Appraisal and Appraisal Review Services
Forest Practices Consulting, Forest Management
Timber Cruising & Marketing Services, Arboricultural Services Established 1946

S. A. NEWMAN FIRM
(incorporated as S.A. Newman, Forest Engineers, Inc.)

Offices: 3216 Wetmore Avenue, Suite 205, Everett, WA 98201-4368
Mail: P. O. Box 156, Everett WA 98206-0156
Phone 425-259-4411; Facsimile 425-258-4435
Web: www.sanforest.com

May 13, 2016

SUMMARY TREE INVENTORY REPORT, TREE RISK ASSESSMENT AND TREE RETENTION/REMOVAL PLAN

Soundview Business Campus – Tree Retention Area/Wildlife Habitat Corridor in a Portion of the SE ¼ NW ¼ of Section 3, Township 28 North, Range 4 East, W.M. in City of Everett, Snohomish County, Washington

Overview: To provide inventory and summary analysis of selected trees proposed for retention or removal on the Soundview Business Campus project for project planning purposes and to comply with specific requirements established under the City of Everett's *Planned Action Determination – SEPA 15-034* dated March 31, 2016. Wetland Resources, Inc., as one of the lead project parties for site assessment & planning, has provided map data to the undersigned to facilitate our work. As part of this work we assessed the safety status of the larger on-site trees within a 2.8± acre Tree Retention Area/Wildlife Habitat Corridor (hereinafter the "Tree Area") composed of portions of the easterly & northerly 60 feet of the property. The scrutiny of these trees, generally all trees 12" DBH[a] and larger, was performed as a *level 2 assessment* as defined in the "*Tree Risk Assessment Manual*", (Dunster, Julian A., et al. © 2013 - International Society of Arboriculture). The level 2 assessment generally includes collecting detailed data on each tree within striking distance of existing or proposed potential targets, but excludes use of any advanced tree imaging equipment such as x-ray or sonic or electrical impedance tomography. All assessed trees were identified in the field with numbered pink plastic tags and any trees determined to be unsuitable for long term retention on-site were additionally wrapped with pink flagging ribbon to facilitate locating trees proposed for removal. In addition as part of an audit performed by the undersigned following initial inventory marking, nearly all the trees proposed for removal were further conspicuously marked with a red paint spot as a supplemental identifier. Smaller trees generally between 6.0" and 11.9" DBH were tallied for informative purposes only, and none of these trees were presently considered hazardous or otherwise in need of removal to abate a safety concern.

[a] DBH means diameter at breast height – a standard point of measurement 4.5 feet above ground level as measured from uphill side of tree.

Site Conditions: The Tree Area ranges from level to undulating with a few steeper sloping areas in north portions. The predominant on-site soli type is moderately well drained to somewhat excessively well drained *Alderwood-Everett gravelly sandy loam* (source: USDA Soil Conservation Service & NRCS); effective tree rooting depth ranges broadly from 20" to 60" or deeper for this conglomerate soil type. Tree windthrow hazard is rated as slight to moderate. The bulk of the interior parts of the overall ownership were logged circa 2005 and thus trees left uncut in the Tree Area were exposed to additional wind loading due to removal of abutting timber. There has been ongoing windthrow of trees within the Tree Area since 2005, and the undersigned is aware of at least one instance circa 2007 when emergency removal of a selected few hazardous trees was performed within the Tree Area to abate the risk of failure and damage to nearby homes. The trees remaining standing in the Tree Area have been time tested through multiple winter wind events, although the present structure of many of the remaining trees result from multiple and ongoing branch and top leader loss.

Of the larger significant trees tagged in the Tree Area nearly 20% are bigleaf maple, and around a third of these are multi-stemmed specimens originating from a common root system. Note: in a couple instance recommendation for removal includes one stem only of a multi-stemmed specimen. Bigleaf maple up to 38' DBH and up to 95 feet high recorded. (Western) red cedar accounts for around 15% of the larger trees; red cedar up to 37" DBH and up to 100 feet high recorded. Many red cedar have dead spike tops or tops blown out completely. Red alder in various stages of maturity and decline occur and account for around 10% of larger trees. Eight larger Douglas fir tagged – the largest recorded is 34" DBH and 110 feet high. A few non-native tree species have been planted within the Tree Area, although around 97% of the trees are Pacific Northwest native species.

