



ARBORIST REPORT

PROJECT:

WATERSTOCK_Beachway 2

SITE ADDRESS:

15704 – 15770 NORTH BLUFF ROAD, WHITE ROCK, BC

CLIENT:

WATERSTOCK PROPERTIES INC.

PROJECT #

AR2019-05

PREPARED BY:

VDZ + A Consulting Inc.

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September 21st, 2020



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Background

VDZ + A Consulting Inc. was contracted by Waterstock Properties Inc. to prepare an ISA Certified Arborist Tree Report for the properties at 15704 – 15770 North Bluff Road, White Rock, BC.

Assignment

VDZ + A Consulting Inc. have been retained by the client to prepare a report to assess the tree(s) located at 15704 – 15770 North Bluff Road, White Rock, BC. The Consulting Arborist performed a site review entailing identification and visual assessment of the tree(s) on site. A tree survey of all off-site trees was completed by the client or representative(s).

The Project Arborist will provide recommendations for the retention or removal of tree(s) on this site based on the existing site conditions and the proposed use of the site. Mitigation of development impact on the tree(s) has been considered as part of the tree assessment process.

Limits of the Assignment

The Consulting Arborist's observations were limited to one site visit on April 9, 2019. No tissue or soil samples were sent to a lab for identification or analysis. VDZ + A Consulting Inc. located the trees using existing landmarks and onsite navigation.

Testing and Analysis

The Consulting Arborist used visual tree assessment and mallet sounding to test the trees' health, condition and risk level.

Purpose and Use of Report

The purpose of this report is to assist the property owner in compliance with the City of White Rock Tree Management Bylaw, 2008 No. 1831.

Site Review



Fig. 1 – Aerial view of properties (WROMS, 2019).



Proposed Site Development

Two new residential buildings.

Environmental Description

ISA Certified Arborist Austin Peterson of VDZ + A Consulting Inc. conducted a site review and evaluation of the trees located at the above referenced property on April 9, 2019.

The property consists of 16th Avenue to the north, single family homes to the south, Lee Street to the west, and a greenway to the east.

There are no seasonal creeks that transect the property.

There is no evidence of raptors nests, osprey nests or heron colonies on the site. Removal of trees however between March 15 – August 15 (date subject to change depending on seasonal nesting behavior and therefore must be confirmed with City of White Rock) will require a bird nesting survey. This is as prescribed by the federal Migratory Birds Convention Act (MBCA), 1994 and Section 34 of the BC Wildlife Act. It is the responsibility of the owner/developer to ensure they are in compliance with the city's regulations governing nesting birds on sites where development is occurring.

Off-site Trees – There are private off-site trees associated with this project.

Municipal Trees – There are City of White Rock trees associated with this project.

Trees Straddling the Property Line – There are trees straddling the property line associated with this project.

Tree Preservation Summary

All the trees identified on the Tree Retention/Removal Plan and within the Tree Assessment Data Table have been given their Retention/Removal recommendation on a preliminary basis. Final recommendations will be based upon design/construction and grading details. Any City tree that is removed will have replacement tree bonds collected as Cash-in-Lieu. These replacement trees will be planted by the City of White Rock on City lands.

Long-term tree preservation success is dependent on minimizing the impact caused during pre-construction clearing operations, construction and post construction activities. Best efforts must be made to ensure the Tree Protection Zone remains undisturbed.

Ongoing monitoring of retained trees through the development process and implementation of mitigating works (watering, mulching, etc.) is essential for success.

Tree Health Care Plan During Construction

To ensure continued health of the protected trees during construction, the following is recommended:

1. Remove dead, dying, and diseased branches prior to the start of construction.
2. Install tree protection barriers per bylaw specifications.
3. Regular weekly watering of trees between June 1 – October 1.
4. Application of wood chips within the tree protection zone (1-3 inches).
5. Monthly monitoring of protected trees by assigned Arborist.

Retained protected trees will require supplemental watering on a weekly basis (weather dependent), as well as the application of wood chips or mulch to the tree protection zone within the tree protection barriers. Wood chips are preferred to ensure porous movement through soil and protection from



compaction during construction. The mulch or wood chip height should not exceed the root collar (not to exceed 10cm) to avoid moisture retention concentrated on the stem. In addition to the City's requirements, recommendations include the pruning of dead or dying limbs prior to construction for worker safety, as well as monthly monitoring of the trees by an Arborist to ensure the health and well-being of the protected trees.

