

November 27, 2023

FOI No: 2023-53

VIA E-MAIL – **Redacted S. 22**

**Redacted S. 22**  
[Redacted]

Dear **Redacted S. 22**

Re: Request for Records  
Freedom of Information and Protection of Privacy Act

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The City of White Rock has reviewed your request for access to the following records pursuant to the Freedom of Information and Protection of Privacy Act (the “Act”):

*For 975 Kent Street – Tree Assessment Report (on City tree) performed August 2023.  
Please provide copies of detailed report. I have been informed of installation of cables on the tree and remove weighted branches as of October 20, 2023. Further detailed information of the report itself is being requested.*

Access to the records requested is available (attached is requested report dated Aug 14, 2023), however, some of the information in the records is excepted from the disclosure requirements of the Act. I have severed the excepted information so that I could disclose to you the remaining information as attached.

The severed information is excepted from disclosure under section 22 of the Act. Severing under section 22 is necessary to avoid disclosing third-party personal information without permission.

Please contact me if you have any questions or concerns.

Sincerely,



Tracey Arthur  
Director of Corporate Administration

Att.

**Corporate Administration**  
P: 604.541.2212 | F: 604.541.9348

**City of White Rock**  
15322 Buena Vista Avenue, White Rock BC, Canada V4B 1Y6

**WHITE ROCK**  
*City by the Sea!*

[www.whiterockcity.ca](http://www.whiterockcity.ca)

If you believe that the City of White Rock has been unreasonable in its handling of your request, you may ask the Information and Privacy Commissioner to review our response. You have 30 days from receipt of this notice to request a review by writing to:

Office of the Information and Privacy Commissioner for British Columbia  
PO Box 9038 Stn. Prov. Govt.  
Victoria BC, V8W 9A4

Telephone 250-387-5629  
E-mail: [info@oipc.bc.ca](mailto:info@oipc.bc.ca)

Should you decide to request a review, please provide the Commissioner's office with:

1. your name, address and telephone number;
2. a copy of this letter;
3. a copy of your original request sent to the City of White Rock; and
4. the reasons or grounds upon which you are requesting the review.

# BC PLANT HEALTH CARE INC.

## ARBORIST REPORT

**JOB NAME:** City of White Rock 20230720

**RE:** Arborist Report for a Tree Risk Assessment

**SITE:** 975 Kent Street, White Rock, BC V4B 4S9

**PREPARED FOR:** City of White Rock  
Mr. Justin Schneider  
877 Keil Street, White Rock, BC V4B 4V6  
Work: 604-575-8727  
Email: [JSchneider@WhiteRockCity.ca](mailto:JSchneider@WhiteRockCity.ca)

**DATE:** August 14<sup>th</sup>, 2023

**PROJECT ARBORIST:** Thomas Walz

ISA Board Certified Master Arborist #PN-5960BT  
ISA Certified Tree Worker Climber Specialist  
ISA Tree Risk Assessment Qualification  
Wildlife Dangerous Tree Assessor #P3006  
WUAA/HEBC Falling & Bucking Endorsement #98  
TCIA Certified Treecare Safety Professional #866  
BC C of Q Arborist Technician #00017-TA-10  
BC C of Q Climbing Arborist #00007-TB-13  
ASCA Consulting Academy Graduate

18465 53rd Avenue | Phone: 604-575-8727  
Surrey, BC, V3S 7A4 | Fax: 604-576-2972  
Email: [info@bcplanthealthcare.com](mailto:info@bcplanthealthcare.com)  
24 Hour Emergency Pager 604-607-1616



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## 1.0 Introduction

BC Plant Health Care Inc. has been contracted by Mr. Justin Schneider of City of White Rock to provide an *Arborist Report for a Tree Risk Assessment* for [1] *Sequoiadendron giganteum* (giant redwood) located on the municipal boulevard fronting 975 Kent Street, White Rock, BC V4B 4S9. The tree is listed on the City inventory as tree ID 1518. The scope of work was to visit the site, inspect site conditions and surrounding influences, perform a ground-based visual tree assessment, and evaluate tree risk given a 3-year time frame. The purpose of this assignment was to prepare an *Arborist Report for a Tree Risk Assessment* with recommendations and specifications to manage undue tree risk.

