and Pests</b>  | Emerald ash borer will typically kill an ash tree within 3-5 years after infestation. Once infestation occurs, it is very difficult to eradicate this pest which feeds under the bark and bores into wood. Potential disease problems include fungal leaf spots, powdery mildew, rust, anthracnose, cankers and ash yellows. General ash decline is also a concern. Brittle branches are susceptible to damage from high winds and snow/ice. |  |  |  |
| <b>Common Varieties</b>   | 'Autumn Applause', 'Autumn Blaze', 'Champaign County', 'Chicago Regal', 'Elk Grove', 'Empire', 'Greenspire', 'Junginger', 'Manitou', 'Rosehill', 'Royal Purple', 'Skycole', 'Tures'  |  |  |  |
| <b>Where to See</b>   | Eastern U.S  |  |  |  |

| Class II  |   | Princeton Sentry' Ginkgo |   |  |  |
|---|---|--------------------------|---|--|--|
| Ginkgo biloba   |   |                          |   |  |  |
|   |    | <b>Family</b>            | Ginkgoaceae   |  |  |
|   |    | <b>Form</b>              | Broad   |  |  |
|   |   | <b>Size</b>              | 30' Spread 50' Height   |  |  |
|   |   | <b>Fall Color</b>        | Bright yellow   |  |  |
|   |    | <b>Seed</b>              |   |  |  |
|   |    | <b>Flower</b>            | Dioecious. Green male flowers borne in 1" long catkins in spring; female flowers inconspicuous. |  |  |
| <b>Characteristics</b>  | Deciduous, a large tree, medium texture, rather coarse in , conical form when young, spreading lateral branches with agewinter  |                          |   |  |  |
| <b>Growing Conditions</b>   | Zone: 3 to 9  |                          |   |  |  |
| <b>Growth Rate</b>  | Medium  |                          |   |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Usually slow growing, with initial growth being somewhat sparse.   |                          |   |  |  |
| <b>Common Varieties</b>   | 'Autumn Gold', 'Golden Colonnade', 'Halka', 'Jade Butterfly', 'Lakeview', 'Magyar', 'Pendula', 'Presidential Gold', 'Princeton Sentry', 'Saratoga', 'Troll', 'Tubifolia', 'Variegata' |                          |   |  |  |
| <b>Where to See</b>   | China and Japan   |                          |   |  |  |

| Class II  |  | Honey Locust      |   |  |  |
|---|--|-------------------|---|--|--|
| Gleditsia triacanthos var. inermis  |  |                   |   |  |  |
|   |   | <b>Family</b>     | Fabaceae  |  |  |
|   |   | <b>Form</b>       | Round   |  |  |
|   |  | <b>Size</b>       | 80' Spread 80' Height   |  |  |
|   |   | <b>Fall Color</b> | Greenish-yellow   |  |  |
|   |   | <b>Seed</b>       | Followed by long, twisted and flattened, dark purplish-brown seedpods |  |  |
|   |   | <b>Flower</b>     | Showy   |  |  |
| <b>Characteristics</b>  | A medium to large deciduous tree, spread is usually equal to height, branching is upright-spreading to arching or more or less horizontal, some trees become nearly flat-topped  |                   |   |  |  |
| <b>Growing Conditions</b>   | Zone: 3 to 8   |                   |   |  |  |
| <b>Growth Rate</b>  |  |                   |   |  |  |
| <b>Disease and Pests</b>  | Susceptible to a large number of potential disease problems, including leaf spot, canker, witches' broom, powdery mildew and rust. Borers and webworms are common insect problems in some areas. Leaflets are too small to rake, which is good, but seed pods are unattractive on the tree and messy when they fall. Thorns on species plants can be just plain nasty. |                   |   |  |  |
| <b>Common Varieties</b>   |  |                   |   |  |  |
| <b>Where to See</b>   | Pennsylvania to Iowa south to Georgia and Texas  |                   |   |  |  |

|   |   |                   |                                     |  |  |
|---|---|-------------------|-------------------------------------|--|--|
| Class II  | <b>Sweetgum</b>   |                   |                                     |  |  |
| <i>Liquidambar styraciflua</i>  |   |                   |                                     |  |  |
|   |    | <b>Family</b>     | Altingiaceae                        |  |  |
|   |    | <b>Form</b>       | Oval- Rounded                       |  |  |
|   |   | <b>Size</b>       | 65' Spread 75' Height               |  |  |
|   |    | <b>Fall Color</b> | Yellow, orange, purple and red      |  |  |
|   |   | <b>Seed</b>       |                                     |  |  |
|   |    | <b>Flower</b>     | Non-showy, monoecious, yellow-green |  |  |
| <b>Characteristics</b>  | Deciduous shade tree, Pyramidal when young, oblong to rounded when mature, usually maintains a single leader  |                   |                                     |  |  |
| <b>Growing Conditions</b>   | Zone: 5 to 9  |                   |                                     |  |  |
| <b>Growth Rate</b>  | Medium  |                   |                                     |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Webworms, caterpillars, borers and scale may cause problems in some areas. Leaf spots, wood rot and bleeding necrosis may occur. Iron chlorosis may occur in alkaline soils. |                   |                                     |  |  |
| <b>Common Varieties</b>   |   |                   |                                     |  |  |
| <b>Where to See</b>   | Eastern United States, Mexico   |                   |                                     |  |  |

|   |  |                   |   |  |  |
|---|--|-------------------|---|--|--|
| Class II  | <b>Dawn Redwood</b>  |                   |   |  |  |
| <i>Metasequia glyptostrobooides</i>   |  |                   |   |  |  |
|   |                     | <b>Family</b>     | Cupressaceae  |  |  |
|   |                     | <b>Form</b>       | Conical Shape   |  |  |
|   |  | <b>Size</b>       | 25' Spread 100' Height  |  |  |
|   |                     | <b>Fall Color</b> | Unique pinkish tan to reddish bronze before dropping in the fall  |  |  |
|   |  | <b>Seed</b>       |   |  |  |
|   |                     | <b>Flower</b>     | Monoecious, producing oval, light brown female cones (3/4" long) and pendant globose male cones (1/2" long) |  |  |
| <b>Characteristics</b>  | A deciduous, coniferous , large tree, uniform conical habit, horizontal branching, growth rate is fast |                   |   |  |  |
| <b>Growing Conditions</b>   | Zone: 4 to 8   |                   |   |  |  |
| <b>Growth Rate</b>  | High   |                   |   |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems.   |                   |   |  |  |
| <b>Common Varieties</b>   |  |                   |   |  |  |
| <b>Where to See</b>   | Central and western China  |                   |   |  |  |

| Class II  |  | <b>White Mulberry</b> |   |  |  |
|---|--|-----------------------|---|--|--|
| Morus alba  |  |                       |   |  |  |
|   |   | <b>Family</b>         | Moraceae  |  |  |
|   |   | <b>Form</b>           | Broad   |  |  |
|   |  | <b>Size</b>           | 50' Spread 50' Height                                   |  |  |
|   |  | <b>Fall Color</b>     | Unattractive yellow (sometimes green, yellow and brown) |  |  |
|   |   | <b>Seed</b>           |   |  |  |
|   |   | <b>Flower</b>         | Insignificant   |  |  |
| <b>Characteristics</b>  | A deciduous, medium to large tree, dense, rounded tree, fast growing   |                       |   |  |  |
| <b>Growing Conditions</b>   | Zone: 4 to 8   |                       |   |  |  |
| <b>Growth Rate</b>  | High   |                       |   |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Borers may be a problem particular in the South. Whiteflies mass on some trees. Bacterial blight may kill foliage/branches. Coral spot cankers may cause twig dieback. Bacterial leaf scorch, powdery mildew and root rot may also occur. Watch for scale, mites and mealybugs. Messy fruit may be a concern. |                       |   |  |  |
| <b>Common Varieties</b>   | 'Bellaire', 'Chaparral', 'Contorta', 'Fan-San', 'Fegyvernekiana', 'Fruitless', 'Hampton', 'Illinois Everbearing', 'Itoguwa', 'Lingan', 'Laciniata', 'Mapleleaf', 'Nuclear Blast', 'Pendula', 'Pyramidalis', 'Silk Hope', 'Stribling', var. tatarica, 'Urbana', 'Widman Mitchell'   |                       |   |  |  |
| <b>Where to See</b>   | China  |                       |   |  |  |

