

20.20.900 Tree retention and replacement.

Commented [A1]: Section is rewritten. Draft only indicates tracked changes since previous Planning Commission meeting for ease of review.

A. Purpose.

The purpose of this section is to:

- 1. Prevent Citywide net loss of tree canopy and address local canopy gaps;
- 2. Reduce the impacts of development on the storm and surface water systems and water resources;
- 3. Provide guidance and flexibility to support “the right tree in the right place”; and
- 4. Preserve other public benefits of Bellevue’s urban forest, including minimizing heat impacts, enhancing ecosystem resilience, and storing carbon.

B. Applicability.

- 1. The requirements of this section shall be imposed any time a permit, approval, or review for Development Activity is required by the Bellevue City Code or Land Use Code.
- 2. The requirements of this section alone shall not reduce maximum allowed density, number of allowed lots, or preclude required access and utility connections.
- 3. Tree removal that is not associated with development activity is regulated by the Clearing and Grading Code (Chapter 23.76 BCC).
- 4. Trees growing within or overhanging any public right-of-way are also subject to the requirements of Chapter 14.06 BCC.
- 5. Exceptions.
 - a. Trees located in the Shoreline Overlay District are regulated by Part 20.25E LUC Shoreline Overlay District.
 - b. Trees located in critical areas or their associated buffers are regulated by Part 20.25H LUC Critical Areas Overlay District.
 - c. The portions of this section which require retention of Significant Trees or planting new trees are not applicable in any Downtown Land Use District or in the East Main Transit Oriented Development Land Use District.

C. Definitions

The following definitions are specific to this section. Where a term defined below is used in this section its meaning shall be as defined below.

1. "Development Activity" means any alteration or development regulated by the Bellevue City Code or Land Use Code, including subdivisions, short subdivisions, planned unit developments, changes in lot coverage, changes in the area devoted to parking and circulation, and additions to impervious surface areas that exceed 20 percent.
2. "Grove" means a group of three or more Significant Trees with overlapping or touching crowns.
3. "Hazardous Tree" means a tree that, in the written opinion of a Qualified Tree Professional who also has the International Society of Arboriculture (ISA) Tree Risk Assessment Qualification (TRAQ), meets all of the following criteria:
 - a. The tree has a combination of structural defects, disease, or both structural defects and disease that makes it subject to a high probability of failure;
 - b. The location of the tree is in proximity areas where, with moderate to high frequency, persons or property are likely to be located that could be injured or damaged by tree failure;
 - c. The assessed tree has a high to extreme risk rating using the International Society of Arborists Tree Risk Assessment Qualification method in its most current form; and
 - d. The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices.
4. "Invasive or Noxious Species" means any species identified in the invasive or noxious weed lists established by Washington State or King County, as amended, or any species listed by the Director, who is hereby authorized to formulate and maintain a list of Invasive and Noxious Species likely to cause economic or environmental harm or harm to human health or infrastructure.
5. "Tree Canopy Site Area" means, for the purpose of determining the minimum tree density required for a site, the area of a site remaining after subtracting the following areas from the gross site area:
 - a. Critical areas and their buffers (As modified pursuant to 20.25H LUC, if applicable); and
 - b. Shoreline vegetation conservation areas; and
 - c. Public rights-of-way; and
 - d. Private roads in separate tracts; and
 - e. Submerged lands (lands waterward of the ordinary high water mark).

Commented [A2]: Clarifies that any critical areas removed through modification should be included in the Tree Canopy Site Area

6. "Tree Protection Zone (TPZ)" means the circular area around a tree calculated as one foot of radius for every inch of d.b.h., or at least six feet, whichever is greater. The TPZ may instead be determined by a Qualified Tree Professional.
7. "Viable Tree" means a tree rated by a Qualified Tree Professional as fair, good, or excellent condition based on the criteria in Table 20.20.900.C.1 or the most recent edition of the *Guide for Plant Appraisers*, published by the Council of Tree and Landscape Appraisers.

