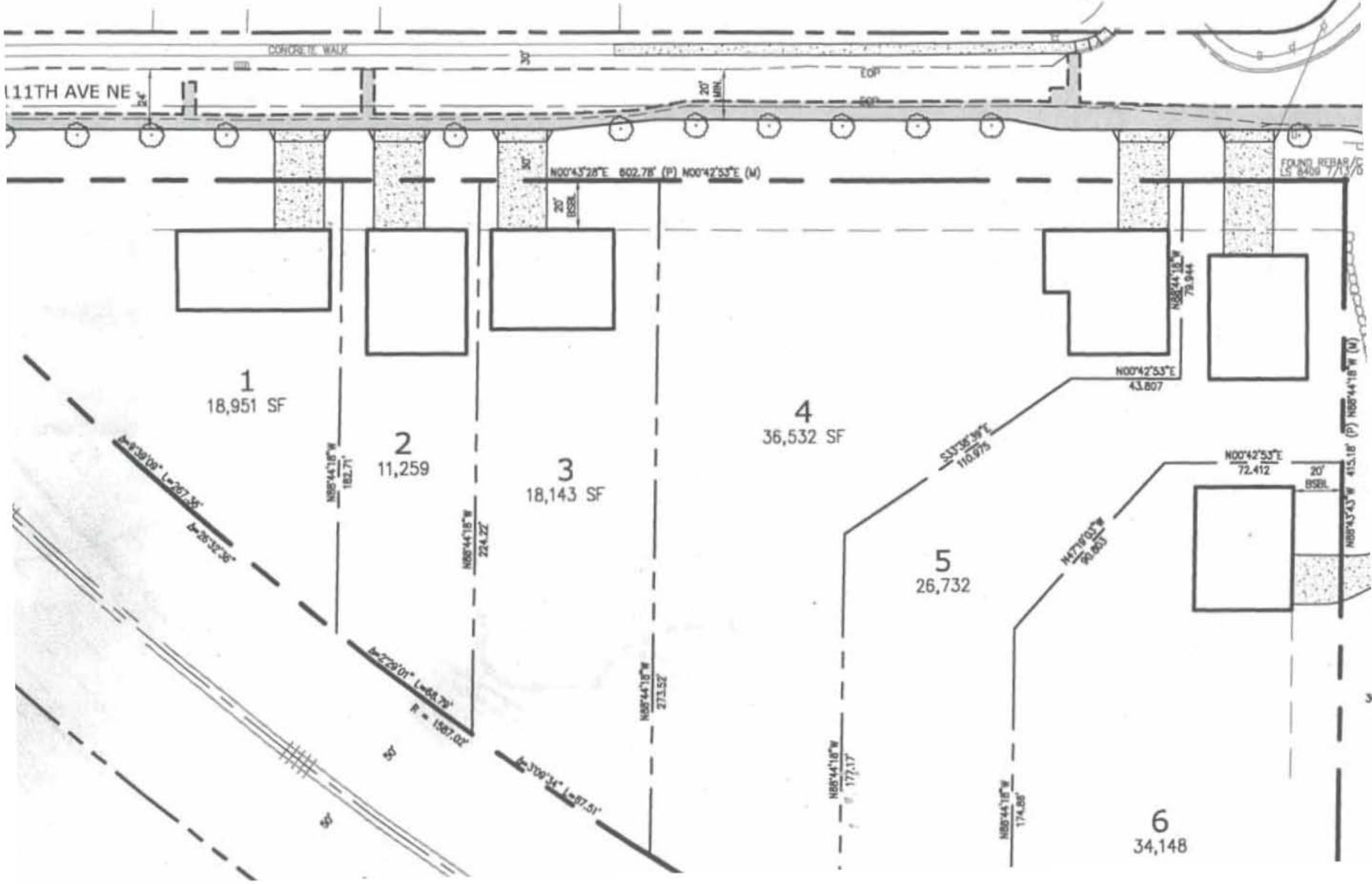


INGLAND GLEN

KIRKLAND, WASH

ATTACHMENT 9



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MAY 27 2008

Variance Request for Highland Glen Short Plat
File No. SPL07-0034

PLANNING DEPARTMENT ^{Per} PM
BY _____

Generally a variance reducing front yard setbacks is warranted because of the impacts of wetland and slopes on the property and the fact that the roads serving the property are located entirely on the opposite side of the right-of-way. Without the variance, houses built on the lots would have unusually long driveways. The variance will reduce impervious surface, improve aesthetics of the neighborhood by conforming front yard appearances and allow flexibility to move improvements away from the wetlands.

The Applicant's response to the three variance criteria questions is:

1. As part of the short plat development, Applicant will make improvements to 111th Avenue N.E. and N.E. 104th required by the City. Since these road sections dead end and since properties adjoining them are developed, no further right of way improvements will be needed for the roads adjoining Applicant's property. Since the edge of those improvements are 25-30 feet from Applicant's property lines, 45-50 foot driveways will be needed to serve houses. Other houses on these roads have 20-foot driveways. The variance would enhance the neighborhood by bringing houses built on the subject property into closer conformance with the pattern of shorter driveways and homes closer to the road improvements. This variance will be beneficial, rather than detrimental to property and improvements in the area.
2. The subject property and 111th Avenue N.E. are impacted by wetlands on the property and by significant slopes dropping to the west from 111th Avenue N.E. and to the north from N.E. 104th. As a result of these physical limitations, road improvements have not been built in the center of the right of way, but rather they are mostly in the east half of the 111th Avenue right of way and the south half of the N.E. 104th Street right of way. Slopes and wetland condition force development on the property to the east and south edges of the property.
3. The distance from edge of the road improvements to houses in the neighborhood is typically 20 feet. This variance will bring development of houses on the subject property into closer conformity with existing pattern of development and will not be a grant of special privilege. No other right of way improvements will be needed adjoining these properties in the future.

ATTACHMENT <u>10</u>
<u>SPL 07-00034</u>

XV.M. HIGHLANDS NEIGHBORHOOD

The water quality and quantity characteristics in the Peter Kirk Elementary stream tributary of the Moss Bay Basin near the school appear to be decent although analysis has not been conducted. The quality of water in this stream contributes to the quality of water in Lake Washington. The feasibility of relocating the stream out of the railroad ditches upstream of the school and moving it farther away from the railroad into a more natural channel with native vegetation and reintroduction of cutthroat trout into the stream are opportunities worth investigating.

Policy H-2.2:

Develop viewpoints and interpretive information where appropriate on property around streams and wetlands if protection of the natural features can be reasonably ensured.

Providing education about the locations, functions, and needs of sensitive areas will help protect these features from the negative impacts of development and could increase public appreciation and stewardship of these areas. When appropriate, the placement of interpretive information and viewpoints will be determined at time of development on private property or through public efforts on City-owned land.

Goal H-3: Preserve, protect, and properly manage the urban forest, which contributes to the forested nature of the Highlands Neighborhood.

Policy H-3.1:

Enhance and protect the tree canopy.

It is important to increase this valued tree canopy; therefore, additional trees are desired and encouraged to be planted on private property, and within public parks and rights-of-way. The incremental removal of trees over time degrades the stability and function of tree groves.

Policy H-3.2:

Encourage the preservation and proper management of trees adjoining I-405 and the railroad.

These trees provide a buffer for neighboring development from the freeway and railroad impacts.

Goal H-4: Protect potentially hazardous areas, such as, landslide, erosion, and seismic areas, through limitations on development and maintenance of existing vegetation.

