

## Urban Forestry Subcommittee Recommended Tree Code Priorities and Associated Model Code Language

Check Urban Forestry Master Plan (UFMP) for other items.

### 1. TREE PRESERVATION

- A. The City shall condition development approval to require preservation of existing trees; and Provide incentives encouraging developers to preserve trees (*Goals, Policies and Action Measures in Volume 2 of the Gresham Community Development Plan*). Develop incentives to promote tree retention and planting (*UFMP*).

Incentives can help to encourage site developers to protect trees rather than replacing them. Some communities may choose to provide reductions in other requirements, such as required open space and recreational amenities, or provide modest density bonuses, in exchange for increased canopy percentages, or preservation of existing trees.

*Example.* Credits in tree canopy calculations shall be provided as follows: 1) Large Canopy trees to be preserved shall be counted at 120% of actual canopy 2) Contributing Tree Groupings of more than five trees (of min. \_DBH) shall be counted at 125% of total tree canopy for the grouping 3) Groupings of more than five Large Canopy Trees shall be counted at 150% of total tree canopy.

- B. An applicant shall preserve and protect at least 1/3 of the non-exempt trees 12 inches and larger in diameter located completely or partially on the development site, unless mitigation occurs. An applicant shall preserve and protect all non-exempt trees 20 inches in diameter or greater located completely or partially on the development site, unless mitigation and notice occurs. Projects are exempt from the mitigation requirements in Subsection 11.50.040 C.1.b.(2) if the development will be an affordable housing development. The amount of the mitigation exemption shall be pro-rated to a percentage equal to the percentage of dwelling units on the development site that are approved for affordable housing development. (*PDX*).
- C. Not less than 30 percent of all trees located on the property are designated for preservation, unless there are no reasonable design alternatives that would enable preservation of such trees. For tree conservation plans designating less than 30 percent of the trees on the property for preservation, an explanation of how the mitigation measures will be met. (*Salem*).
- D. No more than 25 percent of onsite existing tree canopy may be removed below the overall 40 percent site canopy coverage standard unless mitigation is provided. Invasive species are not to be included in the total canopy coverage calculations. Public right-of-way is not considered part of the development site for the purposes of these calculations. When the trunk of a tree crosses a property line at ground level it is considered an onsite tree for the purposes of these tree preservation standards. Healthy trees with DBH of 12" or greater may receive additional canopy credits for existing tree crown area to be factored into preservation calculations (*Milwaukie*).
- E. The Director may permit a tree to be removed only if: (a.) The maximum lot coverage permitted on the site cannot be achieved without extending into the tree protection area or into a required front and/or rear yard or (b.) Avoiding development in the tree protection area would result in a portion of the house being less than 15 feet in width. Permitted extension into front or rear yards shall be limited to an area equal to the amount of the tree protection area not located within required yards. The maximum projection into the required front or rear yard shall be 50 percent of the yard requirement. If the maximum lot coverage permitted on the site can be achieved without extending into either the tree protection area or required front and/or rear yards, then no such extension into required yards shall be permitted. Trees over 2 feet in diameter measured 4.5 feet above the ground shall be identified on site plans. In order to protect such trees, an applicant may modify their development proposal to extend into front and/or rear yards. (*Seattle*).
- F. In order to preserve trees over 2 feet in diameter measured 4.5 feet above the ground, the following code modifications are allowed: Height increase, parking reduction, setback reductions, etc. Details TBD.

