

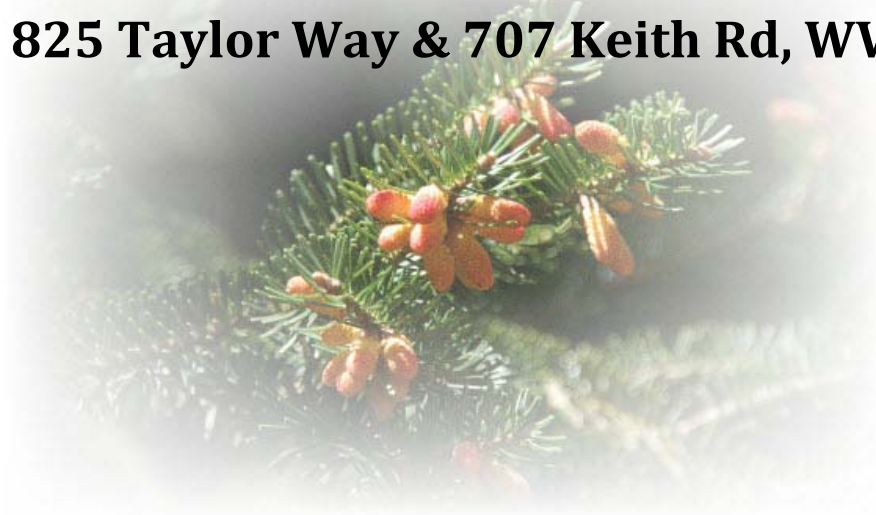


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# TREE ASSESSMENT REPORT

825 Taylor Way & 707 Keith Rd, WV



Milliken Developments  
**Attn:** Kate Milliken Binns  
901 W 3<sup>rd</sup> Street, Ste #334  
North Vancouver, BC  
V7P 3P9

November 28, 2012



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November 28, 2012

Milliken Developments  
**Attn:** Kate Milliken Binns  
901 W 3<sup>rd</sup> Street  
North Vancouver, BC  
V7P 3P9

**RE:** Arborist Report for trees at 825 Taylor Way & 707 Keith Road, WV

### **ASSIGNMENT**

This report is in response to your request to assess the health of the trees located within the property boundaries of 825 Taylor Way and 707 Keith Road. A site survey with some preliminary plans was provided outlining the proposed development for these properties. The intent of this report is to determine the mode of tree protection that would be recommended to preserve some of the trees from any damage due to the proposed development at the above address. Also, to determine which trees would be candidates for removal based on their overall condition, the site plans indicating their proximity to the proposed development and the zones of heavy construction activities.

### **METHODOLOGY**

The inspection and assessment of the trees on the site has been conducted using generally accepted arboricultural practices for visual tree risk assessments. The visual inspection uses tools such as binoculars, mallet, clinometer, compass, diameter (DBH) tape and like tools. No invasive testing methods were used such as using an increment borer, resistograph or drilling. Additionally the TreeAZ Method for Managing Trees on Construction Sites created by Barrell Tree Consultancy in the UK was used in principle to assist with making these recommendations. TreeAZ is a framework of management practices and concepts to provide guidance for managing trees on construction sites.

### **OBSERVATIONS & DISCUSSIONS**

Two site visits were conducted on November 17<sup>th</sup> and 19<sup>th</sup> to inventory, assess and document all the pertinent information relating to the trees on the site. There were more than 140 trees assessed for this report. They consist of Douglas fir (*Pseudotsuga menziesii*), Western Red Cedar (*Thuja plicata*), Broadleaf Maples (*Acer macrophylla*), Vine Maple (*Acer circinatum*), Western Hemlock (*Tsuga heterophylla*) and a few additional landscape trees such as Saucer Magnolia (*Magnolia soulangiana*), Limber Pine (*Pinus flexilis*) and English Laurel (*Prunus laurocerasus*). The assessed trees have been indicated by a blue plastic numbered tag located in the lower 2.0 metres of the trunk or at the base.

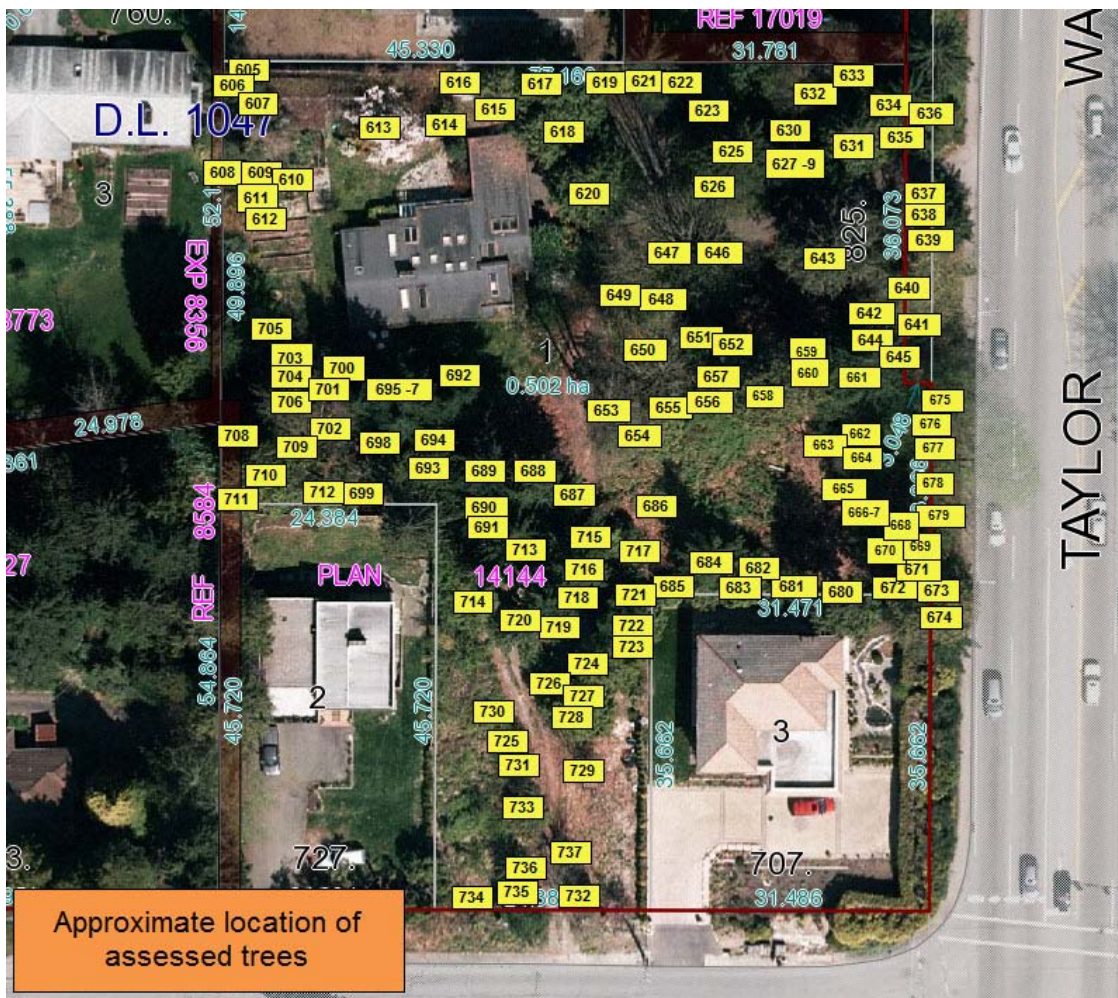
There were no trees on the neighbouring properties that were noted as being within close proximity to the shared property lines or that would be expected to be impacted by the proposed construction work. The majority of the trees that are responsible for screening the properties from one another come from the trees located within the property boundaries of 825 Taylor Way. The tree species have been identified, their heights approximated, their overall condition and any observations are recorded and can be found within the attached



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tree inventory document. The diameter of the trunks has been measured at 1.4 meters above grade (D.B.H). The tree inventory table is accompanied by a recommendations table and both documents are attached to this report.

One initial observation is that the entire site is on a gradually sloped grade that extends from the northwest corner of the property downward towards the southeast corner. There were no obvious soil failures, sloughing or recent disruption observed on the site. All of the trees within the assessed zone are of varying ages & sizes, and for the most part the essence of the landscape is that of an urban forest. There is lot of heavy growth within the understory which is comprised of native plants such as Western Sword Ferns (*Polystichum munitum*), Huckleberry (*Vaccinium parvifolium*), Salmonberry (*Rubus spectabilis*), Common Salal (*Gaultheria shallon*) and Elderberry (*Sambucus racemosa*) to name a few. There are however a number of non-native invasive species growing here as well such as English Ivy (*Hedera helix*), Blackberry (*Rubus armeniacus*) and Holly (*Ilex aquifolium*). These plants are considered to be highly invasive in our climate and should be managed over the long term to prevent and control their spread. All of the trees are growing on a substrate that appears to be comprised of nurse logs/stumps or old forest material.



Picture 1. Aerial View of Property showing location of tagged trees

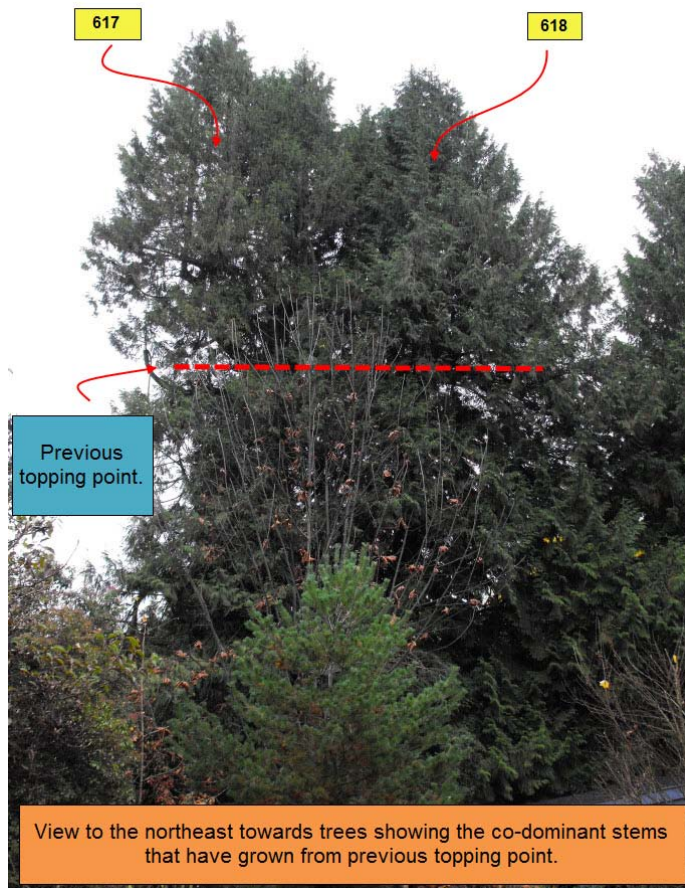




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The majority of these trees are located with the property boundaries of 825 Taylor Way and almost all of them have been previously topped at some point in past. This can occur by natural means (breakage by snow load or a bird sitting on a terminal branch) or by mechanical means (cutting the top off which is an antiquated practice) which is more likely the case on this site. The multiple stems that result from the topping generally have weak attachments and are more susceptible to failure at these attachment points. Consequently, trees that are previously topped generally have a high probability of decay within the tree. This also contributes to the high probability of stem failure if the canopy or top of the tree far outweighs what the lower decayed stems can bear. As the trees grow and the shoots increase in weight, the branches of a topped tree become susceptible to breaking off during storms, heavy winds, snow or precipitation loads.

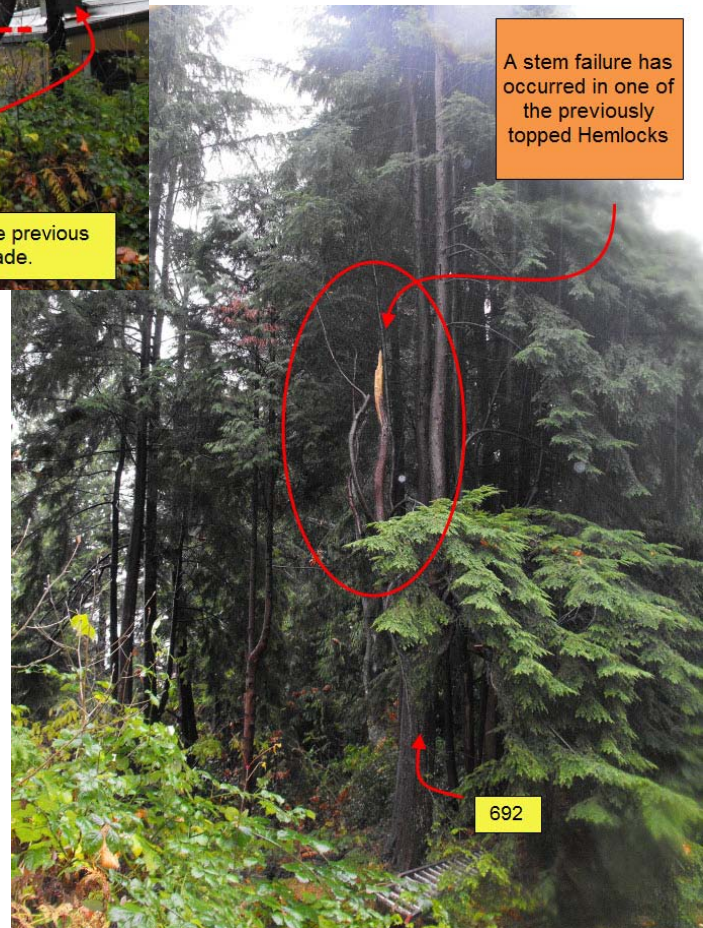
As well, a number of the trees have also been 'windowed' or 'window pruned' for view. This creates a situation where the trees are heavy in the upper crowns and are likely to fail during a high wind condition. Windowed trees have a significantly increased probability of trunk failure or 'windthrow' due to the bending point being directly under the upper canopy. *Windthrow* refers to trees uprooted or broken by wind. The risk of windthrow to a tree is related to the tree's size (height and diameter), the 'sail affect' presented by its crown, the stability and anchorage provided by its roots, its exposure to the wind, and cultural conditions such as soil water, local wind climate, degree of slope etc.



**Picture 2.** Previous topping



Picture 3. Previous topping



Picture 4. Stem failure in previously topped tree





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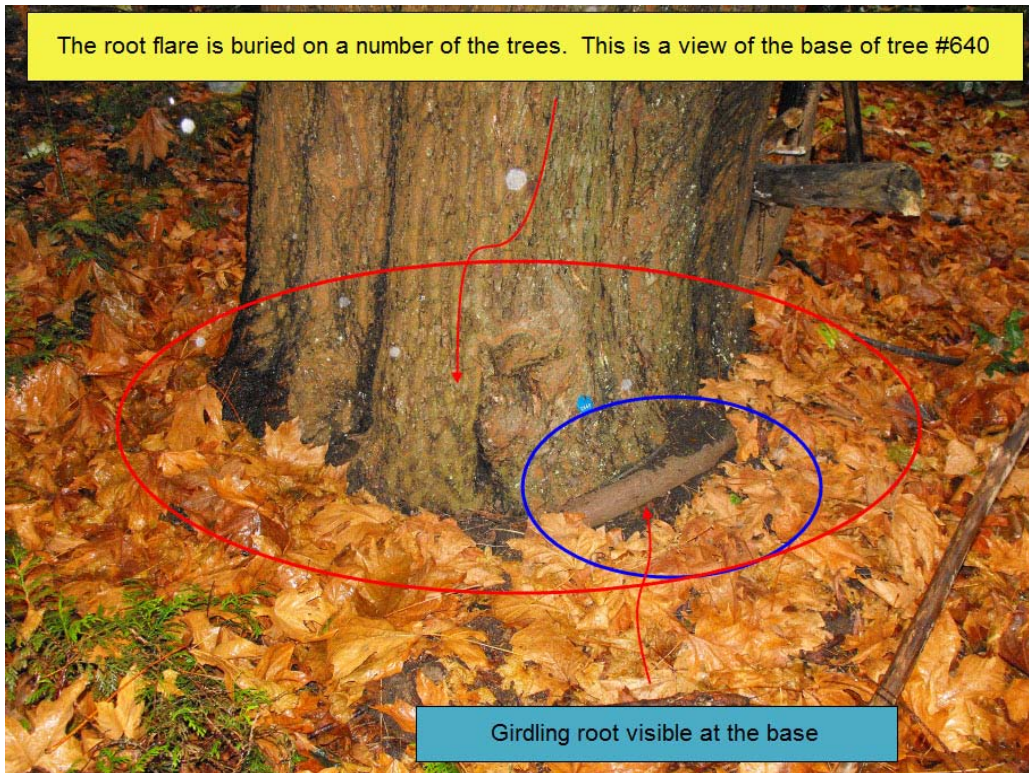
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There are a number of trees that have grown with a lean in the stem which is characteristic of a phototropic response. This result may occur for a number of reasons that could include other trees having been located beside or nearby a tree during much of its growth period or as a result of the dense canopy the sub-dominant trees would grow to reach up for the light. *Phototropism* is a physiological growth response that plants have adapted themselves to be able to grow in the direction of its light source. It is also important to note that a phototropic lean is not an indication of or representative of a potential failure.