Policy H-4.1:

Encourage clustered development on slopes with high or moderate landslide or erosion hazards (Figure H-3).

Clustering development on properties constrained by these hazard areas is encouraged in order to retain the natural topography and existing vegetation and to avoid damage to life and property. One way to accomplish clustering is through a Planned Unit Development, where retaining open space and the existing vegetation is a public benefit. On properties similarly constrained at the north end of Highlands, development was clustered to preserve the natural vegetation and minimize land surface modification.

Goal H-5: Protect wildlife throughout the neighborhood.

Policy H-5.1:

Encourage creation of backyard sanctuaries for wildlife habitat in upland areas.

People in Highlands have opportunities to attract wildlife and improve habitat on their private property by providing food, water, shelter, and space for wildlife. The City, the State Department of Fish and Wildlife, and other organizations and agencies experienced in wildlife habitat restoration can provide assistance and help organize volunteer projects.

Gilles Consulting

— Brian K. Gilles ATTACHMENT 9

4 2 5 - 8 2 2 - 4 9 9 4

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AM _____ PM
PLANNING DEPARTMENT
BY _____



TREE PLAN III AT

**The Davidson Short Plat
10405 111th Avenue NE
Kirkland, WA 98033**

March 12, 2007

PREPARED FOR:

**Ken Davidson
P.O. 817
Kirkland, WA 98083**

PREPARED BY:

GILLES CONSULTING
Brian K. Gilles, Consulting Arborist
ISA Certified Arborist # PN-0260
ASCA Registered Consulting Arborist # RCA-418A
PNW-ISA Certified Tree Risk Assessor #148

ATTACHMENT 12
SPL07-00034



Fax: 425-822

E-mail: bkgilles@comcast.net

P.O. Box 2366 Kirkland, WA 98083

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ASSIGNMENT

Ken Davidson contracted with Gilles Consulting to evaluate the trees on the property at 10405 111th Avenue NE in Kirkland, Washington and to develop this Tree Plan III. Mr. Davidson is considering the property for a short plat development. The City of Kirkland requires this plan as part of the permit evaluation process.

EXECUTIVE SUMMARY

<ul style="list-style-type: none"> - 33 Trees were evaluated: <ul style="list-style-type: none"> - 23 were found to be <i>Non-Viable</i> due to poor health, poor structure, or both. - 10 trees were found to be of good health and structure that may be able to survive the stress of construction. <ul style="list-style-type: none"> - The 10 trees total 58 Tree Credits - They are trees #702, 703, 704, 710, 719, 720, 725, 730, and 731. - Tree # 731 is in the Buffer and will be retained. - Trees 705, 706, and 707 are in the NE 104th Street Right-of-Way near the SE property corner <ul style="list-style-type: none"> - All three are in poor or dying condition and should be removed for safety. - Near the southwest property corner in the NE 104th Street right-of-way is a group of trees.
<ul style="list-style-type: none"> - It was judged that no construction activity will taking place in this area so these trees were not included in this evaluation. If, however, construction is required, Gilles Consulting can return to the site and include these trees.

METHODOLOGY

To evaluate the trees and to prepare the report, I drew upon my 25+ years of experience in the field of arboriculture and my formal education in natural resources management, dendrology, forest ecology, plant identification, and plant physiology. I also followed the protocol of the International Society of Arboriculture (ISA) for Visual Tree Assessment (VTA) that includes looking at the overall health of the trees as well as the site conditions. This is a scientifically based process to look at the entire site, surrounding land and soil, as well as a complete look at the trees themselves.

In examining each tree, I looked at such factors as: size, vigor, canopy and foliage condition, density of needles, injury, insect activity, root damage and root collar health, crown health, evidence of disease-causing bacteria, fungi or virus, dead wood and hanging limbs. While no one can predict with absolute certainty which trees will or will not fail, we can, by using this scientific process, assess which trees are most likely to fail and take appropriate action to minimize injury and damage.

In a phone conversation with Stacy Ray, City Arborist for Kirkland Planning Department, agreed that since all of the trees in the wetland and the wetland buffer areas will be retained, it was not necessary to do an exact count and full evaluation of all the trees there. We agreed that we would systematically count the trees and provide a brief description of their current health.

Tree Tags

The trees were tagged and numbered 701 through 733. The tags are made of shiny aluminum approximately one inch by three inches in size and are attached to the tree with staples. The tags were placed as high as possible to minimize their removal and were generally placed on the south sides of the trunks as inconspicuously as possible. Please refer to *Attachment 1, Site Plan* for an orientation to the site and the approximate location of the trees.

Missing Trees

If one or more trees were not included on the survey, they were tagged the next number of the sequence. Their approximate location is indicated on site plan. However, these trees will need to be surveyed to determine their exact location in relation to site improvements and their retainability.

OBSERVATIONS

The property is roughly shaped like a right triangle with the right angle at the northeast corner of the intersection of 111th Avenue NE and the NE 104th Street rights-of-way. (This is the southeast corner of the property.) The property slopes from the southeast corner in a generally northwest direction. The NE 104th Street right-of-way is only partially developed near the southeast corner of the property. The majority of the slope are has been designated as wetland and wetland buffer. The developable portions of the lot are in the three corners and along the east property line next to 111th Avenue NE.

The property is currently occupied by a small single-family home and driveway, and a small lawn area located in the southeast corner of the property near the right angle of the triangle shaped property. The property slopes steeply at the edge of the lawn area and is bounded on the low end by the Burlington Northern Rail Road right-of-way and rail line.

In an effort to present the information and conclusions for each tree in a manner that is clear and easy to understand, I have included a detailed spreadsheet, *Attachment 2, Tree Inventory/Condition Spreadsheet*. The descriptions on the spreadsheet were left brief in order to include as much pertinent information as possible and to make the report manageable. A detailed description of the terms used in the spreadsheet and in this report can be found in *Attachment 3, Glossary*. A brief review of these terms and descriptions will enable the reader to rapidly move through the spreadsheet and better understand the information.

DISCUSSION

Of the 33 trees in the developable portions of the property, 23 were found to be in very poor health, several had very poor structure, and many have a lack of wind firmness and will not likely stand if isolated from their current neighbors. The remaining 10 trees appear to have the health, structure, and wind firmness to withstand the stresses of construction if they are protected during the process.

A Note About Black Cottonwood Trees

Several of the large trees on the site are Black Cottonwood trees. These trees are one of the trees known as “primary cultivators” by forest ecologists. These trees fill the ecological niche of colonizing an area after disturbance such as forest fire, logging, or construction. The Black Cottonwood’s natural history is to grow fast and large, reproduce profusely; then to die rapidly. They have a short lifespan compared to other trees—sixty to eighty years is considered an average lifespan for Black Cottonwood trees. Also, because so much energy is placed into rapid growth and reproduction, these trees tend to be more brittle and have inadequate immune response systems. This results in Black Cottonwood trees being prone to failure in adverse weather conditions, being susceptible to several kinds of root disease, and even losing large limbs on hot summer days when little or no wind is present. Once disturbed, Black Cottonwood trees are highly susceptible to root disease and insect infestations. It is common for Black Cottonwood trees to rapidly become hazards after construction activity.

A few of the large Cottonwoods near the eastern boundary have been topped at 40 to 60 feet. They have re-sprouted large new crowns that are growing vigorously. However, the old trunks are rotting rapidly and at some point in the near future are not going to be able to support the heavy top growth. It is recommended that these trees be removed for safety.

