

COUNCIL CORRESPONDENCE UPDATE TO APRIL 2, 2025 (8:30 a.m.)

Correspondence

- (1) **A. Schreiber Dines, March 25, 2025, regarding “Fwd: Preserving Gleneagles Adventure Park – A Vital Cultural & Educational Asset”**
- (2) **11 submissions, March 26-31, 2025 and undated, regarding Proposed Official Community Plan Bylaw No. 4985, 2018, Amendment Bylaw No. 5375, 2025 (NE1 Wildfire Hazard Development Permit Area Designation)**
- (3) **7 submissions, March 26 - April 1, 2025, regarding Proposed Gleneagles Pickleball Courts**
- (4) **March 26, 2025, regarding ““West Vancouver gets federal boost to plant 500 trees”, North Shore News”**
- (5) **March 27, 2025, regarding “Taxis entering Lions Gate Bridge.”**
- (6) **March 30, 2025, regarding “Re: Save the 26th St. Train Bridge”**
- (7) **2 submissions, March 31, 2025, regarding Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2024 Phase 1 Capital Funding Report**
- (8) **April 1, 2025, regarding “Proposal for 15th and Fulton redevelopment”**

Correspondence from Other Governments and Government Agencies

Responses to Correspondence

- (9) **Engineering & Transportation Services, March 31, 2025, response regarding “Taxis entering Lions Gate Bridge.”**

From: Ariel Schreiber Dines [REDACTED] s. 22(1)
Sent: Tuesday, March 25, 2025 3:10 PM
To: correspondence
Subject: Fwd: Preserving Gleneagles Adventure Park – A Vital Cultural & Educational Asset

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----- Forwarded message -----

From: Ariel Schreiber Dines [REDACTED] s. 22(1)
Date: Tue, Mar 25, 2025 at 12:42 PM
Subject: Preserving Gleneagles Adventure Park – A Vital Cultural & Educational Asset
To: <iharas@westvancouver.ca>

Preserving Gleneagles Adventure Park – A Vital Cultural & Educational Asset

Dear Mr. Haras,

I hope you're doing well. My name is Ariel Schreiber Dines, and I am reaching out as President of Connecting Environmental Professionals, Founder of Ari Skate School, and Coordinator of Growing Skate Hub—a social-purpose initiative that was invited by the Pope to participate in the Economy of Francesco in Assisi, Italy, in 2020 due to its positive community impact.

Recently, members of my team and volunteers from our organizations have raised concerns regarding the proposed redevelopment of Gleneagles Adventure Park (Horseshoe Bay Skatepark) into pickleball courts. While we recognize the growing demand for pickleball facilities, we strongly believe that this does not need to come at the expense of one of Vancouver's best-designed and most inclusive skateparks. There is ample opportunity to create space for both activities without demolishing a park that serves as a cultural, educational, and athletic landmark.

Gleneagles Skatepark: A Unique and Inclusive Space

The Bay Bowl at Gleneagles is one of the best-designed skateparks in Canada, welcoming skaters and riders of all levels—from beginners to Olympic hopefuls. Unlike other parks, its well-thought-out design allows seamless transitions between different difficulty levels, making it an accessible and safe space for learning and progression.

For 20 years, this park has been a training ground for future athletes, a community hub for youth, and a cultural landmark that has contributed to the development of skateboarding as both a sport and a countercultural movement in Vancouver and beyond. With skateboarding's inclusion in the Olympics, facilities like Gleneagles play a critical role in fostering talent and keeping Canada competitive on the world stage.

Skateboarding as an Educational & Developmental Tool

Our work at **Ari Skate School** has demonstrated how skateboarding can be a powerful educational and developmental tool. Through after-school programs, we integrate physics, math, and engineering principles into skateboarding lessons, making learning more engaging and accessible, particularly for students who struggle with traditional teaching methods.

- **Acceleration & Motion:** Students experience Newton's laws in real time as they learn about force, gravity, and momentum.
- **Geometry & Engineering:** The park's curves, angles, and transition designs teach principles of slope, radius, and material durability.
- **Architectural & Civil Engineering:** The construction of a world-class skatepark involves reinforced concrete techniques, transition radius calculations, slope grading for drainage, and surface friction optimization—all valuable learning opportunities.

A Crucial Space for Neurodiverse Youth

Most importantly, skateboarding provides **alternative learning methods for youth with autism, ADHD, and other learning differences**, allowing them to engage with education in a way that traditional classrooms often fail to accommodate. The freedom of movement, hands-on experimentation, and self-paced learning inherent in skateboarding make it an incredibly effective tool for neurodiverse individuals, helping them build confidence, focus, and problem-solving skills.

Skateboarding & Pickleball Can Coexist – Without Demolishing the Skatepark

We fully support the expansion of recreational opportunities in West Vancouver but believe that the **skatepark and pickleball courts can coexist** without demolishing a world-class, historically significant, and deeply valued community space. There are alternative locations for pickleball courts, such as the underused tennis courts near the community center or reclaiming part of the parking lot while keeping the skatepark intact.

I urge the District of West Vancouver to consider a solution that allows both communities to thrive while protecting a space that has positively impacted generations of athletes, youth, and families.

I would love the chance to connect and discuss solutions for this impasse. Please let me know a convenient time to connect.

Best regards,

Ariel Schreiber Dines

s. 22(1)

President, Connecting Environmental Professionals

Founder, Ari Skate School

Coordinator, Growing Skate Hub



From: [REDACTED] s. 22(1)
Sent: Wednesday, March 26, 2025 8:35 AM
To: correspondence
Cc: Mark Sager, Mayor; Linda Watt; Peter Lambur; Christine Cassidy; Nora Gambioli; Scott Snider; Sharon Thompson
Subject: Proposed Wildfire Amendment

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Dear Mayor and Council,

1. As you know:
 - a. we live in a rainforest, ocean climate with a few months of dry heat, but where there is rain-soaked ground. Experts agree that we are at low risk of wildfire.
 - b. We are also located at the foot of a mountain slope down which rainwater runs.
 - c. There is a small section of WV that interfaces with the forest that could have possible wildfire which has been addressed through firesmart protocols to prevent e.g. embers passing quickly in the trees.
2. Trees and shrubs and grasses absorb rain working to support our storm water management
3. WV's Urban Forest Management Plan has warned the District that Ambleside-Dundarave is at a dangerously low tree canopy of 19%.
4. It is settled science that a tree 'ed community is a healthy community, both physically and mentally.
5. Developers routinely demand that trees be cut down to increase their property values and profits, for views, etc. It is understandably an unpleasant task for bylaw to enforce our District policies and require replanting of illegally cut trees.
6. Deforestation is a typical cause of landslides.
7. Last year on the north shore three lives were lost (Lions Bay and Port Coquitlam) and millions of dollars in property losses due to an atmospheric river, landslides, flooding. It is being investigated whether the lives lost were due to development upstream in Lions Bay.
8. A low tree canopy like Ambleside-Dundarave of only 19% from development and illegal tree cutting for e.g. views and gardening preferences, or just personnel preferences that they don't like trees or nature.
9. Soil erosion is caused by heavy rain and no trees, shrubs and grasses to absorb it. It just washes away.
10. Staff have advised that we have a serious problem of soil erosion making it very difficult or impossible in some places to be able to grow trees.
11. We need to assume that when our working, mature trees are cut down they are irreplaceable.
12. Also irreplaceable is wildlife that is going extinct from habitat loss.
13. Based on what we have experienced, experts predict we will experience more atmospheric rivers
14. The Fire smart protocols (like Housing and Drug Decrim that costs thousands on thousands of lives per year) well intended though it is assumed to be, is not a plan that reflects the thoughtful consideration of the actual environmental challenges of each community but rather is being rolled out to a one size fits all, this time forcing environmental protocols.
15. There is a saying that governments do not give back power they have taken.
16. This amendment is to give a provincial program that right to deploy their firesmart protocols across the entire DWV whether they are in a forest interface area or not.
17. WV needs a WV Flood Smart program (they do exist) and a Heat Dome Smart program that addresses our particular climate challenges, enforce the Firesmart in the Forest Interface areas and use an applicable selection of fire smart protocols for the non-forest interface areas
18. This is not about 45 new homes.

19. Tree disputes will erupt across the District with people who don't like trees and nature or want to improve their view, claiming the trees that are within 10m of their home on the neighbouring property and on the District Boulevard have to be cut down because the provincial Firesmart person told them they were a hazard.

Sincerely,

s. 22(1)

0 - 1.5 m

"Clear vegetation and combustible material down to mineral soil and cover with non-combustible materials like gravel, brick, or concrete.
Avoid planting woody shrubs or trees.
If any are present, prune and maintain them regularly."



1.5-10m [i.e. within the 3m setback and Boulevard area in WV]

"Plant fire-resistant vegetation [i.e. cut down trees not considered fire resistant?] and select non-combustible landscaping materials.

Create a non-combustible ground cover, like a gravel pad, underneath and 1.5 metres around trailers, recreational vehicles, and sheds."

Is this saying that if you don't want your home to burn down, cut down all the typical large, mature trees in WV, and grass if you can't keep it cut below 10 cm, and then pave your property?

From: [REDACTED] s.22(1)
Sent: Wednesday, March 26, 2025 6:02 PM
To: correspondence
Cc: Mark Sager, Mayor; Christine Cassidy; Nora Gambioli; Peter Lambur; Scott Snider; Sharon Thompson; Linda Watt
Subject: Proposed NE1 Wildfire Hazard Development Permit Area Designation
Attachments: DWV-#5604221-v1-WHDP_23-016_4412_Woodpark_Road (4).pdf

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Hi Mayor and Council Members.

I would like to express my concern with the proposal to expand the wildfire hazard development permit area across all of West Vancouver.

I have [REDACTED] s.22(1) within the existing area so I have a bit of experience with this type of development permit.

I would like to bring up the effect this proposal would have on the overall neighbourhood character.

I would like to make it clear that the proposal would nearly eliminate any type of natural wood being used on the exterior of any building; this would include roofs, facias, soffits, decking, doors and siding. This would be in severe conflict with the "West Coast" aesthetic that West Vancouver is so well known for.

I am also not sure if the thought of heritage has been brought up but these policies would again put the nature of heritage protection at risk. I don't think anyone wants to see synthetic siding materials being used on historical buildings.

Another point to consider is that fencing within 1.5m of any structure must be made of ignition resistant materials. This would mean that almost all fences within dunderave or ambleside would be required to be either hardy board, plastic or aluminium. This would be a far cry from the standard cedar fence that has been around west vancouver since its inception.

I would also like to point out that most of the synthetic products would need to be imported from out of the country, ie china or the united states. Natural wood is Canadian.

Landscaping is the next point of consideration; [REDACTED] s.22(1) in a wildfire hazard zone I was required to remove and prune trees from both the neighbours property and from the district park (I am not sure how this would be applied on a mass scale without encroaching on private property rights). It's also worth pointing out that the project I am referring to is right next to cypress park and is considered extremely low risk by the 2020 Wildfire Threat Assessment Guide and Worksheets.

These regulations also limit what type of planting/ hedging can be used, no conifer species or long grasses with a mature height greater than 30cm are allowed to be installed.

Gone are the Cedar, Cypress and Yew hedging that has been so widely used across West Vancouver.

I have attached the 65 page Wildfire Hazard Report from [REDACTED] s.22(1) that has this applied.

I urge council to review this documentation and the lasting impacts this decision would have on the overall community.

Thank you

[REDACTED] s.22(1)



District of West Vancouver Development Permit No. 23-016

CURRENT OWNERS: Robert Alexander Reid and Sandi Cher Reid
10915 Carmichael Street
Maple Ridge BC, V2W 0H3

THIS DEVELOPMENT PERMIT APPLIES TO:

CIVIC ADDRESS: 4412 Woodpark Road

LEGAL DESCRIPTION: 009-544-836
(LOT 24 DISTRICT LOT 887 PLAN 10004)
(the "LANDS")

1. This Development Permit:
 - (a) imposes requirements and conditions for the development of the Lands, which are designated by the Official Community Plan as a Wildfire Hazard Development Permit Area to control the combustible elements of both buildings and landscape in order to minimize the potential for the spread of fire and the resultant destruction of property and threat to life, in accordance with the Guidelines NEI specified in the Official Community Plan; and
 - (b) is issued subject to the Owner's compliance with all of the Bylaws of the District applicable to the Lands, except as specifically varied or supplemented by this Permit.

2. The following requirements and conditions shall apply to the Lands:
 - 2.1 Buildings, structures and landscaping shall be sited in accordance with **Schedule A** attached hereto.
 - 2.2 For all buildings and structures the following fire-resistive materials and construction practices are required:
 - 2.2.1 Fire retardant roofing materials (Class A or B, or Class A by assembly) must be used: metal as per **Schedule B**.
 - 2.2.2 Exterior walls must be sheathed with fire-resistive materials as per **Schedule B**.
 - 2.2.3 Decks, porches, balconies, and patios must use fire-resistive materials as per **Schedule B**.
 - 2.2.4 All eaves, attics, roof vents, and openings under floors must be screened to prevent the accumulation of combustible material, using 3-mm, non-combustible wire mesh, and vent assemblies will use fire shutters or baffles as per **Schedule B**.
 - 2.3 Softscaping must adhere to **Schedule C**.

- 2.4 All new buildings and structures must be located a minimum required distance of 10 m (defensible space), or at least as far away from the forest interface as any existing permanent structures, if present on the property.
- 2.5 Tree work on Protected Trees as per Tree Bylaw No. 4892, 2016 will require a Private Tree Cutting Permit at the Building Permit Stage.
- 2.6 Tree work on public land, boulevards, or parks will require a Municipal Tree Cutting Permit at the Building Permit Stage.
- 2.7 The Qualified Professional that completed the wildfire hazard assessment shall be required to complete a post-completion inspection to ensure all conditions in **Schedule A** have been met prior to occupancy.
- 2.6 Notwithstanding, any changes from conditions 2.2 to 2.4, where the changes do not affect the intent of the plans, must be approved by the Qualified Professional during the post-completion inspection.
3. Prior to Building Permit application and as security for the due and proper completion of the measures to preserve, protect, restore or enhance the environment set forth in Section 2 of this Development Permit (the "Wildfire Protection Measures"), the Owner shall:
 - (a) provide security in the amount of \$5,000.00 to the District in the form of cash or an unconditional, irrevocable auto-renewing letter of credit issued by a Canadian chartered bank or credit union; and
 - (b) maintain the security upon completion of the Wildfire Protection Measures, and not prior to the date on which the District Environmental Protection Officer authorizes in writing the release of the security.
4. This Development Permit lapses if the work authorized herein is not commenced within 12 months of the date this permit is approved.

THE DIRECTOR OF PLANNING & DEVELOPMENT SERVICES APPROVED
THIS PERMIT ON March 30, 2023

s. 22(1)

DIRECTOR OF PLANNING & DEVELOPMENT SERVICES

THE REQUIREMENTS AND CONDITIONS UPON WHICH THIS PERMIT IS ISSUED ARE ACKNOWLEDGED AND AGREED TO BY THE CURRENT OWNER. IT IS UNDERSTOOD:

- THAT OTHER PERMITS / APPROVALS MAY BE REQUIRED INCLUDING PERMITS / APPROVALS FOR BUILDING CONSTRUCTION, SOIL AND ROCK REMOVAL OR DEPOSIT, AND BOULEVARD WORKS; AND

- THE DEVELOPMENT MUST ATTAIN REQUIREMENTS OF THE BC BUILDING CODE AND ANY VARIANCES TO THE ZONING BYLAW ARE THE RESPONSIBILITY OF THE OWNER. IF UNIDENTIFIED ZONING VARIANCES ARE DISCOVERED THEY MUST BE RECTIFIED AT THE BUILDING PERMIT STAGE.

Schedules:

- A - Wildfire Hazard DP Area Assessment Report prepared by Diamond Head Consulting Ltd. date stamped February 23, 2023
- B - Architectural Drawings prepared by February 23, 2023
- C - Landscape Plan prepared by March 22, 2023

Schedule A

RECEIVED

February 23, 2023

Planning & Development Services

Wildfire Hazard DP Area Assessment Report

4412 Woodpark Road
District of West Vancouver

February 15, 2022



Submitted to:

Ben Christopher
bjlchristopher@gmail.com



DIAMOND HEAD

3559 Commercial Street
Vancouver, BC 604.733.4886



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The following Diamond Head Consulting staff conducted the on-site tree inventory and prepared or reviewed the report.

All general and professional liability insurance and staff accreditations are provided below for reference.

Author:

Reviewer:

s. 22(1)

Austin Tahiliani, BIT
Biologist in Training & Arborist
ISA Certified Arborist (PN-9345A)
ISA Qualified Tree Risk Assessor (TRAQ)

Riley Spear
Junior Arborist

Conor Corbett
Registered Professional Forester (5105)
ISA Certified Arborist (PN-8429A)
ISA Tree Risk Assessment Qualified (TRAQ)
BC Wildlife and Danger Tree Assessor (P2722)

Please contact us if there are any questions or concerns about the contents of this report.

Contact Information:

Phone: 604-733-4886
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Website: www.diamondheadconsulting.com

Insurance Information:

WCB: # 657906 AQ (003)
General Liability: Northbridge General Insurance Corporation - Policy #CBC1935506, \$10,000,000
Errors and Omissions: Lloyds Underwriters – Policy #1010615D, \$1,000,000

Summary of Report

- The nearest intact forest edge is continuous with the forests of Cypress Falls Park. This forest was assessed to have a **low fire behavior risk** rating applying methods from the 2020 Wildfire Threat Assessment Guide and Worksheets¹.
- Future structural hazard of the proposed development using the FireSmart Homeowners Manual² found the new development would likely have a **low overall wildfire risk rating** if the recommendations for building and landscaping are followed.
- Landscaping requirements from within this report must be followed. Ensure that no conifer species or long grasses with a mature height greater than 30cm are installed in new landscaping. This includes hedges of cedar, cypress, or yew species. Fencing within 1.5 m of any structures must be made of ignition resistant materials.
- Ensure the exterior building materials including roofs and decks are ignition resistant or non-combustible and meet the requirements from within this report. “Ignition-resistant” and “non-combustible” have the same meaning as in the most recent edition of the National Fire Protection Association (NFPA) 1144 standard.

¹ Ministry of Forests, Lands, Natural Resource Operations, and Rural Development BC, BC Wildfire Service. 2020, June 4. 2020 Wildfire Threat Assessment Guide and Worksheets (version 4). Available at: <https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/fire-fuel-management/fuels-management/2020-wildfire-threat-assesment-guide-final.pdf>

² Partners in Protection Association. 2019. FireSmart Begins at Home Manual. Available at: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/prevention-home-community/bcws_homeowner_firesmart_manual.pdf

1.0 Introduction

Diamond Head Consulting Ltd. (DHC) was retained to prepare an assessment of wildfire interface risks and mitigation measures for the proposed development at 4412 Woodpark Road in West Vancouver, BC. This project includes one residential lot within the District of West (DWV) Vancouver Wildfire Hazard Development Permit Area. The overall objective of this report is to assess the potential wildfire threat and provide recommendations and tools to reduce this threat to the development site. This assessment report is meant to be submitted as a part of the Wildfire Development Permit application. It must be prepared and signed by a qualified professional. Specific goals for this assessment are:

- To assess and describe fuels by strata (surface, ladder, and crown), type (FBP), composition, quantity, and distribution.
- To provide a risk assessment for the proposed development based on adjacent fuels, building design and materials, landscaping, setbacks, and site-specific concerns.
- To discuss all factors that contribute to wildfire hazard.
- To provide photographs, mapping, and plans as needed to show vegetation, proposed site changes, and current site conditions.

1.1 Site Planning Documents Reviewed

Diamond Head Consulting was provided with the following documentation from the client that provides the basis for all comments and recommendations:

- Topographic Plan of Lot 24, District Lot 887, Group 1, New Westminster District Plan 10004. August 18, 2022. Chapman Land Surveying.
- Architectural Drawings [Site Plan & Elevations]. November 30, 2022. FX40 Building Design.

Any changes to these site plans should be provided to Diamond Head Consulting so that this wildfire report can be updated accordingly.

1.2 Policy Considerations for Wildfire Threat Mitigation

The District’s Wildfire Hazard Report Requirements were developed based on the recommendations of the Community Wildfire Protection Plan. The objective of the guidelines, described in Schedule II of the Official Community Plan, is to proactively minimize the risk from wildfire. Guidelines are provided for buildings and structures and landscaping to reduce wildfire risk. This assessment report considers both NFPA standards and Canadian FireSmart standards to assess fire hazard in the surrounding forests and guide recommendations for the design and construction of buildings and accessory structures. Recommendations in this report translate the OCP guidelines into standards tailored to the development site that will achieve the purposes of the DPA to the extent practicable. No home in the interface can be completely free of risk. The application of the DP guidelines will reduce risk relative to standard development patterns.



Figure 1. Location of the subject site – 4412 Woodpark Road, DWV.

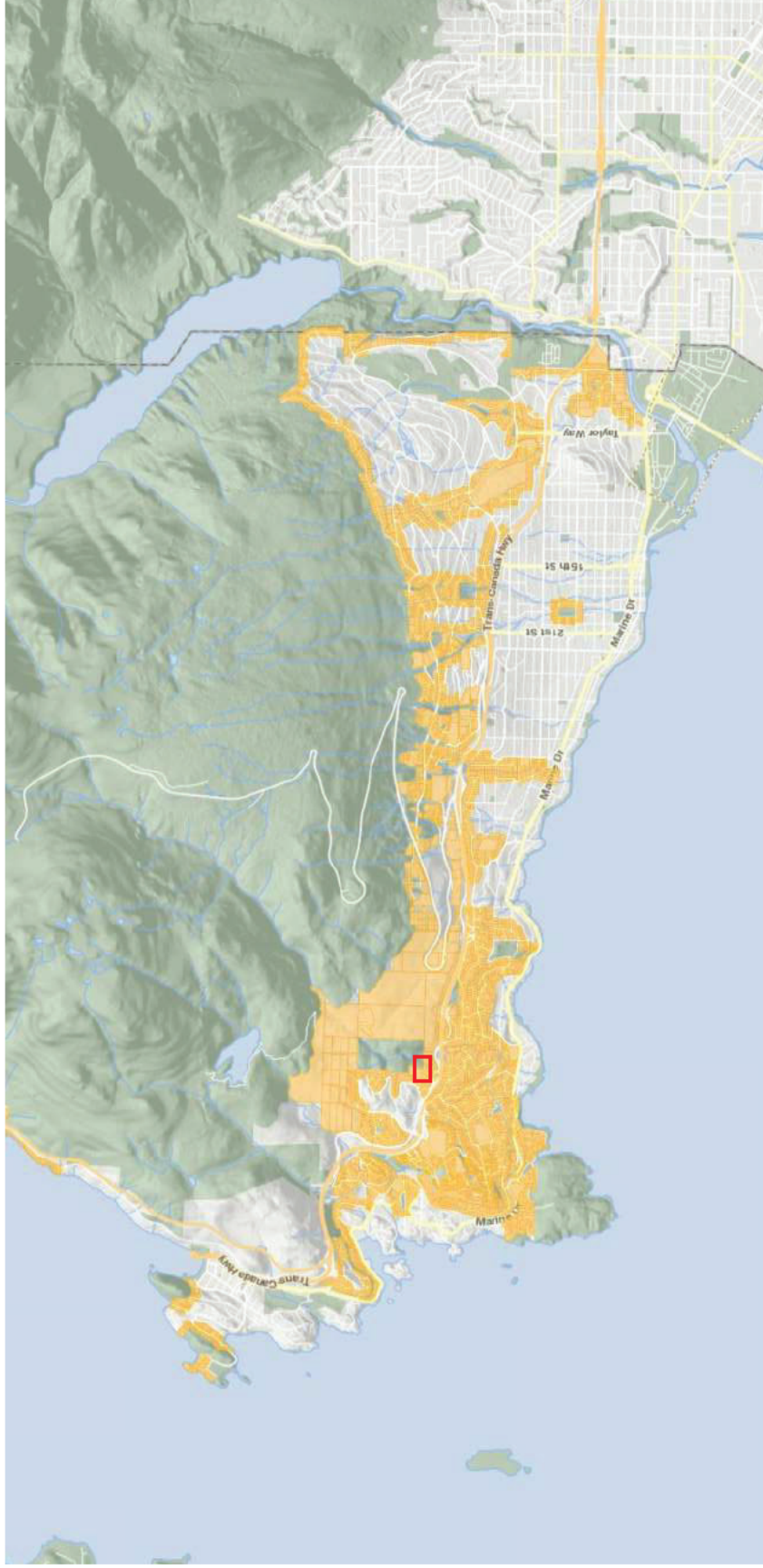


Figure 2. Development Permit Areas (Wildfire) as defined by the District of West Vancouver. Approximate site location indicated in red.