I, Tom Walz, of BC Plant Health Care Inc. visited the site and performed the assessment on August 3<sup>rd</sup>, 2023. Tools used were:

- A diameter tape
- A mallet for testing soundness
- A camera for documenting findings

Information considered and collected during the assessment included:

- Genus/species, common name
- Diameter at breast height (DBH)
- Estimated height
- General health and condition
- Live crown ratio
- Trunk lean
- Age
- Risk conditions
- Target evaluation

The assessment was performed in accordance with the American National Standards Institute (ANSI) *A300 Tree Risk Assessment Standard a. Tree Failure - Part 9*, and the International Society of Arboriculture (ISA) *Best Management Practices - Tree Risk Assessment, Second Edition*. The assessment was performed with the visual tree assessment (VTA) method, which is a method of assessing the structural integrity of trees using external symptoms of mechanical stress (such as bulges, reactive growth, etc.) and defects (cracks, cavities, etc.).

The ISA Tree Risk Assessment Qualification (TRAQ) model was used to determine:

- Likelihood of failure
- Likelihood of impacting the target
- Consequences of failure

These likelihood assertions were combined in matrixes to determine the overall risk ratings.

This *Report* was completed on August 14<sup>th</sup>, 2023.

## 2.0 Observations and Discussion

### 2.1 Site Conditions

The tree location is shown in *Figure 1*:

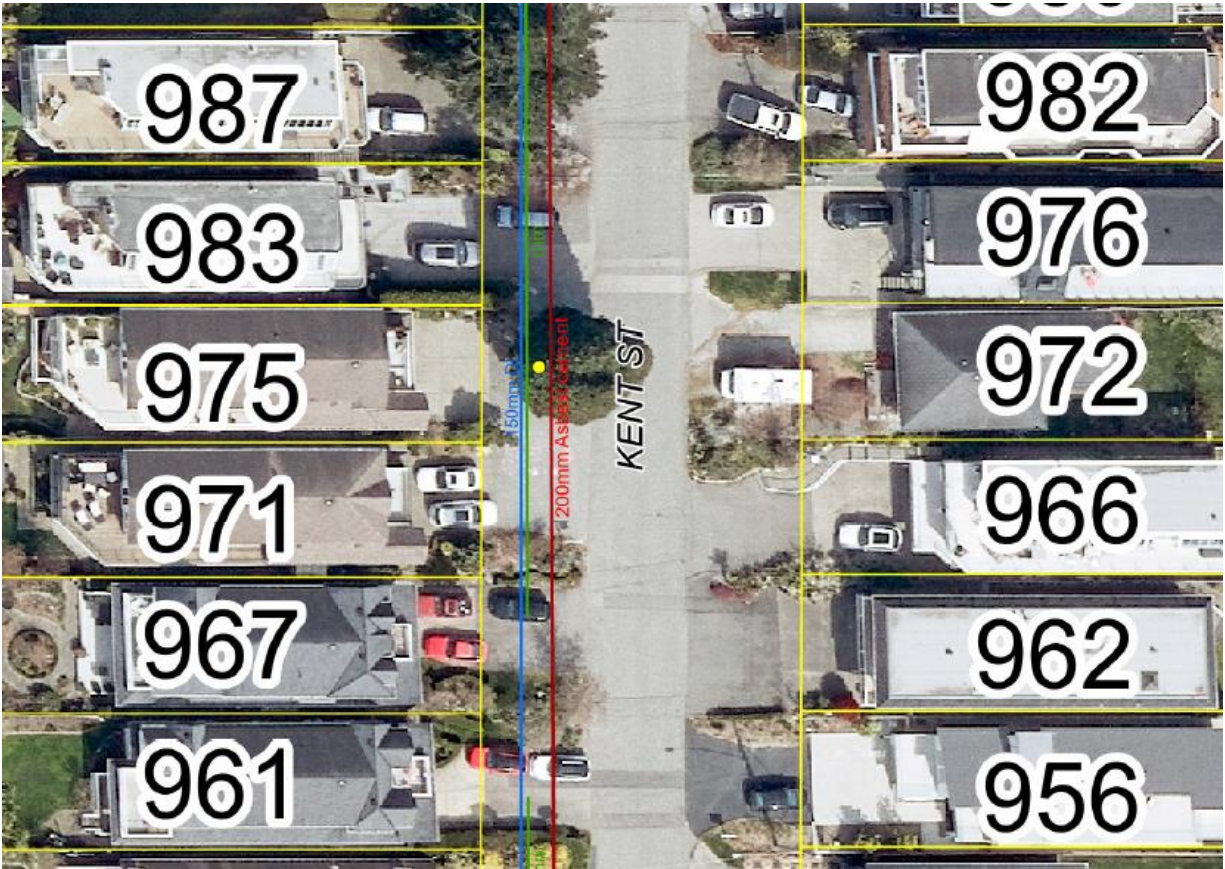


Figure 1. Aerial Site Map

With reference to the simulated wind data of White Rock retrieved from meteoblue website (Figures 2 and 3), wind generally blows from the south-southwest and northeast in the area where the tree is located. Wind speeds higher than 38 km/h occur infrequently between November and March.