| Class II  |  | <b>White Swamp Oak</b> |                                      |  |  |
|---|--|------------------------|--------------------------------------|--|--|
| Quercus bicolor   |  |                        |                                      |  |  |
|   |   | <b>Family</b>          | Fagaceae                             |  |  |
|   |   | <b>Form</b>            | Round                                |  |  |
|   |  | <b>Size</b>            | 60' Spread 60' Height                |  |  |
|   |  | <b>Fall Color</b>      | Yellow, but sometimes reddish purple |  |  |
|   |  | <b>Seed</b>            |                                      |  |  |
|   |   | <b>Flower</b>          | Insignificant                        |  |  |
| <b>Characteristics</b>  | A medium-sized, deciduous tree, upright oval crown, open, moderate growth rate   |                        |                                      |  |  |
| <b>Growing Conditions</b>   | Zone: 3 to 8   |                        |                                      |  |  |
| <b>Growth Rate</b>  | Medium   |                        |                                      |  |  |
| <b>Disease and Pests</b>  | Generally a durable and long-lived tree, but is susceptible to a large number of potential diseases and insect pests, including anthracnose, canker, leaf spot, rust, blight, galls, caterpillars, borers, leaf miners, oak lace bug and oak mite. Chlorosis (yellowing of the leaves while the veins remain green) often occurs when soils are not properly acidic. Can be difficult to transplant and establish. |                        |                                      |  |  |
| <b>Common Varieties</b>   |  |                        |                                      |  |  |
| <b>Where to See</b>   | Northeastern North America   |                        |                                      |  |  |

|   |   |                   |                       |  |  |
|---|---|-------------------|-----------------------|--|--|
| Class II  |   | <b>Bur Oak</b>    |                       |  |  |
| <i>Quercus macrocarpa</i>   |   |                   |                       |  |  |
|   |    | <b>Family</b>     | Fagaceae              |  |  |
|   |    | <b>Form</b>       | Round                 |  |  |
|   |   | <b>Size</b>       | 80' Spread 80' Height |  |  |
|   |   | <b>Fall Color</b> | Yellowish-brown       |  |  |
|   |   | <b>Seed</b>       |                       |  |  |
|   |    | <b>Flower</b>     | Insignificant         |  |  |
| <b>Characteristics</b>  | A large, deciduous tree, somewhat columnar in youth, broad crown with age, equal of greater spread at maturity, equal of greater spread at maturity   |                   |                       |  |  |
| <b>Growing Conditions</b>   | Zone: 3 to 8  |                   |                       |  |  |
| <b>Growth Rate</b>  |   |                   |                       |  |  |
| <b>Disease and Pests</b>  | Susceptible to a large number of diseases, including oak wilt, chestnut blight, shoestring root rot, anthracnose, oak leaf blister, cankers, leaf spots and powdery mildew. Potential insect pests include scale, oak skeletonizer, leaf miner, galls, oak lace bugs, borers, caterpillars and nut weevils. Notwithstanding the aforementioned, bur oak is generally considered to be a low-maintenance, long-lived tree. |                   |                       |  |  |
| <b>Common Varieties</b>   |   |                   |                       |  |  |
| <b>Where to See</b>   | Northern and central United States, southeastern Canada   |                   |                       |  |  |

|   |  |                    |                       |  |  |
|---|--|--------------------|-----------------------|--|--|
| Class II  |  | <b>English Oak</b> |                       |  |  |
| <i>Quercus robur Fastigiata</i>   |  |                    |                       |  |  |
|   |   | <b>Family</b>      | Fagaceae              |  |  |
|   |   | <b>Form</b>        | Round                 |  |  |
|   |  | <b>Size</b>        | 70' Spread 70' Height |  |  |
|   |  | <b>Fall Color</b>  | Yellowish-green       |  |  |
|   |  | <b>Seed</b>        |                       |  |  |
|   |   | <b>Flower</b>      | Insignificant         |  |  |
| <b>Characteristics</b>  | A large, deciduous tree, somewhat columnar in youth, broad crown with age, equal of greater spread at maturity, equal of greater spread at maturity  |                    |                       |  |  |
| <b>Growing Conditions</b>   | Zone: 5 to 8   |                    |                       |  |  |
| <b>Growth Rate</b>  | Average  |                    |                       |  |  |
| <b>Disease and Pests</b>  | Powdery mildew can be significant, however, particularly in humid climates such as the St. Louis area. Oaks in general are susceptible to a large number of diseases, including oak wilt, chestnut blight, shoestring root rot, anthracnose, oak leaf blister, cankers, leaf spots and powdery mildew. Potential insect pests include scale, oak skeletonizer, leaf miner, galls, oak lace bugs, borers, caterpillars and nut weevils. |                    |                       |  |  |
| <b>Common Varieties</b>   |  |                    |                       |  |  |
| <b>Where to See</b>   | Europe, southwestern Asia  |                    |                       |  |  |

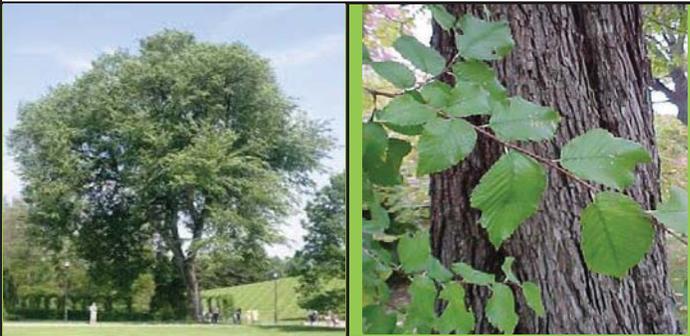
| Class II  |   | <b>Black Locust</b> |                               |
|---|---|---------------------|-------------------------------|
| <i>Robinia pseudoacacia</i>   |   |                     |                               |
|   |    | <b>Family</b>       | Fabaceae                      |
|   |    | <b>Form</b>         | Narrow oblong                 |
|   |   | <b>Size</b>         | 35' Spread 50' Height         |
|   |   | <b>Fall Color</b>   | Leaves drop a yellowish-green |
|   |    | <b>Seed</b>         |                               |
|   |    | <b>Flower</b>       | Showy, Fragrant               |
| <b>Characteristics</b>  | A medium-sized deciduous tree, an upright tree with a somewhat narrow crown that is widest near the top, branching is upright to irregular, many consider the branching to be unique and picturesque  |                     |                               |
| <b>Growing Conditions</b>   | Zone: 3 to 8  |                     |                               |
| <b>Growth Rate</b>  | Average   |                     |                               |
| <b>Disease and Pests</b>  | A very easy-to-grow tree. It thrives in many difficult growing conditions. It is also sometimes considered to be somewhat weedy. Trees send out long underground root suckers that not only become a maintenance problem but also can disrupt nearby gardening areas. It is susceptible to locust borer (often fatal) and locust leaf miner (browns foliage). Other insect problems include caterpillars, weevils, scale and whiteflies. Possible disease problems include canker, powdery mildew, leaf spots, wood rots and verticillium wilt. |                     |                               |
| <b>Common Varieties</b>   |   |                     |                               |
| <b>Where to See</b>   | Eastern and central United States   |                     |                               |

| Class II  |   | <b>Idaho Locust</b> |                       |
|---|---|---------------------|-----------------------|
| <i>Robinia xambigua 'idahoensis'</i>  |   |                     |                       |
|   |                          | <b>Family</b>       | Fabaceae              |
|   |                          | <b>Form</b>         | Round                 |
|   |   | <b>Size</b>         | 30' Spread 40' Height |
|   |   | <b>Fall Color</b>   | Yellow, Green         |
|   |                          | <b>Seed</b>         |                       |
|   |                          | <b>Flower</b>       | Showy, red            |
| <b>Characteristics</b>  | A graceful deciduous tree prized its gorgeous, pendulous, clusters of pink flowers and rugged constitution. |                     |                       |
| <b>Growing Conditions</b>   | Zone: 4 to 8  |                     |                       |
| <b>Growth Rate</b>  | Fast  |                     |                       |
| <b>Disease and Pests</b>  |   |                     |                       |
| <b>Common Varieties</b>   |   |                     |                       |
| <b>Where to See</b>   | North America and Mexico  |                     |                       |

|   |  |                                   |
|---|--|-----------------------------------|
| Class II  | <b>Japanese Pagoda Tree</b>  |                                   |
| <i>Sophora japonica</i>   |  |                                   |
|  |   | <b>Family</b> Fabaceae            |
|   |   | <b>Form</b> Round                 |
|   |  | <b>Size</b> 75' Spread 75' Height |
|   |   | <b>Fall Color</b> Greenish yellow |
|   |   | <b>Seed</b>                       |
|   |   | <b>Flower</b> Showy               |
| <b>Characteristics</b>  | A deciduous medium to large tree, spread equals height, rounded shape, branching is upright and spreading and eventually nearly arching over |                                   |
| <b>Growing Conditions</b>   | Zone: 4 to 8   |                                   |
| <b>Growth Rate</b>  | Medium   |                                   |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Twig blight, verticillium wilt, canker, powdery mildew and rust may occur. Watch for leaf hoppers.    |                                   |
| <b>Common Varieties</b>   |  |                                   |
| <b>Where to See</b>   | China and Korea  |                                   |

