

ADMINISTRATIVE ORDER NO. 58-20-28
of the
City Manager of the City of Eugene

**REGARDING THE OPPORTUNITY TO COMMENT ON A PROPOSAL
TO AMEND STREET TREE PROGRAM ADMINISTRATIVE RULE R-
7.280.**

The City Manager of the City of Eugene finds that:

A. Pursuant to the authority contained in Sections 2.019 and 7.280 of the Eugene Code, 1971, the City Manager has adopted Street Tree Program Administrative Rule R-7.280. The most recent changes to that Rule were adopted on September 4, 2018, by Administrative Order No. 58-18-11-F.

B. It is necessary to amend Street Tree Program Administrative Rule R-7.280 and append to the Rule a new Approved Street Tree List and Planting Guide which includes an updated street tree list so the street trees planted maximize the benefits of future trees planted and minimize foreseeable issues, in addition to ensuring that the trees planted are suitable for the chosen location.

THEREFORE, I propose that Street Tree Program Administrative Rules R-7.280-D, E, F, and G be amended as set forth below, and I order that a Notice of the intended rule amendment substantially conforming to the Notice attached as Exhibit A to this Order shall be:

1. Made available to any person who has requested such notice; and
2. Published in the Register Guard Newspaper for at least five days.

**PROPOSED AMENDMENT OF
STREET TREE PROGRAM ADMINISTRATIVE RULES R-7.280-D, E, F, and G.**

(Proposed additions to the current Rule are shown in blue underlined type;
proposed deletions are shown in ~~red strikethrough~~.)

R-7.280-D Street Tree Plan - Requirements.

A Street Tree Plan shall:

1. ~~Reflect~~ Show the locations ~~spacing~~ of street trees consistent with these rules, which shall average ~~30~~ be minimum 20 curb feet for small mature canopy species, ~~25~~ 25 curb feet for medium mature canopy species ~~35~~ 35 curb feet for large mature canopy species on center along all existing and newly created streets within or abutting the development site while meeting the location standards of these rules, unless the provisions of Sections 9.2175(3)(c) or 9.3815(2)(c)3 of the Eugene Code, 1971 require a different spacing of trees. At the request of the developer, the

Urban Forester may exempt specific areas from required tree planting where the terrain or existing trees make the planting of new trees impracticable. Examples include, but are not limited to:

1.1 Where the finish grade slope in the planting area between the top back of the street curb and the property line exceeds 30 percent.

1.2 Where bedrock is encountered within 30 inches of finish grade in the planting area between the top back of the curb and the property line.

1.3 Where existing healthy trees that are shown to be preserved within the right-of-way are in such close proximity as would prevent a new tree from establishing a full canopy when mature.

1.4 Where a City required bio-swale or stormwater facility is deemed to lack the proper soil volume, size or geographic location to establish a street tree(s).

2. Include a list of the species of trees to be planted. The species of trees must be selected according to the applicable matrix elements in the Approved Street Tree ~~Species List~~ [and Planting Guide](#) attached as Appendix A hereto, or as otherwise approved by the Urban Forester. The Urban Forester can approve a [suitable](#) tree not on the Approved Street Tree ~~Species List~~ [and Planting Guide](#) ~~if the proposed substitute tree is a cultivar (cultivated variety) of a tree on the approved list.~~

3. Detail the method(s) the applicant proposes to utilize to meet the species diversification and native species goals contained in Urban Forest Management Plan (UFMP) Policies 1.0 and 2.0. (~~E.g.~~, no less than 50 percent of the trees shall be large shade trees and no more than 30 percent shall be of one species.)

4. Identify the size of trees that must meet or exceed the standards adopted in these administrative rules.

5. Describe the method(s) the applicant will utilize to track development of each individual lot that will ensure the required street trees are planted.

6. Describe the method(s) the applicant will implement to ensure maintenance, establishment, protection, watering and initial structural pruning of the trees takes place. For applicants electing to proceed under Eugene Code 7.280(3)(b) and R-7.280-C.1 of these rules, the method(s) shall include:

6.1 A three-year schedule of maintenance to be provided, including the name of the maintenance company or provider, name of the employee responsible for providing maintenance, contact number, and the dates, times and amount of water scheduled to be provided to each tree.

6.2 A schedule of the initial structural pruning to be provided, including the name of an International Society of Arboriculture certified arborist or an equivalent

approved by the City's Urban Forester who will be performing the work, their contact number, and the date the work is scheduled to be provided for each tree. Pruning work must meet the American National Standards Institute ("ANSI") A-300 standards established for trees at planting (5.4.1) and for trees during the first three years after planting (5.4.2).

6.3 Annual provision of records to the Urban Forester documenting performance of initial structural pruning, watering, and maintenance, showing who performed the work, the dates and times the work was performed.

7. Contain such other information as may be required to reflect how the Plan addresses the remaining policies within the UFMP.

R-7.280-E Street Tree Standards.

1. **Compliance.** The standards contained in this section shall be utilized in the development of a Street Tree Plan in order to ensure that new trees planted along street rights-of-way are of the highest quality, require low maintenance, and do not interfere with public safety.

2. **Tree Selection Standards.** The species of trees to be planted must be selected according to the matrix elements in the Approved Street Tree ~~Species-List~~ and Planting Guide attached as Appendix A hereto or as otherwise approved by the Urban Forester. The Urban Forester can approve a suitable tree not on the Approved Street Tree ~~Species-List~~ and Planting Guide ~~if the proposed substitute tree is a cultivar (cultivated variety) of a tree on the approved list.~~

3. Street Tree Quality Standards at Time of Planting.

3.1 The tree shall have a straight trunk perpendicular to the ground with a minimum branching height at 4 feet above the ground.

3.2 Trees shall be grown to the standards and specifications of the American Standard for Nursery Stock (ANSI Z-60.1-1996), published by the American Association of Nurserymen.

3.3 Trees shall be provided reasonably free, as defined by nursery industry standards for street trees, from insects and disease, decay, major structural defects, and damage to the trunk, branches and root system.

3.4 Trees structural scaffold branches shall be well proportioned where they attach to the main trunk, with an average spacing of at least six inches.

4. Street Tree Size Standards at Time of Planting.

4.1 Trees for residential classed streets shall be a minimum of ~~1.5~~ 1 inches in caliper, measured 6 inches above mean ground level, ~~8-10 feet high.~~

4.2 Trees for collector and arterial streets or trees abutting commercially zoned properties shall be a minimum of 2-1.5 inches in caliper, measured 6 inches above mean ground level, ~~10-12 feet high~~.

4.3 Notwithstanding the provisions of 4.1 and 4.2, the Urban Forester may approve the planting of smaller caliper trees if trees of the appropriate caliper can be shown to be currently unavailable within the State of Oregon. If smaller caliper trees are used, the Urban Forester may extend the establishment period until the tree has reached the minimum caliper.

5. **Tree Condition at Time of Planting.** Trees may be provided in the following conditions at the time of planting:

5.1 Balled and burlapped and in wire baskets, providing:

5.1.1 Trees shall have a sound ball with a firm attachment of the trunk with the root ball. The trunk shall not be loose but firmly held within the root ball.

5.1.2 Root ball size and condition shall conform to the standards and specifications of the American Standard for Nursery Stock (ANSI Z-60.1-1996), published by the American Association of Nurserymen.