Tree Summary: Trees tallied within the Tree Area as part of the Soundview Business Campus inventory are summarized as follows:

Tagged Trees Generally 12.0" + DBH:	
Larger trees proposed for removal:	40
Hybrid recommendation, i.e. one stem only out multi-stemmed specimen proposed for removal:	2
Larger trees proposed for retention:	87
Total tagged trees:	129
Non-Tagged Trees Generally 6.0" to 11.9" DBH:	
Smaller trees – all proposed for retention:	119
Total trees tallied this inventory:	**248**

Additional quantitative and qualitative data collected by species appears in Exhibits 2 & 3 of this report. Approximate mapped location of selected tagged trees appears on Exhibit 1 of this report.

Summation: Nearly all trees proposed for removal could alternatively be selected for wildlife snag recruitment. In other words, trees could be left as "high stumps" – in some cases stems could be "snagged" up to 40 feet high depending on location within the Tree Area and the proximity of existing and proposed targets. Leaving high stumps or short snags would provide significant terrestrial wildlife habitat. Some of the recommendation for removal are not because of present danger, but because of future anticipated hazard – especially where original top leaders have been blown out. The concern is that newly grown top leaders which will increase in size in the near to mid-term are poorly attached to the main bole stem and thus will be prone to failure. These new top leaders when torn off in severe wind events have a tendency to sail considerable distance. Creating snags as opposed to performing whole tree removals also limits ground fuel loading to a certain extent and thus reduces potential fire hazard. Moreover, the creation of snags instead of whole tree removal eliminates or alleviates need for a few potentially very difficult whole tree "tear downs". Tree number 118 for instance is a large red cedar growing near north property line and looming above an adjoining residence. For this tree simply stripping all live branches and leaving as a wildlife snag would abate the hazard of future new top leader failures.

The undersigned has been provided limited preliminary soil grading plans only and reserves the right to revise recommendations for retention trees if significant soil disturbances or other tree impacts will occur as part of project construction and materially affect the subject trees. Moreover, any deviation from the conditions of approval for site activities by City of Everett or any failure to comply with the minimal International Society of Arboriculture (ISA) standards for the preservation of trees during construction could also result in a revised recommendation for retention or removal. The risk of tree failure is relative, and such a risk therefore exists even for the least hazardous trees recommended to be retained and/or monitored. Changes in circumstances, condition and tree size can also lead to a change in tree status, tree deterioration and potentially result in instability. In the opinion of the undersigned, low to moderate risk of failure only exists for on-site trees proposed for retention. Monitoring is always warranted during and to some extent after construction.

Permitted users; functions. The inventory and analysis report has been prepared for the sole and exclusive use of Wetland Resources as our firm's client, for its direct clients Veritas Construction & LBG 38, LLC, and for City of Everett Planning & Community Development. The sole function of this inventory and analysis are to assist in establishing the safety status of selected trees & to abate potential hazard through recommended removals, and to establish required number of mitigation/replacement plantings. These findings are not intended for use in establishing stumpage value of trees recommended for removal, if any. Further, these services exclude any estimate of costs associated with logging or tree services for potential close-quarters tree removal or cost of mitigation planting.

TYPICAL RECOMMENDED CHRONOLOGY OF GENERAL TREE PROTECTION MEASURES:

Conspicuously flag, paint or otherwise identify on-site trees proposed for retention (or removal), and require installation of protective barricade fencing with sturdy posts. Fencing should extend to limits of tree retention unit or if possible out to maximum feasible root protection zone given size and site conditions of each respective tree;

Consult with project Civil Engineer regarding any soil grade modifications proposed near any trees proposed for retention or conditional retention. Discuss alternatives to stump pulling within close proximity to any trees proposed for retention;

Inspect retained trees following clearing activities and identify any construction damage, pruning needs, or hazard tree concerns. Inspect barricade fencing at maximum root protection zone locations, recommend fencing repairs and enforce prescription to maintain fencing for duration of construction. Treat bark and root damage by removing loosened bark and frayed roots with a sharp knife and treat as needed;

Examine any retained trees near soil grade modification or any new retaining wall structures. Carefully prune any 1" diameter or larger damaged root exposed by construction for soil grade change; prune or repair with clean cut back to undamaged tissue and cover with moist soil;

No excavation, fill material or impervious surfacing permitted within the root protection zone of trees proposed for retention. No motorized vehicles, other equipment, or material storage within the root protection zones except as noted in the following: where equipment needs to enter open space tracts to extend utilities, the route shall be carefully designated to minimize impacts to save trees. If materials must be stacked in open space, they shall be laid atop a 12" minimum depth of wood chips, or atop plywood or other protective mats. Any vehicle or machinery route through open space which will potentially impact save tree roots will be similarly covered with wood chips or protected with mats;

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; and

Noxious or undesirable vegetation in tree root protection zones or open space areas within 100 feet should, to the extent reasonably possible, be uprooted and destroyed or otherwise eradicated; hand tools only will be used for eradication within tree root protection zones. Any significant area of soil disturbed by these eradication activities will be mulch covered to a minimum depth of 1" with suitable composted material.

