



# **CITY OF WOODINVILLE**

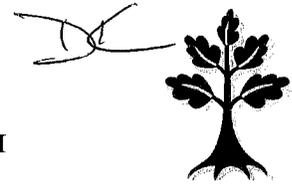
## **TREE BOARD PACKET**

**May 27, 2015**

***CITY HALL COUNCIL CHAMBERS  
17301 133<sup>RD</sup> AVENUE NE  
WOODINVILLE, WASHINGTON 98072***



**CITY OF WOODINVILLE  
TREE BOARD AGENDA  
REGULAR MEETING WEDNESDAY, MAY 27, 2015 5:30 PM**



♦ Thomas L Quigley ♦ Michael Munniks ♦ Ron Smith ♦ Steve Yabroff ♦ Stephanie Young

---

5:30 **CALL TO ORDER**

5:31 **ROLL CALL**

5:32 **APPROVE AGENDA IN CONTENT & ORDER**

5:33 **PUBLIC COMMENTS**

**BUSINESS AND DISCUSSION ITEMS**

5:38 **1. Approval of Draft Minutes – March 25 and April 22, 2015**

5:40 **2. Study Session – Review of Tree Code**

6:00 **3. Study Session – Review Landscaping Requirements**

6:25 **PUBLIC COMMENTS**

6:30 **ADJOURNMENT**

(Note: The agenda may be rearranged or changed at the beginning of the meeting, with a consensus of Tree Board members present.)

**Issue Date: May 27, 2015**

**Staff Contact: Jenny Ngo, Sr. Planner**

**Faxed to: News Media**  
**E-mailed to: Tree Board**  
**Publish: Not published**  
**Post: 1) In-House, 2) Post Office, 3) Outdoor Display & 4) Website**

**CITY OF WOODINVILLE, CITY COUNCIL CHAMBERS  
17301 133RD AVE. NE, WOODINVILLE, WA 98072**

**NEXT REGULAR MEETING JUNE 24, 2015, 5:30 PM**

# **AGENDA ITEM 1**



City of Woodinville, Washington

**TREE BOARD REGULAR MEETING MINUTES OF March 25, 2014**

Woodinville City Hall City Council Chambers, 17301 133rd Avenue NE, Woodinville, WA

<b><u>CALL TO ORDER</u></b>	The regular meeting for the Woodinville Tree Board was called to order at 5:32 p.m. by Board Member Yabroff.
<b><u>ROLL CALL</u></b>	<p><u>Tree Board Present:</u> Steve Yabroff, Stephanie Young, Tom Quigley, and Ron Smith</p> <p><u>Absent:</u> Michael Munniks</p> <p><u>City Staff Present:</u> Jenny Ngo, Senior Planner</p> <p><b>MAIN MOTION:</b> to excuse Board Member Munniks There was a motion to excuse Board Member Munniks from the meeting.</p> <p><b>Motion by:</b> Board Member Young  <b>Second by:</b> Board Member Smith  <b>Action for the Main Motion:</b> PASSED 4 - 0</p> <p><b>Vote:</b> Ayes: 4.  Nays: 0.  Abstain: 0.</p>
<b><u>APPROVAL OF AGENDA ORDER AND CONTENT</u></b>	Motion to approve agenda as presented.
<b><u>PUBLIC COMMENTS</u></b>	None.
<b><u>BUSINESS AND DISCUSSION ITEMS</u></b>	<p><i>Approval of February 25, 2015 Regular Tree Board Minutes as presented</i></p> <p>1. <u>Approval of February 25, 2015 Tree Board Meeting Minutes</u> as presented.</p> <p><b>MAIN MOTION:</b> to approve the regular meeting minutes of February 25 2015, as presented.</p> <p><b>Motion by:</b> Board Member Yabroff  <b>Second by:</b> Board Member Smith  <b>Action for the Main Motion:</b> PASSED 4 - 0</p> <p><b>Vote:</b> Ayes: 4.  Nays: 0.  Abstain: 0.</p>

<p><i>Discussion and Review of Draft Tree Code</i></p>	<p><u>2. Discussion &amp; Review of Draft Tree Code</u>  The Tree Board continued discussion of the draft of the tree code. The Tree Board reviewed the draft code by section and identified areas for language revisions.</p> <p>Recommendations were made to clarify language between diameter-at-breast-height and caliper, critical root zone and dripline for tree protection, and soil fertility and fertilizer. Additional revisions were suggested for the time at which measurements are taken, maintenance language regarding duration and replacement, and additional definitions for critical root zone.</p>
<p><i>Discussion of Draft Landscaping Code</i></p>	<p><u>3. Discussion &amp; Review of Landscape Code</u>  The Tree Board was presented a table showing zoning designations within the City and information on typical lot sizes, impervious surface, setback requirements, and landscaping character. The Tree Board discussed the presented table and recommended further review of the landscape code.</p>
<p><i>Discussion of Proposed 2015 Arbor Day Events</i></p>	<p><u>3. Discussion of Proposed 2015 Arbor Day Events</u>  Tree Board Members discussed different event opportunities for the 2015 Arbor Day event.</p> <p>Tree Board Members set the date to April 26, 2015 from 1:00 to 4:00 PM at Wilmot Gateway Park. The Arbor Day Event will be named Woodinville Tree Games.</p> <p>Members reviewed activities for the Arbor Day Celebration including workshop demonstrations, flower pot decoration, scavenger hunt and food vendors. Chair Quigley stated that he would contact Molbak's and 21 Acres to see if they were interested and available to attend. The Tree Board recommended that an advertisement be placed in the Woodinville Weekly.</p> <p><b>MAIN MOTION: To extend the meeting 15 minutes to finish discussion of 2015 Arbor Day events.</b></p> <p><b>Motion by: Board Member Yabroff</b></p> <p><b>Second by: Board Member Young</b></p> <p><b>Action for the Main Motion: PASSED 4 - 0</b></p> <p><b>Vote: Ayes: 4.</b>  <b>Nays: 0.</b>  <b>Abstain: 0.</b></p>
<p><b><u>PUBLIC COMMENTS</u></b></p>	<p>None.</p>
<p><b><u>ADJOURNMENT</u></b></p>	<p>Chair Quigley called the meeting adjourned.  The meeting was adjourned at 6:42 p.m.</p>

**Respectfully submitted,**

**Sandy Guinn  
Sr. Administrative Assistant**



City of Woodinville, Washington

**TREE BOARD REGULAR MEETING MINUTES OF April 22, 2014**

Woodinville City Hall City Council Chambers, 17301 133rd Avenue NE, Woodinville, WA

<p><b><u>CALL TO ORDER</u></b></p>	<p>The regular meeting for the Woodinville Tree Board was called to order at 5:37 p.m. by Board Member Yabroff.</p>
<p><b><u>ROLL CALL</u></b></p>	<p><u>Tree Board Present:</u> Steve Yabroff, Stephanie Young, and Tom Quigley</p> <p><u>Absent:</u> Michael Munniks, Ron Smith</p> <p><u>City Staff Present:</u> Jenny Ngo, Senior Planner</p> <p><b>MAIN MOTION: to excuse Board Member</b> There was a motion to excuse Board Members Munniks and Smith the meeting.</p> <p><b>Motion by:</b> Board Member Young  <b>Second by:</b> Board Member Smith  <b>Action for the Main Motion: PASSED 3 - 0</b></p> <p><b>Vote: Ayes: 3.</b>  <b>Nays: 0.</b>  <b>Abstain: 0.</b></p>
<p><b><u>APPROVAL OF AGENDA ORDER AND CONTENT</u></b></p>	<p>Motion to change agenda, placing Item 3 placing proposed 2015 Arbor Day Events as the first agenda item. Agenda order approved as revised.</p>
<p><b><u>PUBLIC COMMENTS</u></b></p>	<p>None.</p>
<p><b><u>BUSINESS AND DISCUSSION ITEMS</u></b></p> <p><i>Discussion of Proposed 2015 Arbor Day Events</i></p>	<p><u>1. Discussion of Proposed 2015 Arbor Day Event</u></p> <p>Tree Board Members set the date to April 26, 2015 from 1:00 to 4:00 PM at Wilmot Gateway Park. The Arbor Day Event will be named Woodinville Tree Games.</p> <p>Tree Board Members reviewed activities for the Arbor Day Celebration and coordinated timing, schedule and set-up. Members discussed anticipated turnout, materials purchased, and made suggestions for additional activities such as a drawing station, sidewalk chalk areas, and a raffle for plant prizes. Members Young and Yabroff stated that they would attend the event.</p>

<p><i>Discussion and Review of Draft Tree Code</i></p>	<p><u>2. Discussion &amp; Review of Draft Tree Code</u>  The Tree Board continued discussion of the draft of the tree code. The Tree Board reviewed the draft code by section and identified areas for language revisions.</p> <p>Recommendations were made to clarify language in WMC 21.15.030 to remove “nonsignificant”, updating “NGPE” in WMC 21.15.110(2), and ensuring that definitions for terms were included in Chapter 21.06 WMC.</p>
<p><i>Discussion of Draft Landscaping Code</i></p>	<p><u>3. Discussion &amp; Review of Landscape Code</u>  The Tree Board was presented a table showing zoning designations within the City and information on typical lot sizes, impervious surface, and setback requirements, landscaping character. The Tree Board discussed the presented table and recommended further review of the landscape code.</p>
<p><b><u>PUBLIC COMMENTS</u></b></p>	<p>None.</p>
<p><b><u>ADJOURNMENT</u></b></p>	<p>Chair Quigley called the meeting adjourned.  The meeting was adjourned at 6:28 p.m.</p>

**Sandy Guinn**  
**Sr. Administrative Assistant**

# **AGENDA ITEM 2**



CITY OF WOODINVILLE, WA  
**REPORT TO THE TREE BOARD**  
17301 133<sup>rd</sup> Avenue NE, Woodinville, WA 98072  
WWW.CI.WOODINVILLE.WA.US

---

**To:** Tree Board **Date:** May 27, 2015  
**From:** Dave Kuhl, Development Services Director   
**By:** Jenny Ngo, AICP, Senior Planner   
**Subject:** Review of Tree Code

---

**ISSUE:** Shall the Tree Board discuss proposed revisions to the Tree Code?

**STAFF RECOMMENDATION:** To review and provide feedback on the proposed changes.

**POLICY DECISION:** The Tree Board provides an advisory role to the City Council on matters of trees and urban forestry.

**BACKGROUND:**

During meetings held between November and March, Board Members discussed the preliminary draft of the tree code, planting requirements, and tree canopy goals. During the meetings, Tree Board Members emphasized creating code language that would match the City's adopted canopy goals, loosen restrictions for minor tree removal, and create standards to protect trees in large developments or subdivisions.

**DISCUSSION:**

This discussion is a continuation of the Tree Board's review of the code held on March 25, 2015 and April 22, 2015. Staff has amended the preliminary tree code based on the Tree Board's discussions and recommendations (Attachments 1 and 2).

Staff believes that the draft of the tree code may be ready to take forward to a Planning Commission study session. The Tree Board should provide staff with direction on next steps.

**RECOMMENDED ACTION:**  
**DISCUSS AND MAKE RECOMMENDATIONS**

Attachment 1: May 2015 Draft Tree Code without mark-ups

Attachment 2: Woodinville Plant Species List

## **Chapter 21.15 DEVELOPMENT STANDARDS – TREE PROTECTION**

### Sections:

- 21.15.010 Purpose and intent.
- 21.15.020 Applicability.
- 21.15.030 Exemptions.
- 21.15.040 City tree fund established.
- 21.15.050 Tree permits.
- 21.15.060 Minimum tree density.
- 21.15.070 Tree removal on sites with no construction.
- 21.15.080 Tree removal for subdivisions or short subdivisions.
- 21.15.090 Tree removal in critical areas.
- 21.15.100 Supplemental tree planting requirements.
- 21.15.110 Alternative compliance.
- 21.15.120 Tree protection during construction.
- 21.15.130 Tree maintenance.
- 21.15.140 Enforcement and penalties.

