

# TREE GUIDE

FOR

WASHINGTON, MISSOURI

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## MISSION STATEMENT

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TO PROMOTE AND PROTECT A HEALTHY TREE  
INFRASTRUCTURE AND ENCOURAGE THE USE  
OF NATIVE PLANTS IN THE CITY OF  
WASHINGTON THROUGH EDUCATION,  
GRANTS AND COMMUNITY INVOLVEMENT.

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REVISED 2023

## I. INTRODUCTION

The City of Washington is pleased to present these updated lists of recommended trees for enhancing Washington's streets, parking lots, parks, public facilities, businesses and private properties. Development of these composite lists is the result of significant research, incorporating the advice from professionals including arborists, urban foresters, nurserymen, horticulturalists, professors, park planners and landscape architects. The intention of this effort is to provide urban planners, architects, landscape architects, city employees, developers, and Washington businesses and residents with a list of trees appropriate for planting in specific areas, tailored to the Washington environment. Since the world of living plants is quite dynamic, these lists will be reviewed periodically by the Community Forestry Manager and updated if deemed necessary after reviewing the results of current urban forestry research. It is also important to remember that many tree cultivars are available and the cultivars are always changing. **Check with your local tree professional for the latest cultivars.**

The Community Forestry Manager and the Washington Urban Forestry Council completed the most recent review and update of the City's current list of recommended trees as of July 2023. The primary intention associated with development of this document is to provide Washington citizens and staff with recommendations as the community continues to enhance Washington's urban forest. **The primary factors of location, soil, and wind are key to the success and health of trees in Washington. Know the needs of the tree you are planting and the needs of the area where the tree will be placed.**

Monocultures (all trees of the same species) are highly discouraged. Tree diversity is essential to prevent disease from infecting large stands of the same species.

## II. STREET TREES

These trees require the greatest level of maintenance and have the highest level of tree/people interaction. Because of the constrained and difficult growing conditions, these trees are most likely to suffer from mechanical damage, biotic and abiotic disorders and vandalism. The management of the street tree population directly affects the adjacent property owners and the character of the community.

While many tree species are quite applicable and adaptable for Washington's challenging urban streetscape, there are a variety of trees not appropriate for use within the streetscape environment. Primary reasons for discouraging the use of these undesirable tree species include:

\* = Trees native to Missouri

- Size (height, and width) and shape.
- Root system.
- Soil type.
- Heat and/or cold tolerance.
- Drought tolerance.
- Salt tolerance.
- Weak branching habit, resulting in frequent release of fallen branches.
- Producer of messy fruit, seeds, acorns etc.
- Prone to damage by insects, diseases and nutrient deficiencies.
- Leaf scorch and mildew.
- Poor transplantation

Tree selection when planting near a sidewalk, trail or parking lot, etc. is critical to having long term success. The amount of space available should be used to determine the size of the tree being planted. The following chart illustrates this information:

<u>Tree Lawn Width</u>	<u>Mature Tree Height</u>	<u>Mature Tee Width</u>
0-3 feet	10-30 feet	10-20 feet
3-5 feet	10-30 feet	10-20 feet
5-7 feet	30-40 feet	10-20 feet
7-9 feet	40-50 feet	10-20 feet
9-11 feet	50 feet or taller	20-25 feet
12 feet or wider	50 feet or taller	25 feet or wider

Another source indicates that the walk should be further away than three times the trunk diameter at maturity. Trees that have shallow roots should be avoided near sidewalks, trails and parking lots.

#### **A. SMALL COLUMNAR STREET TREES (Less than 20' width)**

The following list of small columnar street trees are acceptable for planting in bump outs, small and/or narrow islands and medians, close to sidewalks and buildings.