Certification. I certify that: representatives of the S. A. Newman Firm inspected the trees and property that are the subject of this report on various dates indicated herein in May 2016; the statements of fact contained in this report are true and correct to the best of my knowledge and belief; I have no present or prospective interest in the trees or property that is the subject of this report; my services are not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report; and that the conclusions set forth in this report are my independent conclusions, and that such conclusions were reached without collaboration of others except for the professional assistance as detailed herein. All conclusions were reached without direction as to recommended action. I have not revealed the findings and results of this report to anyone other than the addressee named herein, and our firm will not do so until authorized in writing by said party or until required to do so by due process of law.

The undersigned arborist remains available for additional site review and to prepare specific pre-work plans for tree protection during construction, for consultation during construction, and for follow-up steps for monitoring in years following construction if requested or otherwise engaged. Please feel free to contact me if you have any questions. Thank you.

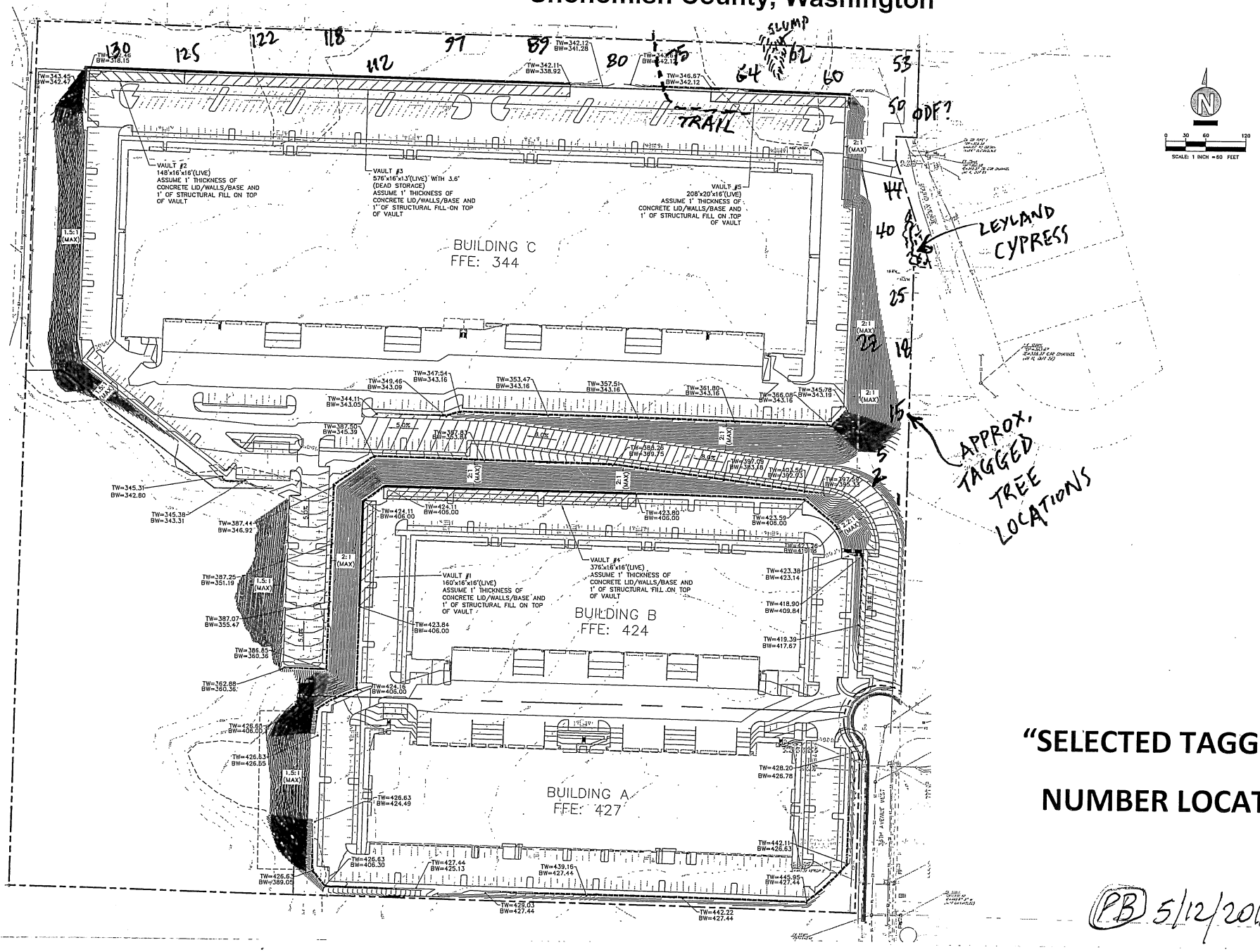
Respectfully Submitted,

S. A. NEWMAN FIRM

Peter C. Blansett, Principal Forester/
ISA Certified Arborist No. PN0659A
ISA Qualified Tree Risk Assessor
Email: pblansett@sanforest.com

Exhibit 1.

Soundview Business Campus in a Portion of the SE ¼ NW ¼ of Section 3, Township 28 North, Range 4 East, W.M. in City of Everett, Snohomish County, Washington