### **21.15.010 Purpose and intent.**

- (1) Introduction. Trees are integral to Woodinville's community character and protect public health, safety, and general welfare. Protecting, enhancing, and maintaining healthy trees, groves of trees and vegetation are key community values. The City's goal is to achieve an overall tree canopy coverage of 40 percent. Healthy trees and vegetation contribute to Woodinville's quality of life through reducing soil erosion and land instability; improving air quality, providing protection from severe weather conditions; providing habitat and food supply for fish and wildlife; enhancing property values and contributing to Woodinville's natural beauty, aesthetic character, and livability.
- (2) Purpose. The purpose of this chapter is to establish processes and standards to provide for the retention, protection, preservation, replacement, proper maintenance, and use of significant trees and woodlands located in the City of Woodinville. The intent of this chapter is to:
  - (a) Maintain and enhance canopy coverage provided by native trees for their benefits;
  - (b) Preserve and enhance the City of Woodinville's environmental, economic, and community character with mature landscapes;
  - (c) Promote site development practices that work to avoid removal, destruction, or disturbance to significant trees, groves of trees, and the City's natural vegetation;
  - (d) Mitigate the consequences of required tree removal in land development through on- and off-site native or naturalized tree replacement to achieve an overall healthy tree canopy cover of 40 percent citywide over time;
  - (e) Encourage tree retention efforts by allowing flexibility with respect to certain other development requirements;
  - (f) Implement the goals and objectives of the City's Comprehensive Plan;
  - (g) Implement the goals and objectives of the State Environmental Policy Act (SEPA).

### **21.15.020 Applicability.**

- (1) Permit required. No person shall conduct tree removal, trimming, or vegetation clearing within the city limits except as provided in accordance to this chapter.

- (2) Removal of trees not exempted in WMC 21.15.030 shall require a tree removal permit. Tree permits shall be processed as a Type I project permit pursuant to Chapters 17.07 through 17.09 WMC. Appeals shall be processed consistent with Chapter 17.17 WMC.

#### **21.15.030 Exemptions.**

Exemptions from Permit. The following activities are exempt from the provisions of this chapter:

- (1) Any tree on private, developed property that poses an imminent threat to life or property, due to a storm event such as a wind storm or ice storm, may be removed without first obtaining a permit. The party removing the tree will contact the City within seven days of removal to provide documentation of threat for approval of exemption.
- (2) Trees may be removed by the City or utility provider in situations involving immediate danger to life or property, or interruption of services provided by a utility.
- (3) A nursery or tree farm owner may remove trees that are grown for commercial Christmas or landscape tree sales.
- (4) Removal of trees with a diameter-at-breast-height of less than two inches.
- (5) Removal of trees with a diameter-at-breast-height of less than six inches (nonsignificant) within a 12-month period and which have up to a combined diameter-at-breast height of 40 inches.
- (6) Trees within the public right-of-way, and trees removed as part of a City construction project, shall be subject to the requirements of Chapter 2.24 WMC.

#### **21.15.040 City tree fund established.**

- (1) Fund Established. A City Tree Fund is established for the collection of any funds used for the purpose and intent set forth by this chapter.
- (2) Funding Sources. The following funding sources may be allocated to the City Tree Fund: payments received in lieu of supplemental plantings; civil penalties collected pursuant to this chapter; agreed-upon restoration payments or settlements in lieu of penalties; sale of trees or wood from City property; donations and grants for tree purposes; sale of seedlings by the City; and other monies allocated by City Council.
- (3) Funding Purposes. The Tree Board shall provide recommendations with each budget to the City Council for approval how the fund will be allocated. The City shall use money received pursuant to this section for the following purposes:
  - (a) Acquiring, maintaining, and preserving wooded areas within the City;
  - (b) Planting and maintaining trees within the City;
  - (c) Identification and maintenance of heritage trees;
  - (d) Establishment of a holding public tree nursery;
  - (e) Urban forestry education; or
  - (f) Other purposes relating to tree and woodland protection and enhancement as determined by the City Council.

#### **21.15.050 Tree permits.**

- (1) When Required. Unless otherwise exempted in WMC 21.15.030, an applicant proposing to remove trees shall obtain a tree permit.
- (2) Submittal Materials. The following materials are required to obtain a tree permit. The City Tree Official shall have the authority to waive certain application materials if the item is not necessary to evaluate a specific proposal for consistency with this chapter.
  - (a) Tree permit application, completed and signed by the property owner.
  - (b) Site plan prepared by an engineer, surveyor, arborist, or other qualified professional, showing the following:

- (i) Location of all existing and proposed structures; construction limits, easements, utility lines, and construction protection barriers consistent with WMC 21.16.120;
  - (ii) Location of all trees above 3 inches at diameter-at-breast height (DBH) within 50 feet of the construction limits, including size and species;
  - (iii) Identification of all trees to be removed and/or relocated;
  - (iv) Existing and proposed topography at 5-foot intervals; and
  - (v) Location of all critical areas and buffers.
- (c) Replanting plan, showing the following:
- (i) Location of proposed structures and retained trees;
  - (ii) Location of proposed replacement trees and/or vegetation, including species, size, and spacing;
  - (iii) Location and design of other landscape restoration measures;
  - (iv) A planting schedule that indicates species, quantity, size, spacing, and tree density calculations for replanted trees; and
  - (v) Irrigation system, including location and specifications;
- (d) Arborist report or professional recommendation, evaluating the following:
- (i) Inventory of all impacted trees, including size, species, dripline, and critical root zone. The inventory must include all trees proposed for removal and any trees within 30 feet of the construction limits. Written evaluation of anticipated impacts to tree health and viability resulting from construction, including any impacts to critical root zones;
  - (ii) Information on compliance with coverage requirements, including a calculation of tree canopy or replanting schedule;
  - (iii) Suggested location and species of supplemental trees, maintenance, and planting specifications consistent with WMC 21.15.090;
  - (iv) Recommendations on tree protection measures consistent with WMC 21.16.120 and correspond to the site plan in subsection (b);
  - (v) Special instructions for working within the protection area, including but not limited to, hand-digging, tunneling, root pruning, minimizing grade changes;
  - (vi) Information on any required on-site supervision during construction;
  - (vii) Information on maintenance including duration, benchmarks for success, cost estimates, and financial guarantees/bonding; and
  - (viii) If applicable, assessment and designation of a hazard or nuisance tree.

**21.15.060 Minimum tree density.**

- (1) **Minimum Tree Density Required.** Any tree removal subject to a tree permit shall be required to meet minimum tree density of 60 tree credits per acre for residential zones R-1 through R-8. All other zones are required to meet the landscape standards pursuant to Chapter 21.16 WMC.
- (2) **Area Calculation.** For the purposes of calculating required minimum tree density, City right-of-way, and areas to be dedicated as City right-of-way, shall be excluded from the lot area used for calculation of tree density.
- (3) **Tree Density Credit Calculation.** The minimum tree density credits are calculated through a tree credit calculation using Table 1. The tree credit calculation is the sum of all retained existing trees and any supplemental tree plantings. If a site falls below the minimum tree density with existing trees, supplemental planting shall be required pursuant to WMC 21.15.090. The tree credit value that corresponds with diameter-at-breast-height shall be found in the table below:

**WMC 21.15.060(3) Table 1 – Tree Credit Calculation**

Tree Diameter Inches		Total Credit
Minimum	Maximum	
1.0	3.0	0.5
3.1	6.0	1.0
6.1	12.0	2.0
12.1	24.0	5.0
24.1	36.0	8.0
36.1	50.0	14.0
50.1 and above		18.0

- (a) Tree diameter inches shall be determined in diameter-at-breast-height, which is the diameter of the tree as measured 4.5 feet off the ground for existing trees and six inches off the ground for new plantings. The measured tree diameter shall be its size at the time of permit submittal.
- (b) For multi-trunk trees splitting at the ground level, the tree diameter inches shall be determined by taking the square root of the sum of all squared stem caliper.
- (c) Existing trees transplanted to an area on the same site may count toward the required density if approved by the City Tree Official based on transplant specifications provided by a qualified tree professional that will ensure a good probability for survival.
- (d) Trees shall be planted in accordance with WMC 21.15.100. On sites where additional plantings are not feasible due to spacing or other site constraints, an applicant may satisfy the minimum tree density requirement through payment into the City Tree Fund pursuant to WMC 21.15.100(4)(f).

**21.15.070 Tree removal on sites with no construction.**

- (1) Sites with no construction. This section shall apply only to lots located within single-family residential zones (R-1 through R-8) where no exterior construction or demolition, grading, material storage, or other development activity is proposed, and no development permit application is pending or approved for the subject property.
- (2) Performance requirements. Tree removal on single-family residential lots not undergoing construction shall meet the following:
  - (a) Up to two trees may be removed per year with no replacement planting, provided tree removal is located outside of all critical areas and its buffer, NGPA or shared ownership tracts.
  - (b) Removal of additional trees for the purposes of tree thinning or removal of dead, nuisance or hazard trees shall require compliance with the minimum tree density or replacement at a rate of three trees per each removed tree.

**21.15.080 Tree removal for subdivisions or short subdivisions.**

- (1) Subdivisions and short subdivisions. This section applies to tree removal associated with applications for subdivision or short subdivision.
- (2) Performance requirements. Tree removal on lots undergoing subdivision or short subdivision shall meet the following:
  - (a) The overall site must achieve the minimum tree density pursuant to WMC 21.15.060.

- (b) The site shall retain at least 10 percent of the tree diameter inches of all existing healthy and viable significant trees within the property boundaries prior to subdivision or construction work.
  - (i) This requirement may be reduced for preservation of groves with five or more trees consistent with WMC 21.15.110.
  - (ii) In certain circumstances where tree removal results in less than 10 percent of tree diameter inches retained due to site conditions, infrastructure conflicts, or other conditions beyond the applicant's control, the City Tree Official may grant an exception. The applicant shall pay for the remaining tree diameter inches consistent with WMC 21.15.100(f) in addition to any other payment required by this chapter.
- (c) The applicant shall submit a preservation and maintenance agreement for trees located in common areas, including streets, drainage features, parks, or other jointly maintained spaces. The document shall be approved and recorded prior to occupancy, recording, or final inspection.
- (d) When forest or critical areas are preserved in a separate Native Growth Protection Area tract pursuant to WMC 21.24.150, any remaining tree credits within the NGPA above the required minimum tree density may be applied towards the entire subdivision. The remaining tree credits will be equally divided among the total number of lots. Where the tree credits in the NGPA have not been determined, the minimum tree density shall apply to each lot within the subdivision.
- (e) A final arborist report shall be submitted at the end of the project verifying the total trees removed, retained, and planted, prior to release of the performance bond.

#### **21.15.090 Tree removal in critical areas.**

- (1) Tree Removal in Critical Areas. Within critical areas or critical area buffers, only hazard, nuisance, or dead trees may be removed or trimmed. If more than two trees are removed, the City Tree Official may require submittal of a critical areas alteration pursuant to Chapter 21.24 WMC.
  - (a) Tree removal proposed within a NGPA or an area under common ownership shall meet tree density requirements pursuant to WMC 21.15.060. The applicant shall obtain signatures from a majority of owners who hold interest in the land or, if applicable, approval from the homeowner's association.
  - (b) The priority action for a tree proposed for removal is to create a "snag" or wildlife tree. If creating a snag or wildlife tree is not feasible, the felled tree shall be left in place.
  - (c) Supplemental trees shall be planted consistent with WMC 21.15.060 and WMC 21.15.100. The requirements may be modified if a qualified tree professional may determine to the satisfaction of the City Tree Official that equal or better habitat function and values can be achieved with following:
    - (i) Native understory plantings are installed;
    - (ii) Invasive species removal is conducted;
    - (iii) A coverage analysis is submitted stating that the replanted trees will have equal or better coverage than the trees removed within five years; and
    - (iv) A replanting plan is submitted.

#### **21.15.100 Supplemental tree planting requirements.**

- (1) Supplemental trees. Sites and activities requiring supplemental trees shall be planted to achieve the required minimum tree density. Tree density credits for supplemental trees shall be calculated pursuant to WMC 21.15.060.