2.0 Methodology

This project falls within the DWV Wildfire Hazard Development Permit Wildfire Interface Area. Native forests are present on site and extend into the property. These natural forest areas have been assessed for wildfire threat and the forest fuels have been classified. The site has been classified according to the Canadian Fire Behaviour Prediction System to the fuel type that best represents the fire behavior potential of the forest types. Generic descriptions of the CFBPS fuel types found in coastal British Columbia are provided in Appendix 3.

Detailed fuel hazard assessments were completed within 100m of the lot using the provincial assessment system, 2020 Wildfire Threat Assessment Guide and Worksheets³. The location of assessment plots is shown in Figure 4 and Figure 5. Data collected at each fuel plot included:

- Soil and humus characteristics
- Slope, aspect, and terrain classification
- Forest stand composition by layer (species, density, age, diameter, height, etc.)
- Vertical and horizontal stand structure
- Quantity and distribution of ladder fuels
- Composition and coverage of understory brush, herbs, and grasses
- Quantity and distribution of ground fuels by size class.

A Wildfire Hazard Assessment has been completed using:

1. Current forest fuel threat in and adjacent to the proposed development using the 2020 Wildfire Threat Assessment Guide and Worksheets.
2. Future structural hazard of the proposed development using the FireSmart Homeowners Manual⁴.

³ Ministry of Forests, Lands, Natural Resource Operations, and Rural Development BC, BC Wildfire Service. 2020, June 4. 2020 Wildfire Threat Assessment Guide and Worksheets (version 4). Available at: <https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/fire-fuel-management/fuels-management/2020-wildfire-threat-assesment-guide-final.pdf>

⁴ Partners in Protection Association. 2019. FireSmart Begins at Home Manual. Available at: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/prevention-home-community/bcws_homeowner_firesmart_manual.pdf

3.0 Project Overview

The site consists of a 2987 m² lot at 4412 Woodpark Road in West Vancouver. The lot is currently occupied by a single detached house with one outbuilding. The house is surrounded by maintained lawns and small landscaping shrubs and plants. The property slopes gently to the east and is surrounded by fences on the north, south, and west sides of the property. There are 47 trees and one hedge with diameters greater than 10 cm located on the property. Diamond Head Consulting has produced a separate arborist report discussing tree management for bylaw sized trees on the property.

The proposed development includes replacing the existing buildings with a new single-family home under the current zoning. New landscaping will be focused on the area adjacent to the new home, with most of the current landscaping and trees removed across the property.



Photo 1. View of the house currently on site, looking north.

4.0 Fuel Descriptions and Wildfire Threat Assessment

4.1 Summary of Fuel Types

Forested areas nearby the proposed development site were classified into the fuel types mapped in Figure 4. The fuels have been divided into classifications based on the sixteen national benchmark fuel types that are used by the Canadian Fire Behaviour Prediction System. Forest areas within 100 metres of the project site include mature coastal forests composed of Douglas-fir and western redcedar and young stands of Douglas-fir and red alder. They are classified as C5 (coniferous) and M2 (mixed) fuel types. C5 fuel type is assigned to coniferous forests in Cypress Falls Park, and in a small, forested area south of the property. These are areas characterized by mixed age forests with large trees and moderate crown fuel volumes. M2 fuel type is assigned to thin forested area on the north side of the baseball diamond at Cypress Falls Park. See Appendix 2 for commentary on the fuel type applications in the project vicinity.

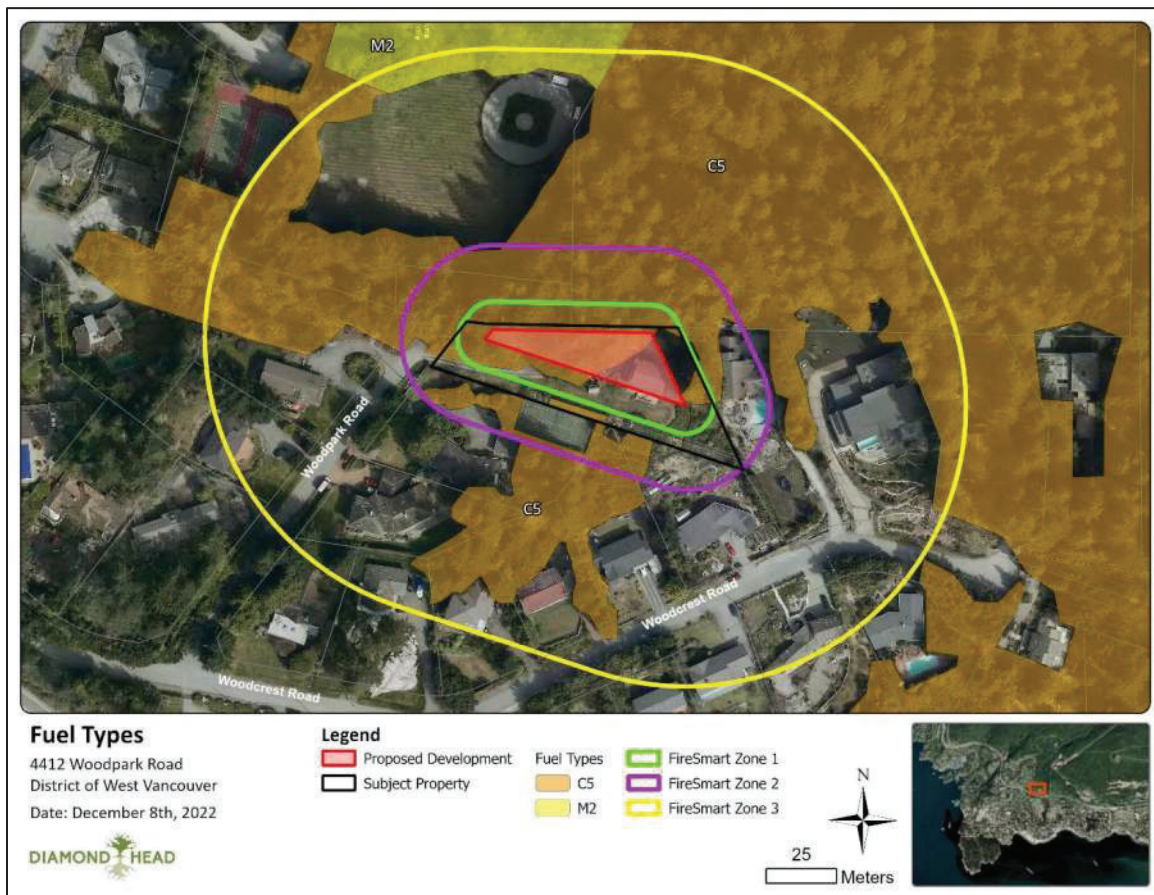


Figure 4. Location of fuel types relative to the project site.

4.2 Summary of Wildfire Threat from surrounding forest

Each forest stand was also assessed for wildfire threat using the Wildfire Urban Interface worksheet. Figure 5 outlines the wildfire threat in relation to the FireSmart zones (10m, 30m, and 100m from the structure). The Wildfire Urban Interface (WUI) ratings and plot characteristics are summarized in Appendix 1. This assessment accounts for the fire behavior potential in these stands but does not represent the likelihood of ignition of the future building.

The subject site was assessed to have an overall **Low** risk from wildfire, associated with the C5 and M2 stands located in Cypress Falls Park. Forest composition within Cypress Falls Park is dominated by the native conifers Douglas-fir (*Pseudotsuga menziesii*) and western redcedar (*Thuja plicata*), with minor patches of young red alder (*Alnus rubra*) in recently disturbed areas. The assessed forest is characterized by a codominant canopy of mature Douglas-fir and western redcedar which forms most of the fuel load in this stand. A younger, suppressed layer of western redcedar is also present. Overall, forest health in the park is fair, with few dying and standing dead stems scattered throughout. Surface fuel loading is average for stands of this type. Despite the mixed-age nature of this stand, low overall density reduces the horizontal and vertical continuity of fuel layers. Ladder fuels are generally separated from the overstorey canopy by a fuel strata gap of 6-9 meters. Crown fire is unlikely under most fire weather conditions. However, surface fire may occur and pose a threat of ignition to nearby homes. To cause a crown fire in the stand north of the building lot extreme fire weather conditions, such as sustained winds following a period of drought, are required.

The forested area south of the proposed building is similar in that it is dominated by a single-aged stand of mature Douglas-firs, but also contains considerable ladder and ground fuels which elevate its wildfire threat rating. A portion of this stand includes several younger Douglas-firs that have been topped for Hydro clearance in the ROW. This dense patch of topped trees connects to the subject property by a thick layer of salal and Scotch broom (*Cystius scoparius*) in the ROW. As a result, there is little strata gap and high continuity between ladder and crown fuels in this stand, which results in a moderate fuel threat rating slightly higher than the stand to the north. However, despite the slightly higher wildfire threat, extreme weather would still be required to cause crown fire in this stand.

The property is bordered by a mixed stand to the northwest. Tree composition in this area is dominated by a mix of young red alder (*Alnus rubra*) and Douglas-fir. This forested stand occupies a man-made berm which separates the baseball field from the Cypress Falls Park parking lot. This M2 stand to the north of the proposed building lot has approximately 50% deciduous composition, reducing its wildfire threat in comparison to the C5 stands. Ladder fuels are mixed but sparse, and ground fuels are composed of low coverage, native deciduous shrubs and grass. Ember spotting from nearby forests and igniting on-site vegetation or building surfaces poses the greatest ignition risk. Creating a FireSmart landscape and building is the best defense against the wildfire risk to this property.

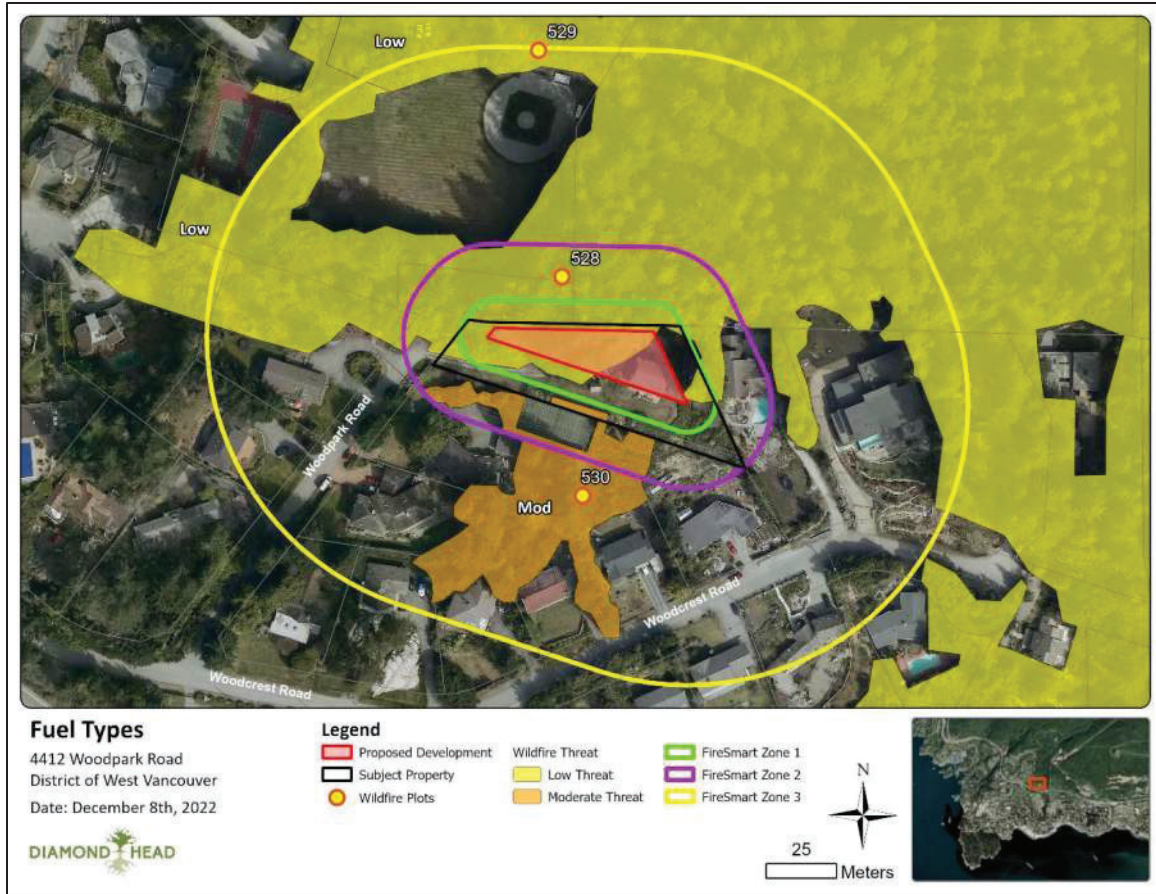


Figure 5. Wildfire threat near the subject site.

4.3 On-site vegetation

On-site landscaping consists primarily of coniferous trees and shrubs set amid lawns. 54 trees were inventoried as part of the accompanying Arborist Report. Twelve of these are protected trees under the District’s tree bylaw. The property also has a large cedar hedge on its southern boundary, which is not protected under any bylaw. Much of the on-site vegetation is not suitable under the DP guidelines. Section 5.1 considers existing vegetation in the context of wildfire hazard mitigation.

5.0 Wildfire Threat Mitigation Recommendations

The following are recommendations to mitigate risk to the development. Community and design recommendations focus on siting of structures, construction materials, access, water sources and utilities. These are factors that provide long term mitigation against wildfire events. Vegetation fuels on and adjacent to the development will change over time and require maintenance. Recommendations are made for on-site landscaping as well as treatments and required maintenance for forest areas adjacent to the property.

It is the responsibility of the owner and their project team to understand and comply with the following requirements.

Wildfires threaten structures primarily through radiant heat and ember ignition. Radiant heat threatens structures when a wildfire establishes in adjacent vegetation and the heat is sufficient to ignite the construction materials. This requires proximity between the wildfire and the structure. Ember ignition occurs when a wildfire spreads embers or firebrands throughout an area, which can then ignite structures. Embers can spread several kilometers, and therefore can threaten structures that do not directly interface with forests and natural vegetation.



Figure 6. Ignition pathways in the interface. Radiant heat threatens structures within 10m of the forest edge while embers spread to structures within the interior of the development.

The fire resistance of homes in the interface can be improved by achieving FireSmart standards for building materials, ignition sources and combustible fuels within each of the three FireSmart Priority Zones. If a wildfire does threaten the area, suppression capability is improved with good access to the interface area, a defensible space to defend from and a good water supply.

FireSmart divide the area around the home into three “priority zones”, which radiate out from the structure and reflect the different ignition pathways.

The Non-Combustible Zone is the area immediately adjacent to a structure, out to 1.5 m. A non-combustible surface should extend around the entire structure and any attachments, such as decks. Creating a non-combustible surface can be as easy as clearing vegetation and combustible material down to mineral soil.

Zone 1 is the area within 1.5 and 10 m of the home or building. In this area life and property are at higher risk from radiant heat. It has been shown through analysis of recent large-scale wildfires that the most important factors in protecting structures are the exterior construction materials and immediate landscaping next to homes⁵. FireSmart guidance emphasizes the use of non-combustible or fire-resistant building materials for decks and outbuildings along with landscaping plans that reduce the potential for direct exposure of the home to radiant heat or flame in this area. Cleaning up debris, garbage, or storage from around the home is also of primary importance in this area.

Zone 2 includes the area from 10 m to 30 m from a structure. Wildfire in forests within this zone can subject the building to radiant heat and may produce an ember shower onto the building. Forest fuels are generally treated aggressively in this area to prevent a crown fire from being established and reduce the intensity of radiant heat and ember production. Treatments may include removal of ground fuel, thinning of trees, and lift pruning of retained trees.

Zone 3 includes the area from 30 m out to 100 m. People and structures are at risk from ember transport associated with a wildfire in this area. FireSmart guidance in this area can recommend forest stand thinning, fuel management, and the designation of access and egress. The goal in this area is to prevent a crown fire, but the distance from the home means fuel management is generally not as aggressive as treatments in Zone 2.

⁵ Westhaver, A. 2017. Why some homes survived: Learning from the Fort McMurray wildland/urban interface fire disaster. *Institute for Catastrophic Loss Reduction (ICLR) research paper series – number 56.* (March 2017).

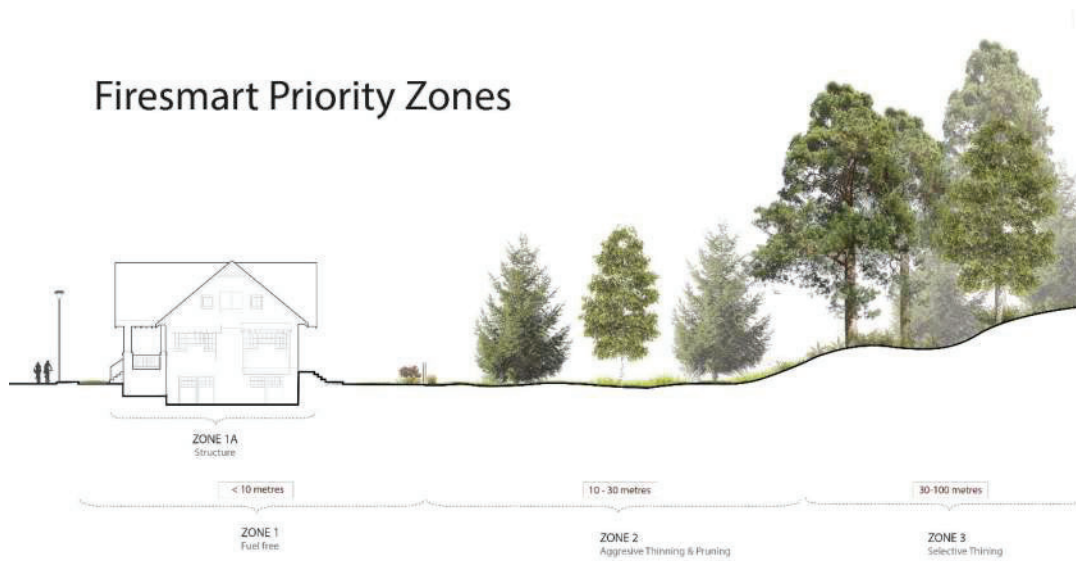


Figure 7. FireSmart Management Zones

5.1 Buildings setback from hazardous fuels and nearby vegetation

FireSmart recommends that a 10m fuel free zone be established and maintained between structures and hazardous fuels. Many properties within the Wildfire Hazard DPA are unable to build homes so that all FireSmart Zone 1 is located within the property limit because of zoning regulations. While vegetation on neighbouring properties can pose a fire hazard, removing, pruning, or otherwise modifying vegetation outside the subject site for the purposes of reducing wildfire risk is not always possible. In the event permission cannot be obtained for modification of off-site vegetation, all FireSmart recommendations and guidelines in this report must be followed. On-site FireSmart construction, landscaping, and maintenance will reduce the wildfire risk and meet the Wildfire DPA objectives as much as practically possible.

Many on site, District, and privately-owned off-site trees pose a wildfire risk to the proposed development. Most on site trees will be removed to accommodate the proposed development. However, several trees along the east property line are recommended for retention by the Arborist Report and have conflicts FireSmart Zone 1 recommendations. Therefore, on site coniferous trees within Zone 1 should be removed. Unless otherwise specified in the Arborist Report, coniferous trees in Zone 2 may be retained but should be pruned to maintain 10 m separation between foliage and the new development. Similarly, off-site trees marked for retention per the Arborist Report should be pruned to the property line where they overlap with FireSmart Zone 1. In addition, surface debris (twigs, branches, and tree needles on the ground) must be removed in Zone 1, both on-site and within Cypress Falls Park. Permission is required for this activity within DWV Parks-owned land.

Except tree D22, all District trees along the north property line are located within FireSmart Zone 1. It is unlikely that the DWV Parks department will permit removal of trees within this area, given this area has been identified as low wildfire threat. Although recommended by FireSmart guidelines, removal of District-owned trees in this zone is not feasible. Therefore, this report proposes pruning as an alternative to mitigate wildfire threat to the site. Unless otherwise specified in the Arborist Report, these trees should have their crowns raised to 5 m and be pruned to maintain 5 m separation between their foliage and the new development. Modification of District trees must be done with permission from the District and under the supervision of an ISA Certified Arborist. Similarly, pruning of off-site trees should be done by an ISA Certified Arborist to avoid causing fatal damage to off-site trees.

Recommendations for observed vegetation as they relate to wildfire hazard are provided in Table 1. Figure 8 shows the accompanying Tree Management and Retention Plan.

Table 1. On site and neighboring trees relevant to wildfire hazard.

Proposed tree work requires Private Tree Cutting Permit		Proposed tree work require Municipal Tree Permit Cutting Permit				Proposed tree work requires Public Lands Tree Cutting Permit	
Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	DP Suitable	Action	Wildfire Hazard Comments
Onsite Trees							
1841	Douglas-Fir	100	36	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1842	Western Red Cedar	52	27	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1843	Western Red Cedar	30	14	Poor	No - Zone 1	Remove	Conflicts with FireSmart Zone 1. Remove.
1844	Western Red Cedar	35	16	Poor	No - Zone 1	Remove	Conflicts with FireSmart Zone 1. Remove.
1845	Western Red Cedar	34	16	Poor	No - Zone 1	Remove	Conflicts with FireSmart Zone 1. Remove.
1851	Western Red Cedar	57	26	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1852	Douglas-Fir	72	36	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1853	Douglas-Fir	43	20	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1854	Douglas-Fir	59	31	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1855	Western Red Cedar	65	18	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1856	Western Red Cedar	14	6	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	DP Suitable	Action	Wildfire Hazard Comments
1857	Western Red Cedar	65	21	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1858	Western Red Cedar	45	28	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1859	Western Red Cedar	35	21	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1860	Western Red Cedar	27	12	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1861	Douglas-Fir	59	27	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1862	Western Red Cedar	50	21	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1863	Western Red Cedar	47	14	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1864	Douglas-Fir	56	27	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1865	Douglas-Fir	54	19	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1866	Western Red Cedar	43	14	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1867	Western Red Cedar	49	17	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1868	Douglas-Fir	38	31	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1875	Western Red Cedar	39	26	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1876	Western Red Cedar	35	16	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1884	Western Red Cedar	53	19	Poor	Yes - Zone 2	Prune	Ensure 10 m separation between foliage and new building.
1885	Western Red Cedar	59	19	Poor	Yes - Zone 2	Prune	Ensure 10 m separation between foliage and new building.
1887	Western Red Cedar	24	17	Moderate	No - Zone 1	Remove	Conflicts with FireSmart Zone 1. Remove.
1888	Western Red Cedar	58	22	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.

Wildfire Hazard DP Area Assessment Report – 4412 Woodpark Road, West Vancouver

Proposed tree work requires Private Tree Cutting Permit

Proposed tree work require Municipal Tree Permit Cutting Permit

Proposed tree work requires Public Lands Tree Cutting Permit

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	DP Suitable	Action	Wildfire Hazard Comments
1889	Western Red Cedar	78	24	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1890	Western Red Cedar	88	20	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1891	Douglas-Fir	36	17	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
1892	Western Red Cedar	40	22	Moderate	No - Zone 1	Remove	Conflicts with FireSmart Zone 1. Remove.
1893	Western Hemlock	20	16	Poor	No - Zone 1	Remove	Conflicts with FireSmart Zone 1. Remove.
3226	Douglas-Fir	75	35	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3227	Douglas-Fir	77	35	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3228	Douglas-Fir	84	38	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3229	Douglas-Fir	88	37	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3230	Douglas-Fir	65	32	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3231	Douglas-Fir	97	41	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3232	Douglas-Fir	96	37	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3233	Western Red Cedar	85	25	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3234	Douglas-Fir	84	31	Good	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3235	Western Red Cedar	76	28	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
3236	Western Red Cedar	73	28	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report.
Off-site Trees							
D1	Douglas-Fir	103	44	Excellent	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.

Wildfire Hazard DP Area Assessment Report – 4412 Woodpark Road, West Vancouver

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Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	DP Suitable	Action	Wildfire Hazard Comments
D2	Western Red Cedar	39	14	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D3	Douglas-Fir	71	40	Good	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D4	Western Red Cedar	52	22	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D5	Western Red Cedar	28	18	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D6	Douglas-Fir	23	13	Dying	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D7	Douglas-Fir	52	32	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D8	Douglas-Fir	43	32	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D9	Western Red Cedar	27	18	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D10	Douglas-Fir	90	43	Excellent	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D11	Douglas-Fir	41	22	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D12	Western Red Cedar	73	27	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from District.
D13	Western Red Cedar	22	15	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D14	Western Red Cedar	23	15	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.