"SELECTED TAGGED TREE NUMBER LOCATIONS"

PB 5/12/2016

SOUNDVIEW BUSINESS CAMPUS

IN A PTN. OF SEC. 3 - T28N - R4E, W.M., CITY of EVERETT, WA

Inventory of Selected Trees Occurring Within Tree Rentention Area (Wildlife Habitat Corridor)

Multi-stemmed trees sharing a common root system assigned a single tree number.

Generally Tagged All Trees > 12" in Diameter at Breast Height (DBH) -- a few smaller sized trees considerd hazardous also tagged.

Tree No.	Species	DBH *(inches)*	Height *(feet)*	LCR	Comments	Recommendation
1	BM	38	80	60	Two stems that fork at 8' high	Retain
2	DF	17	65	0	Snag	REMOVE
3	BM	16-22	80	50	Two stems; lopsided crown; lean towards targets	Retain
4	RC	15	30	75		Retain
5	RC	15	30	70	Sweep	Retain
6	BM	16-18	80	50	Four stems; remove one leaning towards target w/ rot	Retain 3, REMOVE 1
7	BM	16-20	80	20	One dead stem & the other two stems have dead tops	REMOVE
8	BM	16	60	45	Fork out; crook -- MONITOR	Retain
9	RC	25	40	65	Dead fork; seam; next to fence	REMOVE
10	BM	26	70	35	Two minor forks out; lopsided crown -- MONITOR	Retain
11	RC	22	40	60	Top out at 20'; resprouted forks	REMOVE
12	WH	12	60	40	Butt scar -- MONITOR	Retain
13	RA	13	55	50	Dead top	REMOVE
14	RA	12	60	20	80% dead	REMOVE
15	SW	11	30	60	Top out at 15' and resrouted	Retain
16	RA	11	45	20	Top out; dying	REMOVE
17	SW	11	50	0	Snag; leaning towards target	REMOVE
18	RC	34	80	80	Sweep	Retain
19	RA	14	60	50	Sweep -- MONITOR	Retain
20	BM	6-12	65	55	Sweep; bark wound; fork out -- MONITOR	Retain
22*	RA	10	35	30	Top out; suckers	REMOVE
23	RA	10	35	30	Rot in bole; suckers	REMOVE
24	RC	10-12	45	85	Two stems; growing on nurse stump	Retain
25	BM	16	60	40	Forks	Retain
27*	BM	12	65	55		Retain
28	BM	6-12	80	60	Clump of six stems	Retain
29	RC	24	85	35		Retain