- (2) Tree species. The tree species chosen for the supplemental plantings shall either be trees of the same mix of species as the removed trees or mix of species listed in the Woodinville Plant Species List. Trees should be selected and sited to produce a hardy and drought-resistant landscape area.
- (3) Tree size and spacing. The required minimum size for any supplemental tree is two-inch caliper or greater. Trees shall be spaced appropriately based on the Woodinville Tree Species List.
- (4) Tree location. In designing a development and in meeting the required minimum tree density, the trees shall be planted in the following order of priority:
  - (a) In preserved groves, critical areas or its buffers;
  - (b) Adjacent to stormwater facilities, within entrance landscaping, traffic islands, and other common areas in residential subdivisions that have enough area to support mature trees of the planted species;
  - (c) Site perimeter and/or required landscaped setbacks;
  - (d) Individual building lots;
  - (e) Off-site, when room is not available on-site to ensure long-term health and viability for the trees. Trees shall be planted at another location within the same City-designated neighborhood and as approved by the City Tree Official; and
  - (f) If trees cannot be planted in accordance with (a) through (e), the applicant may satisfy the requirements by paying into the City Tree Fund 200 dollars per tree credit.
- (5) Installation. All required trees shall be installed according to sound horticultural practices in a manner designed to encourage quick establishment and healthy plant growth.
  - (a) Timing. All trees shall be installed prior to the issuance of a certificate of occupancy or plat recording. The time limit for compliance may be extended to allow installation during the next planting season or deferred due to diseased soil or pest infestation. A determination shall be made at the discretion of the City Tree Official. Deferred installation shall be secured with a performance bond pursuant to Chapters 15.42 or 20.06 WMC.
  - (b) Placement. All supplemental trees shall be installed in the ground and not in aboveground containers.
  - (c) Grading. Berms shall not exceed a slope of two horizontal feet to one vertical foot (2:1).
  - (d) Soil Specification. Soils in planting areas shall have adequate porosity to allow root growth and adequate drainage. Compacted soils shall be loosened to a minimum depth of 24 inches or to the depth of the largest plant root ball, whichever is greater. Imported topsoils shall be tilled into existing soils to prevent a distinct soil interface from forming.
  - (e) Soil Fertility. The organic content of soils in any planting area shall be as necessary to provide adequate nutrient and moisture-retention levels for the establishment of plantings. Additional fertilization shall be the minimum necessary.
  - (f) Irrigation. Irrigation system shall be designed to ensure plant establishment. Irrigation shall be designed to conserve water by using best management techniques available, including, but not be limited to: drip irrigation; moisture sensors; automatic controllers; spacing designed to minimize overspray; and separate zones for different planting areas.
    - (i) Within right-of-ways and common areas, permanent irrigation with an automatic controller shall be installed for tree plantings. Temporary irrigation, providing sufficient water to ensure plant survival and establishment, may be approved at the discretion of the City Tree Official.
    - (ii) For individual residential lots, the applicant may choose permanent irrigation, temporary irrigation, or irrigation by hand.

- (iii) Modifications to the irrigation requirement may be approved by the City Tree Official for less water-intensive strategies such as planting native vegetation that does not require supplemental irrigation, low impact development, established native plant material, or where natural appearance is acceptable or desirable to the City.
- (g) Mulch. Required plantings shall be covered with two inches or more of organic mulch to minimize evaporation and runoff. Mulch shall consist of materials such as yard waste, sawdust, bark or wood chips, and/or organic compost. All mulches shall be kept at least six inches away from the trunks of shrubs and trees.
- (h) Protection. All required trees must be protected from potential damage by adjacent uses and development, including parking and storage areas. Protective devices such as bollards, wheel stops, trunk guards, and root guards, shall be required as needed to protect required trees.

**WMC 21.15.110 Alternative compliance.**

- (1) Additional Density Credits. The applicant may earn additional tree density credits through alternate measures or procedures that will be equal to or better than the provisions in this chapter. If the City Tree Official determines that the proposal meets the purpose and intent of the code through alternative compliance, the Official may modify the tree density requirements.
- (2) Criteria. The City Tree Official shall review each alternative compliance request based on the following criteria:
  - (a) The alternative is designed to ensure the long-term health and maturity of the tree;
  - (b) The alternative will provide increased environmental benefits including natural function and values beyond the standard requirements;
  - (c) If applicable, the alternative will enhance or improve critical areas or NGPA areas.
  - (d) The alternative will not increase soil erosion, slope instability, nor create drainage issues; and
  - (e) The alternative provides equivalent or greater compliance with the tree code.
- (3) Qualifying Activities. The following activities or strategies may qualify for alternative compliance:
  - (a) Retention of specimen or heritage trees and groves of at least five trees may earn up to an additional 10 percent of the tree credits of the subject tree or grove.
  - (b) Use of low impact development (LID) designed to the satisfaction of the City Tree Official and Public Works Director may earn up to one additional tree credit per 1,000 square feet of designated LID area.
  - (c) Infrastructure installation or modifications, such as installation of root protection barriers, planter strips wider than eight feet, and other similar measures to ensure long-term tree health, may earn up to 25 percent per affected tree.
  - (d) Planting 15 square feet of understory landscaping within the canopy area of each supplemental tree may earn up to 15 percent of the tree credits for the subject tree. Understory landscaping must include shrubs planted no further than 24 inches on center and groundcovers planted 18 inches in center.

**21.15.120 Tree protection during construction.**

- (1) Tree protection measures shall be installed prior to development activity or initiating tree removal on the site. These standards must be adhered to and included on grading and building plans as necessary. A pre-construction meeting on-site between the City Tree Official and the contractor shall be held prior to site disturbance.
- (2) Tree protection measures shall include, but are not limited to, the following:

- (a) **Protective Barrier.** A visible temporary protective fencing extending to the edge of the critical root zone of all retained trees shall be installed prior to site disturbance and maintained until removal is authorized by the City Tree Official. Visible signs spaced no further than 25 feet along the entirety of the protective tree fence. Said sign must be approved by the City Tree Official and shall state at a minimum "Tree Protection Area, Entrance Prohibited" and provide the City phone number for code enforcement to report violations.
- (b) **Construction Activities.** No excavation, storage, parking, construction vehicle access, dumping of toxic or polluted materials, or other potentially damaging activity is allowed within the protective barrier. If construction activity within the protective barrier is unavoidable, the City Tree Official may allow such activities under the supervision of a qualified tree professional.
  - (i) Equipment may be authorized to operate within the critical root zone, if no other alternative is feasible. The areas adjoining the critical root zone of a tree shall be covered with mulch to a depth of at least six inches, or with plywood, metal or similar material in order to protect roots from damage caused by heavy equipment.
  - (ii) Utility trenches should be located outside of the critical root zone of trees. If utilities must be placed within the critical root zone, a qualified tree professional shall review the proposal to ensure the long-term viability of the trees. The work shall minimize root damage by excavating a two-foot-deep trench, at edge of critical root zone, to cleanly sever the tree roots.
  - (iii) Corrective pruning may be performed on protected trees in order to avoid damage from machinery or building activity.
  - (iv) Site grading within the critical root zone shall be the minimum necessary. The applicant's qualified tree professional shall establish the maximum amount of earthwork allowable in the critical root zone that will not imperil the survival of the tree. Suitability of activities shall be based on construction techniques, erosion potential, damage to the critical root zone, stabilization techniques, and other similar factors
- (c) **Exposed Soils.** Trees and other vegetation to be retained shall be protected from erosion and sedimentation. Clearing activities shall be conducted so as to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, it is encouraged that shrubs, groundcovers, and stumps be maintained on the individual lots, where feasible.
- (d) **Directional Felling.** Directional felling of trees shall be used to avoid damage to trees designated for retention. Any trees designated for preservation, per the approved tree plan, that are significantly damaged or destroyed during felling of trees approved for removal shall be replaced per WMC 21.15.060.
- (e) **Additional Requirements.** The City Tree Official may require additional tree protection measures that are consistent with accepted urban forestry practices.

#### **21.15.130 Tree maintenance requirements.**

- (1) The following maintenance requirements apply to all trees planted or preserved consistent with this chapter:
  - (a) **Responsibility for Regular Maintenance.** The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of the trees. Trees that are dead and removed shall be replaced in-kind by the property owner, unless the site meets the tree density credit.
  - (b) **Maintenance Duration.** Maintenance shall be ensured in the following manner except as set forth in subsections (1)(c) and (d) of this section:

- (i) All trees shall be maintained throughout the life of the development.
- (ii) Any existing tree, tree designated for preservation, or planted tree shall be maintained for a period of five years following issuance of the certificate of occupancy or plat recording for the individual lot or development. A maintenance guarantee pursuant to Chapter 15.42 or 20.06 WMC shall be secured to ensure the maintenance.
- (c) Maintenance of Preserved Grove. Any applicant who has a grove of trees identified for preservation on a site plan shall provide prior to occupancy or plat recording the legal instrument acceptable to the City to ensure preservation of the grove and associated vegetation.. The agreement may be extinguished if the City Tree Official determines that preservation is no longer appropriate.(d) Non-native Invasive and Noxious Plants. It is the responsibility of the property owner to remove non-native invasive plants and noxious plants. Removal must be performed in a manner that will not harm the tree or other vegetation that the City has required to be planted or protected.
- (e) Pesticides, Herbicides, and Fertilizer. The use of pesticides, herbicides, or fertilizer shall be by special approval of the City Tree Official only.
- (2) Planting Plans and Utility Plans. Planting plans and utility plans shall be coordinated. In general, the placement of trees should be adjusted based on the tree's mature size and the location of utility routes both above and below ground.
- (3) Tree pruning. Topping or pruning to the extent that would constitute tree removal as defined in Chapter 21.06 WMC is prohibited. If a required tree smaller than six inches in diameter-at-breast-height is topped, it must be replaced pursuant to the standards in WMC 21.15.100. If a tree six inches or larger in diameter-at-breast-height is topped, the property owner may be subject to enforcement actions pursuant to WMC 21.15.140. Trees may be windowed or limbed up using best management practices. This method of tree pruning shall maintain the health of the tree.
- (4) Pruning Techniques. The following techniques for healthy pruning shall be used. No permit is required for pruning; however, all pruning should be done under the direction of a qualified tree professional.

**Table 21.15.120(4) – Pruning Techniques**

Healthy Pruning Techniques	Improper Pruning Techniques
<b>Crown Cleaning</b> – removing dead, dying, diseased, crowded, weakly attached, or low-vigor branches, in a manner that should not reduce the canopy.	<b>Topping</b> – the cutting of a trunk or main branch to the point where there is no branch large enough and vigorous enough to become the new leader.
<b>Crown Thinning</b> – selective removal of branches throughout the crown of the tree to improve interior light and air. Remaining branches should be well-distributed and balanced.	<b>Stripping</b> – removing the branches from the inner section of the trunk or branch. Can cause structural imbalances and potential failure.
<b>Crown Raising</b> – removal of the lower branches of the tree to provide height clearance, typically 8 feet for pedestrians and 16 feet for vehicles.	<b>Imbalance</b> – removing portions of the tree and creating an imbalance in the structure of the tree. Can cause cracking damage from the wind through twisting; or weak new growth.

**Table 21.15.120(4) – Pruning Techniques**

Healthy Pruning Techniques	Improper Pruning Techniques
<b>Windowing</b> – removing several branches symmetrically within an area of the tree's crown to enhance views.	<b>Excessive Pruning</b> – removing portions of the tree to a point where it can kill the tree. Can invite decay and disease.

**21.15.140 Enforcement and penalties.**

- (1) **Authority.** It shall be the duty of the City Tree Official, or designee, to administer the provisions of this chapter. Enforcement shall be conducted in accordance with the administrative code enforcement procedures and special enforcement provisions related to tree conservation set forth below. To the extent there is a conflict between the provisions of this section and Chapter 1.06 WMC, this section shall control.
- (2) **Voluntary Compliance.** Voluntary compliance is the preferred method of enforcement. The following remedies should only be pursued when voluntary compliance is not effective or when other requirements are stipulated elsewhere in the code.
- (3) **Cease and Desist.** The City Tree Official may issue a notice to cease and desist if the City Tree Official finds that a violation of this code has occurred. Continued illegal tree activity following issuance of a cease and desist from the City for the tree activity shall result in fines of \$1,000 per day of continued activity.
- (4) **Stop Work Order.** If a violation of this chapter occurs on property where development activity is taking place the City Tree Official may suspend some or all of the work through issuance of a stop work order. The City Tree Official shall remove the stop work order when the Official determines that the violation has been corrected or when an agreement has been reached with the violator to remedy the violation.
- (5) **Notification of Infraction.** A Notice of Infraction may be issued pursuant to WMC 1.06.060. The notification shall include a statement of the restoration action required to correct the violation as determined by the City Tree Official.
- (6) **Civil Penalty.** A person who fails to comply with the requirements of this chapter or the terms of a permit issued hereunder, shall be subject to a civil penalty of \$1,000 per tree for unlawful removal of trees, including removal without obtaining permits, removal prior to issuance of tree removal permit, or other acts violating an approved tree protection plan. Each unlawfully removed or damaged tree shall constitute a separate violation.
  - (a) Any person who aids or abets in the violation shall be considered to have committed a violation for purposes of the civil penalty.
  - (b) The City Tree Official may elect not to seek penalties if he or she determines that the circumstances do not warrant imposition of civil penalties in addition to restoration.
- (7) **Tree Restoration.** A restoration plan and arborist report shall be submitted that results in a site condition that, to the greatest extent practical, equals the site condition that would have existed in the absence of the violation(s). The restoration plan shall be prepared in accordance with WMC 21.15.070 and include supplemental trees equal to the number of tree credits illegally removed.
  - (a) In the event the violators cannot restore the unlawfully removed or damaged trees due to site conditions as determined by the City Tree Official, the violators shall make payment to the City tree fund. Unless otherwise determined to base the restoration costs on appraised value, the amount paid will be the City's unit cost for a restoration tree as calculated in WMC 21.15.100(4)(f).
  - (b) Violators of this chapter or of a permit issued thereunder shall be responsible for restoring unlawfully damaged areas in conformance with this chapter.