Wildfire Hazard DP Area Assessment Report – 4412 Woodpark Road, West Vancouver

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Proposed tree work requires Public Lands Tree Cutting Permit

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	DP Suitable	Action	Wildfire Hazard Comments
D15	Douglas-Fir	78	40	Excellent	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D16	Douglas-Fir	79	40	Excellent	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D17	Douglas-Fir	66	29	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D18	Western Red Cedar	18	8	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D19	Western Red Cedar	15	8	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D20	Douglas-Fir	31	28	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D21	Douglas-Fir	31	25	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D23	Western Red Cedar	30	14	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D24	Western Red Cedar	53	28	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D25	Douglas-Fir	42	28	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D26	Western Red Cedar	20	11	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D28	Douglas-Fir	50	38	Good	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D29	Douglas-Fir	30	22	Dead	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.

Wildfire Hazard DP Area Assessment Report – 4412 Woodpark Road, West Vancouver

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Proposed tree work requires Public Lands Tree Cutting Permit

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	DP Suitable	Action	Wildfire Hazard Comments
D30	Douglas-Fir	61	36	Good	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D31	Douglas-Fir	62	36	Good	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D32	Western Red Cedar	32	21	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D33	Douglas-Fir	76	31	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from District.
D34	Western Red Cedar	47	26	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from District.
D35	Western Red Cedar	53	29	Moderate	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from District.
D36	Western Red Cedar	20	12	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D37	Western Red Cedar	73	31	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from District.
D38	Douglas-Fir	31	29	Moderate	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D39	Douglas-Fir	25	16	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
D40	Western Red Cedar	79	23	Poor	No - Zone 1	Prune	With permission from DWV, raise crown to 5 m and prune to maintain 5 m separation between foliage and new development.
Os1	Douglas-Fir	27	16	Poor	Yes - Zone 2	None	Ensure foliage does not encroach within 10 m of proposed building.
Os2	Douglas-Fir	33	8	Poor	Yes - Zone 2	None	Ensure foliage does not encroach within 10 m of proposed building.

Proposed tree work located on 4325 Woodcrest Road. Requires neighbors consent prior to commencing tree work.

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	DP Suitable	Action	Wildfire Hazard Comments
Os3	Western Red Cedar	35	24	Moderate	Yes - Zone 2	None	Ensure foliage does not encroach within 10 m of proposed building.
Os4	Western Red Cedar	38	9	Poor	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.
Os5	Western Red Cedar	14	4	Dying	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.
Os6	Western Red Cedar	28	4	Dying	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.
Os7	Western Red Cedar	31	9	Dying	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.
Os8	Western Red Cedar	25	11	Dying	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.
Os9	Western Red Cedar	25	10	Dying	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.
Os10	Western Red Cedar	14	10	Dying	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.
Os12	Western Red Cedar	12	10	Dying	No - Zone 1	Remove	Conflicts with development plans and will not be retained per DHC Arborist Report. Remove with permission from adjacent landowner.

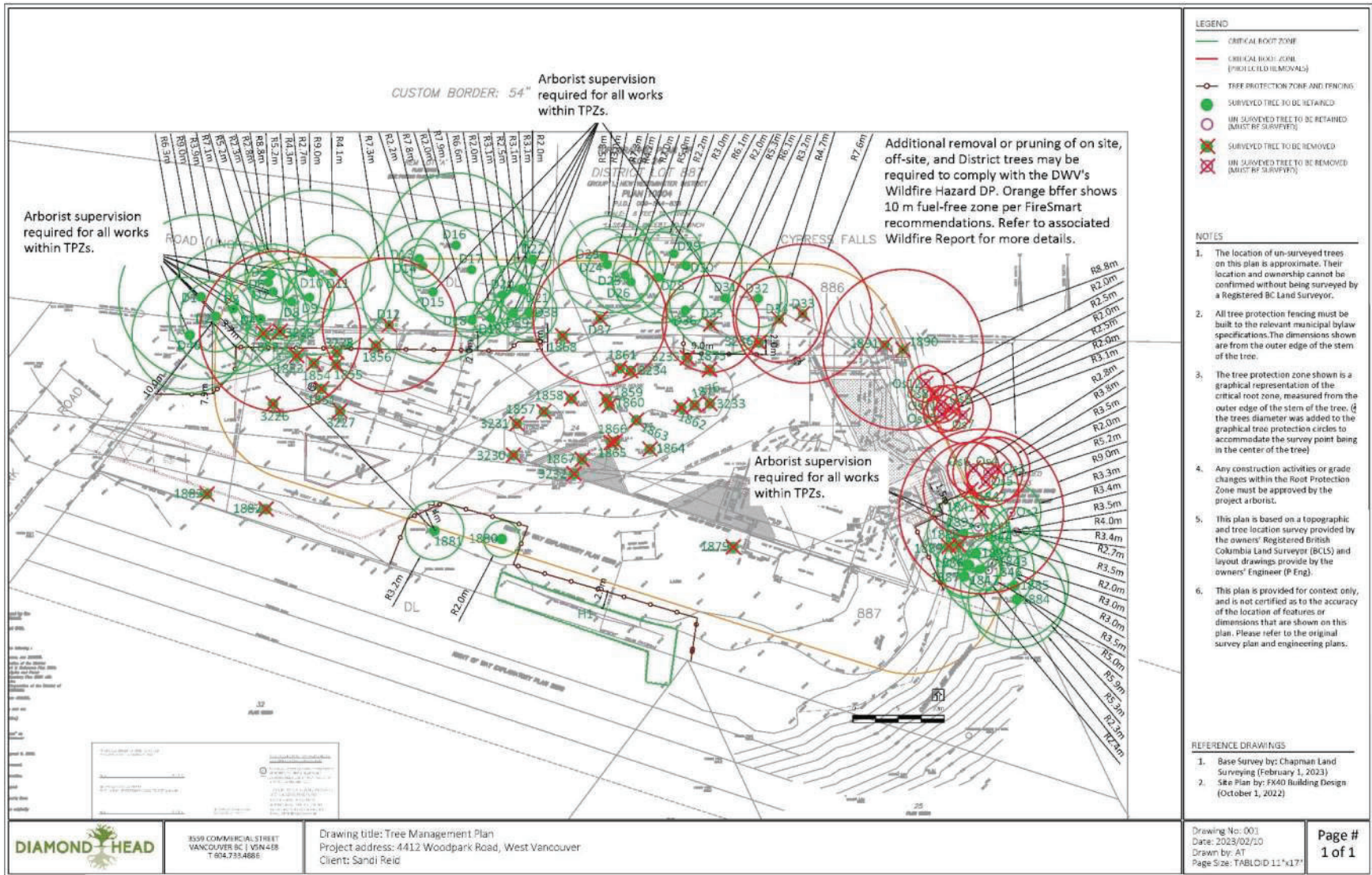


Figure 8. Location of trees referred to in this report.



Photo 2. Cedar hedging on the southern boundary of the property.



Photo 3. Forests in Cypress Falls Park, seen from the property.



Photo 4. View of District trees north of the property.



Photo 5. View of trees 1893, Os1, and Os2.

5.2 Zone 1A – Building and Construction

Generally, during a wildfire, homes are ignited by embers landing and accumulating on vulnerable surfaces such as roofs, verandas, eaves and openings. Embers can also land on or in nearby flammable materials such as bushes, trees or woodpiles and, if the resulting fire is near the home, it can create enough radiant heat to ignite the walls of the home. Small fires in the yard can also spread towards the structures, beneath porches or under homes. Combustible fencing can “wick” fires in the yard or landscaping towards the home. Therefore, the building material and construction techniques are a significant concern for homes in the interface.

Construction standards and requirements for roofs, chimneys, balconies, decks, and porches apply to all new houses that are built within the wildfire DP area. These are outlined in Schedule II of the District of West Vancouver’s Official Community Plan, which can be viewed on the District’s website. Building standards along with additional recommendations are summarized in Table 2. These should be consistent with the highest current wildfire protection standards published by the NFPA, or any similar, successor, or replacement body that may exist.

Table 2. Requirements for building design and construction

Requirements for building materials	
Building setbacks	<ul style="list-style-type: none"> All new buildings must be located as far from forest interface as possible within the constraints of zoning and environmentally sensitive areas.
Roofing	<ul style="list-style-type: none"> Class A rated roofing material* should be used, and asphalt or metal roofing should be given preference. Any spaces between roof decking and covering should be blocked. Screen or enclose rain gutters to prevent accumulation of plant debris. See additional roofing specifications below.
Siding	<ul style="list-style-type: none"> Exterior vertical walls should be clad with fire resistant materials*. Preference should be given to stucco, metal, brick and concrete cladding. Ensure that fire resistant materials extend from the foundation to the roof. Flame resistant coatings that require ongoing maintenance or reapplication are not acceptable. Exterior wall assemblies that have exterior wood that is untreated and rely on the interior wall for fire resistance are not acceptable. See additional siding specifications below.
Vents, openings, eaves, attics, overhanging projections, soffits	<ul style="list-style-type: none"> Vents should be screened using 3mm, non-combustible wire mesh, and vent assemblies should use fire shutters or baffles. Eaves, soffits, attics, overhanging projections and underfloor openings should be protected with non-combustible covers.
Exterior windows and Doors	<ul style="list-style-type: none"> All windows should be double glazed, or of glass block. Radiant faces exposed to the forest edge should be multi-paned with one pane glazed with annealed or tempered insulating glass. Limit the size and number of windows that face large areas of vegetation. Window screens should be non-combustible.

Requirements for building materials

	<ul style="list-style-type: none"> Exterior doors on radiant faces exposed to the forest edge should be of fire resistant materials.
Decks, porches, balconies	<ul style="list-style-type: none"> Decks, patios, porches, and balconies must use fire-resistant or non-combustible materials. Slotted deck surface allows needle litter to accumulate beneath the deck. Provide access to this space to allow for removal of this debris. Any covers should be built of the same ignition-resistant materials as a roof.
Chimney	<ul style="list-style-type: none"> All chimneys and wood-burning appliances should have approved spark arrestors (securely attached and made of 12-gauge welded or woven wire mesh screen with mesh opening of less than 12 mm).
Exterior sprinklers	<ul style="list-style-type: none"> While exterior wall or roof sprinklers were considered, they are not presently recommended because of the lack of accepted standards for design and installation, and the uncertainty regarding maintenance and triggering of sprinklers during a wildfire event when homes are evacuated.
Fences	<ul style="list-style-type: none"> Fencing within 1.5 m of any structures must be made of ignition resistant materials. Apply a fire protective coating rated to Class A (NFPA 1144) where wood fencing is used within 10 m of the building or accessory structures. No wood fencing may be used within 1.5 metres of buildings or accessory structures.

Recommendations during construction

Combustible materials	<ul style="list-style-type: none"> During construction of houses, all waste construction materials including brush and land clearing debris; needs to be cleaned up on a regular basis, to minimize the potential risk. No combustible materials should be left at the completion of construction.
Hydrants	<ul style="list-style-type: none"> Prior to construction of any wood frame buildings, there must be fire hydrants within operating range.
Fire Suppression	<ul style="list-style-type: none"> The contractor should be familiar with the BC Wildfire Act and the current provincial standards for wildfire suppression and have the appropriate tools on-site for the duration of the project.

* **Non-combustible materials:** means that a material meets the acceptance criteria of CAN/ULC S114, (Standard Method of test for determination of non-combustibility in Building Materials)

Fire-resistant materials: means that a material meets the acceptance criteria of CAN/ULC-S101, (Fire Endurance Tests of Building Construction and Materials)

Rated roofing materials: Class A, B or C is a measure of the external spread of flame on a roof surface. Tests are conducted using CAN/ULC S107M methods of fire tests of roof coverings, or equivalent. The best rating achieved is Class A, which may be described as effective against severe fire exposure.

Roofing specifications

Roofing must be non-combustible. These have a Class A flame spread rating defined as “Class A roof coverings are not readily flammable, are effective against severe fire exposures, and do not carry or communicate (i.e., spread) fire”. CAN/ULC S107 "Standard Test Methods for Fire Tests of Roof Coverings" is the testing procedure used to determine a product's or roof assembly's classification. Any products that are certificated as Class A with an "Assembly" requirement must have a project engineer or architect provide signed proof that the product has been installed as per the specifications of the manufacturer. Because roofing occupies a large portion of the home's exterior surface area and is oriented to down-falling embers, roofs are the most vulnerable part of the home's assembly. Proposed asphalt roofing for the home is anticipated to meet this requirement.

Siding specifications

Exterior siding must be fire resistant (stucco, brick, fibre cement boards/panels and poured concrete). Untreated wood products do not meet this standard. Flame resistant coatings that require ongoing maintenance or reapplication are not acceptable. Exterior wall assemblies that have exterior wood that is untreated and rely on the interior wall for fire resistance are not acceptable. Wood products that have permanent treatments or are naturally fire resistant can be accepted if product specifications and certified testing is provided. The District may require that the final structure be inspected to confirm structures have been built to these standards and to obtain a permit for occupancy and bonding.

Proposed siding materials have not been defined at this time.

It is critical that the structure be designed and built to these standards. The District may require that the final structure be inspected to confirm it is compliant and to obtain a permit for occupancy and bonding.

5.3 Zone 1 – FireSmart landscaping and maintenance

Landscaping and maintenance for the site should follow FireSmart principles as laid out in the most recent edition of the FireSmart BC Homeowner's Manual. FireSmart describes zones 1, 2, and 3, of increasing distance from the structure where different treatments and maintenance regimes are recommended to reduce wildfire behavior. Most of the lot will be within 10 metres of the proposed home. Planning and maintenance of this area should follow the requirements of priority zone 1 (<10m from structures) outlined in the FireSmart program. The goal in this zone is to remove hazardous fuels and convert vegetation to fire-resistant species to produce an environment that does not support combustion. Recommendations for landscape and maintenance are summarized in Table 3. It is recommended that new coniferous trees and shrubs, including hedging, be excluded from the landscape plan.

Table 3. Requirements for landscaping and maintenance

Landscaping Requirements
<ul style="list-style-type: none">• Remove all highly flammable vegetation and other combustibles from around the building.• No conifer trees species should be planted within 10m of any buildings. Existing trees further than 10m from the proposed home can be retained if desired.• Landscaping should incorporate species that are fire resistant. These types of plants tend to have moist, supple leaves with low amounts of sap or resin. They also have a tendency not to accumulate dead material. A list of fire-resistant plants and trees can be found at the FireSmartBC website. A list of suitable species has also been provided in Appendix 6.• Ensure that vegetation will not grow to touch or overhang buildings through appropriate tree selection and proactive maintenance.• Irrigation sprinklers may be installed in landscaping but are not required. Where possible, use plants that are tolerant of drought.
Landscaping Maintenance Requirements
<ul style="list-style-type: none">• Annual grasses within 10 meters of buildings should be kept mowed to 10 centimeters or less and watered regularly during the summer months• Remove any local accumulations of woody or combustible material (e.g., no woodpile or yard waste accumulations).• Remove any over mature, dead or dying shrubs and trees.• Ensure off-site and encroaching trees are pruned to eliminate contact between foliage and building surfaces• Plant only fire-resistant trees and shrubs. A list of fire-resistant plants and trees can be found at the FireSmartBC website. A list of suitable species has also been provided in Appendix 6.

A landscape plan has not been created at this time. Ensure that the Landscape plan complies with all recommendations described above.

5.4 Zones 2 and 3 – Fuel Hazard Mitigation in Adjacent Forested Areas

Forests that are adjacent to planned structures and pose a high wildfire risk wildfire can be treated to reduce fuel loading and continuity. The property directly neighbors Cypress Park to the north. The park is the only contiguous forested area within 100 m of the property and poses a low overall wildfire threat. Therefore, there are no proposed fuel mitigation strategies for FireSmart zones 2 and 3.

6.0 Future Condition FireSmart Structure and Hazard Assessment

The form below provides an assessment of the proposed development using the FireSmart Structure and Hazard Assessment form. Assessment ratings are made assuming that the recommendations outlined in this report are adhered to. Note that the small portions of treed area within Zone 1 in Cypress Falls Park are proposed for pruning and tree removal, altering them from a natural forest.

Table 4. FireSmart Structure and Hazard Assessment

ZONE 1			
HOME/10 m	Criteria	Rating Options	RATING
What type of roofing material do you have?	Metal, clay tile, asphalt shingle or ULC rated shakes (may be affected by the condition of your roof)	0	0
	Unrated Wood Shakes	30	
Gutter type and roof cleanliness?	Non-combustible gutter – no debris	0	0
	Combustible gutter – no debris	6	
	Non-combustible gutter with debris	10	
	Combustible gutter with debris	16	
What is the exterior of your home built of?	Non-combustible material, stucco, metal siding or brick	0	0
	Combustible or non-ignition resistant (vinyl, wood)	6	
How fire-resistant are your windows and doors?	Tempered glass in all doors/windows	0	2
	Double-pane glass - small/medium (smaller than 1 metre x 1 metre)	1	
	Double-pane glass - large (greater than 1 metre x 1 metre)	2	
	Single-pane glass - small/medium (smaller than 1 metre x 1 metre)	4	
	Single-pane glass - large (greater than 1 metre x 1 metre)	6	
Are your vents screened?	Non-combustible, fire-rated vents or vents with 3 mm screening	0	0
	Combustible vents, not fire-rated or without 3 mm screening	6	
Are your eaves closed?	Closed or Boxed-in eaves	0	0
	Open eaves	6	
Have you sheathed-in the underside of your balcony, deck, porch or open foundation?	N/A, no gaps or cracks, heavy timber, noncombustible or fire-rated construction with non-combustible surface and no combustible debris under deck	0	0
	Gaps or cracks, no heavy timber or fire-rated construction with combustible surface and combustible debris under deck	30	
Is your home set back from the edge of a slope?	Building is located on the bottom or lower portion of a hill	0	6
	Building is located on the mid to upper portion of a hill or the crest of a hill	6	
ZONE 1 HOME SCORE			8

*Building materials have not been provided at this time

NON-COMBUSTIBLE ZONE			
Within 1.5 m of home	Criteria	Rating Options	RATING
1.5 m from the ground-level exterior footprint of the structure including any attachments or extensions	Non-combustible surface, no combustible debris, materials, fences or plants present	0	0
	Combustible surface, combustible debris, materials, fences or plants present	30	
NON-COMBUSTIBLE ZONE SCORE			0

ZONE 1			
YARD/within 10 m	Criteria	Rating Options	RATING
Where are your outbuildings (or adjacent buildings) located	More than 10 metres from home	0	0
	Less than 10 metres from home	6	
Where is your woodpile located?	More than 10 metres from any building	0	0
	Less than 10 metres away from any building	6	
What type of forest* grows within 10 metres of your home?	Deciduous trees	0	0
	Mixed wood trees (deciduous and conifer)	30	
	Conifer trees	30	
What kind of surface vegetation and combustible materials are within 10 metres of your home and outbuildings?	Well-drained lawn or non-combustible landscaping material	0	0
	Uncut grass or shrubs	30	
	Twigs, branches and tree needles on the ground	30	
ZONE 1 YARD SCORE			0

*a forest is considered a continuous intact treed area Zone 1 is only partially treed, and managed to alter from a natural continuous intact treed area.

ZONE 2			
YARD/10 – 30 m	Criteria	Rating Options	RATING
What type of forest surrounds your home?	Deciduous trees	0	10
	Mixed wood trees (deciduous and conifer)	10	
	Conifer trees separated	10	
	Conifer trees continuous	30	
What kind of surface vegetation grows within 10-30 metres of your home and around your buildings?	Well-drained lawn or non-combustible landscaping material	0	5
	Uncut grass or shrubs	5	
	Scattered twigs, branches and tree needles on the ground	5	
	Abundant twigs, branches and tree needles on the ground	30	
Are there shrubs and low branches (within 2 metres of the ground) in the surrounding forest?	None within 10-30 metres	0	0
	Scattered within 10- 30 metres of buildings	5	
	Abundant within 10-30 metres of buildings	30	

ZONE 2 YARD SCORE		15
TOTAL SCORE		
		Rating
ZONE 1/ Home and Yard	Home	8
	Non-Combustible Zone	0
	10 metres from home	0
ZONE 2 / Yard	10 – 30 metres from home	15
TOTAL		23 - Moderate

HAZARD SCORE: Low: <21 Moderate: 21-29 High: 30 – 35 Extreme: >35

Following the recommendations in this report will achieve a FireSmart hazard score of moderate

The FireSmart Hazard Assessment for this property is moderate, assuming the recommendations in this report are followed. This rating reflects the building materials and landscaping prescribed by this report and proposed in the reviewed issue of the site plans. This assessment also assumes recommendations for vegetation management, both on the site and on the adjacent DWV property, are followed as recommended in this report. Risk associated with ember transport from landscape forests can be managed through FireSmart construction and landscape maintenance.

7.0 Final Remarks

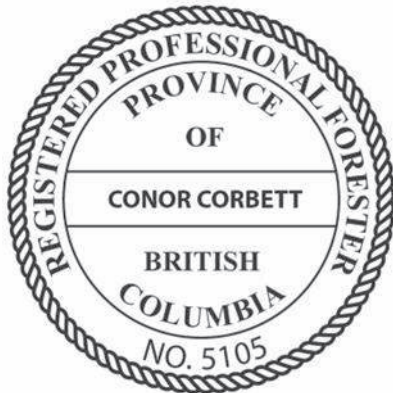
The District of West Vancouver requires that the proposed development is consistent with the Wildfire Development Permit Guidelines. Planners, engineers, and landscape architects should refer to this report and the FireSmart manual during the design phase of this development. All construction operations should be conducted according to the Wildfire Act and the regulations. Following these regulations will help reduce liability and protect the development.

The District may require that an inspection be done following construction to ensure that the structure and landscaping meet these requirements.

If the recommendations made within this report and the requirements outlined by the District of West Vancouver are complied with, wildfire risk to life and property will be substantially mitigated and the development will meet FireSmart standards to a reasonable extent within the limitations of zoning and ownership.

If there are any questions or concerns as to the contents of this report, please contact us at any time.

Sincerely,



Signed: February 15, 2023

s. 22(1)

Conor Corbett MSFM
Registered Professional Forester
ISA Certified Arborist (PN-8429A)
ISA Tree Risk Assessment Qualified (TRAQ)
BC Wildlife and Danger Tree Assessor (P2722)

Appendix 1 Wildland Urban Interface Plots

Wildfire Threat Assessment Worksheet - Fuel Setting Scoring			
Location	528	Date	08-Dec
Assessor	X2		
Crown species composition (species %)	Fd6Cw4		

Component/subcomponent	PULLDOWNS	SCORE
Depth of organic layer	2-<5	3
Surface and ladder fuel (.1-3m in height)		
Surface fuel composition	Dead fines (leaves, needles, fine branches)	8
Dead and down material continuity (<7cm)	10-25% coverage	8
Ladder fuel composition	Other conifer	8
Ladder fuel horizontal continuity	Sparse <10% coverage	2
Stems/ha (understory)	<500	2
Stand structure and composition (dominant and co-dominant)		
Overstory composition/CBH	Conifer with high CBH (>10 m)	3
Crown closure	20-40% or deciduous (any closure)	1
Fuel strata gap	6-9	1
Stems/ha (overstory)	<400	0
Dead and dying (% of dominant and co-dominant stems)	Standing dead/partial down <20%	2
Comments:	TOTAL	38
	RATING	LOW
Mature douglas fir canopy, ladder fuel layer sparse if not absent, understory sparse if not absent, ground fuels dominated by dead needles and occasional dead branches.		

