



Tree Plan I - Single Family, Duplex and Two/Three-Unit Homes

Trees and other vegetation are important elements of the physical environment which protect public health, safety and general welfare in a variety of ways. These regulations establish a process and standards to provide for the protection, preservation, replacement, proper maintenance and use of significant trees, associated vegetation and woodlands located in the City of Kirkland. **For new or major remodel of Single Family and Duplex, the regulations require retention of viable trees within the required setbacks. These sites are also required to meet a minimum density of tree coverage on the subject property following construction of the project. These requirements are discussed in Section 95.35.2.B.1 of the Kirkland Zoning Code (KZC) and are summarized below.**

Helpful definitions to complete the tree plans described below:

1. **Significant Tree:** A tree that is at least 6 inches in diameter at breast height (DBH) (The diameter or thickness of a tree trunk measured at 4.5 feet from the ground).
2. **Dripline:** The distance from the tree trunk that is equal to the furthest extent of the tree's crown.
3. **Impact:** A condition or activity that affects a part of a tree including the trunk, branches, and critical root zone.
4. **Qualified Professional:** An individual that must possess and demonstrate the ability to perform tree risk assessments and prescribe appropriate measures necessary for the preservation of trees during development; must at a minimum be certified by the International Society of Arboriculture (ISA).
5. **Critical Root Zone:** The area surrounding a tree at a distance from the trunk which is equal to one foot for every inch of diameter at breast height or otherwise determined by a qualified professional.

Permit Submittal Requirements - Single Family, Duplex and Two/Three-Unit Home Permits

The following information is required for all permits in order for the application to be deemed complete. Incomplete applications will not be accepted.

- I. **Tree Plan I - Major:** Shall be submitted with single family permit application, including:
 - Demolitions
 - New or redeveloping Single Family homes, duplexes and two/three-unit homes approved under KZC Chapter 113
 - Major remodels (adding over 50% of existing square footage) on a single lot
- A. The following general information must be incorporated on the site plan:
 1. Accurate location of all public trees (i.e. street trees) and private significant trees, their driplines measured relative to visible site features, and their critical root zone. Please number all trees (tag in field and label on plan) for reference purposes. *If the trees are not accurately located on a site plan, the Planning Official may require that their locations be surveyed.*
 2. Size (DBH) and species (or at least type) of the significant trees
 3. General health of these trees
 4. Approximate trunk location and dripline of significant trees that are on adjacent property with driplines extending over the subject property line
 5. If a report is not required, show the location of the tree fencing at each retained tree's critical root zone, fencing detail and tree protection notes (detail and notes available at <http://www.ci.kirkland.wa.us/depart/planning/trees.htm>)
 6. Tree density calculations of retained trees compared to the minimum tree density for the site. The required minimum tree density is 30 tree credits per acre. Use the following formula to determine the required tree density:
(Lot size in square feet/43,560) X 30 = Required minimum tree density

For example, the minimum tree density for a 7,200 square foot lot is five (5) tree credits and for 8,500 square feet, it is six (6) tree credits.

Use the following chart to calculate the tree density for existing trees that are going to be retained.

Tree Density for Existing Significant Trees (Credits per minimum diameter - DBH)					
DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
3-5"	0.5				
6-10"	1	24"	8	38"	15
12"	2	26"	9	40"	16
14"	3	28"	10	42"	17
16"	4	30"	11	44"	18
18"	5	32"	12	46"	19
20"	6	34"	13	48"	20
22"	7	36"	14	50"	21

NOTE: Tree density calculations do not apply to public trees.

6. If the calculated tree density is below the minimum, indicate the type, size and location of the supplemental trees needed to meet the density requirement. Supplemental trees must be at least 6 feet tall if they are conifers or 2-inch caliper if they are deciduous or broad-leaf evergreens. They are worth one tree credit each. Larger supplemental trees may be awarded additional credits.

B. If there are significant trees in the required yards (setbacks) or within ten (10) feet of any side property line, the tree plan must include a report from a qualified professional containing the following information:

1. Size and species of these trees
2. A complete description of each tree's health and viability. If a tree is not viable for retention, the reason(s) must be soundly based on health, high risk of failure due to structure, defects, unavoidable isolation (windfirmness), or suitability of species and for which no reasonable alternative action is possible (pruning, cabling, etc.). The impact of necessary tree removal to remaining trees, including those in a grove or on adjacent properties, must also be discussed.
3. The location of limits of disturbance around all trees potentially impacted by site disturbances and any special instructions for work within that protection area (hand-digging, tunneling, root pruning, maximum grade change).
4. A discussion of timing and installation of tree protection measures that must include fencing and be in accordance with the Tree Protection Standards as outlined in KZC 95.35.6.
5. The suggested location and species of supplemental trees needed to meet the required minimum tree density. The report shall include planting and maintenance specifications pursuant to KZC 95.45 and KZC 95.50.

II. Tree Plan I - Minor: Shall be submitted for all other types of single family, duplex or two/three-unit home (KZC Chapter 113) development activity not listed in Section I above.

- A. The following general information must be incorporated on the site plan:
1. Accurate location of all significant trees, their size (DBH), and their driplines measured relative to visible site features (survey not required). Please number all trees (tag in field and label on plan) for reference purposes.
 2. For any significant trees are potentially impacted in their critical root zone by proposed development activity provide species (or at least type) and general health of these trees
 3. Approximate trunk location and dripline of significant trees that are on adjacent property where driplines extends over the subject property line
 4. Location of tree fencing at each retained tree's critical root zone, fencing detail, and tree protection notes (detail and notes available at <http://www.ci.kirkland.wa.us/depart/planning/trees.htm>)
- B. At least two (2) trees must be on the property at the end of the development activity, which may require planting of trees. Planted trees must be at least 6 feet tall if they are conifers or 2-inch caliper if they are deciduous or broad-leaf evergreens. Provide a planting plan and installation schedule.

Note: This is an overview of tree requirements, for more details and information visit our website at <http://www.ci.kirkland.wa.us/depart/planning/trees.htm> or request a copy of Ordinance 4010.