5.1.3 Root balls of trees shall not be allowed to dry out at any time from the nursery to final planting.

5.1.4 Trees shall have a well developed root system and not be root bound or have circling /girdling roots.

5.2 In a container, providing:

5.2.1 The trees are free of circling, girdling roots.

5.2.2 The trees have rooted to the inside edges of the container.

5.3 Bare root, providing:

5.3.1 Trees in a bare root condition do not exceed 1.5 inches in caliper, measured 6 inches above mean ground level.

5.3.2 The roots are not allowed to dry out and are kept moist at any time from the nursery to final planting.

5.3.3 The roots are well-established, full of live and vigorous fibrous roots, along with the larger structural roots.

6. Street Tree Planting Location Standards.

6.1 General. On public streets without sidewalks, trees shall be located so as to accommodate future sidewalk placement and with regard to current and future utility line corridors. Trees and shrubs (which attain a height of 18 inches or more) that may form a hedge or screen shall not be allowed within the "Vision Clear Zone" of a street, alley, or driveway intersection so as to obscure required traffic sight distances. Curves in the road, hills, and other site specific factors may require extensions of these dimensions. For more information on Vision Clear Zones, see the Vision Clear Zone Brochure.

6.2 Minimum Street Tree Planting Clearances Distances:

<u>Mature Tree Canopy Size:</u>	Minimum Distance from Feature		
	Small- (tree) (up to 35' ht.)	Medium (35' up to 60' ht.)	Large (over 60' ht.)
Feature:			
<u>Street trees</u>	<u>20 feet</u>	<u>25 feet</u>	<u>30 feet</u>
Alleys	15 feet	15 feet	15 feet
Courtesy walks/s <u>Sidewalks</u>	2 feet	3 feet	4 feet
Driveways	5 feet	5 feet	10 feet
Fire hydrants	5 feet	5 feet	5 feet
Intersections	35 feet	35 feet	35 feet
Manholes and C <u>atch basins</u>	5 feet	10 feet	10 feet
Water meters	5 feet	5 feet	5 feet
Utility boxes	5 feet	5 feet	5 feet
Utility poles	5 feet	10 feet	10 feet
Street lights	25-125 feet	25-20 feet	25 feet
Stop signs	At least 35-25 feet or more if necessary		
Regulatory signs	Not to block sign		

6.3 Minimum distance from sidewalks and curbs: Trees ~~should~~shall be centered in the planting strip between the sidewalk and the street curb. If centering within the planting strip is not possible, ~~or desirable due to design considerations,~~ the tree must be located at least two feet from the sidewalk edge or the curb edge.

6.4 Overhead-utility lines high voltage primary electric distribution wires: No tree with the potential of reaching a mature height of more than 35 feet shall be planted in the right-of-way under overhead high voltage "primary"-overhead- electric distribution wires.

6.5 Minimum distance from buildings:

Small trees (potential growth of up to 35' ht.) 5 feet

Medium trees (potential growth of up to <u>between 35'</u> to 60' ht.)	10 feet
Large trees (potential growth of over 60' ht.)	15 feet
Shrubs	3 feet

Any tree planted 10 feet or closer to a building shall have an impenetrable root barrier installed near the building. The root barrier shall run the length of the planting area or the structure, and reach a depth of at least 18 inches.

6.6 Vehicular area: Provisions shall be made to prevent any parts of the vehicles from touching trees.

~~6.7 Shrubs planted in the street side right of way: Shrubs shall follow the minimum distance requirements for trees for curbs, sidewalks, and utilities. No shrub shall be planted within 3 feet of a building.~~

6.87 Linear spacing: Trees shall be ~~placed~~ planted an average of every 20 feet for small mature canopy size, 25 feet for medium mature canopy size, and 30 feet for large mature canopy size while meeting the location standards of these rules, unless a different spacing is required under Sections 9.2175(3)(c) or 9.3815(2)(e)3. of the Eugene Code, 1971.

6.98 Width of planting area within City right-of-way (-i.e.e.g., distance between the curb and sidewalk):

~~6.9.16.8.1~~ No tree shall be planted where the planting area is less than 4 feet wide without prior approval of the Urban Forester.

~~6.9.26.8.2~~ The minimum and maximum width of a planting ~~site area~~ for each tree species shall be governed by the ~~a~~ Approved s ~~Street t~~ Tree l ~~List and~~ Planting Guide.

~~6.109~~ Width of medians: No tree shall be planted in any median that has a planting area less than 4 feet wide. On State rights-of-way, Oregon Department of Transportation's "Guidelines for Planting Within Highway Right-of-Way" apply.

~~6.1110~~ Exemptions to the tree location standards: Where special conditions exist, the Urban Forester may waive these tree planting location standards. Such a waiver shall be on a case by case basis.

7. Street Tree Planting Standards.

7.1 Planting Season. Bare root trees may be planted only between October 15th and March 15th unless otherwise approved by the Urban Forester. Balled and burlapped or container grown trees may be planted only between September 15th and April 15th unless otherwise approved by the Urban Forester.

7.2 Site preparation.

7.2.1 Balled and burlapped and container grown trees:

7.2.1.1 Dig a shallow, broad ~~tree~~-planting hole at least ~~1-1/2~~ 2 to 3 times the diameter of the root ball and to a depth that will allow the ~~trunk~~ root flare to be ~~level with~~ slightly above the existing ground.

7.2.1.2 Score the edge of the hole to leave the edges rough and not smooth. This will encourage rooting into the existing native soil.

7.2.2 Bare-root stock:

7.2.2.1 Dig ~~tree~~-planting holes 1 foot wider than the spread of the roots to allow the roots sufficient area. The hole shall have sufficient depth to allow the ~~trunk~~ root flare to be ~~level with~~ slightly above the existing ground.

7.2.2.2 Leave a mound in the center of the hole to drape and spread roots in their natural position over the mound.

8. Planting General Conditions.

8.1 Balled and burlapped trees:

8.1.1 Trees shall have a ~~sound~~ an intact ball that has not been allowed to dry out at any time.

8.1.2 The root ball shall be firmly attached to the trunk.

8.1.3 Except as provided in 8.1.5, only materials that are untreated and biodegradable may be left around root ball after planting.

8.1.4 When planting, the tie material must be removed and the burlap peeled back to expose soil on at least the top 1/3 of the root ball.

8.1.5 Wire baskets are to be cut off to a depth of at least 18 inches from the top of the root ball.

8.2 Container grown tree:

8.2.1 Remove the tree from the container and softly loosen root mass.

8.2.2 Inspect roots for a girdling or circling condition. If girdling or circling roots are present, gently straighten or cut back any offending roots unless root manipulation will be too extensive, in which case the tree shall not be planted.

8.2.3 Trees shall have been grown in the container for a maximum of one year.

8.3 Bare root trees:

8.3.1 Roots shall not be allowed to dry out at any time.

8.3.2 All dead, damaged, broken or frayed roots shall be pruned off prior to planting.

9. Planting Procedures.

9.1 Set the tree on undisturbed solid ground in the center of the hole so that the upper surface of the root ball or ~~trunk~~ root flare is slightly above the surrounding soil.

9.2 Set tree plumb, upright, and faced for best appearance. Prune to remove any broken branches.

9.3 Gently backfill the hole ½ full with original soil and flood hole with water to remove any air pockets.

9.4 Continue to backfill the hole, and when completed, thoroughly saturate the planting area with water to remove any remaining air pockets.

9.5 Apply 2-4 inches of mulch around the tree. Maintain a mulch free area within 2 inches of the trunk.

10. Watering Basin. Create a continuous 3 inch high raised berm of soil around the hole to direct water to roots, remove the berm after one year.