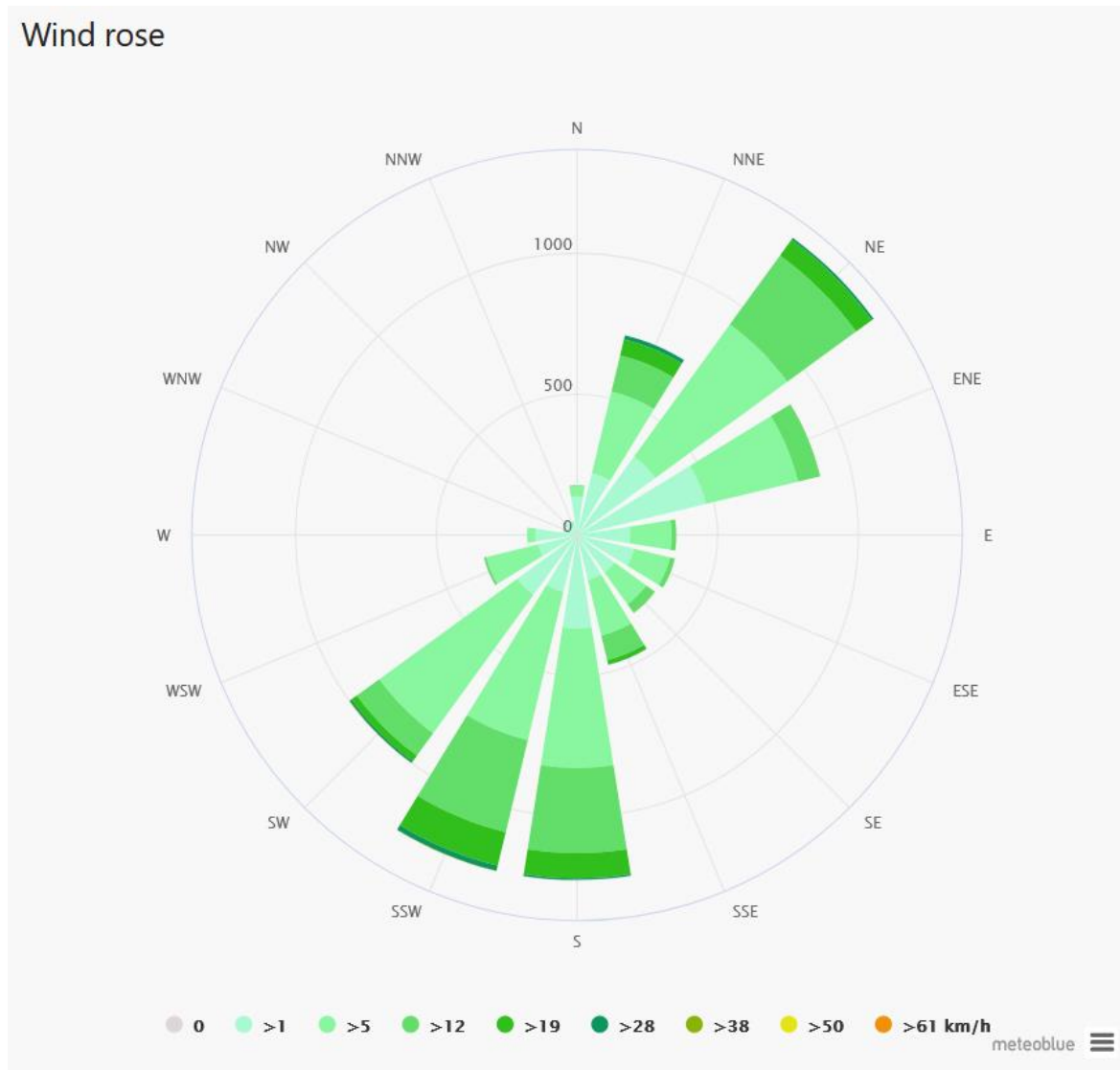


Figure 2. Wind rose showing how many hours per year the wind blows from the indicated direction. Retrieved from <https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/white-rock-canada-6180961>