Threat Rating (Max Score 110)				
Eco - province	Low	Moderate	High	Extreme
Coast and Mountains, Georgia Depression	0 - 41	42 -57	58 - 69	70-100

Wildfire Threat Assessment Worksheet - Fuel Setting Scoring			
Location	529	Date	08-Dec
Assessor	X2		
Crown species composition (species %)	Dr6Fd3Cw1		

Component/subcomponent	PULLDOWNS	SCORE
Depth of organic layer	1-<2	1
Surface and ladder fuel (.1-3m in height)		
Surface fuel composition	Moss, herbs and deciduous shrubs	4
Dead and down material continuity (<7cm)	Scattered <10% coverage	4
Ladder fuel composition	Mixedwood	5
Ladder fuel horizontal continuity	Scattered 10-39% coverage	8
Stems/ha (understory)	<500	2
Stand structure and composition (dominant and co-dominant)		
Overstory composition/CBH	Mixwood 50%	2
Crown closure	20-40% or deciduous (any closure)	1
Fuel strata gap	<3	5
Stems/ha (overstory)	<400	0
Dead and dying (% of dominant and co-dominant stems)	Standing dead/partial down <20%	2
Comments:	TOTAL	34
	RATING	LOW
Young alder stand on artificial berm with filled souls. Ground cover composed of sparse shrubs and grass. Tree branches are dominant ladder fuels		

Threat Rating (Max Score 110)				
Eco - province	Low	Moderate	High	Extreme
Coast and Mountains, Georgia Depression	0 - 41	42 -57	58 - 69	70-100

Wildfire Threat Assessment Worksheet - Fuel Setting Scoring			
Location	530	Date	08-Dec
Assessor	X2		
Crown species composition (species %)	Fd9Cw1		

Component/subcomponent	PULLDOWNS	SCORE
Depth of organic layer	2-<5	3
Surface and ladder fuel (.1-3m in height)		
Surface fuel composition	Dead fines (leaves, needles, fine branches)	8
Dead and down material continuity (<7cm)	Scattered <10% coverage	4
Ladder fuel composition	Other conifer	8
Ladder fuel horizontal continuity	Patchy 40-60% coverage	10
Stems/ha (understory)	<500	2
Stand structure and composition (dominant and co-dominant)		
Overstory composition/CBH	Conifer with moderate CBH (5-9 m)	4
Crown closure	20-40% or deciduous (any closure)	1
Fuel strata gap	3-6	3
Stems/ha (overstory)	401-600	2
Dead and dying (% of dominant and co-dominant stems)	Standing dead/partial down <20%	2
Comments:	TOTAL	47
	RATING	MODERATE
Modified Fd stand with significant areas of topped trees near adjacent properties. Dense scotch broom under power lines. Ground fuels in stand mix between moss and dead needles		

Threat Rating (Max Score 110)				
Eco - province	Low	Moderate	High	Extreme
Coast and Mountains, Georgia Depression	0 - 41	42 -57	58 - 69	70-100

Appendix 2 Description of Forest Fuel Types

Fuel Type C5 – Coniferous dominated stand

An area of C5 fuels has been identified within 100 metres of the project site. This part of Cypress Falls Park is characterized by mixed age coniferous stands with a dominant canopy layer of large old trees and a secondary canopy layer of young—mature trees. The stand is composed of moderately stocked (300 – 700 stems per hectare) conifers Douglas-fir (*Pseudotsuga menziesii*) and Western Redcedar (*Thuja plicata*). This fuel type potentially poses an overall low wildfire threat. It takes a large amount of energy to create a crown fire in this fuel type. For a crown fire to generate, it would likely require extreme fire weather conditions, where temperature exceeds relative humidity during a period of drought. Table 5 outlines the general stand characteristics of a C5 stand.

Table 5. Stand characteristics for fuel type C5

Characteristic	Risk Level	Description
Surface fuel continuity (% cover)	Low	20-40 % cover
Vegetation fuel composition	Low	Herbs and deciduous shrubs
Fine woody debris continuity (<=7cm) (% cover)	Med	10-25% coverage
Large woody debris Continuity (>=7cm) (% cover)	Low	<10% coverage
Live conifer canopy closure (%)	Med	41-60% crown closure
Live deciduous canopy closure (%)	High	<20% crown closure
Live and dead conifer crown height (m)	Low	3-5m
Live and dead suppressed and understory conifer (stems/ha)	Low	<500 stems/ha



Photo 6. Coniferous fuels in Cypress Falls Park.

Fuel Type M2 – Mixed conifer and deciduous stand

A small portion of the forests near the project site matches this fuel type description. The forests in the area consist of approximately 50% native conifers with groups or patches of young deciduous trees, mainly consisting of red alder, accounting for the other 50% of the canopy cover. The fire behavior potential in these stands varies depending on the percentage content of coniferous species. Stands in Cypress Falls Park pose a low threat of wildfire due to their structure and fuel composition. Ignition in this area resulting in a crown fire is highly unlikely, even during periods of extreme fire weather conditions. The low-rated stand is moderately stocked, with mixed wood understory, sparse ladder fuels, and a very thin organic layer; comprised of moss herbs and deciduous shrubs. Table 6 outlines general stand characteristics.

Table 6. Stand characteristics for fuel type M2

Characteristic	Risk Level	Description
Surface fuel continuity (% cover)	Low	20-40 % cover
Vegetation fuel composition	Low	Herbs and deciduous shrubs
Fine woody debris continuity (<=7cm) (% cover)	Low	Scattered, <10% coverage
Large woody debris Continuity (>=7cm) (% cover)	Low	<10% coverage
Live conifer canopy closure (%)	Low-Med	20-40% crown closure
Live deciduous closure (%)	Med	20-40% crown closure
Live and dead conifer crown height (m)	Med	2-<3 m
Live and dead suppressed and understory conifer stems/ha)	Very Low	0-500 stems/ha



Photo 7. Mixedwood fuels in Cypress Falls Park.

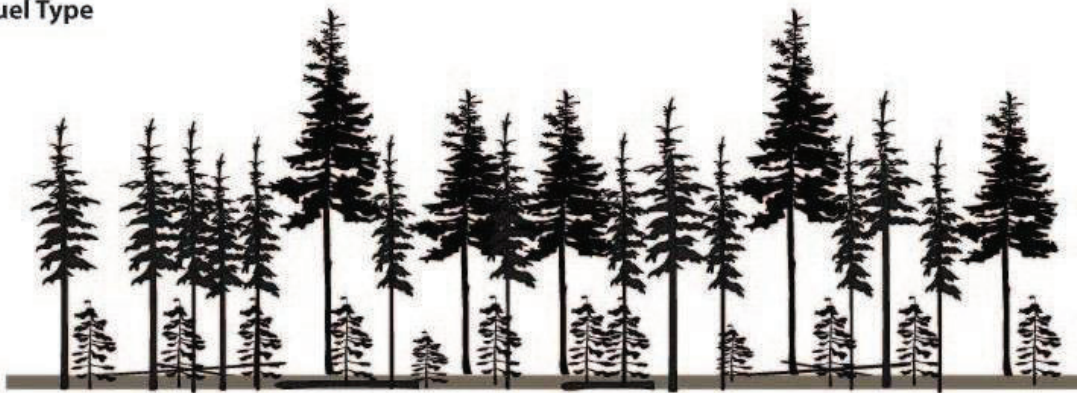
Appendix 3 Generic Description of Coastal Fuel Types

The current Canadian Forest Fire Behavior Prediction (FBP) System does not include coastal forests in their fuel type descriptions. These fuel types reflect stand conditions that were modeled to predict fire behavior potential. On the coast the fuel type that most closely represents forest stand structure and conditions has been used. The following fuel types are the most common interpretations used on the coast.

C5 – Uniform Second Growth Conifer Stand – Moderate Risk

This fuel type is characterized by mature second growth stands dominated by Western Red Cedar (*Thuja plicata*) and Western Hemlock (*Tsuga heterophylla*). There can be a small component of dominant Douglas-fir (*Pseudotsuga menziesii*) in the overstory. This fuel type is moderately dense (500-1000 stems per ha) and has a high crown base height of 10 to 15m. The understory is of moderate density, usually consisting of Western Redcedar and Western Hemlock regeneration. The ground fuel component consists of moderately dense fine fuel layer (>7cm) and a low percent cover of large woody debris (>7cm). It takes a large amount of energy to create a crown fire.

C5 Fuel Type



C3 – Multistoried Second Growth Conifer Stand – High Risk

This fuel type is characterized by a uniform mature second growth conifer dominated stand. This stand consists of mature Western Red Cedar (*Thuja plicata*) and Western Hemlock (*Tsuga heterophylla*). There is also a minor component of dominant Douglas-fir (*Pseudotsuga menziesii*) in the stand. Compared to a C5 stand, a C3 stand is more densely stocked (1000-2000 stems per ha) and there is a lower crown base height (usually 4-8 m). The understory is more densely stocked with Western Redcedar and Western Hemlock. The ground fuel component consists of moderately dense fine fuel layer (>7cm) and a low percent cover of large woody debris (>7cm). A crown fire in a C3 stand takes less energy to create than a C5 stand.

C3 Fuel Type



M2 - Mature Stands Consisting of a mix of Conifer and Deciduous Trees – Low to Moderate Risk

This fuel type consists of a mixed conifer and deciduous tree type. This stand is not uniform in structure and is composed of a wide variety of species. These may include and not limited to:

Western Red Cedar (*Thuja plicata*), Western Hemlock (*Tsuga heterophylla*), Douglas-fir (*Pseudotsuga menziesii*), Red Alder (*Alnus rubra*), Bigleaf Maple (*Acer macrophyllum*), and Paper Birch (*Betula papyrifera*).

These stands usually consist of less than 70% conifer trees, reducing the wildfire risk. There is usually a low crown height (5m) and a high percentage of ladder fuels. There is a high percent cover of suppressed trees, but they are usually composed of deciduous species.

M2 Fuel Type



D1 - Deciduous Dominated Stands – Low Risk

This fuel type is dominated by deciduous trees consisting mostly of Red Alder (*Alnus rubra*), Bigleaf Maple (*Acer macrophyllum*), and Paper Birch (*Betula papyrifera*). D1 stand structure is not uniform with a wide variety of tree ages. There is a well-developed shrub layer, but is mostly composed of low-flammable species. Crown fires are not expected because of the deciduous fuel type. D1 stands on the coast can be used as fuel buffers as they present a low wildfire risk.

D1 Fuel Type



C4 - Uniform Densely Stocked Conifer Stand

This fuel type is rare within the lower mainland as it is mostly defined by densely stocked Lodgepole pine (*Pinus contorta*). This fuel type can be found more towards Squamish and Pemberton. Some small densely stocked Western Red Cedar (*Thuja plicata*), Western Hemlock (*Tsuga heterophylla*), and Sitka Spruce (*Picea sitchensis*) can be found in the Lower Mainland, but these stands are often isolated and small. Stands are densely stocked, (approximately 10,000-30,000 stems/ha) with a large quantity of fine and large woody debris. These stands are characterized as having vertical and horizontal fuel continuity. The shrub community in this stand is of very low density.

Appendix 4 Resources and Links

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- National Fire Protection Association. 2013. NFPA 1144. Standard for Reducing Structure Ignition Hazards from Wildland Fire.
- National Fire Protection Association. 2013. NFPA 1141. Standard for Fire Protection Infrastructure for Land Developments in Suburban and Rural Areas.
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Appendix 5 Description of Terminology

Term	Definition
Co-dominant Trees	Defines trees with crowns forming the general level of the main canopy in even-aged groups of trees, receiving full light from above and partial light from the sides.
Coarse fuels (coarse woody debris)	Combustible material over 7cm in diameter
Crown base height	The height, above ground, where the live crown of coniferous trees begins. Measured in meters (m).
Crown Closure	An assessment of the degree to which the crowns of trees are nearing general contact with one another. The percentage of the ground surface that would be considered by a downward vertical projection of foliage in the crowns of trees.
Diameter at Breast Height	The diameter of a tree measured at 1.3m above the point of germination.
Dominant Trees	Defines trees with crowns extending above the general level of the main canopy of even-aged groups of trees, receiving full light from above and comparatively little from the sides.
Fire-resistant materials	These meet the acceptance criteria of CAN/ULC-S101, (Fire Endurance Tests of Building Construction and Materials)
Fuel Break	An area of non-combustible materials that inhibits the continuous burning of fuels.
Fuel Load	The mass of combustible materials expressed as a weight of fuel per unit area.
Fuel Moisture	Percent water content of vegetation. This is an important factor in rate of spread.
Fuel Types	Classification of forested stands as described by Canadian Forest Fire Behavior Prediction (FBP) System. There are currently no fuel type classifications specific to coastal fuels.
Fine fuels (fine woody debris)	Combustible woody debris under 7cm in diameter.
Fire Behaviour	The manner in which a fire reacts to the influences of fuel, weather, and topography.
Intermediate Trees	Defines trees with crowns extending into the lower portion of the main canopy of even-aged groups of trees, but shorter in height than the co-

Term	Definition
	dominants. These receive little direct light from above and none from the sides, and usually have small crowns that are crowded on the sides.
Ladder Fuels	Live or dead vegetation that allows a fire to burn into the canopy (crown) of a forested stand.
Lift Pruned	The removal of ladder fuels to increase the crown base height.
Litter Layer	Surface buildup of leaves and woody material.
Live Crown Ratio	Is the percentage of the total stem length covered with living branches. It provides a rough but convenient index of the ability of a tree's crown to nourish the remaining part of the tree. Trees with less than 30 percent live crown ratio are typically weak, lack vigor, and have low diameter growth, although this depends very much on the tree's age and species.
Non-combustible materials	Means that a material meets the acceptance criteria of CAN/ULC S114, (Standard Method of test for determination of non-combustibility in Building Materials)
Open Grown	Defines trees with crowns receiving full light from all sides due to the openness of the canopy.
Rated roofing materials	Class A, B or C is a measure of the external spread of flame on a roof surface. Tests are conducted using CAN/ULC S107M methods of fire tests of roof coverings, or equivalent. The best rating achieved is Class A, which may be described as effective against severe fire exposure.
Spotting	Fire producing sparks or embers that are carried by the wind and start new fires.
Stems Per Hectare	The number or size of a population (trees) in relation to some unit of space (one hectare). It is measured as the amount of tree biomass per unit area of land.
Suppressed Trees	Defines trees with entirely below the general level of the canopy of even-aged groups of trees, receiving no direct light either from above or from the sides.
Wildfire	An unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, lightning strikes, downed power lines, and all other wildland fires where the objective is to put the fire out.

Appendix 6 Fire Resistant Plants for Landscaping

Fire resistant and drought tolerant ground covers:	Fire resistant and drought tolerant perennials:
<ul style="list-style-type: none"> • Achillea species (when mowed, turf alternative) • Ajuga reptans • Arctostaphylos uva-ursi • Autennaria rosea • Aubrieta detoidea • Ceanothus prostratus • Cerastium tomentosum • Dianthus species • Delosperma nubigenum and the less cold hardy cooperi • Fragaria species (turf alternative) • Phlox subulata • Sedums • Sempervivums • Thymus praecox turf alternative) • Veronica species 	<ul style="list-style-type: none"> • Achillea species • Armeria maritima • Aquilegia • Aurinia saxatilis • Coreopsis • Echinacea purpurea • Epilebium angustifolium • Gaillardia varieties • Geranium species • Helianthemum • Hemerocallis • Kniphofia uvaria • Iris - bearded • Lavendula • Lupinus • Penstemon • Oenothera species • Papaver orientale • Perovskia atriplicifolia • Ratibida columnifera • Salvia species • Stachys byzantina
Fire resistant and drought tolerant shrubs:	Fire resistant and drought tolerant trees:
<ul style="list-style-type: none"> • Amelanchier alnifolia • Caryopteris x clandonesis • Ceanothus • Cistus • Cotoneaster species • Euonymus alatus • Fremontoden on californium • Fuchsia (dieback) • Gaultheria shallow • Holodiscus discolour • Lagerstroemia indica • Mahonia • Pachystima myrsinites • Philadelphus speceis • Paxistima myrthifolia • Pyracantha species • Ribes species • Rhus species • Rosa species and hardy own root shrub • Spiraea bumalda • Symphoricarpos albus • Syringa vulgaris, spidouglassii • Yucca species 	<ul style="list-style-type: none"> • Acer circinatum, glabrum, macrophyllum, plantanoides, rubrum • Aesculus hippocastanum • Alnus rubra tenuifolia • Betula species • Catalpa speciosa • Celtis occidentalis • Cercis canadensis • Cornus florida, stolonifera, nuttallii • Crataegus species • Fagus species • Fraxinus species • Gingko biloba • Gleditsia triacanthos • Gymnocladus dioicus • Juglans • Liquidambar styraciflua • Malus species • Populus species • Prunus cherry • Quercus agrifolia, rubra, palustris, garryana • Robinia pseudoacacia • Salix species • Sorbus aucuparia

Source: Master Gardeners Association of BC. <http://mgabc.org/node/1514>.

Limitations

1. Except as expressly set out in this report and in these Assumptions and Limiting Conditions, Diamond Head Consulting Ltd. (“Diamond Head”) makes no guarantee, representation or warranty (express or implied) with regard to: this report; the findings, conclusions and recommendations contained herein; or the work referred to herein.
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3. The findings, conclusions and recommendations made in this report reflect Diamond Head’s best professional judgment in light of the information available at the time of preparation. This report has been prepared in a manner consistent with the level of care and skill normally exercised by arborists and foresters currently practicing under similar conditions in a similar geographic area and for specific application to the trees subject to this report as at the date of this report. Except as expressly stated in this report, the findings, conclusions and recommendations set out in this report are valid for the day on which the assessment leading to such findings, conclusions and recommendations was conducted. If generally accepted assessment techniques or prevailing professional standards and best practices change at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification if generally accepted assessment techniques and prevailing professional standards and best practices change.
4. Conditions affecting the trees subject to this report (the “Conditions”, including without limitation structural defects, scars, decay, fungal fruiting bodies, evidence of insect attack, discoloured foliage, condition of root structures, the degree and direction

of lean, the general condition of the tree(s) and the surrounding site, and the proximity of property and people) other than those expressly addressed in this report may exist. Unless otherwise stated: information contained in this report covers only those Conditions and trees at the time of inspection; and the inspection is limited to visual examination of such Conditions and trees without dissection, excavation, probing or coring. While every effort has been made to ensure that the trees recommended for retention are both healthy and safe, no guarantees, representations or warranties are made (express or implied) that those trees will remain standing or will not fail. The Client acknowledges that it is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree, or groups of trees, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure and this risk can only be eliminated if the risk is removed. If Conditions change or if additional information becomes available at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification of Conditions change or additional information becomes available.

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6. Diamond Head shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
7. In preparing this report, Diamond Head has relied in good faith on information provided by certain persons, Government Bodies, government registries and agents and representatives of each of the foregoing, and Diamond Head assumes that such information is true, correct and accurate in all material respects. Diamond Head accepts no responsibility for any deficiency, misinterpretations or fraudulent acts of or information provided by such persons, bodies, registries, agents and representatives.

8. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
9. Loss or alteration of any part of this report invalidates the entire report.

GENERAL NOTES AND CONTRACTOR / OWNER OBLIGATIONS

- THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS REPRESENTED ON THE PLANS BEFORE COMMENCING WITH THE CONSTRUCTION OR DEMOLITION OF THIS PROJECT. ANY DISCREPANCIES NOT REPORTED TO THE PK40 BUILDING DESIGN CORP. FOR VERIFICATION WILL BECOME THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR.
- ALL MODIFICATIONS, ADDITIONS OR DELETIONS MADE TO THIS PROJECT WITHOUT DIRECT CONSULTATION WITH THIS OFFICE BECOMES THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR.
- EACH DRAWING ISSUED FOR CONSTRUCTION SHALL BE SIGNED BY THE OWNER(S) AND THE CONTRACTOR. BY SIGNING THESE DRAWINGS, THE OWNER(S) STATE SATISFACTION AND COMPLETE UNDERSTANDING OF THIS PROJECT, THE DESIGN, AND THE SCOPE AND DETAIL OF THE WORK TO BE COMPLETED. DRAWINGS SHALL BE SIGNED BY THE OWNER(S) AND THE CONTRACTOR PRIOR TO COMMENCING WITH CONSTRUCTION. PK40 BUILDING DESIGN CORP. TO RECEIVE ONE SET OF DRAWINGS SIGNED AND AUTHORIZED FOR CONSTRUCTION. FAILURE TO FOLLOW THIS AUTHORIZATION PROCEDURE SHALL RENDER THESE DRAWINGS VOID FOR CONSTRUCTION.
- REVISED DRAWINGS MUST ALSO BE SIGNED BY THE OWNER(S) AND CONTRACTOR PRIOR TO THE CONSTRUCTION OF REVISIONS, AND RETURNED TO THIS OFFICE. THIS PROCEDURE SHALL BE ADHERED TO FOR ANY FUTURE REVISIONS OR ADJUSTMENTS MADE TO THESE DRAWINGS.
- IMPORTANT NOTE: DRAWINGS TO BE VOID FOR CONSTRUCTION UNLESS THE ABOVE PROCEDURE IS FOLLOWED.**
- PK40 BUILDING DESIGN CORP. SHALL NOT BE HELD RESPONSIBLE FOR STRUCTURAL DESIGN OR INTEGRITY OF THIS PROJECT.
- DIMENSIONS MAY BE SUBJECT TO VARIATION FROM THIS PLAN TO ACTUAL DIMENSIONS ATTAINED ON SITE, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPORT ANY SUCH DISCREPANCIES TO THIS OFFICE UPON DISCOVERY.
- ALL CONSTRUCTION SHALL COMPLY TO THE LATEST APPLICABLE B.C. BUILDING CODES AND LOCAL MUNICIPAL BUILDING AND ZONING BY-LAWS.
- ALL PLUMBING AND ELECTRICAL INSTALLATIONS SHALL CONFORM TO THE LATEST EDITION OF THE B.C. ELECTRICAL, PLUMBING, AND BUILDING CODES AS APPLICABLE.
- CONTRACTOR TO CONFIRM ALL WINDOW SIZES AND EXACT DIMENSIONS OF OPENINGS WITH DESIGNER AND OWNER(S) AFTER CONSTRUCTION FRAMING AND PRIOR TO ORDERING WINDOWS.
- PK40 SHALL RETAIN OWNERSHIP OF THESE DRAWINGS UNTIL IN RECEIPT OF ALL MONIES OWING FOR PROJECT DESIGN FEES.

GENERAL NOTES AND BUILDING SPECIFICATIONS

- SEE CONSTRUCTION PLANS FOR STAIR SPECIFICATIONS.
- WINDOWS WITHIN 36" OF CEILING ARE TO BE CONSTRUCTED OF SAFETY GLASS (SEE PLANS)
- GLASS SIDE LIGHTS GREATER THAN 20" IN WIDTH THAT COULD BE MISTAKEN FOR DOORS TO BE CONSTRUCTED OF SAFETY GLASS.
- WINDOW FRAMES TO BE THERMALLY BROKEN (T.Y.)
- MIRRORING DOORS AT ENTRANCES TO WALK-IN CLOSETS ARE TO BE BACKED WITH SOLID MATERIAL.
- GLASS IN SHOWER DOORS OR TUB ENCLOSURE DOORS TO BE CONSTRUCTED OF SAFETY GLASS.
- FRENCH DOORS TO BUILDING EXTERIOR TO BE SAFETY GLASS.
- VENTILATION - MECHANICAL
- MECHANICAL VENTILATION SYSTEM CAPABLE OF PROVIDING AT LEAST ONE HALF AIR CHANGEOVER DURING THE HEATING SEASON, BASED UPON THE INTERIOR FINISHED VOLUME OF DWELLING. THIS SYSTEM SHALL BE CONTROLLED MANUALLY AUTOMATICALLY.
- CERAMIC TILES OR EQUAL REQUIRED FOR BATHROOM FLOORS
- SMOKE ALARMS
 - SMOKE ALARMS CONFORMING TO ULIC 3531 SHALL BE INSTALLED IN BEDROOM HALLWAYS ON SECOND FLOOR, AND BASEMENT FLOOR LEVELS AND IN TOWNHouses. ALARM UNITS SHALL BE INSTALLED ON OR NEAR THE CEILING. INSTALLATION BY PERMANENT CONNECTIONS TO AN ELECTRICAL CIRCUIT AND SHALL HAVE NO DISCONNECT SWITCH BETWEEN OVER CURRENT DEVICE AND SMOKE ALARM. ALARMS SHALL BE WIRED SO THAT THE ACTIVATION OF ONE ALARM WILL CAUSE ALL ALARMS IN STRUCTURE TO SOUND.
 - VENTILATION TO BE UNIFORMLY DISTRIBUTED TO FLAT AND VAULTED ROOFS TO 1/60 OF THE INSULATED CEILING AREA.
 - ATTIC SPACES TO BE VENTILATED TO 1/60 OF THE INSULATED CEILING AREA.
 - ROOF VENTS MUST BE UNIFORMLY DISTRIBUTED WITH A MINIMUM OF 25% IN SAVE AND 25% IN ROOF TOP WHERE CROSS PURLINS ARE OMITTED.
 - ATTIC ACCESS TO BE PROVIDED TO ALL ATTIC SPACES MINIMUM DIMENSIONS OF 1'-8" x 2'-4"
 - WALLS TO BE INSULATED WITH R20 INSULATION MIN. WITH CEILINGS TO BE R28 INSULATION MIN. FOR FLAT OR VAULTED ROOFS - R40 REQUIRED FOR ATTIC SPACES.
 - WATERPROOF WALKWAYS REQUIRED AROUND TUBS AND SHOWERS.
 - EXHAUST FANS REQUIRED IN BATHROOMS HAVING NO VENT WINDOWS.
 - EXTERIOR DOORS WHICH SWING OUTWARD FROM BUILDING SHALL BE PROVIDED WITH HINGES AND FINIS SUCH THAT THE DOORS CANNOT BE REMOVED WHEN THEY ARE IN THE CLOSED POSITION.
 - FOUNDATION WALLS OF BASEMENTS LOCATED BELOW FINISHED GRADE TO BE INSULATED WITH 2" DMI (R12) OR EQUAL TO 24" BELOW FINISHED GRADE.
 - ALL NEW OR ALTERED WINDOWS AND DOORS TO BE DOUBLE GLAZED CONSTRUCTION WITH THERMALLY BROKEN FRAMES.