11. Staking. Trees shall be planted and established with a straight trunk, perpendicular to the ground. This can be accomplished through proper planting and staking.

11.1 ~~Stakes~~ Staking shall be ~~one or~~ two to three stakes driven firmly into the ground outside of the hole to prevent root damage.

11.2 Attach the tree to the stakes at ~~knee~~ 1/2 to 2/3 height using nonbinding tree ties or tree ties that are at least 1 inch wide to prevent damage to the tree trunk.

11.3 Attach the ties to the tree in a manner that allows the tree to move but still be held firmly in place. This will help develop trunk taper and add strength to the tree.

R-7.280-F Establishment Standards.

1. **Period.** The establishment period for an original tree or replacement tree shall begin on the date that the tree is initially installed, or the date that it is replaced, and extends for a three year period from that date. The Urban Forester's office must be notified before a tree is planted (a pre-planting site visit and inspection is highly encouraged), and written documentation of the planting date(s) must be provided to the City. The establishment period runs from the documented planting date.

2. **Watering.** During the establishment period, each tree shall receive 15 gallons of water per week during the growing season (from April 15th through October 15th). Water shall be provided in a manner that allows penetration into the soil around the tree. In some soils or during unusually wet weather, 15 gallons a week may be excessive and lesser amounts may be approved by the Urban Forester.

3. **Staking.** Stakes and ties shall be maintained in a safe and effective manner. Stakes and ties shall be removed after the first growing season or one year after installation.

4. **Mulching.** During the establishment period, a minimum 3 foot x 3 foot planting area around each tree shall be maintained with a layer of bark mulch 2-4 inches deep. The mulch shall be kept at least 2 inches away from the trunk of the tree, and the mulched planting area around the tree shall be kept free of weeds.

5. **Pruning.**

5.1 Dead, broken or split branches shall be pruned at the time of planting.

5.2 Initial structural pruning shall be performed at the end of the 3 year establishment period. A strong scaffold branch structure shall be developed by pruning to select the primary scaffold branches.

5.2.1 Trees shall be pruned to remove branches that are crossing, damaged, diseased, broken, or have included bark.

5.3.2 Trees shall not be topped or reduced in height.

5.2.3 Trees shall be pruned so at least 2/3 of the tree's height is canopy (with 1/3 of the height being the trunk).

5.2.4 The lower limbs shall be pruned off or tipped back to meet compliance with the requirements for clearance over sidewalks and streets as contained in the Eugene Code, 1971.

5.3 Pruning shall be performed according to the ANSI A-300 pruning standards and specifications established for trees at planting (5.4.1) and for trees during the first three years after planting (5.4.2).

6. **Tree Replacement.** Any tree that falls under one or more of the following conditions shall be replaced by the developer or responsible party during the next approved planting season after receipt of the notice of the need to replace the tree.

6.1 **Dead tree.** Any tree that has no live growth originating in the scaffolding branches.

6.2 **Stressed tree.** Any tree that has lost a minimum of 50 percent of its total foliage or, has a reduction of 50 percent of normal leaf size for that species.

6.3 **Non-approved tree.** Any variety of tree that does not match the matrix elements in the Approved Street Tree ~~Species List~~ and Planting Guide, or that has not been approved by the Urban Forester.

7. **Tree Protection.** Trees planted under a street tree agreement shall be protected during the establishment period by the use of the following measures:

7.1 Installation of bark mulch surrounding the tree trunk, 2-4 inches deep and with a minimum radius of 5 feet from the trunk.

7.2 No construction or human activity shall take place within the tree's critical root zone.

7.2.1 The critical root zone for trees ~~3~~4 inches or smaller in ~~caliper diameter measured at breast height (4.5 feet)~~ shall be an area with a radius of at least ~~3~~5 feet from the trunk.

7.2.2 The critical root zone for trees over ~~3~~4 inches in ~~caliper diameter measured at breast height (4.5 feet)~~ shall be an area with a radius of at least 1 foot, ~~5~~6 inches from the trunk for every 1 inch of ~~caliper-size diameter measured at breast height (4.5 feet)~~.

7.3 No soil grade changes shall take place within the critical root zone.

7.4 No storage of material shall be allowed within the critical root zone.

7.5 If construction or landscaping has not been completed on the abutting property, the following conditions shall also apply:

7.5.1 The critical root zone shall have a protective fence installed at its perimeter.

7.5.2 The protective fence shall be at least 4 feet in height and made of orange plastic material or approved equivalent.

7.5.3 The protective fencing shall be installed prior to any construction/landscaping activity around the tree and be maintained in place during the construction/landscaping activities and removed only when the final construction is completed.

R-7.280-G Procedure for Planting and Establishment of Trees by City.

1. An applicant may enter into an agreement with the City wherein the City purchases, installs and establishes the street trees and the applicant pays to the City a one-time fee established by the City Manager pursuant to section 2.020 of the Eugene Code, 1971, that is equal to the total cost to the City for the purchase, installation, and establishment of the required street trees. The fees shall be computed in accordance with subsection 2 of this Section. The fee established by the City and paid by the applicant does not equal a "per tree" cost nor obligate the City to plant a specific number of trees. The City fulfills its obligation under the agreement by planting trees in accordance with this Rule and the applicant's Street Tree Plan. The City shall thereafter assume responsibility for the purchase, installation, and establishment of the street trees.

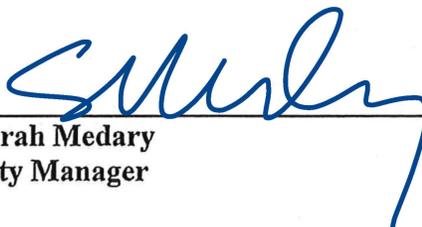
2. The fee for street trees shall be established by administrative order of the City Manager pursuant to Section 2.020 of the Eugene Code, 1971. The applicant is not entitled to a refund of any portion of the fee, nor is the applicant required to pay any amount in addition to the one-time fee, based on the number of trees actually planted by the City.

3. The City will track lot development, negotiate species with new home owners, plant the new trees, and ensure they become established. The City will be responsible for the replacement of any trees that fail to survive the establishment period.

R-7.280-H Approved Street Tree List and Planting Guide.

The Approved Street Tree List and Planting Guide attached to these Rules as Appendix A is a mandatory regulation.

Dated and effective this 14th day of DECEMBER, 2020.



re Sarah Medary
City Manager



Approved Street Tree List and Planting Guide

Green Infrastructure, Urban Forestry

Last Updated: September 15, 2020



Eugene Parks & Open Space

Foreword

Citizens of Eugene,

The purpose of this document is to assist you in the most important planting consideration – *the right tree in the right location*. The decision you make today will help shape the character of Eugene’s tree lined neighborhood streets for decades to come. It matters.

The information in this guide is the culmination of the latest research available coupled with the many years of municipal forestry experience that our team and our partners possess. We have worked with citizens, nursery professionals, local tree planting contractors and other municipalities to bring you what we consider the most comprehensive list in the Pacific Northwest.