CONCLUSIONS AND RECOMMENDATIONS

- 33 Trees were evaluated:
 - 23 were found to be *Non-Viable* due to poor health, poor structure, or both.
 - 10 trees were found to be of good health and structure that may be able to survive the stress of construction.
 - The 10 trees total 58 Tree Credits
 - They are trees #702, 703, 704, 710, 719, 720, 725, 730, and 731, 715
 - Tree # 731 is in the Buffer and will be retained.
 - Trees 705, 706, and 707 are in the NE 104th Street Right-of-Way near the SE property corner
 - All three are in poor or dying condition and should be removed for safety.

- Near the southwest property corner in the NE 104th Street right-of-way is a group of trees.

- It was judged that no construction activity will taking place in this area so these trees were not included in this evaluation. If, however, construction is required, Gilles Consulting can return to the site and include these trees.

Tree Credits

The City of Kirkland tree code now requires that each lot have a minimum of at least 30 tree credits per acre. This is calculated, as indicated below, by dividing the size of the individual lot by the square footage in an acre and multiplying by 30. In this case:

$$145,770 / 43,560 * 30 = 100.39 \text{ or } 101 \text{ Tree credits.}$$

The 10 viable trees on the property only account for 58 tree credits.

Please note, of the 10 trees that are labeled as both *Viable* and *Significant*, it may be wise to consider the removal of #'s 702, 710, and 715 since they are large Black Cottonwood trees located near the edges of the build-able/develop-able areas. This would reduce the tree credits by 32 credits. As noted above, these trees are prone to catastrophic failure at any time of the year. Given the large number of viable trees in the buffer and wetland, there should be a very high number of tree credits available for the entire property.

In spite of these numbers, there is a huge number of trees in the buffer and wetland areas that are to remain undisturbed. It is estimated that there are over 300 trees in the buffer and the wetland that total over 400 tree credits.

Tree Protection Measures

In order for trees to survive the stresses placed upon them in the construction process, tree protection must be planned in advance of equipment arrival on site. If tree protection is not planned integral with the design and layout of the project, the trees will suffer needlessly and possibly die. With proper preparation, often costing little or nothing extra to the project budget, trees can survive and thrive after construction. This is critical for tree survival because damage prevention is the single most effective treatment for trees on construction sites. Once trees are damaged, the treatment options available are limited.

The minimum Tree Protection Measures in *Attachment 4, Tree Protection Measures* are on three separate sheets that can be copied and introduced into all relevant documents such as site plans, permit applications and conditions of approval, and bid documents so that everyone involved is aware of the requirements. These Tree Protection Measures are intended to be generic in nature. They will need to be adjusted to the specific

circumstances of your site that takes into account the location of improvements and the locations of the trees.

WAIVER OF LIABILITY

There are many conditions affecting a tree's health and stability, which may be present and cannot be ascertained, such as, root rot, previous or unexposed construction damage, internal cracks, stem rot and more which may be hidden. Changes in circumstances and conditions can also cause a rapid deterioration of a tree's health and stability. Adverse weather conditions can dramatically affect the health and safety of a tree in a very short amount of time. While I have used every reasonable means to examine these trees, this evaluation represents my opinion of the tree health at this point in time. These findings do not guarantee future safety nor are they predictions of future events.

The tree evaluation consists of an external visual inspection of an individual tree's root flare, trunk, and canopy from the ground only unless otherwise specified. The inspection may also consist of taking trunk or root soundings for sound comparisons to aid the evaluator in determining the possible extent of decay within a tree. Soundings are only an aid to the evaluation process and do not replace the use of other more sophisticated diagnostic tools for determining the extent of decay within a tree.

As conditions change, it is the responsibility of the property owners to schedule additional site visits by the necessary professionals to ensure that the long-term success of the project is ensured. It is the responsibility of the property owner to obtain all required permits from city, county, state, or federal agencies. It is the responsibility of the property owner to comply with all applicable laws, regulations, and permit conditions. If there is a homeowners association, it is the responsibility of the property owner to comply with all Codes, Covenants, and Restrictions (CC&R's) that apply to tree pruning and tree removal.

This tree evaluation is to be used to inform and guide the client in the management of their trees. This in no way implies that the evaluator is responsible for performing recommended actions or using other methods or tools to further determine the extent of internal tree problems without written authorization from the client. Furthermore, the evaluator in no way holds that the opinions and recommendations are the only actions required to insure that the tree will not fail. A second opinion is recommended. The client shall hold the evaluator harmless for any and all injuries or damages incurred if the evaluator's recommendations are not followed or for acts of nature beyond the evaluator's reasonable expectations, such as severe winds, excessive rains, heavy snow loads, etc.

This report and all attachments, enclosures, and references, are confidential and are for the use of the client concerned. They may not be reproduced, used in any way, or disseminated in any form without the prior consent of the client concerned and Gilles Consulting.

Thank you for calling Gilles Consulting for your arboricultural needs.

Sincerely,



Brian K. Gilles, Consulting Arborist
ISA Certified Arborist # PN-0260
ASCA Registered Consulting Arborist # RCA-418A
PNW-ISA Certified Tree Risk Assessor #148

ATTACHMENTS

ATTACHMENT 1 - SITE PLAN
ATTACHMENT 2 - TREE INVENTORY/CONDITIONS SPREADSHEET
ATTACHMENT 3 - GLOSSARY
ATTACHMENT 4 - TREE PROTECTION MEASURES
ATTACHMENT 5 - WILDLIFE SNAG – HABITAT TREE CREATION
ATTACHMENT 6 - REFERENCES

Tree Plan III for the Davidson Short Plat
At 10405 11th Avenue NE, Kirkland, WA 98033
ATTACHMENT 9
Gilles Consulting
March 12, 2007
Page 9 of 22