It is important to acknowledge that approximately 40% of the assessed trees are noted as being Western Hemlocks (*Tsuga heterophylla*). The Western Hemlock is native to the west coast and usually grows with many different tree species as part of a larger stand. They have shallow rooting habits which makes them susceptible to being blown over by the wind as well as being damaged by forest fires. It is also very characteristic of them to grow in nurse log/stump material. This also increases their probability of windthrow once the nurse material has decayed and gives way to voids beneath the root plate. They can tolerate shaded environments and usually grow underneath mature trees. Hemlocks are also highly susceptible to a number of fungal pathogens that affect their roots and or butts, and their trunks; for example Armillaria Root Rot (*Armillaria mellea*), Annosum Root Rot (*Heterobasidion annosum*) and White Trunk Rot (*Phellinus hartigii*) to name a few.

It was also observed that the root flares are either buried or partially buried on most of these trees. This is likely the result of the natural accumulation on the forest floor over time. There were also many of the trees that had structural roots visible at the surface and a few of them exhibited girdling roots near their bases. Girdling roots grow across or perpendicular to the radial placement of roots. This can pose problems for some trees the more mature they get. They can survive for many years with girdled roots but eventually the girdling will cause 'choking off' of a buttress or structural root causing decline and possible death for the tree. For the most part their buttress roots appear to have developed to compensate for the growing conditions on this site and the varying terrain. Therefore they are considered to have an atypical placement of their roots however the vast majorities appear to have adapted well. There was one tree noted as having experienced a partial root failure as a result of growing on a rock or nurse log where either there was insufficient soil for root anchorage or natural decay of the nurse log caused the tree to go over. It does not pose a high risk at this time as it remains a juvenile however it is not likely to be a long term landscape investment on this site the more mature it gets.

A *Nurse Log* is defined as a larger and decomposing fallen log or stump which acts as a germination substrate for tree species establishing in the understory in a forested environment. Such logs provide moisture, nutrients and often some degree of elevation above other potentially competing vegetation on the forest floor. However, through natural decomposition processes the nurse log breaks down over time and voids are created beneath the trees which increases the probability of root plate failures because of the atypically placement of the structural roots which tend to wrap around the nurse log.



Picture 5. Buried root flares and girdling roots



Picture 6. One tree experienced a root failure





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View of the base of the grouping of trees #695 thru #697 growing on a nurse log which is showing advanced decomposition. A void is starting to form at the east side. Also, lots of large structural roots are visible at the surface & visibly intertwined.



**Picture 7.** Lots of nurse logs/stumps on site



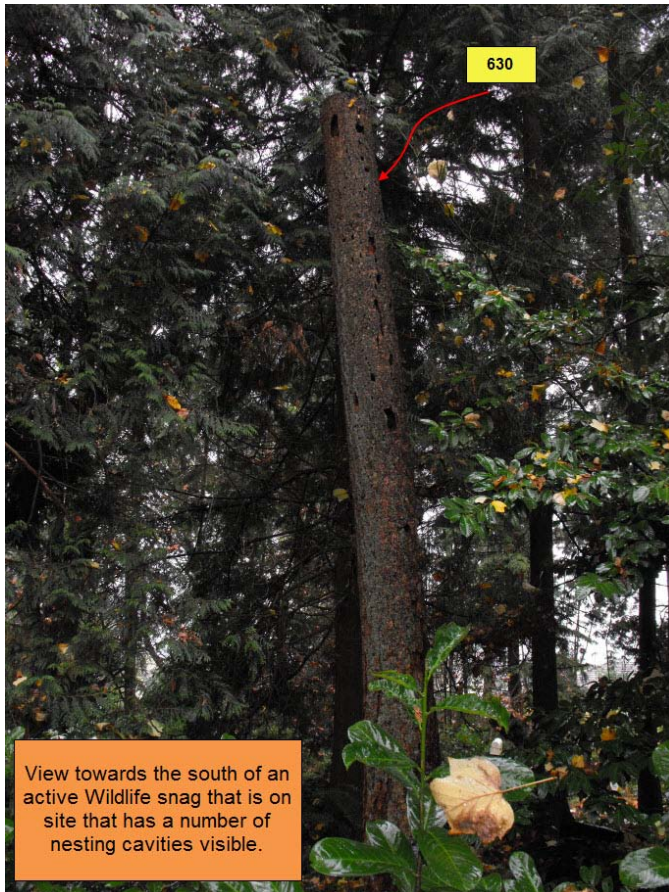
**Picture 8.** Lots of nurse logs/stumps on site





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A few of these trees have been left as living stumps or wildlife snags allowing nature to take its course. *Wildlife trees* are defined as any standing dead or living tree with special characteristics that provide habitat for wildlife. They are an invaluable component in the forest ecosystem. According to the Ministry of Forests, Lands and Natural Resource Operations, there are found to be over 70 species of vertebrates and invertebrates that are dependent of the wildlife trees, for example birds, bats, insects, fungi, mycorrhizae etc.



**Picture 9.** Active Wildlife snag

The trees are varying in their trunk taper ranging from low to moderate. This is to be expected or is typical in densely populated or forested areas. Tapered trunks will withstand greater stress (*wind, vandals, snow load etc*) than those that have little to no taper. Tapered trunks also allow for a more uniform distribution of the stress that will be imposed on the tree. The taper in a tree trunk decreases in diameter the higher up the tree you go. Mechanically the tops of well-tapered trunks are more apt to bend under the wind further from the vertical than those with less taper. This reduces the danger of broken trunks or other deformation from exposure to the heavy winds.

Many of these trees are also considered to have low to moderate live crown ratio and only a few were noted as having high live crown. *Live Crown Ratio* is defined as the ratio of the vertical extent of the live crown, compared to the overall height of the tree. Some of the trees are exhibiting a moderate to heavy cone crops in their canopies. Excessive coning can



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be an indicator of stress but the amount of cones present is not considered alarming. It is also important to note that the new foliage and buds that are visible appear to be fairly evenly distributed throughout the canopies. There are a few trees that are showing some signs or evidence of chlorosis with a yellowing or brownish hue to foliage when viewed from a distance. *Chlorosis* is a condition in which leaves produce insufficient chlorophyll. Chlorophyll is responsible for absorbing light energy in plants and therefore, is responsible for the green colour in a leaf. Chlorotic leaves are generally pale or yellow.

It is also important to note that these trees have been growing in this location for some time and are well established. It is reasonable to expect that as a result of this, all of these trees are working together to some degree to sustain the forces of nature that act upon them. For example, their root systems are likely intertwined, their branches overlap and grow into one another and for all intents and purposes, a stand of trees acts like a team and works together, to a certain degree, which makes them more formidable as a group than a 'stand alone' tree.

Overall the trees are considered to be in fair or marginal condition. There are lots of trees on this site and for the most part they have not been well maintained. In some cases a thorough inspection of the tree trunks was not possible because the Ivy has been allowed to grow up onto them. With the site visits having occurred at a time of year where all of the deciduous trees had already defoliated for winter dormancy the assessment of any health related issues that tend to present themselves in the leaves was not able to be observed. There were no visible fungal conks or outward signs of root decay evident on the assessed trees. There is no apparent indication of shifting or heaving in the root plates at the time to site visit was conducted.

### **RECOMMENDATIONS:**

1. There are a number of trees recommended for removal that are either in marginal condition; or are deemed to have a high probability of failure for varying reasons; and or fall within or within close proximity to the proposed building footprint of the development. Please refer to the attached Recommendations Table accompanying this report for further information on these trees and the Removal and Retention Plan (Figure 1 & 2) which can be found on page 14.
2. Protection zones for any of the retained trees that are deemed to be within close proximity to the building footprint or to the zone of heavy construction activities should be constructed to delineate a zone around the trees with fencing to prevent encroachment of equipment as well as prevent items from being stored within the root zones or up against the trees. The fencing should be high enough (1.2 metres (4 ft)) to deter anyone from entering the root zones. Signage should be placed on the fencing to convey to workers the purpose for the fence. Wooden frame and orange poly fencing or equivalent is suitable for this application. Please refer to Appendix 'B' for further information. The tree protection is to remain in place for the duration of the construction activities until there is no further possibility that the trunks and root zones will be damaged. Care must be taken when construction activities occur within or within close proximity to the Critical Root Zone (CRZ) of any tree. As this site poses unique challenges, adaptations to the protection zones may be





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- required. The tree protection zones have been determined based on site findings, the plans that were provided and in consideration of the CRZ criteria. Please refer to Appendix 'A' for further information on the impact to trees by construction. The Tree Protection Zones are outlined in the attached Recommendations Table accompanying this report and the Tree Protection Plan noted as Figure 3 and 4 on page 15.
3. Additional protection of the roots from construction compaction is recommended in areas where heavy construction or foot traffic flow will occur. Additional root protection can be achieved by using a number of methods that include but are not limited to a thick layer of wood chips (15 to 20 cm in depth) that is replenished as required to maintain the thickness; ¾-inch plywood joined together to create a pathway; scaffolding and or a combination thereof. The objective is to assist in spreading the load to prevent damage or compaction to the soil in the CRZs. Therefore *all parties* must be made aware of and follow the recommended protocol to preserve the retained trees and minimize the impact of the construction on them. **Please note** clean wood chips may be obtained by contacting a local tree service company to have a number of loads of wood chips dumped for use at the site or leaving some chips on site from the site trees that were removed.
  4. Removing the existing asphalt driveway near trees #617 through #623 and the shed near trees #605 through #607 must be done with extreme care and attention as these trees are intended for retention. It is reasonable to expect that due to the length of time that the trees have been growing in close proximity to the shed foundation and the driveway, that the trees' roots may have embedded themselves in the underside of the slab or asphalt. Using a jack hammer (manually or as an attachment on a small piece of equipment) to break up the concrete/asphalt and carefully remove it from the area to ensure that any of structural or feeder roots that have found their way beneath the existing slab/asphalt are not damaged by breakage or tearing. Thus, the foundation/driveway and the roots may need to be "teased" apart. **Do Not Use small excavating equipment with a toothed bucket attachment to break up and collect the concrete or asphalt.**
  5. If encroachment is required into the CRZ of any of these trees, for example, to install a footing for a retaining wall or pathway, it is strongly recommended to conduct the required excavation by use of an AirSpade® or like equipment such as HydroVac. An *AirSpade®* is an air excavation tool that when attached to a compressor uses a high velocity of air to blow soils away from roots without damaging them. This is a widely used tool within the arboriculture & horticulture communities as well as within utility & construction, environmental remediation, trench rescues & demining of unexploded ordnance. The excavation & any subsequent root pruning, is to be conducted by or under the direct supervision/instruction of a qualified Certified Arborist.
  6. A qualified Certified Arborist **must be** on-site during the periods of excavation that fall within the prescribed root protection area to observe, assess and ensure the integrity of the CRZ is maintained and conduct or supervise any subsequent root pruning (if required). Additional notes for trees #617, #618 and #671 can be found within the attached Recommendations Table.



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7. If installation of any utilities, or pipes required for water service, drainage, electricity etc, are to be installed within, or cross sect the CRZ, then it is strongly recommended to reconsider their placement. If this is not plausible, then items like these must be installed by tunneling beneath the roots by using an AirSpade® or HydroVac to ensure that there are no structural roots severed or damaged during their installation as well as attempting to maintain as many viable feeder roots as possible.
8. If there is any time lapse between the excavation and or the construction of the retaining walls or building foundation, then a Shotcrete application or like stabilization technique may be required to stabilize the soil in and around the areas of the retained trees to ensure that no undermining of the soil occurs beneath the root plates of the trees.
9. It is recommended to maintain the existing grade within the CRZ of the retained trees. Changing the grade around these trees proposed for retention could possibly change the water table and the sites drainage creating other problems such as standing water, anaerobic soil conditions & or root rot etc. It would be discouraged to change the grade by importing fill to level out an area around a retained tree.
10. If there are areas where new stumps need removal for the purposes of construction or landscape installation and they are located within close proximity to or within the CRZ of any other retained trees, then it is strongly recommended to have the stumps ground out versus excavated out with an excavator. Stump grinding will isolate the removal to the stump itself and not compromise the integrity of the structural roots which may be intertwined with other nearby trees. Excavators are generally hard working pieces of equipment that can aggressively and efficiently move large volumes of material. That is to say that the removal of stumps by excavators can dislodge; damage and or compromise the integrity of the structural roots of any retained trees located nearby the stumps proposed for removal.
11. If the construction work is to occur during a drought period, for example, summer time, then thorough watering of the trees to keep the soil moistened is recommended. ***This could be completed during non-construction-work hours.*** Ensuring that the trees are adequately watered through this period will help reduce the impact of the stress being imposed on the trees during the construction activities. Setting up a temporary irrigation system by use of soaker hoses or sprinklers, supply lines and attached back to the closest hose bib with a battery operated timer is recommended to achieve this, if possible. A discussion with the neighbouring properties as to their ability to assist with this is recommended as it is a reasonable option for the trees adjacent to the shared property lines.
12. Conducting pruning to remove any dead or damaged scaffold branches, to re-top and shape any previously topped trees, and to remove any dead tree tops is recommended. This or any safety pruning is recommended to be completed prior to the construction activities commencing. Conducting an aerial inspection to visually assess and inspect the crowns and the previous topping points, noting or reporting any defects or concerns is recommended to be conducted at the same time. This work is to be conducted by or under the direct supervision/instruction of a qualified Certified Arborist.
13. Pruning of the remaining trees to raise the canopy slightly or to address clearance issues; to conduct structural pruning; to mitigate any risks of failure in the co-





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- dominant stems by either re-topping & shaping or subordinating the co-dominant stems & installing a supplemental support system is reasonable. In the arboriculture community, the American National Standard Institute (ANSI) and the ISA Best Management Practices are used to set guidelines to prevent over pruning of trees. It is generally recommended that no more than 25% to 30% of the overall live canopy be removed at any one given pruning cycle. That is to say that all pruning (combined) on a tree including but not limited to canopy raising; end weight reduction; clearance for overhang to the structures, subordination of competing leaders etc should not exceed 25% - 30% of the overall live canopy that is removed. This is a generally expected and accepted practice for qualified Certified Arborists and reputable tree service companies. The only exception would be when mitigating measures are required to reduce the risk and probability of failure in a tree or tree stems which, in some cases, requires removal of more than the recommended 30%. Proper pruning practices must be adhered to and this work is to be conducted by or under the direct supervision/instruction of a qualified Certified Arborist.
14. If it is determined that subordinating the competing leaders and installing a supplemental support system is the preferred method to mitigate any risks, then it should only be installed, inspected and evaluated by a qualified Certified Arborist. The cable support system would require regular inspections overtime. An inspection should occur at one year after its initial installation to ensure that it is working correctly. Subsequent inspections can be executed by devising an inspection schedule that follows the manufacturer's recommendations of inspecting that type of cable/brace support system selected and observing the useful life of the system which can range from 5 to 15 yrs. The installation of the cable system must be executed in accordance to the standards and specifications set out by American National Standards Institute - ANSI A300 Part 3 (2006) - Supplemental Support Systems, the ISA Best Management Practices for Tree Support Systems, and the manufacturer's recommendations.
  15. A soil analysis and sub-surface prescription fertilizer applications, to maintain soil fertility and the retained trees' overall health, before, during and after construction, is recommended. Trees are often highly impacted by disruption within their CRZ due to construction activities thus implementing a prescription fertilizer program to help bolster the trees' health and natural defenses is recommended if the intent is to preserve the health and longevity of these trees.
  16. Monitoring the trees during and post construction is to be executed by a qualified Certified Arborist to ensure that all aspects of their preservation are being adhered to and properly addressed. Site visits to document the progress and observe the trees may be required through the duration of the project and beyond completion.
  17. It is recommended to conduct some root invigoration, soil remediation (mixing in organic matter) and compaction relief within the root zones of some of the retained trees post construction and prior to some of the landscape installation. Use of an Air Spade® or like equipment to ensure that there is minimal root damage in the critical root zone during the aeration process is strongly recommended. Mulching up to 5 – 7.5 cm (2 – 3 inches) in depth to improve overall tree health is recommended. Aerating the surrounding soil around the trees with the use of the Air Spade®, post construction, will reduce some of the potential for damage and stress that can be



