

Attention: Casey Clarkson

**Re: Slope Hazard Comments – Reorientation & Location Changes**  
**2670 Lloyd Avenue, North Vancouver, B.C.**

Turning Point Housing Society, in consultation with CPA Development Consultants, has developed a proposal for a new Support Recovery Home on a parcel of land within the District of North Vancouver, located at 2670 Lloyd Avenue. The parcel of land falls within the District of North Vancouver's Development Permit Area for Slope Hazard. The scope of work for our assignment was to review the proposed development and ensure or make recommendations such that the resulting new development meets the District of North Vancouver's policy guidelines including the District of North Vancouver risk tolerance criteria.

The original proposed concept found habitable space within the Slope Hazard DPA set-back line. However, the location and orientation of the proposed development has been adjusted such that only the garage (at the northern end of the dwelling) lies within the DPA set-back line, located 20m from the toe of the slope. We also understand that the garage will be subject to a 'restricted use' policy enforced by the District and is therefore considered to be a 'non-habitable' space.

We consider that with these adjustments to the position and orientation of the proposed development along with the restricted use policy for the garage, the qualitative slope hazard risks will generally be within the DPA guidelines.

We trust that this information is helpful and sufficient for your purposes at this time. However, please do not hesitate to call if you require any clarification.



For:

GeoPacific Consultants Ltd.



Daniel Sims, B.E. (Hons)  
Geotechnical Engineer

Reviewed By:



Matt Kokan, M.A.Sc., P.Eng.  
Principal

COUNCIL AGENDA/INFORMATION				
<input type="checkbox"/> In Camera	Date	Item #		
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## The District of North Vancouver REPORT TO COUNCIL

November 27, 2012

File: 10.4900.20.003.000

Tracking Number: RCA -

**AUTHOR:** Suzy Lunn, Social Planner

**SUBJECT:** North Shore Support Recovery House for Women

**RECOMMENDATION:** THAT Council receive the report entitled "North Shore Support Recovery House for Women" for information.

**REASON FOR REPORT:** The reason for this report is to provide information on the proposed support recovery house for women which will be operated by Turning Point Recovery Society, report back on the initial community engagement and provide context for the Park Dedication Removal Report to Council.

### BACKGROUND:

Over the past few years the North Shore Substance Abuse Working Group, comprised of elected officials and appointees from the North Shore, Bowen Island and Lions Bay have identified the need for a support recovery house for adults on the North Shore to house people recovering from addictions for three to five months. There are currently no similar facilities available dedicated to helping those who desire to stop using drugs and alcohol in a safe, supportive abstinence-based environment.

Turning Point Recovery Society, a non-profit organization, has been working with the District of North Vancouver and the Substance Abuse Working Group for a number of years to develop a support recovery house for people recovering from addictions in North Vancouver. They operate Support Recovery Houses in Richmond and Vancouver.

### ANALYSIS

The recovery house would be licensed as a community care facility by Vancouver Coastal Health under the *Community Care and Assisted Living Act* and staffed on a 24/7 basis and accommodate a maximum of nine women at a given time. District and Turning Point staff have identified the District owned property at 2651 Lloyd Avenue as the preferred site. The



site has many benefits as it is close to amenities, yet therapeutic due to its private, natural setting.

Funding for the operations of the support recovery house is being sought from Vancouver Coastal Health Authority, BC Housing, resident per diems, and other sources. If approved by the District of North Vancouver Council at a future date, the land will be leased to Turning Point by the District of North Vancouver for a nominal rate. It is anticipated that the construction of the house will be financed through Canada Mortgage and Housing Corporation, BC Housing and other sources including independently raised funds. Turning Point will be responsible for any mortgages that may be in place for the construction of the project.

**Community Engagement:**

District and Turning Point staff have met with the following groups to brief them on the proposal:

- Pemberton Heights Community Association Executive
- The Edgemont and Upper Capilano Community Association Executive
- The Gloria Dei Lutheran Church Council

Staff provided an overview of the proposed project, an introduction to Turning Point Recovery Society and information on the alternate approval process and rezoning process. Preliminary feedback from these groups has been positive. District staff also spoke to a Ismaili Centre leader and he has indicated his support for the project.