ATTACHMENT 1 - SITE PLAN
Attach here

DATE OF INSPECTION: March 5, 2007

SITE: Davidson Short Plat
10405 111th Avenue NE
Kirkland, WA 98033

ATTACHMENT 2:
TREE INVENTORY/CONDITION SPREADSHEET

TREE #	SPECIES	DBH	TREE CREDIT	LIMITS OF DISTURBANCE				SYMMETRY	FOLIAGE	CROWN CONDITION	TRUNK	ROOT COLLAR	ROOTS	COMMENTS	SIGNIFICANCE	CURRENT HEALTH RATING	VIABILITY	STATUS / RECOMMENDATION
				West	East	South	North											
701	BCW/PI	43.6"	0	N/A	N/A	N/A	Gen. Sym.	GBS/PSE	Healthy	fork at 7' with included bark down 5' slightly	Base Rot	fill on 50% of CRZ	Center rot, vertical cracks on southeast side 3 feet to 16 feet, advanced carpenter ant infestation, sap flow on south side from 3 feet to base	Significant	Poor	Non-viable	Remove or Habitat Potential to Retain with Tree Protection Measures	
702	BCW/PI	24"	8	20'	20'	20'	Gen. Sym.	ABS/ASE	Healthy	previously topped at 40' with 3 forks leans south	Partially Exposed			Significant	Fair	Viable	Potential to Retain with Tree Protection Measures	
703	BCW/PI	16.0"	5	20'	N/A	20'	Min. Asym.	ABS/ASE	Healthy	typical fork at 55' feet	Partially Exposed		internal structural weakness at 50 feet	Significant	Fair	Viable	Potential to Retain with Tree Protection Measures	
704	BCW/PI	18.0"	6	N/A	N/A	20'	Maj. Asym.	ABS/ASE	Healthy	fork at base, center rot	Base Rot	fill on 50% of CRZ	Sap Sucker Activity, previously topped at 12 feet and 16 feet, Carpenter Ant Infestation	Significant	Poor	Non-viable	Remove or Habitat	
705 - Off Property	BLM/Am	9.0" & 7.6" EST	0	N/A	N/A	N/A	Maj. Asym.	PBS/PSE	Average		Base Rot			Significant	Poor	Non-viable	Remove or Habitat	
706 - Off Property	PV/VI	20"	0	N/A	N/A	N/A	Min. Asym.	PBS/PSE	Weak	Center Rot	Base Rot	restricted 3' from gravel pad	Two stump sprouts, center trunk broken out at 3 feet with cracks to the base, west trunk has open wound base up 4 feet on the east side	Significant	Poor	Non-viable	Remove or Habitat	
707 - Off Property	BCW/PI	11.8"	0	20'	N/A	N/A	Min. Asym.	ABS/ASE	Weak	fork at base and at 6' with included bark	Partially Exposed	fill on 50% of CRZ	Trunk diameters are: 11.0", 12.0", & 10.3" = single trunk of 24" trunks fused from base up 7 feet, open wound northeast side base up 6 feet with center rot and base rot	Significant	Poor	Non-viable	Remove or Habitat	
708	BLM/Am	24.0"	0	N/A	N/A	N/A	Gen. Sym.	PBS/PSE	Weak	fork at base with center rot in 3 smaller trunks	Base Rot	fill on 70% of CRZ	Trunk diameters are: 24.6", 14.6", 16.4", & 17.6" = single trunk diameter of 32", yard debris on downslope side of critical root zone, open wound south side at 2 feet with center rot, dead branches in canopy	Significant	Poor	Non-viable	Remove or Habitat	
709	BLM/Am	32.0"	0	N/A	N/A	N/A	Gen. Sym.	PBS/PSE	Average	Typical	N/A	fill on 35% of CRZ	Trunk diameters are estimated to be 11.0", 10.0", 10.5", & 22.0" = single trunk of 54 inches	Significant	Fair	Viable	Potential to Retain with Tree Protection Measures	
710	BCW/PI	34.0"	14	20'	20'	20'	Gen. Sym.	GBS/ASE	Healthy	fork at 6' with included bark to base, leans east	Partially Exposed			Significant	Poor	Non-viable	Remove or Habitat	
711	BCW/PI	31.0"	0	N/A	N/A	N/A	Min. Asym.	PBS/PSE	Broken Out	Typical leans NE, center rot	Base Rot			Significant	Poor	Non-viable	Remove or Habitat	
712	BCW/PI	27.5"	0	20'	20'	20'	Min. Asym.	PBS/PSE	Regenerating Average	fork at 6' with included bark to base, leans east	Partially Exposed	Surface	previously topped at 65 feet with rot column down 12 feet, stump sprouts on west side, test pit within 4 feet on north side and 9 feet on southwest side	Significant	Poor	Non-viable	Remove or Habitat	
713	PV/VI	10.4"	0	N/A	N/A	N/A	Maj. Asym.	PBS/PSE	Average	fork at base, center rot	Base Rot		Trunk diameters are 19.5" & 18.5" = single trunk of 25 inches, rot column below topping wounds at 50 feet down approximately 8 feet, dead branches in canopy, base rot	Significant	Dying	Non-viable	Remove or Habitat	
714	BCW/PI	25.0"	0	26'	N/A	N/A	Min. Asym.	ABS/ASE	Broken Out	fork at base, center rot	Partially Exposed			Significant	Poor	Non-viable	Remove or Habitat	
715	BCW/PI	26.5"	10	24'	24'	24'	Gen. Sym.	GBS/ASE	Healthy	Slightly serpentine, typical	N/A			Significant	Good	Viable	Potential to Retain with Tree Protection Measures	