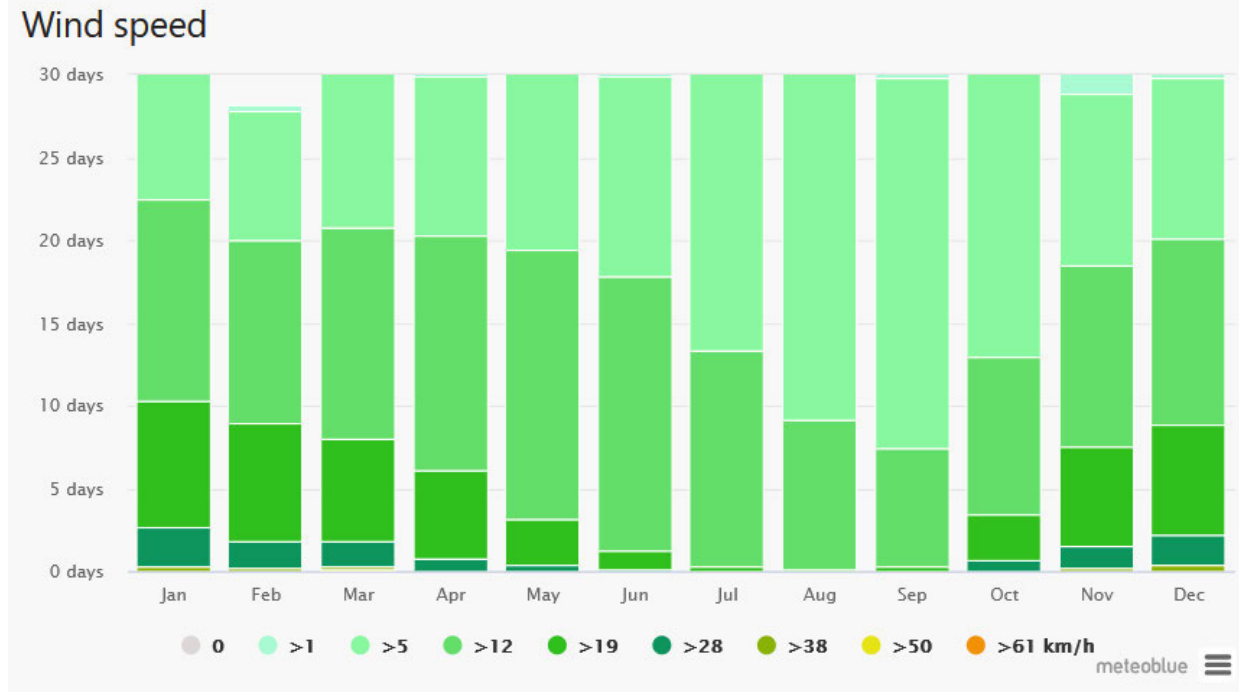


Figure 3. Diagram showing the days per month, during which the wind reaches a certain speed. Retrieved from <https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/white-rock-canada-6180961>



## 2.2 Tree Conditions

This tree is a dominant tree on the landscape and appears to be a mature specimen. It was measured 1.56 cm DBH and 1.4 m above the grade. It was measured to be approximately 26 m tall, having a crown spread of nearly 9 meters. It has 3 main codominant stems originating at about 4 m above grade with their individual crown masses oriented as follows:

- Stem 1 – oriented 195 degrees south-southwest
- Stem 2 – oriented 300 degrees northwest
- Stem 3 – oriented 20 degrees north-northeast