SOUNDVIEW BUSINESS CAMPUS

IN A PTN. OF SEC. 3 - T28N - R4E, W.M., CITY of EVERETT, WA

Tree No.	Species	DBH *(inches)*	Height *(feet)*	LCR	Comments	Recommendation
30	RA	12	55	70	Fork; suckers -- MONITOR	Retain
31	RA	14	65	60	Forks at 9'; phototrophic lean -- MONOTOR	Retain
32	RA	13	20	0	Snag -- OK to leave & colapse in place	Retain
33	BM	22	65	25	Dead fork; lopsided crown	REMOVE
34	RA	10	25	20	80% dead; rotten seam	REMOVE
35	RC	27	70	75	Multi-forked -- MONITOR	Retain
36	RC	12	40	60	Severe crook; scar	REMOVE
37	RA	18	65	30	Growing on nurse stump with scar	REMOVE
38	BM	14	40	35	Forks	Retain
39	BM	10	45	30	Leaning severely	REMOVE
40	WH	19	60	0	Snag; heavy lean; hung up in tree #42	REMOVE
41	RA	18	65	30	Lean; dying top -- MONITOR	Retain
42	RA	17	60	40	Dead top; tree #40 hung up in crown	REMOVE
43	RA	21	55	20	Dead top	REMOVE
44	RA	28	70	70	Multi-forked	Retain
45	RA	13	50	50	Bark extrememly exfoliated	Retain
46	SW	16	70	70	Two stems that fork at 2' high	Retain
47	RA	12	55	60	Scar on butt	Retain
48	SW	14	60	65	Leaning to east; two stems with rot	REMOVE
49	SW	14	55	60	One dead branch	Retain
50	SW	12	45	30	Fork; lean -- MONITOR	Retain
51	RA	13	70	50	Lean MONITOR	Retain
52	RA	13	60	40	Dead top; lean	REMOVE
53	RC	34	90	80		Retain
54	DF	34	110	75	Slight sweep	Retain
55	BM	28	85	60		Retain
56	BM	12	75	65	Forked with two stems	Retain
57	BM	18	85	60	Slight lean	Retain
58	DF	16	60	30	Top out	Retain
59	DF	14	50	50	Partially uprooted; crooks; eveidence of soil creep	REMOVE
60	BM	15-36	90	60	Four stems	Retain
61	RC	16	60	80		Retain

SOUNDVIEW BUSINESS CAMPUS

IN A PTN. OF SEC. 3 - T28N - R4E, W.M., CITY of EVERETT, WA

Tree No.	Species	DBH *(inches)*	Height *(feet)*	LCR	Comments	Recommendation
62	RC	24	95	85		Retain
63	RC	14	50	75	Rotten seam and fork	REMOVE
64	RC	32	90	80		Retain
65	RC	10	40	20	Uprooted; hung up in tree -- OK to leave; collapse in place	Retain
66	RA	17	70	60	Forks; leaning -- MONITOR	Retain
67	RC	23	80	65		Retain
68	RC	15	55	60		Retain
69	BM	15-44	85	70	Five stems; one broken out	REMOVE
70	BM	22-24	90	60	Forked with two stems	Retain
71	RC	20	80	80		Retain
72	RC	22	70	20	90% dead	REMOVE
73	RC	11	50	30	Dead top	REMOVE
74	BM	30	90	65	Three stems; one stem is dead	REMOVE
75	DF	14	70	50	Top out	Retain
76	RC	13	55	20	Dead top	REMOVE
77	RC	10	50	20	Dead top	REMOVE
78	RC	12-22	80	80	Two stems; one stem twisted	Retain
79	RC	15	65	70	Butt rot -- MONITOR	Retain
80	DF	19	100	65	Multiple crooks	Retain
81	BM	24	90	60	Crook; forks -- MONITOR	Retain
82	RC	16	80	65	Scar -- MONITOR	Retain
83	DF	10	45	0	Snag -- OK to leave; collapse in place	Retain
84	RC	36	30	0	Snag -- OK to leave; collapse in place	Retain
85	RC	18	70	80		Retain
86	DF	16	90	65	Slight crooks	Retain
87	BM	29	95	60	Forked seam	Retain
88	BM	27	80	40	Forked; large scar	REMOVE
89	BM	21-24	80	40	Two stems withone dead; water in hollow fork of the tree;	REMOVE
90	BM	12-24	85	50	Three stems; scar	Retain
91	RC	28	100	30	Top 60' of tree is dead; bees nest at base	REMOVE
92	BM	11-14	50	0	Dead; two stems	REMOVE