Table 20.20.900.C.1 Tree Condition Rating Table

Rating Category	Condition Components			Percent Rating
	Health	Structure	Form	
Excellent - 1	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.	81% to 100%
Good - 2	Vigor is normal for species. No significant damage due to diseases or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.	61% to 80%
Fair - 3	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may compromise up to 50% of the crown.	A single defect of a significant nature or multiple moderate defects. Defects are not practical to correct or would require multiple treatments over several years.	Major asymmetries/deviations from species norm and/or intended use. Function and/or aesthetics are compromised.	41% to 60%
Poor - 4	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.	21% to 40%
Very Poor - 5	Poor vigor. Appears dying and in the last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.	6% to 20%
Dead - 6				0% to 5%

D. Required Review.

The Development Services Department shall review the proposed removal of any significant or Landmark Trees with each permit, approval, or review for Development Activity within the applicability of this section.

E. Minimum Tree Density.

1. The applicant shall maintain in the Tree Canopy Site Area at least the minimum tree density, measured in tree credits, as provided in this subsection.
2. Minimum Tree Credits by Land Use District. Minimum tree credits are determined based on the Land Use District, use and Tree Canopy Site Area. The minimum tree credits required are calculated by dividing the Tree Canopy Site Area, measured in square feet, by 1,000 then multiplying by the applicable rate identified in either Table 20.20.900.E.1, if the site is located in a residential Land Use District, or Table 20.20.900.E.2, if the site is located in other Land Use Districts.

a. Residential Land Use Districts

Table 20.20.900.E.1. Minimum Tree Credits per 1,000 Square Feet of Tree Canopy Site Area, Residential Land Use Districts

Land Use District	One Dwelling per Lot	Two or More Dwellings per Lot, or Other Use
R-1 R-1.8 R-2.5	5	4 3
R-3.5 R-4 R-5	2	1.5
R-7.5 R-10 R-15 R-20 R-30	1	0.75

b. Other Land Use Districts

Table 20.20.900.E.2. Minimum Tree Credits by Use, Other Land Use Districts

Use	Minimum Tree Credits per 1,000 Square Feet of Tree Canopy Site Area
One Dwelling per Lot	1
Two or More Dwelling Units per Lot	0.75
Commercial, Office, Light Industrial, and All Other Uses	0.5

3. Retained Trees.

- a. Priorities for Retention. In ~~applying the requirement for retention of significant trees~~ selecting Significant Trees for retention, the Director shall consider the preservation of the following types of Significant Trees in the following order of priority:
 - i. Landmark Trees.
 - ii. Trees located in Groves.
 - iii. Significant Trees located in the required perimeter landscaping area, as set forth in LUC 20.20.520.F.1. For properties located in BelRed, refer to LUC 20.25D.110.
 - iv. Other Significant Trees.
- b. Tree Credits for Retained Trees. Each retained Significant Tree provides a tree credit value determined by its d.b.h. or Landmark Tree classification, as identified in Table 20.20.900.E.3. When determining tree credits for a Significant Tree that is an alder or cottonwood, the applicable tree credit value identified in Table 20.20.900.E.3 shall be reduced by 50%.

Table 20.20.900.E.3. Tree Credits for Retained Trees

DBH	6"-10"	Larger than 10" and up to 12"	Larger than 12" and up to 14"	Larger than 14" and up to 16"	Larger than 16" and up to 18"	Larger than 18" and up to 20"	Larger than 20" and up to 22"	Larger than 22" and less than 24"	24" or greater and all Landmark Trees
Tree Credits	2	3	4	5	6	7	8	9	10