District staff hand delivered an invitation to an information meeting on November 26<sup>th</sup> 2012 at the Gloria Dei Lutheran Church to 14 neighbours in the immediate vicinity of 2651 Lloyd Avenue. Thirty-six neighbours attended including some from outside the immediate vicinity. Though neighbours are sympathetic to the concept and understand the need to support North Shore women recovering from addictions, their main concerns were:

- They do not wish to remove the park dedication.
- Potential environmental impacts.
- Parking and traffic issues.
- Desire for road and lighting improvements and installation of sidewalks on Lloyd Avenue and Gladwin Drive.
- Crime and safety

District and Turning Point staff acknowledged the neighbours' concerns and re-iterated that there would be opportunity during the period of the alternate approval and rezoning process for public input to address and mitigate some of their concerns. Staff will also follow up on the above issues raised and will continue to engage with the neighbours to further discuss and address concerns. Staff will report back to Council on this follow up and community engagement.



**Timing/Approval Process:**

Pursuant to Bylaw 3657 (1969), the property at 2651 Lloyd Avenue is reserved for park purposes; however until two years ago the District owned a home at this location. The proposed use of the property for a support recovery facility is not consistent with this bylaw. As a result, before granting the lease to Turning Point, and before commencing the rezoning process, this 1969 bylaw would need to be repealed, insofar as it relates to the part of the property necessary for the proposed use. Repeal of this bylaw will require the approval of the electors by way of an alternate approval process. Repeal of the Bylaw will have the effect of removing the park reservation designation from of a portion of the site. Please see the Park Dedication Removal Report to Council for more information.

If the alternate approval process is successful, the rezoning process including an information meeting and public hearing will take place in the early spring.

**Financial Impacts:** The District intends to offer a long term lease to Turning Point Recovery Society for the property at a nominal rate, subject to Council's future approval.

**Social Policy Implications:** The support recovery house will allow North Shore residents to stay within their community to seek help with drug and alcohol addiction at a residential facility.

**Environmental Impact.** MacKay Creek runs across the property on the south west portion of the site and the recovery house will need to be setback 15 metres from the top of bank. The site is located within a Slope Hazard Development Permit Area (DPA) and Wildfire Hazard DPA. During the design development phase the ideal site location for the facility will be confirmed to mitigate any hazards and accommodate stream setbacks.

**Public Input:**

- 1) Initial discussions with groups listed above.
- 2) Alternate approval process to remove the park dedication (see the companion report) and
- 3) Rezoning and OCP amendment process including an information meeting and public hearing

**Conclusion:** Staff have provided an overview of the proposed support recovery house at 2651 Lloyd Avenue and preliminary feedback from the community outreach. Next steps include the alternate approval process. If the alternate approval process is successful, rezoning and OCP amendment processes including an information meeting and public hearing will take place in the early spring. The public will have additional opportunity to provide feedback during those processes.

Suzy Lunn  
Social Planner

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<input type="checkbox"/> Development Services	<input type="checkbox"/> Corporate Services	<input type="checkbox"/> Library Board	<input type="checkbox"/>
<input type="checkbox"/> Utilities	<input type="checkbox"/> Communications	<input type="checkbox"/> NS Health	<input type="checkbox"/>
<input type="checkbox"/> Engineering Operations	<input type="checkbox"/> Finance	<input type="checkbox"/> RCMP	<input type="checkbox"/>
<input type="checkbox"/> Parks & Environment	<input type="checkbox"/> Fire Services	<input type="checkbox"/> Recreation Commission	
<input type="checkbox"/> Economic Development	<input type="checkbox"/> Human resources	<input type="checkbox"/> Other: _____	
	<input type="checkbox"/> ITS		
	<input type="checkbox"/> Solicitor		
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COUNCIL AGENDA/INFORMATION				
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*[Signature]*  
Dept.  
Manager

*[Signature]*  
Director

*[Signature]*  
CAO

## The District of North Vancouver REPORT TO COUNCIL

April 4, 2013

File: PLN2013-00068

Tracking Number: RCA -

**AUTHORS:** Suzy Lunn, Social Planner, and  
Steven Petersson, Development Planner

**SUBJECT: BYLAW 7989 (REZONING BYLAW 1293): 2670 LLOYD AVENUE (PID 011-072-725) ZONING BYLAW TEXT AMENDMENT (TURNING POINT RECOVERY HOUSE)**

