

RECEIVED  
SEP 08 2009

DUE OCT 7

AM \_\_\_\_\_ PM \_\_\_\_\_  
PLANNING DEPARTMENT

## Tree Removal/Pruning Request BY \_\_\_\_\_

Please allow up to 21 calendar days for City response to this request. Trees removed illegally may result in the City pursuing monetary penalties and/or restoration under KMC 19.36 or KZC 95.55. For more information please contact the Planning Department at (425) 587-3225.



Property Address 10023 130<sup>th</sup> AVE NE , Kirkland  
 Date 9-8-09 Permit #TRE 09-00190  
For City Use

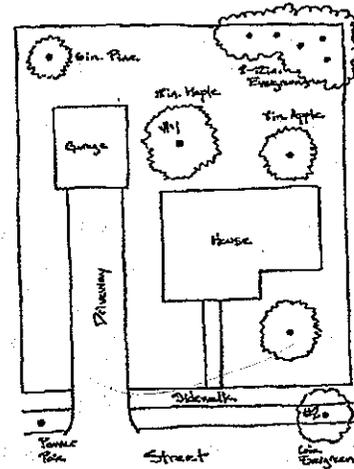
**#1: Draw Site Plan Here**

Please see a Tree Risk Assessment report prepared by Certified Arborist.

I currently have 20+ trees on my property.

- Please show all trees
- Number each tree to be removed/pruned
- Show buildings and roads

Example site plan



**#2: List the trees (private and/or public) proposed to be removed and/or pruned:**

Use additional forms if requesting to remove more trees than space provides.

Tree # from site plan	Type/Species	Size (dia)*	Location	Reason for removal/pruning	Public tree?	Public Inv #
(example) #1	Big-leaf maple	18"	East of garage behind house	Remove - rotten in the middle	no	

\* Measure or estimate the diameter of the tree trunk at 4½ feet above the ground. Note if there is more than one trunk per tree

Next page, please



**#3: A report from a certified arborist\*\*\* is required with this application if:**

- More than 2 trees per year are being removed from private property
- The tree is located in a Sensitive or Critical Area
- The tree to be removed is on the public right-of-way



**#4: For public tree pruning:**

The City, upon reviewing the request, may elect to perform the pruning. If not, a certified arborist\*\*\* is required to perform the pruning of public trees. The arborist will need to meet with City staff prior to pruning. The arborist is to complete the section below.

**\*\*\* To be completed by the certified arborist:** I am a certified arborist, and I guarantee that the work to be performed will conform to current ANSI A300 standards.

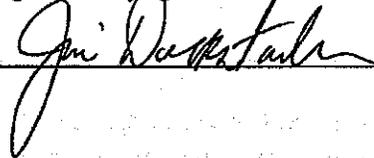
I certify (or declare) under penalty of perjury under the laws of the State of Washington that the above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

	Susan Prince	Creative Landscape Solutions
Certified Arborist Signature	PNW # 1481	425-890-3808
City Business License #	Arborist certification ID and exp date	Phone #

**#5: Your contact information:**

Requestor Name: <u>Jim Dockstader</u>	Phone: <u>206-313-6714</u>
Mailing Address: <u>10023 130th AVE NE</u>	Fax: <u>206-971-34</u>
<u>Kirkland, WA 98033</u>	Email: <u>jwdock@yahoo.com</u>

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Owner Signature (acknowledging and supporting request) 

Owner phone: 206-313-6714 (cell)

-----  
*Staff Review Section Below*  
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Private trees:  Approved  Not Approved

Staff signature \_\_\_\_\_ Email \_\_\_\_\_ Phone \_\_\_\_\_

Comments: Trees # 1-5 approved for removal; all w/ obvious  
defects and in proximity to high-use targets. SNAAG?  
No replacements req'd.

Public trees:  Approved  Not Approved

Staff signature \_\_\_\_\_ Email \_\_\_\_\_ Phone \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

September 2, 2009

A and M Tree

Site: Jim and Noel Dockstader  
10023 130<sup>th</sup> Ave  
Kirkland, WA 98033

Re: Tree Risk Assessment

Dear Mr. and Mrs. Dockstader:

As you requested, on September 2, 2009, I performed a tree risk assessment for the trees located on the western edge of the property at 10023 130<sup>th</sup> Ave in Kirkland, WA.