- G. The City will not issue a permit for the removal of a healthy, functioning tree without a demonstration by the applicant that extraordinary circumstances exist. Maintenance or the replacement of pavement, removal of tree litter, or other minor inconveniences do not constitute extraordinary circumstances. Decisions regarding removal of healthy, functioning trees are fact-specific and are made on a case-by-case basis by the Urban Forester. In determining whether extraordinary circumstances exist that warrant the major pruning or removal of a healthy tree, the Urban Forester will consider:
1. Whether the species of tree is appropriate for its location;
  2. Whether the species of tree is an invasive species;
  3. Whether the crown, stem, or root growth has developed in a manner that would prevent continued healthy growth or is negatively impacting other trees;
  4. Whether maintenance of the tree creates an unreasonable burden for the property owner; and
  5. Whether the removal will significantly affect public safety or neighborhood character based on the following:
    - a. The age, size, form, species, general condition, pruning history and any unique qualities or attributes of the trees;
    - b. The cumulative impacts of current and prior tree removals in the area; and
    - c. When the tree is associated with a grove, whether removal of the tree will have a significant adverse impact on the viability of other trees or make other trees considerably more vulnerable to windthrow. (*Milwaukie*)
- H. Tree removal (greater than fifty (50) percent) of the “forest canopy” that are not part of a “tree farm” pursuant to City definitions, shall be evaluated at the time of land division or site design review application for past tree removal. For discernible mass tree removal by remaining stumps, logging permit records, survey data or any other means authorized by the Planning Official that has occurred within a previous five-year period from submittal of a complete land use application, tree mitigation at a ratio of 2:1 shall be required. If on or off-site tree mitigation efforts are not accomplished pursuant to the auspices of this chapter, the applicant may make payment to the City’s Tree Bank in lieu of tree planting mitigation.

## 2. TREE REMOVAL MITIGATION

- A. If the tree preservation and/or tree planting standards are not met, mitigation fees must be provided to the Tree Fund. (*Milwaukie*).
- B. Unless removed for thinning purposes or invasive species status the Urban Forester will condition the removal of each tree upon the planting of a replacement tree. The minimum size of replacement trees is 1.5-inch caliper for broadleaf trees and 5-foot tall for conifers. If planting a replacement tree is not practicable, the Urban Forester may allow a tree replacement fee in lieu based on the cost of planting and maintaining a replacement tree for three years.
- C. Removing up to 4 healthy trees per site, or abutting right of way per year as follows: (*PDX*)
- less than <20” in diameter = tree for tree (*size?*)
  - 20” and larger in diameter = inch for inch
- D. Alternate mitigation measures. (*Salem*)
1. Solar power off-set. One 25-year 3-kilowatt solar array shall be provided for each tree removed. The lot(s) where the solar array(s) will be located shall be specified in the conditions of the associated land division approval.
  2. Electric vehicle charging. One level 2 240-volt residential electric vehicle charging station shall be provided for each tree removed. The lot(s) where the charging stations will be located shall be specified in the conditions of the associated land division approval.
  3. Open space lot. One or more lots within the development shall be designated as an open space lot planted at a minimum density of two trees for each tree removed. The replanted trees shall be of either a shade or

evergreen variety with a minimum caliper of 1.5 inches. The lot(s) within the development that will be designated as an open space lot shall be specified in the conditions of the associated land division approval and shall be perpetually operated and maintained by a home owners' association.