### RECOMMENDATION:

It is recommended that Bylaw 7989, which amends the Zoning Bylaw by adding group home use to the Community Park zone for a portion of the lot at 2670 Lloyd Ave:

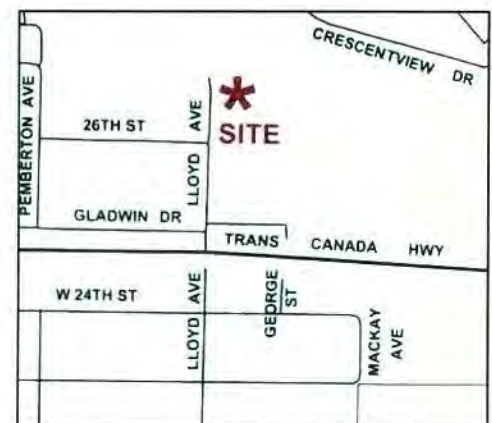
1. be given First Reading; and
2. be referred to Public Hearing.

### REASON FOR REPORT:

Amending the Community Park zone to permit construction of a group home at 2670 Lloyd Ave. requires Council consideration of a Zoning Bylaw text amendment.

### SUMMARY:

The multi-jurisdictional North Shore Substance Abuse Working Group identified the need for a support recovery home for women recovering from addictions on the North Shore. There are currently no residential facilities dedicated to helping women who desire to stop using drugs and alcohol in a safe, supportive abstinence-based environment. The District-owned site at 2670 Lloyd Avenue had a rental house on it until 2010. It is located within walking distance to the amenities in Edgemont Village and it provides a tranquil, private setting to recover. It is therefore considered by District staff and Turning Point Recovery Society to be an appropriate location for this use. The District, in partnership with the Turning Point Recovery Society, proposes to add a group home use to the Community Park zone. This use would be added to the subject area of the site, only. If the rezoning is approved, the District intends to lease the land for a nominal rate to Turning





Point Recovery Society on a long term basis. Turning Point is raising the capital funds to construct the home through the Canada Mortgage and Housing Corporation, BC Housing and other sources including independently raised funds.

#### **EXISTING POLICY:**

The subject property is designated Parks, Open Space and Natural Areas in the Official Community Plan. The Upper Capilano Local Plan, a reference policy document, designates the site as Community Park. The site is zoned Community Park in the Zoning Bylaw. A separate park purpose amending bylaw (Bylaw 7970) has received 3 readings and will be brought forward for Council consideration should this zoning amendment bylaw be successful.

#### **ANALYSIS:**

##### Turning Point Recovery Society

Turning Point Recovery Society proposes to construct a group home for women recovering from addictions at 2670 Lloyd Avenue (PID 011-072-725). The home will be licensed under the *Community Care and Assisted Living Act*, staffed on a 24 hour 7 day per week basis, and accommodate a maximum of 9 women in recovery. Turning Point's recovery program is three to five months in duration and they have operated recovery homes in Vancouver and Richmond for over 30 years.

The North Shore Substance Abuse Working Group, comprised of elected officials and appointees from the District of North Vancouver, City of North Vancouver, District of West Vancouver, Village of Lions Bay, Bowen Island, School Districts, Police, Tsleil Waututh First Nation, Squamish First Nation Officials and Vancouver Coastal Health, identified the need for a support recovery home for women recovering from addictions on the North Shore. There are currently no facilities available dedicated to helping women who desire to stop using drugs and alcohol in a safe, supportive abstinence-based environment. Women from the North Shore would be given priority placement in the home.

##### Site Selection

District staff undertook a process of evaluating District-owned properties to identify a suitable site for the recovery house. The subject site was deemed appropriate by District and Turning Point staff because:

- the tranquil setting is ideal for recovery;
- the nearest single family neighbour is approximately 50m to the south;
- the site can accommodate a house designed for 9 recovering women plus staff; and,
- the site is sufficiently remote for privacy and tranquillity, but is a close walk to services in Edgemont Village.





### Site & Surrounding Area

The subject site is located on the north end of Lloyd Avenue on the southern portion of Murdo Frazer Park. The site is not within the active park facilities or the established trail network. MacKay Creek flows through the southern portion of the site. Until three years ago, a single family house was located on this lot and rented out by the District. The group home is proposed where the former house was located in an already cleared portion of the site. The air photo shows an image of the proposed group home footprint.