1. **Pyramidal European Hornbeam** – *Carpinus betulus* "Fastigiata"
2. **\*Thornless Honey Locust** – *Gleditsia tricanthos var. inermis* "Skycole"
3. **Crimson Spire Oak** – *Quercus alba x Q robur* "Crimschmidt"

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4. **Oak** – *Quercus* x “Regal Prince”
5. **Magnolia** – *Magnolia stellata* “Magnolia Star”
6. **Maple** – *Acer tataricum* “Tatarian”
7. **\*Redbud** – *Cercis Canadensis* “Eastern Redbud”, “Forest Pansy”, “Oklahoma”, “Plena” and “Rubye Atkinson”.
8. **Persian Ironwood** - *Parrotia persica* ‘JLColumnar’
9. **\*Baldcypress** – *Taxodium distichum* “Shawnee Brave”

**B. MEDIUM TO LARGE COLUMNAR STREET TREES (21’- 30’ width)**

The following list of medium to large columnar street trees are acceptable for planting in medium to large islands and medians.

1. **\*Red Maple** – *Acer rubrum* “Bowhall” and “Scarlet Sentinel”
2. **\*Sugar Maple** – *Acer saccharum* “Steeple”
3. **Ginkgo Biloba** – *Princeton Sentry Maidenhair* “Princeton Sentry”
4. **Frontier Elm** – *Ulmus* ‘Frontier’ (*U. minor* × *U. parvifolia*)

**C. MEDIUM TO LARGE NON-COLUMNAR STREET TREES (30’ or greater in height & greater than 25’ in width)**

The following list of NON-COLUMNAR medium to large street trees are acceptable for planting in large lawn and/or wide islands/medians.

1. **\*Bur Oak** – *Quercus macrocarpa*
2. **\*American Beech** – *Fagus grandifolia*
3. **Hedge Maple** – *Acer Campestre* “Queen Elizabeth”
4. **Little Leaf Linden** – *Tilia Cordata* “Greenspire”

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5. **\*Red Maple** – *Acer x freemanii* “Jeffersred” “Autumn Blaze”
6. **American Linden** – *Tilia Americana* “Redmond” and “Legend”.
7. **Black Maple** – *Acer nigrum* “Greencolumn”
8. **Maple** – *Acer buergeranum* “Trident”
9. **\*Red Maple** – *Acer rubrum*
10. **\*Sugar Maple** – *Acer saccharum*
11. **\*American Elm** – *Ulmus americana* ‘Princeton’
12. **\*Male Persimmon** – *Diospyros virginiana*

### III. FORMAL TREES

These trees require frequent maintenance and have a high likelihood of tree/people interaction. These trees also have a potential for mechanical injury and demand a high level of care and consideration during design and construction activities. These trees generally do not produce nuts, fruits, etc.

#### CONIFERS

1. **\*Baldcypress** – *Taxodium distichum* “Shawnee Brave”
2. **\*American Holly** – *Ilex opaca*
3. **\*Eastern Redcedar** – *Juniperus virginiana*
4. **Norway Spruce** – *Picea abies*
5. **White Spruce** – *Picea glauca*
6. **Douglas Fir** – *Pseudotsuga menziesii*
7. **Canadian Hemlock** – *Tsuga canadensis*
8. **Chinese Juniper** – *Juniperus chinensis*

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9. **\*Short Leaf Pine** – *Pinus echinata*
10. **Loblolly Pine** – *Pinus taeda*
11. **Eastern White Pine** – *Pinus strobus*
12. **Dawn Redwood** – *Metasequoia glyptostroboides*
13. **Arborvitae** – *Thuja plicata* 'Green Giant'

### **SMALL TREES & FLOWERING TREES (under 30' in height)**

1. **\*Flowering Dogwood** – *Cornus florida* "Cherokee Princess" and "Cloud 9"
2. **\*Eastern Redbud** – *Cercis Canadensis* "Forest Pansy", "Oklahoma", "Plena" and "Rubye Atkinson"
3. **\*Yellowwood**- *Cladrastis kentukea*
4. **Saucer Magnolia** – *Magnolia x soulangiana*
5. **Magnolia** – *Magnolia stellata* "Magnolia Star"
6. **Southern Magnolia** – *Magnolia grandiflora*
7. **Sweetbay Magnolia** – *Magnolia virginiana* 'Jim Wilson'
8. **Japanese Snowbell** – *Styrax japonicas*
9. **Maple, Tatarian** – *Acer tataricum*