Summary of Findings

1. Arborist is to monitor any work within 1- meter of a tree protection zone with 72 hours-notice given.
2. Areas identified that require arborist consultation / monitoring:
 - **Trees 016, 017, 018, 019, 020, 021, S1, OS 7** - There will be an on-grade north to south gravel path through the open space / green space. Minor crown raising may be required to accommodate walking clearance. VDZ Arborist to monitor pruning on site.
 - **Trees 020, 021** - A raised timber deck will be installed to the east of these trees. The arborist will advise on the locations of the posts as to avoid roots.
 - **Trees 020, 021** - The patio for unit 113B will require excavation – Arborist to monitor.
 - **Tree OS 1** - Loading zone will require excavation – Arborist to monitor.
 - **Trees 08, 09** – When removing these trees the stumps must be left in the ground in order to limit damage to the roots of adjacent trees – Arborist to monitor.



Table 1 - Tree Assessment Data:

Tree #	Tag #	Common Name <i>Botanical Name</i>	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
Limitations: Many deciduous trees were dormant at the time of assessment; therefore, a limited Level 1 Visual Assessment was conducted.							
The following trees are located on-site.							
001	2125	Apple <i>Malus</i> spp.	0.40	4.0	80	CROWN – Ivy growing up 80% of stem. Hammock in crown. FIGURE 2 WITHIN PROPOSED UNDERGROUND PARKING ENTRANCE	REMOVE
002	0961	English holly <i>Ilex aquifolium</i>	0.30	-	-	INVASIVE SPECIES – NOT PROTECTED UNDER BYLAW	REMOVE
003	0960	Western redcedar <i>Thuja plicata</i>	0.45	4.0	90	CROWN – Flagging present. WITHIN PROPOSED UNDERGROUND PARKING ENTRANCE	REMOVE
004	0958	Scots pine <i>Pinus sylvestris</i> 'Chantry blue'	0.25	3.0	60	TRUNK – Leans south 45° before self-correcting. CROWN – Some dieback on ends of branches. UNDERSIZED	REMOVE
005	0959	Cypress <i>Chamaecyparis</i> spp.	0.30	1.0	80	TRUNK – Codominant at 1 meter. Decay column from base to 1 meter on west side. FIGURE 3 WITHIN PROPOSED BUILDING ENVELOPE	REMOVE
006	3913	Lawson cypress <i>Chamaecyparis lawsonia</i>	0.40 0.40	3.5	100	TRUNK – Ivy growing up base. Codominant stems at base. CROWN – Excessive coning. Some flagging present. FIGURE 4 WITHIN PROPOSED BUILDING ENVELOPE	REMOVE
007	3912	Lawson cypress <i>Chamaecyparis lawsonia</i>	0.50 0.35	3.5	100	TRUNK – Ivy growing up base. Codominant stems at base. CROWN – Excessive coning. Some flagging present. FIGURE 4 WITHIN PROPOSED BUILDING ENVELOPE	REMOVE
007A	3914	Mountain-ash <i>Sorbus sitchensis</i>	0.39	4.5	75	TRUNK – Healed wound on south side. LOCATION – Growing next to driveway. WITHIN PROPOSED BUILDING ENVELOPE	REMOVE



Tree #	Tag #	Common Name <i>Botanical Name</i>	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
008	0962	Douglas-fir <i>Pseudotsuga menziesii</i>	0.87	7.5	80	TRUNK – Broken fence leaning on south side. CROWN – Crown weighted to south side. Broken branches in lower crown on north side. Large hanger on east side. LOCATION – Adjacent to shed. WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING STUMP MUST BE LEFT IN GROUND	REMOVE
009	0963	Scots pine <i>Pinus sylvestris</i>	0.58	6.5	80	TRUNK – Ivy growing up 80% of stem. CROWN – Previously topped. WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING STUMP MUST BE LEFT IN GROUND	REMOVE
010	2511	Monkey puzzle <i>Araucaria araucana</i>	0.15	-	-	UNDERSIZED	REMOVE
011	2510	Monkey puzzle <i>Araucaria araucana</i>	0.25	-	-	UNDERSIZED	REMOVE
012	2512	Butterfly bush <i>Buddleia</i> spp.	0.05 – 0.15	5.0	95	TRUNK – Multi-stem at 1 meter. Leans south before self-correcting. WITHIN PROPOSED BUILDING ENVELOPE	REMOVE
013	2514	Magnolia <i>Magnolia</i> spp.	0.25 0.20 0.20	6.0	75	TRUNK – Codominant stems at base. WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING	REMOVE
014	2513	English holly <i>Ilex aquifolium</i>	0.25	-	-	UNDERSIZED	REMOVE
015	2502	Douglas-fir <i>Pseudotsuga menziesii</i>	0.85	7.5	90	Declining CROWN – Excessive coning. Pruned on north side for Hydro clearance. FIGURE 5 WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING	REMOVE



