

*Title 18H*

***DEVELOPMENT REGULATIONS - FOREST PRACTICES  
AND TREE CONSERVATION***

**CHAPTERS:**

- 18H.10    GENERAL PROVISIONS.**
- 18H.20    FOREST PRACTICES APPROVALS.**
- 18H.30    DEVELOPMENT MORATORIA.**
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## *Chapter 18H.10*

### **GENERAL PROVISIONS**

#### **Sections:**

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- 18H.10.020 Purpose.**
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#### **18H.10.010 Title.**

This Title shall be officially cited as Title 18H, Development Regulations -Forest Practices and Tree Conservation. (Ord. 2004-58s § 5 (part), 2004)

#### **18H.10.020 Purpose.**

This Title establishes the minimum standards and requirements associated with local government review and jurisdiction over Class IV forest practices and conversion option harvest plans and establishes local procedures for forest practice related development moratoria in accordance with RCW 76.09 (Washington State Forest Practices Act.) This Title also establishes minimum tree conservation requirements for developing properties within unincorporated Pierce County. (Ord. 2004-58s § 5 (part), 2005)

#### **18H.10.030 Applicability.**

This Title applies to all lands within unincorporated Pierce County. Unless the requirements of this Title are met, Pierce County shall not grant any approval or permission to alter the condition of any land or vegetation or to construct any structure or improvement regulated through the following: building permit, commercial or residential; binding site plan; site development permit; short subdivision; use permit; planned development district approval; subdivision; large lot division; forest practice approval pursuant to RCW 76.09; or any subsequently adopted permit or required approval not expressly exempted by this Title. (Ord. 2004-58s § 5 (part), 2004)

#### **18H.10.040 Relationship to RCW 76.09.**

- A. This Title is directly related to specific subsections in RCW 76.09 and its rules that refer to Class IV forest practices, conversion option harvest plans, and forest practice related development moratoria. The application of this Title to forest practice activities regulated by RCW 76.09 shall be limited to:
  - 1. Class IV-General forest practices;
  - 2. Class IV-Special conversion forest practices;
  - 3. Class II, III, and IV-Special forest practices where the landowner elects to be processed as a conversion option harvest plan (COHP);

4. Class I forest practices within urban growth areas (UGAs) that involve timber harvesting or road construction;
  5. Class I forest practices outside UGAs which are associated with lands platted after January 1, 1960, or lands which have been or are in the process of being converted to a non-forestry use, and
  6. Imposition and removal of development moratoria pursuant the RCW 76.09.060.
- B. This Title establishes the minimum standards necessary for local review and approval of Class IV-General forest practices, Class IV-Special conversion forest practices, COHP, and Class I forest practices.
- C. The provisions of this Title provide the criteria for the establishment or removal of development moratoria and exceptions for single-family dwellings located on lands subject to a development moratorium.
- D. All forest practice approvals and associated development moratoria issued by Pierce County pursuant to RCW 76.09.060 shall comply with this Title.
- (Ord. 2004-58s § 5 (part), 2004)

**18H.10.060      Reconsideration and Appeals.**

Procedures for appeal of any administrative decision and procedures for reconsideration or appeal of a Hearing Examiner decision issued pursuant to this Title are set forth in Chapter 1.22, PCC. (Ord. 2004-58s § 5 (part), 2004)

**18H.10.070      Fees.**

Fees for applications and/or reviews of reports or studies filed pursuant to this Title are set forth in Chapter 2.05, PCC. (Ord. 2004-58s § 5 (part), 2004)

**18H.10.080      Compliance.**

The regulations for compliance with the provisions of this Title are set forth in Chapter 18.140, Development Regulations - General Provisions, Compliance. (Ord. 2004-58s § 5 (part), 2004)

**18H.10.090      Liability of the County.**

Nothing in this Chapter shall be deemed to impose any liability upon the County or upon any of its officers or employees, or to relieve the owner or occupant of any private property from the duty to keep in safe and healthy condition the trees upon his property. (Ord. 2004-58s § 5 (part), 2004)

**18H.10.100      Severability.**

If any provision of this Title is held invalid, the remainder of this Title or the application of the provision to other persons or circumstances shall not be affected. (Ord. 2004-58s § 5 (part), 2004)

## *Chapter 18H.20*

### ***FOREST PRACTICE APPROVALS***

#### **Sections:**

- 18H.20.010 Purpose.**
- 18H.20.020 Exemptions.**
- 18H.20.030 Class IV-General Forest Practices.**
- 18H.20.040 Class I Forest Practices.**
- 18H.20.050 Conversion Option Harvest Plans (COHP).**
- 18H.20.060 Additional Requirements Applicable to all Applications.**
- 18H.20.070 Modifications.**
- 18H.20.080 Time Limitations.**

#### **18H.20.010 Purpose.**

This Chapter sets forth procedures and criteria for Pierce County approval of Class IV-Special conversion forest practices, Class IV-General forest practices, conversion option harvest plans (COHP) and certain Class I forest practices, regulated under the Washington State Forest Practices Act, RCW 76.09. (Ord. 2004-58s § 5 (part), 2004)

#### **18H.20.020 Exemptions.**

The following activities are exempted from the provisions of this Chapter:

- A. Class I forest practices located outside of UGAs, except when:
  - 1. The forest practices are associated with the conversion of land to a non-forestry use, or
  - 2. The forest practices occur on land platted after January 1, 1960.
- B. Class I forest practices located within UGAs that do not involve road construction or timber harvesting.
- C. Class II, III, and IV-Special forest practices in a UGA where the landowner submits a 10-year statement of non-conversion to the Department of Natural Resources (reforestation agreement) together with either an acceptable 10-Year Forest Management Plan or proof that the land is currently enrolled in Current Use Assessment-Timber Lands, under the provisions of RCW 84.33.
- D. Class II, III, and IV-Special forest practices located outside UGAs, are permitted or approved by the Department of Natural Resources, and do not have an associated COHP.

(Ord. 2004-58s § 5 (part), 2004)

#### **18H.20.030 Class IV-General Forest Practices.**

- A. **State and Local Approval.** Until such time as transfer of jurisdiction for Class IV-General forest practices occurs pursuant to RCW 76.09.240, the Department of Natural Resources is the permitting agency for Class IV-General forest practice permits. Pursuant to the RCW, Pierce County is designated lead agency for compliance with the State Environmental Policy Act. Pierce County is also permitted to exercise any: (a) Land use planning or zoning authority, (b) Taxing powers, (c) Regulatory authority with respect to public health, and (d) Authority granted by RCW 90.58 (Washington State Shoreline Management Act, provided that the land use planning or zoning authority

regulations shall not be inconsistent with the forest practice regulations enacted under RCW 76.09. Accordingly, a SEPA threshold determination and Class IV-General forest practice approval is required to be obtained from Pierce County prior to obtaining a permit from the Department of Natural Resources. Prior to conducting any forest practices defined as Class IV-General (including Class IV-General forest practices that are reclassified to Class IV-Special), an approved forest practices permit that includes Pierce County's approval conditions and threshold determination shall be obtained from the Washington State Department of Natural Resources.

- B. **Application Filing.** Applications for Class IV-General approvals shall be reviewed for completeness in accordance with Departmental submittal standards checklist and pursuant to Title 18, Development Regulations - General Provisions.

C. **General Requirements.**

1. An application for a Class IV-General approval shall be submitted concurrent with an application for a site development permit, if one is required, and prior to conducting forest practices on the project site.
2. A Class IV-General approval will not be issued until any pending development permit applications that are associated with the site have been approved.
3. Where an interlocal agreement regarding tree preservation has been entered into between a city or town and Pierce County, the city's or town's tree preservation standards shall be applied to forest practices occurring within their designated urban growth area or urban service area, if those standards are more restrictive.
4. Class IV-General forest practices shall comply with all applicable provisions of the Pierce County Code, including Chapter 18H.40 of this Title, and RCW 76.09.
5. Class IV-General forest practices shall comply with any conditions of approval established through the associated development permit or approval.
6. Class IV-General forest practices conducted on vacant land that are not associated with an application for land division or subdivision, use permit, commercial building permit, or single- or two-family residential building permit shall be limited to the removal of not more than 35 percent of the total volume of trees throughout the gross area of the site during any six-year period. For the purposes of this Section, parcels developed solely with accessory structures such as storage buildings or other similar structures shall be considered to be vacant.

- D. **Required Findings.** A Class IV-General approval may be issued by the Director only if all of the following findings can be made regarding the proposal and are supported by the record:

1. The granting of the proposed Class IV-General approval will not be detrimental to the public health, safety, and general welfare.
2. The granting of the proposed Class IV-General approval will not be injurious to the property or improvements adjacent to and in the vicinity of the proposal.
3. The granting of the proposed Class IV-General approval will not result in significant adverse environmental impacts.
4. The granting of the proposed Class IV-General approval is consistent with the general requirements set forth in 18H.20.030 C.
5. The granting of the proposed Class IV-General approval is consistent and compatible with the goals, objectives, and policies of the Comprehensive Plan, appropriate community plan, and the provisions of this Title.

- E. **Burden of Proof.** The applicant has the burden of proving that the forest practices comply with the provisions of this Title.
  - F. **Approval Authority.**
    - 1. The Director shall review all requests for approvals, any comments received, and applicable County regulations or policies, and may inspect the property prior to rendering a decision.
    - 2. The Director may approve an application, approve the application with conditions, require modification of the proposal to comply with specified requirements or local conditions, or deny the application if it fails to comply with requirements of this Title.
  - G. **Transmittal to State.** Upon issuance, Pierce County shall transmit the threshold determination and Class IV-General approval or denial to the Department of Natural Resources for inclusion in the conditions of the forest practices permit.
- (Ord. 2004-58s § 5 (part), 2004)

**18H.20.040 Class I Forest Practices.**

- A. Class I forest practices that result in the cutting and/or removal of less than 5,000 board feet of timber for personal use (e.g., firewood, fence posts, etc.) in any 12-month period, the culture and harvest of Christmas trees and seedlings, and/or emergency fire control or suppression shall not be required to obtain any forest practices approval from Pierce County. Although a forest practices approval is not required, the following requirements shall be met:
  - 1. Class I forest practices, including the removal of diseased or dangerous trees, proposed within a wetland, stream, landslide hazard area, fish and wildlife area, or other critical area and associated buffer regulated pursuant to Title 18E, Development Regulations - Critical Areas, shall comply with all applicable requirements of that Title.
  - 2. Class I forest practices, including the removal of diseased or dangerous trees, proposed within other open space areas or buffers, including but not limited to natural buffer areas, screening buffers, and tree conservation areas established pursuant to any other permit, approval, or regulation, shall comply with the following standards:
    - a. Written authorization from the Planning and Land Services Department shall be required prior to the removal of trees except as provided by 18H.20.040 A.2.e.
    - b. Tree cutting shall be authorized only when:
      - (1) It is demonstrated to the satisfaction of the Planning and Land Services Department that a hazard exists to public health or safety, the safety of private or public property, or the health of surrounding trees. In these cases, the landowner shall be required to submit a report and replanting plan from a registered landscape architect, certified arborist, professional forester, or other expert approved by Pierce County that document the hazard, the specific actions that must occur to abate the threat, and the schedule for replanting; or
      - (2) The permit or approval that established the open space or buffer area expressly authorizes the proposed tree cutting.