- (c) In cases where the violator intentionally or knowingly violated this chapter or committed previous violations of this chapter, restoration costs shall be paid at the discretion of the City Tree Official. Restoration costs may be based on the City-appraised tree value of the subject trees in which the violation occurred, utilizing the industry standard trunk formula method in the current edition of "Guide for Plant Appraisal." If diameter of removed tree is unknown, determination of the diameter size shall be made by the City Tree Official by comparing size of stump and species to similar trees in similar growing conditions. The amount of costs above the approved restoration plan will be paid into the City tree fund.
- (8) Failure to Restore or Pay Fines. The City shall not approve any application for a subdivision, short subdivision, or any other development permit or approval or issue a certificate of occupancy for property on which a violation of this chapter has occurred until the violation is cured by restoration or other means accepted by the City Tree Official and by payment of any penalty imposed for the violation.

---

**WMC 21.06.063 Broadleaf tree**

Broadleaf tree: a tree characterized by leaves that are broad in width and may include both deciduous and evergreen species.

**WMC 21.06.101 City Tree Official**

City Tree Official: the Development Services Director or his/her designees responsible for implementing the Community Urban Forestry Plan and Regulations. The City Tree Official shall use the expertise of a certified arborist, under contract by the City, for technical advice on decisions related to the community urban forest.

**21.06.139 Critical root zone.**

Critical root zone: the area surrounding a tree at a distance from the trunk, which is equal to one foot for every inch of tree diameter-at-breast-height or otherwise determined by a qualified tree professional.

**21.06.140 Crown.**

Crown: the area of a tree containing leaf- or needle-bearing branches.

**21.06.143 Deciduous.**

Deciduous: a plant species with foliage that is shed annually

**21.06.168 Diameter-at-breast-height.**

Diameter-at-breast-height: the diameter measurement in inches of the outside bark of a tree trunk, measured at four-and-a-half feet above the ground line. New plantings are to be measured at six inches above the ground level.

**21.06.174 Dripline.**

Dripline: the distance from the tree trunk, that is equal to the furthest extent of the tree's crown.

**21.06.220 Evergreen.**

Evergreen: a plant species with foliage that persists and remains green year-round.

**21.06.xxx Hazard Tree.**

Hazard tree: A tree with a combination of structural defects and/or disease that makes it subject to a high probability of failure; is in the proximity to moderate-high frequency of persons or property; and (c) the hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the persons or property be removed.

**WMC 21.06.309 Heritage tree**

Heritage tree: a tree or stand of trees that is particularly desirable because it has valued, unique characteristics that set them apart from other similar trees. Valued, unique characteristics include uncommon genus, species, form, size, location, historic significance or other desirable feature(s).

**WMC 21.06.359 Limit of disturbance, tree.**

Limit of disturbance, tree: the boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by a qualified tree professional.

**21.06.406 Native growth protection area (NGPA).**

Native growth protection area (NGPA): an area where native vegetation is preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering and protecting plants and animal habitat.

**21.06.408 Naturalized species.**

Naturalized species: nonnative species of vegetation that are adaptable to the climatic conditions of the coastal region of the Pacific Northwest.

**21.06.xxx Nuisance Tree.**

Nuisance tree: A tree that causes physical damage to private or public structures; has been damaged by past maintenance practices that cannot be corrected; is chronically diseased or infested; overplanted or overcrowded; part of a dense grove creating safety concerns or excessively obstructing sunlight.

**21.06.486 Qualified tree professional.**

Qualified tree professional: an individual with relevant education and training in arboriculture or urban forestry. The individual must be an arborist certified by the International Society of Arboriculture or a registered consulting arborist from the American Society of Consulting Arborists. For Forest Management Plans, the qualified tree professional must have the ability to assess wooded sites and prescribe measures for forest health and safety. A qualified tree professional that makes determinations on hazard or nuisance trees is required to have certification as a tree risk assessor.

**WMC 21.06.599 Significant tree**

Significant tree: an existing healthy tree which has a minimum diameter-at-breast-height of six inches, as measured according to the most current published edition of the International Society of Arboriculture's "Guide for Plant Appraisal."

**21.06.xxx Snag or wildlife tree.**

Snag or wildlife tree. The remaining trunk of a tree that is intentionally reduced in height and usually stripped of its live branches.

**WMC 21.06.617 Specimen tree.**

Specimen tree: a viable tree that is considered in very good to excellent health and free of major defects, as determined by the City's Tree Official

**WMC 21.06.680 Tree removal**

Tree removal: the removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging or poisoning resulting in an unhealthy or dead tree; (2) removal of at least half of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity

**21.06.xxx Tree grove.**

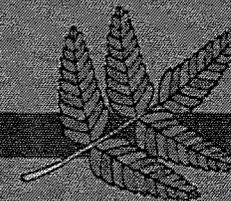
Tree grove: a cluster or stand of at least five trees, generally lacking undergrowth.

**21.06.695 Viable tree.**

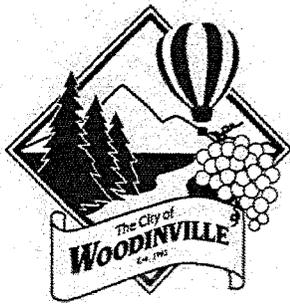
Viable tree: a significant tree that a qualified tree professional has determined to be in good health, not classified as a hazard or nuisance tree, and has a low risk of failure due to structural defects.



# City of Woodinville Plant Species List



A Resource Guide encouraging the use of  
plants that preserve Woodinville's  
northwest woodland character



## CITY OF WOODINVILLE TREE BOARD PLANT SPECIES LIST

The City of Woodinville Tree Board has developed the Plant Species List to assist the City, private developers and residents with the selection of plant materials for public and private properties. It was created as a resource to aid in the aesthetic and environmental quality of the City by encouraging the use of plants that preserve Woodinville's northwest woodland character.

The Plant Species List is intended to:

1. To encourage the use of hardy, attractive and easily maintained plant material that provides multi-season interest and is of an appropriate nature for use near City Right of Ways and public and private utilities.
2. To encourage the use of plants that should generally be available from local commercial wholesale and retail nurseries.
3. To provide visual continuity by using plant materials from the list's varieties and species.
4. To encourage the use of trees and shrubs as an important unifying element within the City to strengthen Woodinville's landscape character.

Species listed are suggestions to meet City landscape standards. Use of non-listed species may be permitted with approval from the City Tree Official. The City Tree Official on a case-by-case basis shall determine Street Tree species. Amendments to the List may be submitted to the Planning Department for Tree Board Consideration.

The List contains information on plants specific to name, type, size, form, features, exposure, and soil conditions, limitations near utilities and City Right of Ways and compliance with Woodinville Municipal Code Chapter 21.16 Development Standards for Tree Retention and Landscaping and WMC Section 21.12.200 Site Distance Requirements at Street Intersections for Landscaping and maintained per Public Works Detail No. 316 *Driveway And Intersection Site Triangles*.

The Plant Species List does not include wetland plants due to the specific nature of these plants. Please contact the City of Woodinville Planning Department, the Washington State Department of Ecology or a wetlands biologist for more information regarding wetland plants.

Included within the List is a Prohibited Plant Species List. This list was created to identify plants that offer no aesthetic or functional qualities to the community and are a threat to property and public safety. Plants on this list are prohibited from being planted within the City.

For more information regarding plants contained on the Plant Species List, please contact the City of Woodinville Planning Department, the Washington State University King County Extension Master Gardener Program at (206) 205-8616 or <http://king.wsu.edu>, or your local nursery.

This list developed by the City of Woodinville Tree Board; Mark Schuster, Barbara Stanfield, Sheryl Oppen, Anne Rhoades, and Bret Wilson with the assistance of the Van de Vanter Group.

**CITY OF WOODINVILLE**  
**Prohibited Plant Species List**

Scientific Name	Common Name	Reason for Prohibition
Acer Saccharinum	Silver Maple	Weak branching, root damage to utilities and paved surfaces
Ailanthus Altissima	Tree of Heaven	Extremely invasive growth
Catalpa sp.	Caralpa	Weak branching, messy flower and seed capsule litter
Cytisus sp.	Broom	Extremely invasive growth
Ginkgo Biloba (Female Only)	Maidenhair Tree	Odorous and messy fruit litter
Hedera Helix	English Ivy	Extremely invasive growth
Laburum x Watereri	Goldenchain Tree	Poisonous seed pods
Populus Trichocarpa	Black Cottonwood	Extremely invasive growth, weak wood, root damage to utilities/paved surfaces
Robinia Psuedoacacia	Black Locust	Spreads easily, weak wood, root damage to utilities and paved surfaces
Ulmus Americana	American Elm	Susceptible to insects and diseases
Ulmus Pumila	Siberian Elm	Susceptible to insects and diseases

**CITY OF WOODINVILLE  
Plant Species List Legends**

**Accent Characteristics Legend\* (Trees and Shrubs)**

---

- G - **Flowering:** Plant produces showy flowers.
- C - **Fall Color:** Plant has showy fall color.
- V - **Colored Foliage/Variegation:** Plant has foliage color other than green or leaf variegation.
- W - **Wildlife:** Plant provides habitat or has characteristics that attracts wildlife.
- A - **Butterflies:** Plant has characteristics that attracts butterflies.
- F - **Fruiting/Berries:** Plant produces fruit or berries.

**Restricted Use in Right of Ways and Near Utilities Legend\*\* (Trees only)**

---

- I - **Invasive Roots:** Plant has invasive root system potentially causing damage to underground utilities and sidewalks / streets.
- B - **Brittle Branches:** Plant with limbs that break easily in storms potentially causing damage to property and utilities.
- F - **Fruiting/Berries:** Plant producing fruit or berries creating unsightly sidewalks and parking lots.
- P - **Insects/Diseases:** Plant susceptible to insects or diseases creating messy sidewalks and parking lots or plant demise.
- L - **Power Lines:** Large plants with the ability to grow into overhead power lines causing outages and damage to power equipment.

**Potential Hazards\*\*\* (Shrubs only)**

---

- T - **Thorns:** Plant has thorns creating a hazard.
- B - **Bees:** Plant has characteristics that attracts bees.
- I - **Invasive Plant:** Plant has an aggressive root system causing it to spread.
- H - **Hardiness:** Plant has marginal hardiness during a severe winter.
- P - **Insects/Diseases:** Plant susceptible to insects or diseases.
- M - **Maintenance:** Plant has characteristics requiring additional maintenance.