The purpose of the assessment is to **identify** genetic problems, environmental stress or injury to trees that increase their potential to fail; **report** and **make recommendations** for preservation, continued observation or removal of subject trees.

The assessment includes noting visually individual structural defects, decay, and damage as well as site conditions. I bring fifteen years of field experience to the job site, ten years as an ISA Certified Arborist and one year as a Certified Tree Risk Assessor.

After careful analysis I found that four (4) trees pose a danger to the occupants and property of the site and should be removed. In addition to the trees identified for removal, I have tagged a tree for continued observation. The trees are all identified on site by numbered aluminum tags.

If you have any questions regarding this report, I can be reached on my cell phone at: 425-890-3808, or at home at 425-881-7729. Thank you for requesting my services.

Sincerely yours,

Susan Prince  
Creative Landscape Solutions  
ISA Certified Arborist PNW #1481  
Certified Tree Risk Assessor #481  
17518 NE 119<sup>th</sup> Way  
Redmond, WA 98052  
425-890-3808

## Assignment

On September 1st, 2009, I evaluated the trees on the western edge of the property located at 10023 130<sup>th</sup> Ave, in Kirkland, WA to assess their health and long term viability

The intended purpose of this report is to identify for monitoring or removal purposes those trees with significant defects. The report also serves as Tree Risk Assessment documentation to be submitted to the City of Kirkland for hazard tree removal permits.

I am qualified as an ISA Certified Arborist (PNW #1481) and as a Tree Risk Assessor (#481) to perform this task.

## Introduction:

Identifying and managing the risks associated with trees is still largely a subjective process. Since the exact nature of tree failures remains largely unknown, our ability as scientists and arborists to predict which trees will fail and in what fashion remains limited. As currently practiced, the science of hazard tree evaluation involves examining a tree for structural defects, including genetic problems, those caused by the local environmental that the tree grows in and those attributed to man (pruning etc.).

The assessment process involves evaluating three components: 1) a tree with the potential to fail, 2) an environment that may contribute to that failure, and 3) a person or object that would be injured or damaged (the target). By definition a defective tree can not be considered hazardous without the presence of a target.

All trees have a finite life-span though it is not pre-programmed internally in the same manor as annual plantings. As trees age they are less able to compartmentalize structural damage following injury from insects, disease or pruning. Trees in urban settings have a shorter life span than trees grown in an undisturbed habitat.

Different species of trees grow differently. Evergreen trees have a "reputation" of growing slowly and defensively. These trees allocate a high proportion of their resources to defending themselves from pathogens, parasites and wounds. As a rule, trees with this type of growth tend to be long lived. Though like all other living things, they have a fairly predictable life span. Examples of this type of tree include the northwest *Pseudotsuga menziesii* - Douglas fir, and *Thuja plicata* - Western red cedar.

Deciduous trees are trees that annually shed leaves or needles. These trees have a tendency to grow quickly and try to "outgrow" problems associated with insects, disease and wounds. They allocate a relatively small portion of their internal resources to defense and rely instead upon an ability to grow more quickly than the pathogens which infect them. However, as these trees age, their growth rate declines and the normal problems associated with decay begins to catch up and compromise the tree's structural integrity. Examples of this type of tree include *Salix*, *Populus* and *Alnus*.

Knowledge of the growth and failure patterns of individual tree species is critical to effective hazard analysis. Species vary widely in their rates of failure. The hazard tree evaluation rating system used by most arborists was developed by the Colorado Urban Forest Council and recognizes this variation in species failure and includes a species component as part of the overall hazard evaluation.

**Site Observations:**

Site is a well maintained home on a large westerly facing lot. The back of the yard (west) contains a wooden deck and lawn. A large portion of the lot has been left as a natural wooded area. There does not appear to be any drainage problems, recent land clearing issues etc.

**Method's used to determine tree location and tree health:**

Trees were identified by number in this report, and the address of the property upon which they live is used as their reference. All of the trees on site were examined using the Matheny and Clark<sup>1</sup> criteria for determining the potential hazard of trees in an urban environment as well as the Tree Risk Assessment in Urban Areas and The Urban/Rural Interface by Julian Dunster<sup>2</sup>.

The tree diameter was measured using an aluminum "diameter tape measure." Tree canopy was measured from longest branch to longest branch with a cloth tape measure secured by a stake. The tree heights were measured via an electronic inclinometer.