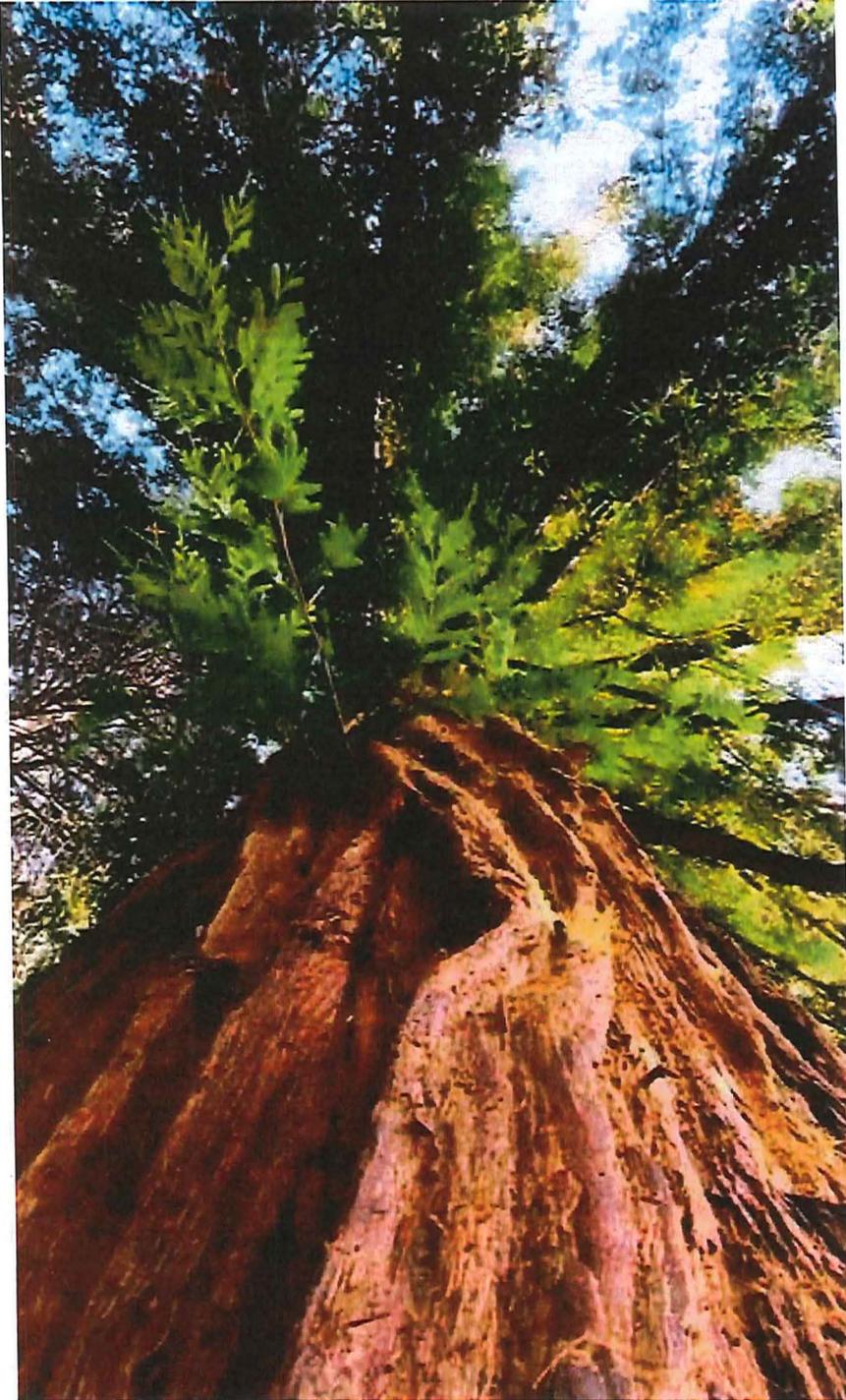
Our mission is “to maximize the social, economic and environmental benefits of Eugene’s urban forest and to minimize its costs and liabilities by means of adaptive management and community engagement.” We set out to create a street tree list that aligned with this mission.

To accomplish this, we considered a number of things. We sought trees that have the ability to withstand changes in climate, have few known pest or disease problems, hold up well in storms and are not known to cause excessive debris or infrastructure damage. We also wanted trees that are readily available locally and that are hardy and easy to establish. Further, we wanted trees that provide ecological services that enhance the livability of Eugene, improve water quality, supply flowers for pollinators, habitat for birds and mammals and a shade producing canopy to offset the urban heat island effect. We have also added additional species to build resilience through diversity.

We hope you find this guide to be comprehensive, thorough and, most importantly, helpful. Together, we can build a healthy urban forest under which our community will thrive for generations.

Sincerely,

The City of Eugene Urban Forestry Team



Types of Street Tree Planting Areas

This list pertains to trees planted in the City of Eugene (COE) right-of-way (ROW) including: Standard planting area between the street and the sidewalk (**Figure 1.**), curb-tight sidewalks (**Figure 2.**), tree pits (**Figure 3.**), undeveloped right-of-way (**Figure 4.**) or medians (**Figure 5.**).

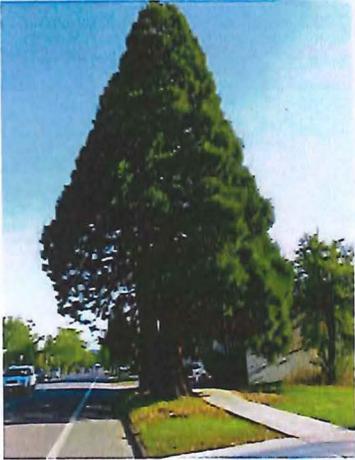


Figure 1. Standard planting area

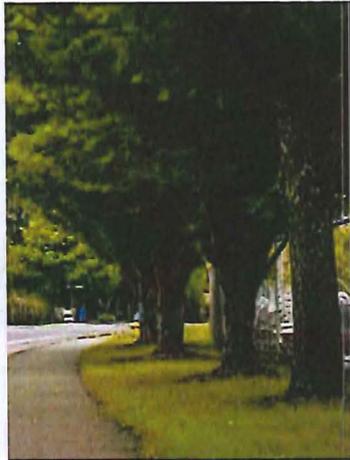


Figure 2. Curb-tight sidewalk



Figure 3. Tree pit



Figure 4. Undeveloped ROW



Figure 5. Median

General Information

- A street tree has a caliper of 1.5 inches or greater (measured at a height of six or more inches above the ground) and is located within a City of Eugene right-of-way.
- A tree planting permit is required for any planting within the COE right-of-way. Permit applications can be found at <https://www.eugene-or.gov/3673/Urban-Forestry>
- Planting season is generally from October 15 to April 15. This may be adjusted by COE Urban Forestry depending on weather conditions.
- All trees shall be standard, single trunk form unless otherwise approved by COE Urban Forestry.
- This is not an all-inclusive list; other species may be considered and approved on a case-by-case basis by COE Urban Forestry.
- This list is of species only, many trees have hybrids or cultivars to choose from. Hybrids and cultivars must reflect the general characteristics and size of the natural species. (i.e. a dwarf cultivar that only gets 10 feet tall would not be acceptable for a site requiring a large canopy species).
- This list is subject to change based on availability, diversity, new science, pest/pathogen outbreak, etc. and is managed at the discretion of the COE Urban Forestry.
- References to tree information include [Oregon State University](#), [Missouri Botanical Garden](#) and [California Polytechnic State University](#) websites.
- Reference the City of Eugene Stormwater Management Manual for tree planting in stormwater facilities.
- Reference the City of Eugene Landscaped Median Design Standards for tree planting in medians.

Planting Guidelines

(Figure 6.)