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- caused by the compaction of the roots. Amending the soil with organic matter will improve the soil aeration and create more conducive conditions to help counteract the impact on the root system. This will, in turn, improve the overall health and longevity of the trees.
18. The installation of the replacement plants should be executed in accordance with the specifications set out by the BC Landscape Standards (7<sup>th</sup> Edition) for proper planting practices. This includes but is not limited to the following items such as exposing the root flare prior to planting, planting it at a proper depth, watering in the plant once it's been installed, staking and mulching etc.
  19. Any new plant material (trees & any other plants included) requires care in the first 2 to 3 growing seasons until they get established. It is important to note that newly planted trees rely on the moisture held within their root balls until they can get their roots out and established. This may take a few seasons therefore it is important to ensure that the root ball **does not dry out** even if the soil around it is moist, the root ball could still be dry. It is important that from time to time to get in there and check with your hands. Regular and thorough watering to any new plant material is required for the success of the new plantings. It is recommended to have an automated underground irrigation system installed to address the watering needs. It is also important to note that even if an automated system is in place, that there may be cause to provide additional or supplemental water to certain areas or plants. **One option** is to use soaker hoses to direct water directly to the root zone of the new plant. The soaker hose(s) can be attached to a supply hose directed to the closest hose bib and attached a battery operated timer to assist with watering within the guidelines provided through the GVRD Water Conservation Practices. The **second option** would be to manually provide water or use a tree watering bag which has been known to be available at Home Depot, Rona or Lee Valley Tools.
  20. Organic mulch should be placed around the base of any newly planted trees within the critical root zone. This promotes moisture retention in the soil and helps reduce the establishment of competing weeds or grass. Do not place the mulch up against the tree itself; place it several inches away. Mulching at approximately 5 cm – 7.5 cm coverage over the entire root system area to improve overall tree health is recommended. The mulching should be spread out over the critical root zone and not placed right up against the trunk.
  21. Removal of the Ivy that is growing up onto the trunks of the retained trees is strongly recommended. Managing or controlling the Ivy to deter it from growing up into the trees is important to prevent it from further spreading. As well it is difficult to monitor defects or conduct thorough inspections of the tree trunks if they are covered in Ivy.
  22. No vehicles, equipment or construction materials or like items are to be stored within the CRZ of these trees.
  23. It is recommended to control or remove the Ivy that is growing up into the trees that are proposed for retention.
  24. **Turf is not recommended** to be installed as part of the landscape within the root zone of any tree.





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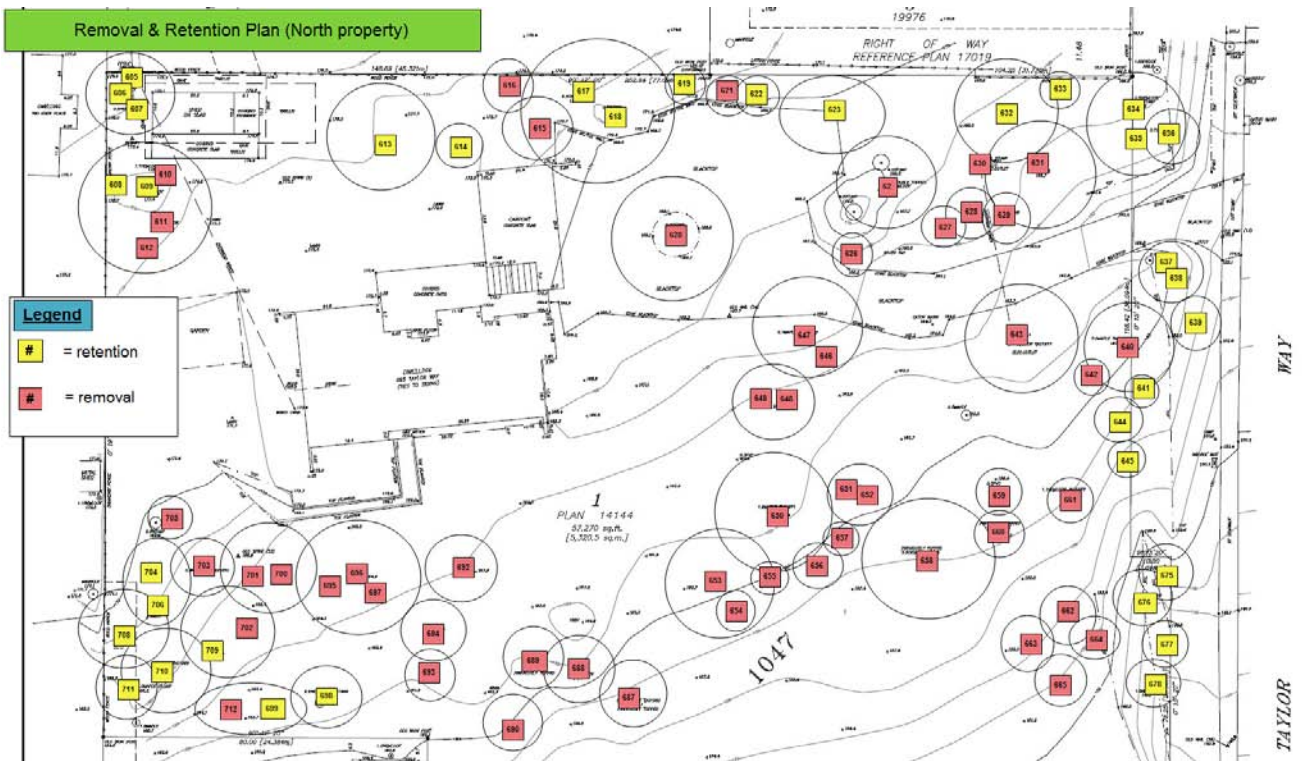


Figure 1. Removal & Retention Plan – North Property

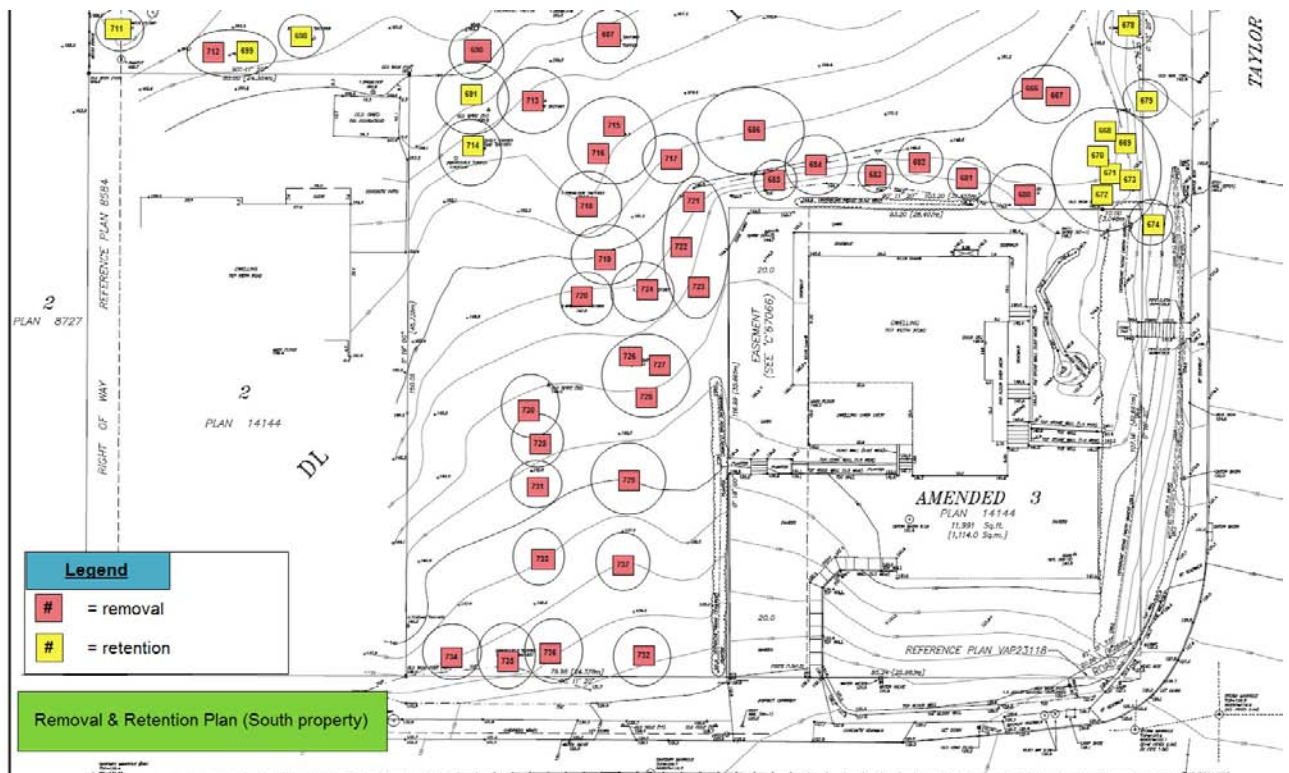


Figure 2. Removal & Retention Plan – South Property



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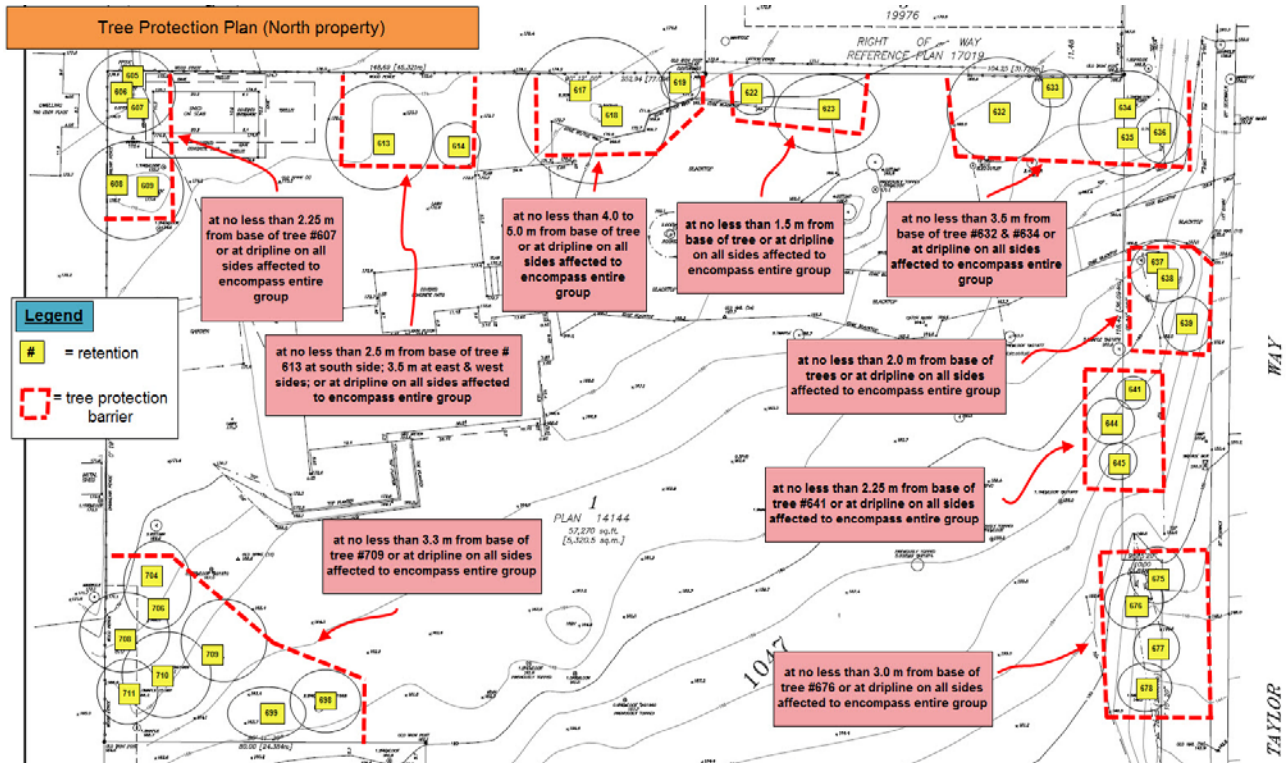


Figure 3. Tree Protection Plan – North Property

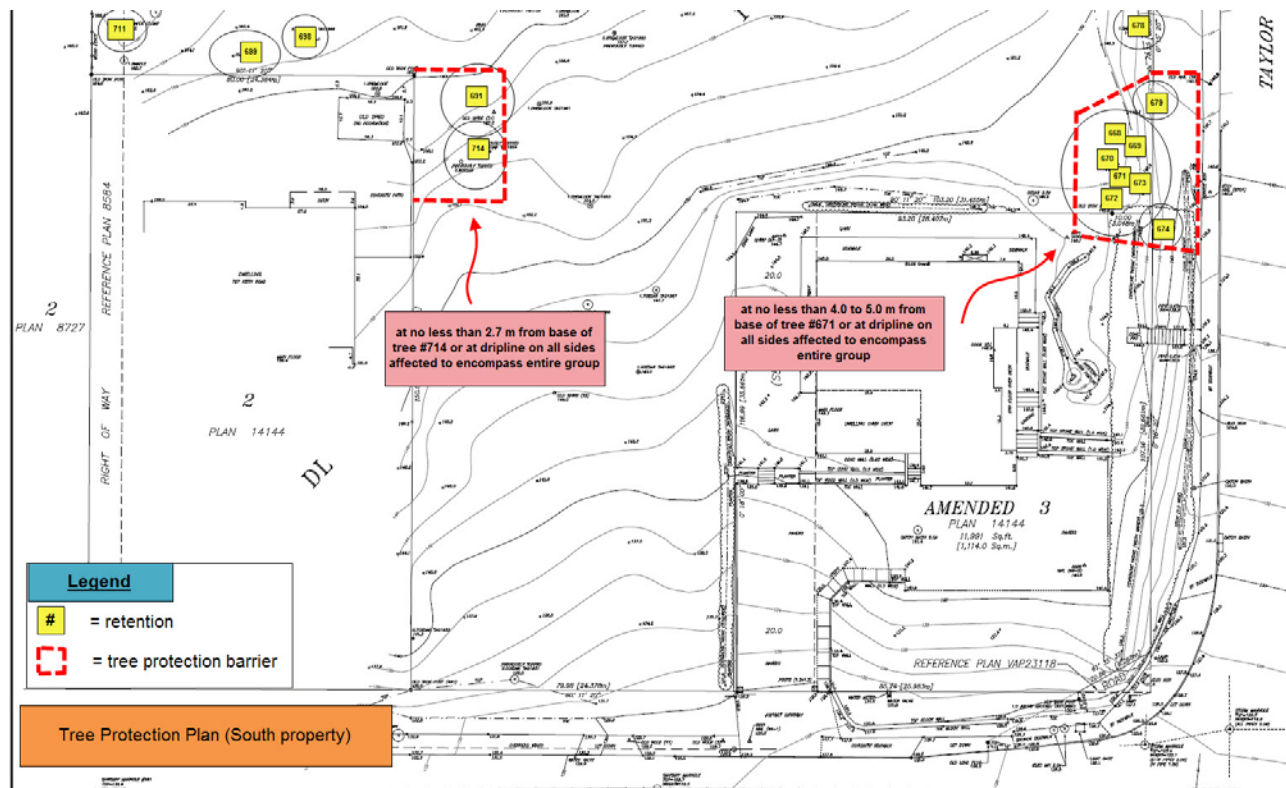


Figure 4. Tree Protection Plan – South Property



### **CONCLUSION:**

In conclusion, this is a unique property. It is heavily treed with lots of mature trees and unfortunately they have not been well maintained for their entire growth period. The overall condition of the trees is considered to be either fair or marginal however efforts are being made to retain a number of trees to maintain some screening and privacy to the neighbouring properties, and to incorporate large, mature trees into the overall landscape plan. All efforts will be made to keep any trees that are **reasonable to retain** based on their species, the location and function on the site and their overall condition.