**Specific Site Tree Observations:**

#	TAG	Tree Id	DBH	Health Defects	Hazard rating	Proposed Action
1	90	<i>Acer macrophyllum</i> Big Leaf Maple	28"	Co-dominant trunks with included bark, vertical crack with decay	4+2+4=10	Remove
2	91	<i>Acer macrophyllum</i> Big Leaf Maple	34"	Decay; multiple conk's present <i>ganadavina</i>	4+3+3=10	Remove
3	92	<i>Acer macrophyllum</i> Big Leaf Maple	42"	Very large cavity of decay with weighed lean of trunk	4+3+4=11	Remove
4	93	<i>Acer macrophyllum</i> Big Leaf Maple	24"	Previous failure, 50% of trunk gone	5+3+4=12	Remove
5	95	<i>Pseudotsuga menziesii</i> Douglas fir	18"	Co-dominant trunks with basal attachment and lean, popping bark on southerly trunk	3+3+3=9	Monitor every 6 month's; notify an ISA Certified arborist if any changes are noted.

HT? DISTANCE TO TARGET?

- Hazard rating: Failure potential 1-5 + Size of Part 1-3 + Target rating 1-4 = Hazard rating
- Failure potential: 1- Low; 2-Moderate; 3 Moderately High; 4 -High; 5 - Extreme
- Size of defective part (1-3) 1 -Branches or stems up to 4 inches in diameter 2 - Branches or stems between (4-20 inches) in diameter; 3 - Branches of stems greater 20 inches in diameter
- Target rating: 1-occasional use; 2 intermittent use; 3-frequent use; 4-constant use