- c. Exceptions. The following shall not provide any tree credits if retained:
 - i. Invasive or Noxious Species.
 - ii. Trees located outside the Tree Canopy Site Area.
 - iii. Trees in areas devoted to access and sight areas as defined in the Transportation Code (Chapter 14.06 BCC).
4. Dimensional Standard Modification for Tree Retention.
- a. Reduced Parking. Where the provision of required parking would impact the TPZ of viable Landmark Trees or groves, the Director may approve a reduction of required parking in order to avoid a Grove or Landmark Trees, if the reduction would result in a project that would avoid the TPZ and that would exceed the required minimum tree density.
 - b. Front and Rear Yards. Subject to street intersection sight obstruction requirements, BCC 14.60.240, development may extend into up to 50% of the required front yard or five feet into the rear yard in the following circumstances:

- i. The maximum density of development allowed on the site cannot be achieved without extending into the TPZ of existing significant or Landmark Trees required to achieve the minimum tree density; or
 - ii. The modification will enable the applicant to retain a grove, additional Landmark Trees, or both a Grove and additional Landmark Trees beyond the required minimum tree density; or
 - iii. The proposal is for affordable housing development provided under LUC 20.20.128 and will exceed the required minimum tree density.
- c. Building Height. Except in transition areas and for proposals of one dwelling unit per lot, the maximum building height may be increased by up to 12 feet for those portions of the building(s) at least 20 feet from any property line in the following circumstances:
- i. The maximum density of development allowed on the site cannot be achieved without extending into the TPZ of existing significant or Landmark Trees required to achieve the minimum tree density; or
 - ii. The modification will enable the applicant to retain a Grove, additional Landmark Trees, or both a Grove and additional Landmark Trees beyond the required minimum tree density; or
 - iii. The proposal is for affordable housing development provided under LUC 20.20.128 and will exceed the required minimum tree density.
5. Planted Trees.
- a. Tree planting shall be required to achieve the minimum required tree density on sites which lack sufficient existing trees. On sites with insufficient existing tree density, existing viable Significant Trees may only be removed if:
 - i. The maximum density allowed on the site cannot be achieved without extending into the TPZ or into a required front and/or rear yard to an extent greater than provided for in LUC 20.20.900.E.4.; or
 - ii. Existing trees are hazardous or inappropriate for retention, in the written opinion of a Qualified Tree Professional; or
 - iii. Site is located in a wildland-urban interface area and additional tree removal is required to maintain applicable defensible space requirements, BCC 23.11.10.
 - b. Tree Credits for Planted Trees. Each planted tree that is a minimum of 2-inch Caliper (deciduous trees) or 6 feet in height (conifer trees) provides 1 tree credit, except Alders and Cottonwoods, which provide 0.5 tree credits per planted tree no tree credits when planted. Planted trees below these minimum sizes provide no tree credits.

Commented [A3]: New flexibility for building height, per Planning Commission direction. Similar approach to existing height bonus for affordable housing.

Commented [A4]: Removed credit for newly-planted Alders and Cottonwoods, per Planning Commission direction.

- c. The applicant shall utilize plant materials which complement the natural character of the Pacific Northwest, and which are, in the written opinion of a Qualified Tree Professional, adaptable to the climatic, topographic, and hydrologic characteristics of the site.
- d. Planting Invasive or Noxious Species is prohibited.
- e. Tree Removal Before Development Activity. If a site has insufficient existing tree density, any trees removed from the Tree Canopy Site Area within the previous three years shall be replaced, unless replacement was previously required as a condition of their removal. Significant Trees shall be replaced at a 1:1 ratio, and Landmark Trees shall be replaced at a 2:1 ratio.
- f. Relationship to Other Requirements. Any trees planted or retained to meet other Bellevue City Code or Land Use Code requirements within the Tree Canopy Site Area, including LUC 20.20.520, shall count towards the minimum required tree credits. The number of trees required to be planted or retained to meet other requirements shall not be reduced if exceeding the required minimum tree credits.
- g. All plantings required by this section are subject to the street intersection sight obstruction requirements, BCC 14.60.240.
- h. Trees planted to form a clipped or sheared hedge shall not provide any tree credits if planted.
- i. Locations. Planted trees providing credit toward the required minimum tree density shall be planted within the Tree Canopy Site Area in locations suitable for the planted trees to reach maturity, in the following order of priority:
 - i. Within required setbacks and transition areas.
 - ii. Adjacent to existing Groves.
 - iii. Other locations within the Tree Canopy Site Area.
 - iv. In-Lieu Fee. If the applicant demonstrates that all planting options have been considered and are infeasible, for each additional tree credit required, the applicant shall pay a fee-in-lieu equivalent to the cost of a tree meeting the requirements of this section for planted trees, installation (labor and equipment), maintenance for three years, and fund administration.
 - (1) The in-lieu fee rate, published in the City's fee rate schedule, shall be reviewed annually, and, effective January 1st of each year, may be administratively increased or decreased by an adjustment to reflect the current published annual change in the Seattle Consumer Price Index for Wage Earners and Clerical Workers as needed in order to maintain accurate costs for the region.
 - (2) In-lieu fee monies ~~may~~shall be used to support Bellevue's tree canopy and related initiatives including, but not limited to, one or more of the following: planting and