DATE OF INSPECTION: March 5, 2007

SITE: Davidson Short Plat
10405 111th Avenue NE
Kirkland, WA 98033

ATTACHMENT 2:
TREE INVENTORY/CONDITION SPREADSHEET

Tree ID	RAI/AF	8.1"	8.1"	0	14'	N/A	N/A	N/A	N/A	40%	40%	MAJ. ASYM.	PBS/PSE	REGENERATING AVERAGE	LEANS NW	PARTIALLY EXPOSED INTERNAL	SURFACE	VERTICAL CRACKS EAST SIDE 2' TO 7' FEET, BACTERIAL INFECTION IN TRUNK	SIGNIFICANT	POOR	NON-VIABLE	REMOVE OR HABITAT
7-6	RA/AF	8.1"	8.1"	0	14'	N/A	N/A	N/A	N/A	40%	40%	MAJ. ASYM.	PBS/PSE	Suppressed	Leans NW	Structural Weakness	-	Vertical cracks east side 2' to 7' feet, bacterial infection in trunk	Significant	Poor	Non-viable	Remove or Habitat
7-7	RA/AF	9.0"	9.0"	0	10'	N/A	N/A	N/A	N/A	15%	15%	MAJ. ASYM.	PBS/PSE	Suppressed	Leans NW	Structural Weakness	-	Trunk diameters are 7.5 & 4.2 inches = single trunk of 9" vertical crack with bacterial infection in trunk	Significant	Poor	Non-viable	Remove or Habitat
7-8	RA/AF	6.4"	6.4"	0	8'	N/A	N/A	N/A	N/A	20%	20%	MIN. ASYM.	PBS/PSE	Suppressed	Leans SE	Base Rot	-	callused wound west side base up 2 feet	Significant	Poor	Non-viable	Remove or Habitat
7-9	RA/AF	6.5"	6.5"	1	12'	10'	10'	10'	10'	45%	45%	GEN. SYM.	ABS/PSE	Weak	Leans south	NAD	-	callused wound south side base up 3 feet	Significant	Fair	Viable	Potential to Retain with Tree Protection Measures
7-20	RA/AF	9.4"	9.4"	1	14'	12'	12'	12'	12'	60%	60%	GEN. SYM.	ABS/PSE	Weak	Slightly bowed	NAD	-		Significant	Fair	Viable	Potential to Retain with Tree Protection Measures
7-21	RA/AF	9.5"	9.5"	1	8'	N/A	N/A	N/A	N/A	10%	10%	MAJ. ASYM.	PBS/PSE	Dead	Typical	NAD	fill on 50% of CRZ	vertical cracks base up 6 feet	Significant	Dying	Non-viable	Remove or Habitat
7-22	RA/AF	6.8"	6.8"	0	10'	N/A	N/A	N/A	N/A	25%	25%	MAJ. ASYM.	PBS/PSE	Broken Off	Typical	NAD	fill on 50% of CRZ	vertical cracks base up 10 feet, bacterial infections in branch collars	Significant	Dying	Non-viable	Remove or Habitat
7-23	RA/AF	7.9"	7.9"	0	8'	N/A	N/A	N/A	N/A	20%	20%	MAJ. ASYM.	PBS/PSE	Dead	dead vascular cambium	Base Rot	-	bacterial infection in trunk	Significant	Dying	Non-viable	Remove or Habitat
7-24	RA/AF	9.6"	9.6"	0	14'	N/A	N/A	N/A	N/A	45%	45%	MIN. ASYM.	PBS/PSE	Weak	Leans NW	Base Rot	Penalty failed	bacterial infection in trunk	Significant	Poor	Non-viable	Remove or Habitat
7-25	BC/HPT	30.0"	30.0"	12	30'	30'	30'	30'	30'	65%	65%	GEN. SYM.	GBS/PSE	Healthy	Typical	Partially Exposed	-		Significant	Good	Viable	Remove or Habitat
7-26	RA/AF	9.8"	9.8"	0	14'	N/A	N/A	N/A	N/A	35%	35%	MIN. ASYM.	PBS/PSE	Weak	Leans west	Partially Exposed	Surface partially failed	bacterial infection in trunk	Significant	Poor	Non-viable	Remove or Habitat
7-27	RA/AF	7.7"	7.7"	0	12'	N/A	N/A	N/A	N/A	25%	25%	MAJ. ASYM.	PBS/PSE	Weak	Center Rot	Partially Exposed	-	sun scald base up 9 feet with vertical cracks on south side, base rot	Significant	Poor	Non-viable	Remove or Habitat
7-28	GA/FI	17.4"	17.4"	0	24'	N/A	N/A	N/A	N/A	45%	45%	MIN. ASYM.	ABS/PSE	Healthy	Center Rot	Base Rot	-	fungal fruiting bodies 1 foot at 26 feet	Significant	Poor	Non-viable	Remove or Habitat
7-29	BC/HPT	18.4"	18.4"	0	26'	N/A	N/A	N/A	N/A	65%	65%	GEN. SYM.	ABS/PSE	Healthy	bacterial infections	Partially Exposed	Root Rot	gummosis on trunk	Significant	Poor	Non-viable	Remove or Habitat
730 - In Buffer	RA/AF	12.5"	12.5"	0	22'	8'	8'	8'	8'	55%	55%	GEN. SYM.	ABS/PSE	Average	fork at 2' typical	NAD	-	Dead branches in canopy, tree is in the buffer with canopy over hanging the developable portions of the lot by 10 feet.	Significant	Fair	Viable	Potential to Retain with Tree Protection Measures
731 - In Buffer	RA/AF	8.1"	8.1"	0	14'	14'	14'	14'	14'	65%	65%	MIN. ASYM.	ABS/PSE	Weak	Serpentine leans west	Bowed	partially failed		Significant	Fair	Viable	Potential to Retain with Tree Protection Measures
732 - In Buffer	RA/AF	10.2"	10.2"	0	16'	N/A	N/A	N/A	N/A	75%	75%	MAJ. ASYM.	PBS/PSE	Weak	center rot	partially failed	partially failed	vertical cracks in trunk base up 16 feet	Significant	Poor	Non-viable	Remove or Habitat
7-33	RA/AF	9.7"	9.7"	0	14'	N/A	N/A	N/A	N/A	50%	50%	MAJ. ASYM.	ABS/PSE	Average	column down 8'	partially failed	partially failed	vertical cracks in trunk base up 15 feet, dead branches in canopy	Significant	Poor	Non-viable	Remove or Habitat
<p>Trees in the wetland and wetland buffer were not individually evaluated. Since they all are going to stay the City Arborist agreed that they could be summarized as follows:</p> <ul style="list-style-type: none"> Area A: Approximately 22 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area B: Approximately 26 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area C: Approximately 12 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area D: Approximately 58 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area E: Approximately 53 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area F: Approximately 56 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area G: Approximately 60 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area H: Approximately 32 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. Area I: Approximately 24 trees in poor, fair, and good condition; ranging from 5 to 12 inches in diameter. 																						
<p>SUMMARY:</p> <ul style="list-style-type: none"> - 33 Trees were evaluated. - 23 were found to be Non-Viable due to poor health, poor structure, or both. - 10 trees were found to be of good health and structure that may be able to survive the stress of construction. - The 10 trees total 33 Tree Credits - They are trees # 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000. - Tree # 731 is in the Buffer and will be retained. - Trees 705, 706, and 707 are in the NE 104th Street Right-of-Way near the SE property corner. - All three are in poor or dying condition and should be removed for safety. - Near the southwest property corner in the NE 104th Street right-of-way is a group of trees. - It was judged that no construction activity will taking place in this area so these trees were not included in this evaluation. If, however, construction is required, Gilks Consulting can return to the site and include these trees. 																						

ATTACHMENT 3 - GLOSSARY

Terms Used in This Report, on the Tree Condition / Inventory Spreadsheet, and Their Significance

In an effort to clearly present the information for each tree in a manner that facilitates the reader's ability to understand the conclusions I have drawn for each tree, I have collected the information onto a spreadsheet format. This spreadsheet was developed by Gilles Consulting based upon the *Hazard Tree Evaluation Form* from the book, *The Evaluation of Hazard Trees in Urban Areas*, by Matheney and Clarke. The descriptions were left brief on the spreadsheet in an effort to include as much pertinent information as possible, to make the report manageable, and, to not bore the reader with infinite levels of detail. A review of these terms and descriptions will allow the reader to rapidly move through the report and understand the information.

- 1) **TREE #**—the individual number of each tree.
- 2) **SPECIES**—this describes the species of each tree with both most readily accepted common name and the officially accepted scientific name.
- 3) **DBH**—Diameter Breast Height. This is the standard measurement of trees taken at 4.5 feet above the average ground level of the tree base.
 - i) Occasionally it is not practical to measure a tree at 4.5 feet above the ground. The most representative area of the trunk near 4.5 feet is then measured and noted on the spreadsheet. For instance, a tree that forks at 4.5 feet can have an unusually large swelling at that point. The measurement is taken below the swelling and noted as, '28.4" at 36"'.
 - (1) Every effort is made to distinguish between a single tree with multiple stems and several trees growing close together at the bases.
 - ii) Trees with multiple stems are listed as a "clump of x," with x being the number of trunks in the clump. Measurements may be given as an average of all the trunks, or individual measurements for each trunk may be listed.
- 4) **TREE CREDIT**—Tree Credit based on Trunk Diameter
- 5) **DRIP LINE**— The radius, the distance from the trunk to the furthest branch tips.
- 6) **LIMITS OF DISTURBANCE**— The boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by a qualified professional.
- 7) **% LCR**—Percentage of Live Crown Ratio. The relative proportion of green crown to overall tree height. This is an important indication of a tree's health. If a tree has a high percentage of Live Crown Ratio, it is likely producing enough photosynthetic activity to support the tree. If a tree has less than 30 to 40% LCR it can create a shortage of needed energy and can indicate poor health and vigor.
- 8) **SYMMETRY**—is the description of the form of the canopy. That is, the balance or overall shape of the canopy and crown. This is the place I list any major defects in the tree shape—does the tree have all its foliage on one side or in one unusual area.