- c. Tree cutting shall be limited to limbing and crown thinning, unless otherwise justified by the landowner's expert. All vegetation cut (tree stems, branches, tops, etc.) shall remain within the open space or buffer area unless removal is warranted due to the potential for disease transmittal to other healthy vegetation.
    - d. The landowner shall replace any trees that are felled or topped with new trees at a ratio of two replacement trees for each tree felled or topped. Replacement trees shall meet the standards set forth in 18H.40.050.
    - e. Hazardous trees determined to pose an imminent threat or danger to public health or safety, or to public or private property, or serious environmental degradation may be removed or topped by the landowner prior to receiving written approval from Pierce County; provided that within 14 days following such action, the landowner shall submit the necessary report and replanting schedule demonstrating compliance with the requirements of this Section.
  - 3. The forest practices shall comply with all applicable requirements of Pierce County Code, including but not limited to Title 17A, Development Regulations - Storm Drainage and Site Development, Title 18E, Development Regulations - Critical Areas, and Title 20, Shoreline Management Use Regulations.
  - B. Any forest practice within the Urban Growth Area resulting in the cutting and/or removal of more than 5,000 board feet of timber shall be processed as a Class IV-General forest practice pursuant to RCW 76.09.050(1), including those that meet the criteria for Class I forest practices pursuant to WAC 222-16-050(3), e.g. forest practices involving a single landowner where contiguous ownership is less than 2 acres in size. All such forest practices shall comply with the requirements and approval criteria for Class IV-General forest practices set forth in 18H.20.030, except that those meeting the criteria for Class I forest practices pursuant to WAC 222-16-050(3) shall not be subject to environmental review under the State Environmental Policy Act (RCW 43.21C).
- (Ord. 2004-58s § 5 (part), 2004)

#### **18H.20.050 Conversion Option Harvest Plans (COHP).**

- A. **Optional Process.** A Conversion Option Harvest Plan (COHP) is a voluntary plan required of a Class II, III, or IV-Special forest practices operation, pre-approved by Pierce County, produced to preserve the forest landowners' option to convert that forestland to a non-commercial forest use, as well as exempt the forest landowner from the development moratorium. COHPs are approved by the county to provide a landowner with the flexibility of harvesting timber upon their land prior to applying for a development permit, but still maintain the option to convert that land to a non-commercial forestry use. Sites that meet their jointly approved COHP conditions are not subject to the six-year development moratorium ordinarily imposed under RCW 76.09.
- B. **Application Filing.** An application for a COHP shall be reviewed for completeness in accordance with Departmental submittal standards checklist and pursuant to Title 18, Development Regulations - General Provisions and any applicable standards set forth in RCW 76.09 and its rules.
- C. **General Requirements.**
  - 1. A COHP shall include a narrative description of the objectives of the timber harvest, relationship of the harvest to future development of the site, built and natural features present at the site, measures to be taken to preserve and protect critical areas, harvest method, including type of equipment to be used, and the expected dates of commencement, and completion of all harvest activity.



2. The COHP shall be submitted prior to application for development and/or conducting forest practices on the project site.
  3. Upon approval of a COHP, a memorandum of agreement between the applicant and the County shall be recorded with the Pierce County Auditor.
  4. The COHP shall be approved by the Department prior to the submittal of the associated forest practices permit to the DNR.
  5. The approval of a COHP shall not release a landowner from the requirement to reforest a site pursuant to WAC 222-34.
  6. The COHP shall comply with all applicable standards and provisions of the Pierce County Code and RCW 76.09.
  7. The COHP shall result in the removal of not more than 70 percent of the total volume of trees throughout the gross area of the site. Retained trees shall consist of timber that is equivalent to the average size, species, and age of the harvested trees. Trees should be selected for retention based upon a consideration of windthrow potential, wildlife value, aesthetics, and compatibility with future development. Narrow strips of trees along a site's perimeter boundaries should be avoided due to windthrow potential.
- D. **Required Findings.** A COHP may be approved by the Director only if all of the following findings can be made regarding the proposal and are supported by the record:
1. The granting of the proposed COHP will not be detrimental to the public health, safety, and general welfare.
  2. The granting of the proposed COHP will not be injurious to the property or improvements adjacent to and in the vicinity of the proposal.
  3. The granting of the proposed COHP will not result in significant adverse environmental impacts.
  4. The granting of the proposed COHP is consistent with the general requirements set forth in 18H.20.050 C.
  5. The granting of the proposed COHP is consistent and compatible with the goals, objectives, and policies of the Comprehensive Plan, appropriate community plan, and the provisions of this Title.
- E. **Burden of Proof.** The applicant has the burden of proving that the COHP complies with the provisions of this Title.
- F. **Approval Authority.**
1. The Director shall review all requests for approvals, any comments received, and applicable County regulations or policies, and shall inspect the property prior to rendering a decision.
  2. The Director may approve an application for a COHP, approve the application with conditions, require modification of the proposal to comply with specified requirements or local conditions, or deny the application if it fails to comply with requirements of this Title.
  3. A Pierce County approved COHP application shall be submitted to the DNR in association with the pertinent Class II, III, or IV-Special forest practices application. A COHP shall not be final until the County approved COHP and the approved associated forest practices application is received from the Department of Natural Resources.

(Ord. 2004-58s § 5 (part), 2004)

**18H.20.060 Additional Requirements Applicable to all Applications.**

- A. **Site Plans.** All Class IV-General and COHP applications submitted pursuant to this Chapter shall include a site plan containing the following information, if applicable:
1. Harvest boundaries and tree retention areas;
  2. The approximate location of any structures;
  3. The location of all existing and proposed streets, rights-of-way, easements, skid roads, haul roads, and landings within the proposal;
  4. The location of future land development including stormwater management facilities, and vegetation to be retained for site landscaping, open space, wildlife habitat, screening, and/or buffers;
  5. Site topography at a contour interval of 40 feet;
  6. Critical areas and critical area buffers regulated pursuant to Title 18E - Critical Areas;
  7. Drainage ways and culverts;
  8. Site area targeted for further harvest including proposed timing; and
  9. North seeking arrow and scale shall be shown on all site plans. The scale shall be no smaller than one inch to 200 hundred feet.
- B. **Field Marking of Site Features.** At the time of submittal of any application required pursuant to this Title, the following features shall be clearly marked at the site with flagging or colored paint by the applicant:
1. Critical areas and critical area buffers regulated pursuant to Title 18E - Critical Areas;
  2. Centerline of all proposed roads;
  3. Landing areas;
  4. Tree retention areas; and
  5. Cutting boundaries.

(Ord. 2004-58s § 5 (part), 2004)

**18H.20.070 Modifications.**

A one-time modification to any application submitted pursuant to this Chapter may be permitted administratively provided the proposed modification is minor in nature and does not enlarge the area approved to be harvested or increase the volume of timber approved to be harvested by more than 10 percent or result in forest practices occurring within a critical area, critical area buffer, or tree retention area. Any modification exceeding these thresholds shall require a new application and associated fees. (Ord. 2004-58s § 5 (part), 2004)

**18H.20.080 Time Limitations.**

- A. **Expiration of Approvals.**
1. A Class IV-General approval shall be valid for two consecutive years following the date of issuance unless a longer time period has been established through an associated approval (e.g., preliminary plat approval, conditional use permit, etc.) in which case the time limits applicable to the associated approval shall apply.
  2. A COHP shall be valid for a period of two years unless a longer period of time is established for the associated forest practices permit or approval issued by DNR in which case the time limits applicable to the DNR permit or approval shall apply. If, however, a forest practices permit is not approved by DNR and executed by the landowner within two years of the approval of the COHP, the COHP shall become null and void.

3. A time extension of a development permit by the Hearing Examiner shall extend any associated Class IV-General approval. (Ord. 2004-58s § 5 (part), 2004)



## *Chapter 18H.30*

### ***DEVELOPMENT MORATORIA***

#### **Sections:**

- 18H.30.010 Purpose.**
- 18H.30.020 Development Moratoria.**
- 18H.30.030 Allowable Activities.**
- 18H.30.040 Request for Removal of Development Moratoria.**
- 18H.30.050 Request for Single-Family Dwelling Exception.**

#### **18H.30.010 Purpose.**

This Chapter provides the criteria for establishing development moratoria. It also provides standards for the Hearing Examiner to remove a six-year development moratorium, and for the Director to authorize the construction of one single-family dwelling unit on a site that is subject to a six-year development moratorium. (Ord. 2004-58s § 5 (part), 2004)

#### **18H.30.020 Development Moratoria.**

- A. **General Requirements.** Where development moratoria are applicable, all applications for permits or approvals relating to non-forestry uses of land (e.g., building permits, development applications, project construction, subdivision approvals) shall be denied by Pierce County for a period of six years, unless lifted pursuant to this Chapter. All development moratoria established in this Chapter shall be mandatory, pursuant to RCW 76.09.
- B. **Applicability of Development Moratorium.** The applicability of six-year development moratoria pursuant to RCW 76.09 shall be as follows:
  - 1. Class I forest practices shall not be subject to a six-year development moratorium when conducted in accordance with RCW 76.09 and its rules.
  - 2. Class IV-General forest practices approved by the Department of Natural Resources and Pierce County shall not be subject to a six-year development moratorium when conducted in accordance with RCW 76.09 and its rules and the approved forest practices permit.
  - 3. Class II, III, or IV-Special forest practices with an associated COHP, shall not be subject to a six-year development moratorium when conducted in accordance with RCW 76.09 and its rules, an approved forest practices permit (if applicable), and the Pierce County approved COHP.
  - 4. Class II, III, or IV-Special forest practices which do not have an associated COHP shall result in the imposition of a six-year development moratorium.
  - 5. Any forest practice conducted in violation of RCW 76.09 or its rules, including failure to comply with the conditions of an approved forest practices permit or failure to obtain required permits or approvals, shall result in the imposition of a six-year development moratorium.
  - 6. The violation of an approved COHP shall result in the imposition of a six year development moratorium

**C. Consequences of a Development Moratorium.**

1. Except as provided by Section 18H.30.030, Pierce County shall not accept applications for any development of land that is subject to a six-year moratorium. Provided that any reports or studies associated with a request to remove a development moratorium pursuant to 18H.30.040 may be accepted and reviewed in conjunction with the request.
2. In those cases where a development moratorium is imposed on a site that is subject to pending development applications, Pierce County shall immediately cease to review the applications and shall deny the applications. The County shall provide notice of the moratorium to the applicant prior to the denial of applications and shall allow the applicant 30 days from the date of the notice to apply for moratorium removal pursuant to 18H.30.040. If an application for moratorium removal is received during the 30-day period, the denial of any development applications will be postponed until such time as a decision on the moratorium removal request is rendered.
3. All development moratoria imposed by Pierce County shall extend to the harvest area indicated in the forest practices permit. If no forest practices permit was issued, the moratorium shall apply to the entire parcel.
4. Pierce County shall notify the appropriate State agency if a forest practices activity that meets the definition of a Class II, III, or IV forest practices has been initiated on a parcel without an approved forest practices permit.

**D. Effective Date of a Moratorium.**

1. The six-year development moratorium shall be imposed from the effective date of the applicable forest practices permit.
2. If forest practices occur on a site without the appropriate permit, a six-year development moratorium shall be imposed from the date the unpermitted forest practices were documented by Pierce County or DNR.
3. Where a site is subject to an approved forest practices permit with or without a COHP, forest practices occurring at the site which are outside the scope of the approved permit shall be considered unpermitted forest practices for moratorium purposes. In these cases, a six-year development moratorium shall be imposed from the date the unpermitted forest practices were documented by Pierce County or DNR.
4. If a condition of a COHP approval is violated, a six-year development moratorium shall be imposed from the date the associated forest practices approval became effective.

(Ord. 2004-58s § 5 (part), 2004)

**18H.30.030 Allowable Activities.**

The following activities shall be allowed on any parcel that is subject to a development moratorium:

- A. The division of land into lots, each of which is one thirty-second of a section of land or larger or 20 acres or larger; provided, the proposed division meets the minimum lot size or density requirements in Title 18A.
- B. Repair or remodeling within the existing footprint of existing structures.
- C. Reconstruction of a structure damaged or destroyed due to fire, explosion, wind, flood, earthquake, or other similar calamity.