maintaining individual trees (including supporting infrastructure), restoration activities, urban forestry education, or the purchase of land for reforestation or preservation.

6. Alternative Tree Density Option.

- a. An applicant may request a modification of the minimum tree density requirement when the proposed use is classified within transportation or utilities in the land use charts contained in LUC 20.10.440.
- b. The Director may administratively approve a modification of the on-site tree planting requirements if:
 - i. The modification is consistent with the stated purpose of this section; and
 - ii. The modification proposal either:
 - (1) Incorporates retained and planted trees equal or greater in tree credits required for the Tree Canopy Site Area, with the option to plant or protect trees in locations outside the Tree Canopy Site Area but within the City of Bellevue; or
 - (2) Incorporates the retention or replacement of other natural vegetation in consolidated locations which promote the natural vegetated character of the site and neighborhood including use as pasture land or for agricultural uses; or
 - (3) Incorporates an innovative mitigation plan based on the best available science.
- iii. Where a modification proposal includes newly planted trees, the applicant shall utilize plant materials which, in the written opinion of a Qualified Tree Professional, complement the natural character of the Pacific Northwest, and which are adaptable to the climatic, topographic, and hydrologic characteristics of the site.

Commented [A5]: New alternative option to accommodate projects which are not compatible with achieving minimum tree density as otherwise provided in this section.

F. Tree Protection.

1. Tree Protection Techniques. The applicant shall utilize tree protection techniques identified in the tree protection plan approved by the Director during land alteration and construction in order to provide for the continual healthy life of retained Significant Trees, as provided in BCC 23.76.060.
2. Tree Protection Covenant. When a modification to development standards is granted to avoid development within a TPZ, the applicant shall record with the King County Division of records and Elections a covenant, in a form approved by the City Attorney's Office, prohibiting development on or within any portion of a TPZ located on the site that was avoided through the modification to development standards. The covenant shall include a site plan, prepared by a qualified professional, clearly delineating the TPZ(s) that were avoided through the modification to development standards located wholly or partially on the site.

3. Maintenance Assurance. If planted trees are necessary to achieve the minimum required tree density, the Director may require a maintenance assurance device for a period of three years from the completion of planting or construction in conformance with LUC 20.40.490. The Director may require a longer period depending on the plant materials used and site conditions.

Commented [A6]: 3 years is recommended for a typical establishment period for most newly-planted trees, however the period required for trees to be established can be longer in certain circumstances. This provides flexibility to extend the maintenance assurance period when appropriate for the plant materials or site conditions.

20.25A.020 Definitions.

A. Definitions Specific to Downtown.

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~~**DT – Caliper:** The diameter measurement of the stem or trunk of nursery stock. Caliper measurement should be taken six inches above the ground level for field grown stock and from the soil line for container grown stock, which should be at or near the top of the root flare, and six inches above the root flare for bare root plants, up to and including the four inch caliper size interval. If the caliper measured at six inches is four and one half inches or more, the caliper shall be measured at 12 inches above the ground level, soil line, or root flare, as appropriate.~~

Commented [A7]: Cleanup: Incorporating provisions in 20.50 definitions instead, to apply throughout code, including Downtown.