Symmetry can be important if there are additional defects in the tree such as rot pockets, cracks, loose roots, weak crown etc. Symmetry is generally categorized as Generally Symmetrical, Minor Asymmetry or Major Asymmetry:

- i) Gen. Sym—Generally Symmetrical. The canopy/foilage is generally even on all sides with spacing of scaffold branches typical for the species, both vertically and radially.
 - ii) Min. Asym—Minor Asymmetry. The canopy/foilage has a slightly irregular shape with more weight on one side but appears to be no problem for the tree.
 - iii) Maj. Asym—Major Asymmetry. The canopy/foilage has a highly irregular shape for the species with the majority of the weight on one side of the tree. This can have a significant impact on the tree's stability, health and hazard potential—especially if other defects are noted such as cracks, rot, root defects.
- 9) **FOLIAGE/BRANCH**—describes the foliage of the tree in relation to a perfect specimen of that particular species. First the branch growth and foliage density is described, and then any signs or symptoms of stress and/or disease are noted. The condition of the foliage, or the branches and buds for deciduous trees in the dormant season, are important indications of a tree's health and vigor.
- i) For Deciduous trees in the dormant season:
 - (1) The structure of the tree is visible,
 - (2) The quantity and quality of buds indicates health, and is described as good bud set, average bud set, or poor bud set. These are abbreviated in the spreadsheet as: gbs, abs, or pbs.
 - (3) The amount of annual shoot elongation is visible and is another major indication of tree health and vigor. This is described as:
 - a) Excellent, Good, Average, or Short Shoot Elongation. These are abbreviated in the spreadsheet as ESE, GSE, ASE, OR SSE.
 - ii) For evergreen trees year round and deciduous trees in leaf, the color and density of the foliage indicates if the tree is healthy or stressed, or if an insect infestation, a bacterial, fungal, or viral infection is present. Foliage is categorized on a scale from:
 - (1) Dense—extremely thick foliage, an indication of healthy vigorous growth,
 - (2) Good—thick foliage, thicker than average for the species,
 - (3) Normal/Average—thick foliage, average for the species, an indication of healthy growth,
 - (4) Thin or Thinning—needles and leaves becoming less dense so that sunlight readily passes through; an indication that the tree is under serious stress that could impact the long-term survivability and safety of the tree,
 - (5) Sparse—few leaves or needles on the twigs, an indication that the tree is under extreme stress and could indicate the future death of the tree

- (6) Necrosis—the presence of dead twigs and branchlets. This is another significant indication of tree health. A few dead twigs and branches are reasonably typical in most trees of size. However, if there are dead twigs and branchlets all over a certain portion of the tree, or all over the tree, these are indications of stress or attack that can have an impact on the tree's long-term health.
- (7) Hangers—A term to describe a large branch or limb that has broken off but is still hanging up in the tree. These can be particularly dangerous in adverse weather conditions.
- 10) **CROWN CONDITION**—the crown is uppermost portion of the tree, generally considered the top 10 to 20% of the canopy or that part of the canopy above the main trunk in deciduous trees and above the secondary bark in evergreen trees.
- i) The condition of the tree's crown is a reflection of the overall health and vigor of the entire tree. The crown is one of the first places a tree will demonstrate stress and pathogenic attack such as root rot.
 - ii) If the **Crown Condition** is healthy and strong, this is a good sign. If the crown condition is weak, broken out, or shows other signs of decline, it is an indication that the tree is under stress. It is such an important indication of health and vigor that this is the first place a trained forester or arborist looks to begin the evaluation of a tree. Current research reveals that, by the time trees with root rot show significant signs of decline in the crown, fully 50% or more of the roots have already rotted away. **Crown Condition** can be described as:
 - (1) Healthy Crown—exceptional growth for the species.
 - (2) Average Crown—typical for the species.
 - (3) Weak Crown—thin spindly growth with thin or sparse needles.
 - (4) Flagging Crown—describes a tree crown that is weak and unable to grow straight up.
 - (5) Dying Crown—describes obvious decline that is nearing death.
 - (6) Dead Crown—the crown has died due to pathological or physical injury. The tree is considered to have significant stress and/or weakness if the crown is dead.
 - (7) Broken out—a formerly weak crown condition that has been broken off by adverse weather conditions or other mechanical means.
 - (8) Regenerated or Regenerating—formerly broken out crowns that are now growing back, Regenerating crowns may appear healthy, average, or weak and indicate current health of the tree.
 - (9) Suppressed—a term used to describe poor condition of an entire tree or just the crown. Suppressed crowns are those that are entirely below the general level of the canopy of surrounding trees which receive no direct sunlight. They are generally in poor health and vigor. Suppressed trees are generally trees that are smaller and growing in the shade of larger trees around them. They generally have thin or sparse

needles, weak or missing crowns, are prone to insect attack as well as bacterial and fungal infections.

- 11) **TRUNK**—this is the area to note any defects that can have an impact on the tree’s stability or hazard potential. Typical things noted are:
- i) **FORKED**—bifurcation of branches or trunks that often occur at a narrow angle.
 - ii) **INCLUDED BARK**—a pattern of development at branch or trunk junctions where bark is turned inward rather than pushed out. This can be a serious structural defect in a tree that can and often does lead to failure of one or more of the branches or trunks especially during severe adverse weather conditions.
 - iii) **EPICORMIC GROWTH**—this is generally seen as dense thick growth near the trunk of a tree. Although this looks like a healthy condition, it is in fact the opposite. Trees with Epicormic Growth have used their reserve stores of energy in a last ditch effort to produce enough additional photosynthetic surface area to produce more sugars, starches and carbohydrates to support the continued growth of the tree. Generally speaking, when conifers in the Pacific Northwest exhibit heavy amounts of Epicormic Growth, they are not producing enough food to support their current mass and are already in serious decline.
 - iv) **INTERNAL STRUCTURAL WEAKNESS**—a physical characteristic of the tree trunk, such as a **kink, crack, rot pocket, or rot column** that predisposes the tree trunk to failure at the point of greatest weakness.
 - v) **BOWED**—a gradual curve of the trunk. This can indicate an Internal Structural Weakness or an overall weak tree. It can also indicate slow movement of soils or historic damage of the tree that has been corrected by the curved growth.
 - vi) **KINKED**—a sharp angle in the tree trunk that indicates that the normal growth pattern is disrupted. Generally this means that the internal fibers and annual rings are weaker than straight trunks and prone to failure, especially in adverse weather conditions.
 - vii) **GROUND FLOWER**—an area of deformed bark near the base of a tree trunk that indicates long-term root rot.
- 12) **ROOT COLLAR**—this is the area where the trunk enters the soil and the buttress roots flare out away from the trunk into the soil. It is here that signs of rot, decay, insect infestation, fungal or bacterial infection are noted. **NAD** stands for **No Apparent Defects**.
- 13) **ROOTS**—any abnormalities such as girdling roots, roots that wrap around the tree itself that strangle the cambium layer and kill the tree, are noted here.
- 14) **COMMENTS**—this is the area to note any additional information that would not fit in the previous boxes or attributes about the tree that have bearing on the health and structure of the tree.
- 15) **SIGNIFICANCE**—a “significant” tree is at least 6” in diameter measured at 4.5’ above the average ground level.

- 16) **CURRENT HEALTH RATING**— a description of general health ranging from dead, dying, hazard, poor, suppressed, fair, good, very good, to excellent.
- 17) **VIABILITY**— A significant tree that is in good health with a low risk of failure due to structural defects, is relatively wind firm if isolated or remains as part of a grove, and is a species that is suitable for its location.
- i) Please note that many trees may be listed as “Non-Viable” due to poor health, poor structure, or the tree may be below the size threshold for a “Viable Tree.” However, it is worth examining the Non-Viable Trees to determine if any or all of them can be left on the property. They can add significant benefit to the landscape and contribute to wildlife habitat.
- 18) **STATUS/RECOMMENDATION**—this is an estimate of whether or not the tree is off sufficient health, vigor, and structure that it is worth consideration of retention.

NOTE: TREES WITH THE SAME DESCRIPTION AND DIFFERENT RATINGS:
Two trees may have the same descriptions in the matrix boxes, one may be marked “Significant,” while another may be marked “Non-Significant.” The difference is in the degree of the description—early necrosis versus advanced necrosis for instance. Again, these descriptions were left brief in an effort to include as much pertinent information as possible, to make the report manageable, and, not to bore the reader with infinite levels of detail.