- D. The construction of a single agricultural building or accessory structure having a building footprint of not more than 750 square feet.
  - E. Utility uses specified under the Utility Use Category in Section 18A.25.100 of the Pierce County Zoning Code.
- (Ord. 2004-58s § 5 (part), 2004)

**18H.30.040 Request for Removal of Development Moratoria.**

Any development moratorium established pursuant to Section 18H.30.020 may be considered for removal by the Hearing Examiner when the following requirements are met:

**A. Public Hearing Required.**

- 1. The Department shall set a date for public hearing before the Examiner after all the requests for additional information or plan correction, as set forth in subsection 18.60.020 C., have been satisfied.
- 2. The public hearing shall follow the procedures set forth in Chapter 18.80, Development Regulations - General Provisions, Notice, and Chapter 1.22, PCC.

**B. Review Criteria.** The Examiner shall consider the removal of a development moratorium established pursuant to this Chapter when the following criteria are met:

- 1. The forest practices conducted on the site meet the standards set forth in subsection 18H.20.030 C.
- 2. Corrective actions are implemented which would bring the forest practices into compliance with this Title.
- 3. If critical areas or critical area buffers have been damaged, the critical areas and buffers shall be restored as required by Title 18E. Additionally, the Examiner may impose increased critical area buffer standards together with additional requirements to mitigate the damage beyond that specified in Title 18E when it is determined that such additional action is necessary to adequately address the damage caused by the forest practice activity.
- 4. The entire site shall have been replanted as necessary to achieve a minimum tree density of 40 tree units per acre.

**C. Approval.**

- 1. The Hearing Examiner shall review all requests for removal of a development moratorium, any comments received and applicable County regulations or policies, and may inspect the property prior to rendering a decision.
- 2. The Hearing Examiner may approve an application for a request to remove a development moratorium, approve the application with conditions, require modification of the proposal to comply with specified requirements or local conditions, or deny the application if it fails to comply with requirements of this Title.

**D. Required Written Findings and Determinations.** Removal of a development moratorium may be approved by the Examiner if the following findings can be made regarding the proposal and are supported by the record:

- 1. The removal of the six-year development moratorium will not be detrimental to the public health, safety, and general welfare.
- 2. The removal of the six-year development moratorium will not be injurious to the property or improvements adjacent to and in the vicinity of the proposal.
- 3. The removal of the six-year development moratorium will not result in significant adverse environmental impacts.

4. The removal of the six-year development moratorium is consistent with the review criteria in 18H.30.040 B.
5. The removal of the six-year development moratorium is consistent and compatible with the goals, objectives, and policies of the Comprehensive Plan, appropriate community plan, and the provisions of this Title.

(Ord. 2004-58s § 5 (part), 2004)

**18H.30.050 Request for Single-Family Dwelling Exception.**

The Director may administratively grant an exception to the mandatory six-year development moratorium to allow the construction of one single-family dwelling unit and associated accessory structures pursuant to the following standards:

**A. General Requirements.**

1. The area that is permitted to be developed pursuant to this administrative exception shall not exceed two acres in size. The area shall be undivided and shall be rectangular in shape;
2. Upon approval of a single-family dwelling unit exception, a memorandum of agreement (MOA) shall be recorded with the Pierce County Auditor by the landowner. The MOA shall identify the actions to be taken by the landowner to correct any violations of County ordinances or regulations;
3. If the moratorium was imposed as a result of harvesting under an approved Class II or Class III forest practices permit, a minimum of one year shall have elapsed from the date the harvest occurred. If documentation of the harvest date does not exist, the one year shall be measured from the date the forest practices permit or notification expires.
4. If the moratorium was imposed as a result of unpermitted harvesting or a violation of an approved COHP or Class IV-General forest practices permit, a minimum of two years shall have elapsed from the date the moratorium was imposed by Pierce County.
5. The development moratorium shall remain in effect for all other non-forestry uses of the site.

**B. Review Criteria.** One single-family dwelling, permitted accessory structures, lawn and landscaped area, and access road may be constructed together with site development activities necessary to construct the dwelling on land subject to a development moratorium provided that:

1. The construction of the single-family dwelling, lawn and landscaping area, accessory structures, and access road are in compliance with all applicable County regulations;
2. The landowner mitigates any damage to critical areas resulting from the forest practices in accordance with the requirements set forth in Title 18E. The mitigation requirement shall apply to the entire parcel, including those areas outside of the maximum two acre exception area set forth in the request;
3. Reforestation of the site has occurred if required pursuant to WAC 222-34.

**C. Required Written Findings and Determinations.** A single-family dwelling unit exception may be approved by the Director on a site that is subject to a six-year development moratorium only if all of the following findings can be made regarding the proposal and are supported by the record:

1. The single-family exception to the six-year development moratorium will not be detrimental to the public health, safety, and general welfare.



2. The single-family exception to the six-year development moratorium will not be injurious to the property or improvements adjacent to and in the vicinity of the proposal.
3. The single-family exception to the six-year development moratorium will not result in significant adverse environmental impacts.
4. The granting of the single-family exception to the six-year development moratorium is consistent with the review criteria in 18H.30.040 B.
5. The single-family exception to the six-year development moratorium is consistent and compatible with the goals, objectives, and policies of the Comprehensive Plan, appropriate community plan, and the provisions of this Title.

(Ord. 2004-58s § 5 (part), 2004)



## *Chapter 18H.40*

### ***TREE CONSERVATION***

#### **Sections:**

- 18H.40.010 Purpose.**
- 18H.40.020 Relationship to Vesting.**
- 18H.40.030 Exemptions.**
- 18H.40.040 Tree Conservation Standards.**
- 18H.40.050 Standards for Trees to be Retained or Planted.**
- 18H.40.060 Residential Location Requirements.**
- 18H.40.070 Protection of Tree Before and During Development.**
- 18H.40.080 Tree Conservation Plans and Affidavits.**
- 18H.40.090 Review of Tree Conservation Plans and Affidavits.**
- 18H.40.100 Amending Tree Conservation Plans.**
- 18H.40.110 Variance Procedures.**
- 18H.40.120 Maintenance Requirements.**
- 18H.40.130 Appendices.**
  - A. Tree Conservation Plan Requirements.**
  - B. Tree Conservation Affidavit.**
  - C. Trees and Site Related Disturbances.**
  - D. Maintenance Practices.**
  - E. Figures.**
  - F. Recommended Tree Species.**
  - G. Title Notification Form.**

#### **18H.40.010 Purpose.**

The indiscriminate removal or destruction of trees and tree cover poses a threat to Pierce County's environmental quality, aesthetic character, and quality of life enjoyed by its residents. The benefits associated with trees and tree cover include but are not limited to: the reduction of surface water runoff; flood control; the provision of fish and wildlife habitat; the maintenance of water quality; the cleansing of the air; the abatement of noise; and the conservation of energy. This Chapter seeks to conserve trees and tree cover to ensure that these benefits continue to be realized by current and future generations. (Ord. 2004-58s § 5 (part), 2004)

#### **18H.40.020 Relationship to Vesting.**

Nothing in this Chapter is intended to terminate vesting as defined by Chapter 18.160, Pierce County Code. (Ord. 2004-58s § 5 (part), 2004)

#### **18H.40.030 Exemptions.**

The following activities are exempt from the provisions of this Chapter:

- A. Construction, expansion, remodeling, or reconstruction of a single- or two-family residence and associated improvements (i.e. accessory structures, utilities, and driveways) on an existing lot of record.
- B. Expansion, remodeling, or maintenance of structures, other than single- or two-family structures, provided that the existing building footprint shall not increased by more than 10 percent.

- C. Construction, reconstruction, or maintenance of public roads, paths, bicycle ways, trails, bridges, sewer lines, storm drainage facilities, and other similar public infrastructure, excluding public buildings.
  - D. Installation, construction, replacement, operation, repair, or alteration of all utility lines, equipment, and appurtenances, excluding substations and similar facilities.
  - E. Class IV-General Forest Practices Permits that result in the removal of 35 percent or less of the total timber volume from a site in any six year period.
  - F. Class II, III, and IV-Special non-conversion forest practices regulated and conducted in accordance with RCW 76.09, including those associated with a COHP.
  - G. Construction or reconstruction of bulkheads, docks, piers, and other water dependent uses regulated and conducted in accordance with Title 20, Pierce County Code.
  - H. Surface mining conducted within a designed Mineral Resource Overlay.
  - I. Development occurring within any designated airport safety area or object free area.
  - J. Agricultural activities conducted within a designated Agricultural Overlay.
- (Ord. 2004-58s § 5 (part), 2004)

**18H.40.040 Tree Conservation Standards.**

- A. **Minimum Tree Density - New Uses on Vacant or Redeveloping Parcels.** This Chapter promotes tree conservation by establishing minimum tree density requirements, expressed as tree units per acre, for new uses proposed on vacant or redeveloping parcels. It is intended that the tree density requirements will be met primarily through the conservation of existing trees. However, in order to provide for continued flexibility in the design of new development, in those situations where a development's design would preclude the retention of the required number of trees, the use of replacement or supplemental tree planting is authorized. The minimum tree density for each land use designation is specified in Table 18H.40.040 D.
- B. **Sites with Insufficient Tree Cover.** It is recognized that some sites may not contain a sufficient number of existing trees to meet the tree density standards set forth in Table 18H.40.040 D. In those situations, additional trees are to be planted as necessary to achieve the minimum tree density requirements of this Chapter.
- C. **Significant Trees.** Certain trees species have been identified as being significant due to their age, scarcity, habitat value, or community identifying characteristics and as such warrant additional protection. Mandatory retention of these trees shall be required. At a minimum, 30 percent of significant Garry (Oregon White) Oak and 10 percent of all other significant trees shall be retained, including all significant trees located within perimeter landscaped areas or commonly owned tracts, up to the minimum tree density specified in Table 18H.40.040 D. The following trees are designated as significant:

<b>Significant Trees (Table 18H.40.40 C.)</b>	
<b>Tree Species</b>	<b>Size</b>
Garry (Oregon White) Oak	8" d.b.h. or greater
Pacific Yew	5" d.b.h. or greater
Pacific Madrone	10" d.b.h. or greater
Ponderosa Pine	15" d.b.h. or greater
Douglas Fir	24" d.b.h. or greater
Grand Fir	15" d.b.h. or greater
Big Leaf Maple	15" d.b.h. or greater
Western Hemlock	15" d.b.h. or greater
Western Red Cedar	15" d.b.h. or greater
Shore Pine	15" d.b.h. or greater
Western White Pine	15" d.b.h. or greater
Sitka Spruce	24" d.b.h. or greater

- D. **Tree Density Requirements.** All regulated activity shall ensure that the following tree densities shall be achieved and maintained during and after development:

<b>Minimum Tree Density Requirements for Vacant or Redeveloping Parcels (Table 18H.40.040 D.)</b>	
<i>Undeveloped or Redeveloping Properties</i>	
<b>Land Use Designation</b>	<b>Required Tree Unit Density(1)(2)</b>
EC, MUC, CC, AC, UNC, RAC, GC, and MUD	20 tree units/acre
HRD, HSF, and RNC	25 tree units/acre
MSF	30 tree units/acre
RSEP, Rsv5, and Rsv10	40 tree units/acre
R5, R10, R20, and R40	40 tree units/acre
FL and A	N/A

- (1) Public schools shall be subject to a required tree unit density of 10 tree units/acre in all land use designations.
- (2) Non-residential uses, other than public schools, permitted within urban residential or rural residential land use designations shall be subject to a required tree unit density of 20 tree units/area.