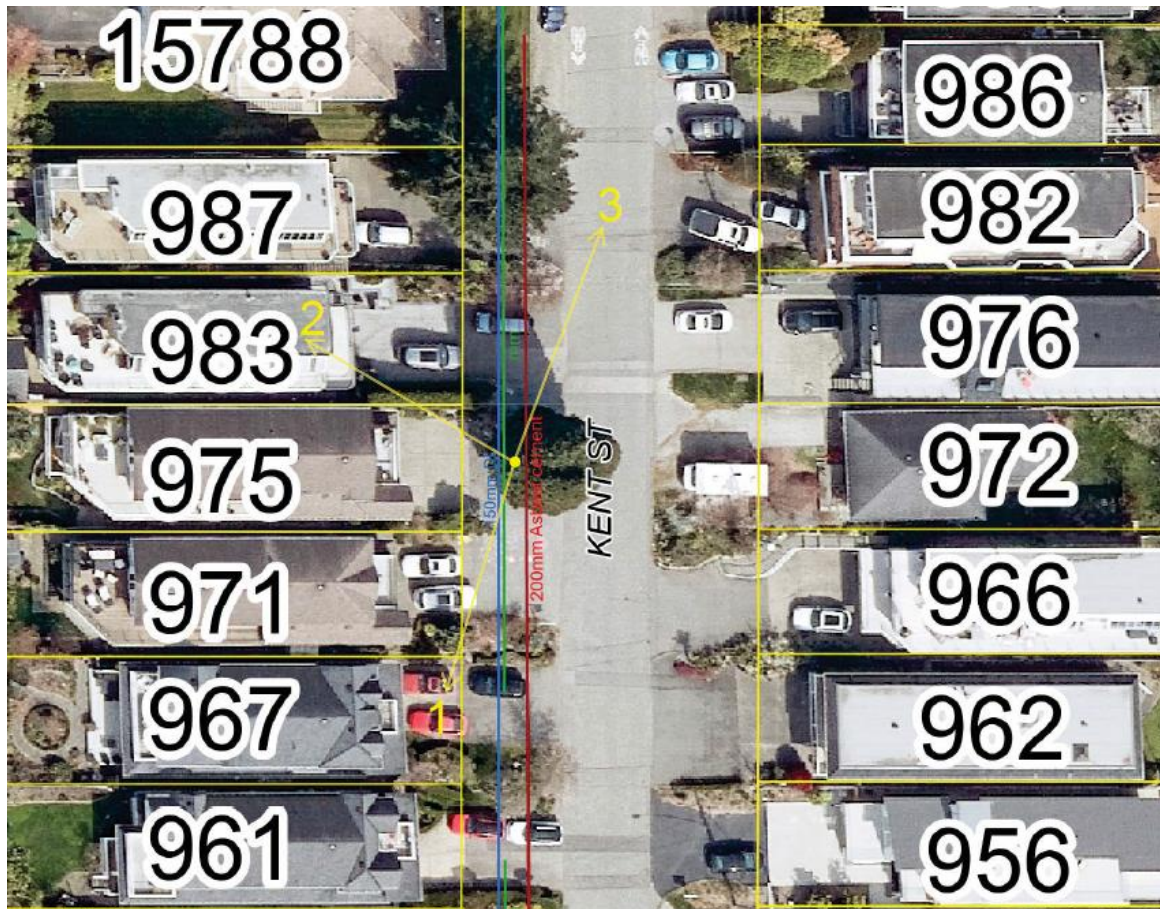


Figure 4. Orientation of 3 codominant stems



Photo 1. profile of tree viewed from the east

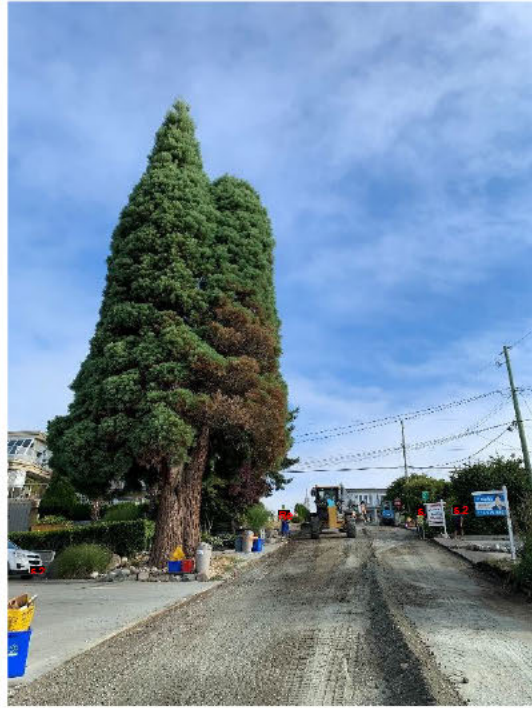


Photo 2. profile of tree viewed from the south



Photo 3. stem 3 (left), stem 2 (right) viewed from the north



Photo 4. stem 3 (left), stem 2 (right) viewed from the north



Photo 5. stem 1 (left), stem 3 (right) viewed from the south

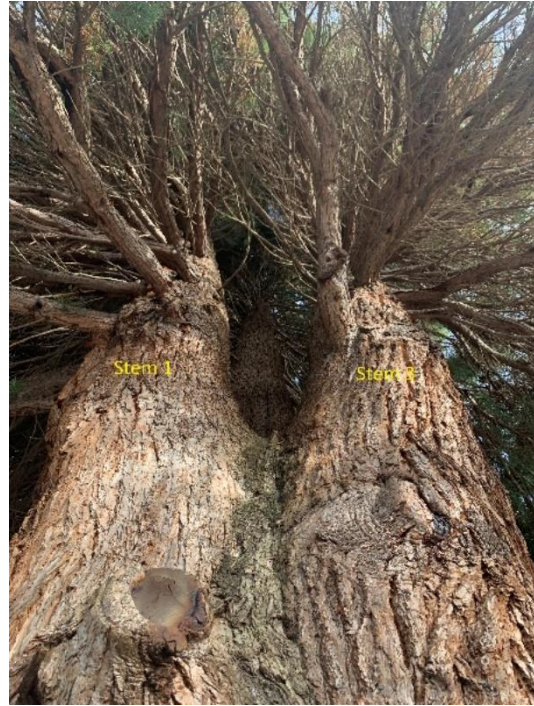


Photo 6. stem 1 (left), stem 3 (right) viewed from the south



Photo 7. stem 2 (left), stem 1 (right) viewed from the west



Photo 8. stem 2 (left), stem 1 (right) viewed from the west

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The 3 codominant stems varied in height; stem 2 was the tallest of the 3. Included bark was observed to varying degrees at each of the unions, however, none of the unions appeared to have cracks, splits, decay, or separation. Response growth (growth in compression and overlapping secondary growth) was evident at, below and above each stem, and the body language of the canopy did not suggest that the stems were moving away from each other or that environmental loads were causing significant strain on the unions.

A fungal infection, possibly *Botryosphaeria dothidea*, was observed on the southeast side of the lower canopy, affecting approximately 10-15% of the live crown. Symptoms included foliar blight, die-back and sunken stem cankers.



Photo 9. disease symptoms viewed from the east



Photo 10. foliar blight



Photo 11. disease symptoms viewed from the south



Photo 12. sunken stem cankers

The tree also exhibited several scaffold branches in the lower canopy with shear plane cracks near the branch unions resulting from environmental loads (i.e., snow, winds, water) and/or the loss of supporting lower canopy branches from canopy raising pruning practices. The shear plane cracks appeared to somewhat recent in nature, none of which appeared to be actively failing.



Photo 13. shear plane cracks on lower canopy branches



Photo 14. shear plane cracks on lower canopy branches

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## 3.0 Conclusions

This assessment has identified two risk conditions of concern:

- **Risk condition #1:** [3] codominant stems with included bark in the lower canopy. Stem 2 presented the greatest degree of concern due to its height and orientation relative to high value property.
  - Stem 1 oriented 195 degrees south-southwest targets vehicles and occupants at 975, 971 and 967 Kent St (frequent occupancy).