Tree #	Tag #	Common Name <i>Botanical Name</i>	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
016	2506	Paper birch <i>Betula papyrifera</i>	0.36	4.0	40	Declining TRUNK – Holly growing up 60% of stem. FIGURE 6	REMOVE
017	2505	Paper birch <i>Betula papyrifera</i>	0.31	4.0	40	TRUNK – Conks present. Lean north. Past stems trimmed at base on south side. CROWN – Broken top. Likely decay column in broken top from Bronze Birch Borer. FIGURE 6 RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
018	2504	Paper birch <i>Betula papyrifera</i>	0.30 0.30	4.0	50	TRUNK – Conks present. Lean north. Past stems trimmed at base on south side. Codominant stems at base. CROWN – Broken top. Likely decay column in broken top from Bronze Birch Borer. FIGURE 6 RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
019	2509	English holly <i>Ilex aquifolium</i>	0.25	-	-	UNDERSIZED	RETAIN
020	2508	Monkey puzzle <i>Araucaria araucana</i>	0.40	6.0	90	RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
021	2503	Douglas-fir <i>Pseudotsuga menziesii</i>	0.80	8.0	90	ROOTS – Structural roots exposed. CROWN – Dieback present. Flagging present. SUITABLE FOR RETENTION	RETAIN
022	0957	Western hemlock <i>Tsuga heterophylla</i>	0.10 – 0.20	3.0	50	TRUNK – Four codominant stems at base. FIGURE 7 WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING	REMOVE
023	0956	Douglas-fir <i>Pseudotsuga menziesii</i>	0.15 0.15	3.0	40	CROWN – No foliage in lower crown. FIGURE 7 WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING	REMOVE



Tree #	Tag #	Common Name <i>Botanical Name</i>	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
024	0955	English holly <i>Ilex aquifolium</i>	-	-	-	INVASIVE SPECIES – NOT PROTECTED UNDER BYLAW FIGURE 7	REMOVE
025	0952	Western redcedar <i>Thuja plicata</i>	0.50	5.5	80	CROWN – Pruned on north side for Hydro clearance. Flagging in upper crown. WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING. PROJECT ARBORIST TO MONITOR	REMOVE
026	0953	Western redcedar <i>Thuja plicata</i>	0.30	2.5	100	RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
The following trees are located off-site. All off-site trees were assessed onsite and were separated by fencing. The off-site assessment therefore was limited by these factors.							
OS 1	-	Willow <i>Salix</i> spp.	0.25 0.10	6.0	70	TRUNK – Leans north. Codominant stems at base. Bend in trunk north at 0.5 meters. ROOTS – Debris piled against stem. EXCAVATION WITHIN THE TPZ PERMITTED WITH ARBORIST SUPERVISION. RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
OS 2	-	SPECIES COULD NOT BE IDENTIFIED DUE TO IVY COVERAGE	0.80	5.0	-	TRUNK – Ivy covering entire stem. SPECIES COULD NOT BE IDENTIFIED DUE TO IVY COVERAGE RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
OS 3	-	Eastern white cedar <i>Thuja occidentalis</i>	0.15 – 0.30	4.5	95	TRUNK – Five codominant stems at base. CROWN – Previously pruned on north side. RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
OS 4	-	Mountain-ash <i>Sorbus sitchensis</i>				TRUNK – Multi-stem at base. Fence leaning on north side of trunk. RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN



Tree #	Tag #	Common Name <i>Botanical Name</i>	DBH (m.)	C-Rad (m.)	LCR (%)	Comments	Retain / Remove
OS 5	-	Western redcedar <i>Thuja plicata</i>	0.15 – 0.35	3.5	100	TRUNK – Five codominant stems at base. CROWN – Flagging present. Excessive coning. RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
OS 6	-	English walnut <i>Juglas regia</i>	0.45 0.35	5.0	80	TRUNK – Codominant stems at 1 meter. North stem growing through fence onto onsite property. FIGURE 9 RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
OS 7	-	Douglas-fir <i>Pseudotsuga menziesii</i>	0.60	6.5	80	RETAIN WITH TREE PROTECTION FENCING SUITABLE FOR RETENTION	RETAIN
The following trees are straddling the property line.							
S 1	0951	English laurel <i>Prunus laurocerasus</i>	0.15	-	-	UNDERSIZED	RETAIN
S 2	2507	English holly <i>Ilex aquifolium</i>	0.15	-	-	UNDERSIZED	RETAIN
S 3	0954	Douglas-fir <i>Pseudotsuga menziesii</i>	0.40	4.5	90	LOCATION – Adjacent to fence. CROWN – Pruned on east side. Sparse foliage. FIGURE 8 STRADDLING TREE REQUIRES CITY PERMISISON TO REMOVE – REPLACEMENTS HANDLED CASH IN LIEU WITHIN PROPOSED EXCAVATION ZONE FOR BUILDING AND UNDERGROUND PARKING	REMOVE



APPENDIX A – GLOSSARY OF KEY TERMS

Abutment: A structure built to support the lateral pressure of an arch or span, e.g., at the ends of a bridge.