North-east of the site is a steep and treed slope and north-west of the site is the end of Lloyd Avenue which terminates in a trail leading to Edgemont Village. West of the site is parkland and south of the site across MacKay Creek are single family houses, the Gloria Dei Lutheran Church and the Lions Gate Ismaili Centre. Further south on Lloyd Avenue is the Highway 1 access. The proposed recovery house is separated from the closest residential neighbour by MacKay Creek and vegetation. The site is already serviced.



### Lease to Turning Point Recovery Society

The District intends to enter into a long term lease at a nominal rate with the Turning Point Recovery Society. The site will continue to be owned by the municipality and will remain zoned Community Park with the group home use being permitted only on the outlined "subject area" within the lot (as delineated by Bylaw 7989).

### Project Description

The siting of the group home has been carefully chosen to respond to the streamside setback and in relationship to the existing slope. It will be located in approximately the same area as the previous house, on the north-west corner of the lot. The house has been designed to reflect the predominately





## Development Permit Areas

- Streamside Protection (exempt based on siting of house outside of riparian setback)
- Creek Hazard (exempt based on siting of the house);
- Wildfire Hazard;
- Slope Hazard; and
- Protection of the Natural Environment

In addition, District staff and Turning Point Recovery Society met with the North Shore Streamkeepers on February 21, 2013 to discuss the proposal. The Streamkeepers are generally supportive of the home, but had the following comments:

- they are not supportive of a group home use in the park as they consider it a private vs. public use;
- siting the home as far from MacKay Creek as possible as it is home to coho salmon, cutthroat trout and many species of wildlife;
- ensuring the riparian area is maintained as conservation area; and



- supporting habitat restoration which would include Turning Point residents' involvement in a stewardship role.

#### Wildfire Hazard

A wildfire hazard assessment has been completed and includes the following recommendations:

- Fire resistant building materials will be used;
- The building will have sprinklers; and
- A number of hazard trees will be removed from the north and east of the site and adjacent tree stands will be appropriately pruned under the direction of the project arborist. In accordance with District policy, appropriate replacement trees will be planted.

The wildfire hazard assessment report has been reviewed and accepted by staff.

#### Slope Hazard

A slope hazard assessment has been completed for the site based on the District's DPA criteria and finds a moderate risk of a shallow landslide. The report includes recommendations to be undertaken if habitable space is located within 20m of the toe of the slope (the setback line). The house is, however, located outside the 20m setback to avoid the potential risk. The garage, which will not include habitable space, is located within the 20m setback line. Staff will continue to work with the architect and geotechnical engineer to ensure all habitable space is located outside the 20m line and any required slope stability planting or other necessary works determined by the final geotechnical report are included.

#### Protection of the Natural Environment

The proposed new structure is within the Natural Environment DPA however the building footprint does not involve encroachment into the Natural Environment protected area. The Development Permit will be issued to address the limited hazard tree removal required for the Wildfire Protection and for the landscape restoration work to be completed in the Streamside Protected Area.

#### Other Environmental Considerations

In addition to the DPA environmental works, the applicant is also voluntarily including additional wildlife sensitive measures including:

- Wildlife resistant solid waste receptacles; and
- Landscape plans will adhere to Bear Aware considerations i.e. no fruit trees.

#### Green Building Requirement

As implementation of this proposal will require an amendment to the Zoning Bylaw, compliance with the District's Green Building Strategy is required. A covenant requiring that the new home meet or exceed an Energuide 80 energy efficiency rating and achieve a Built Green™ "Gold" equivalency will be required prior to bylaw adoption.



### **Public Input**

Turning Point Recovery Society and District staff engaged in a number of outreach meetings and events to discuss the proposal with the public. These included:

- Personal invitations to the pre-meeting from District staff via door knocking to 14 adjacent neighbours;
- Pre-meeting with neighbours: November 26<sup>th</sup>, 2012 - 38 residents in attendance;
- Pre-meeting with executives of Pemberton Heights Community Association on November 12<sup>th</sup>, 2012 and Edgemont & Upper Capilano Community Association on November 22<sup>nd</sup>, 2012;
- Pre-meeting with the Gloria Dei Lutheran Church Council on November 21, 2012;
- Telephone conversations with the leaders from the Lions Gate Ismaili Centre;
- December 3<sup>rd</sup>, 2012 Council consideration of a park repurpose process;
- Park Purposes Amendment Bylaw alternate approval process from December 14, 2012 to January 28, 2013;
- A bus tour of Turning Point facilities in Vancouver on January 19<sup>th</sup>, 2013 with 3 community members, 2 District Councillors and 2 District staff in attendance;
- Meeting with the North Shore Stream Keepers and the DNV environment staff on February 21<sup>st</sup>, 2013;
- Public Information Meeting: March 12, 2013 - 37 people in attendance (summary report by facilitator Catherine Rockandel attached);
- Invitation to community to sit on the Neighbourhood Advisory Committee (terms of reference attached); and
- March 21, 2013 Presentation to Edgemont & Upper Capilano Community Association Annual General Meeting with 40 people in attendance.

The Public Information Meeting notification letters were sent to 19 adjacent residents, the Gloria Dei Lutheran Church, the Lions Gate Ismaili Centre, the Edgemont & Upper Capilano Community Association and the Pemberton Heights Community Association. A sign was placed on the site and four notices were placed in the local paper.

40 people attended the meeting and following the meeting 19 responses were received by feedback form, email, and letter with 16 in favour and 3 opposed. Those in favour of the application cited the need for this type of facility on the North Shore and also supported the location. Those with concerns were worried about resale value, this use in the neighbourhood and on parkland, the need for infrastructure improvements (lights, road paving, highway noise attenuation), on-street parking or traffic pressures and creek impacts.

In response to concerns raised:

- The streamside protection area is fully respected with all building outside the protected area with habitat restoration in streamside area;
- Onsite parking is provided in a 2 car garage plus 6 onsite driveway stalls will be available which is more than required for Turning Point's van, one live-in staff and visitors;



- District staff will consider Murdo Frazer Park pathway lighting for the future capital planning cycles and other funding sources;
- Replacement of the washroom building in Murdo Frazer Park is part of the Parks Department's capital plan;
- The Parks Department is seeking capital funding for pond improvements, improvements to road and entry way off Elizabeth Way, upgrades to the tennis courts and better pathway signage;
- In 2013 the Parks Department will be doing some pathway and bridge improvements on existing trails, replacing park benches and tables and replacing the chain gate with a proper gate at the Lloyd Avenue entrance;
- Members of the immediate neighbourhood as well as community representatives are invited to sit on the Turning Point neighbourhood advisory committee;
- Ministry of Transportation and Highways indicated a noise berm and fence would cost approximately \$1,300,000. However, it is not currently in the Ministry plans.

**CONCLUSION:**

The site within this lot is an appropriate location to construct a recovery house group home for women recovering from addiction. The site has been carefully chosen to respect environmental constraints and environmental enhancements will be provided. If the proposal is successful, the recovery group home will fill a need identified by the North Shore Substance Abuse Working Group. Bylaw 7989 (Attachment A) may be considered for First Reading and referral to a Public Hearing.

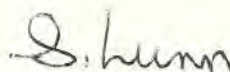
**OPTIONS:**

The following options are available for Council's consideration:

1. Introduce Bylaw 7989 and refer the proposal to a Public Hearing (staff recommendation); or
2. Defeat Bylaw 7989 at First Reading and thereby reject the Turning Point Recovery House proposal.



Steven Petersson  
Development Planner



Suzy Lunn  
Social Planner

Attachment 1: Bylaw 7989

Attachment 2: Public Information Meeting Summary

Attachment 3: Neighbourhood Advisory Committee Terms of Reference



<u>REVIEWED WITH:</u>	<u>REVIEWED WITH:</u>	<u>REVIEWED WITH:</u>	<u>REVIEWED WITH:</u>
<input type="checkbox"/> Sustainable Community Development	<input type="checkbox"/> Clerk's Office	External Agencies:	Advisory Committees:
<input type="checkbox"/> Development Services	<input type="checkbox"/> Corporate Services	<input type="checkbox"/> Library Board	<input type="checkbox"/> _____
<input type="checkbox"/> Utilities	<input type="checkbox"/> Communications	<input type="checkbox"/> NS Health	<input type="checkbox"/> _____
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<input type="checkbox"/> Economic Development	<input type="checkbox"/> Human resources	<input type="checkbox"/> Other: _____	
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	<input type="checkbox"/> GIS		



**The Corporation of the District of North Vancouver**

**Bylaw 7989**

A bylaw to amend The District of North Vancouver Zoning Bylaw (3210) to amend the text of the Zoning Bylaw for Amended Lot 2, Reference Plan 2935, Block C, District Lots 598 to 601, Plan 6659, PID 011-072-725 (2670 Lloyd Avenue), shown outlined in red on the Plan attached to this bylaw as Attachment "A".