The primary concern is the overall long term health and safety for the trees and for those living around them. Care must be taken when working around these large mature trees and in order to preserve them, it is important to understand that mature trees are much less adaptable to site changes that occur during or are associated with construction. Care must be taken when construction activities occur close to or within the root zone of any tree. A tree protection zone is required for the retained trees that fall within close proximity to or are just outside the zone of the heaviest construction activities (Fig 3 & 4 on pg 15). The protection fencing is to remain in place for the duration of the construction until there is no further possibility of damage.

*All parties must* keep in focus that the goal is to **minimize the overall impact** of the construction activities on these trees. Thus, any work or activities conducted during the course of the construction **must be** done with the overall long term preservation of the trees in mind as some are intended for retention. Conducting a soil analysis and implementing a prescription fertilizer program will assist in promoting improved and optimal health, and maintain the vitality of the trees.

The recommendations noted above are acceptable to achieve the balance of reducing the overall impact of the construction on the retained trees, acknowledging their preservation over the long term, and achieving the proper specifications for the construction and soil retention. Site visits by a qualified Certified Arborist at different stages of construction is recommended to ensure that the protocols and temporary measures to preserve the retained trees are being adhered to. ***The recommendations have been made based on the site findings and may be subject to change based on any further information that arises or any additional findings that are uncovered after this report is submitted.***

It is important to note that there are many different factors causing stress to trees. For example, imposed stress could be things such as environmental factors like climate change to cultural conditions such as soil compaction or mechanical damage to the roots, but is likely to be a combination of factors. Trees play an important role in the urban ecology, and all of us must be stewards to ensure a tree's survival and our own safety.





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### **Testing and Analysis:**

The assessment completed on the trees defined within this report, consisted of a visual and physical inspection from the ground and was based upon the principals of Visual Tree Assessments. No invasive tests, such as using a resist-o-graph or increment borer, where used during the testing for this report.

### **Assumptions and Limiting Conditions:**

1. The information contained in this report covers only those items that were examined and reflect the condition of these items at the time of inspection. The inspection is limited to visual examination of accessible components without dissection, excavation or probing. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees or property in question may not arise in the future.
2. The opinions in this Report are given based upon observations made using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage and disease, the results, observations, recommendations, and analysis as set out in this Report are valid only as at the date any such testing, observations and analysis took place. No guarantee, warranty, representation or opinion is offered or made by Radix Tree and Landscape Consulting as to the length of the validity of the results, observations, recommendations and analysis contained within this Report.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the appraiser/company can neither guarantee nor be responsible for the accuracy of information provided by others.
4. All tree work is to be completed under the supervision of an ISA Certified Arborist and in compliance with ISA, BC Hydro and WCB standards.
5. Alteration of any part of this report invalidates the entire report.

If you have any questions or concerns please feel free to contact us.

Sincerely yours,

Michelle McEwen  
ISA Certified Arborist (PN-6707A)  
Certified Tree Risk Assessor (544)  
Wildlife/Danger Tree Assessor BC (P-1453)  
CofQ #00317-LH-08  
Certified Horticulturist  
Radix Tree and Landscape Consulting



## APPENDIX 'A'

### IMPACT OF CONSTRUCTION ON TREES

#### BACKGROUND OF APPROACH

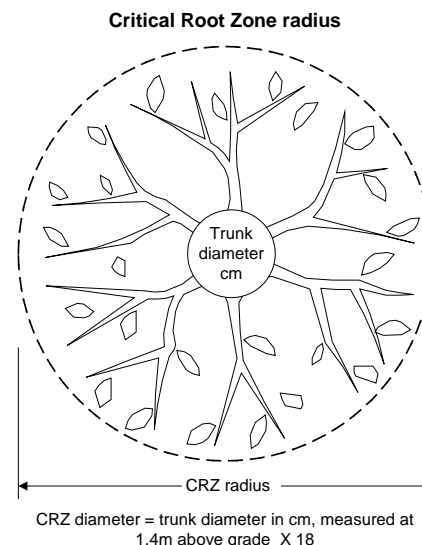
A tree's decline and mortality on construction sites results primarily from damage to the root system. During construction, roots are frequently cut when installing foundations, water, sewer lines or other utilities, driveways, curbs, sidewalks etc. Many roots are also lost when soil is removed during grading. Fine absorbing roots occur primarily within the top 6 to 8 inches of soil. Removing just a few inches of soil during grading can result in the elimination of many of these roots. Loss of fine roots will reduce water and nutrient absorption which will eventually lead to decline. Cutting larger roots could compromise stability and increase the probability of failure.

Compaction of the soil or placing fill over a tree root system during grading is equally as destructive. All plant cells, including those in the roots, require oxygen to survive. Root cells obtain oxygen from the pores space in the soil. When the soil over the root systems is compacted, or fill soil is added during construction, the amount of soil air is greatly reduced. At the same time, gases toxic to plant roots tend to accumulate in the soil. These adverse factors result in root mortality and tree decline.

Mechanical injuries to the stems and limbs also contribute to tree decline. Bark injuries inhibit transport of water and nutrients to the crown and allow entrance of decay and other disease organisms. Storing of supplies and materials within the root zone and soil contamination due to spills of materials such as fuel etc will also damage the root system

The Critical Root Zone (CRZ) is the area of soil around the tree where the majority of the roots are located. The roots within this area provide stability and are responsible for the uptake of water and nutrients to maintain tree health. Any level of compaction limits root growth due to lack of available oxygen.

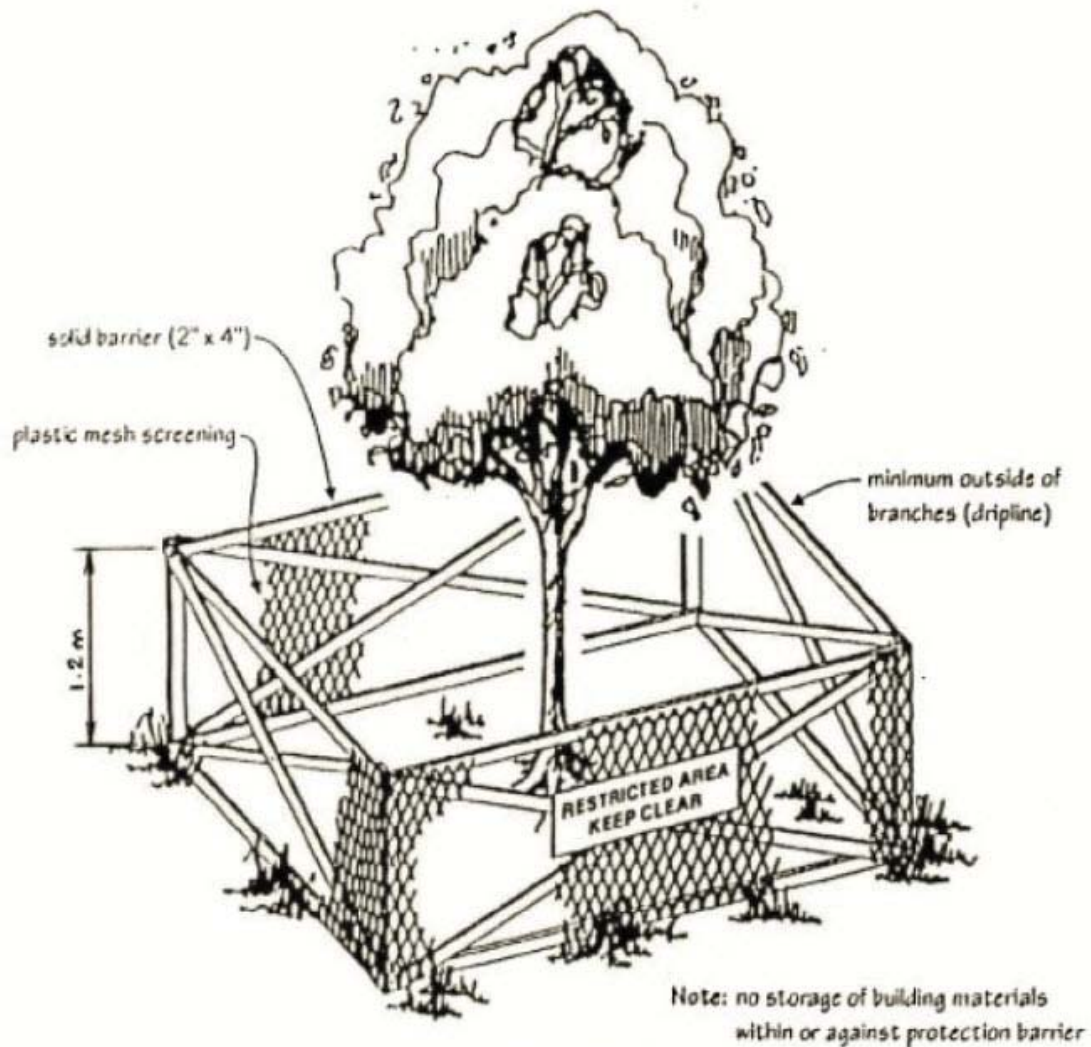
The stress of compaction and low soil fertility, coupled with other physical, environmental and human forces acting against these trees, it is reasonable to expect that the Critical Root Zones of these trees will be impacted, to some degree, due to the proposed construction activity that will occur near the trees. Providing protection for the trees is recommended to reduce any impact to the trees and their root systems.





## APPENDIX 'B'

### TREE PROTECTION BARRIERS FOR TREES



**Tree Protection Barrier**





RADIX TREE & LANDSCAPE CONSULTING

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# TREE INVENTORY

**825 Taylor Way & 707 Keith Rd, WV**

Milliken Developments

**Attn:** Kate Milliken Binns

901 W 3<sup>rd</sup> Street, Ste #334

North Vancouver, BC

V7P 3P9

November 28, 2012



**Tree Inventory**  
**825 Taylor Way & 707 Keith Rd, WV**

**28-Nov-12**

<b>Tree Tag #</b>	<b>Species</b>	<b>DBH (cm)</b>	<b>Ht (m)</b>	<b>Canopy Radius (m)</b>	<b>Observations</b>
605	Vine Maple - <i>Acer circinatum</i>	15	7.6	3.0	<b>Fair</b> - adjacent to north property line at northwest corner; phototropic lean to the north; growing on a burm; buried flare; heavily pruned to provide clearance to service lines to the north; smaller Vine Maple located nearby; falls outside the proposed building footprint & zone of heavy construction activities
606	Western Hemlock - <i>Tsuga heterophylla</i>	35	21.3	5.0	<b>Fair</b> - adjacent to northwest property line at northwest corner; growing on a burm; not previously topped; balanced canopy; partially buried flare; moderate trunk taper; moderate to high live crown ratio; heavy cone crop; lvy growing up onto stem; phototropic lean to the southeast; falls outside the proposed building footprint & zone of heavy construction activities
607	Western Hemlock - <i>Tsuga heterophylla</i>	31.5	21.3	4.5	<b>Fair</b> - adjacent to northwest property line at northwest corner; growing on a burm; not previously topped; balanced canopy; partially buried flare; buttress roots adapted like growing on nurse stump; moderate to low trunk taper; moderate live crown ratio; heavy cone crop; falls outside the proposed building footprint & zone of heavy construction activities
608	Bigleaf Maple - <i>Acer macrophyllum</i>	7 to 25	10.7	4.0	<b>Fair</b> - adjacent to northwest property line near existing shed; growing on a nurse stump mound adjacent to property line; multi-stemmed; canopy weighted to west; partially buried flare; falls outside the proposed building footprint & zone of heavy construction activities
609	Western Hemlock - <i>Tsuga heterophylla</i>	35.5	18.3	3.0	<b>Fair</b> - adjacent to northwest property line near existing shed; growing on a nurse stump mound; not previously topped; partially buried flare; buttress roots adapted like growing on nurse stump; low trunk taper; moderate to low live crown ratio; heavy to excessive cone crop; 3 to 4 smaller trees growing within grouping; falls outside the proposed building footprint & zone of heavy construction activities
610	Western Hemlock - <i>Tsuga heterophylla</i>	39	18.3	n/a	<b>Dead</b> - adjacent to northwest property line near existing shed at 825 Taylor Way; recently dead; recent broken top; moderate trunk taper; heavy cone crop still persisting in canopy; falls outside the proposed building footprint & zone of heavy construction activities

611	Western Hemlock - <i>Tsuga heterophylla</i>	17.5	18.3	3.0	<b>Poor</b> - adjacent to northwest property line near existing shed at 825 Taylor Way; growing on a nurse stump mound; appears to be in an advanced stage of decline; not previously topped; buried root flare; low trunk taper; low live crown ratio; heavy to excessive cone crop; orange fungal bodies visible on lower trunk; falls outside the proposed building footprint & zone of heavy construction activities
612	Bigleaf Maple - <i>Acer macrophyllum</i>	18	21.3	5.0	<b>Fair</b> - adjacent to northwest property line near garden area; growing on a nurse stump mound; multi-stemmed; not previously topped; buried root flare; buttress roots adapted like growing on nurse stump; phototropic lean to the south; falls outside the proposed building footprint & zone of heavy construction activities
613	Saucer Magnolia - <i>Magnolia soulangiana</i>	23 & 24	21.3	5.0	<b>Fair</b> - adjacent to north property line approx 5.0 m south of existing fence: multi-stemmed; phototropic lean to the south; previously topped at 6.1 m; buried root flare; dead scaffold & broken branches; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
614	Limber Pine - <i>Pinus flexilis</i> cvs	10	3.6	2.0	<b>Fair</b> - located within garden bed just north of covered entrance at north side of house; minor interior foliage senescence; phototropic lean to the southwest; large girdling structural root at north side; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
615	Bigleaf Maple - <i>Acer macrophyllum</i>	24	13.7	3.5	<b>Fair</b> - located east of #614 & approx 3.5 m south of existing fence line; dead scaffolds; buried root flare; growing from under canopy of #617; phototropic lean to the southwest; canopy weighted to the west; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
616	Apple - <i>Malus</i> sp	19.5	6.1	2.5	<b>Fair to Poor</b> - adjacent to existing fence along north property line; deadwood; buried root flare; growing from under canopy of #617; phototropic lean to the west; canopy weighted to the west; girdling roots visible; falls outside the proposed building footprint & zone of heavy construction activities
617	Western Red Cedar - <i>Thuja plicata</i>	100	21.3	5.5	<b>Fair</b> - adjacent to north property line in raised planting area 1.2 m above driveway; previously topped at 12.2 m; co-dominant stems have grown; phototropic lean to the northwest; canopy weighted to northwest; dead scaffold branches; high live crown ratio; good trunk taper; partially buried root flare; girdling roots visible at southeast side; minor chlorosis in foliage; heavy cone crop; Ivy growing onto stem; lots of reaction wood giving trunk a 'muscular' appearance; falls outside the proposed building footprint & zone of heavy construction activities