#90 Multiple co-dom trunks, included bark previous failure



#91 Decay; with multiple conks



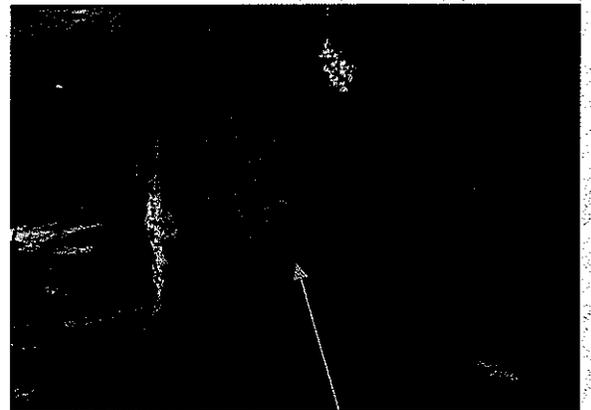
#93 recent failure of 1/2 of the trunk



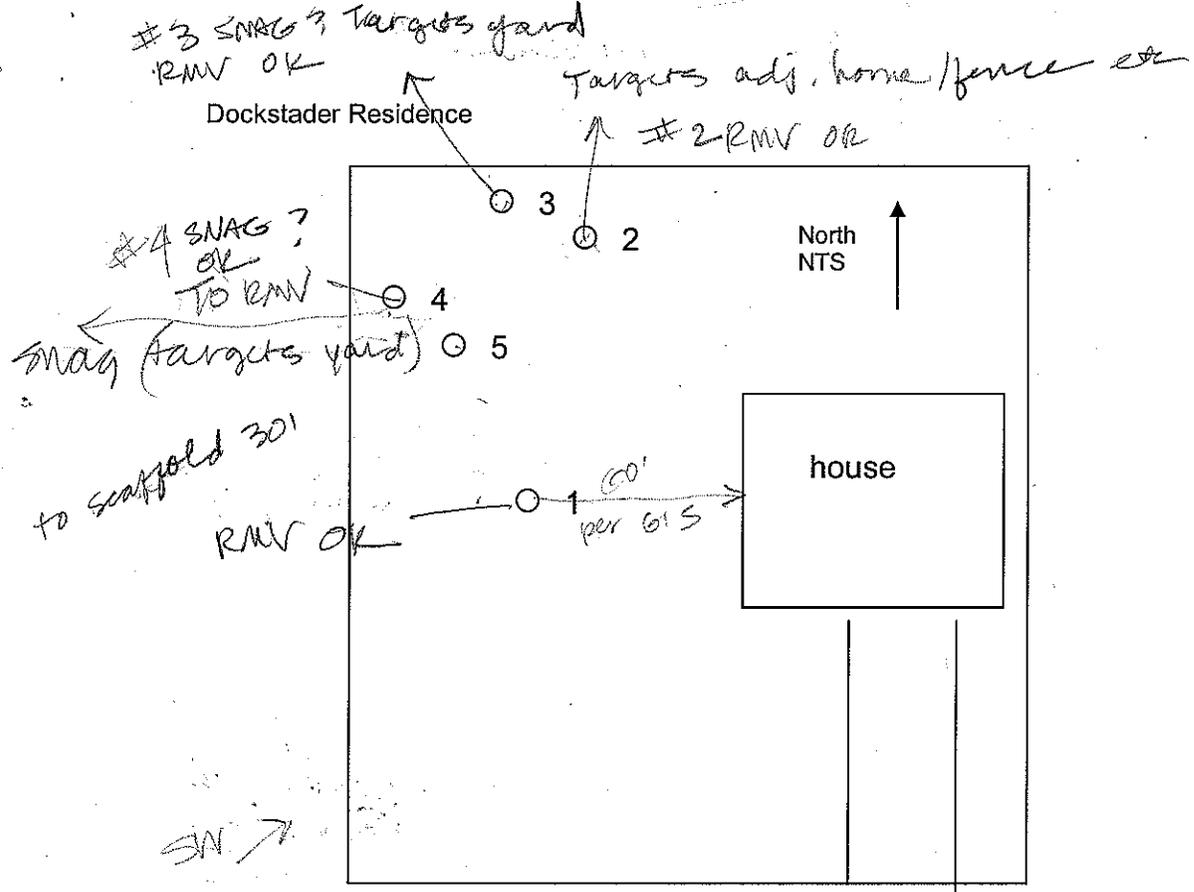
#92 one opening to large decay cavity



#92 Opening to large area of decay, weighted trunk from previous failure



#95 co-dominant leaders jointed as base, wounded (healed) on southern trunk but has popping bark with decay



**Discussion:**

The four *Acer macrophyllum* (Bigleaf maples) on your property are behaving in the manner common to the species. By that I mean that as a general rule, the species tend to carry a lot of decay, repeatedly experiencing limb or co-dominant trunk failure, and rapidly growing new large branches and trunks around the failing area. The end result is that the tree may actually re-strengthen weak parts or contrarily, build healthy wood around non-supportive decaying wood, increasing the likelihood for secondary failure.

The trees on your site have reached a moderate age for the species and they contain a large percentage of root crown, basal flare and trunk decay. All of those that I tagged have had previous significant failures and at this time are very unlikely to recreate hardy healthy wood.

**Conclusion:**

At this time I recommend removing the four (4) Bigleaf maples. I suggest we monitor the Douglas fir annually – more frequently if you begin to see decline. Although it is difficult to predict the direction a tree will fail, because of the lean, and the plane of decay, I would suspect that it will fail to the south, and away from a target.

It is important that you replant the area with native trees. I would suggest replanting with maples, dogwoods, Douglas fir's, and pines. The area is probably too dry without additional water, to support cedars.

<sup>1</sup>Matheny, Nelda P. and Clark, James R., Evaluation of Hazard Trees In Urban Areas Second Addition. Pleasanton: HortScience Inc. 1994.

<sup>2</sup>Dunser, J. 2009. Tree Risk Assessment in Urban Areas and the Urban/Rural Interface: Course Manual. Silverton Oregon: Pacific Northwest Chapter, International Society of Arboriculture.

## Glossary of Terms

### Aeration

Providing oxygen to the root system.

### Branch Bark Ridge

A ridge of bark that forms in the branch crotches as specialized tissue of the branch and trunk (or parent stem) meet. The bark ridge usually turns upward.

### Compartmentalization

A dynamic tree defense process that forms boundaries that resist the spread of disease causing organisms.

### Critical Root Zone (CRZ)

The root system of a tree that is generally considered to be within (under) the dripline of the crown.

### Crown

The full compliment of branches, twigs, and leaves of a tree.

### DBH: (Diameter Breast Height)

Diameter of the tree trunk at approximately 54 inches from the ground.

### Decaying/Decay

Changes over time of host (tree) by a decay organism (pathogen) that results in the breakdown of tissues (wood and bark) which can cause the tree or its parts to become structurally weak.