#### 4. CODE ENFORCEMENT AND CIVIL PENALTIES

- A. Develop design phase and preconstruction coordination protocols to ensure the “Right tree is installed in the right place” (*UFMP*).
- B. Consider penalties for arborist companies that engage in tree topping such as preventing them from doing business in the city in addition to fines. Pruning permits.
- C. COG Tree company certification (training. “a plan prepared by a registered tree service provider” is Seattle code. [Section 25.11.095](#) establishes a public registration system for tree service providers.) The Director shall remove a registered tree service provider from the public registry for a period of one year after that registered tree service provider has been issued two notices of violation. Following the one-year removal period, the tree service provider may submit an application to be added to the public registry. If a responsible party fails to correct a violation or pay a penalty as required by a Notice of Violation, or fails to comply with a Director's order, the Director may refer the matter to the City Attorney's Office for civil or criminal enforcement action. Judicial enforcement of a violation of this subtitle shall be by de novo review in Municipal Court.
- D. Any person violating the provisions of this chapter shall incur a civil penalty in the amount of \$5,000.00 per individual tree cut, destroyed, killed, removed, or adversely pruned. Such civil action shall be brought in the name of the COG by the CAO. In addition to any civil penalty, any person who engages in the removal or adverse pruning of a tree without a permit or failure to comply with the noticing requirements set forth in GDCD is guilty of a misdemeanor, punishable by a fine not to exceed \$1,000.00 and/or six months in the County jail, and for restitution. Such criminal action shall be brought in the name of the COG by the office of the District Attorney. The City may seek to enjoin such unlawful activity and the cost of such injunction shall become a lien on the property where such unlawful activity took place. In addition to any other applicable penalties, any person unlawfully removing or pruning a tree without a permit may be required to replace the unlawfully removed tree with ten trees of a like kind and species where feasible, or of a kind and species to be determined by the Planning Department.
- E. Elevated fees and criminal prosecution for significant trees.
- F. A person who removes a tree subject to this section without first obtaining a valid tree removal permit may obtain a retroactive permit by demonstrating that the removal complied with the applicable criteria for obtaining a tree removal permit. No person may obtain more than one retroactive permit. In addition, the applicant may be subject to additional mitigation requirements as determined by the City. Upon request of the City Manager or at the direction of the City Council, the City Attorney may institute appropriate legal action to enjoin the removal of trees in violation of this section, or to otherwise enforce the provisions of this section. The City shall have authority to issue a stop-work order, withhold approval of a final plat and/or withhold issuance of a certificate of occupancy, permit or inspection until the provisions of this section have been fully complied with. A builder, developer or tree service holding a City business license who is convicted of violating any provision of this section shall constitute grounds for revocation of the license, at the discretion of the City Council. Any arborist, landscaper, contractor or tree service that has performed any tree removal in violation of this section or submitted a falsified report in connection with any tree removal or application for any tree removal covered by this section, shall not be considered a responsible bidder for any City contracts for a period of five years from the date of violation and/or penalty, whichever is later. The City Council may, at its discretion, waive this provision upon a showing of good cause. (*Happy Valley*).
- G. [PDX Enforcement. 11.70](#)

5. PRIORITIZE TREE PLANTING RATHER THAN TREE FUND.

- A. Consider revisions to the street tree planting dimensional standards/separation from elements w/l the planter.
- B. Miscellaneous Provisions.
  - 1. Root barriers must be installed according to the manufacturer's specifications when a tree is planted within 5 feet of pavement or an underground utility box unless otherwise approved by the Urban Forester.
  - 2. Where there are overhead high voltage utility lines, the tree species selected must be of a type that, at full maturity, will not require pruning to avoid interference with the lines.

6. REQUIRE CANOPY TREES AND TREE SPECIES DIVERSIFICATION AND PROMOTE TREE HEALTH.

- A. Current tree canopy cover is 28.1%. (*UFMP 2011*). Promote and incentivize the use of large-canopy trees in appropriate areas to provide maximum benefits (*UFMP*).
- B. Require a tree canopy plan with development permit demonstrating (future) canopy coverage will be met.
- C. Tigard tree canopy requirements range from 25% to 40% depending on the zone and development type. This means that the new requirements can be more easily met on development sites with existing trees. This requirement is reviewed through an Urban Forestry Plan, which requires submittal of a tree canopy site plan. Existing trees proposed to be preserved count as twice the canopy area (in square feet) compared to a newly planted tree. If a tree is removed after development is complete, a permit is required and replacement species must be the same stature or greater (at maturity) as the tree that was removed. Applicants can choose to either plant new trees, preserve existing trees, provide alternative development proposals that provide equivalent environmental benefits (hydrological, climate or wildlife), or pay a fee to meet the requirements. These types of green alternatives include green roofs, green streets, infiltration planters/rain gardens, and other features.