|   |  |                                   |
|---|--|-----------------------------------|
| Class II  | <b>Mountain Ash</b>  |                                   |
| <i>Sorbus americana</i>   |  |                                   |
|  |   | <b>Family</b> Rosaceae            |
|   |   | <b>Form</b> Round                 |
|   |  | <b>Size</b> 25' Spread 30' Height |
|   |   | <b>Fall Color</b> Yellow          |
|   |   | <b>Seed</b>                       |
|   |   | <b>Flower</b> Showy               |
| <b>Characteristics</b>  | A small, deciduous, with an open rounded crown. It is noted for its attractive form, white spring flowers, serrate compound-pinnate leaves and bright orange-red fall fruit.   |                                   |
| <b>Growing Conditions</b>   | Zone: 3 to 6   |                                   |
| <b>Growth Rate</b>  |  |                                   |
| <b>Disease and Pests</b>  | Bacterial fireblight can be a severe problem, causing scorched leaves at the branch ends. Scab can cause significant defoliation. Cankers, crown gall, powdery mildew and rust may also occur. Insect visitors include borers, aphids, sawfly and scale. Stressed trees are generally more susceptible to attack from canker and borers. |                                   |
| <b>Common Varieties</b>   |  |                                   |
| <b>Where to See</b>   | Eastern North America  |                                   |

|   |   |  |                      |  |
|---|---|--|----------------------|--|
| Class II  | <b>Bald Cypress</b>   |  |                      |  |
| <i>Taxodium distichum</i>   |   |  |                      |  |
|  |    | <b>Family</b>  | Cupressaceae         |  |
|   |    | <b>Form</b>  |                      |  |
|   |    | <b>Size</b>  | 8' Spread 20' Height |  |
|   |    | <b>Fall Color</b>  | Russet orange-red    |  |
|   |    | <b>Seed</b>  |                      |  |
|   |    | <b>Flower</b>  | Non-flowering        |  |
|   | <b>Characteristics</b>  | A deciduous conifer, pyramidal to conical, especially when young, some older trees develop spreading, irregular, or almost flat-topped forms, some older trees develop spreading, irregular, or almost flat-topped forms |                      |  |
| <b>Growing Conditions</b>   | Zone: 4 to 9  |  |                      |  |
| <b>Growth Rate</b>  | Medium  |  |                      |  |
| <b>Disease and Pests</b>  | Interesting landscape specimen or accent. Foundations, near patios or in small garden areas. Tolerates placement in moist soils or low spots. |  |                      |  |
| <b>Common Varieties</b>   | Twig blight and rots may occur. Watch for spider mites.   |  |                      |  |
| <b>Where to See</b>   | Albany, Auckland, New Zealand   |  |                      |  |

|   |  |                   |                       |  |
|---|--|-------------------|-----------------------|--|
| Class II  | <b>American Elm</b>  |                   |                       |  |
| <i>Ulmus Americana</i>  |  |                   |                       |  |
|  |   | <b>Family</b>     | Ulmaceae              |  |
|   |   | <b>Form</b>       | Broad-Rounded         |  |
|   |  | <b>Size</b>       | 70' Spread 80' Height |  |
|   |  | <b>Fall Color</b> | Reddish-green         |  |
|   |   | <b>Seed</b>       |                       |  |
|   |   | <b>Flower</b>     | Insignificant         |  |
| <b>Characteristics</b>  | Large, deciduous tree, narrow with numerous branches covering trunk, columnar, medium growth rate  |                   |                       |  |
| <b>Growing Conditions</b>   | Zone: 2 to 9   |                   |                       |  |
| <b>Growth Rate</b>  | Average  |                   |                       |  |
| <b>Disease and Pests</b>  | A fatal fungal disease spread by airborne bark beetles, attacks the water-conducting tissue of the tree, resulting in wilting, defoliation and death. Phloem necrosis is a disease caused by a phytoplasma that attacks the food-conducting tissue of the tree, usually resulting in a loosening of the bark, wilting, defoliation and death. Wetwood is a bacterial disease that results in wilting and dieback. Various wilts, rots, cankers and leaf spots may also occur. Insect visitors include borers, leaf miner, beetles, mealy bugs, caterpillars and scale. |                   |                       |  |
| <b>Common Varieties</b>   |  |                   |                       |  |
| <b>Where to See</b>   | Eastern North America  |                   |                       |  |

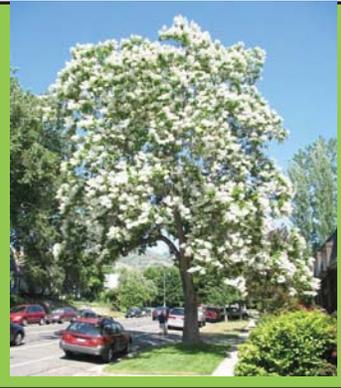
# CLASS III

These trees are large sized trees that are long-lived and have 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. Typical spacing between Class III trees is 50 feet or more.

|   |  |   |
|---|--|---|
| Class III   | <b>Black Maple</b>   |   |
| <i>Acer nigrum</i>  |  |   |
|  |                     | <b>Family</b> Aceraceae                     |
|   |                     | <b>Form</b> round, pyramidal                |
|   |  | <b>Size</b> 45' Spread 60' Height           |
|   |  | <b>Fall Color</b> Yellow to brownish yellow |
|   |                     | <b>Seed</b>                                 |
|   |                     | <b>Flower</b> Light yellow to white         |
| <b>Characteristics</b>  | Is very similar in appearance to sugar maple. It is a large, deciduous tree with ascending branching |   |
| <b>Growing Conditions</b>   | Zones 4-8 Withstands high soil pH  |   |
| <b>Growth Rate</b>  | Medium   |   |
| <b>Disease and Pests</b>  |  |   |
| <b>Common Varieties</b>   | Commemoration', 'Legacy'.  |   |
| <b>Where to See</b>   | North central and northeastern North American  |   |

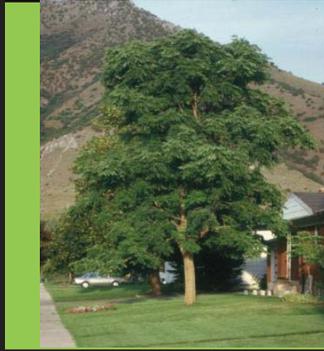
|   |   |                                     |
|---|---|-------------------------------------|
| Class III   | <b>Common Horsechestnut</b>   |                                     |
| <i>Aesculus hippocasatanum</i>  |   |                                     |
|  |  | <b>Family</b> Hippocastanaceae      |
|   |  | <b>Form</b> Upright oval-rounded    |
|   |   | <b>Size</b> 65' Spread 75' Height   |
|   |  | <b>Fall Color</b> Yellow-brown      |
|   |  | <b>Seed</b> Shiny, brown            |
|   |  | <b>Flower</b> White to light yellow |
| <b>Characteristics</b>  | A medium to large deciduous tree  |                                     |
| <b>Growing Conditions</b>   | Zones 3-7, grown in average, medium, well-drained soils in full sun to part shade.  |                                     |
| <b>Growth Rate</b>  | Medium  |                                     |
| <b>Disease and Pests</b>  | Leaf blotch, Powdery mildew, anthracnose, bagworms, Japanese beetles and borers     |                                     |
| <b>Common Varieties</b>   | Baumanii'.  |                                     |
| <b>Where to See</b>   |   |                                     |

|   |   |                                   |
|---|---|-----------------------------------|
| Class III   | <b>Avalanche Birch</b>  |                                   |
| <i>Betula x 'Avalzam'</i>   |   |                                   |
|   |    | <b>Family</b> Betulaceae          |
|   |    | <b>Form</b> Oval                  |
|   |   | <b>Size</b> 30' Spread 50' Height |
|   |    | <b>Fall Color</b> Yellow          |
|   |    | <b>Seed</b>                       |
|   |    | <b>Flower</b> Insignificant       |
| <b>Characteristics</b>  | It has a low canopy with a typical clearance of 3 feet from the ground, and should not be planted underneath power lines. It grows at a fast rate |                                   |
| <b>Growing Conditions</b>   | Zones 2-8, This tree does best in full sun to partial shade.  |                                   |
| <b>Growth Rate</b>  | Fast growing  |                                   |
| <b>Disease and Pests</b>  | Has higher than average resistance to bronze birch borer  |                                   |
| <b>Common Varieties</b>   |   |                                   |
| <b>Where to See</b>   |   |                                   |