## CITY OF WOODINVILLE PLANT SPECIES LIST

TREES Scientific Name	Common Name	Evergreen	Deciduous	15'-30' height	30'-45' height	45' + height	Columnar	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Use restricted in ROW and near utilities **	Type I	Type II	Type III	Type IV
		<i>A. rubrum</i> x <i>A. saccharinum</i> 'Autumn Blaze'	Autumn Blaze Maple		X			X		C		X				X	L		
<i>A. truncatum</i> x <i>A. platanoides</i> 'Warrenred'	Pacific Sunset Maple		X	X				C		X									
<i>Abies concolor</i>	White Fir	X			X			V	X	X			X		L				
<i>Abies grandis</i>	Grand Fir	X				X				X					L				
<i>Acer buergeranum</i>	Trident Maple		X	X				C		X									
<i>Acer campestre</i>	Hedge Maple		X	X				C		X	X								
<i>Acer circinatum</i>	Vine Maple		X	X				C	X		X	X							
<i>Acer ginnala</i>	Amur Maple		X	X				C		X	X								
<i>Acer griseum</i>	Paperbark Maple		X	X				C		X	X								
<i>Acer palmatum</i>	Japanese Maple		X	X				C			X								
<i>Acer palmatum</i> varieties	Japanese Maple varieties		X	X				C			X								
<i>Acer platanoides</i>	Norway Maple		X		X			C		X					L				
<i>Acer platanoides</i> 'Cleveland'	Almira Norway Maple		X		X	X		C		X					L				
<i>Acer platanoides</i> 'Columnare'	Columnar Norway Maple		X		X	X		C		X					L				
<i>Acer platanoides</i> varieties	Norway Maple Varieties		X		X			C		X					L				
<i>Acer pseudoplatanus</i>	Sycamore Maple		X			X		C		X					L				
<i>Acer rubrum</i>	Red Maple		X			X		C	X	X					L				





TREES

Scientific Name

Common Name

Scientific Name	Common Name	Evergreen	Deciduous	15'-30' height	30'-45' height	45' + height	Columnar	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Use restricted in ROW and near utilities **	Type I	Type II	Type III	Type IV
<i>Cupressocyparis leylandii</i>	Leyland Cypress	X				X				X	X				L,I				
<i>Davidia involucrata</i>	Dove Tree		X		X			G,F		X	X				L				
<i>Fagus sylvatica</i>	European Beech		X			X				X					L				
<i>Fagus sylvatica 'Dawyckii'</i>	Pyramidal Beech		X			X	X			X					L				
<i>Fraxinus americana 'Autumn Applause'</i>	Autumn Applause White Ash		X			X		C		X			X		L				
<i>Fraxinus americana 'Autumn Purple'</i>	Autumn Purple White Ash		X			X		C		X			X		L				
<i>Fraxinus americana 'Rose Hill'</i>	Rose Hill White Ash		X			X		C		X			X		L				
<i>Fraxinus excelsior</i>	Globe Ash		X			X				X			X						
<i>Fraxinus oxycarpa 'Raywood'</i>	Raywood Ash		X		X			C		X					L				
<i>Fraxinus pennsylvanica</i>	Green Ash		X			X				X				X	L				
<i>Ginkgo biloba 'Princeton Sentry'</i>	Princeton Sentry Maidenhair Tree		X			X	X	C		X			X		L				
<i>Ginkgo biloba (male only)</i>	Maidenhair Tree		X			X		C		X			X		L				
<i>Gymnocladus dioicus</i>	Kentucky Coffee Tree		X		X					X			X		L				
<i>Halesia carolina</i>	Carolina Silverbell		X		X			G			X				L				
<i>Halesia monticola</i>	Mountain Silver Bell		X			X		G,F			X				L				
<i>Hamamelis mollis</i>	Chinese Witch Hazel		X	X				C,G		X	X								
<i>Ilex aquifolium</i>	English Holly	X		X				F			X								
<i>Koelreuteria paniculata</i>	Goldenrain Tree		X	X				F,G		X			X						
<i>Liquidambar styraciflua</i>	Sweet Gum		X			X		F,C		X					L,I				

**TREES**

**Scientific Name**

**Common Name**

		Evergreen	Deciduous	15'-30' height	30'-45' height	45' + height	Columnar	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Use restricted in ROW and near utilities **	Type I	Type II	Type III	Type IV
<i>Liriodendron tulipifera</i>	Tulip Tree		X			X		C		X					P,L				
<i>Magnolia grandiflora</i>	Southern Magnolia	X				X		G		X					L				
<i>Magnolia kobus</i>	Kobus Magnolia		X		X			G		X					L				
<i>Magnolia x soulangiana</i>	Saucer Magnolia		X	X				G		X									
<i>Malus 'Snowdrift'</i>	Snowdrift Crabapple		X	X				G,F		X					P,F				
<i>Malus 'Sugar Tyme'</i>	Sugartyme Crabapple		X	X				G,F		X					F				
<i>Malus tschonoskii</i>	Tschonoski Crabapple		X		X	X		G,F		X					P,L,F				
<i>Metasequoia glyptostroboides</i>	Dawn Redwood		X			X		C		X			X		L				
<i>Oxydendrum arboreum</i>	Sourwood		X	X				C		X									
<i>Parrotia persica</i>	Persian Ironwood		X	X				C		X									
<i>Picea engelmannii</i>	Engelmann Spruce	X				X		V		X	X		X		L				
<i>Picea pungens</i>	Colorado Spruce	X				X		V		X	X		X		P,L				
<i>Picea pungens 'Glauca'</i>	Colorado Blue Spruce	X				X		V		X	X		X		P,L				
<i>Pinus contorta</i>	Shore Pine	X		X					X	X									
<i>Pinus densiflora 'Umbraculifera'</i>	Japanese Red Pine	X				X				X					L				
<i>Pinus nigra</i>	Austrian Black Pine	X		X						X									
<i>Pinus sylvestris</i>	Scotch Pine	X				X				X					L				
<i>Pinus thunbergii</i>	Japanese Black Pine	X			X					X			X						
<i>Platanus acerifolia</i>	London Plane Tree		X			X				X					L,I,P				
<i>Populus tremuloides</i>	Quaking Aspen		X		X			C		X			X		L,I				



**TREES**

Scientific Name

Common Name

Scientific Name	Common Name	Evergreen	Deciduous	15'-30' height	30'-45' height	45' + height	Columnar	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Use restricted in ROW and near utilities**	Type I	Type II	Type III	Type IV
<i>Sophora japonica</i>	Japanese Pagoda Tree		X			X		G		X	X				L,P				
<i>Sorbus aria</i>	Whitebeam Mtn. Ash		X		X			C,F		X	X				L,F				
<i>Sorbus tianshanica</i> 'Red Cascade'	Red Cascade Mtn. Ash		X	X				F		X	X				L,F				
<i>Stewartia pseudocamellia</i>	Japanese Stewartia		X			X		G,C		X	X		X		L				
<i>Styrax japonicus</i>	Japanese Snowdrop		X	X				G,C		X	X								
<i>Styrax obassia</i>	Fragrant Snowbell		X	X				G,C		X	X								
<i>Taxodium distichum</i>	Bald Cypress		X			X		C		X			X	X	L				
<i>Thuja occidentalis</i>	American Arborvitae	X			X					X					L				
<i>Thuja occidentalis</i> varieties	American Arborvitae varieties	X		X						X					L				
<i>Thuja plicata</i>	Western Red Cedar	X				X			X	X			X		L				
<i>Tilia americana</i>	American Linden		X			X		G,C		X					L				
<i>Tilia cordata</i> 'Chancellor'	Upright Littleleaf Linden		X		X	X		G,C		X					L				
<i>Tilia cordata</i> 'Greenspire'	Littleleaf Linden		X		X			G,C		X					L				
<i>Tilia x euchlora</i>	Crimean Linden		X		X			G,C		X					L				
<i>Tsuga canadensis</i>	Canadian Hemlock	X				X				X			X		L				
<i>Tsuga heterophylla</i>	Western Hemlock	X				X				X			X		L				
<i>Tsuga mertensiana</i>	Mountain Hemlock	X				X			X	X					L				
<i>Ulmus glabra</i> 'Camperdownii'	Camperdown Elm		X	X						X					P				
<i>Ulmus parvifolia</i>	Evergreen Chinese Elm	X	X			X				X					L				
<i>Zelkova serrata</i>	Green Vase Zelkova		X			X		C		X					L				



CITY OF WOODINVILLE  
RECOMMENDED PLANT SPECIES LIST

Shrubs, Groundcovers, Vines & Ornamental Grasses	Scientific Name:	Common Name	Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
	Abelia 'Edward Goucher'	Pink Abelia	X	X	X				G,A		X	X				B	
	Abelia grandiflora	Glossy Abelia	X	X		X			G,A		X	X				B	
	Andromeda polifolia	Bog Rosemary	X				X		G,A		X	X			X		
	Arbutus unedo	Stawberry Tree	X		X				G,F		X	X					
	Arbutus unedo 'Compacta'	Compact Strawberry Tree	X		X				G,F		X	X					
	Arcostaphylos uva-ursi	Kinnikinick	X					X	G,F, A		X			X			C
	Aucuba japonica	Japanese Aucuba	X		X				F,V			X	X				
	Azalea - Exbury	Exbury Azalea		X		X			F,V		X	X				B	
	Azalea sp.	Evergreen Azalea	X			X			F,V		X	X				B	
	Azalea sp.	Deciduous Azalea		X		X			F,V		X	X				B	
	Berberis buxifolia 'Nana'	Dwarf Magellan Barberry	X				X		G,F		X	X				T	C
	Berberis darwinii	Darwin Barberry	X		X				G,F		X	X				T	
	Berberis gladwynensis 'William Penn'	William Penn Barberry	X			X			G,F		X	X					
	Berberis julianae	Wintergreen Barberry	X			X			G,F		X	X				T	
	Berberis thunbergii	Japanese Barberry		X		X			C,F,G		X	X				T	
	Berberis thunbergii 'Atropurpurea'	Crimson Japanese Barberry		X		X			C,F,G, V		X	X				T	

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Berberis thunbergii 'Atropurpurea Nana'	Crimson Pygmy Barberry		X			X		C,F,G V		X	X				T	C
Berberis thunbergii 'Rose Glow'	Rose Glow Barberry		X		X			C,F,G V		X	X				T	
Berberis verruculosa	Warty Barberry	X				X		G,F		X	X				T	C
Buxus microphylla japonica	Japanese Boxwood	X			X					X	X	X				
Buxus sempervirens	Common Boxwood	X		X						X	X	X				
Callicarpa bodinieri 'Profusion'	Profusion Beautyberry	X		X				F,C		X	X					
Calluna vulgaris varieties	Scotch Heather Varieties	X				X		G,A		X						C
Camellia japonica	Japanese Camellia	X		X				G			X	X				
Camellia sasanqua	Sasanqua Camellia	X		X				G		X	X					
Campsis radicans	Trumpet Vine		X			X		G		X	X					
Carex sp.	Sedge Grass Varieties	X	X			X		V		X	X					C
Ceanothus gloriosus	Point Reyes Ceanothus	X					X	G,A		X	X		X		B	C
Ceanothus varieties	Ceanothus Varieties	X		X	X			G,A		X			X		B	
Ceanothus x impressus 'Victoria'	Victoria Santa Barbara Ceanothus	X		X				G,A		X	X		X		B	
Chaenomeles japonica	Japanese Flowering Quince		X	X				G,A		X	X				T	
Chaenomeles speciosa varieties	Flowering Quince Varieties		X		X	X		G,A		X	X				T	
Chamaecyparis obtusa 'Gracilis Nana'	Dwarf Hinoki Cypress	X			X					X	X	X				
Choisya ternata	Mexican Orange	X			X			G,A		X	X		X			
Cistus ladanifer	Crimson Spot Rockrose	X			X			G,A		X			X			
Cistus purpureus	Orchid Rockrose	X			X			G,A		X			X			
Cistus x hybridus	White Rockrose	X			X			G,A		X			X			

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Clematis armandii	Evergreen Clematis	X				X		G,A		X	X					
Clematis montana	Anemone Clematis		X			X		G,A		X	X					
Clethra alnifolia	Clethra		X	X				G,A		X	X					
Cornus alba varieties	Tatarian Dogwood Varieties		X	X				G,F		X	X			X		
Cornus baileyi	Bailey Redtwig Dogwood		X	X				G,F		X	X	X		X		
Cornus sanguinea 'Midwinter Fire'	Midwinter Fire Dogwood		X	X				G,F		X	X			X		
Cornus sericea	Red Osier Dogwood		X	X				G,F	X	X	X	X		X		
Cornus sericea 'Flaviramea'	Yellowtwig Dogwood		X	X				G,F		X	X	X		X		
Cornus sericea 'Isanti'	Isanti Dogwood		X		X			G,F		X	X			X		
Cornus sericea 'Kelsey'	Kelseyi Dogwood		X			X		G,F		X	X			X		C
Corylopsis pauciflora	Buttercup Winterhazel		X	X				G,V		X	X					
Corylopsis sinensis	Winterhazel		X	X				G,F		X	X					
Corylopsis spicata	Spike Winterhazel		X	X				G		X	X					
Corylus avallana 'Contorta'	Harry Lauder's Walking Stick		X	X						X	X					
Corylus cornuta	Western Hazelnut		X	X				F	X	X	X					
Cotinus coggygria	Smoketree		X	X				G,F		X	X		X			
Cotinus coggygria 'Royal Purple'	Royal Purple Smoketree		X	X				G,V		X	X		X			
Cotoneaster acutifolius	Peking Cotoneaster		X	X				C,F		X	X		X			
Cotoneaster adpressus 'Little Gem'	Little Gem Creeping		X			X		C,F		X	X		X			C
Cotoneaster apiculatus	Cranberry Cotoneaster		X		X			C,F		X	X		X			
Cotoneaster congestus	Pyrenees Cotoneaster	X				X		F		X			X			C
Cotoneaster dammeri	Bearberry Cotoneaster	X					X	F		X	X		X			C
Cotoneaster horizontalis	Rock Cotoneaster		X			X		C,F		X	X		X			C