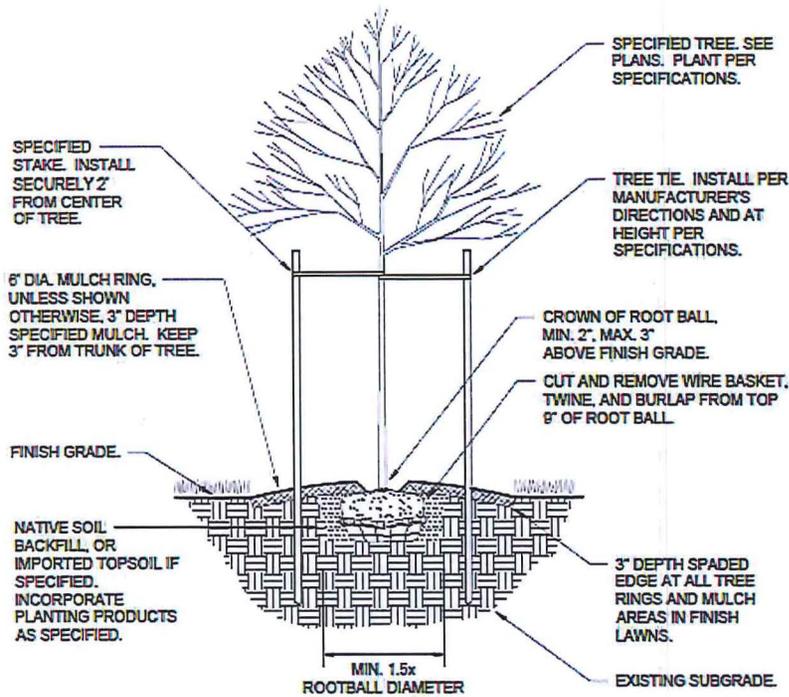
- COE Urban Forestry recommends trees be approximately 1-1.5 inch caliper at the time of planting to facilitate more successful tree establishment.
- Root flare shall be exposed to facilitate removal of any girdling or circling roots and shall be slightly above grade when planting. Planting too deep is the most common mistake made when planting new trees.
- Holes shall be no deeper than the root ball, but at least 2 to 3 times the root ball width to encourage lateral rooting.
- Excess soil shall be used to create a 3 inch continuous circular berm (ring shaped) around the perimeter of the hole to contain and funnel water to the root zone.
- Trees shall be watered adequately at time of planting to collapse any air pockets in the planting hole.
- Mulching is necessary to retain soil moisture, provide organic material and prevent weeds. Mulch shall be approximately 3 inches in depth, not contacting the trunk and extend to the drip line of the tree.
- Nursery stakes shall be removed at the time of planting to prevent trunk girdling. If supplemental staking is needed to keep the tree upright after planting, make sure to do so in a manner that allows the tree to move slightly. Some flex in the trunk will allow the tree to add trunk diameter to support and strengthen itself.
- Establishment period for trees is typically three years and requires approximately 15 gallons of water per week during summer months. Watering needs are species and soil specific. Monitoring soil moisture is important to avoid over or underwatering.
- Refer to ANSI A300 for planting standards and ANSI Z60.1 for nursery stock standards.
- Street tree planting distances shall be followed unless otherwise approved by COE Urban Forestry.

(Figure 7.)

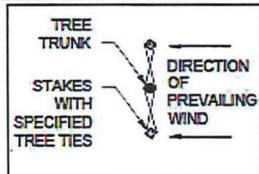


Street Tree Planting Distances			
Mature Tree Canopy Size-	Small (up to 35' ht)	Medium (35' to 60' ht)	Large (over 60' ht)
Feature	Distance from Feature		
Street trees	20'	25'	30'
Alleys	15'	15'	15'
Sidewalks	2'	3'	4'
Driveways	5'	5'	10'
Fire hydrants	5'	5'	5'
Intersections	35'	35'	35'
Manholes and catch basins	5'	10'	10'
Water meters	5'	5'	5'
Utility boxes	5'	5'	5'
Utility poles	5'	10'	10'
Street lights	15'	20'	25'
Stop signs	25' or more if necessary		
Regulatory signs	Not to block sign		

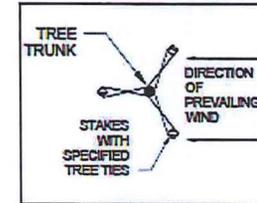
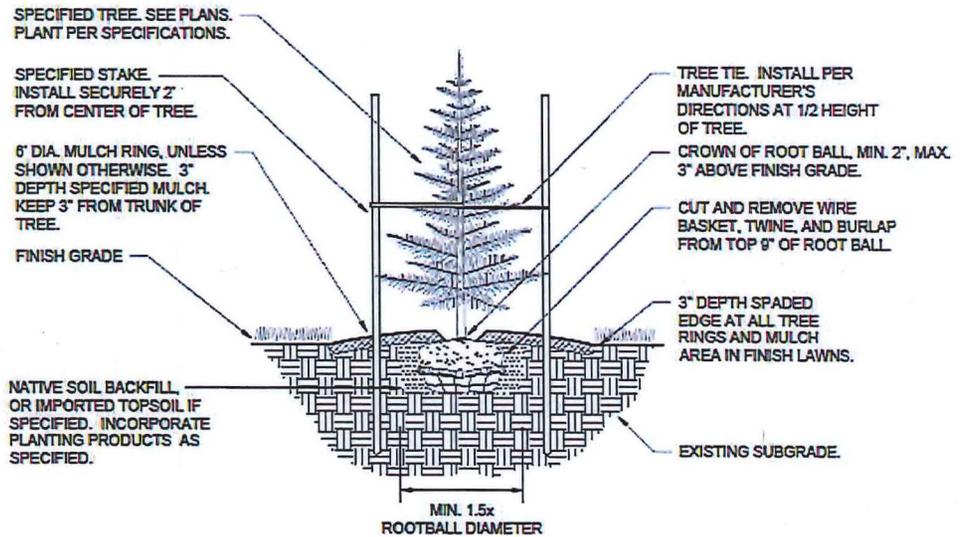
Figure 7.



DECIDUOUS TREE STAKING DETAIL:



DECIDUOUS TREE PLANTING & STAKING



EVERGREEN TREE PLANTING & STAKING

NOTE: DO NOT STAKE TREES IN TREE GRATES.

CITY OF EUGENE
STANDARD DRAWING
AMENDMENT



TREE PLANTING & STAKING

REVISIONS	
DATE	DESCRIPTION
01/15	UPDATED TITLE BLOCK
01/16	ADDED TREE GRATE NOTE
02/20	DETAIL UPDATES

LS126

Figure 6.

Species List and Definitions

This list is intended to help you select the right tree for the right location. For each species, this list will provide guidance on the recommended planting area width, compatibility with overhead wires, canopy size at maturity, soil conditions, drought tolerance, type, and whether it is approved for use in stormwater facilities and medians.

Planting Area Width Min. and Max.

Minimum and maximum width of the planting area required for this species measured in feet and inches.

- Tree species must match the planting area width range.
- Standard planting areas are measured from back of curb to edge of sidewalk.
- Planting area width for sites with curb tight sidewalks are measured from the back of the sidewalk to the property line. Some sites may support larger canopy trees if no infrastructure conflicts are present.
- Trees planted in pits shall be selected from the minimum planting area width column where the pit width is equal to the minimum planting area width in feet.
- Trees planted in undeveloped right of way shall be planted close enough to the street to provide ecological benefits, but far enough away to prevent infrastructure damage.
- Medians are measured from the back of curb to the back of curb.
- All trees approved for planting under high voltage wires do not have a maximum planter width due to height restrictions and to prevent poor cultural pruning practices.
- All large canopy trees do not have a maximum planting area width.