|   |   |  |
|---|---|--|
| Class III   | <b>Northern Catalpa</b>   |  |
| <i>Catalpa speciosa</i>   |   |  |
|   |                            | <b>Family</b> Bignoniaceae                                     |
|   |                            | <b>Form</b> Open-rounded to narrow-oval                        |
|   |   | <b>Size</b> 50' Spread 70' Height                              |
|   |   | <b>Fall Color</b> Yellow-brown                                 |
|   |                            | <b>Seed</b> Winged   |
|   |                            | <b>Flower</b> Trumpet-like; white with yellow and purple spots |
| <b>Characteristics</b>  | A large, but fairly narrow-crowned tree with beautiful white flowers and an interesting, though messy, fruit. |  |
| <b>Growing Conditions</b>   | Zones 4-9 tolerant of wet or dry and high pH soils  |  |
| <b>Growth Rate</b>  | High  |  |
| <b>Disease and Pests</b>  | Susceptible to verticillium wilt, leaf spots, mildew and twig blight  |  |
| <b>Common Varieties</b>   | 'Aurea', 'Koehnei', 'Nana', 'Pulverulenta', 'Purpurea', 'Variegata'.  |  |
| <b>Where to See</b>   |   |  |

| Class III   |   | <b>Hackberry</b>  |                       |  |  |
|---|---|-------------------|-----------------------|--|--|
| Celtis occidentalis   |   |                   |                       |  |  |
|  |    | <b>Family</b>     | Cannabaceae           |  |  |
|   |    | <b>Form</b>       | Rounded               |  |  |
|   |   | <b>Size</b>       | 60' Spread 60' Height |  |  |
|   |    | <b>Fall Color</b> | Yellow                |  |  |
|   |    | <b>Seed</b>       | Round, brown          |  |  |
|   |    | <b>Flower</b>     | Monoecious, greenish  |  |  |
| <b>Characteristics</b>  | A medium to large sized deciduous tree. it typically occurs statewide in low woods along streams and in drier upland slopes |                   |                       |  |  |
| <b>Growing Conditions</b>   | Zones 2-9, Best grown in moist, organically rich, well-drained soils in full sun.   |                   |                       |  |  |
| <b>Growth Rate</b>  | High  |                   |                       |  |  |
| <b>Disease and Pests</b>  | Powdery mildew, leaf spot and root rot may occur. Watch for lacebugs and scale.   |                   |                       |  |  |
| <b>Common Varieties</b>   | Chicagoland', 'Delta', 'Prairie Pride', 'Windy City'.   |                   |                       |  |  |
| <b>Where to See</b>   | Central and northeastern North America  |                   |                       |  |  |

| Class III   |  | <b>American Beech</b> |  |  |  |
|---|--|-----------------------|--|--|--|
| Fagus grandifolia   |  |                       |  |  |  |
|  |           | <b>Family</b>         | Fagaceae                                 |  |  |
|   |           | <b>Form</b>           | Upright-oval to rounded-spreading        |  |  |
|   |  | <b>Size</b>           | 80' Spread 80' Height                    |  |  |
|   |           | <b>Fall Color</b>     | Golden bronze                            |  |  |
|   |           | <b>Seed</b>           | Triangular nuts enclosed by spiny bracts |  |  |
|   |           | <b>Flower</b>         | Monoecious yellowish green               |  |  |
| <b>Characteristics</b>  | It is a large deciduous tree, is a low-branched.   |                       |  |  |  |
| <b>Growing Conditions</b>   | Zones 3-9. Best grown in deep, rich, moist but well-drained soils in full sun to part shade. |                       |  |  |  |
| <b>Growth Rate</b>  | Low  |                       |  |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Beech scale is an occasional problem.                 |                       |  |  |  |
| <b>Common Varieties</b>   | Cameron', 'Diamond Bark'.  |                       |  |  |  |
| <b>Where to See</b>   | Eastern North America  |                       |  |  |  |

| Class III   |  | <b>Kentucky Coffee Tree</b> |                              |  |  |
|---|--|-----------------------------|------------------------------|--|--|
| <i>Gymnocladus dioicus</i>  |  |                             |                              |  |  |
|   |   | <b>Family</b>               | Fagaceae                     |  |  |
|   |   | <b>Form</b>                 | Oval                         |  |  |
|   |  | <b>Size</b>                 | 55' Spread 80' Height        |  |  |
|   |   | <b>Fall Color</b>           | Yellow                       |  |  |
|   |   | <b>Seed</b>                 | Flattened reddish brown pods |  |  |
|   |   | <b>Flower</b>               | Greenish white               |  |  |
| <b>Characteristics</b>  | Is a tall deciduous tree with rough, scaly gray-brown bark and large bipinnate compound leaves. Native Americans roasted the seeds for food. |                             |                              |  |  |
| <b>Growing Conditions</b>   | Zones 3-8. Best grown in moist, organically rich, well-drained soils in full sun.  |                             |                              |  |  |
| <b>Growth Rate</b>  | Medium   |                             |                              |  |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems.   |                             |                              |  |  |
| <b>Common Varieties</b>   | 'Espresso', 'Prairie Titan', 'Stately Manor'.  |                             |                              |  |  |
| <b>Where to See</b>   | Central and eastern North America  |                             |                              |  |  |

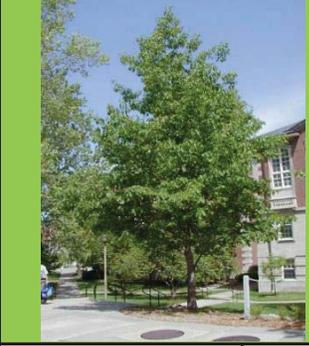
| Class III   |  | <b>Butternut</b>  |   |  |  |
|---|--|-------------------|---|--|--|
| <i>Juglans cinerea</i>  |  |                   |   |  |  |
|   |   | <b>Family</b>     | Juglandaceae  |  |  |
|   |   | <b>Form</b>       | Oval  |  |  |
|   |   | <b>Size</b>       | 60' Spread 60' Height                               |  |  |
|   |   | <b>Fall Color</b> | Undistinguished yellow                              |  |  |
|   |   | <b>Seed</b>       | Edible oval nuts encased in hairy indehiscent husks |  |  |
|   |   | <b>Flower</b>     | Yellowish green monoecious                          |  |  |
| <b>Characteristics</b>  | Is not commonly grown as an ornamental but it is a valued native American tree that is unfortunately becoming increasingly rare in the wild                                      |                   |   |  |  |
| <b>Growing Conditions</b>   | Zones 3-7. Prefers moist, organically rich, well-drained soils in full sun. Intolerant of shade.   |                   |   |  |  |
| <b>Growth Rate</b>  | Medium   |                   |   |  |  |
| <b>Disease and Pests</b>  | Susceptible to butternut dieback or butternut canker ( <i>Sirococcus clavigignenti-juglandacearum</i> ), a fatal fungal disease that is devastating butternut trees in the wild. |                   |   |  |  |
| <b>Common Varieties</b>   |  |                   |   |  |  |
| <b>Where to See</b>   | Northeastern United States   |                   |   |  |  |

| Class III   |  | Tulip Tree        |                            |  |  |
|---|--|-------------------|----------------------------|--|--|
| Liriodendron tulipifera   |  |                   |                            |  |  |
|   |   | <b>Family</b>     | Magnoliaceae               |  |  |
|   |   | <b>Form</b>       | Pyramidal to broad conical |  |  |
|   |  | <b>Size</b>       | 50' Spread 90' Height      |  |  |
|   |   | <b>Fall Color</b> | Nice yellow                |  |  |
|   |   | <b>Seed</b>       | Winged                     |  |  |
|   |   | <b>Flower</b>     | Large, green-yellow        |  |  |
| <b>Characteristics</b>  | Is a large, stately, deciduous tree, Wood is used inter alia for furniture, plywood, boatbuilding, paper pulp and general lumber |                   |                            |  |  |
| <b>Growing Conditions</b>   | Zones 4-9 Best grown in moist, organically rich, well-drained loams in full sun.   |                   |                            |  |  |
| <b>Growth Rate</b>  | High   |                   |                            |  |  |
| <b>Disease and Pests</b>  | Aphids and scale. Potential diseases include verticillium wilt, mold, mildew and canker.   |                   |                            |  |  |
| <b>Common Varieties</b>   | Ardis', 'Arnold', 'Aureomarginatum', 'Compactum', 'Emerald City', 'Fastigiatum', 'Integrifolium', 'Mediopictum'.                 |                   |                            |  |  |
| <b>Where to See</b>   | Eastern North America  |                   |                            |  |  |

| Class III   |  | Sycamore          |                              |  |  |
|---|--|-------------------|------------------------------|--|--|
| Platanus occidentalis   |  |                   |                              |  |  |
|   |                                     | <b>Family</b>     | Platanaceae                  |  |  |
|   |                                     | <b>Form</b>       | Pyramidal to broad conical   |  |  |
|   |  | <b>Size</b>       | 100' Spread 100' Height      |  |  |
|   |  | <b>Fall Color</b> | Undistinguished yellow-brown |  |  |
|   |                                     | <b>Seed</b>       |                              |  |  |
|   |                                     | <b>Flower</b>     | Yellowish and reddish.       |  |  |
| <b>Characteristics</b>  | Regarded to be the most massive tree indigenous to eastern North America. It is a deciduous, usually single-trunk tree |                   |                              |  |  |
| <b>Growing Conditions</b>   | Zones 4-9, Easily grown in average, medium to wet, well-drained soils in full sun                                      |                   |                              |  |  |
| <b>Growth Rate</b>  | High   |                   |                              |  |  |
| <b>Disease and Pests</b>  | Sycamore anthracnose, Canker, leaf spot, powdery mildew, borers, scale, Japanese beetles, caterpillars and mites.      |                   |                              |  |  |
| <b>Common Varieties</b>   | Howard'.   |                   |                              |  |  |
| <b>Where to See</b>   | Southeastern United States   |                   |                              |  |  |