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The Council for The Corporation of the District of North Vancouver enacts as follows:

**1. Citation**

This bylaw may be cited as "The District of North Vancouver Rezoning Bylaw 1293 (Bylaw 7989)".

**2. Amendments**

The District of North Vancouver Zoning Bylaw 3210, 1965 is amended as follows:

Part 9 Park, Recreation and Open Space Zone Regulations is amended by:

- a) Amending Section 921, the Community Park (CP) Zone, by adding the following principal permitted use to Section 921.1

"(xiii) One dwelling unit of not more than 390 square meters to be used only as a group home for the care of not more than 9 persons, plus staff. Said dwelling unit may only be located on the Lot. For the purpose of this section, "group home" means group home as defined in Part 2 of this Bylaw modified only to permit up to 9 persons in care, and "the Lot" means that portion of the parcel legally described as Amended Lot 2, Reference Plan 2935, Block C, District Lots 598 to 601, Plan 6659, PID 011-072-725 outlined in bold and labelled as "Subject Area" on the sketch plan attached as Schedule A to the CP Zone

**READ** a first time this the

**PUBLIC HEARING** held the

**READ** a second time the

**READ** a third time the





Certified a true copy of "Rezoning Bylaw 1293 (Bylaw 7989)" as at Third Reading

\_\_\_\_\_  
Municipal Clerk

**APPROVED** by the Ministry of Transportation and Infrastructure this the

**ADOPTED** this the

\_\_\_\_\_  
Mayor

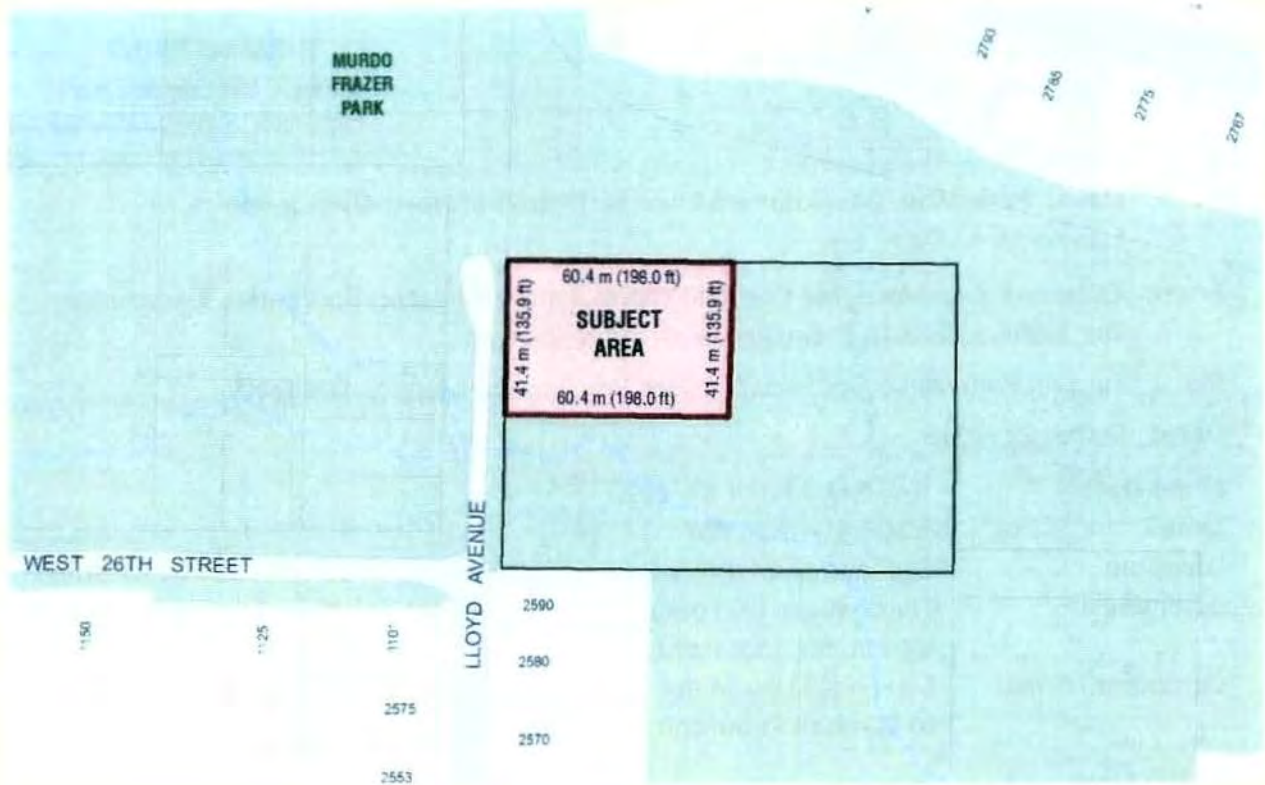
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Municipal Clerk