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Cotoneaster lacteus	Parney Cotoneaster	X		X				F		X	X		X			
Cotoneaster 'Lowfast'	Lowfast Cotoneaster	X				X		F		X	X		X			IC
Cotoneaster microphyllus	Rockspray Cotoneaster	X		X				F		X	X		X			
Cryptomeria japonica 'Lobbi Nana'	Dwarf Plume Cedar	X			X					X	X					
Daboecia cantabrica 'Alba'	White Heath	X				X		G		X	X					IC
Daboecia cantabrica 'Atropurpurea'	Purple Heath	X				X		G		X	X					IC
Daboecia x scotia 'William Buchanan'	William Buchanan Heath	X				X		G		X	X					
Daphne cneorum	Rock Garden Daphne	X				X		G		X	X		X			
Daphne cneorum 'Ruby Glow'	Ruby Glow Garland Daphne	X				X		G		X	X		X			
Daphne odora	Winter Daphne	X			X			G		X	X	X				CC
Daphne x burwoodii 'Carol Mackie'	Carol Mackie Daphne	X			X			G,V		X	X		X			CC
Daphne x burwoodii 'Somerset'	Somerset Daphne	X			X			G		X	X		X			CC
Deutzia gracilis	Slender Deutzia		X		X			G		X	X					
Enkianthus campanulatus	Enkianthus		X	X				C,G			X	X		X		
Erica carnea varieties	Heath Varieties	X				X		G		X	X					C
Erica sp.	Erica	X				X		G		X						C
Escallonia rubra	Escallonia	X		X				G,A		X	X					
Escallonia rubra varieties	Escallonia Varieties	X		X				G,A		X	X					
Euonymus alata 'Compacta'	Compact Burning Bush		X		X			C,G		X	X					
Euonymus fortunei varieties	Winter Creeper Varieties	X				X		V		X	X	X				C
Euonymus japonicus varieties	Japanese Euonymus Varieties	X		X	X	X		V		X	X					

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Fargesia nitida	Blue Fountain Bamboo (Clumping Bamboo)	X	X	X								X			M	
Fatsia japonica	Fatsia	X		X							X	X			I	
Festuca 'Elijah Blue'	Elijah Blue Fescue Grass	X			X			V		X	X		X			C
Festuca ovina 'Glauca'	Blue Fescue Grass	X			X			V		X	X		X			C
Forsythia x intermedia varieties	Forsythia Varieties		X	X				G		X	X					
Fragaria chiloensis	Beach Strawberry	X				X		G	X	X	X		X			C
Gaultheria procumbens	Wintergreen	X				X		F,G			X	X				C
Gaultheria shallon	Salal	X			X			G	X		X	X				C
Genista lydia	Broom		X		X			G		X	X		X			C
Genista pilosa varieties	Broom		X		X			G,C		X	X		X			C
Hamamelis x intermedia varieties	Hybrid Witch Hazel Varieties		X	X				G,C		X	X					CC
Hebe sp.	Hebe	X			X			G,A		X						
Hedera helix 'Baltica'	Baltic Ivy	X				X		V		X	X	X			I	
Hedera helix 'Hahn's Self-branching'	Hahn's Ivy	X				X				X	X	X			I	
Hedera helix 'Needlepoint'	Needlepoint Ivy	X				X				X	X	X			I	
Helictotrichon sempervirens	Blue Oat Grass	X			X			V		X	X					C
Hemerocalis - Hybrids	Hybrid Daylilies	X	X		X			G		X	X					C
Hemerocalis sp.	Daylily		X		X			G		X	X					C
Hibiscus syriacus	Rose-of-Sharon		X	X				G,A		X	X		X			
Holodiscus discolor	Ocean Spray		X	X				G,A	X		X		X			
Hosta sp.	Hosta		X		X			G,V			X	X				C
Hydrangea macrophylla	Big-leaf Hydrangea		X	X				G		X	X					

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Hypericum calycinum	St. Johnswort		X				X	G		X	X				I	C
Iberis sempervirens	Evergreen Candytuft	X					X	G,A		X	X					C
Ilex comuta varieties	Chinese Holly	X		X				F		X	X				T	
Ilex crenata varieties	Japanese Holly	X			X	X		F		X	X	X			T	
Imperata cylindrica 'Rubra'	Japanese Blood Grass	X				X		V		X	X					C
Juniperus sp.	Juniper	X		X	X	X				X			X			
Kalmia latifolia	Mountain Laurel	X		X	X			G		X	X					
Laurentia fluviatilis	Blue Star Creeper	X					X	G		X	X					C
Lavandula angustifolia	English Lavender	X			X			G,A		X	X		X		B	C
Lavandula angustifolia varieties	English Lavender Varieties	X				X		G,V, A		X	X		X		B	C
Lavandula latifolia	Spike Lavender	X			X			G,A		X	X		X		B	C
Leucothoe axillaris	Coast Leucothoe	X			X			G		X	X		X			
Leucothoe fontanesiana	Drooping Leucothoe	X			X			G,F		X	X		X			
Ligustrum japonicum varieties	Japanese Privet Varieties	X		X						X	X					
Ligustrum lucidum	Glossy Privet	X		X				G,F		X	X				M	
Liriope muscari	Lily Turf	X				X		G,F			X	X				C
Liriope spicata	Creeping Lily Turf	X				X	X				X	X				C
Lonicera involucrata	Black Twinberry		X	X				G,A	X	X	X					
Lonicera japonica varieties	Japanese Honeysuckle Varieties	X				X		G,A		X	X				M,B,I	C
Magnolia stellata	Star Magnolia		X	X				G,C		X						
Mahonia aquifolium	Oregon Grape	X		X				G,F,C A	X	X	X	X	X		B	CC
Mahonia aquifolium 'Compactum'	Dwarf Oregon Grape	X			X			F,G,C A	X	X	X	X	X		B	CC

Ho

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1' - 3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Mahonia nervosa	Longleaf Mahonia	X				X		F,G,A	X		X	X			B	C
Mahonia repens	Creeping Mahonia	X				X		F,G,V,A	X	X	X		X		B	C
Miscanthus sinensis	Japanese Silver Grass	X		X				V		X	X		X			
Molina caerulea varieties	Moor Grass Varieties	X				X		G		X	X		X			C
Myrica californica	Pacific Wax Myrtle	X		X				F	X	X	X		X			
Nandina domestica	Heavenly Bamboo	X		X				F,C		X	X	X	X			
Nandina domestica 'Compacta'	Compact Heavenly Bamboo	X			X			F,C		X	X	X	X			
Nandina domestica 'Harbor Dwarf'	Harbor Dwarf Heavenly	X				X		F,C		X	X		X			C
Ophiopogon japonicus	Mondo Grass	X					X	G		X	X	X				C
Osmanthus delavayi	Delavay Osmanthus	X			X			G		X	X					
Osmanthus x burkwoodii	Burkwood Osmanthus	X		X				G		X	X					
Pachysandra terminalis	Japanese Spurge	X				X		G,F			X	X				C
Parthenocissus quinquefolia	Virginia Creeper		X			X				X	X	X	X			
Parthenocissus tricuspidata	Boston Ivy		X			X		C		X	X	X	X			
Philadelphus coronarius	Mock Orange		X	X				G,A		X						
Phormium tenax	New Zealand Flax	X		X				V		X	X					
Photinia glabra	Japanese Photinia	X		X				G,F,V		X						
Photinia x fraseri	Fraser Photinia	X		X				G,V		X						
Phyllostachys aurea	Golden Bamboo	X		X						X	X					
Physocarpus capitatus	Pacific Nine Bark		X	X				G,C	X	X	X	X				
Pieris formosa 'Forest Flame'	Forest Flame Pieris	X		X				G,V			X					
Pieris japonica varieties	Japanese Pieris Varieties	X		X				G,V		X	X	X				

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
<i>Pinus densiflora</i> 'Umbraculifera Compacta'	Compact Tanyosho Pine	X		X						X	X		X			
<i>Pinus mugo mugo</i>	Dwarf Mugo Pine	X			X					X	X		X			
<i>Polystichum munitum</i>	Sword Fern	X			X				X		X	X				CC
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil		X		X			G,A	X	X			X			
<i>Prunus laurocerasus</i>	English Laurel	X		X				G		X	X	X			M	
<i>Prunus laurocerasus</i> 'Otto Luyken'	Otto Luyken Laurel	X			X					X	X	X				
<i>Prunus laurocerasus schipkaensis</i>	Shipka Laurel	X			X					X	X	X				
<i>Prunus laurocerasus</i> 'Zabeliana'	Zabel Laurel	X			X					X	X					
<i>Prunus lusitanica</i>	Portugal Laurel	X		X				G,F		X	X		X			
<i>Pyracantha fortuneana</i> varieties	Firethorn Varieties	X		X				F		X					T	
<i>Raphiolepis indica</i>	Indian Hawthorn	X			X			F,G		X	X					
<i>Raphiolepis umbellata ovata</i>	Indian Hawthorn	X		X				F,G		X	X					
<i>Rhododendron</i> hybrids	Hybrid Rhododendron	X			X			G,A		X	X	X			B	
<i>Rhododendron occidentale</i>	Western Azalea		X	X				G,A	X	X	X	X			B	
<i>Rhododendron macrophyllum</i>	Rhododendron	X		X				G,A	X		X	X			B	
<i>Rhus glabra</i>	Smooth Sumac		X	X				C	X	X	X		X		I	
<i>Rhus typhina</i>	Staghorn Sumac		X	X				C,F	X	X	X		X		I	
<i>Ribes sanguineum</i>	Red Flowering Currant		X	X				F,G, A	X	X	X	X		X		
<i>Rosa nutkana</i>	Nootka Rose		X		X			G,F, A	X	X	X		X		T	CC
<i>Rosa</i> 'Redleaf'	Redleaf Rose		X	X				G,F,V, A		X	X				T	CC
<i>Rosa rugosa</i>	Rugosa Rose		X	X				G,F, A	X	X	X		X		T	CC

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Rosa sp.	Shrub Roses		X	X				G,F, A		X	X				B,I	<u>C</u>
Rosa woodsii	Wood Rose		X		X			G,F, A	X	X	X		X		T	<u>C</u>
Rosmarinus officinalis	Rosemary	X			X			G,W, A		X			X		B	
Rosmarinus officinalis 'Prostratus'	Creeping Rosemary	X				X		G,W, A		X			X		B	<u>C</u>
Rubus calycinoides	Bramble	X			X			G,F		X	X		X			<u>C</u>
Rubus parviflorus	Thimbleberry		X	X				G,F	X	X	X					
Rubus spectabilis	Salmonberry		X	X				G,F	X	X	X					
Salix purpurea 'Nana'	Dwarf Purple Willow		X			X		V		X	X					<u>C</u>
Sambucus racemosa	Red Elderberry		X	X				G,F, A		X	X					
Saracococca hookerana humilis	Saracococca	X			X			G,F			X	X				<u>C</u>
Saracococca ruscifolia	Saracococca	X			X			G,F			X	X				
Skimmia japonica	Skimmia	X			X			G,F			X	X			P	
Spiraea douglasii	Douglas Spirea		X	X				G,A	X	X	X		X		I	
Spiraea japonica varieties	Japanese Spirea Varieties		X		X	X		G,A		X	X					
Spiraea nipponica 'Snowmound'	Snowmound Spirea		X			X		G,A		X	X					<u>C</u>
Spiraea x vanhouttei	Vanhouttei Spirea		X		X			G,A		X	X					
Symphoricarpos albus	Snowberry		X		X			G,F, W		X	X	X	X			
Symphoricarpos orbiculatus	Coralberry		X		X			G,F, W		X			X			
Syringa vulgaris varieties	Common Lilac Varieties		X	X				G,A		X	X					
Thymus pseudolanuginosus	Woolly Thyme	X				X		G		X	X					<u>C</u>