Tree Plan III for the Davidson Short Plot
At 10405 11th Avenue NE, Kirkland, WA 98033

ATTACHMENT 9
Gilles Consulting

March 12, 2007

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ATTACHMENT 4 - TREE PROTECTION MEASURES

In order for trees to survive the stresses placed upon them in the construction process, tree protection must be planned in advance of equipment arrival on site. If tree protection is not planned integral with the design and layout of the project, the trees will suffer needlessly and will possibly die. With proper preparation, often costing little, or nothing extra to the project budget, trees can survive and thrive after construction. This is critical for tree survival because damage prevention is the single most effective treatment for trees on construction sites. Once trees are damaged, the treatment options available are limited.

The following minimum Tree Protection Measures are included on three separate sheets so that they can be copied and introduced into all relevant documents such as site plans, permit applications and conditions of approval, and bid documents so that everyone involved is aware of the requirements. These Tree Protection Measures are intended to be generic in nature. They will need to be adjusted to the specific circumstances of your site that takes into account the location of improvements and the locations of the trees.

TREE PROTECTION MEASURES:

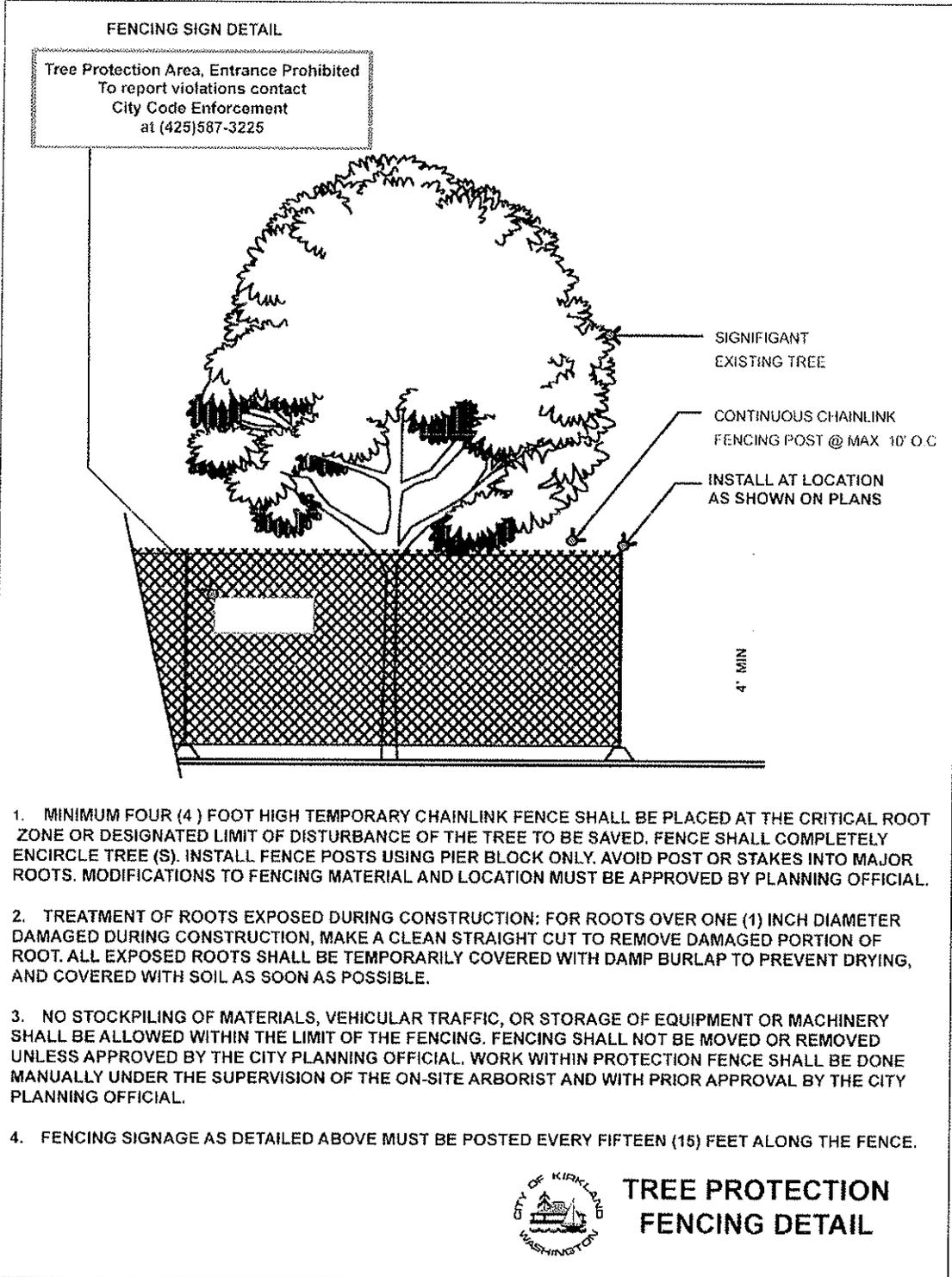
- Tree Protection Fences will need to be placed around each tree or group of trees to be retained.
 - Tree Protection Fences are to be placed according to the attached drawing at a distance of not less than 5 feet outside the dripline of the tree or group of trees to be saved.
 - Tree Protection Fences must be inspected prior to the beginning of any construction work/activities.
 - Nothing must be parked or stored within the Tree Protection Fences—no equipment, vehicles, soil, debris, or construction supplies of any sorts.
- No burning is to be allowed within the Tree Protection Zone, under the dripline of any retained trees, or within 30 feet of the Tree Protection Fences.
- Cement trucks must not be allowed to deposit waste or wash out materials from their trucks within the Tree Protection Fences.
- The Tree Protection Fences need to be clearly marked with the following or similar text in four inch or larger letters:

“TREE PROTECTION AREA, ENTRANCE PROHIBITED

**To report violations contact
 City Code Enforcement
 at 425-587-3225”**

- The area within the Tree Protection Fencing must be covered with wood chips, hog fuel, or similar materials to a depth of 8 to 10 inches. The materials should be placed prior to beginning construction and remain until the Tree Protection Fencing is taken down.
- When excavation occurs near trees that are scheduled for retention, the following procedure must be followed to protect the long term survivability of the tree:
 - An International Society of Arboriculture, (ISA) Certified Arborist must be working with all equipment operators.
 - The Certified Arborist should be outfitted with a shovel, hand pruners, a pair of loppers, a handsaw, and a power saw (a “sawsall” is recommended).
 - When any roots of one inch diameter or greater, of the tree to be retained, is struck by the equipment, the Certified Arborist should stop the equipment operator.

- The Certified Arborist should then excavate around the tree root by hand/shovel and cleanly cut the tree root.
 - The Certified Arborist should then instruct the equipment operator to continue.
 - Boring under the root systems of trees (and other vegetation) shall be done under the supervision of an ISA Certified Arborist. This is to be accomplished by excavating a limited trench or pit on each side of the critical root zone of the tree and then hand digging or pushing the pipe through the soil under the tree. The closest pit walls shall be a minimum of 7 feet from the center of the tree and shall be sufficient depth to lay the pipe at the grade as shown on the plan and profile.
 - Tunneling under the roots of trees shall be done under the supervision of an ISA Certified Arborist in an open trench by carefully excavating and hand digging around areas where large roots are exposed. No roots 1 inch in diameter or larger shall be cut.
 - The contractor shall verify the vertical and horizontal location of existing utilities to avoid conflicts and maintain minimum clearances; adjustment shall be made to the grade of the new utility as required.
- Watering:
 - The trees will require significant watering throughout the summer and early fall in order to survive long-term. An easy and economical watering can be done using soaker hoses placed three feet from the trunk of the tree and spiraled around the tree. One 75-foot soaker hose per tree is adequate. It is best to place the soakers using landscape staples, (available from HD Fowler in Bellevue for pennies apiece) then cover the area with two to three inches composted materials. The composted material will act as a mulch to minimize evaporation and will also stimulate the microbial activity of the soil which is another benefit to the health of the tree.
 - Water the tree to a depth of 18 to 20 inches. I recommended leaving the water on the soaker hoses for six to eight hours and then digging down to determine how deep your water is penetrating. Then adjust accordingly. It may take a good two days of watering to reach the proper depth.
 - Once the water reaches the proper depth, turn off the hoses for four weeks and then water again. Water more often when temperatures increase—every three weeks when temperatures exceed 80 degrees and every two weeks when temperatures exceed 90 degrees. This drying out of the soil in between watering is important to prevent soil pathogens from attacking the trees.