- E. **Calculation of the Total Tree Units Required.** The total number of tree units required to be provided by a regulated activity shall be calculated by multiplying gross site acreage, minus any public or private streets and regulated critical areas (excluding buffers) determined by Pierce County to be undesirable for tree planting (e.g., certain wildlife habitat and wetlands), by the required tree density (in tree units per acre) set forth in Table 18H.40.040 D. The result of the calculation will be the total number of tree units required for the activity. If the calculation results in a fractional quantity, it shall be rounded to the nearest whole number (greater than or equal to .5 is rounded up, less than .5 is rounded down).

- F. **Tree Unit Credits.** The number of tree unit credits given for retaining existing trees or the planting of new trees varies in order to encourage the retention of large existing trees and the planting of replacement trees that provide greater canopy areas at maturity. Tree unit credits for the retention of existing trees, significant trees, and the planting of new trees shall be awarded as follows:

<b>Tree Unit Credits (Table 18H.40.040 F.)</b>	
<b>Tree Category</b>	<b>Tree Unit Credit</b>
Existing Tree 1" to 6" d.b.h.	1.0 tree units per tree retained
Existing Tree 6" to 12" d.b.h.	1.5 tree units per tree retained
Existing Tree 12" to 18" d.b.h.	2.0 tree units per tree retained
Existing Tree 18" to 24" d.b.h.	2.5 tree units per tree retained
Existing Tree > 24" d.b.h.	3.0 tree units per tree retained
Significant Tree < 24" d.b.h.	2.5 tree units per tree retained
Significant Tree >24" d.b.h.	3.0 tree units per tree retained
Replacement Tree, Small Canopy Species (Mature canopy area < 450 square feet)	.50 tree units per tree planted
Replacement Tree, Medium Canopy Species (Mature canopy area 450 to 1,250 square feet)	1.0 tree units per tree planted
Replacement Tree, Large Canopy Species (Mature canopy area > 1,250 square feet)	1.5 tree units per tree planted

- F. **Tree Conservation Requirements - Expansions of Existing Uses.** Expansions of existing commercial, industrial, and multi-family properties which do not conform to the tree density requirements of this Chapter shall be subject to the following tree conservation requirements whenever such expansion would result in a greater than a 10 percent increase in the size of the existing building footprint or associated impervious areas (parking lots, storage areas, etc.):
1. A minimum of one tree unit shall be provided for each 500 square feet of building expansion or new construction; and
  2. A minimum of three tree units shall be provided for each tree unit removed, up to a maximum of 25 tree units per acre.

(Ord. 2004-58s § 5 (part), 2004)

#### **18H.40.050 Standards for Trees to be Retained or Planted.**

- A. **Trees Proposed for Retention.** Trees proposed for retention must meet the following minimum standards in order to be credited towards satisfying the tree density requirements of this Chapter:
1. Must have a post-development life expectancy of greater than 10 years;
  2. Must have a relatively sound and solid trunk with no extensive decay or hollow and no significant trunk damage;
  3. Must have no major insect or pathological problem;
  4. Must have no significant crown damage;
  5. Must be fully branched and generally proportional in height and breadth for the tree age;

6. Individual trees and groupings of trees proposed for retention must be windfirm in their post development state;
  7. Trees identified as having significant habitat value (i.e., snags or nesting trees) or located within a critical area or its buffer may be credited towards satisfying tree density requirements, regardless of the health or state of the tree. An evaluation of individual tree health shall not be required for such trees; and,
  8. Evaluation of individual tree health within commonly owned tracts not designated as critical area or buffer shall be limited to those trees within one and one-half tree lengths of proposed structures or improvements.
- B. Trees Proposed for Planting.** Trees proposed for planting must meet the following minimum standards in order to be credited towards satisfying the tree density requirements of this Chapter:
1. Trees selected for replacement purposes shall be free from injury, pests, diseases and nutritional disorders. Trees must be fully branched and have a healthy root system;
  2. Coniferous and broad leaf evergreen trees shall be no less than four feet in height at time of planting;
  3. Deciduous trees shall have a minimum caliper size of one and one half inch at time of planting, except where a greater size is necessary to comply with other requirements of the Pierce County Code (i.e., landscaping required pursuant to Title 18A, Development Regulations - Zoning);
  4. Replacement trees must be ecologically compatible with the intended growing site and at a minimum at least 30 percent of the total number of replacement trees must be of species native to the Pacific Northwest region;
  5. To avoid potentially unhealthy monocultures, the total number of any individual species of replacement tree planted shall not exceed 25 percent of the total number of all replacement trees planted; and
  6. Trees planted shall include a mix of coniferous and deciduous trees, with emphasis on the use of native species, where appropriate. At a minimum, at least 30 percent of the trees planted shall be coniferous. Trees shall be selected from the list set forth in 18H.40.130, Appendix F, unless otherwise recommended by a professional forester, certified arborist or licensed landscape architect, and approved by Pierce County.

(Ord. 2004-58s § 5 (part), 2004)

#### **18H.40.060 Residential Location Requirements.**

- A.** In order to minimize development related conflicts and foster long-term success in the conservation of tree cover in residential areas, the following location requirements shall be adhered to:
1. Proposed residential subdivisions and planned development districts shall locate a minimum of 25 percent of the required trees within areas of land separate from residential lots. Such areas include but are not limited to tree conservation tracts, park tracts, stormwater tracts, and critical area tracts.
  2. Trees proposed to be planted within residential lots that are less than 8,000 square feet in size shall be located within the required side, rear, or front yard areas in order to minimize development related conflicts, unless otherwise approved by the Planning and Land Services Department. When these lots or building sites are located contiguous to protective tracts (such as park, stormwater, or critical area tracts), the preferred location of the trees is the area adjacent to these tracts.

(Ord. 2004-58s § 5 (part), 2004)

**18H.40.070 Protection of Trees Before and During Development.**

- A. All trees and tree stands proposed for retention and supplemental tree plantings shall be protected before and during site development and construction through adherence to the following requirements:
1. A tree protection area shall be designed to protect each tree or tree stand during site development and construction. The tree protection areas shall conform to the approved tree conservation plan or affidavit.
  2. Tree protection areas may vary widely in shape, but must extend a minimum of three feet beyond the existing tree canopy area along the outer edge of the tree stand, unless otherwise approved by the Department.
  3. Tree protection areas shall be added and clearly labeled on all applicable site development, plats, and construction drawings, submitted to the Department.
  4. Temporary fencing shall be erected along the outer edge and completely surrounding the tree protection area. Fences shall be constructed of chain link and at least four feet high, unless the Director authorizes another type of fencing. The fencing shall be posted with signage clearly identifying the tree protection area. The fencing shall be maintained and in place until the Director authorizes its removal.
  5. No clearing, grading, filling, or other development activities shall occur within the tree protection area, except where approved in advance by the Planning and Land Services Department and noted in the tree conservation plan.
  6. No vehicles, construction materials, fuel, or other materials shall be placed in tree protection areas. Movement of any vehicles within tree protection areas shall be prohibited.
  7. No nails, rope, cable, signs, or fencing shall be attached to any tree proposed for retention.
  8. If the grade level around a tree is to be raised, a dry rock wall or rock well shall be constructed around the tree. The diameter of this wall or well must be at least equal to the diameter of the tree plus an additional 5 feet.
  9. The grade level around the tree may not be lowered within the greater of: (1) the area defined by the drip line of the tree at time of development; or (2) an area around the tree equal to 1 foot in diameter for each 1 inch of tree diameter as measured 1 foot above pre-existing grade at time of development, unless a registered landscape architect, certified arborist or certified nursery professional determines that the long-term health of the tree will not be significantly harmed.
  10. Trenching and other activities within or adjacent to tree conservation areas that may cut or damage the roots of trees proposed for retention shall be prohibited unless recommended by a professional forester, certified arborist or licensed landscape architect, and approved by Pierce County. When such activities are permitted, at a minimum the following requirements shall be adhered to:
    - a. Before backfilling, roots over one inch in diameter shall be cut cleanly to remove any ripped or jagged edges that may be present;
    - b. Exposed roots shall be covered with burlap or other similar material and shall be sprinkled or otherwise kept damp until backfilling is complete.
  11. The Department may approve the use of alternate tree protection techniques if the trees will be protected to an equal or greater degree than provided by this Chapter. (See 18H.40.130 - Appendix C for more information regarding tree protection.)

(Ord. 2004-58s § 5 (part), 2004)



**18H.40.080 Tree Conservation Plans and Affidavits.**

To ensure compliance with the requirements of this Chapter, all development activity subject to the provisions of this Chapter shall include either a tree conservation plan or tree conservation affidavit as specified below:

- A. **Subdivisions, Short Subdivisions, Binding Site Plans, and Similar Permits.**  
Applications for subdivision, short subdivision, large lot division, planned development district, or binding site plan approval shall include the submittal of a tree conservation plan. The tree conservation plan shall comply with the form and content requirements specified in 18H.40.130 Appendix A.
- B. **Site Development and Forest Practice Permits.** Site development and Class IV-General Forest Practice permit applications for property which is subject to a previously approved tree conservation plan shall be required to submit only a tree protection affidavit. All other site development or Class IV-General Forest Practice permit applications shall include the submittal of a tree conservation plan that complies with the form and content requirements specified in 18H.40.130 Appendix A.
- C. **Use Permits and Commercial Building Permits.** Use permit and commercial building permit applications for property which is subject to a previously approved tree conservation plan shall be required to submit only a tree protection affidavit. All other use permit and commercial building permit applications shall include the submittal of a tree conservation plan that complies with the form and content requirements specified in 18H.40.130 Appendix A.

(Ord. 2004-58s § 5 (part), 2004)

**18H.40.090 Review of Tree Conservation Plans and Affidavits.**

The Department shall review all tree conservation plans and affidavits to ensure compliance with the requirements of this Chapter prior to the approval of any associated development permit or application.

- A. **Tree Conservation Affidavit.**
  - 1. The tree conservation affidavit shall be reviewed by the Department to ensure that the requirements of any previously approved tree conservation plan are met, if applicable.
  - 2. Tree conservation affidavits shall be reviewed by the Department within the time limitations specified in Title 18. If the affidavit is determined to be deficient, the applicant shall be notified of the deficiency and shall be provided the opportunity to submit a new affidavit complying with the provisions of this Chapter. Pierce County shall not issue building, site development, or other permits for development until such time as the tree protection affidavit has been approved and recorded.
- B. **Tree Conservation Plans.**
  - 1. Tree conservation plans shall be reviewed by the Department within the time limitations specified in Title 18. Upon completion of its review, the Department shall take one of the following actions:
    - a. Approve the tree conservation, with or without conditions; or
    - b. Disapprove the tree conservation plan, indicating deficiencies to the applicant. If the tree conservation plan is determined to be deficient, the applicant shall be notified in writing of the deficiency and shall be provided the opportunity to modify the plan as necessary to comply with the provisions of this Chapter.

2. Tree conservation plans shall be reviewed by the Department prior to the approval of the associated underlying permit or application. The underlying permit may not be approved until such time as the Department has approved the tree conservation plan.
3. The tree conservation plan shall be incorporated by reference in any approval issued for the underlying permit or application. Compliance with the tree conservation plan shall be a condition of such approval.