  - Stem 2 oriented 300 degrees northwest targets the house and occupants at 983 Kent St (constant occupancy)
  - Stem 3 oriented 20 degrees north-northeast targets Kent St (occasional occupancy) and overhead utility lines (constant occupancy).
- **Risk condition #2:** lower canopy scaffold branches on the south aspect of the tree with shear plane cracks.

The following is the risk analysis for the condition of concern #1:

- **Conditions of concern:** Stem 2 oriented 300 degrees northwest.
- **Likelihood of failure:** **Possible** – Whole tree failure may be expected in extreme weather conditions, but it is unlikely during normal weather conditions within 3 years.
- **Target:** house and occupants at 983 Kent Street, White Rock.
- **Likelihood of impacting the target:** **High** – the failed tree part is likely to impact the target. This is the case when there is a constant target with no protection factors, and the direction of fall is toward the target.
- **Consequences of failure:** **Severe** – serious personal injury or death, high-value property damage, or major disruption of important activities.
- **Risk rating:** **Moderate** – the tree risk assessor may recommend mitigation and/or retaining and monitoring. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or manager.

The following is the risk analysis for the condition of concern #2:

- **Conditions of concern:** Lower canopy scaffold branches on the south aspect of the tree with shear plane cracks.
- **Likelihood of failure:** **Possible** – scaffold branch failure may be expected in extreme weather conditions, but it is unlikely during normal weather conditions within 3 years.
- **Target:** parked vehicles and occupants at 975 Kent Street, White Rock with frequent occupancy.
- **Likelihood of impacting the target:** **Medium** – the failed tree or tree part could impact the target but is not expected to do so. This is the case for people in a frequently used area when the direction of fall may or may not be toward the target.
- **Consequences of failure:** **Minor** – minor personal injury, low-to-moderate value property damage, or small disruption of activities.
- **Risk rating:** **Low** – some trees with this level of risk may benefit from mitigation and maintenance measures, but immediate action is not usually required. Tree risk assessors may recommend retaining and monitoring these trees, as well as mitigation that does not include removal of the tree.