### **MEDIUM TREES (30' to 60' in height)**

1. **\*American Hornbeam** – *Carpinus caroliniana*
2. **\*River Birch** – *Betula nigra* "Heritage"
3. **Ginkgo biloba** – *Princeton Sentry Maidenhair* "Princeton Sentry"

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4. **\*Thornless Honey Locust** – *Gleditsia tricanthos* var. *inermis* “Shademaster” “Skycole” and “Moraine”
5. **Crimson Spire Oak** – *Quercus alba* x *Q. robur* “Crimschmidt”
6. **Oak** – *Quercus* x “Regal Prince”
7. **Pyramidal European Hornbeam** – *Carpinus betulus* “Fastigiata”
8. **Maple** – *Acer buergeranum* “Trident”
9. **Persian Ironwood** - *Parrotia persica*
10. **Hybrid Elm – Accolade** - *Ulmus davidiana* var. *japonica* ‘Morton’

#### **LARGE TREES (over 60’ in height)**

1. **\*OAK** – All large Oak varieties are desirable/acceptable except Pin Oaks & Shingle Oaks.
2. **\*American Basswood** – *Tilia Americana* “Redmond Linden”
3. **\*American Beech** – *Fagus gandifolia*
4. **\*Sycamore** – *Platanus occidentalis*
5. **\*Red Maple** – *Acer rubum* “Red Sunset”, “Autumn Flame” and “October Glory”
6. **\*Sugar Maple** – *Acer saccharum* “Green Mountain”, “Legacy”, “Bonfire” and “Caddo”
7. **\*Baldcypress** – *Taxodium distichum* “Shawnee Brave”
8. **European Beech** – *Fagus sylvatica* “Asplenifolia”, “Atropunicea”, “Purpurea” “Purpurea Tricolor”, and “Rosea-marginata”
9. **Chinese Elm, Lacebark Elm** – *Ulmus parvifolia*
10. **Little Leaf Linden** – *Tilia Cordata* “Greenspire”
11. **\*Tulip Tree** – *Liriodendron tulipifera*

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12. **Hedge Maple** – *Acer Campestre* “Queen Elizabeth”
13. **Amur Cork** – *Phellodendron amurense* “Macho”
14. **Ginkgo biloba** – *Ginkgo* “Magyar”, “Autumn Gold”, “Lakeview”, “Golden Colonade” and “Shangrila”.
15. **\*Black Maple** – *Acer nigrum* “Greencolumn”

#### IV. PERIPHERY/NATURAL AREA TREES

These trees require the least amount of maintenance because of their often remote and sheltered locations. The trees in these areas are managed not as individual trees, but rather as stands of trees linked to the associated plants and sites on which they reside. These trees can come in conflict with people when they occur along property lines, adjacent to man-made structures or near gathering places. These trees generally produce some fruit and/or nuts.

#### SMALL TREES & FLOWERING TREES (under 30’ in height)

1. **\*Downy Serviceberry** – *Amelanchier arborea* “Autumn Brilliance”
2. **\*Hophornbeam** – *Ostrya virginiana*
3. **\*Sassafras** – *Sassafras albidum*
4. **\*Ohio Buckeye** – *Aesculus glabra*
5. **\*Red Buckeye** – *Aesculus pavia*
6. **\*Pawpaw** – *Asimina triloba*
7. **\*Yellowwood** – *Cladrastis kentukea*
8. **Flowering Crabapple** – *Malus spp.* “Centurion”, “Harvest Gold”, “Prairie Fire”, “Professor Sprenger”, “Snowdrift” and “Sugar Tyme” Plant disease resistant varieties only.
9. **\*Serviceberry** – *Amelanchier x grandiflora* “Autumn Sunset”, “Cumulus”, “Princess Diana”, “Snowcloud” and “Tradition”