Adapted Trunk Diameter Method: This method uses the trees age and tolerance to construction damage to determine the factor that will be multiplied by the diameter to provide a sufficient tree protection zone given these factors.

Age: The relative age (young, intermediate, mature) within the particular stand of trees or forest.

Algae: Is a simple, nonflowering plant (includes seaweeds and many single-celled forms). They do contain chlorophyll (but lack true stems, roots, and vascular tissue)

ALR: The Agricultural Land Reserve in which agriculture is recognized as the priority.

Bole: The stem or trunk of a tree.

Chlorotic: Yellowing of plant tissues caused by nutrient deficiency &/or pathogen.

Co-dominant Leaders: Forked dominant stems nearly the same size in diameter, arising from a common junction.

Co-dominant Within Stand: Individual tree whose height is generally equal to trees (regardless of species) within the same stand.

Compaction: Compression of the soil that breaks down soil aggregates and reduces soil volume and total pore space, especially macropore space.

Conk: A fungal fruiting structure typically found on trunks and indicating internal decay.

Dead Standing: A tree that has died but is still standing erect.

DBH: The Diameter of the tree at 1.40 meters above the ground.

Dominant Within Stand: Individual tree whose height is significantly greater than adjacent trees (regardless of species) within the same stand.

C-rad: Crown radius, is the dripline measured from the edge of the trunk to the outermost branches of the crown.

CRT: Critical Root Zone

CRZ: Critical Root Zone - The area between the trunk and to the end of the Drip Line.

Fair: Healthy but has some defects such as co-dominant trunk, dead branches.

Feeder Roots: The smaller roots responsible for water and nutrient absorption and gas exchange. These roots can extend far beyond the Drip Line (or outer canopy) of the tree.

Fungus (singular) / Fungi (plural): Unicellular, multicellular or syncytial spore-producing organisms that feed on organic matter (including molds, yeast, mushrooms and toadstools)

Girdling Root: Root that encircles all or part of the trunk of a tree or other roots and constricts the vascular tissue and inhibits secondary growth and the movement of water.

Good: Good form and structure, healthy with no defects.

Hazardous: Significant hazard exists with a high risk of immediate failure; which could result in serious damage to property or person(s).

Height: Height of tree is approximate.

LCR: Live Crown Ratio – The ratio of crown length to total tree length.

Level 1 Limited Visual Assessment: Limited visual assessment looking for obvious defects such as, but not limited to dead trees, large cavity openings, large dead or broken



branches, fungal fruiting structures, large cracks, and severe leans.

Level 2 Basic Visual Assessment: Detailed visual inspection (aboveground roots, trunk, canopy) of tree(s) may include the use of simple tools to perform assessment (i.e. sounding mallet, trowel, measuring tape, binoculars). The assessment does not include advanced resistance drilling of trunk.

Level 3 Advanced Assessment: To provide detailed information about specific tree parts, defects, targets, or side conditions. May included aerial inspection, resistance drilling of tree parts, laboratory diagnosis of fungal or plant tissue.

Mildew: Is a minute powdery or web-like fungi (of different colours) that is found on diseased or decaying substances.

Moss: A small, green, seedless plant that grows on stones, trees or ground.

No Disturbance Zone: $(\text{Trunk Diameter} \times 6) + \text{Trunk Radius} + (60 \text{ cm excavation zone})$. For example, a 50-cm diameter tree would have a No Disturbance Zone = 3.85 meters measured from the edge of the trunk.

Poor: multiple defects, disease, poor structure and or form, root and or canopy damage.

Phloem: Plant vascular tissue that transports sugar and growth regulators. Situated on the inside of the bark, just outside the cambium. Is bidirectional (transports up and down). Contrast with xylem.

Phototropic: Growth toward light source or stimulant.

Retain & Monitor: Monitor health and condition of tree every 12 months for signs of deterioration.

Root Crown: Also, called the root collar, it includes the flare at the base of the trunk and the initial roots that develop below the trunk. These roots generally taper and subdivide rapidly to form the root system of the tree.

SPEA: Streamside Protection and Enhancement Area

Spiral Decline: The health and condition of the tree is deteriorating.

Sub-dominant Within Stand: Individual tree whose height is significantly less than adjacent trees (regardless of species) within the same stand.