(Ord. 2004-58s § 5 (part), 2004)

#### **18H.40.100 Amending Tree Conservation Plans.**

The Director may allow or approve minor modifications to an approved tree conservation plan during the site development construction process to account for unforeseen site conditions and circumstances. The submittal of an amended tree conservation plan meeting the requirements of this Chapter shall be required. (Ord. 2004-58s § 5 (part), 2004)

#### **18H.40.110 Variances.**

- A. **Process.** Variances to the requirements of this Chapter may be considered pursuant to the criteria set forth in Title 18A, Development Regulations - Zoning.
- B. **Compensatory Mitigation.** As a condition of granting a variance request for any reduction in the on-site tree density requirements of this Chapter, the applicant shall be required to provide off-site mitigation or an "in lieu" contribution of equivalent value upon implementation of such a program by Pierce County.
- C. **Off-Site Mitigation.** Where off-site mitigation is used, the remaining balance of trees must be planted at an off-site location approved by the property owner and the Department. Acceptable off-site locations, in order of priority, are as follows:
  1. Pierce County managed mitigation or restoration sites for the improvement of wetland areas, riparian corridors, fish and wildlife habitat, or similar features;
  2. Pierce County owned or managed parks and recreational facilities within the urban growth area;
  3. Public Works projects within Pierce County's unincorporated urban growth area which include a landscaping component;
  4. Public school sites within Pierce County's unincorporated urban growth area;
  5. Other mitigation or restoration sites managed by other public entities or private conservation groups;
  6. Publicly owned parks and public school sites within incorporated areas; and,
  7. Other sites proposed by the applicant, when it is documented that higher priority sites are not available or viable.

- D. **In Lieu Contributions.** [Reserved]

(Ord. 2004-58s § 5 (part), 2004)

#### **18H.40.120 Maintenance Requirements.**

The following maintenance requirements shall apply to all trees and tree conservation areas required pursuant to this Chapter:

- A. Trees are to be maintained in a vigorous and healthy condition, free from diseases, pests, and weeds in perpetuity. Pruning of trees shall be limited to thinning, windowing, or skirting as described in 18H.40.130 Appendix D, except as otherwise approved by Pierce County pursuant to this Title or Title 18E.

- B. Trees that become diseased, severely damaged, or which die shall be removed and replaced by the developer, property owner, or where appropriate, the homeowner's association. All trees removed shall be replaced within 60 days of removal with a healthy tree meeting the requirements of 18H.40.050 B. Replacement trees shall be properly irrigated or watered as necessary to promote survival. The tree density units provided by the replacement trees shall be equivalent to that provided by the trees being replaced.
  - C. Developer responsibility for maintenance of trees, including removal or replacement of diseased, dead, or dying trees, shall be as follows:
    - 1. Within residential subdivisions (including short plats) the developer shall be responsible for maintaining trees on individual lots until such time as the individual lots are sold at which point the individual lot owner shall assume responsibility. Developer responsibility for maintaining trees within common tracts shall remain in effect until such time as the common tract is transferred to the control of a homeowner's association or, where no homeowner's association exists, until such time as all individual lots within the subdivision are sold, at which point the homeowner's association or individual lot owners shall assume responsibility.
    - 2. Within all other developments, developer responsibility for maintaining trees shall remain in effect until such time as the property sale occurs. Upon the property sale, the new owner shall assume the responsibility for maintenance.
  - D. Compliance with the tree conservation plan shall be a condition of approval and shall be identified on the face of the final plat, short plat, or large lot.
  - E. Title notice shall be filed with the Pierce County Auditor prior to final development approval. The notice shall provide a public record of any approved tree conservation plan and tree conservation areas; the application of this Title to the property; and that limitations on actions in or affecting the property may exist.
  - F. Failure to maintain trees as required in this Section shall constitute a violation of this Chapter and any associated land use or subdivision approvals.
- (Ord. 2004-58s § 5 (part), 2004)

**18H.40.130 Appendices.**

- A. Tree Conservation Plan.**
- B. Tree Conservation Affidavit.**
- C. Trees and Site Related Disturbances.**
- D. Maintenance Practices.**
- E. Figures.**
- F. Recommended Tree Species.**
- G. Title Notification Form.**

## **18H.40.130 - Appendix A**

### **Tree Conservation Plans**

#### ***Minimum Requirements***

At a minimum, any tree conservation plan submittal for approval shall meet the following requirements:

1. The tree conservation plan shall be prepared by a licensed landscape architect or qualified professional forester.
2. Provisions for tree conservation and protection on the site shall be in conformance with the requirements of Title 18H of the Pierce County Code.
3. A tree conservation plan shall be submitted either as part of the preliminary plat or other appropriate plan, or as a separate drawing, and shall include the following information:
  - a. Tree Protection Plan: Drawn to scale; designating trees to be preserved. It should include the following information:
    - i. Locations of perimeters of individual and strands of trees to be preserved. The tree protection area for trees to be preserved shall be shown on the plan.
    - ii. Size, species, and health of trees to be preserved.
    - iii. General locations of trees proposed for removal.
    - iv. Limits of construction and existing and proposed grade changes on site.
    - v. Narrative description and graphic detail of tree protection and tree maintenance measures required for the trees to be preserved.
    - vi. Timeline for clearing, grading and installation of tree protection measures.
  - b. Planting Plan: Drawn to scale on the site plan. It shall include the following information:
    - i. Location, size, species, and number of trees to be planted.
    - ii. Narrative description and detail showing any site preparation, installation, and maintenance measures necessary for the long-term survival and health of the trees.
    - iii. Timeline for site preparation, installation, and maintenance of trees.
    - iv. Cost estimate for the purchase, installation and 5-years' maintenance of trees.
  - c. Tree Density Calculation: The following information shall be included on the site plan:
    - i. Acreage of on-site critical areas, excluding critical area buffer.
    - ii. Acreage of on-site public and private roads.
    - iii. Calculation of tree unit credits for existing trees proposed for preservation.
    - iv. Calculation of tree unit credits for new trees to be planted.
  - d. A watering plan is required for the establishment phase of new plantings. The plan must provide for adequate watering of the newly installed trees for a minimum of three years.
  - e. The following notes shall be indicated on both tree conservation plans and any grading plans in large letters:  
CONTACT THE PLANNING AND LAND SERVICES DEPARTMENT AT  
(253) 798-7210 TO ARRANGE A PRE-CONSTRUCTION CONFERENCE PRIOR TO  
ANY LAND DISTURBANCE.

ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE  
INSTALLED PRIOR TO GRADING, CLEARING, OR OTHER VEGETATION  
REMOVAL.

TREE REMOVAL SHALL BE CONSISTENT WITH THE APPROVED TREE CONSERVATION PLAN. FAILURE TO COMPLY WITH THE APPROVED TREE CONSERVATION PLAN CONSTITUTES A VIOLATION TO TITLE 18H AND OTHER APPLICABLE PIERCE COUNTY REGULATIONS.

- B. Trees that become diseased, severely damaged, or which die shall be removed and replaced by the developer, property owner, or where appropriate, the homeowner's association. All trees removed shall be replaced within 60 days of removal with a healthy tree meeting the requirements of 18H.40.050 B. Replacement trees shall be properly irrigated or watered as necessary to promote survival. The tree density units provided by the replacement trees shall be equivalent to that provided by the trees being replaced.

(Ord. 2004-58s § 5 (part), 2004)

**18H.40.130 - Appendix B**

**Tree Conservation Affidavit**

BUILDING PERMIT/SITE DEVELOPMENT PERMIT NO. \_\_\_\_\_  
THIS PERMIT AUTHORIZES \_\_\_\_\_  
TO BEGIN \_\_\_\_\_

IN \_\_\_\_\_ SUBDIVISION OR AT THE FOLLOWING  
ADDRESS \_\_\_\_\_.

THE AUTHORIZED PERSON ACKNOWLEDGES THAT HE/SHE IS RESPONSIBLE FOR  
TAKING ADEQUATE STEPS TO:

1. Protect the tree save areas on this lot as identified in the tree conservation plan (normally the front, rear, and or side yard areas) in accordance with the standards of Title 18H, Development Regulations - Forest Practices and Tree Conservation.
2. Field locate and mark all tree conservation areas on the site. Marking shall consist of engineering tape or fencing and shall be installed in accordance with the requirements of 18H.40.070. All tape or fencing shall be installed prior to site development and construction and shall remain and be maintained until home construction is 100 percent completed.
3. Install any trees on the lot required by the approved tree conservation plan, if applicable, or as required pursuant to 18H.40.040.

FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL RESULT IN THE  
ISSUANCE OF A STOP WORK ORDER OR OTHER CITATIONS.

COUNTY OFFICIAL \_\_\_\_\_ APPLICANT \_\_\_\_\_  
DAY OF \_\_\_\_\_, 20\_\_ EFFECTIVE THIS \_\_\_\_\_

NOTE: DISPLAY THIS PERMIT AT THE MAIN POINT OF  
ACCESS AND VISIBLE FROM THE STREET.

(Ord. 2004-58s § 5 (part), 2004)

## **18H.40.130 - Appendix C**

### **Tree and Site Related Disturbances**

Conservation trees and tree stands must be protected from the following types of damage:

#### Direct Physical Root Damage

Direct physical root damage most frequently occurs during site clearing and grading operations, where transport or feeder roots are cut, torn, or removed. Examples:

1. Transport and feeder roots tend to tangle and fuse among the roots of adjacent trees. The removal of trees with heavy machinery along the outer periphery of a tree save area can result in considerable damage within the tree save area.
2. The most substantial form of root damage for all root types occurs in the form of cut roots. Roots are cut in grade reduction or from trenching for underground utilities, sanitary sewer, or storm sewer lines.
3. A more subtle form of root damage is the loss of feeder roots. Feeder roots normally occur within the organic layer and the surface four inches of topsoil; subsequently, these roots can be easily damaged by the track action from a single bulldozer pass. The stripping of topsoil within a tree's critical root zone can totally eliminate the feeder root system.

#### Indirect Root Damage

Indirect root damage through site modification can result from positive grade changes, temporary storage of fill material, soil compaction, and soil chemical changes. Examples:

1. Positive grade changes from fill and sedimentation causes a decrease in soil oxygen levels. An increase in soil carbon dioxide and other toxic gases can also occur, leading to large areas of anaerobic soil conditions causing a decrease in the root respiration process which is essential for the uptake and transport of mineral and nutrients.
2. Anaerobic soil conditions are also produced by soil compaction which is the increase in soil bulk density with a decrease in soil pore space. Compacted soil is also impervious to root penetration, and thus inhibits root development. Soil compaction is generally caused by the weight and vibrations of heavy machinery, vehicle parking, and the storage of fill or construction material within the critical root zones of trees.
3. Changes in soil chemistry will adversely affect tree survival. The most frequent occurrence is the change (decrease) in soil acidity by concrete washout. The leakage or spillage of toxic material such as fuels or paints can be fatal for trees.

#### Trunk and Crown Disturbance

Trunk and crown disturbance are generally mechanical in nature and are caused either directly by clearing and grading machinery, or indirectly by debris being cleared and falling into a tree marked for protection. Examples:

1. Common forms of damages include stripped bark and cambium, split trunks, and broken limbs.
2. Damage also occurs from the posting of signs such as building permits or survey markers on trees.

3. Indirect damage can be caused by the placement of burn holes or debris fires too close to trees. The possible range of damage includes scorched trunks with some cambial dieback, the loss of foliage due to evaporative heat stress (leaf desiccation), and completely burned trunk and crowns.

(Ord. 2004-58s § 5 (part), 2004)



## 18H.40.130 - Appendix D

### Maintenance Practices

#### Pruning

##### *Types of Pruning*

Pruning is the practice of removing dead or living components of a tree for the purposes of maintaining or improving form, improving tree health, or addressing safety concerns. Pruning can produce strong, healthy, attractive plants when done properly. Poor pruning practices however, adversely affected tree health and often result in bigger problems for the plant owners. The most common types of tree pruning are listed below.