GENERAL NOTES AND BUILDING SPECIFICATIONS CONTINUED

- GARAGE DOORS PROVIDING ACCESS TO DWELLING INTERIOR TO HAVE COMPLETE WEATHER STRIPPING AND AUTOMATIC SELF CLOSING HINGES.
- GLASS IN WINDOWS LESS THAN 8" FROM FLOOR TO BE OF SAFETY GLASS CONSTRUCTION.
- ALL POSTS AND COLLARS TO BE MINIMUM 4" x 4" x 45 PDS BIRC 9 (1.4) (19)
- CROSS BRACING REQUIRED AT MAXIMUM 7'-0" o.c. FOR ROOF AND FLOOR JOISTS
- NEW CONSTRUCTION REQUIRED TO BE OF DOUGLAS FIR #2 GRADE LUMBER OR BETTER
- COMMISSION OF MECHANICAL VENTILATION DESIGN AND LETTER OF SUPERVISION BY PROFESSIONAL ENGINEER OR CERTIFIED HRAI CONTRACTOR TO BUILDING INSPECTOR REQUIRED AT TIME OF FRAMING INSPECTION
- BUILDING SECURITY - DOOR FRAMES ARE TO BE SOLIDLY BLOCKED BETWEEN THE DOOR FRAME AND FRAMING AT THE LOCK HEIGHT SO THAT THE FRAME WILL RESIST SPREADING BY FORCE. SWINGING TYPE DOORS SHALL BE PROVIDED WITH A 5/8" CINDER SCREWBOLT LOCK WITH A MINIMUM 25mm THROW, AND BE PROTECTED WITH A SOLID OR HARDENED FREE TURNING RING OR BENDING DOOR HOLDING. INACTIVE LEAFS OF DOUBT DOORS SHALL BE PROVIDED WITH HEAVY DUTY BOLTS, TOP AND BOTTOM, WITH A MIN. 25mm THROW. HINGES FOR EXTERIOR DOORS AS ABOVE SHALL BE FASTENED TO WOOD DOORS WITH MIN. 25mm LONG WOOD SCREWS AND TO FRAMES WITH MIN. 75mm LONG SCREWS INTO SOLID CLOSING. STRIKE PLATES SHALL BE FASTENED TO WOOD FRAMES WITH MIN. 75mm LONG SCREWS INTO SOLID BLOCKING.

DWELLING SPECIFICATIONS

4412 WOODPARK ROAD

WEST VANCOUVER
ZONING - RS10

SITE SPECIFICATIONS

LOT DIMENSIONS	67.32' x 365.56' (20.52 x 117.52m)
LOT AREA	32,134 sq. ft. (2,985.30m ²)
F.A.R. AT 30%	9,640.20 sq. ft. (895.60m ²)
SITE COVER AT 30%	9,640.20 sq. ft. (895.60m ²)

DWELLING SPECIFICATIONS

BASEMENT	5,305.97 sq. ft. (492.85m ²)
MAIN	5,993.32 sq. ft. (556.80m ²)
UPPER	N/A sq. ft. (N/A m ²)
GARAGE	440.00 sq. ft. (40.86m ²)

EXEMPTIONS :

BASEMENT (100%)	5,292.84 sq. ft. (491.72m ²)
GARAGE	440.00 sq. ft. (40.86m ²)

TOTAL DWELLING AREA (18.69%) 6,006.45 sq. ft. (558.02m²)

F.A.R @ 30% 9,640.20 sq. ft. (895.60m²)

TOTAL PROPOSED SITE COVERAGE (26.44%) 8,496.17 SQ. FT. (789.32m²)

TOTAL ALLOWABLE SITE COVERAGE AT 30% 9,640.20 sq. ft. (895.60m²)

PROPOSED ELEVATIONS OF DWELLING

BASEMENT FLOOR LEVEL	EL 561.87
MAIN FLOOR LEVEL	EL 573.00
UPPER FLOOR LEVEL	EL NA
PROPOSED HEIGHT OF DWELLING	
A.F.G	EL 573.00
A.N.G	EL 573.00
A.F.R. + 25'-0" (MAX. TO MID GABLE)	EL 598.00
PROPOSED MID GABLE	EL 585.27
PROPOSED POINT OF RIDGE	EL 588.83
PROPOSED POINT OF EAVES	EL 581.71

DWELLING SITE POSITIONING SPECIFICATIONS

SET BACKS	BY-LAW	PROPOSED
REAR YARD	30.0' (9.14m)	30.0' (9.14m)
FRONT YARD	30.0' (9.14m)	30.0' (9.14m)
COMBINED SIDE YARD	16.76' (5.11m)	56.60' (17.25m)

A	572.30	571.30	15.55	8,777.13
B	571.30	572.70	52.56	30,025.75
C	572.70	574.30	44.26	25,065.11
D	574.30	574.30	6.30	4,766.69
E	574.30	573.10	43.02	24,480.57
F	573.10	573.80	48.25	27,468.96
G	573.80	572.70	43.33	24,858.92
H	572.70	572.10	30.97	17,727.23
I	572.10	575.70	63.05	36,211.35
J	575.70	572.30	160.88	108,354.48
K				0.00
L				0.00
M				0.00
N				0.00
O				0.00
P				0.00
Q				0.00
R				0.00
S				0.00
T				0.00
				529.47
				303,384.59
AVERAGE NATURAL GRADE				573.00

ADD					E					EQUALS				
A	573.00	573.00	0.50	362.50	A1	572.50	572.50	14.26	8,001.28	B	572.50	572.50	52.56	30,080.00
C	572.50	572.50	44.26	25,338.65	D	572.50	572.50	6.30	4,761.73	E	572.50	572.50	17.96	10,795.05
F	572.00	572.00	35.21	14,371.26	G	572.00	572.00	1.48	853.03	H	572.00	573.00	46.75	26,707.75
I	573.00	573.00	41.89	24,060.27	J	572.50	572.50	1.34	767.15	K	572.50	572.50	1.50	886.78
L	573.00	573.00	28.48	16,892.04	M	574.00	574.00	0.52	378.54	N	574.00	574.00	4.00	2,311.48
O	561.37	561.37	53.27	29,804.18	P	578.00	578.00	11.20	6,472.38	Q	578.00	578.00	61.49	35,387.23
R	569.37	569.37	4.38	2,190.88					0.00					
S	573.00	573.00	0.73	416.80					0.00					
T	573.70	575.10	10.02	5,755.49					0.00					
U	575.10	575.10	4.40	2,528.02					0.00					
V	575.10	575.13	12.45	7,158.97					0.00					
W	580.17	580.17	11.27	6,338.52					0.00					
X	575.44	575.19	10.00	5,753.14					0.00					
Y	578.27	579.55	40.44	23,443.03					0.00					
Z	576.00	576.00	19.08	10,885.00					0.00					
AA	578.00	578.00	11.20	6,472.38					0.00					
AB	573.50	573.50	61.49	35,387.23					0.00					
				529.47					303,384.59					
AVERAGE FINISHED GRADE				573.00										

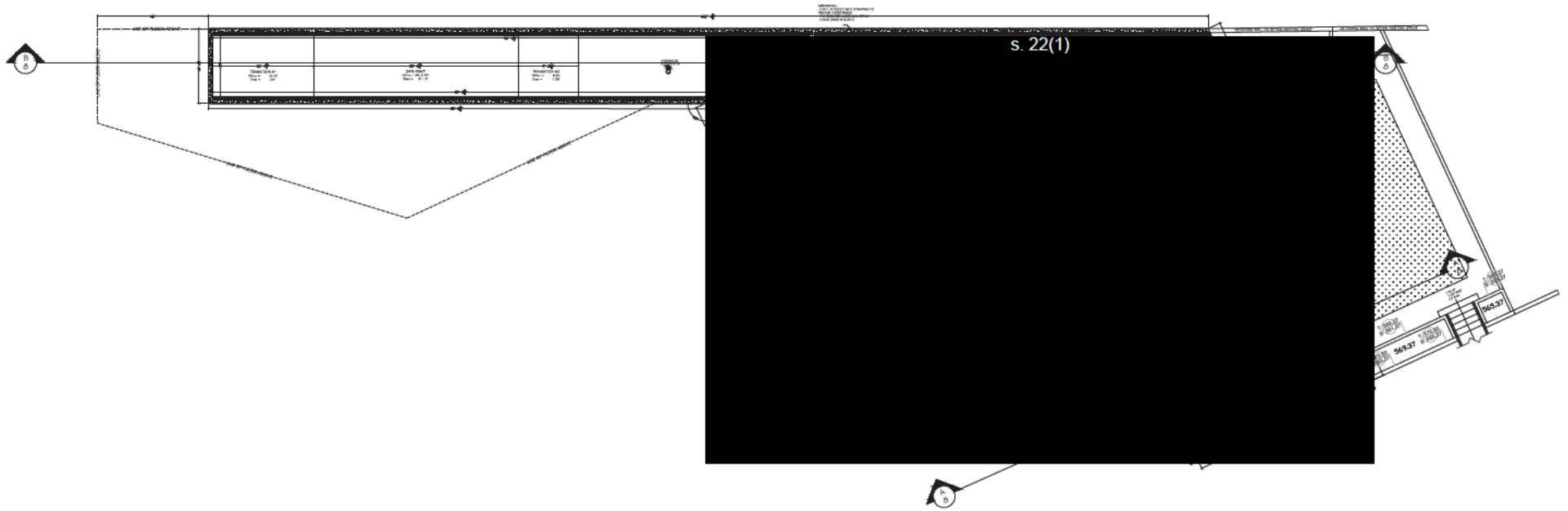
PK40 BUILDING DESIGN CORP.
1555 WALKER DRIVE
WEST VANCOUVER, BC
V8M 1C1
TEL: (604) 923-0001
FAX: (604) 923-0002
WWW.PK40.COM

PK40 BUILDING DESIGN CORP.
1555 WALKER DRIVE
WEST VANCOUVER, BC
V8M 1C1
TEL: (604) 923-0001
FAX: (604) 923-0002
WWW.PK40.COM

4412 WOODPARK ROAD,
WEST VANCOUVER

NOTES

DATE: 02
SCALE: 1/8" = 1'-0"
DRAWN BY: [Signature]
CHECKED BY: [Signature]
DATE: 02



BASEMENT FLOOR PLAN
SCALE - 1/4" = 1'-0"

FLOOR AREA = 5,305.97 SQFT

PROJ. NO. 10041 914-0001
1000 WALKER UNIT
APRIL 2000
REV. 01

PROJECT
4410 WOODFORD ROAD
WEST MINNEAPOLIS

OWNER
BASF

DESIGNER
BASF

DATE
10/03

SCALE
1/4" = 1'-0"

PROJECT NO.
10041 914-0001

DATE
10/03

SCALE
1/4" = 1'-0"

PROJECT NO.
10041 914-0001

DATE
10/03

SCALE
1/4" = 1'-0"

PROJECT NO.
10041 914-0001

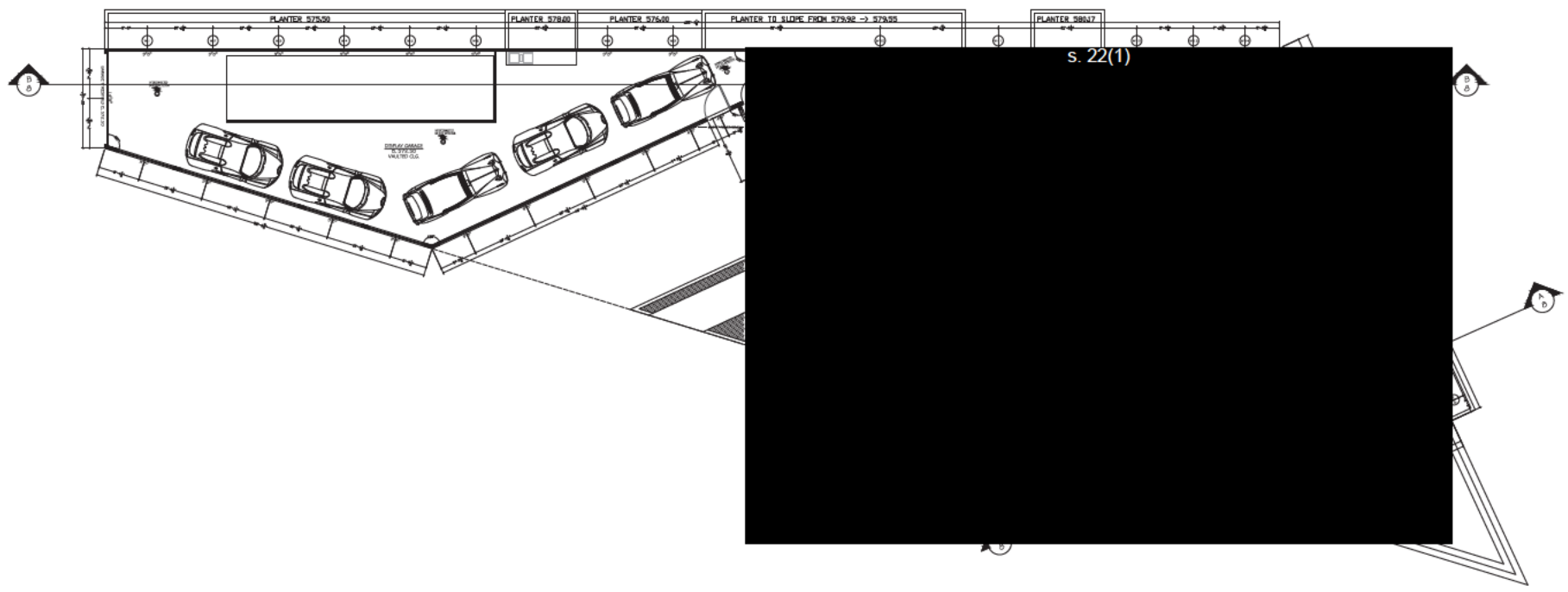
DATE
10/03

SCALE
1/4" = 1'-0"

PROJECT NO.
10041 914-0001

DATE
10/03

SCALE
1/4" = 1'-0"



s. 22(1)

MAIN FLOOR PLAN
SCALE - 1/4" = 1'-0"

FLOOR AREA = 6,433.316

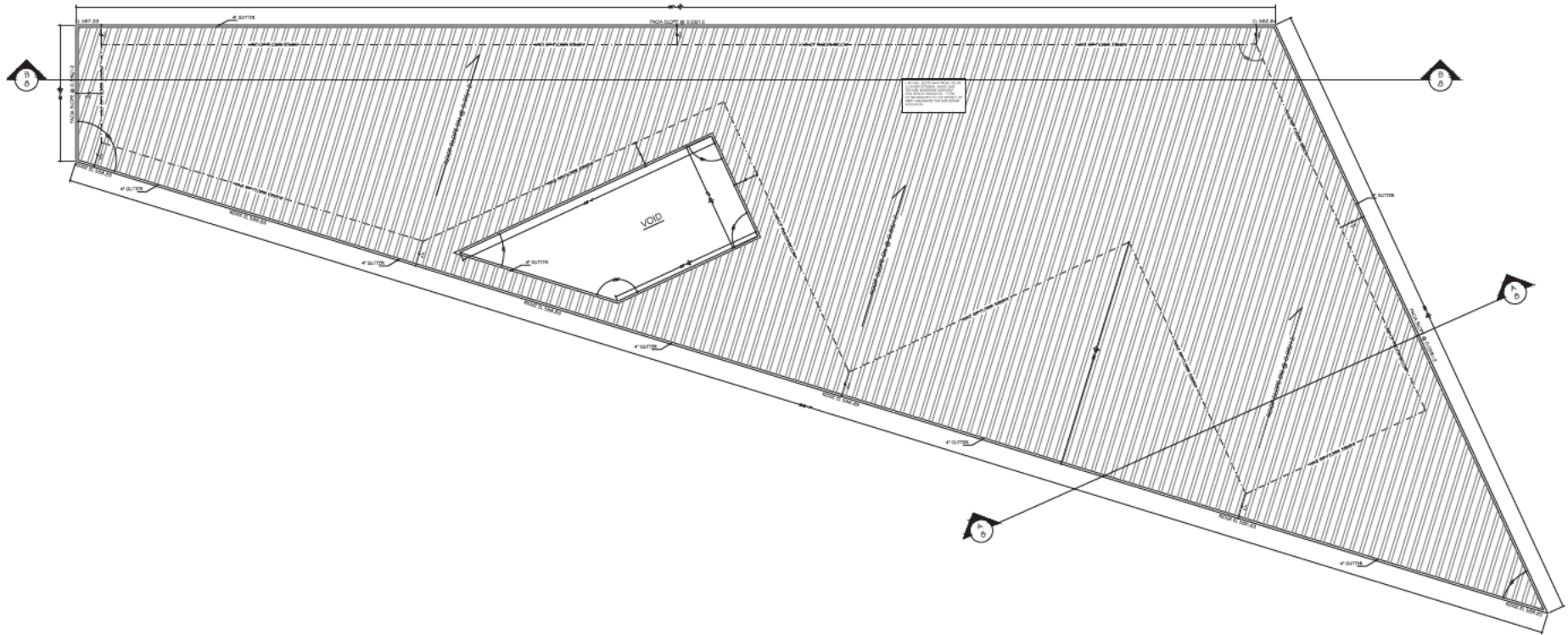
PL (004) 914-0001
1070 MAJOR UNIT
APRIL 15, 2014
DATE

PROJECT:
4410 WOODHALL ROAD
WEST MINNEAPOLIS

DATE:
1/14

CONTENTS:
MAIN FLOOR

DATE:	1/14	REV:	04
SCALE:	1/4" = 1'-0"	BY:	
DESIGNED BY:		CHECKED BY:	
DATE:		DATE:	



ROOF PLAN
SCALE - 1/4" = 1'-0"

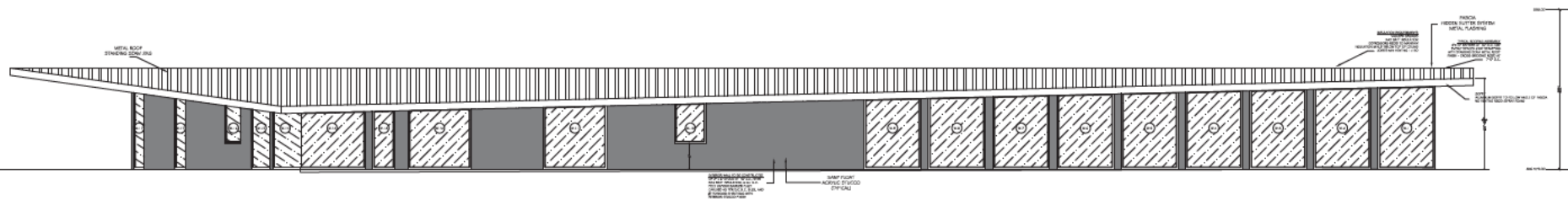
PROFESSIONAL SEAL AND EXPIRATION DATE

P.C. (004) 924-0001
1370 MAJOR UNIT
4700 TOWN CENTER
WISCONSIN

PROJECT:
4410 WISCONSIN ROAD
WEST MANITOWISH

DATE:
ROOF PLAN

DATE: 05/05/2005
SCALE: 1/4" = 1'-0"
DRAWN BY: JG
CHECKED BY: JG



NORTH ELEVATION
SCALE - 1/4" = 1'-0"



SOUTH ELEVATION
SCALE - 1/4" = 1'-0"

PROJECT: 4418 WOODFORD ROAD WEST WINDOVER

DATE: 07/14/2014

SCALE: 1/4" = 1'-0"

DRAWING NO: 07

DESCRIPTION: ELEVATIONS EAST + WEST

DATE: 07/14/2014

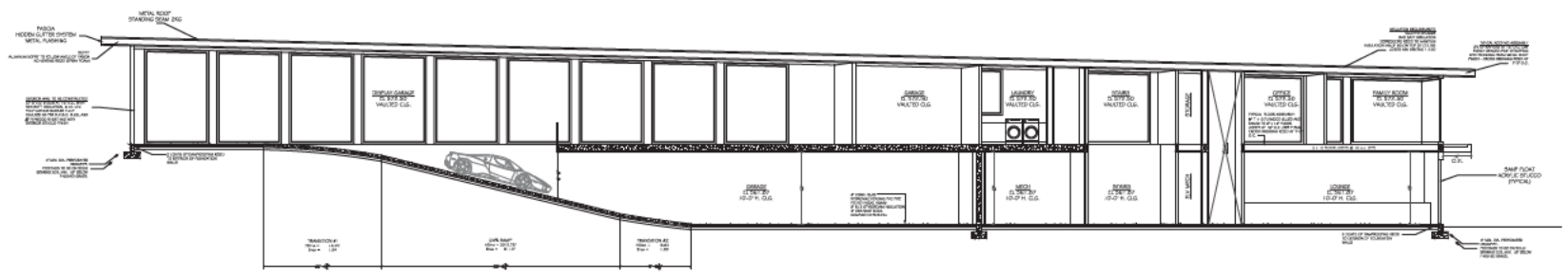
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DRAWING NO: 07

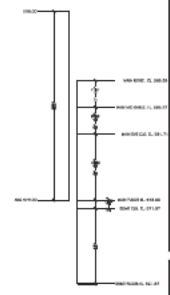
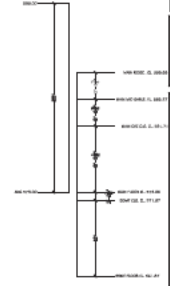
DESCRIPTION: ELEVATIONS EAST + WEST



CROSS SECTION A8
SCALE - 1/4" = 1'-0"



CROSS SECTION B8
SCALE - 1/4" = 1'-0"



PROJECT: 4418 WOODPARK ROAD WEST WINDOVER

DATE: 08/20/2018

SCALE: 1/4" = 1'-0"

DESIGNER: [Signature]

DATE: 08/20/2018

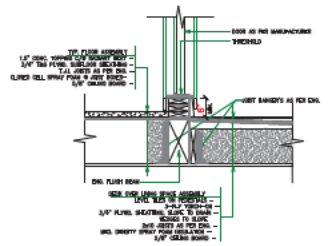
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DATE: 08/20/2018

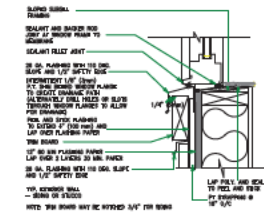
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DESIGNER: [Signature]

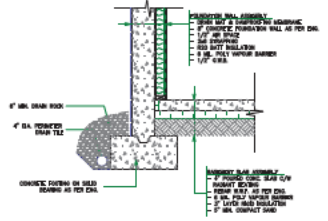
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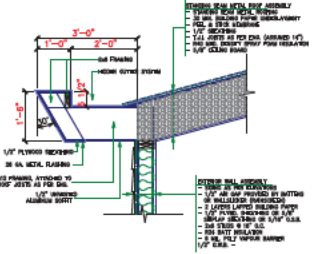
DECK OVER LIVING SPACE
NTS



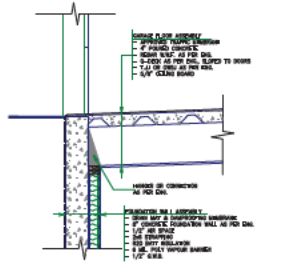
TYP. SILL W/TRIM BOARD
NTS



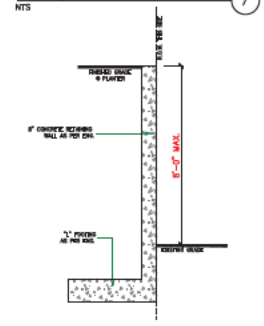
FOUNDATION & FOOTING
NTS



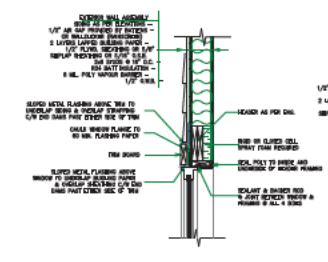
TYP. ROOF OVERHANG
NTS



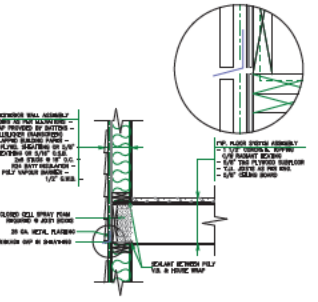
GARAGE FLOOR ASSEMBLY @ FOUNDATION WALL
NTS



RETAINING WALL @ R.O.W.
NTS

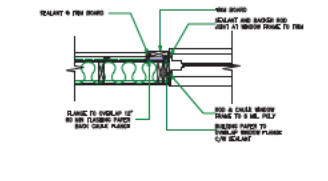


TYP. HEADER W/TRIM BOARD
NTS

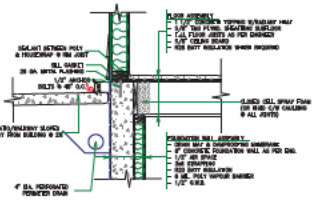


RM JOINT EXPANSION JOINTS
NTS

- NOTES: (SEE ALSO DETAILS PROVIDED BY DEVELOPE CONSULTANT F RETAINERS)
1. GUSSETS AT LOWER CORNERS OF WINDOW OPENINGS TO BE JIFFY SEAL, 45 500 OR EQUAL.
 2. FEEL AND STICK MEMBRANE TO BE PROTECTOWRAP 100-40 OR EQUAL.
 3. PREFORMED FLASHINGS TO BE 26 GA. WITH 4\"/>



TYP. JAMB W/TRIM BOARD
NTS



JOINT LEDGE DETAIL
NTS

PROJECT: 4410 WOODFORD ROAD WEST MINNEAPOLIS

DATE: 09

SCALE: 1/8\"/>

From: [REDACTED] s. 22(1)
Sent: Friday, March 28, 2025 12:31 PM
To: correspondence
Cc: Mark Sager, Mayor; Christine Cassidy; Linda Watt; Nora Gambioli; Peter Lambur; Sharon Thompson; Scott Snider
Subject: I do not support expanding the Wildfire Hazard Area

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Dear Mayor and Council,

I do not believe the District has sufficiently justified expanding the Wildfire Development Permit Area to include all of West Vancouver. Consequently, I cannot support this proposal.