Suppressed: Individual tree whose growth, health and condition is negatively impacted by adjacent tree(s).

TPZ: Tree Protection Zone - The area between the trunk and the Tree Protection Barrier.

Wildlife Tree: A tree or a group of trees that are identified to be retained to provide future wildlife habitat. Wildlife habitat can exist in tree risks (cavities, dead snags, broken tops). Often times the tree risk to potential targets (people & property) is reduced by removing that part of the tree posing the risk of failure, but the tree (or portion of) is retained to provide future habitat.

Witches Broom: A dense mass of shoots growing from a single point, with the resulting structure resembling a broom or a bird's nest.

Xylem: Thin overlapping cells that helps provide support and that conducts water and nutrients up

ward from the roots all the way to the leaves.



APPENDIX B – PHOTOS



Fig. 2 – Tree 001 with ivy growing throughout crown.



Fig. 3 – Tree 005 with decay from base to 1 meter.



Fig. 4 – View of Trees 006 and 007.

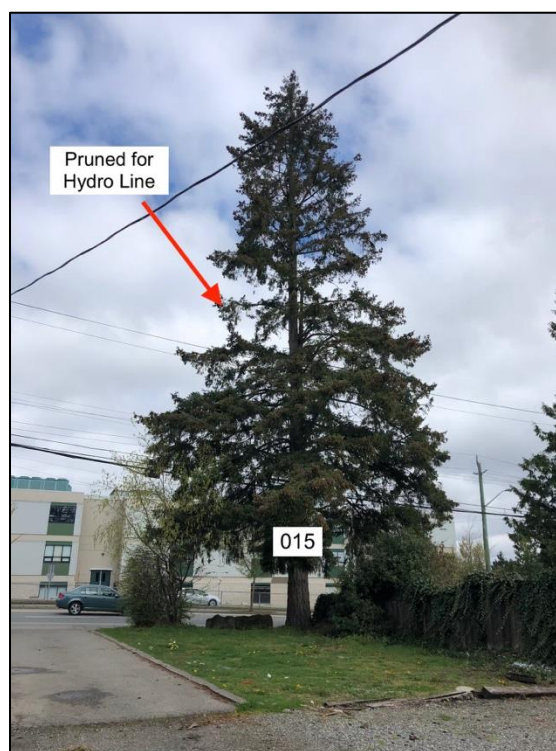


Fig. 5 – Tree 015 with pruning on north side.

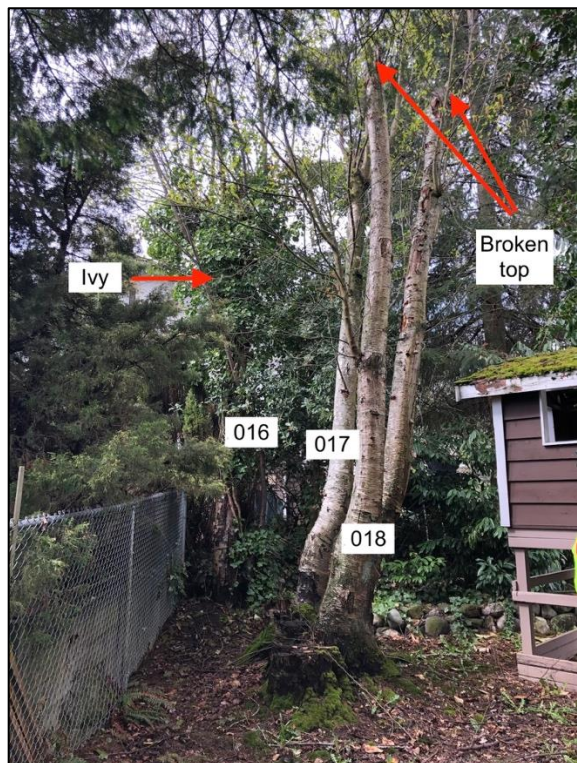


Fig. 6 – Trees 016, 017, and 018 in poor condition.