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## 4. Recommendations

For risk condition 1, this report recommends the following mitigation measures:

- Install [3] static steel 7-strand 3/8-inch common grade cables with hand-spliced terminations to 5/8 inch through-bolts and 1/2 inch amon-eyes in a triangular pattern. The support system is to be installed in the upper 1/3 of the tree where stem diameters are 30-40 cm. Due to the fungal infection, pruning shall be minimized to prevent creating infection sites.
- Residual risk - LOF (improbable), LOI (low), CON (severe) - Low.

For risk condition 1, this report recommends the following mitigation measures:

- Remove defective branches, or thin end-weight of branches. Horticultural practices such as pruning of the infected branches should be done during dry periods to prevent infection by water splashed spores causing further foliar die-back and stem cankers.
- Residual risk - Low.

Regarding the fungal infection affecting the lower portion of the canopy, this report identifies a common biotic disease-causing agent of giant redwood to be *Botryosphaeria dothidea*, however, tissue samples and laboratory tests would be required for positive identification. Managing canker disease is primarily a matter of managing factors that predispose woody plants to the disease. Successive dry years (low rainfall) exacerbate canker diseases as plants grown under drought stress conditions have abundant dead branches that have not been pruned away, many containing fruiting bodies. Applying supplemental irrigation during low rainfall periods (such as summer or fall) or in the spring of low rainfall years may help plants resist these canker-forming fungi. When irrigating, don't let water hit the canopy or trunk of the tree. Water should be applied under the canopy but away from the main stem or trunk; this is a particular challenge on this site due to the encroachment of paved surfaced close to the base of the tree which limits permeable surfaces which could be watered. Consider using coarse wood chip mulches to slow evaporation from soil surfaces to conserve soil moisture.

Should you have any questions or concerns, please do not hesitate to contact me.

Yours truly,

**BC PLANT HEALTH CARE INC.**



Thomas Walz

ISA Board Certified Master Arborist #PN-5960BT  
ISA Tree Risk Assessment Qualification

Tree #	Species	Common Name	Site Description	Diameter	Height (m)	Trunk Lean	General Health	Live Crown Ratio	Age	Bylaw Class	Risk Condition - Location	Risk Condition - Defect	Risk Condition - Notes	Risk Condition - Severity	Risk Condition - Target Zone  Occ.  Move  Restrict	Risk Condition - Likelihood of Failure	Risk Condition - Likelihood of Impact	Risk Condition - Consequences	Risk Condition - Risk Rating	Risk Condition - Mitigation	Assessment Notes
1518	Sequoiadendron giganteum	Giant sequoia	City boulevard tree ID 1518. Sierra redwood, giant redwood, Cupressaceae.	156	26	0	Fair	>50%	Mature (40+)	Municipal	Trunk	Co-dominant stems (low)	Stem 1 - oriented 195 degrees south-southwest Stem 2 - oriented 300 degrees northwest Stem 3 - oriented 20 degrees north-northeast	Major	Stem 1 - Vehicles/parking (frequent occupancy) at 975, 971, 967 Kent St. Stem 2 - Vehicles/parking (frequent occupancy) and house (constant occupancy) at 983 Kent St Stem 3 - Kent St (occasional occupancy) and overhead utilities (constant occupancy) Within 1 X Ht Constant No No	Possible	High	Severe	Moderate	Install [3] static steel hand-spliced 7-strand 3/8 inch common grade cables terminated to 5/8 inch through-bolt to 1/2 inch amon-eyes in a triangular pattern. Support system to be installed in the upper 1/3 of the tree where stem diameters are 30-40 cm. Due to the fungal infection, pruning shall be minimized to prevent infection sites.  Residual risk - LOF (improbable), LOI (low), CON (severe) - Low.	Fungal canker infection (possibly Botryosphaeria dothidea) observed on southeast side of canopy, affecting approximately 10-15% of live crown. Symptoms include foliar blight and stem cankers.
											Scaffolds	Cracks / Splits	Shear plane cracks were noted on a few lower lateral branches due to heavy natural branch load.	Minor	Vehicles/parking at 975 Kent St (frequent occupancy).  Within Drip Line  Frequent No No	Possible	Medium	Minor	Low	Remove defective branches, or thin end-weight of branches. Horticultural practices such as pruning of the infected branches should be done during dry periods to prevent infection by water splashed spores causing further foliar die-back and stem cankers.  Residual risk - Low.	



## B. Qualitative Tree Risk Assessment Guidelines (TRAQ)

*Qualitative risk assessment* is the process of using ratings of the likelihood and consequences of an event to determine a risk level and evaluate the level of risk against qualitative criteria.