The rationale for this expansion appears minimal and largely driven by an emotional reaction to media coverage of the recent Los Angeles fires. Can we truly compare West Vancouver's weather, land heating, and forest microclimates with those of L.A., Fort McMurray, Maui, or the BC Interior?

I also wonder about the "new" discovery that embers can travel in the wind. Surely, this concept has been known for some time now but has not been seen as a real threat. It wasn't flagged as a specific concern for private properties in the District's Community Wildfire Protection Plan, and both the State of the West Vancouver Urban Forest Report and West Vancouver's Urban Forest Management Plan were silent on the issues of embers and spoke very little about wildfires in general. Obviously, this hasn't been considered a real threat. Why now? What new evidence is there, specific to our region and municipality, that this is an imminent danger, or a real possibility?

Moreover, could tree removal inadvertently create wind corridors, allowing embers to spread more easily?

One could also argue that the **current** Wildfire Hazard Development permit area is excessive – presently, it includes properties well over 100 meters from a forest interface, some are double, or close to triple this distance, but included.

The District's reliance on Interior BC-based FireSmart principles, designed for pine forests, overlooks our coastal forest microclimate. These wet forests are naturally resilient to fires and do not require extensive management interventions. Instead, the wildfire strategy seems more focused on removing mature coniferous trees than mitigating fires. These trees cool and moisten the forest floor (and our properties), block wind, and provide critical benefits such as drainage control, carbon storage, and wildlife habitat—services that deciduous trees cannot match year-round.

Our wet local forests are naturally resilient to fires. They don't need the management interventions that West Vancouver has adopted to make it so.

As it stands, the District's wildfire strategy and DPA seem more focused on removing mature coniferous trees than mitigating fires. These trees cool and moisten the forest floor, block wind (that can make wildfire worse), and provide critical benefits such as drainage control, carbon storage, and wildlife habitat—services that deciduous trees cannot match year-round.

I've observed the significant impacts of the current Development Permit Area in my neighborhood, where lots are cleared of all trees. Given the District's historically weak track record of protecting mature trees during developments, new measures to regulate tree and vegetation impacts under the DPA seem unconvincing.

Following broad FireSmart principles risks drying out our forests and properties, making them more vulnerable to climate change. Instead, let's support the natural resilience of our coastal ecosystem.

Why are alternative wildfire mitigation strategies, like early detection systems, being delayed? It is my understanding that many of these companies/systems have achieved federal government approval and are praised elsewhere in Canada and the US where they have been deployed.

I do support changes to the District's building bylaws to make houses more fire resistant. Perhaps the BC Building Code will soon be updated with new fire-resistant building material regulations as has been rumoured. I think as well that encouraging responsible landscaping and decking in the immediate zone 1.5 m around a property may also make sense particularly for those truly close to the 100m wildfire interface.

As the Program Lead of FireSmart BC said in a CBC interview (in the wake of the 2023 Okanagan Fires), by having a fire-resistant roof in good condition and keeping the 1.5 m immediate zone around the house clear of debris and flammable material, your house has a 90% chance of survival from wildfire. Keeping your lawn cut and cleaning your eaves provides additional protection. If we added in a few other smart wildfire resiliency measures -- like early detection systems and improved firefighting equipment (e.g. a water truck or two) -- we should be close to optimum without removing mature trees, particularly the larger ones that provide greater amounts of shade when the sun is high. Rapid detection and rapid response are where the focus should be.

Let's prioritize smart wildfire resiliency measures without compromising the vital role of our mature trees. These trees ensure our forests and properties remain cooler and moister, offering a better defense against wildfire threats than the proposed permit expansion.

Thank you for your attention.

Sincerely,

s. 22(1)

West Vancouver, BC

From: [REDACTED] s. 22(1)
Sent: Sunday, March 30, 2025 12:12 PM
To: correspondence
Subject: I'd like to share a link with you

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T-Net News:

SenseNet%20and%20ie%21%20Telecom%20Partner%20to%20Provide%20AI%2Dbased%20Early%20
Wildfire%20Detection%20Solution%20to%20Prevent%20Wildfires%20in%20Brazil
BLOCKEDbctechology[.]com/news[.]cfm?id=48810BLOCKED

Thank you.

Regards,

[REDACTED] s. 22(1)

West Vancouver BC

From: [REDACTED] s. 22(1)
Sent: Monday, March 31, 2025 10:48 AM
To: correspondence; Mark Sager, Mayor; Christine Cassidy; Nora Gambioli; Sharon Thompson; Scott Snider; Linda Watt; Peter Lambur
Subject: Concerns Regarding the DWV Wildfire Hazard DPA and its Impact on Mature Tree Preservation
Attachments: 3295 Westmount Rd - cedar hedge.JPG; 449 Hillcrest St - cedar hedge-3.JPG; 449 Hillcrest St - cedar hedge-2.JPG; 3165 Mathers - cedar hedge.JPG; 449 Hillcrest St - cedar hedge-1.JPG; 3312 Westmount Rd - cedar hedge.JPG; 3312 Westmount Rd - Cedar hedges.JPG; 3295 Westmount Rd - cedar hedge-3.JPG; 3295 Westmount Rd - cedar hedge-2.JPG; 3640 Mathers - cedar hedge.JPG; 3640 Mathers - cedars - portuguese laurels.JPG; 3640 Mathers - cedars.JPG; 3640 Mathers juniper or yew & cedar.JPG; 3640 Mathers - cedars and juniper or yew.JPG

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Dear Mayor and Council,

I write to express my concerns regarding the District's Wildfire Hazard Development Permit Area (DPA) and the proposal to expand it. I believe that the current designation is too expansive and contributes to the removal of too many healthy mature trees on development properties -- a long-standing issue in the District. While I support regulations that require fire-resistant building materials, I question what is truly being accomplished by this Development Permit. Is it making us safer, or is it an overreach, leading to the removal of an important community asset -- mature trees? As an example, I want to show how the Wildfire Hazard Permit process is operating in my neighbourhood.

Many properties in my area are included in the Wildfire Hazard DPA. There is a nearby "natural area" park that probably represents the "forest interface," which the surrounding properties are to be buffered from. Yet, numerous homes are located well beyond the prescribed 100-meter zone referred to in the District's Official Community Plan -- they are often at double or triple that distance. When I asked about this discrepancy at a 2022 Virtual FireSmart Workshop, hosted by West Vancouver Fire and Rescue, I was told that there was "a formula" for including properties in the Wildfire Hazard DP Area, but no one could explain what it was or how it was arrived at.

A couple of years ago, I spoke with the District Arborist about a development two doors up the street. I saw ribbons on the trees indicating which ones would be removed -- essentially, all trees on the lot. I asked him about this scheduled clearing and he referred me to the developer's Wildfire Hazard DP Assessment Report. When I noted that obtaining the report would require a Freedom of Information request, he commented that it might be best if I did not see the report because its contents would be "too depressing." He said that he was attempting to save one dogwood tree on the property.

Once tree cutting commenced, a summary of the consultant's Wildfire Hazard Report was posted on-site. It stated that every tree on the property would need to be removed. The summary even recommended the removal of trees on a neighboring property, within 10 meters of the development, citing "wildfire risk to the home."

I have observed similar practices on other recently developed Wildfire Hazard-designated lots in my area. Mature trees are cleared—often extending to the boulevard and even adjacent properties. The replacement plantings include predominantly long rows of pyramid cedars and the ubiquitous, invasive, Portuguese laurel, the latter fast becoming the most popular replant in the District.

I have attached photos of recently completed (or nearly completed) new builds s.22(1) [REDACTED] to illustrate what an “approved” Wildfire Hazard DP landscape looks like. All these properties feature pyramid cedar hedges and most have Portuguese laurels.

According to the information on the District’s Wildfire Hazard Permit webpage (in the FAQs), using species such as cedar, pine, and yew are classified as “non-compliant” for hedge landscaping within the DP Area. However, they are prominently featured on these properties. Instead, acceptable alternatives are broadleaf evergreen or deciduous plants. Moreover, Portuguese laurels—as well as English laurel and English holly—are identified as invasive and not recommended. (I note that on the North Shore Emergency Management website, invasive species are listed as a contributing factor to wildfire risk as they degrade the health of our forests.)

At the February 24, 2025 council meeting, staff indicated that properties with a Wildfire Hazard development permit “are not allowed to do cedar hedges and that sort of thing.” This message was reiterated later by other staff, including the Director of Planning and Development Services. Are developers allowed to pick and choose which parts of the Wildfire Hazard DP policy to follow, removing all of the mature trees but ignoring the recommendations for landscaping? What is the safety objective here?

Also during the February 24 council meeting, the District’s Senior Manager of Climate Action and Environment said that “kinks” in the Wildfire Hazard DPA have been resolved and, “given that we work with only a few wildlife professionals in the District, we work quite closely to kind of work out exactly what the District is expecting for these assessments and to issue development permits. We, for this particular development permit area, we put much of the onus on the applicant and its team. We don’t have wildfire professionals on staff, so it’s up to their qualified professional to do the sign-off; to do the recommendation; to monitor and accept any changes; to do the final inspection. So, it’s actually less staff time for this one compared to our Watercourse DPA or Foreshore DPA, where staff are more heavily involved.”

The accompanying Council Report (dated Feb. 5), mentions that staff have invested considerable time working with wildfire professionals, architects, and contractors to clarify the DPA guidelines. However, despite these efforts, the process still appears flawed, and without robust District oversight, these issues may persist. (I note that the FireSmart Coordinator’s role seems largely ceremonial, which further raises concerns.)

These observations lead me to ask several important questions:

What tangible outcomes are we achieving with the current Wildfire Hazard DPA?

Is the broad scope of the DPA appropriate for our coastal forest microclimate, or should it be limited to properties truly within the 100-meter buffer of a Wildland Interface Area?

With the current model relying heavily on developer-hired consultants, what guarantees exist that an expanded DPA would not further deplete our mature tree resources or conflict with other Development Permits (EDPs) in environmentally sensitive areas?

I also worry that expanding the DPA could overwhelm available qualified wildfire risk professionals. When development ramps up in the District (noting that 2024 was an unusually low year for building permits, especially new construction), there is a risk that less experienced trainees might conduct crucial wildfire hazard assessments, just as has been observed in reports for developments near our creeks.

The current reliance on external consultants—a model examined critically in the Ombudsperson for British Columbia’s report, “Striking a Balance: The Challenges of Using a Professional Reliance Model in Environmental Protection” (originally released in 2014, but frequently updated)—has significant oversight gaps. This model can lead to administrative and environmental shortcomings due to the disconnect between policy commitments and actual outcomes.

Ultimately, I ask: What real guarantees do we have that an expanded Wildfire Hazard DPA will not allow developers to remove even more mature trees, thereby reducing our District’s mature tree assets even further? How will the administration of competing DPAs balance the need to protect both our forests and critical environmental areas, such as riparian zones? (I note that many of the developers I have spoken with complain about the mature trees that line and protect our creeks, referring to them as fire corridors.)

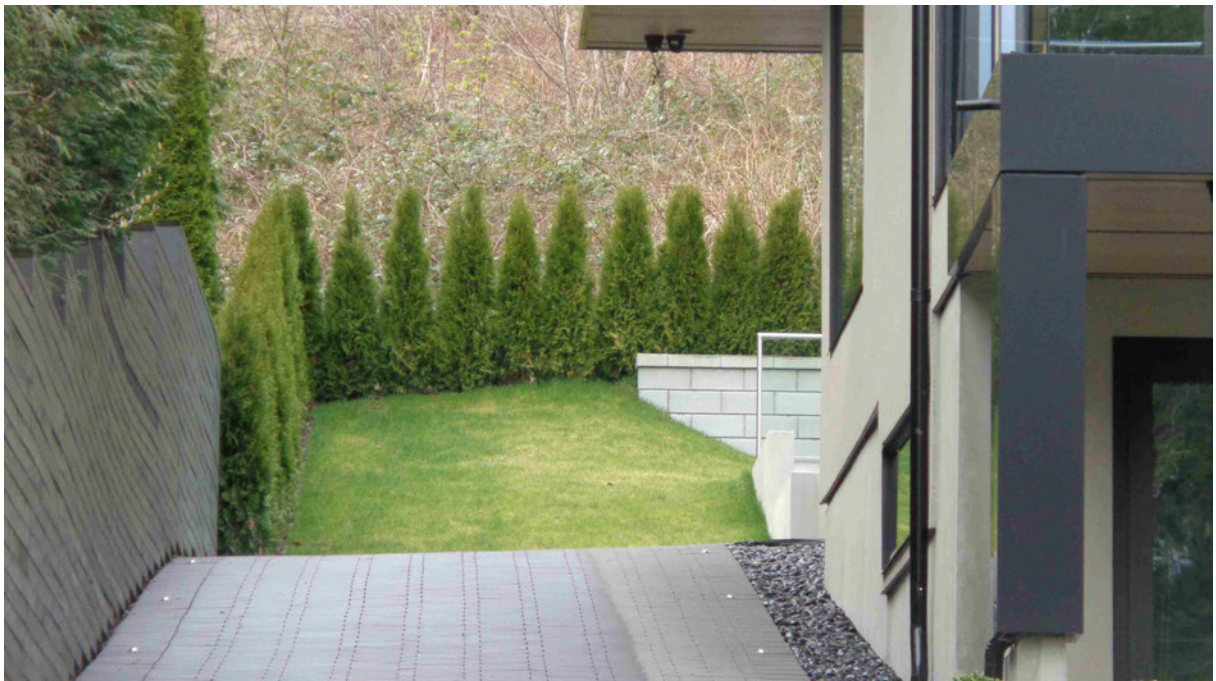
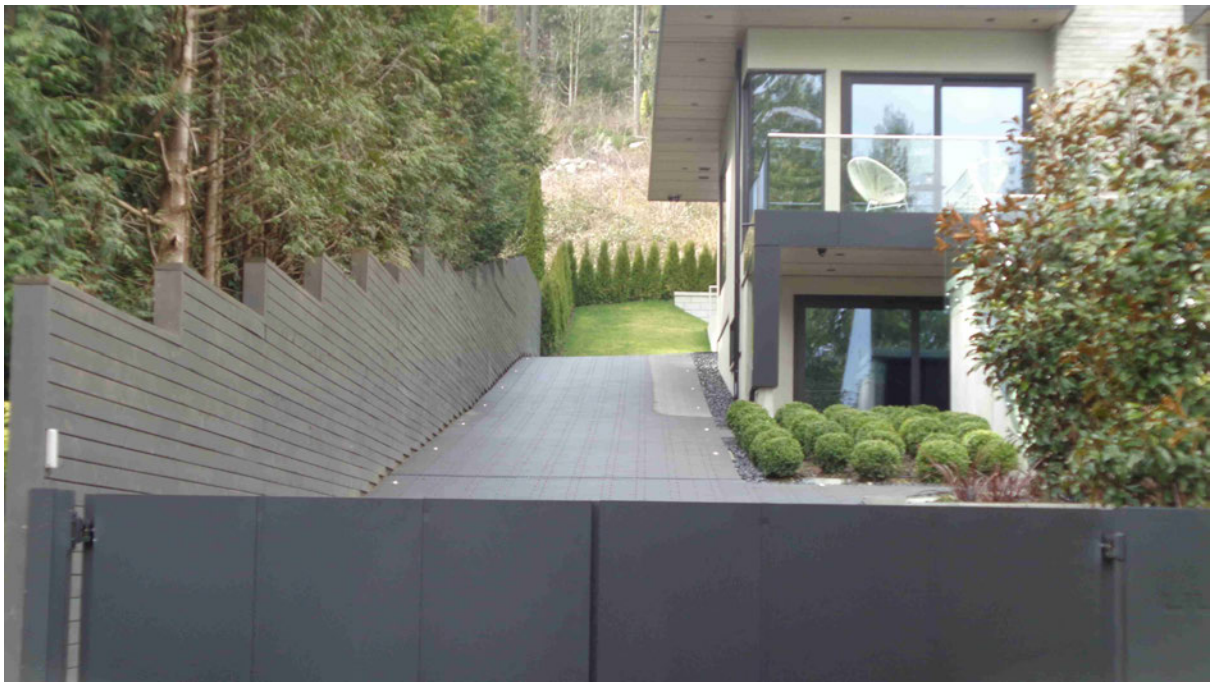
Perhaps we can start by making sure that the area contained in the Wildfire Hazard DP Area is not an overreach, that it is truly representative of the 100m buffer between undisturbed forest and developed land and that it is supported by robust District oversight to ensure that the Development Permit's objectives are being met, prior to the issuance of an occupancy permit.

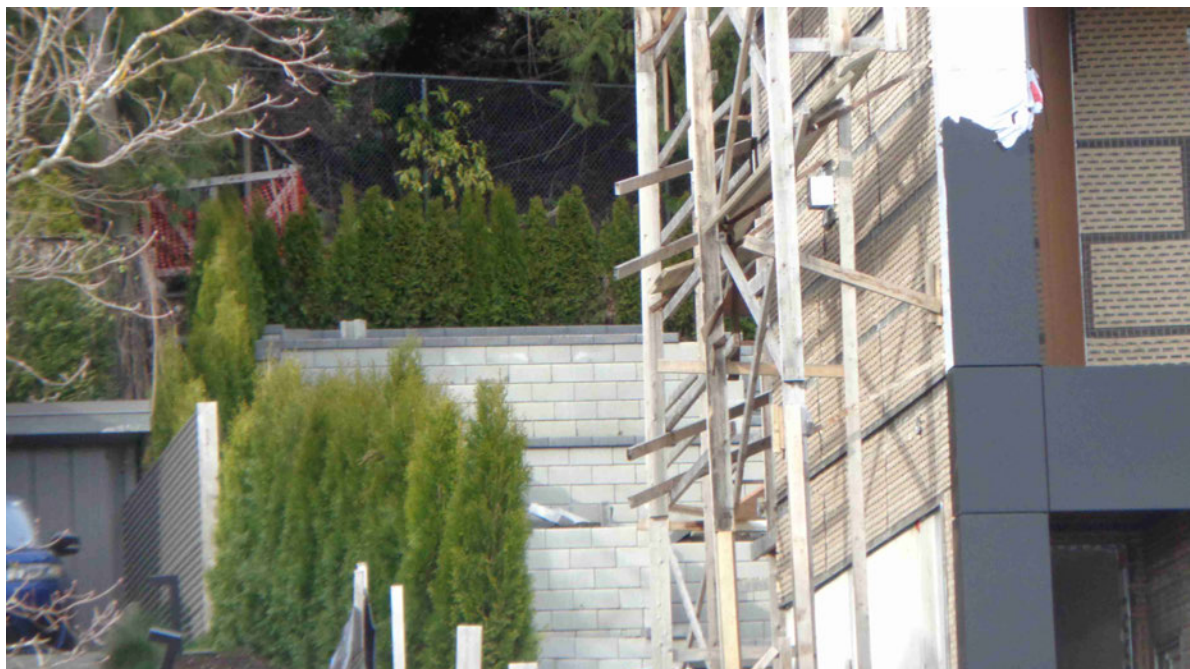
Thank you for your time and thoughtful consideration.

Kind regards,

s. 22(1)

West Vancouver, BC











Subject: Expanded Wildfire Hazard Development Permit Area

Dear Mayor and Council,

I am writing regarding the proposed expansion of the Wildfire Hazard Development Permit Area (DPA) (see staff's report to Council on February 24, 2025) to include all new homes being built within the District. It is important to pause this decision for the following reasons:

1. To fully understand the science/evidence/literature which is guiding this drastic decision.
2. To understand how this will negatively impact the tree canopy (shading, flood mitigation, air cooling and purification, and carbon sequestration to name just a few).
3. To explore new technology (e.g. Sensenet and other remote sensing systems using remote AI technology) and other options to prevent tree removal.

In 2019, the estimated value of West Vancouver's Urban Forest was between \$653 million–\$1.8 billion for all of the (sometimes irreplaceable) services that nature provides to West Vancouver. It would be shortsighted to remove them without substantial evidence being established first.

Specifically, I ask that the amended Wildfire Hazard DPA be paused until:

- The science and evidence for the expansion of the DPA is openly demonstrated and communicated to the public
- The bylaw is tailored specifically to West Vancouver's unique conditions and does not rely heavily on overly broad, province-wide principles (FireSmart)
- The unintended consequences of depleting our tree canopy is acknowledged (how will we meet our 52% canopy target)
- New technological (early fire detection – sensors, cameras, and AI) and best practices are considered
- Concerns about how this DPA might conflict with other environmental DPAs (e.g. Riparian, Foreshore, etc.) are fully explained.

Thank you very much for your attention.

Sincerely,

s. 22(1)

West Vancouver, BC

s. 22(1)

March 31/2025

From: s. 22(1)
Sent: Monday, March 31, 2025 5:24 PM
To: correspondence
Cc: msager@westvancouver; Christine Cassidy; Nora Gambioli; Linda Watt; Sharon Thompson; Scott Snider; Peter Lambur
Subject: Re. Public Hearing. Balancing Wildfire Risk and Natural Assets: Concerns and Questions on Expanding the DPA
Attachments: CBC-Firesmart-Oct_2023.png

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Dear Mayor and Council,

I have several additional concerns and questions regarding the proposed expansion of the Wildfire Hazard Development Permit Area (DPA) that I did not address in my previous email. I outline these issues below:

- 1. Reliance on FireSmart Guidelines and Ember Spotting Concerns** I remain worried about our District's reliance on FireSmart principles designed for drier, windier interior (pine) forests, which may not be well-suited for the cooler, moister conditions of our coastal forest microclimate. In particular, the claim that launched embers could reach properties 2 km away—and therefore that all District properties must be included in the DPA—requires stronger, locally relevant evidence. The wind patterns, weather, and forest composition in West Vancouver differ significantly from those in Los Angeles, Fort MacMurray, Kelowna, and Maui. We need a higher standard of proof, based on local data, to determine the real ember and spotting threat here before considering any expansion.
- 2. Review and Update of the Community Wildfire Protection/Resiliency Plan** Staff have confirmed that the District's Community Wildfire Protection Plan (CWPP)—soon to be known as the Community Wildfire Resiliency Plan (CWRP)—is currently undergoing review and updates. According to West Vancouver's Strategic Plan for 2024-2025 (item 1.4.3), a five-year review is scheduled, although recent updates may indicate a change in timeline. Shouldn't the updated CWRP be the basis for any decision to expand the Wildfire Hazard DPA? A revised plan would provide a clearer, scientific assessment of actual risk levels. The British Columbia Community Wildfire Resiliency Plan Instruction Guide (updated June 2024) recommends at least an annual review of the CWRP action plan, coupled with a comprehensive review every five years. Is West Vancouver adhering to this guidance? An annual review could help address urgent changes while ensuring that more in-depth updates follow in a timely manner.
- 3. Implications of Future Development** The District's website currently indicates that the Wildfire Hazard Permit applies to new single-/multi-family dwellings, duplexes, detached secondary suites (with habitable space), and subdivided lands within the DPA. Although only 45 new build permits were issued in 2024—a historical low compared to a pre-pandemic average of about 134 new builds per year—this trend may reverse if provincial pressures encourage higher-density

development. An expanded DPA could impact many more properties, potentially leading to the removal of additional trees and loss of their beneficial services.

