

Arboricultural services; Forest Practices Consulting;  
Valuation, Timber Cruising and Marketing Services  
Established 1946

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Cindy Baker, Interim Community Development Director  
City of Woodinville  
17301 - 133<sup>rd</sup> Avenue NE  
Woodinville, WA 98072

Re: Tree Preservation Plan for Wood Trails & Montevallo projects

Dear Ms. Baker,

I inspected the sites referenced above yesterday on behalf of Phoenix Development, Inc. PDI has retained me as the project(s) Arborist. As part of this service, I have been asked to respond to the Tree Preservation Plan requirement of WMC 21.16.140. This section requires the following:

**21.16.140 Tree preservation plan.**

The applicant shall submit a tree preservation plan concurrent with a land surface modification permit, site development permit, building permit, design review, SEPA, preliminary subdivision, or short subdivision application, whichever is reviewed and approved first. Prior to determination of a complete application, the City Tree Official shall make a site visit to confirm the presence of trees. The tree preservation plan shall consist of:

- (1) A tree survey that identifies the location, size, and species of all trees or grouping of trees on a site. The tree survey may be conducted by a method that locates individual trees or by using standard timber cruising methods to reflect general locations, numbers, and grouping of trees; provided, that, when using either method, the survey shall show:
  - (a) The location and species of each tree that is intended to qualify for additional credit pursuant to WMC 21.16.150; and
  - (b) Any tree 18 inches or greater in diameter for the purpose of establishing wildlife habitat value.
- (2) A development plan identifying the trees that are proposed to be preserved, transplanted, or restored.
- (3) The preservation plan shall be developed to include maintenance considerations.
- (4) A report by certified arborist to include, as a minimum, the following:
  - (a) Plan review and impact assessment of tree removal and preservation with the proposed development;
  - (b) Recommendations to reduce impact where impact is considered too severe;
  - (c) Tree preservation guidelines to be incorporated during site development;
  - (d) Maintenance recommendations for completed project. (Ord. 335 § 2, 2003; Ord. 239 § 4, 1999; Ord. 218 § 4, 1998; Ord. 175 § 1, 1997)

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dated 4/18/07 page 3/9 of prelim. plat including Attachment herein. CITY OF WOODINVILLE DEVELOPMENT SERVICES

*Response: Subsections (1), (2) and (3) were provided on sheet 3 of 9 of the Wood Trails preliminary plat application, and sheet 8 of 9 of the Montevallo preliminary plat applications submitted to the City of Woodinville on June 11, 2004 and November 5, 2004. Minimal maintenance for preserved trees will be necessary since they will remain undisturbed within a Native Growth Protection Area. Maintenance for trees adjacent to development areas will be evaluated at the time of site development when the location of the clearing limits and construction plans have been finalized.*

*For Wood Trails, no mitigation is required and minimal maintenance for preserved trees will be necessary since they will remain undisturbed within a Native Growth Protection Area. Maintenance for trees adjacent to development areas will be evaluated at the time of site development when the location of the clearing limits and construction plans have been finalized.*

*For Montevallo, trees within the NGPA will also be used to provide the required tree credits. Any tree credits not satisfied within the open space area will be replaced within landscape and open space areas on the site pursuant to WMC 21.16.170. Maintenance for replacement trees will be evaluated at the time of site development when the location of the clearing limits and construction plans have been finalized.*

With regards to subsection (4) of WMC 21.16.140, the following additional analysis is provided to address the requirements.

- (a) Plan review and impact assessment of tree removal and preservation with the proposed development

*Response: Unlike most projects within the City of Woodinville, an environmental impact statement addressing impacts and mitigation in detail to plants and animals (including trees) on the site has been conducted for these projects. The EIS impact analysis is hereby adopted by reference into this report. The evaluation contained in the EIS analysis serves as a largely sufficient impact assessment for the preliminary plat phase. Additional comments and prescriptions contained herein complete this requirement.*

*The impact assessment is necessary to evaluate the proposal for compliance with the following tree preservation code requirements:*

**21.16.130(f)** Except as provided in subsection (1)(g) of this section, trees to be preserved shall not include trees that are:

- (i) Identified by a certified arborist to be damaged, diseased, or a danger tree;
- (ii) Determined by a certified arborist to be safety hazards due to potential root, trunk or primary limb failure, or exposure of mature trees which have grown in a closed, forested situation; and
- (iii) At risk of damage due to the proximity of the constructed project as determined by a certified arborist.