1. Crown Thinning - Crown thinning is the selective removal of branches to increase light penetration and air movement throughout the crown of a tree. The intent is to maintain or develop a tree's structure. No more than one-quarter of the living crown should be removed at a time. Branches with strong U-shaped attachments are preferred over narrow, V-shaped attachments. V-shaped branches should be candidates for removal. Conifers that have branches in whorls and pyramidal crowns rarely need crown thinning.
2. Crown Raising - Crown raising is the practice of removing branches from the bottom of trees to provide clearance for pedestrians, vehicles, buildings, or lines of sight.
3. Crown Reduction - Crown reduction is a method of last resort, most often used when a tree has grown too large for its space. This method is preferred over topping because it results in a more natural appearance, results in less stress on the tree, and increases the time before pruning is needed again. This method is not helpful for trees with a pyramidal form. A better-long term solution is to remove these trees and replace them with a tree more suited to the growing conditions.

#### *Topping*

Topping generally harms trees and **should not be used**. Topping, the pruning of large upright branches, is sometimes done to reduce the height of the tree and is often used to maintain scenic views, because of conflicts with utility lines, or because the tree has simply become so large that it is a worry to the property owner. Topping is also referred to as stubbing, heading back, stubbing-off, and lopping. Topping has severe, negative long-term effects on tree health. These negative effects include starvation, shock, insects and disease, weak limbs, and tree death. Topping typically removes so much of the crown of a tree that its crown-to-root ratio is upset, temporarily cutting off its food-making ability, resulting in starvation of the tree. Trees that have been topped often have a difficult time forming calluses over the large stubs created by topping. These stubs are highly vulnerable to insect invasion and decay fungi.

Many tree species will produce fast growing water sprouts in order to replace the “food manufacturing abilities” that were lost due to topping – if the tree is not killed outright. New limbs that sprout after topping are more weakly attached than limbs that develop normally. They also create long term maintenance problems that could be prevented by proper pruning or thinning rather than topping. If rot develops at the severed end of the limbs, the weight of the new limb worsens the situation.

***Pruning for Views***

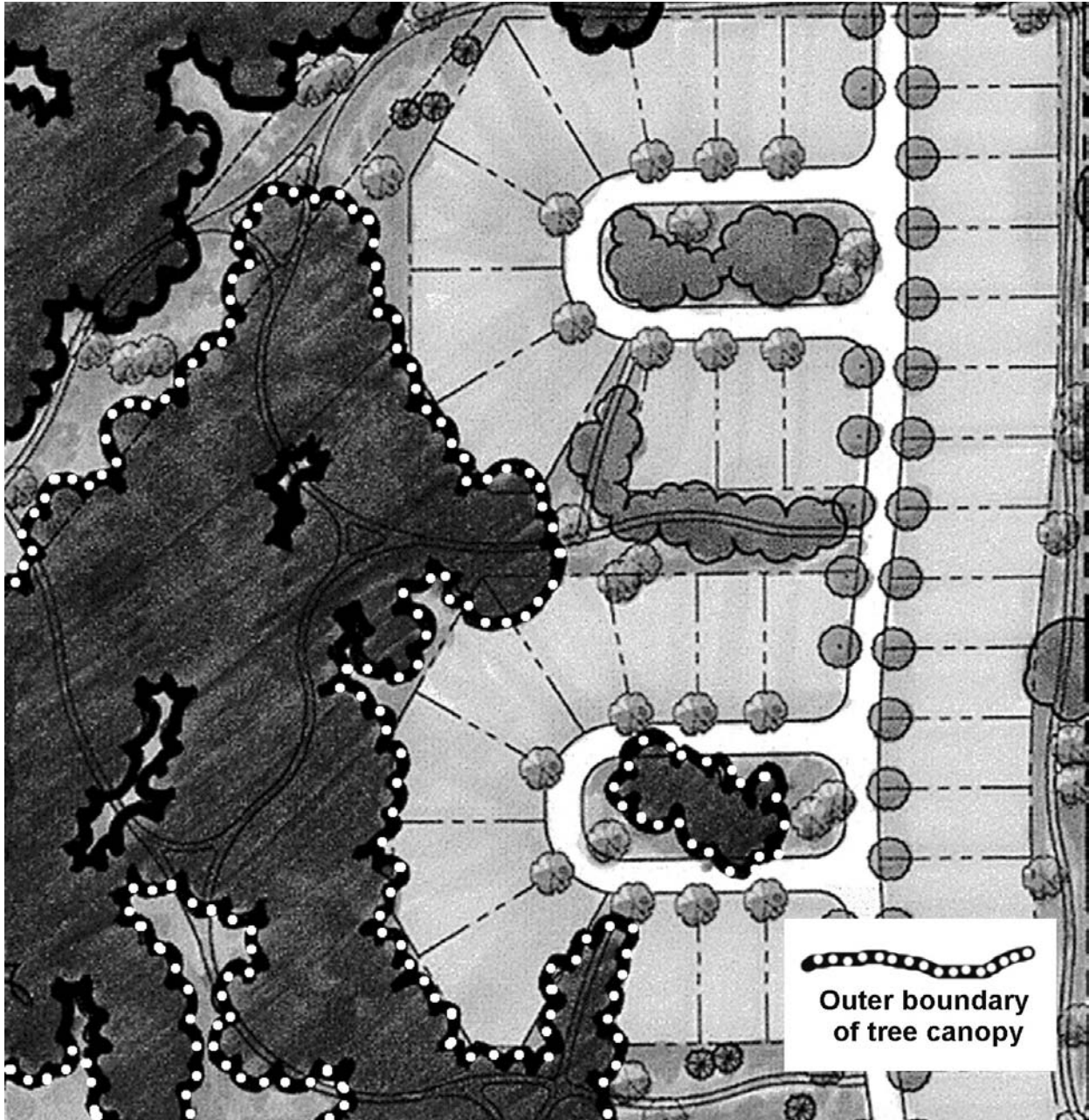
The following methods are preferred for creating or maintaining views. These techniques seek to make the tree a part of the view. A view through the trees establishes a perspective for distant vistas and can create a better view than one without the trees.

1. Thinning - Removal of foliage evenly through the tree crown maintaining tree form and health. Not more than one quarter of the total leaf area is removed. If too much is removed, aggressive sprouting will occur the following year, ruining the view next year.
2. Windowing - The practice of creating a "window" within the tree crown. The overall crown remains intact. When windowing one side of a tree, it may be necessary to prune the opposite side of the tree to maintain balance.
3. Skirting - The practice of open up views by removing the lower limbs of a tree. As a rule, do not limb up more that one-third of the tree's visible height.

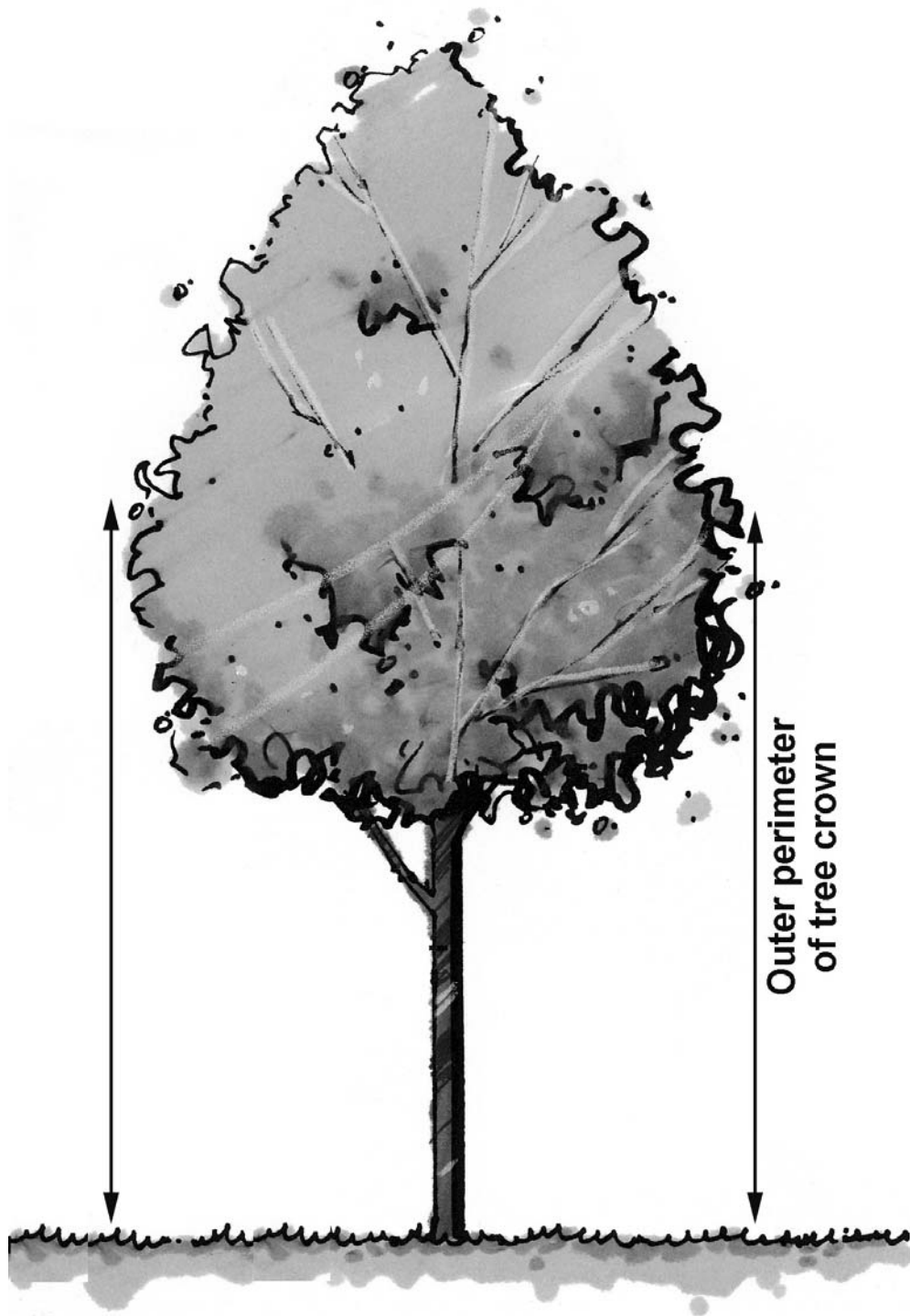
(Ord. 2004-58s § 5 (part), 2004)