SOUNDVIEW BUSINESS CAMPUS

IN A PTN. OF SEC. 3 - T28N - R4E, W.M., CITY of EVERETT, WA

Tree No.	Species	DBH *(inches)*	Height *(feet)*	LCR	Comments	Recommendation
93	BM	16-26	80	40	Five stems; REMOVE one dead stem	Retain 4, REMOVE 1
94	RC	16	50	80	Remove if safe to do so	Retain
95	BM	21	90	50	Seam	Retain
96	BM	18	85	40		Retain
97	BM	27	95	60	Grading within 4' of trunk for retaining wall -- MONITOR	Retain
98	BM	13-23	85	40	Four stems; conks; forked	REMOVE
99	RC	17	60	80	Top out; fork	Retain
100	RC	12	40	60	Seam -- OK	Retain
101	BM	27	90	60	Forks at 12'	Retain
102	BM	28	85	65	Forks; crook; seam -- MONITOR	Retain
103	BM	24	85	60	Crooks; multiple forks	Retain
104	RC	21	70	90		Retain
105	BM	27	95	60	Slight lean; seam	Retain
106	BM	17	85	70	Crooks	Retain
107	BM	36	95	70	Two stems -- MONITOR	Retain
108	BM	26	90	75	Scars; defective	REMOVE
109	BM	20	70	70		Retain
110	RA	17	30	20	80% Dead; top out	REMOVE
111	RC	13	25	30	Top dead; multiple forks. OK to leave; collapse in place	Retain
112	RC	30	75	90		Retain
113	RC	24	80	65		Retain
114	BM	12-32	85	45	Six stems; one dead but not a hazard	Retain
115	RC	14	45	75		Retain
116	BM	12	35	70	Fork; branches out -- MONITOR	Retain
117	RC	22	50	60		Retain
118	RC	32	55	55	Top out, windfirm but will regrow dangerous tops/snag tree	REMOVE
119	BM	14-22	85	65	Five stems; abate ivy infestation	Retain
120	BM	13	50	30	Top out -- MONITOR	Retain
121	BM	12	55	65		Retain
122	WH	17	25	0	Snag	REMOVE

SOUNDVIEW BUSINESS CAMPUS

IN A PTN. OF SEC. 3 - T28N - R4E, W.M., CITY of EVERETT, WA

Tree No.	Species	DBH *(inches)*	Height *(feet)*	LCR	Comments	Recommendation
123	RC	37	85	80	Top dead; abate ivy infestation	Retain
124	TC	11	40	50		Retain
125	RA	13	50	20	Dead top; heavy ivy infestation	REMOVE
126	RA	13	55	25	Dead top; heavy ivy infestation	REMOVE
127	RA	15	60	40	Dead top; heavy ivy infestation	REMOVE
128	BM	15	50	45	Severe sweep; abate ivy infestation	Retain
129	BM	13	50	35	Abate severe ivy infestation	Retain
130	BM	12	45	70		Retain
131	BM	17	65	70	Crooks	Retain

Total: 129 Tagged Trees Generally > 12"

Notes:

* Previous tree numbers skipped after tree was determined to be outside of "Tree Retention Area"

DF = Douglas fir (*Pseudotsuga menziesii*), WH = western hemlock (*Tsuga heterophylla*), RC = red cedar (*Thuja plicata*), RA = red alder (*Alnus rubra*), BM = bigleaf maple (*Acer macrophyllum), S*W = willow *(Salix scouleriana*), TC = true cedar *(Cedrus sp.)*

DBH means diameter at breast height - a standard point of measurement 4.5 feet above ground level as measured on uphill side of tree.

LCR means live crown ratio - percatage of live green foliage relative to total tree height.

Field work by Richard B. Klein & Adam L. Jewell on May 2, 2016; Audit by Peter C. Blansett on May 11, 2016.

SOUNDVIEW BUSINESS CAMPUS
IN A PTN. OF SEC. 3 - T28N - R4E, W.M., CITY of EVERETT, WA

On-Site Trees Not Tagged -- Generally between 6-11" in Diameter at Breast Height (DBH) and Considered Non-Hazardous

DBH	Bigleaf Maple	Douglas fir	Leyland Cypress	Red Cedar	Red Alder	Western Hemlock	White Birch	Scouler's Willow	Pacific Yew	Total		
6"	22	1	2	5	14		1	4	1	50		
7"	2			2						4		
8"	5	2		3	7	1		3		19		
9"			3	3	7			3		16		
10"	2		1	5	7			3		18		
11"	1			8		2		1		12		
Total:	32	1	6	26	35	3	1	14	1	119		

Notes:

Non-hazardous trees 6-11" DBH were tallied but not tagged in the field.

The following trees were observed lying east of tree retention buffer and in the right-of-way of Sound Ave and were not tallied above: (3) 8" DBH Leyland cypress; (2) 16" DBH red cedar; and (2) 6" DBH red alder

DBH means diameter at breast height - a standard point of measurement 4.5 feet above ground level as measured on uphill side of tree.

Field work by Richard B. Klein & Adam L. Jewell on May 2, 2016; Audit by Peter C. Blansett on May 11, 2016.