4. **Local Wildfire Risk and Alternative Mitigation Strategies** According to the Provincial Strategic Threat Analysis Mapping and the Province’s Spotting Impact Map, West Vancouver’s wildfire threat is low to low moderate—especially when compared with areas such as Kelowna or the Okanagan. This raises questions about whether an expanded DPA is justified. Alternative fire risk mitigation approaches, such as early detection sensors and systems, might help protect our community without sacrificing our trees.
5. Evidence suggests that having a non-combustible roof in good condition and maintaining an immediate zone free of flammable debris can provide up to 90% protection during a wildfire, as noted by FireSmart BC Lead Rachel Woodhurst. In light of this, perhaps these elements should be incorporated into the District’s Building and Zoning Bylaws instead of expanding the DPA.
6. **Safeguarding Environmentally Sensitive Areas** What guarantees do we have that an expanded Wildfire Hazard DPA will not negatively impact environmentally sensitive areas, such as properties with creeks or riparian trees? How can we ensure that competing DPAs are administered in a balanced manner? The present system, which relies heavily on developer-hired consultants, has not been effective in preserving mature trees on properties already within the existing DPA. It is unclear that an expanded area would change this outcome—instead, it may simply increase the loss of trees and the associated ecosystem services.

Given these unresolved issues, I urge that any decision to expand the Wildfire Hazard DPA be postponed until the CWPP/CWRP review and update is complete. At that point, a detailed, evidence-based explanation of the ember threat in West Vancouver and the justification for any expanded measures should be provided. Without these safeguards, we risk further undermining our District's natural assets rather than achieving a balanced approach to wildfire mitigation.

Thank you for your time and consideration.

Kind regards,

s. 22(1)

s. 22(1)

West Vancouver, BC

OTHER DISCOUNTS FOR CERTAIN HOMES.



Fire captain Conrad Breakey conducts assessments on properties as part of the FireSmart Home Partner Program, which is only offered in B.C. (Yvette Brend/CBC News)

Some of the strategies are as simple as clearing flammable material, keeping the grass cut and cleaning the eaves, said Rachel Woodhurst, program lead of FireSmart B.C.

"If you have a non-combustible roof that is in good condition and if you have a clear immediate zone — about one-and-a-half metres around your house — your house has a 90 per cent chance of survival," Woodhurst said.

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Good evening Mayor and Council.

My name is [REDACTED s. 22(1)], a resident of West Vancouver and a member of the [REDACTED s. 22(1)].

We have serious concerns regarding the necessity to expand the DPA Wild- Fire Hazard Zone and employ the Fire Smart Policy in order to address wild- fire risk in West Vancouver. There is no doubt that there will be unintended consequences which will negatively effect our tree canopy.

.It is understandable that many residents are fearful of wild-fires with the recent LA fires uppermost in their minds.

It is equally understandable that they want to know how the municipality is taking measures to protect their homes.

But it is equally important to hear the evidence that supposedly places West Vancouver in a high risk wild-fire zone. Presently this information has not been forthcoming.

The Province of BC "Wildland Urban Interface Risk Map" states that West Vancouver is situated in Map Grid 92G which has the lowest Risk Class 5. (Class 1 being the highest) Port Angeles in Washinton State is a reliable comparison with West Vancouver and is rated by the USDA as low fire state potential.

Obviously, any risk, should be taken seriously. But the measures taken should be in proportion to the risk and not impact our tree canopy.

There are many measures to prevent fires spreading in our neighbourhoods. From new technology, as in early fire detection, to residential water tanks. Tree removal should be a strategy of last resort.

But if the expanded DPA is introduced, all new buildings in the municipality will have to undergo a Fire Smart assessment. This could involve anywhere between 45 and 200 properties in the District on an annual basis.

Fire Smart is a Province wide policy, it does not differentiate between neighbourhoods in the hot dry Interior where forests and climate are drier and wild fires more frequent and the wet West coast. It is not customized for West Vancouver.

Our neighbourhoods will become heat islands. The natural cooling and shading properties of mature trees will be lost. They can lower temperatures by several degrees. Homes will become reliant on air- conditioners, removing hot air to the outside environment, compounding the heat problem. There will be financial costs and increased energy consumption.

In fact properties with mature trees are becoming worth more than those without as residents understand the benefits of trees in mitigating our changing climate.

With the loss of trees and the increase in impermeable surfaces, the ability of the trees to intercept and slowdown

rainfall, will be lost and will result in flooding, over-whelming storm water infrastructure.

~~The DPA should not be expanded. Fire Smart regulations should be customized for West Vancouver and only be employed in strategic areas.~~

~~Please pause this proposal, and assess all options. Safety can go along with sustainability.~~

Thank you very much.

until there is evidence to support it. ~~and~~

Consider alternate options

and ensure the FireSmart policy is tailored to West Vancouver, and only employed in strategic areas

Received at the 2025 03 31 Public Hearing



s. 22(1)

preparedness re. Wildfire Prevention By-Law

s. 22(1)

Mon, Mar 31, 2025 at 4:33 PM

To be read aloud at the March 31, 2025 Public Meeting re. By-Law 5375 2025 - Amendment to the Wildfire Hazard Development Permit Area Designation.

With delight I read in this past week the intention for another reservoir to be established to function at Cypress Village in the Upper Lands.

And so an increase of one reservoir to the long-time existing one, that one which appears officially named is what I interpret from what I have read on-line.

It was seven or eight years ago that I first offered what seemed to me as common-sense ~ to have actually a line of reservoirs put in place, between the upper interface of housing and retail development at Cypress Village and the existing beautiful forest that would remain beyond that development.

I suggested these tower like structures could be view spots along with the existing reservoir, with drinks potentially being served atop even. This idea was put forward partially in jest, as I didn't know the engineering practicalities of such structures.

And so, I continue to urge the so-called 'powers that be' of District staff directed by Mayor and

Council, British Pacific Properties, the various other companies of development interest and

the Fire Marshall, to consider still yet the efficacy and efficiency of having further reserve of the

fire-suppressant substance known as water, held in tanks, or reservoirs, to ease the use of the

Capilano Reservoir in the midst of a long dry period when a fire might arise.

In addition, I suggest it is prudent to require every household to have at least one hose clearly accessible on the exterior of the structure and a tank of water that is fed throughout the wet season when West Vancouver experiences the extreme of heavy rainfall, equally a dramatic circumstance if not more so than the dry season of summer.

Rather than this gift being exited as efficiently as possible into storm drains and on to the sea, does it not make sense to prepare for the dry season by capturing this free commodity and having it available as an immediate fire-suppressant?

Here, the household hose would be active and ready for use at all times.

I would see this encouragement coming from the District, as a sponsored program to home-owners, as an enhancement to the community, to think logically and in a positive, responsible and engaged, solution-finding manner.

Secondly I remain curious to protectionism relegated to 20cm DBH and more. If we are to have an on-going, vibrant community of urban forest, all generations must not only be represented but thriving and accounted for.

s. 22(1)

s. 22(1)

West Vancouver, BC

s. 22(1)

(2)(j)

Wildfire DPA Presentation.

Good evening, Mayor and Council

My name is

I am most concerned that expanding the Wildfire Hazard Development Permit Area is a drastic measure to take without sufficient evidence to support it. I am in support of the members of the UTA who have also outlined their concerns.

Addressing West Vancouver's wild-fire risk is an important and necessary action. Measures to address this risk, however, need to be commensurate with the risk and ensure that the actions taken do not exacerbate other critical factors. The proposed expansion of the DPA will increase the risk of flooding by the removal of trees.

The recommendations of the Urban Forest Management Plan must not be disregarded. These recommendations include maintaining our existing tree canopy and protecting existing mature trees, in order to mitigate the real risk of flooding.

Having experienced extreme rainfall and flooding in October last year, and numerous occasions of heavy rainfall during the past winter, we know that flooding is an ongoing risk. The removal of mature trees will only exacerbate this problem.

We all know that mature trees intercept rainfall, slow it's flow, increase water storage, and stabilize the soil. Urban trees are effective in stormwater treatment, filtering our rainfall. What we don't see when water is cascading down the streets and overwhelming our storm water infrastructure, are the contaminants, heavy metals from brake pads, oils and household debris which ultimately drain into our creeks, polluting them and causing harm to the wildlife.

New plantings, however valuable in areas where there is a deficit, cannot replace the eco-services of mature trees. It can take up to 20

years for a newly planted tree to make a difference. According to Joe McLeod, Vancouver city arborist, roughly 25,000 trees are needed to increase the tree canopy by 1%.

Mature trees save municipalities money by providing a buffer for the stormwater system. Green rooftops, rain gardens and retention tanks are all measures which municipalities employ to retain water, but they should be an adjunct, not a replacement, for mature trees.

By expanding the DPA, our tree canopy will be at risk of further depletion, and the risk of flooding will increase.

I strongly urge council to pause making any updates to the DPA at this time. We need to take into account the number of actual fire events that have occurred over the past ⁵10 years, how these fires started, how the Fire Department were notified of the fire, how easy or difficult it was to contain them, within what duration of time they were extinguished, how close the fires were to residential properties, and if there was damage done to properties.

Once we have this evidence, any updates to the Bylaw can ensure that appropriate measures are taken that are based on evidence and that other tools such as fire detection and early warning systems are included in the fire prevention strategy.

We also need urgent attention on how the municipality and community can take actions with regard to flood risks.

Mayor and councillors, s. 22(1) West Vancouver. -others have pointed out substantively and scientifically the benefit of our large, mature trees which will be lost if this expanded Wildfire Hazard DPA is approved.

We know that dealing with climate change through landscape management is a gross diversion from the real solution - suffice it to say that burning fossil fuels is the main culprit. But this a topic for another discussion.

Mayor and councillors should not approve this expanded wildfire strategy. There are other ways to keep us safe. The District is located in the Coastal Western Hemlock Zone –and in March, West Vancouver received 208 millimeters of rain, Kelowna, 61 millimeters. I realize I am referring to weather and not climate but this is relevant to the issue we are discussing. In LA County, between May and December, 2024, in 8 months, they received below average precipitation on record at (0.31 inches -4.6 inches) accompanied by low humidity and the hottest temperatures on record in this time frame.

Safety is paramount – we can all agree on that. One way to keep us safe is with increased manpower – by March this year, the BC Wildfire Service had received 2,200 applicants, the highest ever. Training is scheduled to begin in April. The Federal government is investing \$16.3 million over 3 years in fire fight training. So we can agree that funding is very important – we are aware that just under \$8 million was cut from the LA County fire department budget with a warning from authorities that this could lead to a disaster. In Alberta, in 2023, the UCP cuts led to a disastrous wildfire situation. The UCP gutted the firefighter programs and failed to retain staff. A crew member said that they were running at 50% capacity, (The Narwhal- May 10, 2023) Additionally, the UCP shut down 26 active fire towers. I quote from one of the crew: “We all knew that this was going to happen.”

Along with increased manpower, and funding for training, updated technology should be part of the solution we need. Forest Minister Bruce Ralston said that the province is securing more equipment and aircraft and is deploying new technologies to help fight forest fires. The federal government is investing \$72 million in satellite infrastructure for wildfires.

Earth-Exact is designing Canada's first WildFireSat constellation, tailored to monitor active wildfires across Canada on a daily basis. It will provide fire intelligence to responsible authorities and is expected to save the Canadian economy between \$1 to \$5 billion over the first 5 years of operation.

Halifax launched a pilot program using AI software called FireScout, which detects smoke, and alerts personnel, facilitating quicker decision making and dispatching of fire crews.

LA has ordered 400 sensors of the Dryad System for trial. And, we have access to a local easily available remote sensing system – SenseNet. As part of its certification process, during a trial in Penticton, it was able to notify authorities about a wildfire 25 minutes before a 911 call was received.

Rapid detection, Rapid response.

Other technology -to keep us safe is another system called SAM (sam) which is an integrated total water control system designed to transform fire fighting operations. In LA, water infrastructure was not designed to fight rapidly expanding wildfire. There was

a report that access to water and water pressure hindered fighting the wildfires. This SAM automates critical pumping tasks and regulates pressure freeing up engineers and support crews who then are able to control fireground faster. The result is this reduces attack time and enhances safety.

DropBlocks is a new satellite communication -- to be used when cellular networks are not available -- beyond communication, these devices share wind speed, wind direction, humidity etc. Wind storms are not common in the summer months in this climate zone where unlike LA, the Santa Ana, or DEVIL WINDS are ferocious We also do not experience dry lightening storms as they do in the BC interior.

Along with an endorsement of new technologies, more regular fire hydrant testing and more fire hydrants would seem to be a requirement. We have one water truck. Should we have another for fire fighting capabilities and for watering both our boulevard and street trees and eventual new plantings? Yes they are expensive but we now have funds through the Federal Nature Infrastructure program.

In terms of residents, they can participate by regularly cleaning their gutters and rooftops, clearing around decks, removing any leaves, twigs, and branches. Similar treatment can be applied to a non-combustible zone, extending at least 1.5 m from a structure. According to staff, some low hanging branches can simply be removed and some trees can be skinned up 2 meters, and I quote “we do not need every tree on the property to be removed.” Consultants need to hear this message from staff because, many properties, in the current Wildfire Hazard DPA, that I have seen, have been cleared. What would be different now if this were to be expanded? And will we somehow hire more staff to over see this? Consultants’ reports are based on how they believe biology works and, of course, need to be part of the discussion, but not leading it.

Rachel Woodhurst, BC FireSmart Program Lead and Provincial FireSmart Liaison has commented that if a home has a non-combustible roof in good condition and other fire-hardened structures, cleared for a 1.5 meter zone along the house, then a property is 90% safe. Add to that, a spark arrestor on chimneys

because there is a worry about embers, and even roof mounted sprinkler kits. Banff initiative.

The February 24th staff report highlighted 5 wildfires that occurred in the District since 2018– the size of these fires ranged in size from ½ hectare to 3 hectares. Large fires have not happened here so that we don't have the experience to say that this deforestation procedure will actually be effective.

This plan appears to be more appropriate for the BC Interior where they have 100 plus hectare fires descend on a community. We need a balance, a risk benefits equation and this appears not to be it. Large trees impact a city's financial and ecological health. We have excellent first responders – lets see that they have the tools to do their job. Thank you.

From: [REDACTED] s. 22(1)
Sent: Wednesday, March 26, 2025 1:01 PM
To: correspondence
Subject: Gleneagles Pickleball courts project

CAUTION: This email originated from outside the organization from email address [REDACTED] s. 22(1). Do not click links or open attachments unless you validate the sender and know the content is safe. If you believe this e-mail is suspicious, please report it to IT by marking it as SPAM.

Hi my name is [REDACTED] s. 22(1) I live at [REDACTED] s. 22(1), West Vancouver I'm in support of the Gleneagles Pickleball courts project.

Thank you for your support

[REDACTED] s. 22(1)

From: [REDACTED] s. 22(1)
Sent: Saturday, March 29, 2025 11:41 AM
To: correspondence
Subject: pickleball

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I AGREE WITH BUILDING NEW OUTDOOR PICKLEBALL COURTS AT GLENEAGLES

SITE.

[REDACTED] s. 22(1)

WEST VANCOUVER B.C. [REDACTED] s. 22(1)

From: [REDACTED] s. 22(1)
Sent: Saturday, March 29, 2025 3:50 PM
To: correspondence
Subject: Pickleball

CAUTION: This email originated from outside the organization from email address [REDACTED] s. 22(1). Do not click links or open attachments unless you validate the sender and know the content is safe. If you believe this e-mail is suspicious, please report it to IT by marking it as SPAM.

I support building new pickleball courts at Gleneagles.

[REDACTED] s. 22(1)
[REDACTED] s. 22(1)
West Vancouver

From: [REDACTED] s. 22(1)
Sent: Sunday, March 30, 2025 4:19 PM
To: correspondence
Subject: Pickleball courts at Gleneagles

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To Mayor and Council:
I support building new pickleball courts at Gleneagles.

[REDACTED] s. 22(1)

[REDACTED] West Vancouver, BC

From: [REDACTED] s. 22(1)
Sent: Monday, March 31, 2025 10:28 AM
To: correspondence
Subject: I support Gleneagles pickleball courts

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I support building new pickleball courts at Glen Eagles.

[REDACTED] s. 22(1)

West Vancouver

[REDACTED] s. 22(1)

From: [REDACTED] s. 22(1)
Sent: Tuesday, April 1, 2025 12:46 PM
To: correspondence
Subject: Support for Pickleball Courts and Pump Track at Gleneagles

CAUTION: This email originated from outside the organization from email address [REDACTED] s. 22(1). Do not click links or open attachments unless you validate the sender and know the content is safe. If you believe this e-mail is suspicious, please report it to IT by marking it as SPAM.

Dear Mayor and Council,

I am writing in support of the proposal Parks presented at the March 10, 2025, Council meeting: the construction of four pickleball courts to replace the unused bike terrain park and a paved pump track to replace the rarely used skateboard bowl at Gleneagles.

I walk by this area twice a day with my dog and have never seen anyone using the bike terrain park and seldomly seen any skateboarders using the bowl. The bike terrain park has not been maintained and is overgrown with weeds and eroded soil. The skateboard bowl has steep walls that are primarily suited to advanced riders.

I believe the recent social media campaign to save the skateboard bowl has misinformed the public. Unfortunately, it has swayed public opinion to believe the skateboard bowl has a great benefit to the district. In a Facebook post, an individual claims it's a "destination" bowl. Then why is it so underutilized?

There are dedicated pickleball courts in the east and middle part of the district but not in the west. The sport of pickleball is growing exponentially. The western communities need pickleball courts as well. A paved pump track can be used by anyone on wheels (e.g., rollerblades, bikes, skateboards, scooters) and of any skill level. This area could become a multigenerational recreation hub. Parents or grandparents could play pickleball while their children or grandchildren use the pump track. Imagine having a "teen" night here where both sports could be enjoyed and where music could be loud and not offend neighbours. The location has the added benefit of being close to the Gleneagles Community Centre that offers washrooms, a café, parking, and bus access.

Parks presented a very innovative and forward-thinking plan that could revitalize this area. It would be very sad if Parks' plan for pickleball courts and a pump track is not approved; truly a missed opportunity to serve the recreation needs of the western communities.

Sincerely,

[REDACTED] s. 22(1)

West Vancouver BC

[REDACTED] s. 22(1)

From: Ed Pielak <westvanplayers@shaw.ca>
Sent: Tuesday, April 1, 2025 10:23 PM
To: correspondence; Mark Sager, Mayor; Christine Cassidy; Nora Gambioli; Peter Lambur; Scott Snider; Sharon Thompson; Linda Watt
Subject: Proposed New Pickleball Courts at Gleneagles

CAUTION: This email originated from outside the organization from email address westvanplayers@shaw.ca. Do not click links or open attachments unless you validate the sender and know the content is safe. If you believe this e-mail is suspicious, please report it to IT by marking it as SPAM.

April 1, 2025

Dear Mayor Sager and Council,

West Van Players support the proposed construction of pickleball courts adjacent to the current skateboard bowl (proposed pump track) area.

Here are some of the benefits of having new pickleball courts built at Gleneagles.

1. No noise concerns. Residential homes are far away from proposed new courts.
2. Excellent location. Adjacent to the Gleneagles Community Centre (GECC) that has washrooms, a café, parking, and public transit.
3. Meeting an increasing demand for more courts to play on. See the statistics for indoor play at GECC.
4. Providing courts where none exist in the western district. Players living in the western district must travel to Normanby or Ambleside to play (causing much congestion there).
5. Providing GECC with an opportunity to provide some structured programming including lessons, coaching and tournaments which can generate revenue for GECC.
6. The pickleball courts will significantly contribute to the revitalization of Horseshoe Bay with a growing family oriented demographic.
7. The nearby Gleneagles school could host school programs, casual drop-in games ensuring diverse community use. Accommodating all skill levels and providing a welcoming environment.

In January, 2025, the Pickleball Advisory Roundtable voted and approved the construction of three pickleball courts at Gleneagles. This followed input from a West Van Players working group as requested by Parks.

In order to correct misinformation that is circulating, West Van Players did not propose that the skateboard bowl be removed and replaced with a pump track.

We thank you for your continued support of what is an exponentially growing sport that engages all ages (particularly seniors). Playing pickleball promotes better health, improved socialization, and builds a feeling of community.

Respectfully submitted,

West Van Players Executive:

Ed Pielak

s. 22(1)

West Vancouver, B.C.

Kay Keshavjee of West Vancouver

Karen Pielak of West Vancouver

Brian Crowe of West Vancouver

Diane Cardwell of West Vancouver

From: [REDACTED] s. 22(1)
Sent: Wednesday, March 26, 2025 4:26 PM
To: correspondence
Cc: Mark Sager, Mayor; Linda Watt; Peter Lambur; Christine Cassidy; Nora Gambioli; Scott Snider; Sharon Thompson
Subject: "West Vancouver gets federal boost to plant 500 trees", North Shore News

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Dear Mayor and Council,

Wow! Thank you! Thank you!

As will be many people, I am overwhelmed by this good news and the framing of it in the article by Mayor Sager as the Mayor and Council's direction to protect and grow our trees, and therefore protect our community and wildlife habitat. Thank you to the Staff who would have put the funding request materials together.

"Thanking the federal government for its support, Mayor Mark Sager said urban forests are essential to his community's character, health and well-being.

"Healthy trees and resilient forests have helped our community mitigate and adapt to climate change, with benefits of this work including rainwater management, slope stabilization, shading and cooling of our creeks and streets, storing carbon to reduce greenhouse gas emissions, and providing habitat for wildlife," he said. "By planting healthy trees that are resilient to the changing climate, we will continue to enhance our urban forest to deliver benefits across this beautiful community." (North Shore News, March 26, 2025)

Sincerely,

[REDACTED] s. 22(1) West Vancouver

From: [REDACTED] s. 22(1)
Sent: Thursday, March 27, 2025 9:47 PM
To: correspondence
Subject: Taxis entering Lions Gate Bridge.

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I was born in West Vancouver [REDACTED] s. 22(1) and finally I'm sending a text regarding an issue I have been thinking about for years. I feel to benefit the residence of West Van the bus/motorcycle lane should also allowed for taxis. It makes total sense. The only person benefiting from not allowing the taxis to use is the taxi driver. Please advise if this text is going no where who I should send msg to.

Thankyou

[REDACTED] s. 22(1)

WV.

Sent from my iPhone

From: s. 22(1)
Sent: Sunday, March 30, 2025 6:22 PM
To: Mark Sager, Mayor; correspondence
Subject: Re: Save the 26th St. Train Bridge

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Hi Mark,

Thanks for getting back to me. How did the council review go in February?

Regards,

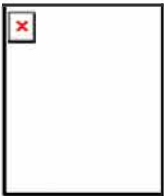
s. 22(1)
West Vancouver
s. 22(1)

On Jan 8, 2025, at 2:42 PM, Mark Sager, Mayor <mark@westvancouver.ca> wrote:

Hello s. 22(1)

Thank you for your email. I am working with District staff to find out what we can do to save this crossing, I expect this to go before Council in February. I do agree it is a needed crossing in the neighbourhood.

All the best,
Mark



Mark Sager
Mayor | District of West Vancouver
t: 604-925-7000 | westvancouver.ca

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From: mark@marksager.com <mark@marksager.com>
Sent: Tuesday, January 7, 2025 10:13 AM
To: Mark Sager, Mayor <mark@westvancouver.ca>
Subject: FW: Save the 26th St. Train Bridge

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From: [REDACTED] s.22(1)
Sent: January 6, 2025 7:15 PM
To: correspondence@westvancouver.ca; mark@marksager.com
Subject: Save the 26th St. Train Bridge

Hi Mark and the WV Council,

Please save our beloved bridge. It provides safe and direct access to the 26th street beach path for a huge number of households via the 26th street crosswalk across Marine Drive and the path leading from there vertically to a number of upper streets.

Please find my signed copy of the petition attached.

Thank you for your consideration.

[REDACTED] s. 22(1)

From: [REDACTED] s. 22(1)
Sent: Monday, March 31, 2025 11:25 AM
To: Mark Sager, Mayor; Christine Cassidy; Nora Gambioli; Peter Lambur; Scott Snider; Sharon Thompson; Linda Watt; correspondence
Cc: [REDACTED] s. 22(1) Scott Findlay
Subject: Item 3 on March 31 Council Agenda - Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2025 Phase 1 Capital Funding Report
Attachments: Questions and Comments on Proposed 2025-2029 Five-Year Financial Plan and Capital Funding Report 2025 03 31.pdf

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Mayor Sager and Members of Council:

Item 3 on the March 31 Council Agenda is the Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2025 Phase 1 Capital Funding Report and includes the recommendation that the proposed "Five-Year Financial Plan Bylaw No. 5381, 2025" be read a first, second, and third time.

The proposed 2025-2029 Five-Year Financial Plan raises many significant questions that Staff should be requested to answer before Council adopts this Bylaw.