~~**DT – Diameter at Breast Height (D.B.H.):** The diameter of the tree trunk at four and one half feet (or 54 inches) above natural grade level. The diameter may be calculated by using the following formula: D.B.H. = circumference at four and one half feet divided by 3.14 (which is the numerical representation of pi). To determine the D.B.H. of multi trunk trees or measuring trees on slopes, consult the current Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.~~

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B. General Definitions Not Applicable to Downtown.

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~~Caliper, LUC 20.50.014.~~

Commented [A8]: Central definition being updated incorporating necessary detail, will now apply Downtown.

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~~Tree – Large Diameter, LUC 20.50.048.~~

Commented [A9]: Cleanup: Unused definitions which are being removed from 20.50

~~Tree – Small Diameter, LUC 20.50.048.~~

20.25B.040 Development Standards.

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C. Landscaping, Open Space and Buffers.

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2. Buffer.

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- b. All ~~significant tree~~ **Significant Trees** within 15 feet of the property line shall be ~~retained as required by LUC 20.20.520.E.~~

Commented [A10]: 520 points to 20.20.900, which no longer always requires retaining all trees in perimeter.

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20.25F.040 Site and design requirements.

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Commented [A11]: Cleanup: Inappropriate applications of "caliper"

C. Design Requirements.

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2. Landscaping and Vegetation Preservation.

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- e. A significant number of trees at least 12 feet to 14 feet in height or two and one-half inches to three inches in ~~caliper~~ **Caliper**, in conformance with the American Standard for Nursery Stock, and predominantly evergreen, must be included in each planted area. ~~Caliper is measured four feet above existing grade.~~ Shrubs at least three and one-half feet in height along a parking area or site perimeter and at least two feet in height at any other location must be interspersed among the trees, and the majority of the remaining area planted with living ground cover so that the ground will be covered in three years.
- f. Wherever practical and consistent with proposed site design, tree line and existing trees at least six inches in ~~caliper~~ **Diameter at Breast Height** must be retained. ~~Caliper is measured four feet above existing grade.~~ Tree protection techniques, approved by the Technical Committee must be utilized during construction. Where changes in grade have occurred, permanent tree preservation methods, approved by the Technical Committee must be utilized.
- g. The applicant must install street trees at least three inches in ~~caliper~~ **Caliper** along the street frontage. ~~Caliper is measured four feet above existing grade.~~ The location and species installed are subject to approval of the Technical Committee.

Commented [A12]: Inappropriate usage of "caliper", replaced with DBH measurement for existing trees

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20.25Q.020 Definitions specific to East Main.

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B. General Definitions Not Applicable to East Main.

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~~Tree – Large Diameter. LUC 20.50.048.~~

~~Tree – Small Diameter. LUC 20.50.048.~~

Commented [A13]: Cleanup: Unused definition being removed from the LUC.

20.50.014 C definitions.

Caliper. The diameter measurement of the stem or trunk of nursery stock. Caliper measurement should be taken six inches above the ground level for field grown stock and from the soil line for container grown stock, which should be at or near the top of the root flare, and six inches above the root flare for bare root plants, up to and including the four-inch Caliper size interval. If the Caliper measured at six inches is four and one-half inches or more, the Caliper shall be measured at 12 inches above the ground level, soil line, or root flare, as appropriate. The diameter of a tree in inches as measured according to specifications promulgated by the American Association of Nurserymen in American Standard For Nursery Stock, ANSI Z60.1-1990. See also Significant Tree.

Commented [A14]: Replacing with current Downtown definition, to apply throughout.

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Continuous Tree Canopy. Tree crown cover which forms a predominately solid overhead plane.

Commented [A15]: Cleanup: Not used in code

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20.50.016 D definitions.

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Development Services Department. The Development Services Department is an administrative department of the City as described in Chapter 3.44 BCC.