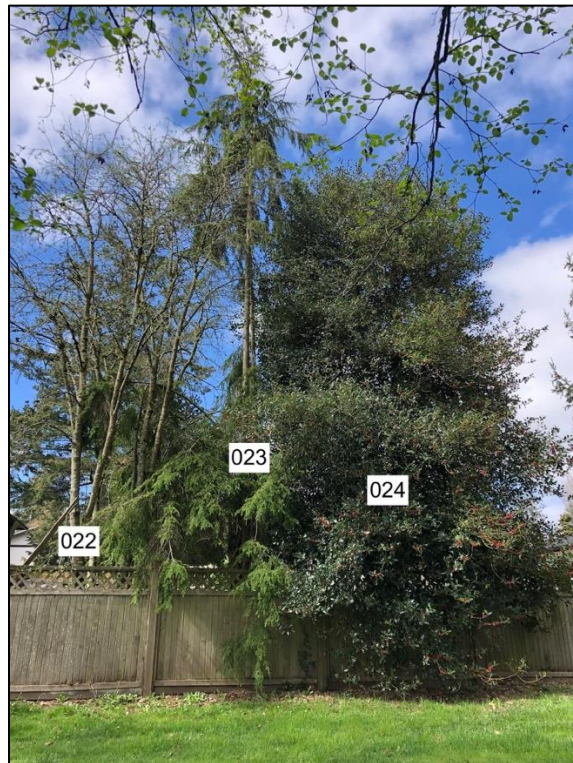


Fig. 7 – West view of Tree 022, 023, and 024.



Fig. 8 – Tree S 3 with crown weighted to west side.



Fig. 9 – Tree OS 6 growing through fence.



TREE REPLACEMENT SUMMARY

White Rock Tree Management Bylaw, 2008, No. 1831

The number and size of the replacement trees is dependent upon the size of the protected tree removed. Replacement trees shall be required according to the following:

- (a) Less than 50 cm DBH protected tree removed – Two replacement trees
- (b) 51 cm to 65 cm DBH protected tree removed – Three replacement trees
- (c) 66 cm to 75 cm DBH protected tree – Four replacement trees
- (d) 76 cm to 85 cm DBH protected tree – Five replacement trees
- (e) Greater than 85 cm DBH protected tree – Six replacement trees

Size	Removed	Replacement Trees
Less then 50cm DBH	10	20
51-65cm DBH	3	9
66-75 DBH	0	0
76-85cm DBH	1	5
85cm+ DBH	1	6
Undersize Trees	7	0
	Total	40

40 Total Replacement Trees Required, 2 of which will be handled by Cash in Lieu as Tree S3 is straddling city property.

Recommended Replacement Species

It is recommended that the landscape architect use a mix of the following species in the replanting plan:

- Acer Griseum 6 cm cal. 1.2m Std.
- Nyssa Sylvatica ‘Tupelo Tower’ 6 cm cal. 1.2m std.
- Picea Omorika “Bruns” 3m
- Stewartia Pseudocamellia 6 cm cal. 1.2m Std.



APPENDIX C – TREE RETENTION AND REMOVAL PLAN

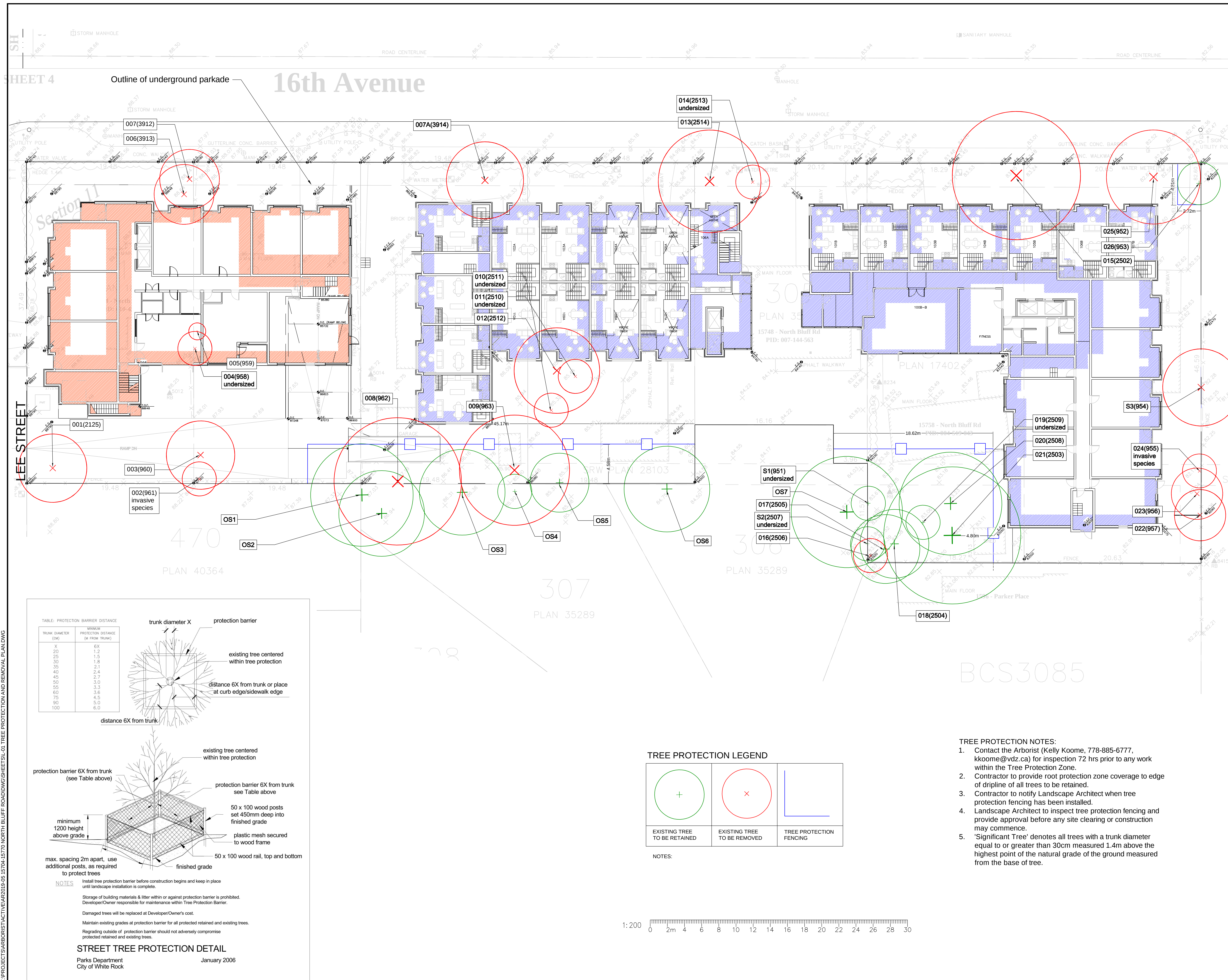
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Drawing Title:



VDZ Project #: AR2019-05

Drawing #:
L-01

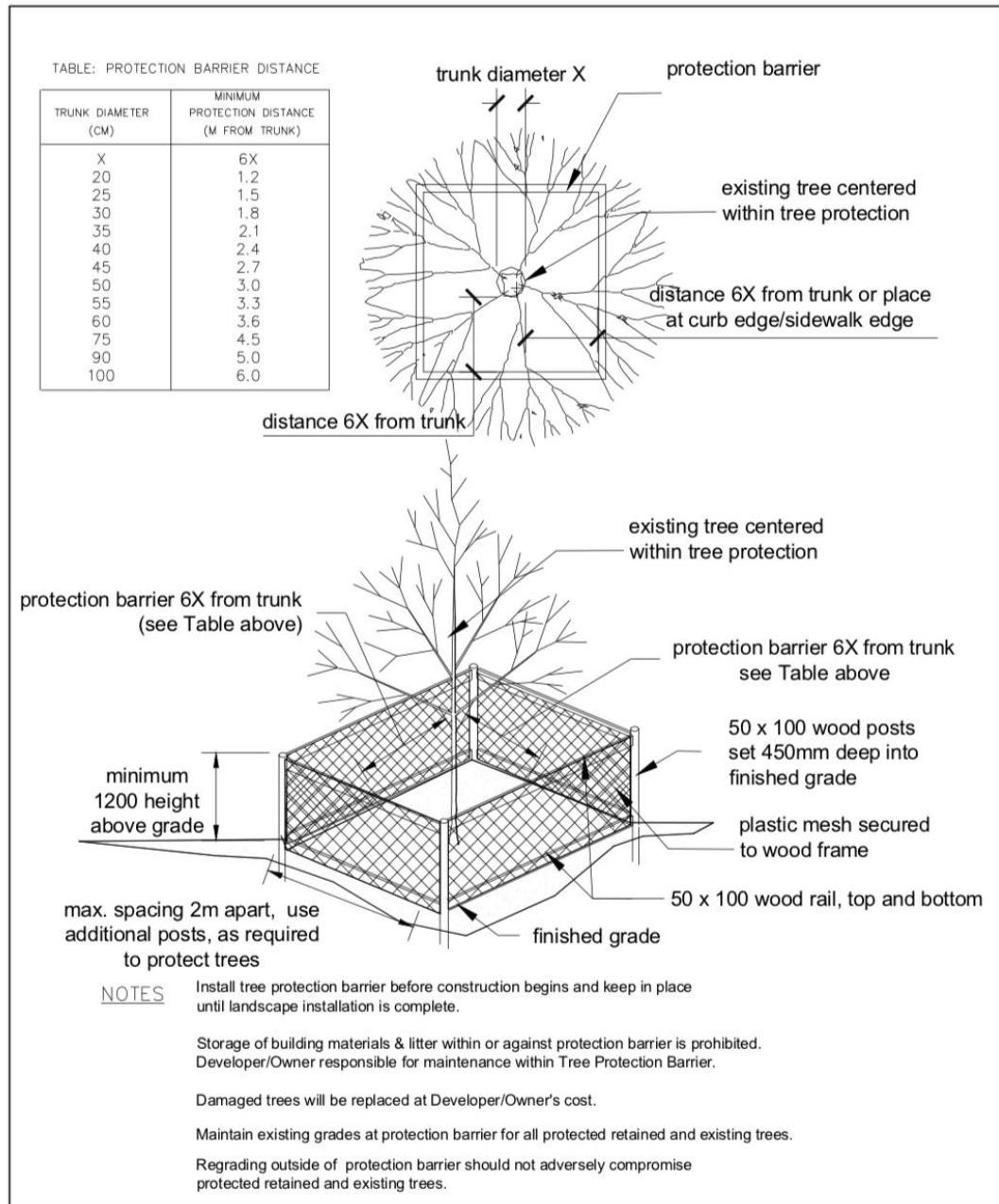




APPENDIX D – CONSTRUCTION ACTIVITY AROUND TREE PROTECTION ZONE

Tree Protection Fencing

Specifications for Tree Protection Barriers





General Requirements and Limitations for Operations Within the Tree Protection Zone

- The Contractor shall not engage in any construction activity within the Tree Protection Zone (TPZ) without the approval of the Project Arborist including: operating, moving or storing equipment; storing supplies or materials; locating temporary facilities including trailers or portable toilets and shall not permit employees to traverse the area to access adjacent areas of the project or use the area for lunch or any other work breaks. Permitted activity, if any, within the Tree Protection Zone maybe indicated on the drawings along with any required remedial activity as listed below.
- In the event that construction activity is unavoidable within the Tree Protection Zone, notify the Project Arborist and submit a detailed written plan of action for approval. The plan shall include: a statement detailing the reason for the activity including why other areas are not suited; a description of the proposed activity; the time period for the activity, and a list of remedial actions that will reduce the impact on the Tree Protection Zone from the activity. Remedial actions shall include but shall not be limited to the following:
- In general, demolition and excavation within the drip line of trees and shrubs shall proceed with extreme care either by the use of hand tools, directional boring and/or Air Spade. If any excavation work is required within the Tree Protection Zone (TPZ), the Project Arborist must be present during excavation, and a trench should be 'hand dug' to a depth of 60 cm outside the Drip Line, to uncover any potential roots. The Project Arborist should cleanly prune roots and recommend the appropriate treatment for any structural roots encountered.
- Knife excavation where indicated or with other low impact equipment that will not cause damage to the tree, roots soil.
- When encountered, exposed roots, 1 inches and larger in diameter shall be worked around in a manner that does not break the outer layer of the root surface (bark). These roots shall be covered in Wood Chips and shall be maintained above permanent wilt point at all times. Roots one inch and larger in diameter shall not be cut without the approval of the Project Arborist. Excavation shall be tunnelled under these roots without cutting them. In the areas where roots are encountered, work shall be performed and scheduled to close excavations as quickly as possible over exposed roots.