Okay Under High Voltage Wires

- **Yes** = Approved for planting under high voltage primary electric distribution wires
- **No** = Not approved for planting under high voltage primary electric distribution wires
- **Only Under Wires** = Only approved for planting under high voltage primary electric wires; not approved for any other locations. All trees approved for planting under high voltage primary electric distribution wires do not have a maximum planting area width.

Mature Canopy Size

Trees shall be spaced 20 feet apart for small canopy, 25 feet for medium canopy and 30 feet for large canopy. Trees may be planted closer upon approval.

- **Small** = Up to 35 feet tall (600 cubic feet of suggested soil volume)
- **Medium** = Between 35 and 60 feet tall (1000 cubic feet of suggested soil volume)
- **Large** = Over 60 feet tall (1500 cubic feet of suggested soil volume)

Tolerates Poor Drainage

These species have been found to tolerate poor soil drainage due to clay soil or other environmental factors. Most trees, including those that tolerate poor drainage, will perform better in well-drained soil.

Drought Tolerance

Drought tolerance does not apply to the tree's three-year establishment period watering needs. After establishment, most drought tolerant species will benefit from deep infrequent watering during drought season.

- **Low** = Adapted to moist summer soil and or cannot withstand average seasonal drought soil moisture content
- **Moderate** = Adapted to withstand normal or average seasonal drought soil moisture content
- **High** = Adapted to withstand prolonged seasonal drought soil moisture content

Broadleaf (B) or Conifer (C)

- **Broadleaf** = A tree with broad or wide flat leaves
- **Conifer** = A needle-leafed or scale-leafed tree that is cone-bearing

Deciduous (D) or Evergreen (E)

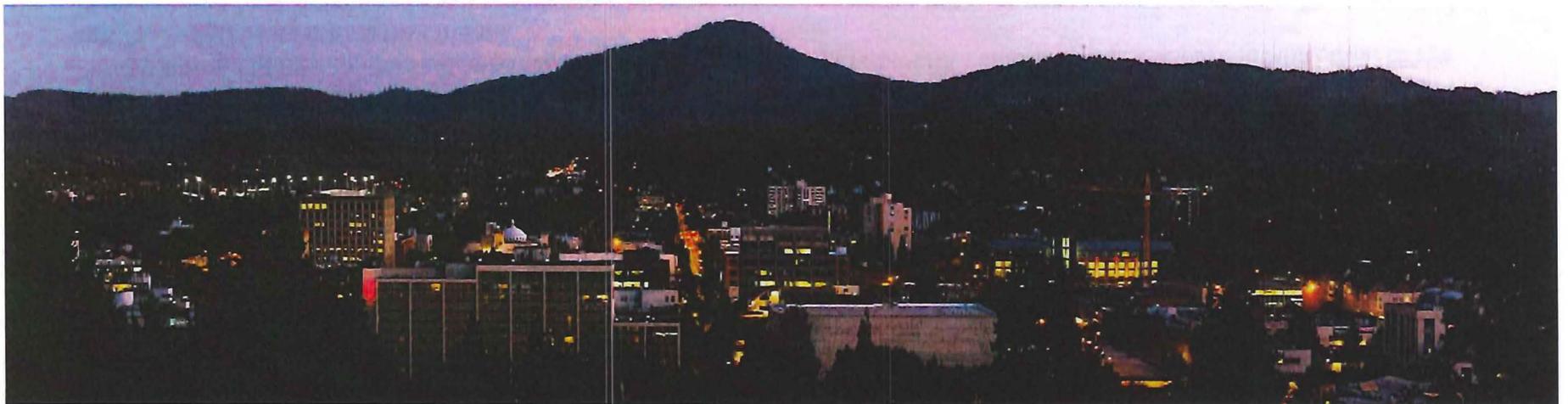
- **Evergreen** = Retain live leaves year-round
- **Deciduous** = Lose all leaves seasonally for part of the year

Approved for Stormwater Facilities

Reference the City of Eugene Stormwater Management Manual for detailed information on tree planting in stormwater facilities. This list is not intended to be a comprehensive resource for planting in stormwater facilities.

Approved for Medians

Reference the City of Eugene Landscaped Median Design Standards for detailed information on tree planting in medians. This list is not intended to be a comprehensive resource for planting in medians.



Scientific Name	Common Name	Planting Area Width Min.	Planting Area Width Max.	Okay Under High Voltage Wires	Mature Canopy Size	Tolerates Poor Drainage	Drought Tolerance	Broadleaf (B) or Conifer (C)	Deciduous (D) or Evergreen (E)	Approved for Storm Water Facilities	Approved for Medians
<i>Abies koreana</i>	Silver Korean Fir	5'	6' 11"	no	S	no	low	C	E	yes	
<i>Abies pinsapo</i>	Spanish Fir	8'	none	no	L	no	high	C	E		
<i>Acer buergerianum</i>	Trident Maple	4'	5' 11"	yes	S	no	moderate	B	D		
<i>Acer campestre</i>	Hedge Maple	4'	5' 11"	yes	S	no	moderate	B	D		
<i>Acer circinatum</i>	Vine Maple	4'	5' 11"	yes	S	no	moderate	B	D		
<i>Acer davidii</i>	David Maple	5'	6' 11"	no	M	no	low	B	D		
<i>Acer ginnala</i>	Amur Maple	4'	5' 11"	yes	S	yes	moderate	B	D	yes	
<i>Acer grandidentatum</i>	Bigtooth Maple	4'	5' 11"	yes	S	no	moderate	B	D		
<i>Acer griseum</i>	Paperbark Maple	4'	5' 11"	yes	S	no	low	B	D	yes	yes
<i>Acer macrophyllum</i>	Bigleaf Maple	8'	none	no	L	no	moderate	B	D		yes
<i>Aesculus x carnea</i>	Red Horsechestnut	5'	7' 11"	no	M	no	low	B	D		
<i>Alnus rhombifolia</i>	White Alder	8'	none	no	L	no	moderate	B	D	yes	yes
<i>Amelanchier laevis</i>	Allegheny Serviceberry	4'	5' 11"	yes	S	yes	low	B	D		yes
<i>Amelanchier x grandiflora</i>	Apple Serviceberry	4'	5' 11"	yes	S	no	low	B	D	yes	
<i>Arbutus menziesii</i>	Pacific Madrone	6'	none	no	M	no	high	B	E		
<i>Arbutus unedo</i>	Strawberry Madrone	5'	6' 11"	yes	S	no	high	B	E	yes	yes
<i>Arbutus x 'Marina'</i>	Marina Strawberry Tree	5'	7' 11"	no	M	no	high	B	E	yes	yes
<i>Betula nigra</i>	River Birch	6'	8' 11"	no	M	yes	low	B	D		
<i>Calocedrus decurrens</i>	Incense Cedar	9'	none	no	L	no	high	C	E	yes	yes
<i>Carpinus betulus</i>	European Hornbeam	5'	7' 11"	no	M	yes	low	B	D	yes	yes
<i>Carpinus caroliniana</i>	American Hornbeam	5'	6' 11"	yes	S	yes	low	B	D		
<i>Catalpa speciosa</i>	Northern Catalpa	8'	none	no	L	yes	low	B	D		
<i>Cedrus atlantica</i>	Atlas Cedar	9'	none	no	L	no	high	C	E		yes
<i>Cedrus deodara</i>	Deodar Cedar	9'	none	no	L	no	high	C	E		
<i>Cedrus libani</i>	Cedar of Lebanon	9'	none	no	L	no	high	C	E		
<i>Celtis occidentalis</i>	Common Hackberry	5'	7' 11"	no	M	yes	low	B	D	yes	
<i>Chameacyparis nootkatensis</i>	Alaskan Yellow Cedar	6'	8' 11"	no	M	no	low	C	E		yes
<i>Chionanthus retusus</i>	Chinese Fringetree	4'	5' 11"	yes	S	no	low	B	D		
<i>x Chitalpa tashkentensis</i>	Chitalpa	4'	5' 11"	yes	S	no	high	B	D	yes	yes
<i>Cinnamomum camphora</i>	Camphor Tree	6'	8' 11"	no	M	no	low	B	E		