Some of the more significant questions are:

1. Why does the Plan project an 8.1% property tax increase for 2026?
2. What are the key assumptions -- increases in the assessable tax base due to new development, staff wage and salary increases, inflation, staffing changes, etc. – underlying the projections?
3. What is the breakdown of the 2025 Consolidated Budget between General Fund, Utility Funds and other funds? Without this, it is impossible for Council or the public to understand the Budget or relate it to the General Fund Budget that Council adopted on March 3.

There are many more questions concerning the proposed 2025-2029 Five-Year Financial Plan that is before Council this evening. The questions and comments that I would suggest that Staff be requested to respond to as part of Council's due diligence and exercise of its fiscal responsibility are appended below. I have also included them in a separate document attached to this email.

There appears to be no need for this Bylaw to be voted on by Council at this time as the deadline for adoption is May 15. I would suggest that Council table this Report from Staff and not vote on it at this evening's Council meeting.

Respectfully submitted,
[REDACTED] s. 22(1)

West Vancouver

Questions and Comments on Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2025 Phase 1 Capital Funding Report

1. **Disclosure of General Fund Operating Budget.** As presented, the Five-Year Financial Plan and the Council Report provide no breakdown between the General Fund, Utility Funds, etc. Consequently, it is impossible to understand the 2025 Budget in relation to the previously published budget documents. Why has there been no disclosure of the final 2025 General Fund Operating Budget, reflecting Council’s March 3, 2025 decision on the 3% 2025 property tax increase? Council should be provided with a breakdown of the 2025 Budget into its component parts – General Fund, Utility Funds, etc. – before it approves the Five-Year Financial Plan Bylaw.
2. **Full 2025-2029 Five-Year Financial Plan.** It appears that the full 2025-2029 Five-Year Financial Plan is not published until June. This is too late for any informed decision-making. Why is the full 2025-2029 Five-Year Financial Plan not published before or coincident with Council being asked to approve the 2025-2029 Five-Year Financial Plan Bylaw? (As the legal requirement is that the Five-Year Financial Plan be adopted before May 15, there appears to be no practical reason for the full Five-Year Financial Plan not to be available before Council approves the Five-Year Financial Plan Bylaw.)
3. **2025 General Taxation Revenues.** The 2025 Preliminary Financial Plan shows 2025 budgeted General Taxation Revenues of \$98,297,480 excluding the 2025 Operating Levy increase. The Council Report for the March 3, 2025 Council meeting adjusted this upwards by \$62,000. The 2% increase in the Operating Levy for 2025 is projected to yield \$1,906,500. This should add up to 2025 budgeted General Taxation Revenues of \$100,265,980, yet the draft 2025-2029 Five-Year Financial Plan Bylaw shows General Taxation Revenues of \$99,763,000 for 2025. Why is there a discrepancy in the 2025 budgeted General Taxation Revenues of \$502,980?
4. **2026 Projected Property Tax Increase.** The 2026 General Taxation figure of \$107,883,000 is 8.1% higher than 2025. This appears to imply that the Finance Dept. is anticipating that the 2026 property tax increase will be 8.1%. This appears to include a catch-up for the 2025 reduction of 2.7% funded by reserve reductions and use of the 2024 surplus. Projecting an 8.1% property tax increase for 2026 is not appropriate. This should be corrected before Council adopts the 2025-2029 Five-Year Financial Plan Bylaw.
5. **Disclosure of Projected Property Tax Increases.** There is no direct disclosure of the projected rates of property tax increase. It appears that the projections anticipate the following property tax increases:

	2026	2027	2028	2029
Operating Levy	6.1%	3.3%	3.2%	3.1%
Asset Levy	2.0%	1.0%	1.0%	1.0%
Environmental Levy	0.0%	1.0%	1.0%	1.0%
Total	8.1%	5.3%	5.2%	5.1%

Is Council satisfied that these “planned” rates of property tax increase are appropriate?

6. **Budget Stabilization Transfer.** 2025 Revenue includes a “Budget Stabilization Transfer” of \$1,953,000, which is equal to the amount of the elimination of the Innovation Fund and reduction in the Wage Contingency Reserve. Why is this treated as additional revenue, rather than as a reduction in expenses (i.e. as a reduction in Transfers to Reserves)? Does this imply that the Innovation Fund of \$953,000 will be restored and the Wage Contingency Reserve increased to \$3,000,000 in 2026? If so, that is not appropriate and should be revised before Council adopts the 2025-2029 Five-Year Financial Plan Bylaw.
7. **Key assumptions.** There is no disclosure of any of the key assumptions used in the projections – increases in the assessable tax base due to new development, staff wage and salary increases, inflation, staffing changes, etc. There should be full disclosure of the key assumptions underlying the 2025-2029 projections before Council adopts the 2025-2029 Five-Year Financial Plan Bylaw.

8. **Public Safety Costs.** The “Public Safety” costs are projected to increase by 5.2% per year – about 2.4% per year more than other department costs. Why is this? If this is due to an assumption that Police and Fire pay increases will be 2.4% per year higher than other staff, this does not seem to be realistic.
9. **General Fund Capital Work in Progress.** What is the explanation of the 2025 “General Fund Capital Work in Progress” of \$41,304,000 (offset by Prior Year Committed Funds)? How does this relate to “Previously Approved Projects” in Appendix E of the Report, totaling \$23,537,007?
10. **General Fund Provision for Reserve Expenditures.** What is the explanation of “General Fund Provision for Reserve Expenditures” of between \$74,348,000 and \$78,561,000 per year? These appear to be offset by “Provisional Reserve Transfers” of between \$79,482,000 and \$85,984,000 per year, for which there is no explanation either.
11. **Other Transfers to Reserves.** What are the “Other Transfers to Reserves” of \$7,427,000 for 2025, increasing to \$10,201,000 in 2029?
12. **Fees and Charges.** There is no breakdown of “Fees and Charges” (\$76,305,000 increasing to \$93,506,000) or “Other Revenue” (\$20,488,000 increasing to \$21,907,000). Does “Fees and Charges” include the additional NSWWTTP Levy?
13. **Additional NSWWTTP Levy and Permissive Tax Exemption.** Are properties that have been granted a permissive tax exemption also exempt from the additional NSWWTTP Levy? Does the \$283,000 estimate of the total permissive tax exemption on page 8 of the draft Five-Year Financial Plan Bylaw include the additional NSWWTTP Levy?
14. **Deferred Capital Maintenance.** Page 12 of the Council Report refers to the deferral of maintenance projects due to limitation of funding sources. What necessary capital maintenance projects, if any, have been deferred to future years due to lack of funds? The Report also refers to the “deferred maintenance challenge”. What is the deferred maintenance challenge and what are the options for addressing it?
15. **Timing of Adoption of Five-Year Financial Plan Bylaw.** Why does Council not deal with the Five-Year Financial Plan Bylaw at the same meeting as the Annual Tax Rates Bylaw? Subsection 165(1) of the Community Charter simply requires that the Five-Year Financial Plan Bylaw be adopted before the Annual Tax Rates Bylaw. This allows the two Bylaws to be adopted at the same meeting.
16. **Public Consultation.** Section 166 of the Community Charter requires that Council undertake a process of public consultation regarding the proposed Five-Year Financial Plan before it is adopted. Is this being done? (The January consultations were only on the 2025 Budget, not on the Five-Year Financial Plan and, consequently, do not comply with Section 166 of the Community Charter.)
17. **Categorization of Capital Expenditures.** Why are capital expenditures categorized by “Asset Preservation”, “Health & Safety”, “Innovation”, “Regular Asset Maintenance” and “Strategic Investment”, rather than by department? Categorizing by department presumably would align with accountability. Also, why are capital expenditures in Appendix C of the Report not categorized consistently with the 2025 Preliminary Financial Plan, which categorized capital expenditures as “Equipment”, “Facilities”, “Grounds and Parks”, “Information Technology”, “Transportation Infrastructure” and “Vehicle Fleet”?
18. **Increase in Capital Expenditures.** The 2025 Preliminary Financial Plan showed \$19,569,459 of expenditures for the 2025 General Fund Capital Program. The current Council Report shows 2025 General Fund capital expenditures of \$21,592,209. What is the explanation for the increase of \$2,022,750?

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From: Graham McIsaac [REDACTED] s. 22(1)
Sent: Monday, March 31, 2025 5:18 PM
To: Mark Sager, Mayor; Christine Cassidy; Nora Gambioli; Peter Lambur; Scott Snider; Sharon Thompson; Linda Watt; correspondence
Cc: [REDACTED] s. 22(1) Scott Findlay
Subject: Re: Item 3 on March 31 Council Agenda - Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2025 Phase 1 Capital Funding Report
Attachments: Questions and Comments on Proposed 2025-2029 Five-Year Financial Plan and Capital Funding Report 2025 03 31.pdf

CAUTION: This email originated from outside the organization from email address [REDACTED] s. 22(1). Do not click links or open attachments unless you validate the sender and know the content is safe. If you believe this e-mail is suspicious, please report it to IT by marking it as SPAM.

Mayor Sager and Members of Council

Apologies for this late email regarding tonight's Council Agenda.

In [REDACTED] s. 22(1) email to you shown below he raises some very important questions and concerns regarding the 2025- 2029 Five Year Financial plan By law being presented to Council for approval tonight. These should be adequately addressed prior to any approval.

I want to add my voice, to the request by [REDACTED] s. 22(1), to simply accept tonight the 2025-2029 Five Year Financial plan for information and delay its approval to a later date. This will allow time for the questions and concerns raised to be answered and addressed .

There seems no urgency or requirement to approve this tonight.

Respectfully submitted,

Graham McIsaac
[REDACTED] s. 22(1)

West Vancouver,
[REDACTED] s. 22(1)

[REDACTED] s. 22(1)

Please do not redact my name.

On Mar 31, 2025, at 11:24, [REDACTED] s. 22(1) wrote:

Mayor Sager and Members of Council:

Item 3 on the March 31 Council Agenda is the Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2025 Phase 1 Capital Funding Report and includes the recommendation that the proposed “Five-Year Financial Plan Bylaw No. 5381, 2025” be read a first, second, and third time.

The proposed 2025-2029 Five-Year Financial Plan raises many significant questions that Staff should be requested to answer before Council adopts this Bylaw.

Some of the more significant questions are:

1. Why does the Plan project an 8.1% property tax increase for 2026?
2. What are the key assumptions -- increases in the assessable tax base due to new development, staff wage and salary increases, inflation, staffing changes, etc. – underlying the projections?
3. What is the breakdown of the 2025 Consolidated Budget between General Fund, Utility Funds and other funds? Without this, it is impossible for Council or the public to understand the Budget or relate it to the General Fund Budget that Council adopted on March 3.

There are many more questions concerning the proposed 2025-2029 Five-Year Financial Plan that is before Council this evening. The questions and comments that I would suggest that Staff be requested to respond to as part of Council’s due diligence and exercise of its fiscal responsibility are appended below. I have also included them in a separate document attached to this email.

There appears to be no need for this Bylaw to be voted on by Council at this time as the deadline for adoption is May 15. I would suggest that Council table this Report from Staff and not vote on it at this evening’s Council meeting.

Respectfully submitted,
s. 22(1)

West Vancouver

Questions and Comments on Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2025 Phase 1 Capital Funding Report

Disclosure of General Fund Operating Budget. As presented, the Five-Year Financial Plan and the Council Report provide no breakdown between the General Fund, Utility Funds, etc. Consequently, it is impossible to understand the 2025 Budget in relation to the previously published budget documents. Why has there been no disclosure of the final 2025 General Fund Operating Budget, reflecting Council’s March 3, 2025 decision on the 3% 2025 property tax increase? Council should be provided with a breakdown of the 2025 Budget into its component parts – General Fund, Utility Funds, etc. – before it approves the Five-Year Financial Plan Bylaw.

Full 2025-2029 Five-Year Financial Plan. It appears that the full 2025-2029 Five-Year Financial Plan is not published until June. This is too late for any informed decision-making. Why is the full 2025-2029 Five-Year Financial Plan not published before or coincident with Council being asked to approve the 2025-2029 Five-Year Financial Plan Bylaw? (As the legal requirement is that the Five-Year Financial Plan be adopted before May 15, there appears to be no practical reason for the full

Five-Year Financial Plan not to be available before Council approves the Five-Year Financial Plan Bylaw.)

2025 General Taxation Revenues. The 2025 Preliminary Financial Plan shows 2025 budgeted General Taxation Revenues of \$98,297,480 excluding the 2025 Operating Levy increase. The Council Report for the March 3, 2025 Council meeting adjusted this upwards by \$62,000. The 2% increase in the Operating Levy for 2025 is projected to yield \$1,906,500. This should add up to 2025 budgeted General Taxation Revenues of \$100,265,980, yet the draft 2025-2029 Five-Year Financial Plan Bylaw shows General Taxation Revenues of \$99,763,000 for 2025. Why is there a discrepancy in the 2025 budgeted General Taxation Revenues of \$502,980?

2026 Projected Property Tax Increase. The 2026 General Taxation figure of \$107,883,000 is 8.1% higher than 2025. This appears to imply that the Finance Dept. is anticipating that the 2026 property tax increase will be 8.1%. This appears to include a catch-up for the 2025 reduction of 2.7% funded by reserve reductions and use of the 2024 surplus. Projecting an 8.1% property tax increase for 2026 is not appropriate. This should be corrected before Council adopts the 2025-2029 Five-Year Financial Plan Bylaw.

Disclosure of Projected Property Tax Increases. There is no direct disclosure of the projected rates of property tax increase. It appears that the projections anticipate the following property tax increases:

	2026	2027	2028	2029
Operating Levy	6.1%	3.3%	3.2%	3.1%
Asset Levy	2.0%	1.0%	1.0%	1.0%
Environmental Levy	0.0%	1.0%	1.0%	1.0%
Total	8.1%	5.3%	5.2%	5.1%

Is Council satisfied that these “planned” rates of property tax increase are appropriate?

Budget Stabilization Transfer. 2025 Revenue includes a “Budget Stabilization Transfer” of \$1,953,000, which is equal to the amount of the elimination of the Innovation Fund and reduction in the Wage Contingency Reserve. Why is this treated as additional revenue, rather than as a reduction in expenses (i.e. as a reduction in Transfers to Reserves)? Does this imply that the Innovation Fund of \$953,000 will be restored and the Wage Contingency Reserve increased to \$3,000,000 in 2026? If so, that is not appropriate and should be revised before Council adopts the 2025-2029 Five-Year Financial Plan Bylaw.

Key assumptions. There is no disclosure of any of the key assumptions used in the projections – increases in the assessable tax base due to new development, staff wage and salary increases, inflation, staffing changes, etc. There should be full disclosure of the key assumptions underlying the 2025-2029 projections before Council adopts the 2025-2029 Five-Year Financial Plan Bylaw.

Public Safety Costs. The “Public Safety” costs are projected to increase by 5.2% per year – about 2.4% per year more than other department costs. Why is this? If this is due to an assumption that Police and Fire pay increases will be 2.4% per year higher than other staff, this does not seem to be realistic.

General Fund Capital Work in Progress. What is the explanation of the 2025 “General Fund Capital Work in Progress” of \$41,304,000 (offset by Prior Year Committed Funds)? How does this relate to “Previously Approved Projects” in Appendix E of the Report, totaling \$23,537,007?

General Fund Provision for Reserve Expenditures. What is the explanation of “General Fund Provision for Reserve Expenditures” of between \$74,348,000 and \$78,561,000 per year? These appear to be offset by “Provisional Reserve Transfers” of between \$79,482,000 and \$85,984,000 per year, for which there is no explanation either.

Other Transfers to Reserves. What are the “Other Transfers to Reserves” of \$7,427,000 for 2025, increasing to \$10,201,000 in 2029?

Fees and Charges. There is no breakdown of “Fees and Charges” (\$76,305,000 increasing to \$93,506,000) or “Other Revenue” (\$20,488,000 increasing to \$21,907,000). Does “Fees and Charges” include the additional NSWWTTP Levy?

Additional NSWWTTP Levy and Permissive Tax Exemption. Are properties that have been granted a permissive tax exemption also exempt from the additional NSWWTTP Levy? Does the \$283,000 estimate of the total permissive tax exemption on page 8 of the draft Five-Year Financial Plan Bylaw include the additional NSWWTTP Levy?

Deferred Capital Maintenance. Page 12 of the Council Report refers to the deferral of maintenance projects due to limitation of funding sources. What necessary capital maintenance projects, if any, have been deferred to future years due to lack of funds? The Report also refers to the “deferred maintenance challenge”. What is the deferred maintenance challenge and what are the options for addressing it?

Timing of Adoption of Five-Year Financial Plan Bylaw. Why does Council not deal with the Five-Year Financial Plan Bylaw at the same meeting as the Annual Tax Rates Bylaw? Subsection 165(1) of the Community Charter simply requires that the Five-Year Financial Plan Bylaw be adopted before the Annual Tax Rates Bylaw. This allows the two Bylaws to be adopted at the same meeting.

Public Consultation. Section 166 of the Community Charter requires that Council undertake a process of public consultation regarding the proposed Five-Year Financial Plan before it is adopted. Is this being done? (The January consultations were only on the 2025 Budget, not on the Five-Year Financial Plan and, consequently, do not comply with Section 166 of the Community Charter.)

Categorization of Capital Expenditures. Why are capital expenditures categorized by “Asset Preservation”, “Health & Safety”, “Innovation”, “Regular Asset Maintenance” and “Strategic Investment”, rather than by department? Categorizing by department presumably would align with accountability. Also, why are capital expenditures in Appendix C of the Report not categorized consistently with the 2025 Preliminary Financial Plan, which categorized capital expenditures as “Equipment”, “Facilities”, “Grounds and Parks”, “Information Technology”, “Transportation Infrastructure” and “Vehicle Fleet”?

Increase in Capital Expenditures. The 2025 Preliminary Financial Plan showed \$19,569,459 of expenditures for the 2025 General Fund Capital Program. The current Council Report shows 2025 General Fund capital expenditures of \$21,592,209. What is the explanation for the increase of \$2,022,750?

Questions and Comments on Proposed 2025-2029 Five-Year Financial Plan Bylaw No. 5381, 2025 and Proposed 2025 Phase 1 Capital Funding Report

1. **Disclosure of General Fund Operating Budget.** As presented, the Five-Year Financial Plan and the Council Report provide no breakdown between the General Fund, Utility Funds, etc. Consequently, it is impossible to understand the 2025 Budget in relation to the previously published budget documents. Why has there been no disclosure of the final 2025 General Fund Operating Budget, reflecting Council’s March 3, 2025 decision on the 3% 2025 property tax increase? Council should be provided with a breakdown of the 2025 Budget into its component parts – General Fund, Utility Funds, etc. – before it approves the Five-Year Financial Plan Bylaw.

2. **Full 2025-2029 Five-Year Financial Plan.** It appears that the full 2025-2029 Five-Year Financial Plan is not published until June. This is too late for any informed decision-making. Why is the full 2025-2029 Five-Year Financial Plan not published before or coincident with Council being asked to approve the 2025-2029 Five-Year Financial Plan Bylaw? (As the legal requirement is that the Five-Year Financial Plan be adopted before May 15, there appears to be no practical reason for the full Five-Year Financial Plan not to be available before Council approves the Five-Year Financial Plan Bylaw.)

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7. **Key assumptions.** There is no disclosure of any of the key assumptions used in the projections – increases in the assessable tax base due to new development, staff wage and salary increases, inflation, staffing changes, etc. There should be full disclosure of the key assumptions underlying the 2025-2029 projections before Council adopts the 2025-2029 Five-Year Financial Plan Bylaw.
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11. **Other Transfers to Reserves.** What are the “Other Transfers to Reserves” of \$7,427,000 for 2025, increasing to \$10,201,000 in 2029?
12. **Fees and Charges.** There is no breakdown of “Fees and Charges” (\$76,305,000 increasing to \$93,506,000) or “Other Revenue” (\$20,488,000 increasing to \$21,907,000). Does “Fees and Charges” include the additional NSWWTWP Levy?
13. **Additional NSWWTWP Levy and Permissive Tax Exemption.** Are properties that have been granted a permissive tax exemption also exempt from the additional NSWWTWP Levy? Does the \$283,000 estimate of the total permissive tax exemption on page 8 of the draft Five-Year Financial Plan Bylaw include the additional NSWWTWP Levy?
14. **Deferred Capital Maintenance.** Page 12 of the Council Report refers to the deferral of maintenance projects due to limitation of funding sources. What necessary capital maintenance projects, if any, have been deferred to future years due to lack of funds? The Report also refers to the “deferred maintenance challenge”. What is the deferred maintenance challenge and what are the options for addressing it?
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From: [REDACTED] s. 22(1)
Sent: Tuesday, April 1, 2025 9:14 AM
To: correspondence
Subject: Proposal for 15th and Fulton redevelopment

CAUTION: This email originated from outside the organization from email address [REDACTED] s. 22(1). Do not click links or open attachments unless you validate the sender and know the content is safe. If you believe this e-mail is suspicious, please report it to IT by marking it as SPAM.

Councilors and Mayor Sager,

I live [REDACTED] s.22(1) and I am very concerned about the plans to develop Fulton Ave. I have been attending the Local Area Improvement Plan sessions, have signed up for in person attendance the day of release and never been able to get a spot but have certainly participated on the Zoom Calls that were held and when new plans are released I write to Riley McLeod with my comments which have mostly been incorporated, and have been doing so since 2020.

I support a redevelopment overall for Ambleside but feel it should be restricted only as far as Esquimalt where there are already apartment buildings and condo towers. Fulton Avenue is completely residential other than City Hall, and I have expressed my concern repeatedly in writing, verbally and in person, that the plans should not include Fulton. I have been puzzled and angered that it only involves one side of Fulton, leaving homeowners on the north side, [REDACTED] s. 22(1), in an economic position [REDACTED] s.22(1) to have depressed lines of sight, from a residential home looking into up to 8 stories of condo or townhomes, depressed economic values [REDACTED] s.22(1), and depressed conditions overall. My comments in writing over 12 months ago stated I don't believe residential streets should ever be rezoned if it only includes one side of the street and not the other because too many homeowners whose major financial investment – their homes – are impacted negatively.

When I read in the North Shore news the update that the 15th and Fulton redevelopment includes high density affordable or below market housing, - having just reviewed the new revision to the Local Area Improvement Plan in January where Fulton had been removed – it was a complete surprise. I wrote to Riley McLeod immediately. Having City Hall, Fire and Police on 15th that creates a municipal hub completely makes sense, and I would argue that in future you will need more premises for services, not less, and that land should be earmarked for such use. Consolidating services to one central area makes it easy for the district and its residents. However, putting up to 8 or more stories of housing in that location (which is also a very busy intersection) is harming all the Fulton homeowners near to it. My understanding was the apartment and rental homes that had been approved were infill lots for new towers to increase density.

Please reconsider what you are doing to the existing residents all along Fulton from 13th all the way to 18th in your determinations. I strongly object to this proposal and feel there are many other uses for that property other than low income and market residential accommodation towers. I look forward to a vibrant community where the business services are spread through the 13 to 22nd Marine Drive area and fully support your efforts but including Fulton in the plan, which is residential all the way from Sentinel Hill until it ends is a hardship for all Fulton residents and will create economic hardship. This district has 65% seniors in it, and seniors do not have any possibility to recover from unforeseen economic pressure. I urge you to strongly consider alternatives for this location.

Thank you for your time and for serving the District.

Yours sincerely,

[REDACTED] s. 22(1)
 [REDACTED] s. 22(1)

West Vancouver, BC CANADA

[REDACTED] s. 22(1)

From: Engineering Department
Sent: Monday, March 31, 2025 10:38 AM
To: s. 22(1)
Cc: correspondence
Subject: Lions Gate Bridge - Taxi Inquiry

Hello s. 22(1)

Thank you for your inquiry. The Lions Gate Bridge is under the jurisdiction of the Ministry of Transportation and Transit. You may send your inquiry to Michael Braun, Operations Manager of Sunshine Coast (West Vancouver, North Vancouver, to Pemberton) Area at Michael.braun@gov.bc.ca.

Alternatively, their regional office can be reached at: 604-527-2221

Regards,

Engineering & Transportation Services | District of West Vancouver
engineeringdept@westvancouver.ca | 604-925-7020

From: s. 22(1)
Sent: Thursday, March 27, 2025 9:47 PM
To: correspondence
Subject: Taxis entering Lions Gate Bridge.

CAUTION: This email originated from outside the organization from email address s. 22(1). Do not click links or open attachments unless you validate the sender and know the content is safe. If you believe this e-mail is suspicious, please report it to IT by marking it as SPAM.

I was born in West Vancouver s. 22(1) and finally I'm sending a text regarding an issue I have been thinking about for years. I feel to benefit the residence of West Van the bus/motorcycle lane should also allowed for taxis. It makes total sense. The only person benefiting from not allowing the taxis to use is the taxi driver. Please advise if this text is going now where who I should send msg to.

Thankyou

s. 22(1)

WV.

Sent from my iPhone