618	Western Red Cedar - <i>Thuja plicata</i>	96	15.2	5.5	<b>Fair</b> - adjacent to north property line in raised planting area 1.2 m above driveway; previously topped at 12.2 m; co-dominant stems have grown; phototropic lean to the southwest; balanced canopy; dead scaffold branches; high live crown ratio; good trunk taper; heavy cone crop; buried root flare; Ivy growing onto stem; lots of reaction wood giving trunk a 'muscular' appearance; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
619	Vine Maple - <i>Acer circinatum</i>	10 & 20	7.6	4.5	<b>Fair</b> - adjacent to north property line in raised planting area 1.2 m above driveway & east of #617; phototropic lean to the east; canopy weighted to east; dead scaffold branches; Ivy growing onto stem to 6.1 m; buried root flare; heavily pruned for clearance; falls outside the proposed building footprint & zone of heavy construction activities
620	Western Red Cedar - <i>Thuja plicata</i>	70	21.3	5.0	<b>Fair</b> - located in raised planting area 60 cm high in middle of driveway; previously topped at 12.2 m; co-dominant stems have grown; phototropic lean to the southwest; balanced canopy; dead scaffold branches; high live crown ratio; moderate trunk taper; moderate cone crop; buried root flare; lots of reaction wood giving trunk a 'muscular' appearance; electrical for outdoor lighting affixed on trunk of tree; falls within proposed building footprint & within the zone of heavy construction activities
621	Western Hemlock - <i>Tsuga heterophylla</i>	40.5	18.3	3.5	<b>Fair</b> - adjacent to north property fence line; phototropic lean to the northeast; previously topped at 13.7 m; buried root flare; low live crown ratio; low trunk taper; deadwood; heavy cone crop; falls outside the proposed building footprint & zone of heavy construction activities
622	Holly - <i>Ilex aquifolium</i>	17.5	7.6	2.0	<b>Fair</b> - adjacent to north property line approx 2.0 m from fence line; phototropic lean to the south; balanced; dead branches in lower canopy; buried root flare; pruned for clearance vehicles in driveway; minor leaf blight; falls outside the proposed building footprint & zone of heavy construction activities
623	English Laurel - <i>Prunus laurocerasus</i>	19 to 25	9.1	5.5	<b>Fair</b> - Grouping of five mature Laurel; phototropic lean varying directions; dense canopy; falls outside the proposed building footprint & zone of heavy construction activities
624	broken tag				
625	Western Hemlock - <i>Tsuga heterophylla</i>	75	21.3	4.5	<b>Fair</b> - located north of driveway growing on a nurse stump mound; phototropic lean to the south; previously topped at 12.2 m; balanced canopy; deadwood; partially buried root flare; moderate trunk taper; moderate live crown ratio; moderate cone crop; reaction wood ridges visible on bole; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
626	Western Hemlock - <i>Tsuga heterophylla</i>	23.5	9.1	3.5	<b>Fair</b> - located adjacent to driveway at north side growing on a nurse stump mound; phototropic lean to the south; previously topped at 3.7 m; co-dominant stems have grown; canopy weighted to south; deadwood; buried root flare; low trunk taper; low live crown ratio; moderate cone crop; falls outside the proposed building footprint & within the zone of heavy construction activities

627	Western Hemlock - <i>Tsuga heterophylla</i>	22.5	15.2	3.0	<b>Fair</b> - located north of driveway; previously topped at 3.0 m; co-dominant stems have grown; canopy weighted to south; deadwood; bulge & defect visible at base; buried root flare; low trunk taper; low live crown ratio; moderate cone crop; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
628	Western Hemlock - <i>Tsuga heterophylla</i>	26.5	21.3	3.0	<b>Fair</b> - located north of driveway growing on a nurse log; previously topped at 3.7 m; co-dominant stems have grown; canopy weighted to south; deadwood; buried root flare; low trunk taper; moderate live crown ratio; moderate cone crop; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
629	Western Red Cedar - <i>Thuja plicata</i>	34	16.8	3.5	<b>Fair</b> - located north of driveway growing on a nurse log; previously topped at 3.7 m; co-dominant stems have grown; canopy weighted to south; deadwood; partially buried root flare; moderate trunk taper; moderate to low live crown ratio; moderate cone crop; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
630	Douglas fir - <i>Pseudotsuga menziesii</i>	75	4.6	n/a	<b>Fair</b> - Wildlife snag; phototropic lean to the southeast; nesting cavities visible throughout length of bole; falls outside the proposed building footprint & zone of heavy construction activities
631	Western Red Cedar - <i>Thuja plicata</i>	86	24.4	6.0	<b>Fair</b> - located north of driveway; previously topped at 12.2 m; co-dominant stems have grown; balanced canopy; deadwood; partially buried root flare; good trunk taper; high live crown ratio; moderate cone crop; reaction wood giving trunk a 'muscular' appearance; falls outside the proposed building footprint & zone of heavy construction activities
632	Bigleaf Maple - <i>Acer macrophyllum</i>	40 & 48	18.3	6.0	<b>Fair</b> - located north of driveway approx 2.0 m south of fence line; multi-stemmed; ridge of included bark at base of stem union; canopy weighted to the north; dead scaffold branches; buried root flare; reaction wood formation of a bulge in lower 2.0 m of stem; falls outside the proposed building footprint & zone of heavy construction activities
633	Vine Maple - <i>Acer circinatum</i>	8 & 10	6.1	3.0	<b>Fair</b> - adjacent to north fence line; multi-stemmed; phototropic lean to the north; canopy weighted to the north; deadwood; buried root flare; falls outside the proposed building footprint & zone of heavy construction activities
634	Western Hemlock - <i>Tsuga heterophylla</i>	61	30.5	5.0	<b>Fair</b> - located north of driveway growing on a nurse stump; buttress roots have adapted to growing location; balanced canopy; moderate trunk taper; moderate live crown ratio; falls outside the proposed building footprint & zone of heavy construction activities
635	Western Red Cedar - <i>Thuja plicata</i>	18	13.7	2.5	<b>Fair</b> - located north of driveway growing on a nurse mound; buttress roots have adapted to growing location; canopy weighted to south; low trunk taper; low live crown ratio; partially buried root flare; falls outside the proposed building footprint & zone of heavy construction activities

636	Cypress - <i>Chamaecyparis</i> sp	35 & 29	10.7	2.5	<b>Fair</b> - located north of driveway; previously topped at 3.0 m; canopy weighted to west; moderate trunk taper; low live crown ratio; partially buried root flare; falls outside the proposed building footprint & zone of heavy construction activities
637	Western Red Cedar - <i>Thuja plicata</i>	23	9.1	2.5	<b>Fair</b> - located south of driveway growing on a nurse mound at crest of slope; not previously topped; buttress roots have adapted to growing location; canopy weighted to east; low trunk taper; low live crown ratio; partially buried root flare; live stump from Tulip tree growing in same location; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities & truck access
638	Western Hemlock - <i>Tsuga heterophylla</i>	15 & 17	9.1	2.5	<b>Fair</b> - located south of driveway growing on a nurse mound at crest of slope; not previously topped; multi-stemmed; included bark at base of stem union; buttress roots have adapted to growing location; canopy weighted to east; low trunk taper; low live crown ratio; partially buried root flare; live stump from Tulip tree growing in same location; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities & truck access
639	Western Hemlock - <i>Tsuga heterophylla</i>	25	10.7	3.0	<b>Fair</b> - located on sloped grade above pedestrian walkway adjacent to east property line; not previously topped; canopy weighted to east; moderate trunk taper; moderate live crown ratio; partially buried root flare; falls outside the proposed building footprint & zone of heavy construction activities
640	Bigleaf Maple - <i>Acer macrophyllum</i>	105	19.8	6.0	<b>Fair to Poor</b> - located adjacent to east property line above crest of slope; not previously topped; short trunked; stem failure visible in upper canopy; decay cavity visible on failed stem; phototropic lean to the east; girdling root visible at east side; canopy weighted to east; buried root flare; dead scaffold branches; falls outside the proposed building footprint & zone of heavy construction activities
641	Western Hemlock - <i>Tsuga heterophylla</i>	33	15.2	4.0	<b>Fair</b> - located adjacent to east property line above crest of slope; previously topped at 3.0 m; phototropic lean to the east; canopy weighted to east; buried root flare; dead scaffold branches; 4 to 5 juvenile Bigleaf Maples growing within immediate area; moderate trunk taper; low live crown ratio; falls outside the proposed building footprint & zone of heavy construction activities
642	Western Red Cedar - <i>Thuja plicata</i>	16	12.2	3.0	<b>Fair</b> - located adjacent to east property line above crest of slope; not previously topped; phototropic lean to the west; canopy weighted to west; buried root flare; dead scaffold branches; low trunk taper; low live crown ratio; falls outside the proposed building footprint & zone of heavy construction activities
643	Western Hemlock - <i>Tsuga heterophylla</i>	89	30.5	5.5	<b>Fair</b> - located south of driveway; not previously topped; balanced canopy; moderate trunk taper; moderate live crown ratio; buried root flare; live stump from Bigleaf Maple tree growing just to south of location; Ivy growing on stem to 3.7 m & remnants to 10.7 m; electrical wiring for driveway lighting affixed to tree; falls within proposed building footprint & within zone of heavy construction activities



644	Pacific Dogwood - <i>Cornus nuttallii</i>	15	9.1	3.0	<b>Fair</b> - located adjacent to east property line; buried root flare; deadwood throughout canopy; phototropic lean to southeast; falls outside the proposed building footprint & zone of heavy construction activities
645	Douglas fir - <i>Pseudotsuga menziesii</i>	19	12.2	3.0	<b>Fair</b> - located adjacent to east property line above crest of slope; subordinate within stand; previously topped at 3.0 m; canopy weighted to east; buried root flare; dead scaffold branches; low trunk taper; low live crown ratio; falls outside the proposed building footprint & zone of heavy construction activities
646	Western Hemlock - <i>Tsuga heterophylla</i>	31.5	12.2	3.0	<b>Fair</b> - located south of driveway growing on a nurse mound; subordinate within stand; not previously topped; buttress roots have adapted to growing location; low trunk taper; high live crown ratio; growing within CRZ of #647; falls within proposed building footprint & within zone of heavy construction activities
647	Bigleaf Maple - <i>Acer macrophyllum</i>	102	19.8	5.5	<b>Fair</b> - located south of driveway growing on a nurse mound; cavity visible beneath tree at northwest side; buried root flare; dead scaffold branches throughout canopy; falls within proposed building footprint & within zone of heavy construction activities
648	Western Hemlock - <i>Tsuga heterophylla</i>	17	9.1	2.5	<b>Fair</b> - located south of driveway exiting south to Keith Rd; growing on a nurse mound; subordinate within stand; not previously topped; buttress roots have adapted to growing location; phototropic lean to the east; low trunk taper; high live crown ratio; falls within proposed building footprint & within zone of heavy construction activities
649	Bigleaf Maple - <i>Acer macrophyllum</i>	17	9.1	3.5	<b>Fair</b> - located adjacent to driveway exiting south to Keith Rd; phototropic lean to the west; canopy weighted to west; previously topped at 3.0 m; falls within proposed building footprint & within zone of heavy construction activities
650	Bigleaf Maple - <i>Acer macrophyllum</i>	76	18.3	6.0	<b>Fair</b> - growing on a nurse mound; previously topped at 12.2; phototropic lean to the northwest; partially buried flare; dead scaffold branches; previously topped at 3.0 m; a number of small juvenile trees growing beneath canopy approx 10 -15 cm dbh; falls within proposed building footprint & within zone of heavy construction activities
651	Western Hemlock - <i>Tsuga heterophylla</i>	24.5	15.2	3.0	<b>Fair</b> - growing on a nurse mound directly east of #650; previously topped at 3.0 m; canopy weighted to north; exposed root flare; moderate live crown ratio; low trunk taper; low cone crop; falls within proposed building footprint & within zone of heavy construction activities
652	Western Hemlock - <i>Tsuga heterophylla</i>	20	15.2	3.0	<b>Fair</b> - growing on a nurse mound directly east of #650; previously topped at 3.0 m; exposed root flare; canopy weighted to east; moderate live crown ratio; low trunk taper; low cone crop; falls within proposed building footprint & within zone of heavy construction activities

653	Tulip Tree - <i>Liriodendron tulipifera</i>	78	21.3	5.0	<b>Fair</b> - located adjacent to driveway exiting south to Keith Rd; previously topped at 6.1 m; co-dominant stems have grown; partially buried flare; large burl at approx 1.0 m above grade; depressions visible in stem; falls within proposed building footprint & within zone of heavy construction activities
654	Western Hemlock - <i>Tsuga heterophylla</i>	21	6.1	3.0	<b>Fair</b> - located adjacent to driveway exiting south to Keith Rd growing on nurse log; canopy weighted to south; phototropic lean to the south; low trunk taper; moderate live crown ratio; low cone crop; falls within proposed building footprint & within zone of heavy construction activities
655	Western Hemlock - <i>Tsuga heterophylla</i>	21.5	12.2	3.0	<b>Fair</b> - growing on nurse stump; canopy weighted to north; phototropic lean to the west; deadwood; previously topped at 3.0 m; structural roots visible at surface; low trunk taper; low live crown ratio; low cone crop; sap sucker activity; bulge in lower stem at 1.5 to 3.0 m; falls within proposed building footprint & within zone of heavy construction activities
656	Western Red Cedar - <i>Thuja plicata</i>	42	12.2	3.0	<b>Fair</b> - located to the southeast of #650; canopy weighted to north; previously topped at 3.0 m; low trunk taper; low live crown ratio; low cone crop; sap sucker activity; old wound that has compartmentalized; falls within proposed building footprint & within zone of heavy construction activities
657	Western Hemlock - <i>Tsuga heterophylla</i>	27	12.2	3.0	<b>Fair</b> - just to the south of #651; buried root flare; canopy weighted to south; moderate live crown ratio; low trunk taper; low cone crop; falls within proposed building footprint & within zone of heavy construction activities
658	Western Red Cedar - <i>Thuja plicata</i>	125	18.3	5.0	<b>Fair</b> - tagged with Chapman Survey #1974; in line with #681 just west of chimney; previously topped at 7.6 m; co-dominant stems have grown; included bark at stem union; canopy weighted to south; decay cavity visible at base of tree; partially buried root flare; phototropic lean to the southwest; girdling roots visible; reaction wood giving trunk a 'muscular' appearance; decayed logs and stumps strewn through the immediate area
659	Western Hemlock - <i>Tsuga heterophylla</i>	22	12.2	3.0	<b>Fair</b> - located directly to the east of #658 and in line with #652; canopy weighted to north; low trunk taper; moderate live crown ratio; defect at approx at 1.5 m; deadwood in lower canopy; buried root flare; phototropic lean to the northwest
660	Western Hemlock - <i>Tsuga heterophylla</i>	41.5	18.3	4.0	<b>Fair</b> - located directly to the east of #658 and directly south to #659 and in line with #657; canopy weighted to southeast; low trunk taper; moderate live crown ratio; previously topped at 3.0 m; co-dominant stems have grown; buried root flare; deadwood in lower canopy; falls within proposed building footprint & within zone of heavy construction activities