Certified a true copy

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Municipal Clerk



# Bylaw 7989 Schedule A to the CP Zone





**ROCKANDEL&ASSOCIATES**

*Building Success Through Process Facilitation,  
Community Engagement & Partnership Planning*

**TURNING POINT  
PUBLIC INFORMATION  
MEETING SUMMARY REPORT**

**To:** Steven Petersson, Development Planner, District of North Vancouver  
E: peterss@dnv.org

**From:** Catherine Rockandel, IAF Certified Professional Facilitator, Rockandel & Associates  
Tel: 1-604-898-4614 E: cat@growpartnerships.com

**Re:** Turning Point Recovery Society Public Information Meeting Summary

**Date:** March 22, 2013

**Event Date:** Tuesday, March 12, 2013

**Time:** 6:30 PM – 8:30 PM

**Location:** Capilano Elementary School, 1230 West 20<sup>th</sup> Street, North Vancouver

**Attendees:** Thirty-seven (37) people signed in for the meeting. Several people did not sign-in, for a total of forty (40) people in attendance.

**Comment Forms:** Eleven (11) comment forms were submitted at the meeting and provided to Stephen Petersson, District of North Vancouver

**Notification**

Flyer Invitation

Invitation packages were distributed to residents within a 75-metre radius of the site, as per the District of North Vancouver map.

Site Sign

There was one site sign erected on the site at 2670 Lloyd to notify the community of the meeting as per District of North Vancouver requirements.

Newspaper Advertisement

Two (2) advertisements were placed in the North Shore News, on Wednesday, March 6 and Sunday, March 10, 2013. In addition, some text advertising the PIM was included in the Thursday, March 7<sup>th</sup> District Dialogue, which is distributed with the North Shore Outlook newspaper and in the 'Upcoming Meetings' advertisement in the North Shore News on March 8, 2013.

**Attendees:** Thirty-seven (37) people signed in for the meeting. Three people did not sign-in, for a total of forty (40) people in attendance. In addition, the following project team members, and District of North Vancouver staff and Councillors were in attendance.

**District of North Vancouver**

Stephen Petersson, Development Planner

Suzy Lunn, Social Planner

Annie Mauboules, Social Planner (currently on maternity leave)



Turning Point Recovery Society  
Public Information Meeting Summary  
March 12, 2013

Susan Rogers, Section Manager, Parks  
Julie Pavey, Section Manager, Environmental Sustainability  
Phil Chapman, Social Planner  
Ryan Malcolm, Real Estate and Properties  
Doug MacKay-Dunn, Councillor

**Project Team**

Casey Clerkson, CPA Development Consultants  
Jack Clerkson, CPA Development Consultants  
Anthony Boni, Boni-Maddison Architects

**Turning Point Recovery Society**

Brenda Plant, Executive Director,  
Val Nay Administration  
Brendan O'Brien – Site Manager Richmond Men's  
Sheena Edgar – Acting Site Manager & Counsellor, Richmond Women's  
David Chung – Counsellor Vancouver  
Gary Schubak – President  
Marc Strongman – Vice President Development  
Sean Collings – Treasurer  
Gord Argue – Member at Large  
Jeanie Lamb – Member at Large

**Facilitator**

Catherine Rockandel, Rockandel & Associates

**OVERVIEW**

The Public Information Meeting was designed to provide several methods for the public to share information and engage in the process. From 6:30pm to 7:15pm an informal Open House provided opportunities for the public to visit information booths on key topics and have one-on-one conversations with the project team and District of North Vancouver staff. The information booths focused on DNV Rezoning and Land Use Process, Murdo Frazer Park, Environmental Sustainability, Proposed Design and Site Plan, and Turning Point Programming.