*Response: Since all of the trees to be preserved will be in a large NGPA tracts, only the trees along the perimeter of the development areas will need a detailed impact assessment addressing 21.16.130(f). In addition, in regards to the identification of*

*danger or hazard trees, only these perimeter trees require examination. This condition exists because for a hazard tree to exist, under commonly accepted industry-wide definition, there needs to be a target. Targets generally include proposed building improvements, roads and other areas where there will likely be frequent human use. This assessment will not, by necessity, be completed until the construction plans have been finalized at the site development permit stage. Often during the construction design phase the location and extent of cleared areas may shift slightly, and even a slight change will affect which trees along the perimeter of the development areas need to be evaluated. This is anticipated by WMC 21.16.160(1). Thus, the evaluation contained in the EIS analysis is sufficient for the preliminary plat phase, and an impact assessment that addresses 21.16.130(f) will be submitted with the site development permit application.*

- (b) Recommendations to reduce impact where impact is considered too severe;  
*Response:* The EIS analysis of the overall project impacts to the properties as a whole concluded that impacts to plants and animals on the site would be not be significant. Additional recommendations addressing any concerns found during the detailed impact assessment will be submitted with the site development permit application per 21.16.160(1).

*The intent of this provision is also interpreted to address potential impacts to individual trees. The first step in analyzing tree-specific project impacts is to identify the type of construction activities which might occur in close proximity to trees based on site development plans and specifications. The second step is evaluating the effects of direct injuries to trees, if any, as well as identifying site-wide environmental changes which might potentially affect the long-term health and structural stability. Recommendations to reduce impacts will be made for final construction plans. Direct injury could result from numerous construction activities including, but not limited to: soil grade changes or compaction, trenching for utilities or excavation for footings or retaining walls, changes in subsurface or surface water flow and installation of pavement and other impervious surfaces. Construction impacts are cumulative, and tree death is often a long, slow process due to multiple compounding factors.*

*The subject trees on Wood Trails occur in a densely stocked typical Puget Sound-area second growth forest. The impacts of new clearing edges and fragmentation of these forest-grown trees requires additional scrutiny of tree form for assessment of perimeter trees proposed for retention. Forest-grown trees typically have minimal bole taper and a lower live crown ratio than open grown specimens which can predispose them to failure after removal of adjoining trees.*

- (c) Tree preservation guidelines to be incorporated during site development  
*Response:* The City of Woodinville requires the following preservation guidelines for projects during site development:

**21.16.160 Tree protection.**

The City of Woodinville tree care standard manual protection measures shall be implemented and followed prior to and during every part of a project. To provide the best protection for trees:

(1) No clearing shall be allowed on a site until approval of tree preservation and landscape plans;

(2) An area of prohibited disturbance, generally corresponding to the drip line of the significant tree shall be identified during the construction stage and a temporary five-foot-high chain-link fence shall be placed prior to any clearing and grading. Plastic fencing may be used as approved by the City Tree Official. If any sign of disturbance is observed by the City within the tree protection area, chain-link fencing shall be required;

(3) No impervious surfaces, fill, excavation, or storage of construction materials shall be permitted within the area defined by such fencing or stakes;

(4) A tree designated for preservation shall not have the soil grade altered within its dripline or within 15 feet of its trunk, whichever is greater. The grade may be lowered if a certified arborist with the concurrence of the City Tree Official determines the impact of lowering the grade within the area described in this subsection will not adversely affect the health of the tree;

(5) Trees shall not be designated for preservation if they are dead or in a declining state or if they are a danger tree except as provided for in WMC 21.16.130(2)(g);

(6) Grade level changes described in subsection (4) of this section shall be done according to a plan prepared by a certified arborist that includes measures to be incorporated to reduce adverse impacts on trees protected; and

(7) Alternative protection methods may be used if determined by the City Tree Official to provide equal or greater tree protection. (Ord. 335 § 2, 2003; Ord. 239 § 4, 1999; Ord. 175 § 1, 1997)

*The foregoing provides the minimum standards of care to be observed during on-site construction phase. In addition to the foregoing;, cement trucks and other material vendors shall be prohibited from depositing excess material or slurry, washing out trucks, or refueling within tree protection fencing or in close proximity to trees proposed for retention. Many different guidelines exist to establish a minimum critical root or tree protection zone. These formulae are typically based on the diameter of tree at breast height ("DBH"), the calculated protection zone becomes corresponding larger as tree size increases, and sometimes extends significantly beyond dripline for larger trees. In examining the plans for Wood Trails & Montevallo, it appears there might be some opportunity at the rear of some of the deeper proposed lots and other locales, to establish the tree protection fencing further than minimal dripline. The undersigned will work with the project construction manager to establish as large a protection zone as possible, especially bordering the largest significant trees outside clearing limit margins.*