Scientific Name	Common Name	Planting Area Width Min.	Planting Area Width Max.	Okay Under High Voltage Wires	Mature Canopy Size	Tolerates Poor Drainage	Drought Tolerance	Broadleaf (B) or Conifer (C)	Deciduous (D) or Evergreen (E)	Approved for Storm Water Facilities	Approved for Medians
<i>Cornus mas</i>	Cornelian Cherry Dogwood	4'	5' 11"	yes	S	no	moderate	B	D		
<i>Corylus colurna</i>	Turkish Filbert	6'	8' 11"	no	M	no	high	B	D		
<i>Crataegus x lavalleyi</i>	Lavalle Hawthorn	4'	5' 11"	yes	S	no	moderate	B	D		yes
<i>Cryptomeria japonica</i> - no dwarf cultivars	Japanese Cedar	6'	8' 11"	no	M	no	low	C	E		
<i>Cunninghamia lanceolata</i>	China Fir	8'	none	no	L	no	low	C	E		
<i>Cupressus arizonica</i>	Arizona Cypress	6'	8' 11"	no	M	no	high	C	E	yes	yes
<i>Cupressus bakeri</i>	Modoc Cypress	6'	8' 11"	no	M	no	high	C	E	yes	
<i>Cupressus sempervirens</i>	Italian Cypress	4'	4' 11"	no	S	no	high	C	E		yes
<i>Davidia involucrata</i>	Dove Tree	5'	7' 11"	no	M	no	low	B	D		
<i>Eucommia ulmoides</i>	Hardy Rubber Tree	6'	7' 11"	no	M	no	moderate	B	D		
<i>Fraxinus excelsior</i> 'Golden Desert'	Golden Desert Ash	5'	none	only under wires	S	yes	moderate	B	D		
<i>Fraxinus latifolia</i>	Oregon Ash	6'	none	no	L	yes	high	B	D	yes	
<i>Fraxinus ornus</i>	Flowering Ash	5'	7' 11"	no	M	no	moderate	B	D		
<i>Ginkgo biloba</i> - fruitless only	Ginkgo	6'	none	no	L	no	low	B	D	yes	yes
<i>Gymnocladus dioica</i>	Kentucky Coffee Tree	6'	8' 11"	no	M	no	moderate	B	D		yes
<i>Halesia carolina</i>	Carolina Silverbell	5'	7' 11"	no	M	no	low	B	D		
<i>Heptacodium miconioides</i>	Seven Sons Flower	4'	5' 11"	yes	S	yes	low	B	D		yes
<i>Koelreuteria paniculata</i>	Golden Raintree	5'	6' 11"	yes	S	no	moderate	B	D	yes	yes
<i>Lagerstroemia indica x fauriei</i>	Crape Myrtle	4'	5' 11"	yes	S	no	moderate	B	D	yes	yes
<i>Liriodendron tulipifera</i>	Tulip Tree	9'	none	no	L	yes	low	B	D		
<i>Maackia amurensis</i>	Maackia	5'	6' 11"	yes	S	no	moderate	B	D		
<i>Maclura pomifera</i> - fruitless and thornless only	Osage Orange	5'	7' 11"	no	M	yes	high	B	D		
<i>Magnolia acuminata</i>	Cucumber Magnolia	8'	none	no	L	no	low	B	D		
<i>Magnolia grandiflora</i>	Southern Magnolia	6'	8' 11"	no	M	no	low	B	E		
<i>Magnolia liliflora x sprengeri</i>	Galaxy Magnolia	5'	6' 11"	yes	S	no	low	B	D		yes
<i>Magnolia virginiana</i>	Sweetbay Magnolia	5'	7' 11"	no	M	yes	low	B	E		
<i>Malus tschonoskii</i>	Tschonoskii Crabapple	4'	5' 11"	yes	S	no	low	B	D		
<i>Metasequoia glyptostroboides</i>	Dawn Redwood	8'	none	no	L	yes	low	C	D		
<i>Nothofagus antarctica</i>	Southern Beech	5'	7' 11"	no	M	no	moderate	B	D		

Scientific Name	Common Name	Planting Area Width Min.	Planting Area Width Max.	Okay Under High Voltage Wires	Mature Canopy Size	Tolerates Poor Drainage	Drought Tolerance	Broadleaf (B) or Conifer (C)	Deciduous (D) or Evergreen (E)	Approved for Storm Water Facilities	Approved for Medians
<i>Nyssa sylvatica</i>	Black Tupelo	5'	7' 11"	no	M	yes	low	B	D	yes	yes
<i>Ostrya virginiana</i>	American Hophornbeam	5'	7' 11"	no	M	no	low	B	D		
<i>Oxydendrum arboreum</i>	Sourwood	5'	6' 11"	no	M	no	low	B	D		
<i>Parrotia persica</i>	Persian Ironwood	5'	7' 11"	no	M	no	moderate	B	D	yes	yes
<i>Phellodendron amurense</i> - fruitless only	Amur Cork Tree	6'	8' 11"	no	M	no	moderate	B	D		
<i>Picea abies</i>	Norway Spruce	8'	none	no	L	no	low	C	E		
<i>Picea engelmannii</i>	Engelmann Spruce	8'	none	no	L	no	moderate	C	E		
<i>Picea omorika</i>	Serbian Spruce	6'	7' 11"	no	M	no	low	C	E		
<i>Picea orientalis</i>	Oriental Spruce	8'	none	no	L	no	low	C	E		
<i>Picea pungens</i>	Colorado Spruce	6'	8' 11"	no	M	no	moderate	C	E		
<i>Picea sitchensis</i>	Sitka Spruce	9'	none	no	L	no	low	C	E		
<i>Pinus flexilis</i>	Limber Pine	6'	7' 11"	no	M	no	moderate	C	E		
<i>Pinus ponderosa</i> var. <i>benthamiana</i>	Willamette Valley Ponderosa Pine	8'	none	no	L	yes	high	C	E	yes	yes
<i>Pinus wallichiana</i>	Himalayan Pine	8'	none	no	L	no	low	C	E		
<i>Pistacia chinensis</i>	Chinese Pistache	5'	6' 11"	yes	S	no	moderate	B	D	yes	yes
<i>Platanus x acerifolia</i> - disease tolerant cultivars	London Planetree	8'	none	no	L	yes	moderate	B	D		yes
<i>Prunus virginiana</i>	Chokecherry	4'	5' 11'	yes	S	no	moderate	B	D		
<i>Pseudotsuga menziesii</i>	Douglas Fir	9'	none	no	L	no	moderate	C	E		yes
<i>Quercus acutissima</i>	Sawtooth Oak	6'	8' 11"	no	M	yes	moderate	B	D		
<i>Quercus agrifolia</i>	Coast Live Oak	6'	8' 11"	no	M	no	moderate	B	E	yes	yes
<i>Quercus bicolor</i>	Swamp White Oak	8'	none	no	L	yes	moderate	B	D	yes	
<i>Quercus chrysolepis</i>	Canyon Live Oak	6'	8' 11"	no	M	no	high	B	E		
<i>Quercus douglasii</i>	Blue Oak	6'	8' 11"	no	M	no	high	B	D	yes	
<i>Quercus frainetto</i>	Hungarian Oak	6'	none	no	L	no	moderate	B	D		yes
<i>Quercus gambelii</i>	Gambel Oak	5'	6' 11"	yes	S	no	high	B	D		yes
<i>Quercus garryana</i>	Oregon White Oak	6'	none	no	L	no	high	B	D	yes	yes
<i>Quercus hypoleucoides</i>	Silverleaf Oak	6'	8' 11"	no	M	no	high	B	E		yes
<i>Quercus ilex</i>	Holly Oak	6'	8' 11"	no	M	no	high	B	E		
<i>Quercus kelloggii</i>	California Black Oak	8'	none	no	L	no	high	B	D	yes	