Diameter at Breast Height (D.B.H.). The diameter of a tree trunk measured at 4.5 feet above the highest point of the natural or existing topography touching the trunk of the tree. Where a tree splits into several trunks close to ground level, the d.b.h. for the tree is the square root of the sum of the d.b.h. of each individual trunk squared. If a different method of measurement is recommended in the current Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers, a Qualified Tree Professional may use that method.

Director. The Director of the Development Services Department for the City of Bellevue, the Director's authorized representative, or any representative authorized by the City Manager, unless otherwise specified.

District. A land use district established under LUC 20.10.020.

Commented [A16]: Cleanup: Improves clarity

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20.50.032 L definitions.

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Land Use. The use to which an area of land, or building thereon, is put; human activity taking place thereon. Categories of land uses in this Code are found in Chart 20.10.440 and district-specific land use charts contained in Chapter 20.25 LUC.

Landmark Tree. A viable tree at least 24 inches in diameter at breast height, or a viable tree meeting or exceeding the alternate diameter criteria for its species listed in Table 20.50.032.1.

Commented [A17]: New, permanent Landmark Tree definition. Viability criteria are provided in table in 20.20.900.

Table 20.50.032.1. Landmark Tree Threshold Exceptions by Species and Diameter

<u>Common Name</u>	<u>Scientific Name</u>	<u>Diameter at Breast Height (D.B.H.)</u>
<u>Red alder</u>	<u><i>Alnus rubra</i></u>	<u>Not Landmark Trees</u>
<u>Pacific madrone</u>	<u><i>Arbutus menziesii</i></u>	<u>8 inches</u>
<u>Cascara</u>	<u><i>Franqula purshiana</i></u>	<u>8 inches</u>
<u>Lodgepole or shore pine</u>	<u><i>Pinus contorta</i></u>	<u>12 inches</u>
<u>Black cottonwood</u>	<u><i>Populus trichocarpa</i></u>	<u>Not Landmark Trees</u>
<u>Oak</u>	<u><i>Quercus spp.</i></u>	<u>12 inches</u>
<u>Pacific yew</u>	<u><i>Taxus brevifolia</i></u>	<u>8 inches</u>

Landscape Area. An outdoor landscaped area providing visually or physically accessible space for tenants of the development of which it is a part.

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20.50.042 Q definitions.

Qualified Professional. A “Qualified Professional” is one who, by meeting certain defined educational, licensing or other qualifications established by the director, has the knowledge to provide expert design, engineering, habitat, or other evaluations necessary to allow the City to make a decision on a specific proposal. Where the applicant for a proposal is a City, county, state or federal agency, a Qualified Professional may include trained staff whose job functions include providing the expertise required by this code.

Qualified Tree Professional. A “Qualified Tree Professional” is one with relevant education and training in arboriculture or urban forestry and one of the following credentials:

1. ISA certified arborist;
2. ISA certified arborist municipal specialist;
3. ISA board certified master arborist;
4. American Society of Consulting Arborists (ASCA) registered consulting arborist (RCA); or
5. Society of American Foresters (SAF) certified forester for forest management plans.

20.50.046 S definitions.

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Significant Tree. A ~~healthy viable evergreen or deciduous tree at least, eight six inches in diameter at breast height or greater, measured four feet above existing grade. The Director of the Development Services Department may authorize the exclusion of any tree which for reasons of health, age or site development is not desirable to retain.~~

Commented [A18]: Updated definition with reduced threshold. DBH is now defined separately, and additional blanket authorization has been removed, to be replaced with specific considerations in relevant code sections. Table with viability criteria is provided in 20.20.900.

Draft Tree Canopy LUCA
April 16, 2024

Attachment B

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20.50.048 T definitions.

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~~Tree, Large Diameter. A tree having a mature spread of at least 50 feet.~~

~~Tree, Small Diameter. A tree having a mature spread of less than 50 feet.~~

Commented [A19]: Cleanup: Not used in code.