661	Western Hemlock - <i>Tsuga heterophylla</i>	52	18.3	5.0	<b>Fair</b> - located above a swale just in from Marine Dr; just south of DF #645; Chapman Survey tag #1975; soil very organic and soft underfoot; not previously topped; balanced canopy; high live crown ratio; moderate trunk taper; reaction wood giving trunk a 'muscular' appearance; a number of juvenile Vine Maples growing in immediate area; falls within proposed building footprint & within zone of heavy construction activities
662	Bigleaf Maple - <i>Acer macrophyllum</i>	10 to 12	12.2	4.0	<b>Fair</b> - located to the southeast of #660; multi-stemmed; previously topped at 1.0 m; canopy weighted to south; buried flare; dead scaffold branches; decay cavities visible; a number of small juvenile trees growing in immediate area; falls within proposed building footprint & within zone of heavy construction activities
663	Bigleaf Maple - <i>Acer macrophyllum</i>	10 to 20	12.2	5.0	<b>Fair</b> - located directly to the south of #660; multi-stemmed; previously topped at 1.0 m; gnarled old trunk; partially buried flare; dead scaffold branches; decay cavities visible; lots of brambles growing in immediate area; falls within proposed building footprint & within zone of heavy construction activities
664	Cherry - <i>Prunus emarginata</i>	20	10.7	3.0	<b>Fair</b> - located west of #675; phototropic lean to the southeast; partially buried flare; dead scaffold branches; lots of brambles growing in immediate area; falls within proposed building footprint & within zone of heavy construction activities
665	Bigleaf Maple - <i>Acer macrophyllum</i>	7 to 15	10.7	3.0	<b>Fair</b> - located to the south of #664; multi-stemmed; previously topped at 1.0 m; buried flare; dead & broken scaffold branches; a number of small juvenile trees growing in immediate area; falls within proposed building footprint & within zone of heavy construction activities
666	Western Hemlock - <i>Tsuga heterophylla</i>	16	7.6	3.0	<b>Fair</b> - located near the southeast corner of the property; growing on a nurse mound; located to the south of #664; previously topped at 3.0 m; buried root flare; dead & broken scaffold branches; canopy weighted to west; low trunk taper; low live crown ratio; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
667	Western Hemlock - <i>Tsuga heterophylla</i>	19.5	12.2	2.5	<b>Fair</b> - located near the southeast corner of property; growing on a nurse mound; located to the east of #666; previously topped at 3.0 m; buried root flare; dead & broken scaffold branches; canopy weighted to west and isolated to top; low trunk taper; low live crown ratio; group of juvenile Vine Maples growing nearby; falls outside the proposed building footprint & within close proximity to zone of heavy construction activities
668	Western Hemlock - <i>Tsuga heterophylla</i>	21.5	15.2	3.0	<b>Fair</b> - located at southeast corner of property at the crest of a burm; low trunk taper; low live crown ratio; canopy weighted to north; buried root flare; falls outside the proposed building footprint & zone of heavy construction activities
669	Pacific Dogwood - <i>Cornus nuttallii</i>	21	12.2	4.0	<b>Fair</b> - located at southeast corner of property at the crest of a burm; photolean to the east; buried root flare; falls outside the proposed building footprint & zone of heavy construction activities



670	Western Hemlock - <i>Tsuga heterophylla</i>	19	12.2	3.5	<b>Fair</b> - located at southeast corner of the 825 Taylor Way at the crest of a burm; growing at north side of #671; low trunk taper; low live crown ratio; canopy weighted to northeast; buried root flare; falls outside the proposed building footprint & zone of heavy construction activities
671	Western Red Cedar - <i>Thuja plicata</i>	150	24.4	6.0	<b>Fair</b> - located at southeast corner of the 825 Taylor Way at the crest of a burm; previously topped at 21.4 m; co-dominant stems have grown; moderate trunk taper; moderate to high live crown ratio; balanced canopy; phototropic lean to the east; buried root flare; signs of chlorosis; area directly to the west where it looks like there is a void or excavation that something could have been there at one time; heavy cone crop; decay cavity visible at base; reaction wood giving trunk a 'muscular' appearance; visible nurse logs and stumps in immediate area; burl visible at 9.1 m at northeast side; flattened at east side of bole at base; falls outside the proposed building footprint & zone of heavy construction activities
672	Western Hemlock - <i>Tsuga heterophylla</i>	18.5	9.1	3.0	<b>Fair</b> - located at southeast corner of the 825 Taylor Way at the crest of a burm; low trunk taper; low live crown ratio; canopy weighted to south; buried root flare; falls outside the proposed building footprint & zone of heavy construction activities
673	Pacific Dogwood - <i>Cornus nuttallii</i>	45	15.2	4.5	<b>Fair</b> - located at southeast corner of the 825 Taylor Way at the crest of a burm; low trunk taper; low live crown ratio; canopy weighted to north; buried root flare; falls outside the proposed building footprint & zone of heavy construction activities
674	Douglas fir - <i>Pseudotsuga menziesii</i>	47	15.2	4.5	<b>Fair</b> - located on boulevard on slope at north end of existing hedge row along east property line at 707 Keith Rd; previously topped at 3.0 m; only one stem; canopy weighted to southeast; Ivy growing up stem; falls outside the proposed building footprint & zone of heavy construction activities
675	Red Alder - <i>Alnus rubra</i>	30	15.2	5.0	<b>Fair</b> - located on boulevard on slope at bottom of slope adjacent to pedestrian walkway at Taylor Way; phototropic lean to the east; deadwood; heavily pruned for clearance for signage & vehicle traffic; buried root flare; deadwood; lots of understory growth beneath this grouping; falls outside the proposed building footprint & zone of heavy construction activities
676	Red Alder - <i>Alnus rubra</i>	50	15.2	6.0	<b>Fair</b> - located on boulevard on slope at bottom of slope adjacent to pedestrian walkway at Taylor Way; phototropic lean to the east; deadwood; heavily pruned for clearance for signage & vehicle traffic; buried root flare; deadwood; lots of understory growth beneath this grouping; falls outside the proposed building footprint & zone of heavy construction activities
677	Red Alder - <i>Alnus rubra</i>	40	15.2	5.5	<b>Fair</b> - located on boulevard at mid- slope adjacent to pedestrian walkway at Taylor Way; phototropic lean to the east; deadwood; heavily pruned for clearance for signage & vehicle traffic; buried root flare; deadwood; lots of understory growth beneath this grouping; falls outside the proposed building footprint & zone of heavy construction activities

678	Red Alder - <i>Alnus rubra</i>	45	15.2	5.5	<b>Fair</b> - located on boulevard on slope at bottom of slope adjacent to pedestrian walkway at Taylor Way; phototropic lean to the east; deadwood; heavily pruned for clearance for signage & vehicle traffic; buried root flare; deadwood; lots of understory growth beneath this grouping; falls outside the proposed building footprint & zone of heavy construction activities
679	Bigleaf Maple - <i>Acer macrophyllum</i>	15 & 10	15.2	5.0	<b>Fair</b> - located on boulevard on slope at bottom of slope adjacent to pedestrian walkway at Taylor Way; multi-stemmed; phototropic lean to the east; deadwood; heavily pruned for clearance for signage & vehicle traffic; Wildlife snag located directly north of location at crest of slope; deadwood; lots of understory growth beneath this grouping; falls outside the proposed building footprint & zone of heavy construction activities
680	Western Red Cedar - <i>Thuja plicata</i>	71	18.3	5.0	<b>Fair</b> - located adjacent to north property line at northeast corner of house at 707 Keith Rd; previously topped at 13.7 m; co-dominant stems have grown; partially buried flare; moderate to low live crown ratio; good trunk taper; moderate to heavy cone crop; a lot of landscape debris that has been dumped around it; reaction wood on trunk gives a 'muscular' appearance; falls within proposed building footprint & within zone of heavy construction activities
681	Western Red Cedar - <i>Thuja plicata</i>	20	9.1	2.5	<b>Fair</b> - located adjacent to north property line as part of a privacy screen for house at 707 Keith Rd; previously topped at 3.7 m; co-dominant stems have grown; canopies weighted to south; exposed root flare; slight grade of slope; partially buried flare; moderate to low live crown ratio; good trunk taper; moderate to heavy cone crop; growing as part of a group of 7 smaller Cedars growing within the immediate area; falls within proposed building footprint & within zone of heavy construction activities
682	Western Red Cedar - <i>Thuja plicata</i>	31	9.1	3.0	<b>Fair</b> - located adjacent to north property line as part of a privacy screen for house at 707 Keith Rd; previously topped at 3.7 m; co-dominant stems have grown; canopies weighted to south; exposed root flare; slight grade of slope; partially buried flare; moderate to low live crown ratio; good trunk taper; moderate to heavy cone crop; growing as part of a group of 7 smaller Cedars growing within the immediate area; falls within proposed building footprint & within zone of heavy construction activities
683	Western Red Cedar - <i>Thuja plicata</i>	17.5	9.1	3.0	<b>Fair</b> - located adjacent to north property line as part of a privacy screen for house at 707 Keith Rd; previously topped at 3.7 m; co-dominant stems have grown; canopies weighted to south; exposed root flare; slight grade of slope; partially buried flare; moderate to low live crown ratio; good trunk taper; moderate to heavy cone crop; growing as part of a group of 7 smaller Cedars growing within the immediate area; falls within proposed building footprint & within zone of heavy construction activities

684	Western Hemlock - <i>Tsuga heterophylla</i>	35.5 & 19.5	12.2	4.0	<b>Fair</b> - located adjacent to north property line as part of a privacy screen for house at 707 Keith Rd; two stems from the base (one is subordinate); partially buried flare; phototropic lean to the south; canopy weighted to south; moderate live crown ratio; moderate trunk taper; moderate cone crop; falls within proposed building footprint & within zone of heavy construction activities
685	Western Red Cedar - <i>Thuja plicata</i>	16	9.1	3.0	<b>Fair</b> - located adjacent to north property line as part of a privacy screen for house at 707 Keith Rd; previously topped at 3.7 m; co-dominant stems have grown; canopies weighted to south; exposed root flare; slight grade of slope; partially buried flare; moderate to low live crown ratio; low trunk taper; moderate cone crop; growing as part of a group of 4 smaller Cedars growing within the immediate area; falls within proposed building footprint & within zone of heavy construction activities
686	Vine Maple - <i>Acer circinatum</i>	10 to 17	6.1	4.0	<b>Fair</b> - located to the northwest of the house @ 707 Keith Rd; grouping of 7 to 8 VM clustered together behind hedge; previously topped at 1.0 m; phototropic lean to the south; suckering from previous topping cuts; decay visible at previous topping cut; above crest of slope; falls within proposed building footprint & within zone of heavy construction activities
687	Western Hemlock - <i>Tsuga heterophylla</i>	31	15.2	4.0	<b>Fair</b> - located at edge of driveway to Keith Rd at west side; previously topped at 3.0 m; included bark at base of stem union appears to be splitting; co-dominant stems have grown; fungal bodies visible on dead structural root at east side; low trunk taper; low live crown ratio; deadwood; falls within proposed building footprint & within zone of heavy construction activities
688	Western Hemlock - <i>Tsuga heterophylla</i>	46	24.4	5.0	<b>Fair</b> - located at edge of driveway to Keith Rd at west side; moderate trunk taper; low live crown ratio; deadwood in lower canopy; phototropic lean to the south; exposed root flare; growing on nurse log; falls within proposed building footprint & within zone of heavy construction activities; falls outside the proposed building footprint & zone of heavy construction activities
689	Western Hemlock - <i>Tsuga heterophylla</i>	48	21.3	4.5	<b>Fair</b> - located at edge of driveway to Keith Rd at west side; previously topped at 3.0 m; structural roots visible; moderate trunk taper; low live crown ratio; deadwood; reaction wood visible in trunk; canopy weighted to south; other trees in area that have been removed; falls outside the proposed building footprint & zone of heavy construction activities
690	Western Hemlock - <i>Tsuga heterophylla</i>	34.5	15.2	3.5	<b>Fair</b> - located at edge of driveway to Keith Rd at west side; growing on nurse stump; previously topped at 3.0 m; structural roots visible; moderate trunk taper; low live crown ratio; deadwood; reaction wood visible in trunk; canopy weighted to south; other trees in area that have been removed; falls outside the proposed building footprint & zone of heavy construction activities



691	Western Hemlock - <i>Tsuga heterophylla</i>	35	15.2	2.5	<b>Fair</b> - located at edge of driveway to Keith Rd at west side; another 20 cm Hemlock growing adjacent to it; previously topped at 3.0 m; co-dominant stems have grown; structural roots visible; growing on nurse stump; moderate trunk taper; low live crown ratio; deadwood; reaction wood visible in trunk; canopy weighted to south; other trees in area that have been removed; Vine Maple located just to the north of location; sap sucker activity; canopy weighted to west; moderate cone crop; falls outside the proposed building footprint & zone of heavy construction activities
692	Western Hemlock - <i>Tsuga heterophylla</i>	35.5	18.3	4.0	<b>Fair</b> - located south of existing structure; another 19.5 cm Hemlock growing adjacent to it; previously topped at 3.0 m; co-dominant stems have grown; failure in co-dominant stem; structural roots visible & intertwined growing on nurse stump; low trunk taper; moderate live crown ratio; deadwood; balanced canopy; other trees in area that have been removed; Vine Maple located just to the north of location; sap sucker activity; canopy weighted to west; moderate cone crop; falls outside the proposed building footprint & zone of heavy construction activities
693	Western Red Cedar - <i>Thuja plicata</i>	17.5	15.2	3.0	<b>Fair</b> - located south of existing structure; previously topped at 3.0 m; co-dominant stems have grown; structural roots visible & intertwined growing on nurse stump; low trunk taper; low live crown ratio; deadwood; canopy weighted to west; low cone crop; elevated rooting placement; falls outside the proposed building footprint & zone of heavy construction activities
694	Western Hemlock - <i>Tsuga heterophylla</i>	27.5	16.7	3.5	<b>Fair</b> - located south of existing structure; previously topped at 3.0 m; co-dominant stems have grown; bulge in lower stem appears to be compartmentalized from an old wound at south side; low trunk taper; moderate live crown ratio; deadwood; exposed root flare; sap sucker activity; canopy weighted to west; moderate cone crop; falls outside the proposed building footprint & zone of heavy construction activities
695	Western Hemlock - <i>Tsuga heterophylla</i>	40	24.4	4.0	<b>Fair</b> - located south of existing structure; grouping of 6 Hemlock trees growing on top of a nurse log with advanced decay; only three largest trees have been tagged; previously topped at 3.0 m; co-dominant stems have grown; phototropic lean to northwest; all structural roots intertwined; moderate to low trunk taper; low live crown ratio; falls within proposed building footprint & within zone of heavy construction activities
696	Western Hemlock - <i>Tsuga heterophylla</i>	25	21.3	3.0	<b>Fair</b> - located south of existing structure; grouping of 6 Hemlock trees growing on top of a nurse log with advanced decay; previously topped at 3.0 m; co-dominant stems have grown; canopy weighted to north; phototropic lean to northwest; moderate to low trunk taper; low live crown ratio; all structural roots intertwined; falls within proposed building footprint & within zone of heavy construction activities

697	Western Hemlock - <i>Tsuga heterophylla</i>	28	21.3	3.5	<b>Fair</b> - located south of existing structure; grouping of 6 Hemlock trees growing ontop of a nurse log with advanced decay; previously topped at 3.0 m; co-dominant stems have grown; phototropic lean to south; canopy weighted to south; moderate to low trunk taper; low live crown ratio; all structural roots intertwined; falls within proposed building footprint & within zone of heavy construction activities
698	Western Hemlock - <i>Tsuga heterophylla</i>	38	22.7	4.0	<b>Fair</b> - located south of existing structure; grouping of 3 Hemlock trees growing ontop of a nurse stump; not previously topped; phototropic lean to south; moderate to low trunk taper; low live crown ratio; all structural roots intertwined; sap sucker activity; bow visible in stem; canopies isolated to the top; falls outside the proposed building footprint & zone of heavy construction activities
699	Bigleaf Maple - <i>Acer macrophyllum</i>	40	18.3	5.0	<b>Fair</b> - located south of existing structure; previously topped; phototropic lean to southwest; canker visible on branches in upper canopy; large structural roots visible at west side; falls outside the proposed building footprint & zone of heavy construction activities
700	Western Hemlock - <i>Tsuga heterophylla</i>	26.5	15.2	4.0	<b>Fair</b> - located south of existing structure; previously topped at 3.0 m; co-dominant stems have grown; bulges in stems above topping point; phototropic lean to northeast; canopy weighted to northeast; low trunk taper; low live crown ratio; another 19 cm Hemlock growing between #700 & #701; structural roots are intertwined; growing on nurse mound; falls outside the proposed building footprint & within zone of heavy construction activities
701	Western Hemlock - <i>Tsuga heterophylla</i>	26	12.2	4.0	<b>Fair</b> - located south of existing structure; previously topped at 3.0 m; co-dominant stems have grown; bulges in stems above topping point; phototropic lean to southwest; canopy weighted to southwest; low trunk taper; low live crown ratio; another 19 cm Hemlock growing between #700 & #701; galls visible on branches structural roots are intertwined; growing on nurse mound; falls outside the proposed building footprint & zone of heavy construction activities
702	Silver Birch - <i>Betula pendula</i>	35	15.2	5.0	<b>Fair</b> - Phototropic lean to the northeast; dead scaffold branches; previously topped at 6.1 m; difficult to observe base of tree due to under plantings; falls outside the proposed building footprint & zone of heavy construction activities
703	Western Hemlock - <i>Tsuga heterophylla</i>	41	21.4	4.0	<b>Fair</b> - located near southwest corner of house growing on a nurse stump; structural roots are intertwined; previously topped at 3.0 m; co-dominant stems have grown; moderate trunk taper; moderate to low live crown ratio; falls outside the proposed building footprint & zone of heavy construction activities
704	Western Hemlock - <i>Tsuga heterophylla</i>	35.5	21.4	4.0	<b>Fair</b> - located near southwest corner of house growing on a nurse stump; structural roots are intertwined; previously topped at 3.0 m; co-dominant stems have grown; moderate trunk taper; moderate to low live crown ratio; falls outside the proposed building footprint & zone of heavy construction activities