This matrix is used to <i>estimate the likelihood of a tree failure impacting a specified target</i>				
<u>Likelihood of Failure</u>	<u>Likelihood of Impact</u>			
	<i>Very Low</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>
<i>Imminent</i>	Unlikely	Somewhat likely	Likely	Very likely
<i>Probable</i>	Unlikely	Unlikely	Somewhat likely	Likely
<i>Possible</i>	Unlikely	Unlikely	Unlikely	Somewhat likely
<i>Improbable</i>	Unlikely	Unlikely	Unlikely	Unlikely

### Likelihood of Failure

**Improbable** – the tree or tree part is not likely to fail during normal weather conditions and may not fail in extreme weather conditions within the specified time frame.

**Possible** – failure may be expected in extreme weather conditions, but it is unlikely during normal weather conditions within the specified time frame.

**Probable** – failure may be expected under normal weather conditions within the specified time frame.

**Imminent** – failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. This is an infrequent occurrence for a risk assessor to encounter, and it may require immediate action to protect people from harm. The imminent category overrides the stated time frame.

### Likelihood of Impact

**Very low** – the chance of the failed tree or tree part impacting the specified target is remote. Likelihood of impact could be very low if the target is outside the anticipated target zone or if occupancy rates are rare. Another example of very low likelihood of impact is people in an occasionally used area with protection against being struck by the tree failure due to the presence of other trees or structures between the tree being assessed and the targets.

**Low** – there is a slight chance that the failed tree or tree part will impact the target. This is the case for people in an occasionally used area with no protection factors and no predictable direction of fall, a frequently used area that is partially protected, or a constant target that is well protected from the assessed tree. Examples are vehicles on an occasionally used service road next to the assessed tree, or a frequently used street that has a large tree providing protection between vehicles on the street and the assessed tree.

**Medium** – the failed tree or tree part could impact the target but is not expected to do so. This is the case for people in a frequently used area when the direction of fall may or may not be toward the target. An example of a medium likelihood of impacting people could be passengers in a car traveling on an arterial street (frequent occupancy) next to the assessed tree with a large, dead branch over the street.

**High** – the failed tree or tree part is likely to impact the target. This is the case when there is a constant target with no protection factors, and the direction of fall is toward the target.

Risk rating matrix showing the *level of risk as the combination of likelihood of a tree failing and impacting a specified target, and severity of the associated consequences.*

<i>Likelihood of Failure and Impact</i>	<i>Consequences of Failure</i>			
	<i>Negligible</i>	<i>Minor</i>	<i>Significant</i>	<i>Severe</i>
<i>Very likely</i>	Low	Moderate	High	Extreme
<i>Likely</i>	Low	Moderate	High	High
<i>Somewhat likely</i>	Low	Low	Moderate	Moderate
<i>Unlikely</i>	Low	Low	Low	Low

**Consequences of Failure**

**Negligible** – no personal injury, low-value property damage, or disruptions that can be replaced or repaired.

**Minor** – minor personal injury, low-to-moderate value property damage, or small disruption of activities.

**Significant** – substantial personal injury, moderate- to high-value property damage, or considerable disruption of activities.

**Severe** – serious personal injury or death, high-value property damage, or major disruption of important activities.

**Overall Tree Risk Rating**

**Low** – some trees with this level of risk may benefit from mitigation and maintenance measures, but immediate action is not usually required. Tree risk assessors may recommend retaining and monitoring these trees, as well as mitigation that does not include removal of the tree.

**Moderate** – the tree risk assessor may recommend mitigation and/or retaining and monitoring. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or manager.

**High** – tree risk assessor should recommend mitigation measures be taken as soon as is practical. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or risk manager.

**Extreme** – tree risk assessor should recommend that mitigation measures be taken as soon as possible. In some cases, this may mean immediate restriction of access to the target zone area to avoid personal injury.

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## C. Limitations of this Assessment

It is BC Plant Health Care Inc.'s policy to attach the following clause regarding limitations. We do this to ensure that developers or owners are clearly aware of what is technically and professionally realistic in retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack, discolored foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of property and people. Except where specifically noted in the report, none of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

Notwithstanding the recommendations and conclusions made in this report, it must be raised that trees are living organisms, and their health and vigor constantly change over time. They are not immune to changes in site conditions, or seasonal variations in the weather conditions.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy, no guarantees are offered, or implied, that these trees, or any parts of them, will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behavior of any single tree or group of trees or their component parts in all circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.