Shrubs, Groundcovers,  
Vines & Ornamental  
Grasses

		Evergreen	Deciduous	Tall - over 6'	Medium - 3'-6'	Low - 1'-3'	Groundcover - under	Accent Characteristics*	Native/Woodland	Sun	Part Sun	Shade	Drought Tolerant	Tolerates Wet Soil	Potential Hazards***	Traffic Circle
Thymus vulgaris 'Argenteus'	Silver Thyme	X				X		V		X	X					C
Vaccinium ovatum	Evergreen Huckleberry	X			X			G,F,A	X		X	X				CC
Viburnum davidii	David's Viburnum	X				X		G,F,A	X	X	X					C
Viburnum opulus 'Roseum'	European Cranberry Bush		X	X				G,A		X	X				P	
Viburnum plicatum tomentosum	Doublefile Viburnum		X	X				G,F,A		X	X					
Viburnum tinus	Laurestinus	X		X				G,F,A		X	X				P	
Viburnum tinus varieties	Laurestinus Varieties	X			X			G,F,A		X	X					
Viburnum x bodnantense 'Dawn'	Dawn Viburnum		X	X				G,F,C,A		X	X				H	
Viburnum x burkwoodii	Burkwood Viburnum	X		X				G,F,A		X	X					
Vinca minor	Periwinkle	X				X		G			X	X				C
Vinca minor varieties	Periwinkle Varieties	X				X		G,V			X	X				C
Weigela florida varieties	Weigela Varieties		X		X			G		X	X					
Wisteria sinensis	Chinese Wisteria		X			X		G,A		X	X					
Yucca filamentosa	Adam's Needle	X				X		G		X	X		X			CC

# **AGENDA ITEM 3**



CITY OF WOODINVILLE, WA  
**REPORT TO THE TREE BOARD**  
17301 133rd Avenue NE, Woodinville, WA 98072  
WWW.CI.WOODINVILLE.WA.US

---

**To:** Tree Board **Date:** May 27, 2015  
**From:** Dave Kuhl, Development Services Director  
**By:** Jenny Ngo, AICP, Senior Planner *JN*  
**Subject:** Landscaping requirements

---

**ISSUE:** Shall the Tree Board review information regarding the landscape code.

**STAFF RECOMMENDATION:** To review the landscape code and provide feedback.

**POLICY DECISION:** The Tree Board provides an advisory role to the City Council on matters of trees and urban forestry.

**BACKGROUND/DISCUSSION:**

In Spring 2014, the draft tree code was brought to the Planning Commission for an initial review. During the meeting, several Commissioners discussed some concerns with removing non-residential properties from the tree code requirements. With the separation of single-family residential from non-residential uses between the tree and landscaping codes, it is critical to start considering the outline and language of the landscaping code. These codes should work in tandem to achieve a visual aesthetic that enhances the quality of life for Woodinville residents.

The Tree Board has nearly completed a draft of the tree code, but has not yet discussed the landscaping code and integration into the tree code. Early drafts of a landscape code were created, however a comprehensive approach towards the landscape code should be considered.

One approach is to first understand the zones within the City, including the physical characteristics (lot size, shape, site constraints, zoning) and the aesthetic character of the area (forested, agrarian, urban, etc.). The landscape code should be structured to enhance the assets of each zone and the community overall, yet provide enough flexibility to suit a variety of lots and uses. Attachment 1 includes the existing landscaping code.

**RECOMMENDED ACTION:**  
**DISCUSS AND PROVIDE RECOMMENDATIONS.**

Attachment 1: Landscape code

**Chapter 21.16**  
**DEVELOPMENT STANDARDS – LANDSCAPING**

Sections:

- 21.16.010 Purpose.
- 21.16.020 Application.
- 21.16.030 Land use grouping.
- 21.16.040 Landscaping – Types and description.
- 21.16.050 Landscaping – Street frontages.
- 21.16.060 Landscaping – Interior lot lines.
- 21.16.070 Landscaping – Surface parking areas.
- 21.16.075 Landscaping – Adjacent to public trails and other publicly used lands.
- 21.16.080 Landscaping – Adjacent to freeway rights-of-way.
- 21.16.085 Landscaping – Utility corridors.
- 21.16.090 Landscaping – General requirements.
- 21.16.100 Landscaping – Alternative options.
- 21.16.110 Landscaping – Irrigation.
- 21.16.120 Landscaping – Installation.
- 21.16.125 Repealed.
- 21.16.128 Repealed.
- 21.16.130 Repealed.
- 21.16.140 Repealed.
- 21.16.150 Repealed.
- 21.16.160 Repealed.
- 21.16.170 Repealed.
- 21.16.180 Maintenance.
- 21.16.190 Bonds – Security.
- 21.16.200 Penalties.

**21.16.010 Purpose.**

The purpose of this chapter is to preserve the aesthetic character of communities; to improve the aesthetic quality of the built environment; to promote retention and protection of existing vegetation; to reduce the impacts of development on drainage systems and natural habitats; and to increase privacy for Residential zones by:

- (1) Providing visual relief from large expanses of parking areas and reduction of perceived building scale;
- (2) Providing physical separation between residential and nonresidential areas;
- (3) Providing visual screens and barriers as a transition between differing land uses;
- (4) Retaining existing vegetation and significant trees by incorporating them into the site design when possible; and
- (5) Providing increased areas of permeable surfaces to allow for:
  - (a) Infiltration of surface water into ground water resources;
  - (b) Reduction in the quantity of storm water discharge; and

(c) Improvement in the quality of storm water discharge.

**21.16.020 Application.**

Except for communication facilities regulated pursuant to Chapter 21.26 WMC, all new development listed in WMC 21.16.030 shall be subject to the landscaping provisions of this chapter; provided, that specific landscaping provisions for uses established through a conditional use permit or a special use permit shall be determined during the applicable review process. For the purposes of this chapter, a new development involves a new occupancy or tenant improvement that exceeds 25 percent of the assessed value of the structure before the improvement or before any damage occurred, if the structure has been damaged and is being repaired.

**21.16.030 Land use grouping.**

In order to facilitate the application of this chapter, the land uses of Chapter 21.08 WMC have been grouped in the following manner:

- (1) Residential development shall refer to those uses listed in WMC 21.08.030, except those uses listed under accessory uses, provided:
  - (a) Attached/group residences shall refer to:
    - (i) Townhomes;
    - (ii) Apartments;
    - (iii) Senior citizen assisted;
    - (iv) Temporary lodging;
    - (v) Group residences (community residential facilities); and
    - (vi) Mobile home parks.
  - (b) Single detached development shall refer to residential subdivisions.
- (2) Commercial development shall refer to those uses in:
  - (a) WMC 21.08.040, as park/recreation and amusement/entertainment uses;
  - (b) WMC 21.08.050, except health and educational services;
  - (c) WMC 21.08.060, as general business services, professional offices, and commercial accessory uses; and
  - (d) WMC 21.08.070.
- (3) Industrial development shall refer to those listed in:
  - (a) WMC 21.08.050, except health and education services;
  - (b) WMC 21.08.060, except general business services, professional offices, and commercial accessory uses;
  - (c) WMC 21.08.080; and
  - (d) WMC 21.08.090, as mineral extraction and processing.
- (4) Institutional development shall refer to those uses listed in:
  - (a) WMC 21.08.040, as cultural uses, except arboretums;
  - (b) WMC 21.08.050, as health services, and education services except specialized instruction schools permitted as an accessory use;
  - (c) WMC 21.08.055; and
  - (d) WMC 21.08.100.
- (5) Utility development shall refer to those listed in WMC 21.08.060 as subregional utilities.
- (6) Uses contained in Chapter 21.08 WMC that are not listed in subsections (1) through (5) of this section shall not be subject to landscaping except as specified in any applicable review of a conditional use or special use permit.

**21.16.040 Landscaping – Types and description.**

The four types of landscaping are described and applied as follows:

(1) Type I Landscaping.

(a) Type I landscaping is a “full screen” that functions as a visual barrier. This landscaping is typically found adjacent to freeways and between residential and nonresidential areas;

(b) Type I landscaping shall consist of:

(i) A mix of primarily evergreen trees and shrubs placed to form a continuous screen;

(ii) At least 70 percent evergreen trees;

(iii) Evergreen trees spaced no more than 15 feet on center;

(iv) Broadleaf trees spaced no more than 20 feet on center;

(v) Evergreen shrubs spaced no more than four feet apart; and

(vi) Groundcover pursuant to WMC 21.16.090;

(2) Type II Landscaping.

(a) Type II landscaping is a “filtered screen” that functions as a visual separator. This landscaping is typically found between commercial and industrial uses; between differing types of residential development; and to screen industrial uses from the street;

(b) Type II landscaping shall consist of:

(i) A mix of evergreen and broadleaf trees and shrubs spaced to create a filtered screen;

(ii) At least 50 percent broadleaf trees and at least 30 percent evergreen trees;

(iii) Evergreen trees spaced no more than 15 feet on center;

(iv) Broadleaf trees spaced no more than 20 feet on center;

(v) Shrubs spaced no more than five feet apart; and

(vi) Groundcover pursuant to WMC 21.16.090;

(3) Type III Landscaping.

(a) Type III landscaping is a “see-through buffer” that functions as a partial visual separator to soften the appearance of parking areas and building elevations. This landscaping is typically found along street frontage or between apartment developments;

(b) Type III landscaping shall consist of:

(i) A mix of evergreen and/or broadleaf trees spaced to create a continuous canopy;

(ii) At least 70 percent broadleaf trees;

(iii) Trees spaced no more than 25 feet on center;

(iv) Shrubs, that do not exceed a height of four feet, spaced no more than four feet apart; and

(v) Groundcover pursuant to WMC 21.16.090;

(4) Type IV Landscaping.

(a) Type IV landscaping is “parking area landscaping” that provides shade and visual relief while maintaining clear sight lines within parking areas;

(b) Type IV landscaping shall consist of:

(i) Canopy-type broadleaf or evergreen trees, evergreen shrubs and groundcovers planted in islands or strips;

(ii) Shrubs that do not exceed a height of four feet;

(iii) Plantings contained in planting islands or strips having an area of at least 75 square feet and with a narrow dimension of no less than four feet;

(iv) Groundcover pursuant to WMC 21.16.090; and

(v) At least 90 percent of the trees shall be broadleaf.

**21.16.050 Landscaping – Street frontages.**

Perimeter landscaping along street frontages shall be provided as follows:

(1) A 10-foot width of Type II landscaping shall be provided for an institutional use, excluding playgrounds and playfields.

- (2) A 10-foot width of Type II landscaping shall be provided for an industrial development, except a 25-foot width of Type II landscaping shall be provided for development on I-zoned property abutting SR 202 or Woodinville-Snohomish Highway.
- (3) A 10-foot width of Type II landscaping shall be provided for an above ground subregional utility development located outside a public right-of-way.
- (4) A 10-foot width of Type III landscaping shall be provided for a commercial or attached/group residence development, except the 10-foot width of Type III landscaping may not be required pursuant to the City of Woodinville Design Guidelines and Standards.
- (5) For single detached subdivisions:
  - (a) Trees shall be planted at the rate of one tree for every:
    - (i) Fifty feet of frontage along a neighborhood collector street; and
    - (ii) Forty feet of frontage along an arterial street.
  - (b) The trees shall be:
    - (i) Located within the street right-of-way if permitted by the custodial State or local agency;
    - (ii) No more than 20 feet from the street right-of-way line when located within a lot;
    - (iii) Maintained by the adjacent landowner unless part of a City maintenance program; and
    - (iv) A species approved by the City Tree Official in accordance with the Tree Board approved required tree species list.
  - (c) The trees may be spaced at irregular intervals in order to accommodate sight distance requirements for driveways and intersections.
- (6) For developments in the Tourist District Overlay, see WMC 21.38.065.
- (7) Street trees shall be required in all development fronting a public street. Street tree species shall be approved by the City Tree Official in accordance with the Tree Board approved required tree species list or by the City's adopted street tree plan if applicable.