705	Vine Maple - <i>Acer circinatum</i>	7 to 12	7.6	4.0	<b>Fair</b> - multi-stemmed; located approx 5.0 m east of west property line; large stump located just to south of location incl another smaller Maple; falls outside the proposed building footprint & zone of heavy construction activities
706	Western Hemlock - <i>Tsuga heterphylla</i>	27	19.8	4.5	<b>Fair</b> - Just to the southwest of #703 & #704; exposed flare; low live crown; low trunk taper; deadwood; canopy weighted to the west; sap sucker activity; falls outside the proposed building footprint & zone of heavy construction activities
707	broken tag				
708	English Laurel - <i>Prunus laurocerasus</i>	25	9.1	5.0	<b>Fair</b> - located approx 3.0 m to the east from the west property line at the southwest corner; provides a lot of screening; falls outside the proposed building footprint & zone of heavy construction activities
709	Bigleaf Maple - <i>Acer macrophyllum</i>	55	16.8	5.0	<b>Fair</b> - just to the southwest of #702; exposed flare; deadwood; canopy weighted to the west; phototropic lean to the southwest; appears to have lost its top; falls outside the proposed building footprint & zone of heavy construction activities
710	Western Red Cedar - <i>Thuja plicata</i>	98	21.3	5.5	<b>Fair</b> - located at southwest corner of property; Chapman survey #1969; good trunk taper; high live crown; partially buried flare; lots of Laurel growing around it; previously topped at 10.7 m; co-dominant stems have grown; balanced canopy; low cone crop; falls outside the proposed building footprint & zone of heavy construction activities
711	Bigleaf Maple - <i>Acer macrophyllum</i>	65	6.1	3.5	<b>Fair</b> - located at southwest corner of property; cut off to a large live stump to approx 2.5 m; lots of suckering growth; phototropic lean to the south; large stump located directly to the north of this location; falls outside the proposed building footprint & zone of heavy construction activities
712	Western Hemlock - <i>Tsuga heterphylla</i>	30	9.1	3.0	<b>Fair to Poor</b> - located just to west of #699; phototropic lean to the east; appears to have experienced a root failure at some point in past; broken top; low trunk taper; low live crown ratio; sap sucker activity; low cone crop; falls outside the proposed building footprint & zone of heavy construction activities
713	Western Hemlock - <i>Tsuga heterphylla</i>	41	21.3	4.5	<b>Fair</b> - located west of driveway to Keith Rd adjacent to nurse log; located south of #690: Chapman Survey #1961; has been window pruned; moderate to low trunk taper; low live crown ratio; large structural root visible at north side; large reaction wood rib on the north side; sap sucker activity; high live crown; moderate taper; falls outside the proposed building footprint & zone of heavy construction activities
714	Western Red Cedar - <i>Thuja plicata</i>	45	18.3	3.0	<b>Fair</b> - located west of driveway to Keith Rd approx 5.0 m east of west property line; located south of #690 & more south than neighbours Hemlock; structural roots are intertwined; previously topped at 3.0 m; co-dominant stems have grown; moderate to low trunk taper; low live crown ratio; growing on sloped grade; elevated root placement; reaction wood gives trunk a 'muscular' appearance; falls outside the proposed building footprint & zone of heavy construction activities

715	Western Hemlock - <i>Tsuga heterophylla</i>	31	18.3	4.0	<b>Fair</b> - located east of driveway to Keith Rd across from #713; has been window pruned; low trunk taper; low live crown ratio; sap sucker activity; high live crown; small juvenile Hemlock just to the south; structural roots are intertwined; exposed root flares; falls within proposed building footprint & within zone of heavy construction activities
716	Western Hemlock - <i>Tsuga heterophylla</i>	41.5	18.3	4.5	<b>Fair</b> - located east of driveway to Keith Rd across from #713; has been window pruned; co-dominant stems have grown; low trunk taper; moderate live crown ratio; exposed root flares; falls within proposed building footprint & within zone of heavy construction activities
717	Bigleaf Maple - <i>Acer macrophyllum</i>	27 & 20	6.1	5.0	<b>Fair</b> - Multi-stemmed; previously topped at 1.5 m; decay visible in lower bole; suckering growth; falls within proposed building footprint & within zone of heavy construction activities
718	Western Hemlock - <i>Tsuga heterophylla</i>	45	24.4	4.5	<b>Fair</b> - located east of driveway to Keith Rd just south of #716; has been window pruned; low trunk taper; moderate live crown ratio; exposed root flares; canopy has been raised to 12.2 m; falls within proposed building footprint & within zone of heavy construction activities
719	Western Hemlock - <i>Tsuga heterophylla</i>	40	21.3	4.5	<b>Fair</b> - located east of driveway to Keith Rd just south of #716; has been window pruned; low trunk taper; moderate live crown ratio; exposed root flares; canopy has been raised to 12.2 m; growing on nurse stump; juvenile Hemlock located just to the northwest of that; phototropic lean to the east; falls within proposed building footprint & within zone of heavy construction activities
720	Western Hemlock - <i>Tsuga heterophylla</i>	55	21.3	4.5	<b>Fair</b> - located east of driveway to Keith Rd just south of #716; has been window pruned; low trunk taper; moderate live crown ratio; exposed root flares; canopy has been raised to 12.2 m; growing on nurse stump; canopy weighted to west; phototropic lean to the west; falls within proposed building footprint & within zone of heavy construction activities
721	Western Red Cedar - <i>Thuja plicata</i>	15 to 22	10.7	3.5	<b>Fair</b> - Part of a hedge located adjacent to the northwest corner of 707 Keith Rd and east of #717; located on a sloped grade; grouping of 4 trees; previously topped at 3.0 m; co-dominant stems have grown; buried root flare; falls within proposed building footprint & within zone of heavy construction activities
722	Western Red Cedar - <i>Thuja plicata</i>	8 to 17	10.7	4.0	<b>Fair</b> - Part of a hedge located just southeast of #721; located on a sloped grade; grouping of 3 trees; previously topped at 3.0 m; co-dominant stems have grown; buried root flare; falls within proposed building footprint & within zone of heavy construction activities
723	Western Red Cedar - <i>Thuja plicata</i>	17.5 & 27	10.7	4.0	<b>Fair</b> - Part of a hedge located just southeast of #721; located on a sloped grade; grouping of 2 trees; previously topped at 3.0 m; co-dominant stems have grown; buried root flare; falls within proposed building footprint & within zone of heavy construction activities
724	Western Red Cedar - <i>Thuja plicata</i>	63	21.3	4.0	<b>Fair</b> - Part of a hedge located just west of #723; previously topped at 3.0 m; co-dominant stems have grown; buried root flare; falls within proposed building footprint & within zone of heavy construction activities



725	Bigleaf Maple - <i>Acer macrophyllum</i>	20 to 30	13.7	5.0	<b>Fair</b> - located at west side of driveway to Keith Rd across from #729; previously topped at 3.0 m; mutli-stemmed; 2 clusters of trees; decay cavities visible; suckering growth; phototropic lean to the southwest; deadwood; buried root flares; dead scaffold branches; just west of #725 there are some Alder saplings growing; falls within proposed building footprint & within zone of heavy construction activites
726	Western Red Cedar - <i>Thuja plicata</i>	19	12.2	4.0	<b>Fair</b> - Part of a hedge located just south of #724; previously topped at 3.0 m; co-dominant stems have grown; buried root flare; falls within proposed building footprint & within zone of heavy construction activites
727	Western Red Cedar - <i>Thuja plicata</i>	37	12.2	4.0	<b>Fair</b> - Part of a hedge located just south of #724; previously topped at 3.0 m; co-dominant stems have grown; buried root flare
728	Western Red Cedar - <i>Thuja plicata</i>	43.5	12.2	4.0	<b>Fair</b> - Part of a hedge located just south of #724; previously topped at 3.0 m; co-dominant stems have grown; buried root flare; falls within proposed building footprint & within zone of heavy construction activites
729	Bigleaf Maple - <i>Acer macrophyllum</i>	18 to 25	13.7	5.0	<b>Fair</b> - located at east side of driveway to Keith Rd at northwest edge of house at 707 Keith Rd; previously topped at 3.0 m; mutli-stemmed; 2 clusters of trees; decay cavities visible; suckering growth; phototropic lean to the south; deadwood; buried root flares; dead scaffold branches; falls within proposed building footprint & within zone of heavy construction activites
730	Bigleaf Maple - <i>Acer macrophyllum</i>	7 to 15	13.7	5.0	<b>Fair</b> - located at west side of driveway to Keith Rd across from #729 and just north of #725; previously topped at 3.0 m; mutli-stemmed; 2 clusters of trees; decay cavities visible; suckering growth; phototropic lean to the southwest; deadwood; buried root flares; dead scaffold branches; falls within proposed building footprint & within zone of heavy construction activites
731	Western Red Cedar - <i>Thuja plicata</i>	15	7.6	3.0	<b>Fair</b> - located at west side of driveway to Keith Rd; not previously topped; high live crown ratio; low trunk taper; buried root flares; falls within proposed building footprint & within zone of heavy construction activites
732	Bigleaf Maple - <i>Acer macrophyllum</i>	25	13.7	5.0	<b>Fair</b> - located atleast side of driveway to Keith Rd; previously topped at 3.0 m; decay cavities visible; suckering growth; phototropic lean to the southeast; deadwood; buried root flares; dead scaffold branches; falls within proposed building footprint & within zone of heavy construction activites
733	Western Red Cedar - <i>Thuja plicata</i>	18 & 10	6.1	3.0	<b>Fair</b> - Located at west side of driveway to Keith Rd; group of 2 trees; not previously topped; low trunk taper; high live crown; falls within proposed building footprint & within zone of heavy construction activites
734	Vine Maple - <i>Acer circinatum</i>	10 to 15	6.1	4.0	<b>Fair</b> - located at west side of driveway adjacent to Keith Rd; previously topped at 3.0 m; mutli-stemmed; heavily pruned for clearance to Hydro; decay cavities visible; suckering growth; phototropic lean to the south; deadwood; buried root flares; Ivy growing up stems; falls outside the proposed building footprint & zone of heavy construction activites

735	Western Hemlock - <i>Tsuga heterophylla</i>	30	7.6	3.0	<b>Fair</b> - located at west side of driveway adjacent to Keith Rd; previously topped at 6.1 m; heavily pruned for clearance to Hydro; phototropic lean to the southeast; deadwood; buried root flares; Ivy growing up stem; falls within proposed building footprint & within zone of heavy construction activities
736	Vine Maple - <i>Acer circinatum</i>	10 to 20	6.1	3.0	<b>Fair</b> - located at west side of driveway adjacent to Keith Rd; previously topped at 3.0 m; multi-stemmed; heavily pruned for clearance to Hydro; decay cavities visible; suckering growth; phototropic lean to the south; deadwood; buried root flares; Ivy growing up stems; falls within proposed building footprint & within zone of heavy construction activities
737	Bigleaf Maple - <i>Acer macrophyllum</i>	20 to 45	13.7	5.0	<b>Fair</b> - located at east side of driveway to Keith Rd north of #736; previously topped at 3.0 m; multi-stemmed; 2 clusters of trees; decay cavities visible; suckering growth; phototropic lean to the southwest; deadwood; buried root flares; dead scaffold branches; sloughing bark; growing on a nurse stump; falls within proposed building footprint & within zone of heavy construction activities

\*DBH defn: Diameter at Breast Height = Diameter measurements were made at 1.4 m from grade. See attached Report for further info

\*Previously topped could be as a result of mechanical or natural means



RADIX TREE & LANDSCAPE CONSULTING

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# RECOMMENDATIONS

**825 Taylor Way & 707 Keith Rd, WV**

Milliken Developments  
**Attn:** Kate Milliken Binns  
901 W 3<sup>rd</sup> Street, Ste #334  
North Vancouver, BC  
V7P 3P9

November 28, 2012



**Recommendations**  
**825 Taylor Way & 707 Keith Rd, WV**

**28-Nov-12**

Tree Tag #	Species	DBH (cm)	Recommendations	Tree Protection Zone (msmt from base of tree)
605	Vine Maple - <i>Acer circinatum</i>	15	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; remove any Ivy growing on stem; tree protection req'd	at 1.5 m from base of tree or at dripline around entire grouping on all sides affected
606	Western Hemlock - <i>Tsuga heterphylla</i>	35	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; remove any Ivy growing on stem; tree protection req'd	at 2.25 m from base of tree or at dripline around entire grouping on all sides affected
607	Western Hemlock - <i>Tsuga heterphylla</i>	31.5	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; remove any Ivy growing on stem; tree protection req'd	at 2.25 m from base of tree or at dripline around entire grouping on all sides affected
608	Bigleaf Maple - <i>Acer macrophyllum</i>	7 to 25	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; remove any Ivy growing on stem; tree protection req'd	at 1.5 m from base of tree or at dripline around entire grouping on all sides affected
609	Western Hemlock - <i>Tsuga heterphylla</i>	35.5	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; remove any Ivy growing on stem; tree protection req'd	at 2.25 m from base of tree or at dripline around entire grouping on all sides affected
610	Western Hemlock - <i>Tsuga heterphylla</i>	39	<b>Remove</b> - tree is dead & already has experienced a stem failure	n/a
611	Western Hemlock - <i>Tsuga heterphylla</i>	17.5	<b>Remove</b> - tree is in a state of decline	n/a
612	Bigleaf Maple - <i>Acer macrophyllum</i>	18	<b>Remove</b> - falls outside the heaviest construction zone; tree is insignificant tree with poor architectural framework that would interfere with establishing proposed screening to neighbour; more suitable tree would be better for this location	n/a
613	Saucer Magnolia - <i>Magnolia soulangiana</i>	23 & 24	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning will be req'd to structural prune & remove any deadwood; tree protection req'd	at 2.5 m from south side; at 3.5 m from base of tree at east & west sides; extend to the fence line to the north



614	Limber Pine - <i>Pinus flexilis</i> cvs	10	<b>Retain &amp; montior</b> - falls near the location of retaining walls & the heaviest construction zone; transplanting to relocate to a more suitable area; tree protection req'd; <b>OR - Remove</b> - may not able to be properly cared for as a transplant during the construction period	at 1.2 m from base of tree or at dripline on all sides affected
615	Bigleaf Maple - <i>Acer macrophyllum</i>	24	<b>Remove</b> - falls near the zone of heavy construction activity but outside the bldg footprint; poor location with a low potential for improvement	n/a
616	Apple - <i>Malus</i> sp	19.5	<b>Remove</b> - falls near the zone of heavy construction activity but outside the bldg footprint; poor condition & poor location with a low potential for improvement	n/a
617	Western Red Cedar - <i>Thuja plicata</i>	100	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning will be req'd to mitigate any concerns of stem failure in co-dominant stems or to remove any deadwood; aerial inspection of previous topping point & possible supplemental support system recommended; remove any lvy growing on stem; tree protection req'd	at 4.0 - 5.0 m from base of tree or at dripline on all sides affected & to encompass with #618; <b>NB: this is a large tree near the excavation zone thus arborist must be on site during excavation around this tree</b>
618	Western Red Cedar - <i>Thuja plicata</i>	96	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning will be req'd to mitigate any concerns of stem failure in co-dominant stems or to remove any deadwood & provide clearance; aerial inspection of previous topping point & possible supplemental support system recommended; remove any lvy growing on stem; tree protection req'd	at 4.0 - 5.0 m from base of tree or at dripline on all sides affected & to encompass with #617; <b>NB: this is a large tree near the excavation zone thus arborist must be on site during excavation around this tree</b>
619	Vine Maple - <i>Acer circinatum</i>	10 & 20	<b>Retain &amp; montior</b> - falls outside the bldg footprint but near the heaviest construction zone; remove any lvy growing on stems; pruning to remove deadwood or structural prune; <b>OR - Remove</b> - poor location caused poor architectural form with a low potential for improvement	at 1.8 m from base of tree or at dripline on all sides affected; encompass with #617 & #618
620	Western Red Cedar - <i>Thuja plicata</i>	70	<b>Remove</b> - falls within close proximity to bldg footprint & within zone of heavy construction activity	n/a
621	Western Hemlock - <i>Tsuga heterophylla</i>	40.5	<b>Remove</b> - falls outside bldg footprint & near zone of heavy construction; removal will benefit better adjacent trees & mitigate any concerns with it failing into neighbouring property; more suitable tree would be better for this location	n/a