|   |  |                   |                            |  |
|---|--|-------------------|----------------------------|--|
| Class III   | <b>London Planetree</b>  |                   |                            |  |
| <i>Platanus x acerfolia</i>   |  |                   |                            |  |
|   |   | <b>Family</b>     | Platanaceae                |  |
|   |   | <b>Form</b>       | Pyramidal to broad conical |  |
|   |  | <b>Size</b>       | 75' Spread 100' Height     |  |
|   |  | <b>Fall Color</b> | Yellow-brown               |  |
|   |   | <b>Seed</b>       |                            |  |
|   |   | <b>Flower</b>     | Yellowish and reddish.     |  |
| <b>Characteristics</b>  | London planetree is a hybrid cross between American sycamore ( <i>P. occidentalis</i> ) and Oriental planetree ( <i>P. orientalis</i> ). |                   |                            |  |
| <b>Growing Conditions</b>   | Zones 4-9, Easily grown in average, medium to wet, well-drained soils in full sun  |                   |                            |  |
| <b>Growth Rate</b>  | High   |                   |                            |  |
| <b>Disease and Pests</b>  | Canker, leaf spot, powdery mildew, borers, scale, Japanese beetles, caterpillars and mites.  |                   |                            |  |
| <b>Common Varieties</b>   | Bloodgood', 'Columbia', 'Liberty', 'Mirkovec', 'Yarwood'.  |                   |                            |  |
| <b>Where to See</b>   |  |                   |                            |  |

|   |  |                   |  |  |
|---|--|-------------------|--|--|
| Class III   | <b>Chinkapin Oak</b>   |                   |  |  |
| <i>Quercus muhlenbergii</i>   |  |                   |  |  |
|   |   | <b>Family</b>     | Fagaceae                                   |  |
|   |   | <b>Form</b>       | Oval                                       |  |
|   |  | <b>Size</b>       | 70' Spread 60' Height                      |  |
|   |   | <b>Fall Color</b> | Undistinguished shades of yellow and brown |  |
|   |   | <b>Seed</b>       | Acorn                                      |  |
|   |   | <b>Flower</b>     | Yellowish-green                            |  |
| <b>Characteristics</b>  | Medium sized deciduous oak of the white oak group  |                   |  |  |
| <b>Growing Conditions</b>   | Zones 4-7, Easily grown in average, medium, well-drained soils in full sun.  |                   |  |  |
| <b>Growth Rate</b>  | Medium   |                   |  |  |
| <b>Disease and Pests</b>  | Oak wilt, chestnut blight, shoestring root rot, anthracnose, oak leaf blister, cankers, leaf spots, powdery mildew scale, oak skeletonizer, leaf miner, galls, oak lace bugs, borers, caterpillars and nut weevils |                   |  |  |
| <b>Common Varieties</b>   |  |                   |  |  |
| <b>Where to See</b>   | Eastern United States  |                   |  |  |

| Class III   |   | Northern Red Oak  |                   |                       |  |
|---|---|---|-------------------|-----------------------|--|
| Quercus rubra   |   |   |                   |                       |  |
|  |    |  | <b>Family</b>     | Fagaceae              |  |
|   |   |  | <b>Form</b>       | Irregular             |  |
|   |   |   | <b>Size</b>       | 75' Spread 75' Height |  |
|   |   |  | <b>Fall Color</b> | Brownish-red          |  |
|   |   |  | <b>Seed</b>       | Acorn                 |  |
|   |   |  | <b>Flower</b>     | Monoecious            |  |
| <b>Characteristics</b>  | A medium sized, deciduous tree  |   |                   |                       |  |
| <b>Growing Conditions</b>   | Zone 4 to 8 Easily grown in average, dry to medium moisture, acidic soil in full sun. Prefers fertile, sandy, finely-textured soils with good drainage. |   |                   |                       |  |
| <b>Growth Rate</b>  | Moderate-to-fast  |   |                   |                       |  |
| <b>Disease and Pests</b>  | Oak wilt which is a systemic fungal disease that has no cure. Chlorosis   |   |                   |                       |  |
| <b>Common Varieties</b>   | Aurea', 'Splendens'.  |   |                   |                       |  |
| <b>Where to See</b>   | Eastern North America   |   |                   |                       |  |

| Class III   |   | Shumard Oak   |                   |                       |  |
|---|---|---|-------------------|-----------------------|--|
| Quercus shumardii   |   |   |                   |                       |  |
|  |                                |  | <b>Family</b>     | Fagaceae              |  |
|   |   |  | <b>Form</b>       | Pyramidal to broad    |  |
|   |   |   | <b>Size</b>       | 40' Spread 60' Height |  |
|   |   |  | <b>Fall Color</b> | Deep red              |  |
|   |   |  | <b>Seed</b>       | Acorn                 |  |
|   |   |  | <b>Flower</b>     | Insignificant         |  |
| <b>Characteristics</b>  | Medium sized, deciduous tree of the red oak group   |   |                   |                       |  |
| <b>Growing Conditions</b>   | Zone 5 to 9, grown in average, dry to medium moisture, acidic, well-drained soils in full sun                     |   |                   |                       |  |
| <b>Growth Rate</b>  | Moderately fast   |   |                   |                       |  |
| <b>Disease and Pests</b>  | Anthracnose, canker, leaf spot, rust, blight, galls, caterpillars, borers, leaf miners, oak lace bug and oak mite |   |                   |                       |  |
| <b>Common Varieties</b>   |   |   |                   |                       |  |
| <b>Where to See</b>   | Southeastern United States  |   |                   |                       |  |

| Class III   |  | <b>American Linden</b>  |   |                       |  |
|---|--|---|---|-----------------------|--|
| <i>Tilia americana</i>  |  |   |   |                       |  |
|  |                                 |  | <b>Family</b>   | Tiliaceae             |  |
|   |  |  | <b>Form</b>   | Conical               |  |
|   |  |  | <b>Size</b>   | 55' Spread 35' Height |  |
|   |  |  | <b>Fall Color</b>   | Green or yellowish    |  |
|   |  |  | <b>Seed</b>   |                       |  |
|   |  |  | <b>Flower</b>   | Light yellow          |  |
|   |  | <b>Characteristics</b>  | Large shade tree, with nice, fragrant flowers and pleasing foliage. |                       |  |
| <b>Growing Conditions</b>   | Zones 2-9 does well on soils with fairly high pH   |   |   |                       |  |
| <b>Growth Rate</b>  | Medium   |   |   |                       |  |
| <b>Disease and Pests</b>  | Free of most serious pests, though aphids can be a nuisance in some years.                                       |   |   |                       |  |
| <b>Common Varieties</b>   | Bailyard', 'Boulevard', 'Dakota' 'Douglas', 'Fastigiata', 'Lincoln', 'Redmond', 'Rosehill', 'Sentry', 'Wandell'. |   |   |                       |  |
| <b>Where to See</b>   | Northern and Eastern U.S.  |   |   |                       |  |

| Class III   |   | <b>Silver Linden</b>  |   |                       |  |
|---|---|---|---|-----------------------|--|
| <i>Tilia tomentosa</i>  |   |   |   |                       |  |
|  |                |  | <b>Family</b>   | Tiliaceae             |  |
|   |   |  | <b>Form</b>   | Conical               |  |
|   |   |  | <b>Size</b>   | 50' Spread 70' Height |  |
|   |   |  | <b>Fall Color</b>   | Yellow                |  |
|   |   |  | <b>Seed</b>   |                       |  |
|   |   |  | <b>Flower</b>   | Pale yellow           |  |
|   |   | <b>Characteristics</b>  | This is a medium to large deciduous tree. When a tree is in full bloom, bees often visit in such abundant numbers that humming can be heard many feet from the tree |                       |  |
| <b>Growing Conditions</b>   | Zone 4 to 7 Easily grown in average, dry to medium, well-drained soils in full sun to part shade. |   |   |                       |  |
| <b>Growth Rate</b>  | Medium  |   |   |                       |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems   |   |   |                       |  |
| <b>Common Varieties</b>   | Brabant', 'Erecta', Green Mountain®, 'Satin Shadow', 'Sterling'.                                  |   |   |                       |  |
| <b>Where to See</b>   | Southeast Europe to Asia Minor  |   |   |                       |  |