**18H.40.130 - Appendix E  
Figures**

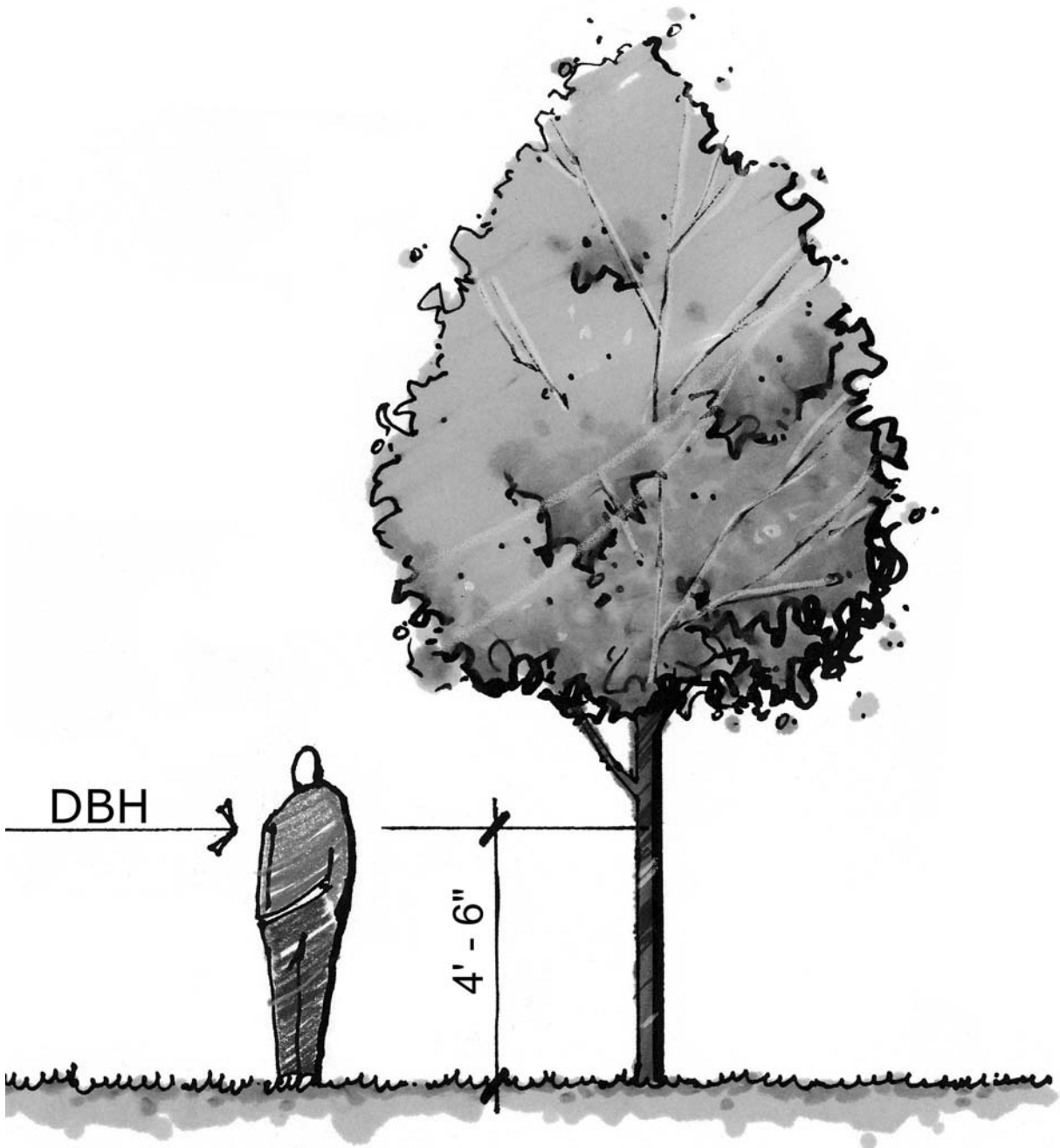
**Figure 1 - Canopy Area**



**Figure 2 - Tree Crown Perimeter**

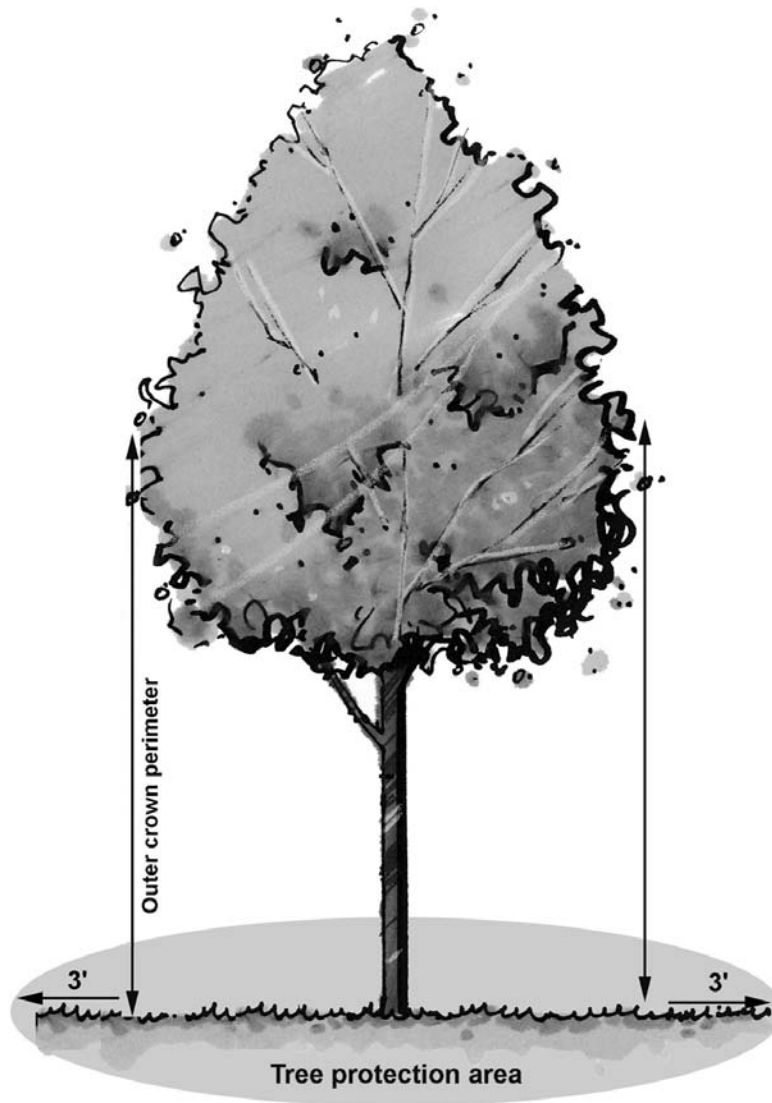


**Figure 3 - Diameter at Breast Height**

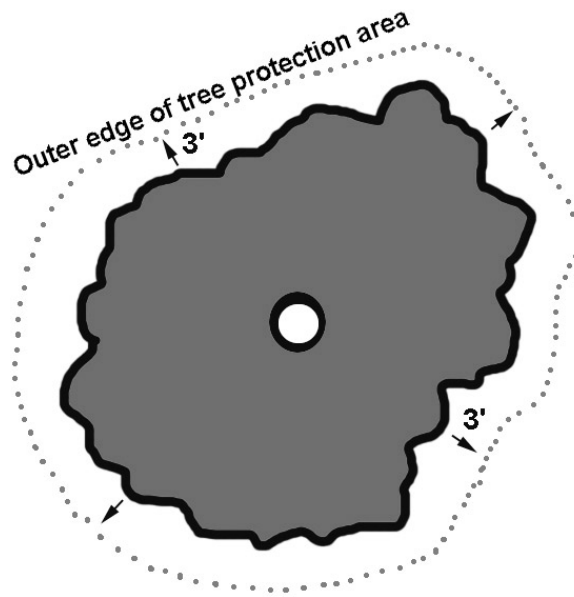


DBH = Diameter @ Breast Height  
Measured 4'-6" From Ground Surface

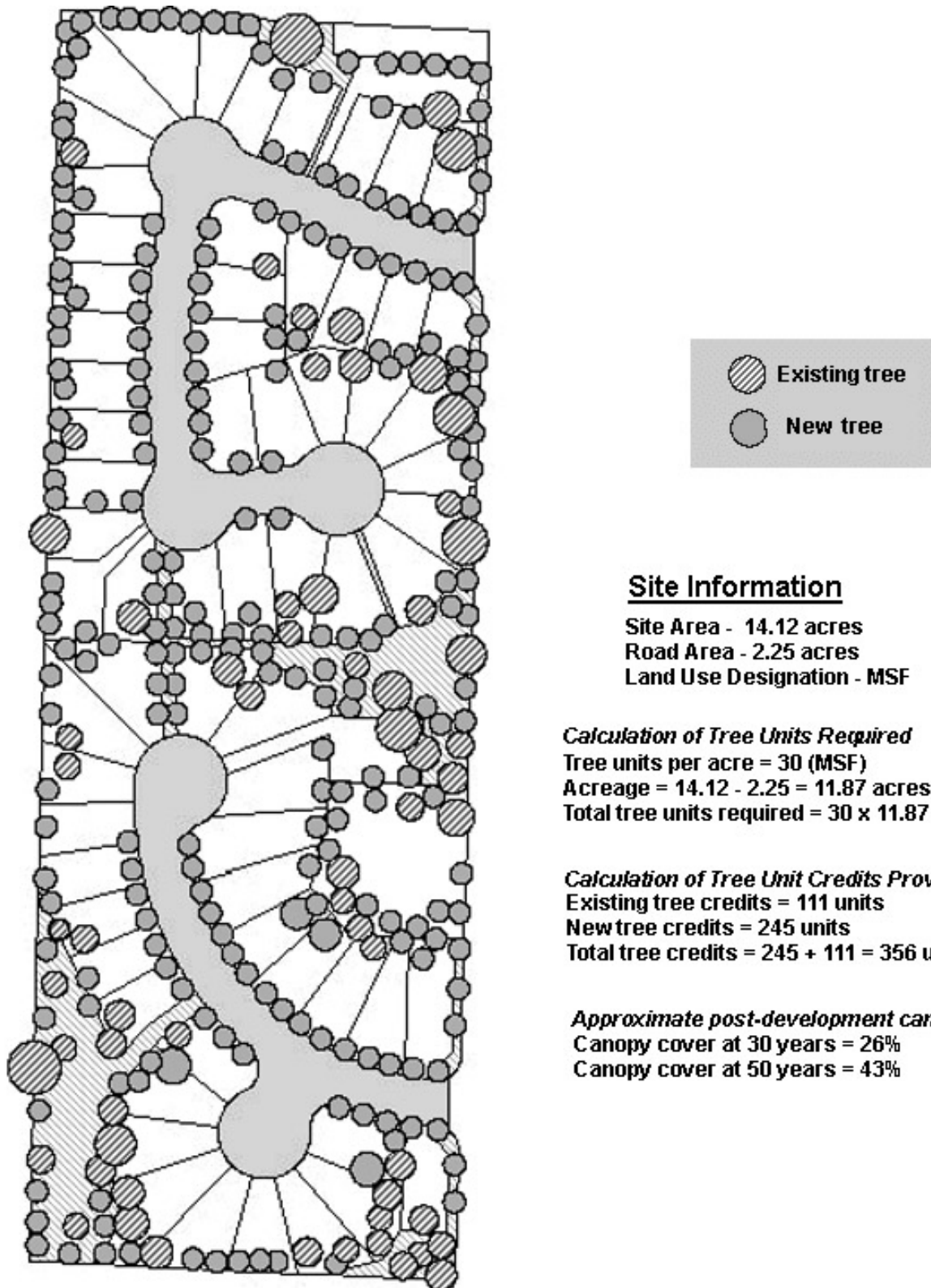
**Figure 4 - Tree Protection Area**



**Figure 4A - Tree Protection Area**

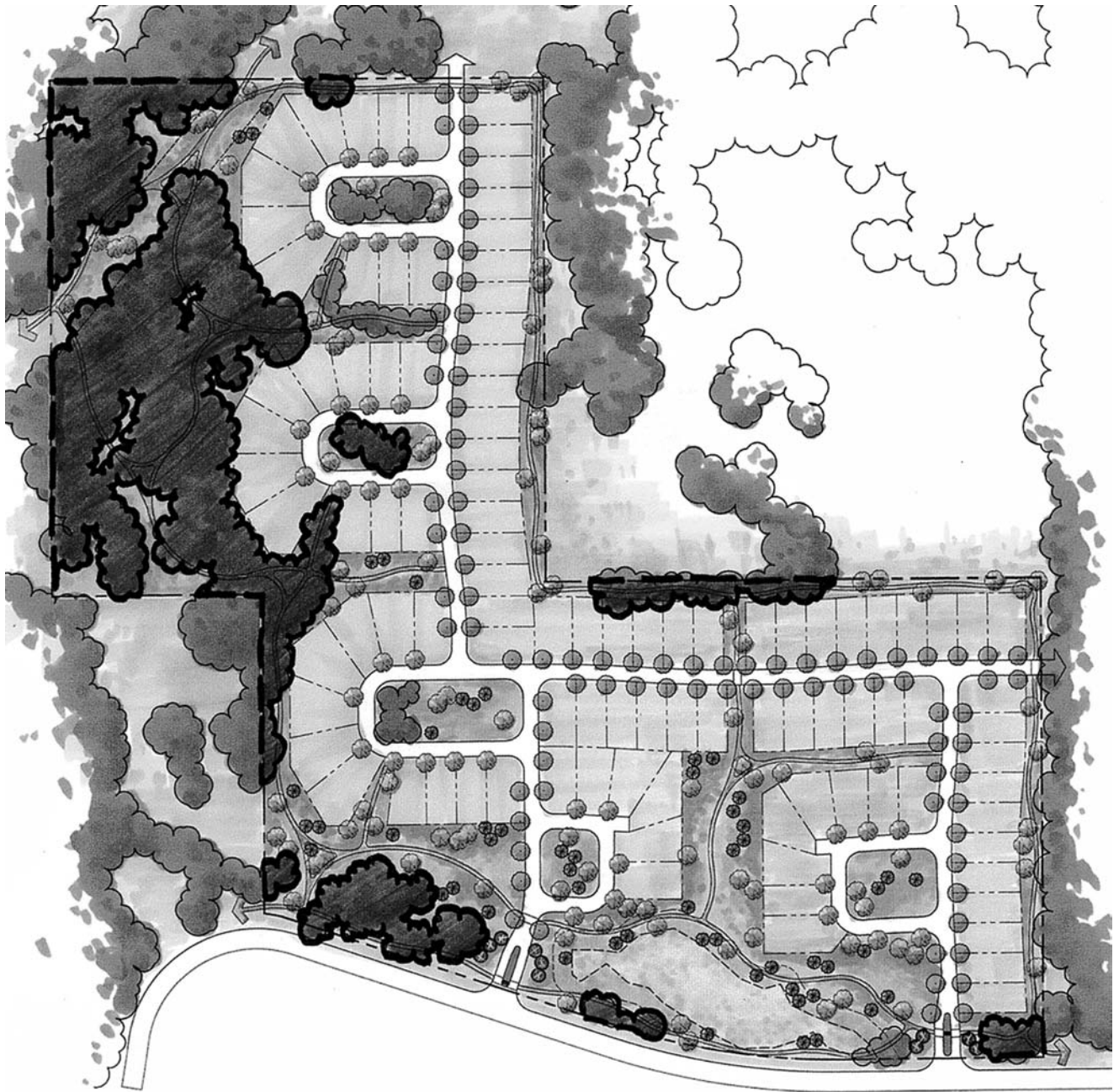


**Figure 5 - Tree Unit Density Example**





**Figure 6 - Tree Conservation Concept - Residential  
(Master plan)**



**Figure 7 - Tree Conservation Concept  
(Visual perspectives)**



**Figure 7A - Tree Conservation Concept  
(Visual perspectives)**



## Appendix F - Recommended Tree Species

The following table provides information on selected species of native and non-native trees suitable for use as replacement trees. All species listed are suited to the climate conditions found in the Pacific Northwest. The list is for guidance only and is not intended to be all-inclusive. Other tree species may be utilized where appropriate when recommended by a professional forester, certified arborist, or licensed landscape architect.

Characteristics and Use of Select Tree Species				
Species Scientific Name	Native Tree?	Canopy Size Category	Street Tree?	Characteristics
Grand fir <i>Abies grandis</i>	Yes	Large	No	Coniferous tree achieving heights of up to 150 feet. Tolerant of a variety of soil conditions, similar needs as Douglas fir.
Vine maple <i>Acer circinatum</i>	Yes	Small	No	Deciduous tree typically reaching heights of 5-35 feet. Treelike in open sun, crooked sprawling and vinelike in shade. Good fall color. Tolerant of a wide variety of soil conditions. Prefers moist soils, but can tolerate drier conditions once established.
Big leaf maple <i>Acer macrophyllum</i>	Yes	Large	No	Deciduous tree. Form varies widely based upon competition and soil conditions. Typically 20 to 30 feet high when grow in open conditions but can reach heights of 80 feet or more in the forest. Good fall color. Tolerant of a wide variety of soil conditions. Similar environmental needs as Douglas fir.
Japanese Maple <i>Acer palmatum</i>	No	Small	Yes	Common deciduous landscape tree. Slow growing, typically grow to no larger than 20 feet in height. Well adapted to the Pacific Northwest and well suited for small lot use. Popular varieties 'Atropurpureum' and 'Bloodgood'.
Norway Maple <i>Acer platanoides</i>	No	Medium	Yes	Common deciduous landscape tree. Typically achieves heights of 50 to 60 feet. Care must be taken near sidewalks and drives as roots can become a problem. Well adapted to the Pacific Northwest.
Red Maple <i>Acer rubrum</i>	No	Medium	Yes	Common deciduous landscape tree. Varieties 'Armstrong' and 'Red Sunset' are recommended for street tree use. Fast growing, typically to 40 feet with brilliant fall control. Well suited to use in Pacific Northwest.
Serviceberry <i>Amelanchier alnifolia</i>	Yes	Small	No	Deciduous tree seldom larger than 20 feet in height. Tolerant of a wide variety of soil conditions. Fruit very valuable to wildlife.
Pacific madrone <i>Arbutus menziesii</i>	Yes	Medium	No	Broadleaf evergreen tree typically reaching heights of 20 to 60 feet. Prefers dry sites. Can be difficult to grow. Red peeling bark.
European hornbeam <i>Carpinus betulus</i>	No	Medium	Yes	Deciduous tree growing to 40 feet. Variety 'Fastigata' recommended for street tree use. Well suited to use in Pacific Northwest.
Katsura Tree <i>Caracidiphyllum japonicum</i>	No	Medium	Yes	Deciduous tree, slow growing to 40 feet. Good fall color. Well suited for small lot use.

Characteristics and Use of Select Tree Species				
Species Scientific Name	Native Tree?	Canopy Size Category	Street Tree?	Characteristics
English hawthorn <i>Crataegus phaenopyrum</i>	No	Small	Yes	Small deciduous tree, typically no larger than 25 feet. Well suited for small lot use, but can be prone to disease. Grows well in Pacific Northwest.
Washington hawthorn <i>Crataegus phaenopyrum</i>	No	Small	Yes	Small deciduous tree, typically no larger than 25 feet. Well suited for small lot use with good fall color. Grows well in Pacific Northwest.
Western dogwood <i>Cornus nutallii</i>	Yes	Small		Deciduous tree up to 30 feet in height. Prefers well-drained sites and partial shade. Could work well as a supplemental planting under a canopy of larger trees.
Black hawthorn <i>Crataegus douglasii</i>	Yes	Small	No	Deciduous tree up to 30 feet in height. Scarlet fruit. Prefers highly fertile soil and grows best in moist, open areas.
Oregon Ash <i>Fraxinus latifolia</i>	Yes	Medium	No	Deciduous tree up to 80 feet in height. Prefers moist or wet sites with rich soils. Works well for streamside and wetland plantings.