- Tree branches that interfere with the construction may be tied back or pruned to clear only to the point necessary to complete the work. Other branches shall only be RETAINED when specifically indicated by the Project Arborist. Tying back or trimming of all branches and the cutting of roots shall be in accordance with accepted arboriculture practices (ANSI A300, part 8) and be performed under supervision of the Project Arborist.
- Do not permit foot traffic, scaffolding or the storage of materials within the Tree Protection Zone.
- Protect the Tree Protection Zone at all times from compaction of the soil; damage of any kind to trunks, bark, branches, leaves and roots of all plants; and contamination of the soil, bark or leaves with construction materials, debris, silt, fuels, oils, and any chemicals substance. Notify the Project Arborist of any spills, compaction or damage and take corrective action immediately using methods approved by the Project Arborist.



APPENDIX E – LIMITATIONS

This report is valid for the day the trees were reviewed. This report is not to be re-printed, copied, published or distributed without prior approval by VDZ + A Consulting Inc.

Sketches, diagrams and photographs contained in this report being intended as visual aids, should not be construed as engineering reports or legal surveys.

Only the subject tree(s) was inspected and no others. This report does not imply or in any other way infer that other trees on this site or near this site are sound and healthy.

The tendency of trees or parts of trees to fall due to environmental conditions and internal problems are unpredictable. Defects are often hidden within the tree or underground. The project arborist has endeavored to use his skill, education and judgment to assess the potential for failure, with reasonable methods and detail. It is the owner's responsibility to maintain the trees and inspect the trees to reasonable standards and to carry out recommendations for mitigation suggested in this report.

APPENDIX F – REFERENCES

Bond, Jerry & Buchanan, Beth (2006) Best Management Practices: Tree Inventories, International Society of Arboriculture, Champaign, IL.

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