Tigard requires different canopy coverage depending on the development type: Subdivisions and land partitions: 40 percent for the overall development site in the low-density residential zones, and 15 percent for each lot designated for single detached house development and 33 percent for the overall development site in the high-density residential zones. Apartments: 33 percent for the overall development site. Nonresidential development: 33 percent for the overall development site, except nonresidential development in the mixed use zones and industrial zones are required 25 percent for the overall development site. Mobile home parks: 33 percent for the overall development site. Wireless communication facilities: zero percent for the overall development site. For single-family detached units, there is only a landscaping requirement. The City determines the tree canopy coverage by dividing the tree canopy area for the overall development site and each lot by the total area of the overall development site and each lot respectively to determine the effective tree canopy cover for the overall development site and each lot. Existing trees that are preserved receive double credit for their existing canopy and newly planted trees receive credit for their expected mature canopy. Native trees that are planted receive credit for 125 percent of the expected mature canopy to encourage native tree planting. Street trees receive 100 percent canopy cover credit even though most of their canopy is over the adjacent street right of way.

Tigard requires a minimum tree canopy cover of 30 percent for all parking areas, including parking spaces and drive aisles. Only the percentage of tree canopy directly above parking areas may count toward meeting this standard.

Minimum soil volume requirements for parking lot trees and street trees; Parking lot trees require 1,000 cubic feet of soil volume per tree and street trees require between 400 and 1,000 cubic feet of soil volume based on the width of the pedestrian right-of-way (*Tigard*).

- D. 40% canopy coverage is the standard site canopy coverage for residential developed lots. In addition to the preservation of onsite trees, at least 40 percent tree canopy is required for a development site from existing trees or new tree plantings unless mitigation is provided. (*Milwaukie*).
- E. Calculate tree canopy. (*Milwaukie*).

1. Seventy-five percent (75%) of the mature crown area of planted onsite trees.
2. Fifty percent (50%) of the mature crown area of planted street trees in the public right-of-way directly abutting the development site.
3. One hundred percent (100%) of the existing crown area or mature crown area of onsite trees that are preserved, whichever is greater. In cases where a portion of the crown area of onsite trees extends offsite, the entire crown area is eligible for credit towards the tree canopy requirements. In cases where a portion of the crown area of offsite trees extends onsite, the crown area is not eligible for credit towards the tree canopy requirements. Healthy trees with DBH of 12" or greater may receive additional canopy credits for existing or future mature crown area to be factored into preservation calculations as defined in the master fee schedule.
4. Fifty percent (50%) of the existing crown area of street trees that are preserved in the public right-of-way directly abutting the development site.
5. When the trunk of a tree crosses a property line at ground level it is considered an onsite tree except when the trunk crosses a public right-of-way line at ground level, it is considered a street tree for the purposes of these tree planting standards.

F. Soil Volume Standards. (*Milwaukie*).

1. Trees to be planted must be provided access to at least 1,000 cubic feet of soil volume according to the standards in this subsection to be eligible for tree canopy credit. A soil volume plan by an ISA certified arborist is required that demonstrates 1,000 cubic feet of soil volume is available per tree as determined by the Urban Forester or designee. Soil volume methods and specifications must be consistent with ISA best management practices using either the prescriptive path or performance path soil volume methods. The project arborist must verify with the Urban Forester in writing that the soil volume plan has been successfully implemented prior to tree planting. Trees may share the same soil volume area provided that all spacing requirements are met. (*See Milwaukie code for additional information inc. soil conditions criteria*).

G. Variance Procedure. (*Milwaukie*).

1. The applicant is required to demonstrate that equivalent or greater environmental benefits are provided as preserving or planting the required tree crown area. Examples of activities that may justify a variance include but are not limited to:
  - a. Use of techniques that minimize hydrological impacts beyond regulatory requirements (examples include porous pavement, green roofs, infiltration planters/rain gardens, flow through planters, LIDA (low impact development approach) swales, vegetated filter strips, vegetated swales, extended dry basins, and constructed water quality wetlands).
  - b. Use of techniques that minimize reliance on fossil fuels and production of greenhouse gases beyond regulatory requirements through the use of energy efficient building technologies, on-site energy production technologies, and green buildings standards.
  - c. Use of techniques that preserve and enhance wildlife habitat beyond regulatory requirements, including, but not limited to, the use of native plant species in landscape design, removal of invasive plant species, and restoration of native habitat and preservation of habitat through the use of conservation easements or other protective instruments.
  - d. Use of techniques that preserve open space for sustainable urban agriculture through the use of conservation easements or other protective instruments at sites that are not compatible with tree canopy preservation or planting.