622	Holly - <i>Ilex aquifolium</i>	17.5	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning to provide form & maintain screening; remove any Ivy growing on stem; tree protection req'd	at 1.5 m from base of tree or at dripline on all sides affected; encompass with neighbouring trees
623	English Laurel - <i>Prunus laurocerasus</i>	19 to 25	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning to provide form & maintain screening; remove any Ivy growing on stem; tree protection req'd; <b>NB:</b> there may be the odd Laurel <b>removed</b> from this grouping that are the closest to the construction activities to accomodate the proposed retaining walls	at 1.5 m from base of tree or at dripline on all sides affected; encompass with neighbouring trees
624	broken tag			
625	Western Hemlock - <i>Tsuga heterophylla</i>	75	<b>Remove</b> - falls within close proximity to bldg footpring & zone of heavy construction activity for retaining walls	n/a
626	Western Hemlock - <i>Tsuga heterophylla</i>	23.5	<b>Remove</b> - falls within close proximity to bldg footpring & zone of heavy construction activity for retaining walls	n/a
627	Western Hemlock - <i>Tsuga heterophylla</i>	22.5	<b>Remove</b> - falls within close proximity to bldg footpring & zone of heavy construction activity for retaining walls	n/a
628	Western Hemlock - <i>Tsuga heterophylla</i>	26.5	<b>Remove</b> - falls with close proximity to bldg footpring & zone of heavy construction activity for retaining walls	n/a
629	Western Red Cedar - <i>Thuja plicata</i>	34	<b>Remove</b> - falls with close proximity to bldg footpring & zone of heavy construction activity for retaining walls	n/a
630	Douglas fir - <i>Pseudotsuga menziesii</i>	75	<b>Remove</b> - falls with close proximity to bldg footpring & zone of heavy construction activity for retaining walls	n/a
631	Western Red Cedar - <i>Thuja plicata</i>	86	<b>Remove</b> - falls with close proximity to bldg footpring & zone of heavy construction activity for retaining walls	n/a
632	Bigleaf Maple - <i>Acer macrophyllum</i>	40 & 48	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone for retaining walls; pruning will be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 3.5 m from base of tree or at dripline on all sides affected to encompass with #633 & #634
633	Vine Maple - <i>Acer circinatum</i>	8 & 10	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone for retaining walls; pruning will be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 1.2 m from base of tree or at dripline on all sides affected or to encompass with #632 & #634
634	Western Hemlock - <i>Tsuga heterophylla</i>	61	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone for retaining walls; pruning will be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 3.5 m from base of tree or at dripline on all sides affected; encompass with #632 & #633

635	Western Red Cedar - <i>Thuja plicata</i>	18	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone for retaining walls; pruning will be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 1.2 m from base of tree or at dripline on all sides affected encompass with #634 & #636
636	Cypress - <i>Chamaecyparis</i> sp	35 & 29	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone for retaining walls; pruning will be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 3.0 m from base of tree or at dripline on all sides affected encompass with #634 & #635
637	Western Red Cedar - <i>Thuja plicata</i>	23	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd; <b>OR Remove</b> - may be impacted by decommissioning of existing driveway at Taylor Way	at no less than 2.0 m from base of tree or at dripline on all sides affected to encompass with neighbouring trees
638	Western Hemlock - <i>Tsuga heterophylla</i>	15 & 17	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd; <b>OR Remove</b> - may be impacted by decommissioning of existing driveway at Taylor Way	at no less than 2.0 m from base of tree or at dripline on all sides affected to encompass with neighbouring trees
639	Western Hemlock - <i>Tsuga heterophylla</i>	25	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.0 m from base of tree or at dripline on all sides affected to encompass with neighbouring trees
640	Bigleaf Maple - <i>Acer macrophyllum</i>	105	<b>Remove</b> - falls near but outside the heaviest construction zone; has already experienced a failure in upper canopy; not expected to be long term tree on this site; poor condition with a low potential for improvement	n/a
641	Western Hemlock - <i>Tsuga heterophylla</i>	33	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 2.25 m from base of tree or at dripline on all sides affected to encompass entire group
642	Western Red Cedar - <i>Thuja plicata</i>	16	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
643	Western Hemlock - <i>Tsuga heterophylla</i>	89	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
644	Pacific Dogwood - <i>Cornus nuttallii</i>	15	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 1.2 m from base of tree or at dripline on all sides affected to encompass with neighbouring trees

645	Douglas fir - <i>Pseudotsuga menziesii</i>	19	<b>Retain &amp; montior</b> - falls near but outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 1.2 m from base of tree or at dripline on all sides affected to encompass with neighbouring trees
646	Western Hemlock - <i>Tsuga heterophylla</i>	31.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
647	Bigleaf Maple - <i>Acer macrophyllum</i>	102	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
648	Western Hemlock - <i>Tsuga heterophylla</i>	17	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
649	Bigleaf Maple - <i>Acer macrophyllum</i>	17	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
650	Bigleaf Maple - <i>Acer macrophyllum</i>	76	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
651	Western Hemlock - <i>Tsuga heterophylla</i>	24.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
652	Western Hemlock - <i>Tsuga heterophylla</i>	20	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
653	Tulip Tree - <i>Liriodendron tulipifera</i>	78	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
654	Western Hemlock - <i>Tsuga heterophylla</i>	21	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
655	Western Hemlock - <i>Tsuga heterophylla</i>	21.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
656	Western Red Cedar - <i>Thuja plicata</i>	42	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
657	Western Hemlock - <i>Tsuga heterophylla</i>	27	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
658	Western Red Cedar - <i>Thuja plicata</i>	125	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
659	Western Hemlock - <i>Tsuga heterophylla</i>	22	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
660	Western Hemlock - <i>Tsuga heterophylla</i>	41.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
661	Western Hemlock - <i>Tsuga heterophylla</i>	52	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a



662	Bigleaf Maple - <i>Acer macrophyllum</i>	10 to 12	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
663	Bigleaf Maple - <i>Acer macrophyllum</i>	10 to 20	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
664	Cherry - <i>Prunus emarginata</i>	20	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
665	Bigleaf Maple - <i>Acer macrophyllum</i>	7 to 15	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
666	Western Hemlock - <i>Tsuga heterophylla</i>	16	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
667	Western Hemlock - <i>Tsuga heterophylla</i>	19.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
668	Western Hemlock - <i>Tsuga heterophylla</i>	21.5	<b>Retain &amp; monitor</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 1.5 m from tree or at dripline on all sides affected to encompass as group with neighbouring trees
669	Pacific Dogwood - <i>Cornus nuttallii</i>	21	<b>Retain &amp; monitor</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 1.5 m from tree or at dripline on all sides affected to encompass as group with neighbouring trees
670	Western Hemlock - <i>Tsuga heterophylla</i>	19	<b>Retain &amp; monitor</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 1.5 m from tree or at dripline on all sides affected to encompass as group with neighbouring trees
671	Western Red Cedar - <i>Thuja plicata</i>	150	<b>Retain &amp; monitor</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 4.0 - 5.0 m from tree or dripline on all sides affected to encompass with neighbouring trees; <b>NB: this is a large tree near the excavation zone thus arborist must be on site during excavation around this tree</b>
672	Western Hemlock - <i>Tsuga heterophylla</i>	18.5	<b>Retain &amp; monitor</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 1.5 m from tree or at dripline on all sides affected to encompass with neighbouring trees

673	Pacific Dogwood - <i>Cornus nuttallii</i>	45	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.7 m from tree or at dripline on all sides affected to encompass with neighbouring trees
674	Douglas fir - <i>Pseudotsuga menziesii</i>	47	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.7 m from tree or at dripline on all sides affected to encompass with neighbouring trees
675	Red Alder - <i>Alnus rubra</i>	30	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.0 m from tree or at dripline on all sides affected to encompass with neighbouring trees; along sidewalk edge at east side
676	Red Alder - <i>Alnus rubra</i>	50	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 3.0 m from tree or at dripline on all sides affected to encompass with neighbouring trees; along sidewalk edge at east side
677	Red Alder - <i>Alnus rubra</i>	40	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.7 m from tree or at dripline on all sides affected to encompass with neighbouring trees; along sidewalk edge at east side
678	Red Alder - <i>Alnus rubra</i>	45	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.7 m from tree or at dripline on all sides affected to encompass with neighbouring trees; along sidewalk edge at east side
679	Bigleaf Maple - <i>Acer macrophyllum</i>	15 & 10	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.0 m from tree or at dripline on all sides affected to encompass with neighbouring trees; along sidewalk edge at east side
680	Western Red Cedar - <i>Thuja plicata</i>	71	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
681	Western Red Cedar - <i>Thuja plicata</i>	20	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
682	Western Red Cedar - <i>Thuja plicata</i>	31	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
683	Western Red Cedar - <i>Thuja plicata</i>	17.5	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a

684	Western Hemlock - <i>Tsuga heterophylla</i>	35.5 & 19.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
685	Western Red Cedar - <i>Thuja plicata</i>	16	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
686	Vine Maple - <i>Acer circinatum</i>	10 to 17	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
687	Western Hemlock - <i>Tsuga heterophylla</i>	31	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
688	Western Hemlock - <i>Tsuga heterophylla</i>	46	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
689	Western Hemlock - <i>Tsuga heterophylla</i>	48	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
690	Western Hemlock - <i>Tsuga heterophylla</i>	34.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
691	Western Hemlock - <i>Tsuga heterophylla</i>	35	<b>Retain &amp; monitor</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any ivy growing on stem; tree protection req'd	at no less than 2.0 m from tree or at dripline on all sides affected to encompass with neighbouring trees
692	Western Hemlock - <i>Tsuga heterophylla</i>	35.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
693	Western Red Cedar - <i>Thuja plicata</i>	17.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
694	Western Hemlock - <i>Tsuga heterophylla</i>	27.5	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
695	Western Hemlock - <i>Tsuga heterophylla</i>	40	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
696	Western Hemlock - <i>Tsuga heterophylla</i>	25	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
697	Western Hemlock - <i>Tsuga heterophylla</i>	28	<b>Remove</b> - falls within proposed bldg footprint & zone of heavy construction activity	n/a
698	Western Hemlock - <i>Tsuga heterophylla</i>	38	<b>Retain &amp; monitor</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any ivy growing on stem; tree protection req'd	at no less than 2.5 m from tree or at dripline on all sides affected to encompass with neighbouring trees

699	Bigleaf Maple - <i>Acer macrophyllum</i>	40	<b>Retain &amp; montior</b> - falls outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.5 m from tree or at dripline on all sides affected to encompass with neighbouring trees
700	Western Hemlock - <i>Tsuga heterophylla</i>	26.5	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
701	Western Hemlock - <i>Tsuga heterophylla</i>	26	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
702	Silver Birch - <i>Betula pendula</i>	35	<b>Remove</b> - falls outside proposed bldg footpring & zone of heavy construction activity; removal would be beneficial to other trees	n/a
703	Western Hemlock - <i>Tsuga heterophylla</i>	41	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
704	Western Hemlock - <i>Tsuga heterophylla</i>	35.5	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.5 m from tree or at dripline on all sides affected to encompass with neighbouring trees
705	Vine Maple - <i>Acer circinatum</i>	7 to 12	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
706	Western Hemlock - <i>Tsuga heterophylla</i>	27	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.5 m from tree or at dripline on all sides affected to encompass with neighbouring trees
707	broken tag			
708	English Laurel - <i>Prunus laurocerasus</i>	25	<b>Retain &amp; montior</b> - falls outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 1.5 m from base of tree or at dripline on all sides affected to encompass neighbouring trees
709	Bigleaf Maple - <i>Acer macrophyllum</i>	55	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 3.3 m from tree or at dripline on all sides affected to encompass with neighbouring trees
710	Western Red Cedar - <i>Thuja plicata</i>	98	<b>Retain &amp; montior</b> - falls outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 4.0 - 5.0 m from base fo tree or at dripline on all sides affected to encompass neighbouring trees



711	Bigleaf Maple - <i>Acer macrophyllum</i>	65	<b>Retain &amp; montior</b> - falls outside the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at 3.0 m from base of tree or at dripline on all sides affected to encompass neighbouring trees
712	Western Hemlock - <i>Tsuga heterophylla</i>	30	<b>Remove</b> - falls outside but near the heaviest construction zone; already has experienced a root failure; more suitable tree would be better in this location	n/a
713	Western Hemlock - <i>Tsuga heterophylla</i>	41	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
714	Western Red Cedar - <i>Thuja plicata</i>	45	<b>Retain &amp; montior</b> - falls outside but near the heaviest construction zone; pruning may be req'd to structural prune & remove any deadwood; remove any Ivy growing on stem; tree protection req'd	at no less than 2.7 m from tree or at dripline on all sides affected to encompass with neighbouring trees
715	Western Hemlock - <i>Tsuga heterophylla</i>	31	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
716	Western Hemlock - <i>Tsuga heterophylla</i>	41.5	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
717	Bigleaf Maple - <i>Acer macrophyllum</i>	27 & 20	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
718	Western Hemlock - <i>Tsuga heterophylla</i>	45	<b>Remove</b> - falls within proposed bldg footpring & zone of heavy construction activity	n/a
719	Western Hemlock - <i>Tsuga heterophylla</i>	40	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
720	Western Hemlock - <i>Tsuga heterophylla</i>	55	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
721	Western Red Cedar - <i>Thuja plicata</i>	15 to 22	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
722	Western Red Cedar - <i>Thuja plicata</i>	8 to 17	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
723	Western Red Cedar - <i>Thuja plicata</i>	17.5 & 27	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
724	Western Red Cedar - <i>Thuja plicata</i>	63	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a

725	Bigleaf Maple - <i>Acer macrophyllum</i>	20 to 30	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance, parking stalls & main access to site	n/a
726	Western Red Cedar - <i>Thuja plicata</i>	19	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
727	Western Red Cedar - <i>Thuja plicata</i>	37	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
728	Western Red Cedar - <i>Thuja plicata</i>	43.5	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
729	Bigleaf Maple - <i>Acer macrophyllum</i>	18 to 25	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
730	Bigleaf Maple - <i>Acer macrophyllum</i>	7 to 15	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance, parking stalls & main access to site	n/a
731	Western Red Cedar - <i>Thuja plicata</i>	15	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance, parking stalls & main access to site	n/a
732	Bigleaf Maple - <i>Acer macrophyllum</i>	25	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
733	Western Red Cedar - <i>Thuja plicata</i>	18 & 10	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance, parking stalls & main access to site	n/a
734	Vine Maple - <i>Acer circinatum</i>	10 to 15	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
735	Western Hemlock - <i>Tsuga heterophylla</i>	30	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
736	Vine Maple - <i>Acer circinatum</i>	10 to 20	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a
737	Bigleaf Maple - <i>Acer macrophyllum</i>	20 to 45	<b>Remove</b> - falls within bldg footpring & zone of heavy construction activity for driveway entrance & main access to site	n/a