| Class III   |   | <b>Lacebark Elm</b> |                            |
|---|---|---------------------|----------------------------|
| <i>Ulmus parvifolia</i>   |   |                     |                            |
|  |    | <b>Family</b>       | Ulmaceae                   |
|   |    | <b>Form</b>         | Rounded                    |
|   |   | <b>Size</b>         | 40' Spread 50' Height      |
|   |   | <b>Fall Color</b>   | Yellows or reddish-purples |
|   |    | <b>Seed</b>         |                            |
|   |    | <b>Flower</b>       | Reddish-green              |
| <b>Characteristics</b>  | A medium-sized deciduous tree, It is noted for its excellent foliage, multi-colored bark  |                     |                            |
| <b>Growing Conditions</b>   | Zone 4 to 9 Grow in average, medium moisture, well-drained soils in full sun  |                     |                            |
| <b>Growth Rate</b>  | Rapid   |                     |                            |
| <b>Disease and Pests</b>  | Wilts, rots, cankers and leaf spots   |                     |                            |
| <b>Common Varieties</b>   | 'Burgundy', 'Caitlin', 'Central Park Splendor', 'Drake', 'Dynasty', 'Emerald Isle', 'Emerald Vase', 'Golden Ray', 'King's Choice', 'Ohio', 'Prairie Shade'. |                     |                            |
| <b>Where to See</b>   | China, Korea, Japan   |                     |                            |

| Class III   |   | <b>Japanese Zelkova</b> |                            |
|---|---|-------------------------|----------------------------|
| <i>Zelkova serrata</i>  |   |                         |                            |
|  |                                        | <b>Family</b>           | Ulmaceae                   |
|   |                                        | <b>Form</b>             | Vase-shaped                |
|   |   | <b>Size</b>             | 80' Spread 80' Height      |
|   |                                        | <b>Fall Color</b>       | Yellow-orange to red-brown |
|   |                                        | <b>Seed</b>             |                            |
|   |                                        | <b>Flower</b>           | Green                      |
| <b>Characteristics</b>  | A medium to large deciduous tree  |                         |                            |
| <b>Growing Conditions</b>   | Zone 5 to 8 Easily grown in average, medium wet, well-drained soils in full sun   |                         |                            |
| <b>Growth Rate</b>  | Rapid   |                         |                            |
| <b>Disease and Pests</b>  | No serious insect or disease problems   |                         |                            |
| <b>Common Varieties</b>   | 'City Sprite', 'Goshiki', 'Green Vase', 'Halka', 'Musashino', 'Schmidtlow', 'Spring Grove', 'Variegata', 'Village Green'. |                         |                            |
| <b>Where to See</b>   | China, Japan, Korea, Russia, Taiwan   |                         |                            |

| Class III   |  | Green Ash         |   |
|---|--|-------------------|---|
| <i>Fraxinus pennsylvanica</i>   |  |                   |   |
|   | <br><br>   | <b>Family</b>     | Oleaceae  |
|   |  | <b>Form</b>       | Rounded but usually irregular crown   |
|   |  | <b>Size</b>       | 50' Spread 70' Height   |
|   |  | <b>Fall Color</b> | Yellow  |
|   |  | <b>Seed</b>       |   |
|   |  | <b>Flower</b>     | Small and inconspicuous, arranged in clusters; appear in spring as leaves expand. |
| <b>Characteristics</b>  | A medium to large, deciduous tree, oval, upright crown, fast growth rate   |                   |   |
| <b>Growing Conditions</b>   | Zone: 3 to 9   |                   |   |
| <b>Growth Rate</b>  | High   |                   |   |
| <b>Disease and Pests</b>  | Green ash trees are generally susceptible to a number of additional insect problems including ash borer, lilac borer, carpenter worm, oyster shell scale, leaf miners, fall webworms, ash sawflies and ash leaf curl aphid. Potential disease problems include fungal leaf spots, powdery mildew, rust, anthracnose, cankers and ash yellows. General ash decline is also a concern. Brittle branches are susceptible to damage from |                   |   |
| <b>Common Varieties</b>   | 'Jewell', 'Johnson', 'Kankakee', 'Kindred', 'King Richard', 'Lednaw', 'Leeds', 'Marshall's Seedless', 'Patmore', 'Rugby', 'Robinhood', Sherwood Glen™, 'Summit', Urbanite®, 'Wahpeton', 'Wandell'  |                   |   |
| <b>Where to See</b>   | Great Plains east, including southern Canada   |                   |   |

# EVERGREEN

These trees are evergreen and hold their needles through the winter providing color through the cold months. These trees also provide wind breaks and great habitats for animals. Evergreen trees range in spread and height. Evergreen trees should not be planted in park strips or parking island areas.

|   |  |                   |                           |
|---|--|-------------------|---------------------------|
| Evergreen   | <b>White Fir</b>   |                   |                           |
| <i>Abies concolor</i>   |  |                   |                           |
|   |   | <b>Family</b>     | Pinaceae                  |
|   |   | <b>Form</b>       | Spire-like                |
|   |  | <b>Size</b>       | 30' Spread 70' Height     |
|   |  | <b>Fall Color</b> | No fall color (evergreen) |
|   |  | <b>Seed</b>       |                           |
|   |   | <b>Flower</b>     | Non-flowering             |
| <b>Characteristics</b>  | Evergreen tree, pyramidal in shape, holding a dense, formal shape well, even with age, slow to medium growth rate, easily transplanted, tolerant of most climates and city conditions  |                   |                           |
| <b>Growing Conditions</b>   | Zone: 3 to 7   |                   |                           |
| <b>Growth Rate</b>  | Medium   |                   |                           |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Insect pests include balsam woolly adelgid, bark beetles, spruce budworms, aphids, bagworms and scale. Spider mites may occur in hot conditions. Disease problems include root rot, needle rust and twig blight. Trees are generally intolerant of urban pollution. Broken branches often become sites for fungal infections. Strong winds may damage taller trees. |                   |                           |
| <b>Common Varieties</b>   |  |                   |                           |
| <b>Where to See</b>   | United States, Mexico  |                   |                           |

|   |  |                   |                           |
|---|--|-------------------|---------------------------|
| Evergreen   | <b>California Incense cedar</b>  |                   |                           |
| <i>Calocedrus decurrens</i>   |  |                   |                           |
|   |   | <b>Family</b>     | Cupressaceae              |
|   |   | <b>Form</b>       | Round                     |
|   |  | <b>Size</b>       | 10' Spread 50' Height     |
|   |  | <b>Fall Color</b> | No fall color (evergreen) |
|   |  | <b>Seed</b>       |                           |
|   |   | <b>Flower</b>     | Non-flowering             |
| <b>Characteristics</b>  | Is an aromatic evergreen conifer with upright branching that is narrow-columnar in youth but may broaden with age to conical sometimes with a rounded crown. |                   |                           |
| <b>Growing Conditions</b>   | Zone: 5 to 8   |                   |                           |
| <b>Growth Rate</b>  | Low  |                   |                           |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Heart rot and rust may occur in some areas.   |                   |                           |
| <b>Common Varieties</b>   |  |                   |                           |
| <b>Where to See</b>   | Western United States, Mexico  |                   |                           |

| Evergreen   |  | Blue Atlas Cedar  |                           |  |
|---|--|-------------------|---------------------------|--|
| Cedrus atlantica glauca   |  |                   |                           |  |
|  |   | <b>Family</b>     | Pinaceae                  |  |
|   |   | <b>Form</b>       | Conical                   |  |
|   |  | <b>Size</b>       | 40' Spread 60' Height     |  |
|   |  | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |  | <b>Seed</b>       |                           |  |
|   |   | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | Evergreen needle conifer, pyramidal when young, flat-topped and spreading when mature, has stiff, horizontal main branching; branching somewhat sparse, especially when young, very interesting and picturesque habit as a mature tree |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 6 to 9   |                   |                           |  |
| <b>Growth Rate</b>  | Low  |                   |                           |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Tip blight may occur. Heavy snow in winter can break branches.  |                   |                           |  |
| <b>Common Varieties</b>   | 'Argentea', 'Aurea', 'Compacta', 'Fastigiata', 'Glauca', 'Glauca Pendula', 'Horstmann', 'Horstmann Silberspitz', 'Pendula'   |                   |                           |  |
| <b>Where to See</b>   | Atlas Mountains in Morocco and Algeria   |                   |                           |  |