### Decline

A general loss of vitality ("vigor") over the entire tree caused by a disease or by a series of events that disrupt essential life processes, i.e. too much or too little water, too much fertilizer, improper pruning, soil compaction, or chemical pollution.

### Dieback

A reduction in the mass of a tree as twigs and branches die.

### Dripline

The area under the canopy of a tree

### Tree: Heritage

A tree that is equal to or greater than 30" DBH (may vary with municipality)

### Tree, Significant:

1. Coniferous tree with DBH of 6" or more (may vary with municipality)
2. Deciduous tree with a DBH of 12" or more (may vary with municipality)

### Assumptions and Limiting Conditions

1. Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.
4. The consultant/appraiser shall not be required to give testimony or to attend court by reason of the report unless subsequent contractual arrangements are made including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
5. Loss or alteration of any part of this report invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
7. Neither all nor any part of the contents of the report, nor copy thereof, shall be conveyed by anyone, including the client to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser – particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant/appraiser as stated in her qualification.
8. The report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of subsequent event, nor upon any finding to be reported.
9. Sketches, diagrams, graphs and photographs in this report, being intended as visual aid, are not necessarily to scale and should not be construed as engineering or architectural reports or survey.
10. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2: the inspection is limited to visual examination of accessible items without dissection, excavation, probing or coring. There is not warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Addendum

Specific Site Tree Observations:

#	Location	Tree Id	DBH	Health Defects	Proposed Action
100	13437 NE 146 <sup>th</sup> St Woodinville, WA	<i>Pseudotsuga menziesii</i> Douglas fir	28"	Some limb die back , large hole (18"X36") under root crown and several smaller "exit" dens	<b>Watch</b> for further decline biannually or more if homeowners observe further decline - <b>remove</b> if future decline is noted
99	14710 134 <sup>th</sup> Ct NE Woodinville, WA	Pine	12"	Snow damage, limb die back, insects	<b>Prune</b> to keep limbs off roof or <b>remove</b>
98	14710 134 <sup>th</sup> Ct NE Woodinville, WA	<i>Picea Abies</i> Norway spruce	5"	Severe insect damage	<b>Spray</b> for insect (soft and hard body) <b>remove</b> if resulting needle drop is significant)
97	14710 134 <sup>th</sup> Ct NE Woodinville, WA	<i>Picea Abies</i> Norway spruce	5"	Severe insect damage	<b>Spray</b> for insect (soft and hard body) <b>remove</b> if resulting needle drop is significant)

- Hazard rating: Failure potential 1-5 + Size of Part 1-3 + Target rating 1-4 = Hazard rating
- Failure potential: 1- Low; 2-Moderate; 3 Moderately High; 4 -High; 5 - Extreme
- Size of defective part (1-3) 1 -Branches or stems up to 4 inches in diameter 2 - Branches or stems between (4-20 inches) in diameter; 3 - Branches of stems greater 20 inches in diameter
- Target rating: 1-occasional use; 2 intermittent use; 3-frequent use; 4-constant use

**Discussion:**

The Douglas fir identified by tag #100, is located on a fairly steep slope (>20 degrees) there are several fairly large cavities excavated underneath the root crown of the tree. The condition of the tree was brought to my attention by a concerned homeowner. It is my understanding (and recommendation) that the homeowners association is planning to hire a wildlife specialist to determine what species of animal has excavated the ground underneath the tree and whether it is an old or new den. The slight limb die-back observed in the tree canopy is likely the result of drought stress; however, if animals continue to excavate the soil away under the root crown the tree will become destabilized and susceptible to failure under high wind load or during heavy rainfall. The tree should be rechecked before winter storm season to determine whether the soil supporting it has been overly compromised.

The pine and spruces are located on what I believe to be private property. They have suffered from snow failure and years of repeat insect damage. None of the trees (even

with corrective pruning, and insect spray are likely to recover to a point that they warrant retention. In order to determine whether the trees can recover, I'd recommend an insect and disease spray this month. The spray will knock off dead needles, if the tree keeps 50% of the needles intact, repeat the insect and disease spray thru next summer and fertilize the trees in spring. However, I believe the best solution to be removal and replacement (unfortunately).

**Photo Documentation:**



#100 : die back (large cavity in soil under root crown did not photograph well )



#99 misshapen pine with limb dieback



#98 and 87, severe drought stress, and insect damage