ATTACHMENT 5 - WILDLIFE SNAG – HABITAT TREE CREATION

There are occasions where hazardous trees need not be completely removed. Shortening is the preferred methods in these types of areas rather than complete removal. Standing dead trees, also known as “*vertical structure*” in forest ecology terms, provide important wildlife habitat. Recent studies at the University of Washington have shown that the third most significant reason for the decline of songbirds in the Puget Sound region is the lack of standing dead trees. (The primary reason for the decline of desirable wildlife is loss of habitat. The second reason is predation by dogs, cats, Grey Squirrels, and Opossums.)



These studies reveal that as many as 54% of desirable urban wildlife utilize standing dead trees or nurse logs on the ground in one or more important life cycle. For instance, Black Capped Chickadees must excavate a new cavity every spring in order to successfully mate and produce a brood of off spring.

The opportunity exists here to remove the dangerous portions of these trees and leave the snags for wildlife. You can also place trunk sections carefully on the ground as nurse logs. The logs, if in contact with the ground, soak up moisture and release it slowly throughout the summer. This supports plants and animals in the immediate area. Brush piles strategically place for birds and mammals to use as safe areas also have important wildlife benefits.

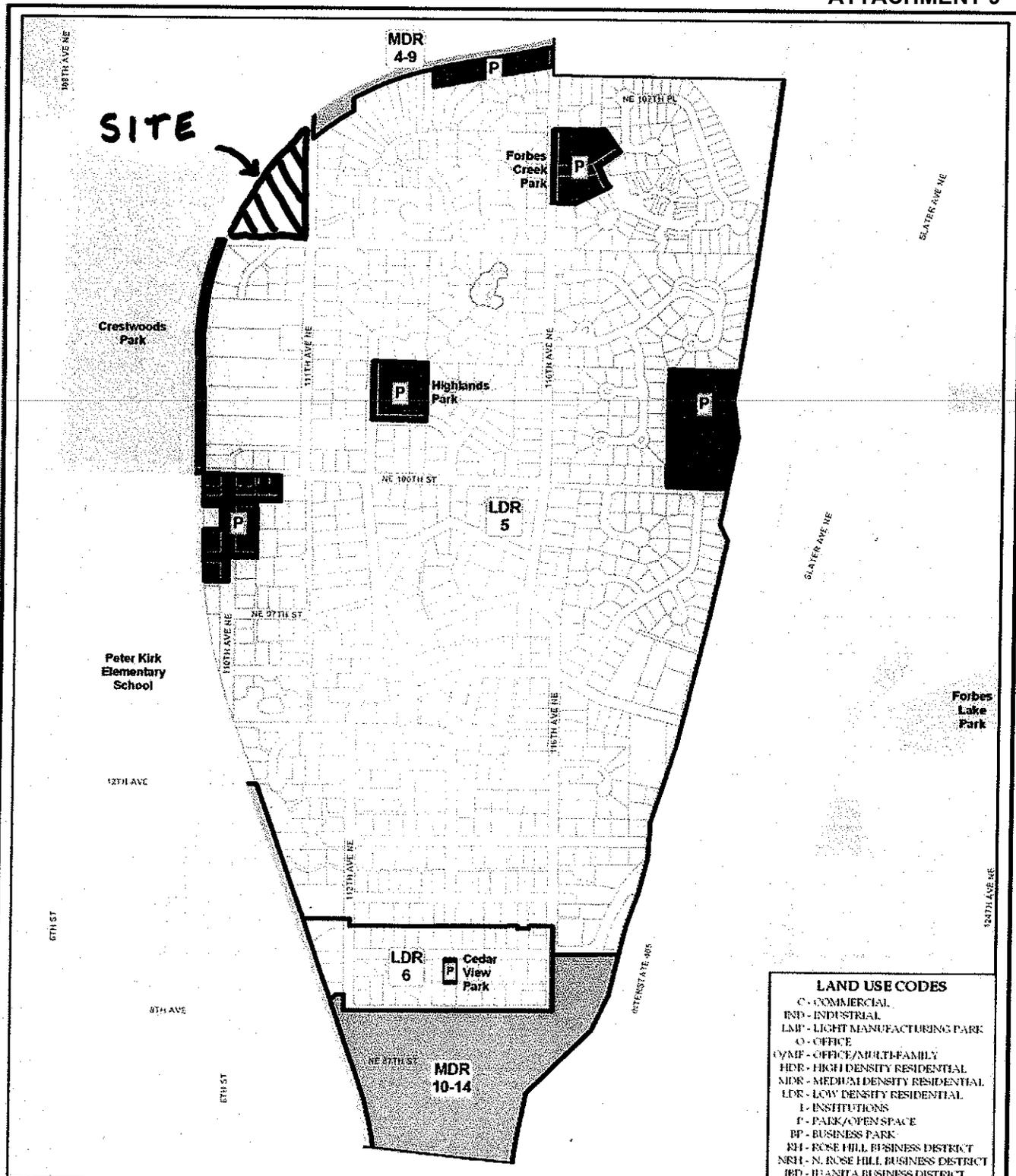
These two measures have the added benefit of reducing the cost because a tree service does not need to do as much clean up or removal.

The tree service selected can spend a few extra minutes on the top of each snag to make the cut look like it was snapped off in the wind—jagged and irregular. This enhances the aesthetic appeal of the tree.



ATTACHMENT 6 - REFERENCES

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LAND USE CODES

- C - COMMERCIAL
- IND - INDUSTRIAL
- LMF - LIGHT MANUFACTURING PARK
- O - OFFICE
- OMF - OFFICE/MULTI-FAMILY
- HDR - HIGH DENSITY RESIDENTIAL
- MDR - MEDIUM DENSITY RESIDENTIAL
- LDR - LOW DENSITY RESIDENTIAL
- I - INSTITUTIONS
- P - PARK/OPEN SPACE
- BP - BUSINESS PARK
- BH - BUSE HILL BUSINESS DISTRICT
- NRH - N. ROSE HILL BUSINESS DISTRICT
- IBD - IRVING BUSINESS DISTRICT

Highlands Neighborhood
Figure H-4: Land Use

ORDINANCE NO. 3024
 ADOPTED by the Kirkland City Council
 December 13, 2005

LAND USE BOUNDARIES	PARCEL BOUNDARIES
SUBAREA BOUNDARY	PLANNED AREA NUMBER
TOTEM CENTER	LAND USE CODE
PUBLIC FACILITIES	<small>NOTE: WHERE NOT SPECIFIED, USE THE FOLLOWING</small>

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ATTACHMENT 13
 SPL 07-00034