| Evergreen   |  | Chinese Juniper   |                           |  |
|---|--|-------------------|---------------------------|--|
| Juniperus chinensis   |  |                   |                           |  |
|  |   | <b>Family</b>     | Cupressaceae              |  |
|   |   | <b>Form</b>       | Round                     |  |
|   |  | <b>Size</b>       | 20' Spread 50' Height     |  |
|   |  | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |   | <b>Seed</b>       |                           |  |
|   |   | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | Tree, shrub or groundcover, dependent on cultivar, species an erect, narrow, conical tree, 50' to 60' tall, varying in width, slow to medium growth  |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 4 to 9   |                   |                           |  |
| <b>Growth Rate</b>  | Medium   |                   |                           |  |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Junipers are generally susceptible to tip and needle blights. Cedar-apple rust and related rust diseases spend part of their life cycle on junipers. Root rot may occur, particularly in wet, poorly drained soils. Canker may attack bark or main stems. Occasional insect pests include aphids, bagworms, webworms and scale.   |                   |                           |  |
| <b>Common Varieties</b>   | 'Blue Point', 'Glauca', 'Gold Coast', 'Gold Star', 'Hetzii', 'Hetzii Columnaris', 'Hetzii Glauca', 'Iowa', 'Keteleen', 'Maney', 'Mint Julep', 'Mountbatten', 'Old Gold', 'Pfitzeriana', 'Pfitzeriana Aurea', 'Pfitzeriana Compacta', 'Pfitzeriana Glauca', 'Prostrata Variegata', 'Ramlosa', 'Robusta Green', 'San Jose', 'Saybrook Gold', 'Sea Green', 'Sea Spray', 'Spartan', 'Spearmint', 'Torulosa', var. sargentii, 'Variegata' |                   |                           |  |
| <b>Where to See</b>   | China, Japan, Mongolia and the Himalayas   |                   |                           |  |

|   |   |   |
|---|---|---|
| Evergreen   | <b>Rocky Mountain Juniper</b>   |   |
| <i>Juniperus osteosperma</i>  |   |   |
|  |    | <b>Family</b> Cupressaceae                  |
|   |    | <b>Form</b> Conical                         |
|   |    | <b>Size</b> 6' Spread 15' Height            |
|   |    | <b>Fall Color</b> No fall color (evergreen) |
|   |    | <b>Seed</b>                                 |
|   |    | <b>Flower</b> Non-flowering                 |
| <b>Characteristics</b>  | Narrow, conical shape, opening when mature, branches are somewhat vertical growing, slow to moderate growth rate, tolerant of most conditions , except wet soils  |   |
| <b>Growing Conditions</b>   | Zone: 3 to 7  |   |
| <b>Growth Rate</b>  | Medium  |   |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Junipers are generally susceptible to blights (dieback of stem tips), particularly in unusually rainy/wet springs. Phomopsis twig blight is of particular concern. Cedar-apple and related rust diseases spend part of their life cycle on junipers. Root rot may occur, particularly in wet, poorly drained soils. Occasional insect pests include aphids, bagworms, twig borers, webworms and scale. Watch for spider mites. |   |
| <b>Common Varieties</b>   | Blue Creeper', 'Blue Heaven', 'Blue Trail', 'Cologreen', 'Gray Gleam', 'Medora', 'Moonglow', 'Pathfinder', 'Skyrocket', 'Sutherland', 'Tolleson', 'Tolleson's Blue Weeping', 'Tolleson's Green Weeping', 'Welchii', 'Wichita Blue'  |   |
| <b>Where to See</b>   | Western Great Plains throughout the Rocky Mountains and southwestern Canada, including Utah   |   |

|   |   |   |
|---|---|---|
| Evergreen   | <b>Eastern Red Cedar</b>  |   |
| <i>Juniperus virginiana</i>   |   |   |
|  |    | <b>Family</b> Cupressaceae                  |
|   |    | <b>Form</b> Conical                         |
|   |    | <b>Size</b> 25' Spread 65' Height           |
|   |    | <b>Fall Color</b> No fall color (evergreen) |
|   |    | <b>Seed</b>                                 |
|   |    | <b>Flower</b> Non-flowering                 |
| <b>Characteristics</b>  | Conical shape in youth, opening with age, moderate growth rate, susceptible to bagworm and cedar-apple rust   |   |
| <b>Growing Conditions</b>   | Zone: 2 to 9  |   |
| <b>Growth Rate</b>  | Medium  |   |
| <b>Disease and Pests</b>  | A common problem for many different junipers, but this cultivar has good resistance. Susceptible to twig blight and scale. Watch for bagworms. Mites may occur. |   |
| <b>Common Varieties</b>   |   |   |
| <b>Where to See</b>   | Eastern North America   |   |

|   |   |                   |                           |  |
|---|---|-------------------|---------------------------|--|
| Evergreen   | <b>European Larch</b>   |                   |                           |  |
| <i>Larix decidua</i>  |   |                   |                           |  |
|   |    | <b>Family</b>     | Pinaceae                  |  |
|   |    | <b>Form</b>       | Broad                     |  |
|   |   | <b>Size</b>       | 30' Spread 100' Height    |  |
|   |    | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |   | <b>Seed</b>       |                           |  |
|   |    | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | Deciduous conifer, pyramidal in habit with horizontal branches and weeping branchlets, becomes more irregular with age  |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 2 to 6  |                   |                           |  |
| <b>Growth Rate</b>  | High  |                   |                           |  |
| <b>Disease and Pests</b>  | Potential insect pests include larch case-bearer, aphids, larch sawfly, tussock moth and Japanese beetle. Potential disease problems include needle cast, needle rust and canker. |                   |                           |  |
| <b>Common Varieties</b>   | Fastigiata', 'Pendula', 'Varied Directions'   |                   |                           |  |
| <b>Where to See</b>   | Central and Southern Europe   |                   |                           |  |

|   |  |                   |                           |  |
|---|--|-------------------|---------------------------|--|
| Evergreen   | <b>Colorado Spruce</b>   |                   |                           |  |
| <i>Picea pungens</i>  |  |                   |                           |  |
|   |   | <b>Family</b>     | Pinaceae                  |  |
|   |   | <b>Form</b>       | Broad                     |  |
|   |   | <b>Size</b>       | 20' Spread 60' Height     |  |
|   |   | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |   | <b>Seed</b>       |                           |  |
|   |   | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | Evergreen tree with horizontal, stiff branches, narrow, dense, conical shape, branches tend to go to the ground  |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 2 to 7   |                   |                           |  |
| <b>Growth Rate</b>  | Medium   |                   |                           |  |
| <b>Disease and Pests</b>  | Susceptible to needle cast, canker and rust. Watch for aphids (particularly spruce gall aphids), scale, budworms and bagworms. Spider mite invasions can cause significant problems with new growth and overall tree health. |                   |                           |  |
| <b>Common Varieties</b>   |  |                   |                           |  |
| <b>Where to See</b>   | Southern Rocky Mountains   |                   |                           |  |

|   |  |                   |                           |  |
|---|--|-------------------|---------------------------|--|
| Evergreen   | <b>Bristlecone Pine</b>  |                   |                           |  |
| <i>Pinus aristata</i>   |  |                   |                           |  |
|   |                               | <b>Family</b>     | Pinaceae                  |  |
|   |                               | <b>Form</b>       | Conical                   |  |
|   |                               | <b>Size</b>       | 20' Spread 20' Height     |  |
|   |                               | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |                               | <b>Seed</b>       |                           |  |
|   |                               | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | Evergreen small tree, dwarf and irregular growth habit, very slow growth rate, making mature height irrelevant |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 5-7  |                   |                           |  |
| <b>Growth Rate</b>  | Low  |                   |                           |  |
| <b>Disease and Pests</b>  |  |                   |                           |  |
| <b>Common Varieties</b>   | 'Sherwood Compact'   |                   |                           |  |
| <b>Where to See</b>   | mountainous areas in the interior West, including Utah   |                   |                           |  |

|   |  |                   |                           |  |
|---|--|-------------------|---------------------------|--|
| Evergreen   | <b>Limber Pine</b>   |                   |                           |  |
| <i>Pinus flexilis</i>   |  |                   |                           |  |
|   |   | <b>Family</b>     | Pinaceae                  |  |
|   |   | <b>Form</b>       | Conical                   |  |
|   |  | <b>Size</b>       | 40' Spread 60' Height     |  |
|   |  | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |  | <b>Seed</b>       |                           |  |
|   |   | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | Evergreen needle conifer, about half as wide as tall, dense, pyramidal when young, when mature, develops as flat topped broad crown ascending  |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 4 to 7   |                   |                           |  |
| <b>Growth Rate</b>  | Low  |                   |                           |  |
| <b>Disease and Pests</b>  | An adaptable, low-maintenance tree with few problems. It is susceptible to certain rots and blights, but its most dangerous enemy is white pine blister rust which is a bark disease that is usually fatal. Species of Ribes (e.g., currants and gooseberries) are the alternate host for white pine blister rust and should not be planted in areas where limber pines or white pines are under attack. White pine blister rust is not considered to be a problem in Missouri, however. Aphids, weevils, spider mites and scale are not uncommon insect visitors. |                   |                           |  |
| <b>Common Varieties</b>   | 'Columnaris', 'Extra Blue', 'Glauca', 'Glauca Pendula', 'Glenmore Dwarf', 'Millcreek', 'Nana', 'Pendula', 'Vanderwolf's Pyramid'   |                   |                           |  |
| <b>Where to See</b>   | Southwestern Canada to western United States   |                   |                           |  |