**21.16.060 Landscaping – Interior lot lines.**

Perimeter landscaping along interior lot lines shall be provided as follows:

- (1) Type I landscaping shall be included in a commercial, office, or industrial development as follows:
  - (a) A 20-foot width abutting residentially developed property or undeveloped residentially zoned property;
  - (b) A 10-foot width abutting property developed public recreational; or
  - (c) A 10-foot width abutting property designated as permanent open space.
- (2) A 20-foot width of Type II landscaping shall be included in an attached/group residence development along any portions of the development adjacent to a single-family detached residential development. Along portions of the development adjacent to another attached/group residence development or any nonresidential use the requirement shall be a 10-foot width of Type II landscaping.
- (3) A 10-foot width of Type II landscaping shall be included in an industrial development along any portion adjacent to a commercial or institutional development.
- (4) A 10-foot width of Type II landscaping shall be included in an institutional use, excluding playgrounds and playfields, or an above ground subregional utility development, excluding distribution or transmission corridors, when located outside a public right-of-way. If the institutional use abuts a residentially zoned or developed property, a 20-foot width of Type II landscaping is required along lines abutting the property. If the institutional use abuts an agriculturally zoned parcel, a 50-foot width of Type II landscaping is required along property lines abutting the parcel.
- (5) For developments in the Tourist District Overlay, see WMC 21.38.065.

- (6) For commercial and industrial developments, storm water retention facilities may be located in interior lot line landscaping areas; provided, that landscaping requirements are still met and the location is approved by the Development Services Director.

**21.16.070 Landscaping – Surface parking areas.**

Type IV landscaping shall be provided within surface parking areas with 10 or more parking stalls as follows:

- (1) Residential developments with common parking areas shall provide planting areas at the rate of 20 square feet per parking stall;
- (2) Commercial, industrial, or institutional developments shall provide landscaping at a rate of:
  - (a) Twenty square feet per parking stall when 10 to 30 parking stalls are provided; and
  - (b) Twenty-five square feet per parking stall when 31 or more parking stalls are provided;
- (3) Trees shall be provided and distributed throughout the parking area at a rate of:
  - (a) One tree for every five parking stalls for a commercial or industrial development; and
  - (b) One tree for every 10 parking stalls for residential or institutional development;
- (4) The maximum distance between any parking stall and required parking area landscaping shall be no more than 65 feet; and
- (5) Permanent curbs or structural barriers shall be provided to protect the plantings from vehicle overhang;
- (6) For developments in the Tourist District Overlay, see WMC 21.38.065.

**21.16.075 Landscaping adjacent to public trails and other publicly used lands.**

- (1) All developments adjacent to publicly used trails and other public lands shall provide landscaping adjacent to and along the building facade that faces the trail or land at the rate of at least one tree per 50 feet of facade. Exceptions may be made for those developments meeting Section IV.F of the City's Design Guidelines and Standards.
- (2) All development shall provide, at a minimum depending upon the intensity of use to be screened, Type III landscape screening from public areas, etc., to reduce off-site visual impacts. The applicant shall propose the type of landscaping to be provided for approval by the City Tree Official.

**21.16.080 Landscaping – Adjacent to freeway rights-of-way.**

- (1) All residential developments shall provide a minimum of 20 feet of Type I landscaping adjacent to freeway rights-of-way.
- (2) All other developments shall provide a minimum of 25 feet of Type III landscaping adjacent to freeway rights-of-way.
- (3) All developments adjacent to SR 522 may reduce the required buffer distance to a point that is within zero feet of the right-of-way in compliance with the terms of this subsection. In exchange for this flexibility, an agreement between the City and property owner is required in which the property owner agrees to construct and maintain at the property owner's expense a landscape buffer in the State of Washington Department of Transportation (DOT) right-of-way. The agreement shall be at the City's discretion and would include provisions allowing the City to conduct the landscape maintenance, in which case a fee for these maintenance services will be agreed upon between the property owner and the City prior to acceptance of the agreement by the City Council. The provisions of the agreement shall be designated as covenants running with the land of the property owner binding the successors and assigns of the property owner, including mortgagees and beneficiaries of a deed of trust.

- (4) An agreement will be required by DOT to allow the installation and maintenance of the landscaping in the DOT right-of-way. Typically, this agreement would be between DOT and the City.

#### **21.16.085 Landscaping – Utility corridors.**

Utility purveyors within the City of Woodinville are required to maintain and plant landscaping within their right-of-way as follows:

- (1) Limited disturbance of vegetation to that necessary for safety and maintenance of transmission lines;
- (2) Prune trees to direct growth away from utility lines using accepted pruning practices identified in the public tree care standards manual;
- (3) Phase replacement of vegetation located improperly in the right-of-way;
- (4) Prune trees in an aesthetic manner according to the professional arboricultural specifications and standards;
- (5) Select tree species recommended by the City's Tree Board or as approved by the City Tree Official that are compatible with utility lines;
- (6) Provide the City with a copy of the utility's policies and guidelines regarding tree pruning; and
- (7) Present the City with a tree-pruning plan at least one week prior to tree-pruning activities.

#### **21.16.090 Landscaping – General requirements.**

Landscape designs shall conform to the following provisions:

- (1) New landscaping materials shall include species native to the coastal region of the Pacific Northwest or non-invasive naturalized species that have adapted to the climatic conditions of the coastal region of the Pacific Northwest in the following amounts:
  - (a) Seventy-five percent of groundcover and shrubs; and
  - (b) Fifty percent of trees;
- (2) At least 60 percent of new landscaping materials shall consist of drought-tolerant species, except where site conditions within the required landscape areas assure adequate moisture for growth;
- (3) Existing vegetation may be used to augment new plantings to meet the standards of this chapter;
- (4) Broadleaf trees shall have a caliper of at least 1.75 inches at the time of planting. The caliper may be averaged, but no individual tree shall have a caliper of less than 1.5 inches;
- (5) Evergreen trees shall be at least six feet in height measured from treetop to the ground at the time of planting;
- (6) When the width of any landscape strip is 20 feet or greater, the required trees shall be staggered in two or more rows;
- (7) Shrubs shall be:
  - (a) Number two size, and minimum 18 inches in height, at time of planting in Type II, III and IV landscaping;
  - (b) At least 24 inches in height at the time of planting for Type I landscaping; and
  - (c) Maintained at a height not exceeding four feet when located in Type III or IV landscaping;
- (8) Groundcovers shall be planted and spaced to result in total coverage of the required landscape area within three years as follows:
  - (a) Four-inch pots at 18 inches on center; or
  - (b) One gallon or greater sized containers at 24 inches on center;
- (9) Turf may be used as groundcover in landscape areas; provided, that the turf area:
  - (a) Constitutes no more than 30 percent of Type I and II landscape areas; and

- (b) Is at least five feet wide at the smallest dimension;
- (10) Grass and groundcover areas shall contain at least two inches of composted organic material at finish grade;
- (11) All fences shall be placed on the inward side of any required perimeter landscaping;
- (12) Berms shall not exceed a slope of three horizontal feet to one vertical foot for lawns and shall not exceed a slope of two horizontal feet to one vertical foot for other plant materials;
- (13) Existing soils shall be augmented with a two-inch layer of fully composted organic material rototilled a minimum of six inches deep;
- (14) Landscape areas shall be covered with at least two inches of mulch to minimize evaporation. Mulch shall consist of materials such as yard waste, sawdust and/or manure that is fully composted;
- (15) Drought-tolerant and nondrought-tolerant species shall be distributed and irrigated in a manner that uses water efficiently;
- (16) Required street landscaping may be placed within City of Woodinville street rights-of-way subject to the City's street design standards with the permission of the Public Works Director, provided adequate space is maintained along the street line on-site to replace the required landscaping should subsequent street improvements require the removal of landscaping within the rights-of-way;
- (17) Species and plantings shall be consistent with the Tree Board approved required tree species list and required plant species list; and
- (18) A qualified tree professional, as defined in WMC 21.06.486, shall be on-site during any site work affecting preserved trees.

#### **21.16.100 Landscaping – Alternative options.**

The following alternative landscape options may be allowed only if they accomplish equal or better levels of screening and are subject to Development Services Director approval:

- (1) When the total area for required landscaping and that within the dripline of retained trees exceeds 15 percent of the area of the site, the landscaping requirement may be reduced so that the total required landscape and tree retention area will not exceed the 15 percent of site area;
- (2) The width of the perimeter landscape strip may be reduced up to 25 percent along any portion where:
  - (a) Berms at least three feet in height or architectural barriers at least six feet in height are incorporated into the landscape design; and
  - (b) The landscape materials are incorporated elsewhere on-site;
- (3) The width of the perimeter landscaping may be reduced up to 10 percent when a development retains an additional 10 percent of significant trees or 10 significant trees per acre on-site (above the requirements of WMC 21.15.070), whichever is greater;
- (4) The landscaping requirement may be modified when existing conditions on or adjacent to the site, such as significant topographic differences, vegetation, structures or utilities would render application of this chapter ineffective or result in scenic view obstruction;
- (5) Street perimeter landscaping may be waived provided a site plan is approved that provides a significant amount of street trees and other pedestrian-related amenities;
- (6) When an existing structure precludes installation of the total amount of required site perimeter landscaping, such landscaping material shall be incorporated on another portion of the site; and
- (7) The width of the perimeter landscaping may be averaged, provided the minimum width is not less than five feet.

#### **21.16.110 Landscaping – Irrigation.**

- (1) Except for areas of undisturbed existing vegetation or low areas with existing high soil moisture conditions, landscape areas shall have temporary irrigation systems. Such systems shall be removed after 24 months or two growing seasons, whichever occurs first; provided, that the plantings are established;
- (2) Areas of undisturbed existing vegetation or areas where existing site conditions assure adequate soil moisture for growth within the required landscape area shall have temporary irrigation systems only as required to sustain new plantings and shall be determined on a case-by-case basis by the Development Services Director; and
- (3) Areas of undisturbed existing vegetation, low areas with existing high soil moisture conditions, or landscape areas consisting of drought-tolerant vegetation shall not have permanent irrigation systems. Permanent irrigation systems may be permitted within all other required landscape areas; provided such systems shall be designed by a licensed landscape architect or certified irrigation designer and with:
  - (a) Moisture or precipitation sensors;
  - (b) Automatic timers set for operation during periods of minimum evaporation and that assure adequate moisture levels;
  - (c) Head-to-head spacing, if sprinkler heads are proposed;
  - (d) Pressure regulating devices;
  - (e) Backflow prevention devices; and
  - (f) Separate irrigation zones for:
    - (i) Turf and planting beds; and
    - (ii) Other nondrought-tolerant species.

**21.16.120 Landscaping – Installation.**

- (1) Landscaping shall be installed prior to issuance of a certificate of occupancy for the project or project phase.
- (2) The time limit for compliance may be extended to allow installation of landscaping during the next appropriate planting season, subject to submittal of a performance bond or appropriate security as approved by the Development Services Director.

**21.16.125 Tree preservation exemptions.**

Repealed by Ord. 478.

**21.16.128 Single-family residential tree preservation incentive.**

Repealed by Ord. 478.

**21.16.130 Tree preservation requirements.**

Repealed by Ord. 478.

**21.16.140 Tree preservation plan.**

Repealed by Ord. 478.

**21.16.150 Incentives for tree preservation.**

Repealed by Ord. 478.

**21.16.160 Tree protection.**

Repealed by Ord. 478.

**21.16.170 Tree replacement.**

Repealed by Ord. 478.

**21.16.180 Maintenance.**

- (1) All landscaping and trees shall be maintained for the life of the project.
- (2) All landscape materials and trees shall be pruned as necessary to maintain a healthy growing condition or to prevent primary limb failure.
- (3) With the exception of dead, diseased or damaged trees specifically retained to provide wildlife habitat, other dead, diseased, damaged or stolen plantings shall be replaced within three months or during the next planting season if the loss does not occur in a planting season.
- (4) Landscape areas shall be kept free of trash.
- (5) Proper tree and plant protection shall be considered as a part of the overall landscaping maintenance methods used.
- (6) Maintenance of all landscaping installed as part of a development project within the right-of-way shall be the responsibility of the abutting property owner for the life of the project unless alternative conditions are approved by the City.

**21.16.190 Bonds – Security.**

Performance bonds or other appropriate security (including letters of credit and set-aside letters) shall be required for a period of three years after the planting or transplanting of vegetation to insure proper installation, establishment and maintenance.

**21.16.200 Penalties.**

In accordance with enforcement regulations of Chapter 1.06 WMC, any person violating these regulations shall be subject to civil penalty procedures and fines. Each tree removed or damaged shall be considered a separate violation.