H. *PDX* required tree area.

- One to Four Family Residential = 40% site development area
- Multi Dwelling Residential = 20% site development area
- Commercial/Office/Retail/Mixed Use = 15% site development area
- Industrial = 10% site development area
- Institutional = 25% site development area

- Other = 25% site development area

*PDX* # required trees and planting area

- Large Canopy = 1 tree/1,000 sf. @ 150 s.f. (10' x 10')
- Medium Canopy = 1 tree/500 sf. @ 75 s.f. (5' x 5')
- Small Canopy = 1 tree/300 sf @ 50 s.f. (3' x 3')

*PDX*. The canopy size category is calculated according to the following formulas, which incorporate the estimated height and crown spread of a mature specimen and the tree species' growth rate:

1. Small trees have a canopy factor of less than 40, Medium trees have a canopy factor from 40 to 90, and Large trees have a canopy factor greater than 90;
2. Canopy factor = (Mature height of tree) x (Mature canopy spread) x (Growth rate factor) x 0.01;
3. The growth rate factor is 3 for fast-growing trees, 2 for medium-growing trees, and 1 for slow-growing trees.

*PDX* Street Trees. One Street Tree shall be planted or retained for each full increment of 25 linear feet per side of street frontage. When the required number of trees cannot be planted, a fee in lieu of planting may be required.

**I. Establish a City of Gresham rare and threatened tree list and require preservation.**

- J. Diversity. Tree Plans shall demonstrate diversity in species...no more than 30 percent from any family; no more than 20 percent from any genus; and no more than 10 percent of any species. (*UFMP*).
- K. Species diversity. If there are fewer than 8 required trees, they may all be the same species. If there are between 8 and 24 required trees, no more than 40 percent can be of one species. If there are more than 24 required trees, no more than 24 percent can be of one species. This standard applies only to the trees being planted, not to existing trees. (*PDX*).
- L. Maintenance of required trees including meeting the maintenance specifications in this Chapter is the ongoing responsibility of the property owner. Trees that die shall be replaced in kind. The cost of the tree and maintenance is the responsibility of the property owner. (*PDX*).
- M. Require description of site soil and hydrology characteristics, and implications for development, tree tolerance and survival.**
- N. Consistency. In order to foster distinct and harmonious neighborhoods and encourage smooth transition between different sections of the City, consistency in street tree species shall be encouraged. However, this does not equate to the implementation of a street tree plan that is homogenous in species type for local residential streets. Staff shall review and approve street tree choice based on, but not limited to, the following criteria:**
1. Type and spacing of street trees in adjacent developments/neighborhoods;
  2. Maintenance of the same species type for the entire length of all collector level streets, including center median groundcover and trees. All new street trees placed on collector level streets must be the identical specie of those street trees already existing on that same street;
  3. Assist in the establishment of distinct neighborhoods with the use of street tree type.

**7. PROMOTE NATIVE TREES.**

- A. Promote the use of native tree species on public and private lands to enhance wildlife habitat in the city (*UFMP*).
- B. Locating native species trees on the retail market at the size required by city regulations is challenging to residential and commercial owners. To encourage the planting of native trees, the Manager may provide an exemption to the size requirements for the purchase and planting of native tree species when they can be supported in that particular growing environment. The owner would commit to verifying four years after planting through pictures to the designated city department the size of the native species trees that were planted to affirm that they are or will be soon attaining the stature similar to other commercially available non-native trees

on the approved list. If the native trees are not thriving as expected, the Manager would decide on replacement or mitigation options.

8. REQUIRE URBAN FORESTER REVIEW OF DEVELOPMENT PERMITS.

- A. Throughout the code, replace “as approved by the Manager” with “as approved by the Urban Forester” related to tree decisions.
- B. Provide technical arborist expertise to assist in development review, respond to citizen inquiries and assess individual tree-health issues (*UFMP*).