|   |  |                   |                           |  |
|---|--|-------------------|---------------------------|--|
| Evergreen   | <b>Austrian Pine</b>   |                   |                           |  |
| Pinus nigra   |  |                   |                           |  |
|   |   | <b>Family</b>     | Pinaceae                  |  |
|   |   | <b>Form</b>       | Round                     |  |
|   |   | <b>Size</b>       | 40' Spread 60' Height     |  |
|   |   | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |   | <b>Seed</b>       |                           |  |
|   |   | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | Evergreen needle conifer tree, medium to large size, pyramidal and dense when young, with age becoming flat-topped, with spreading branches and umbrella shape   |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 4 to 7   |                   |                           |  |
| <b>Growth Rate</b>  | Medium   |                   |                           |  |
| <b>Disease and Pests</b>  | Its susceptibility to Sphaeropsis (Diplodia) tip blight, particularly in the midwest, is of such significance that planting it in the St. Louis area is not now recommended. Also susceptible to Dothistroma needle blight. Pine moth and pine wilt nematode may appear. |                   |                           |  |
| <b>Common Varieties</b>   | 'Arnold Sentinel', 'ENCI', 'Hornibrookiana', 'Pyramidalis'   |                   |                           |  |
| <b>Where to See</b>   | Central and Southern Europe  |                   |                           |  |

|   |   |                   |                           |  |
|---|---|-------------------|---------------------------|--|
| Evergreen   | <b>Ponderosa Pine</b>   |                   |                           |  |
| Pinus ponderosa   |   |                   |                           |  |
|   |    | <b>Family</b>     | Pinaceae                  |  |
|   |    | <b>Form</b>       | Conical                   |  |
|   |   | <b>Size</b>       | 30' Spread 125' Height    |  |
|   |    | <b>Fall Color</b> | No fall color (evergreen) |  |
|   |    | <b>Seed</b>       |                           |  |
|   |    | <b>Flower</b>     | Non-flowering             |  |
| <b>Characteristics</b>  | An evergreen tree, narrow, upright, oval form in youth opens up into an irregular crown, fine to medium texture   |                   |                           |  |
| <b>Growing Conditions</b>   | Zone: 3 to 7  |                   |                           |  |
| <b>Growth Rate</b>  | Medium  |                   |                           |  |
| <b>Disease and Pests</b>  | These trees may struggle in the St. Louis area where hot summer, soils and general environmental conditions do not favor most pines. Root rots, needle blight and blister rust may occur. Bark beetle can cause significant damage. |                   |                           |  |
| <b>Common Varieties</b>   | 'Canyon Ferry', 'Gumdrop', 'Hiwan', 'Little Joe', 'Marquerite', 'Mary Ann Heacock', 'Pendula', 'Tortuosa'   |                   |                           |  |
| <b>Where to See</b>   | Western North America   |                   |                           |  |

|   |   |                   |                           |
|---|---|-------------------|---------------------------|
| Evergreen   | <b>Scotch Pine</b>  |                   |                           |
| <i>Pinus sylvestris</i>   |   |                   |                           |
|  |    | <b>Family</b>     | Pinaceae                  |
|   |    | <b>Form</b>       | Conical                   |
|   |    |                   | 40' Spread 60' Height     |
|   |    | <b>Fall Color</b> | No fall color (evergreen) |
|   |    | <b>Seed</b>       |                           |
|   |    | <b>Flower</b>     | Non-flowering             |
| <b>Characteristics</b>  | Evergreen tree, in youth has a conical shape, becoming a flat-topped, spreading tree with age, can be very attractive when mature, horizontal branching habit |                   |                           |
| <b>Growing Conditions</b>   | Zone: 2 to 7  |                   |                           |
| <b>Growth Rate</b>  | Medium  |                   |                           |
| <b>Disease and Pests</b>  | Sphaeropsis (Diplodia) tip blight can be a significant problem in some areas. Watch for pine wilt nematode. Sawflies, moths and scale may also appear.        |                   |                           |
| <b>Common Varieties</b>   | Aurea', 'Beuvronensis', 'Fastigiata', 'Watereri'  |                   |                           |
| <b>Where to See</b>   | Siberia to eastern Asia, Europe   |                   |                           |

|   |   |                   |                           |
|---|---|-------------------|---------------------------|
| Evergreen   | <b>Douglas Fir</b>  |                   |                           |
| <i>Pseudotsuga menziesii</i>  |   |                   |                           |
|  |    | <b>Family</b>     | Pinaceae                  |
|   |    | <b>Form</b>       | Conical                   |
|   |   | <b>Size</b>       | 20' Spread 80' Height     |
|   |   | <b>Fall Color</b> | No fall color (evergreen) |
|   |   | <b>Seed</b>       |                           |
|   |    | <b>Flower</b>     | Non-flowering             |
| <b>Characteristics</b>  | A large evergreen tree, in its native haunts it grows to 150' tall or more, horizontal branches with pendulous branchlets   |                   |                           |
| <b>Growing Conditions</b>   | Zone: 4 to 6  |                   |                           |
| <b>Growth Rate</b>  | Medium  |                   |                           |
| <b>Disease and Pests</b>  | No serious insect or disease problems when grown in the proper environment.   |                   |                           |
| <b>Common Varieties</b>   | 'Aurea', 'Blue', 'Carnefix Weeping', 'Compact', 'Cross Selection', 'De Bunn', 'Emerald Twist', 'Fastigiata', 'Fletcheri', 'Graceful Grace', 'Hale', 'Hillside Gold', 'Hillside Pride', 'Jackson's Witch's Broom', 'Little Jon', 'Loggerhead', 'Pendula', 'Seattle Mountain', 'Shorty's Blue', 'Skyline', 'var. glauca', 'Waggin' Tails' |                   |                           |
| <b>Where to See</b>   | Southwestern British Columbia to western central California   |                   |                           |

| Evergreen   |  | Giant Sequoia   |                   |                           |
|---|--|---|-------------------|---------------------------|
| Sequoiadendron giganteum  |  |   |                   |                           |
|  |   |  | <b>Family</b>     | Cupressaceae              |
|   |  |  | <b>Form</b>       | Conical                   |
|   |  |   | <b>Size</b>       | 60' Spread 275' Height    |
|   |  |   | <b>Fall Color</b> | No fall color (evergreen) |
|   |  |   | <b>Seed</b>       |                           |
|   |  |  | <b>Flower</b>     | Non-flowering             |
| <b>Characteristics</b>  | Most massive size of any tree in the world. It is an erect, single-trunk (often buttressed at the base), needled evergreen conifer   |   |                   |                           |
| <b>Growing Conditions</b>   | Zone: 6 to 8   |   |                   |                           |
| <b>Growth Rate</b>  | Medium   |   |                   |                           |
| <b>Disease and Pests</b>  | No serious insect or disease problems. Dieback, blight and butt rot may occur.   |   |                   |                           |
| <b>Common Varieties</b>   | Argentea', 'Aurea', 'Barabit's Requiem', 'Blauer Eichzweig', 'Bultinck Yellow', 'Compacta', 'Glauca', 'Greenpeace', 'Hazel Smith', 'Little Stan', 'Moonie's Mini', 'Pendulum', 'Power Blue', 'Pygmaea', 'Von Martin' |   |                   |                           |
| <b>Where to See</b>   | California   |   |                   |                           |

# PARK STRIP TREES

## Park Strip and Parking Lot Approved Trees:

Common Name \_\_\_\_\_

Japanese Zelkova 'Musashino'

Chanticleer Pear

Crimson Sunset Maple

Columnar Washington Hawthorn

Crimson Point Flower plum

Columnar English Oak

Columnar Sweetgum

Autumn Purple Ash

Washington Hawthorn

Tatarian Maple

Trident Maple

Hedge Maple

Golden Raintree

Paperbark Maple

Eastern Redbud

Bigtooth Maple

Norway Maple

Autumn Blaze Maple

Littleleaf Lindon

Common Hackberry

Autumn Purple Ash

# COLUMNAR TREES

## **Columnar Trees:**

### Common Name

---

Japanese Zelkova 'Musashino'

Chanticleer Pear

Crimson Sunset Maple

Columnar Washington Hawthorn

Crimson Point Flower Plum

Columnar English Oak

Columnar Sweetgum

Columnar Colorado Blue Spruce

Columnar Norway Spruce

Weeping White Spruce

Skyrocket Juniper

Common Hackberry 'Delta'



**Alpine Planning & Zoning**

**(801) 756-6347**

**20 North Main**

**Alpine, Utah 84004**