Green ash <i>Fraxinus pennsylvanica</i>	No	Medium	Yes	Fast growing deciduous tree with height of 40 feet. For street tree use, seedless varieties such as 'Marshall' are preferred. Well suited to Pacific Northwest.
Honey locust <i>Gleditsia triacanthos</i>	No	Medium	Yes	Fast growing deciduous tree with height of 40 feet. Varieties 'Shademaster', 'Skyline', and 'Moraine' are preferred varieties.
Incense cedar <i>Libocedrus decurrens</i>	Yes	Large	Yes	Coniferous tree achieving height of 150 feet. Drought and wind resistant. Slow growth.
American sweet gum <i>Liquidambar styraciflua</i>	No	Medium	Yes	Common landscape tree very tolerant of urban conditions. Achieves heights of 60 feet with good fall color. Well-suited to use in Pacific Northwest.
Tulip tree <i>Liriodendron tulipifera</i>	No	Large	No	Large deciduous tree achieving height of up to 60 feet. Very tolerant of urban conditions.
Sourwood <i>Oxydendron arboreum</i>	No	Medium	Yes	Medium deciduous tree with good fall color. Achieves height of 35 feet. Well-suited to use in Pacific Northwest.
Flowering plum <i>Prunus blireiana</i> <i>Prunus cerasifera</i>	No	Small	Yes	Small deciduous tree with colorful dark foliage. Typically reaches height of 20 to 25 feet. Well suited to urban conditions and small lot use.
Japanese flowering cherry <i>Prunus serulata</i>	No	Small	Yes	Small deciduous tree with colorful dark foliage. Typically reaches height of 20 to 25 feet. Well suited to urban conditions and small lot use. Variety 'Amanagowa' and 'Kwanzan' well suited for street tree use.
Flowering cherry <i>Prunus subhirtella</i>	No	Small	Yes	Small deciduous tree with colorful dark foliage. Typically reaches height of 20 to 25 feet. Well suited to urban conditions and small lot use. Variety 'Rosea' and 'Whitcombii' well suited for street tree use.
Yoshino flowering cherry <i>Prunus yedoensis</i>	No	Medium	Yes	Medium sized deciduous tree achieving height of 40 feet. Fast growing.
Douglas fir <i>Pseudotsuga menziesii</i>	Yes	Large	No	Fast growing, long lived coniferous tree growing to height of 150 feet or more. Prefers drier sites, but tolerates a wide variety of soil conditions.

Characteristics and Use of Select Tree Species				
Species Scientific Name	Native Tree?	Canopy Size Category	Street Tree?	Characteristics
Flowering callery pear <i>Pyrus calleryana</i>	No	Medium	Yes	Widely used in commercial landscaping. Deciduous tree 25 to feet in height. Well suited to urban conditions. Varieties for street tree use include 'Aristocrat', 'Bradford', 'Capital', 'Chanticleer', 'Redspire' and 'Whitehouse'.
Oregon white oak <i>Quercus garryana</i>	Yes	Large	No	Deciduous tree typically not more than 50 feet in height. Provides food and cover for a variety of wildlife. Slow growing, prefers well-drained soil.
Pin oak <i>Quercus palustris</i>	No	Large	No	Deciduous tree achieving heights of 50 to 80 feet. Better suited to park or large lot use due to size.
Pacific yew <i>Taxus brevifolia</i>	Yes	Medium	No	Coniferous tree reaching height of 60 feet. Very shade tolerant. Most successful under canopy of larger trees.
Western red cedar <i>Thuja plicata</i>	Yes	Large	No	Coniferous tree growing to height of 150 feet or more. Best under moist, shaded conditions, but tolerates a wide variety of soil conditions once established.
Little Leaf Linden <i>Tilia cordata</i>	No	Small	Yes	Small deciduous tree reaching height of 30 feet. Tolerant of urban conditions.
Western hemlock <i>Tsuga heterophylla</i>	Yes	Large	No	Coniferous tree growing to height of 150 feet or more. Best under moist, shaded conditions, but tolerates a wide variety of soil conditions once established.

**18H.40.130 - Appendix G**

**Title Notification Form**

**A. Form of Notice for Title Notification.**

(EXAMPLE: TREE CONSERVATION NOTICE)

Tax Parcel Number:

Address:

Legal Description:

Present Owner:

NOTICE: This property contains tree conservation areas as defined by Title 18H, Pierce County Code. The site was the subject of a development proposal for application number \_\_\_\_\_ filed on \_\_\_\_\_ (date). Restrictions on use or alteration of the site and removal of trees may exist due to natural conditions of the property and resulting regulations. Review of such application has provided information on the location of the tree conservation areas and any restriction on use.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of owner

Notary acknowledgment and notary seal

**B. Form of Notice for Plat Notification.**

Notice: This site is subject to a tree conservation plan as defined in Title 18H Pierce County Code. Restrictions on use or alteration of the site and removal of trees may exist due to natural conditions of the site and resulting regulation.

(Ord. 2004-58s § 5 (part), 2004)