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10. **Lilac, Japanese Tree** – *Syringa reticulata* “Ivory Silk”, “Regent Japanese” and “Summer Snow”.
11. **\*American Witch Hazel** – *Hamamelis virginiana*
12. **Sweetbay Magnolia** - *M. virginiana*
13. **\*Viburnum** – *prunifolium* “Black Haw”
14. **\*Viburnum** – *rufidulum* “Rusty Black Haw”

**MEDIUM TO LARGE TREES (30’ to over 60’ in height)**

1. **\*American Sycamore** – *Platanus occidentalis* “Bloodgood”, “Columbia” and “Liberty”
2. **\*Cucumber Tree** – *Magnolia acuminata*
3. **\*Hickory** – *Carya ovate* “Shagbark”
4. **\*Chestnut Oaks** – *Quercus michauxii* “Swamp Chestnut Oak”
5. **\*Pecan** – *Carya illinoensis* “Hardy Giant”, “Major” and “Colby”
6. **\*Black Gum** – *Nyssa sylvatica*
7. **\*Kentucky Coffeetree** – *Gymnocladus dioicus*
8. **\*Common Hackberry** – *Celtis occidentalis* “All Seasons Sugar” and “Prairie Pride”
9. **\*Bur Oak** – *Quercus macrocarpa*
10. **\*White Oak** – *Quercus alba*
11. **\*Overcup Oak** – *Quercus lyrata*
12. **\*Post Oak** – *Quercus stellata*
13. **\*Hickory** – *Carya laciniosa* “Shellbark”
14. **\*Black Walnut** – *Juglans nigra*

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15. **\*Catalpa** – *Catalpa*
16. **\*Tulip Tree** – *Liriodendron tulipifera*
17. **\*Swamp White Oak** – *Quercus bicolor*

# **UNDESIRABLE TREES (DO NOT PLANT) WITHIN THE CITY OF WASHINGTON**

**While many tree species are quite applicable and adaptable for most environments, the following variety of trees are not appropriate for use within the City of Washington. Primary reasons for discouraging the use of these undesirable tree species include:**

- Root system
- Soil type
- Heat and/or cold tolerance
- Drought tolerance
- Weak branching habit, resulting in frequent release of fallen branches
- Producer of messy fruit, seeds, acorns etc
- Prone to damage by insects, diseases and nutrient deficiencies
- Leaf scorch and mildew
- Poor Transplantation

## **CONIFERS**

1. **Austrian Pine** – *Pinus nigra*
2. **Scotch Pine** – *Pinus sylvestris*
3. **Blue Spruce** – *Picea pungens*

## **SMALL TREES & FLOWERING TREES (under 30' in height)**

1. **Mimosa** – *Albizia julibrissin*
2. **Mountain Ash** - *Sorbus aucuparia*
3. **Russian Olive** – *Elaeagnus angustifolia*
4. **Callery Pear** – *Pyrus calleryana* – “Bradford”, “Aristocrat”, “Capital”, “Redspire” and “Cleveland Select”

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# UNDESIRABLE TREES (DO NOT PLANT) WITHIN THE CITY OF WASHINGTON

## MEDIUM TO LARGE TREES (30' to over 60' in height)

1. \*Green Ash – *Fraxinus pennsylvanica*
2. \*Washington Hawthorne – *Crataegus phaenopyrum*
3. \*White Ash- *Fraxinus Americana*
4. \*Shingle Oak – *Quercus imbricaria*
5. \*Pin Oak – *Quercus palustis*
6. \*Willow – *Salix*
7. \*Silver Maple – *Acer saccharinum*
8. \*Boxelder – *Acer negundo*
9. Siberian Elm – *Ulmus pumila*
10. White Mulberry – *Morus alba*
11. European White Birch – *Betula pendula*
12. Lombardy Poplar – *Populus nigra* “Italica”
13. Tree-of-Heaven – *Ailanthus altissima*
14. Ginkgo Biloba – *Ginkgo* “Maidenhair Tree” (Female Only)
15. \*Honey Locust – *Gleditsia triacanthos*

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