Scientific Name	Common Name	Planting Area Width Min.	Planting Area Width Max.	Okay Under High Voltage Wires	Mature Canopy Size	Tolerates Poor Drainage	Drought Tolerance	Broadleaf (B) or Conifer (C)	Deciduous (D) or Evergreen (E)	Approved for Storm Water Facilities	Approved for Medians
<i>Quercus lobata</i>	Valley Oak	8'	none	no	L	no	high	B	D	yes	
<i>Quercus macrocarpa</i>	Bur Oak	8'	none	no	L	no	moderate	B	D		yes
<i>Quercus muehlenbergii</i>	Chinquapin Oak	6'	8' 11"	no	M	no	moderate	B	D		
<i>Quercus myrsinifolia</i>	Chinese Evergreen Oak	5'	6' 11"	yes	S	no	low	B	E		
<i>Quercus phellos</i>	Willow Oak	8'	none	no	M	yes	low	B	D		
<i>Quercus robur x alba</i> - columnar cultivars only	Hybrid Columnar English White Oak	5'	7' 11"	no	M	no	moderate	B	D		yes
<i>Quercus rubra</i>	Red Oak	9'	none	no	L	no	low	B	D		
<i>Quercus shumardii</i>	Shumard Oak	8'	none	no	L	yes	moderate	B	D	yes	
<i>Quercus suber</i>	Cork Oak	8'	none	no	L	no	high	B	E	yes	
<i>Quercus wislizeni</i>	Interior Live Oak	6'	8' 11"	no	M	no	high	B	E		
<i>Rhamnus purshiana</i>	Cascara Buckthorn	5'	6' 11"	no	M	no	low	B	D	yes	
<i>Sciadopitys verticillata</i>	Japanese Umbrella Pine	6'	8' 11"	no	M	no	low	C	E	yes	
<i>Sequoia sempervirens</i>	Coast Redwood	20'	none	no	L	no	moderate	C	E		
<i>Sequoiadendron giganteum</i>	Giant Sequoia	20'	none	no	L	no	high	C	E		yes
<i>Styphnolobium japonicum</i>	Japanese Pagoda Tree	5'	7' 11"	no	M	yes	moderate	B	D	yes	yes
<i>Stewartia koreana</i>	Korean Stewartia	4'	5' 11"	yes	S	no	low	B	D		
<i>Stewartia monadelphica</i>	Tall Stewartia	4'	5' 11"	yes	S	no	low	B	D		
<i>Stewartia pseudocamellia</i>	Japanese Stewartia	4'	5' 11"	yes	S	no	low	B	D		
<i>Styrax japonicus</i>	Japanese Snowbell	4'	5' 11"	yes	S	no	low	B	D		
<i>Styrax obassia</i>	Fragrant Snowbell	4'	5' 11"	yes	S	no	low	B	D		
<i>Syringa reticulata</i>	Japanese Tree Lilac	4'	5' 11"	yes	S	no	low	B	D		
<i>Taxodium distichum</i>	Bald Cypress	6'	none	no	L	yes	low	C	D	yes	yes
<i>Taxodium distichum var. imbricarium (ascendens)</i>	Pond Cypress	6'	none	no	L	yes	low	C	D		
<i>Thuja plicata</i>	Western Red Cedar	8'	none	no	L	no	low	C	E	yes	yes
<i>Tilia americana</i>	American Linden	8'	none	no	L	no	low	B	D		
<i>Tilia tomentosa</i>	Silver Linden	8'	none	no	L	no	moderate	C	D		
<i>Tsuga mertensiana</i>	Mountain Hemlock	6'	8' 11"	no	M	no	moderate	C	E	yes	
<i>Tsuga sieboldii</i>	Southern Japanese Hemlock	8'	none	no	L	no	low	C	E	yes	yes
<i>Ulmus americana</i> - Dutch Elm. Disease tolerant cultivars	American Elm	9'	none	no	L	no	low	B	D		

Scientific Name	Common Name	Planting Area Width Min.	Planting Area Width Max.	Okay Under High Voltage Wires	Mature Canopy Size	Tolerates Poor Drainage	Drought Tolerance	Broadleaf (B) or Conifer (C)	Deciduous (D) or Evergreen (E)	Approved for Storm Water Facilities	Approved for Medians
<i>Ulmus carpinifolia x parvifolia</i>	Frontier Elm	5'	7' 11"	no	M	no	low	B	D		
<i>Ulmus parvifolia</i>	Lacebark Elm	5'	7' 11"	no	M	no	moderate	B	D		yes
<i>Ulmus propinqua</i> - Dutch Elm Disease tolerant cultivars	Japanese Elm	5'	7' 11"	no	M	no	moderate	B	D		yes
<i>Umbellularia californica</i>	Oregon Myrtle	8'	none	no	L	no	high	B	E		
<i>Zelkova serrata</i>	Japanese Zelkova	6'	8' 11"	no	M	no	low	B	D		yes

NOTICE OF OPPORTUNITY TO COMMENT ON PROPOSED AMENDMENT OF STREET TREE PROGRAM ADMINISTRATIVE RULE R-7.280.

Pursuant to Sections 2.019 and 7.280 of the Eugene Code, 1971, the City Manager is proposing to amend Street Tree Program Administrative Rule R-7.280 and append to the Rule a new Approved Street Tree List and Planting Guide which includes an updated street tree list so the street trees planted maximize the benefits of future trees planted and minimize foreseeable issues, in addition to ensuring that the trees planted are suitable for the chosen location.

Information referred to in preparing the Rule amendments include:

OUS Landscape Plants, at <https://landscapeplants.oregonstate.edu/>
Missouri Botanical Gardens Plantfinder, at

<https://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx>

CalPoly, at <https://selectree.calpoly.edu/>

The proposed rule amendment may be reviewed at the City of Eugene Public Works Parks and Open Space Division, 1820 Roosevelt Boulevard, Eugene, Oregon, during normal business hours or on the City of Eugene's website at <https://www.eugene-or.gov/520/Administrative-Order>.

Comments on the proposed rule amendment may be submitted in writing to Eric DeBord, Urban Forestry Supervisor, Parks and Open Space Division, 1820 Roosevelt Boulevard, Eugene, Oregon, 97402, or via e-mail to edebord@eugene-or.gov. To be considered, written and e-mail comments must be received within 15 days of the first date of publication as indicated below. If the City Manager chooses to take action after considering the comments received, the proposed or modified rule will be adopted by administrative order.

Sarah Medary, City Manager

Dates of Publication: October 19, 20, 21, 22, 23, 2020.