At 7:15pm until 8:30pm a facilitated dialogue provided an opportunity for the public to identify and discuss their concerns.

**PUBLIC DIALOGUE:** (Index: Q: Questions C: Comment A: Answers)

**C1:** There are drug dealers currently operating in the neighbourhood and the park is "busy" with public bathroom rendezvous causing neighbourhood concerns. There is also an overall neglect of neighbourhood (lights in park)

**A1:** Turning Point residence would be a beacon of light to drive out negative behavior. Drug dealers are not attracted to a place where there is no demand. We would also provide more eyes on the street



**C2:** I am executive director of a Capilano community service organization. We are in support of project and can also send youth outreach workers to investigate current activities in bathroom

**C3:** This proposal would bring addicts from elsewhere into neighbourhood

**A3:** The women that would reside in residence are stabilized. They are at Turning Point because they want to get better.

**C4:** This appears to be a done deal and that it is being fast tracked

**C5:** Do not want to be seen as not compassionate, and don't want to have issue framed, as we are 'bad' people if we don't support the proposal. I am concerned about safety, traffic and loss of park space. I didn't know about Alternative Approval Process (AAP) until it failed. I feel it was poorly advertised. The AAP – 10% threshold is absurd. I would feel unsafe with Turning Point in neighbourhood.

**C6:** Feel DNV is downplaying park loss. I want council to protect DNV parks. There are few passive recreation uses in the park. I oppose further erosion of this park. Think this sets a bad precedence of private use in parkland.

**Q7:** Support proposal: parks are good for healing. These women could be your sister, mother, daughter, or neighbor. Are North Shore women going to be given priority?

**A7:** Turning Point residences are well integrated into community and yes we would look to meet the demand of North Shore residents first

**A8:** Why spend \$ on Turning Point when we need sidewalks and lights – where is the win for the local area residents?

**Q9:** I am wondering how you plan to attain park look and feel after construction? I am a master gardener and believe you could beautify property with gardens. I would be willing to get involved to help

**A9:** There would be vegetable gardens, paths. We welcome the involvement of residents

**C10:** Wondering about local working group, who is part of it, what is structure?

**A10:** Comprised of DNV staff, turning point and local residents. The working group would be guided by protocols to have good power dynamic and working partnership

**C11:** Opposed to this proposal due to erosion of parkland and the use of expensive parkland. Keep parkland for larger public, not a small number of residents. Also concerned about encroachment on creek. There is a den of coyotes near the creek.

**C12:** I am supportive but think the DNV needs to address perception of neighbourhood neglect (no noise fence, sidewalks, etc)

**C13:** A member of public praised participants for lack of acrimony in the meeting

**C14:** There is a gap in services on the North Shore. People need to recover in home community



**C15:** Excited for the proposal. I am a family physician and this is a perfect site because it is a vacant lot

**C16:** I am an addiction counsellor from Turning Point Vancouver house. Our job is to save lives and I have seen that recovery houses work.

**C17:** We are a hardworking, middle class neighbourhood – not everyone privileged. This will erode the value of our homes.

**C18:** Moved to North Van to raise a family – protection of parkland important but so is demonstrating to our children that everyone is included and there is a place for people to be treated in their community

**C19:** One solution to the neighbourhood issues and feeling of neglect is for the DNV to consider community amenities, improvements to safety of neighbourhood

**C20:** I am a drug/alcohol counsellor on the North Shore. I am supportive because there are no facilities on North Shore.

**Q21:** What is the rate that Turning Point is paying?

**A21:** Nominal rate - \$10 for 60 years

**C22:** As staff of Turning Point we would invite you to visit us in Richmond or Vancouver we are a well run organization, with a home like environment

**C23:** I grew up in N Van, my brother took me to Lions Gate and we were referred to Cordova Detox. I stayed on Downtown Eastside and became an addict. It was not until I came to Turning Point I was able to turn my life around. If there had been a place to go on the North Shore maybe I would not had the experience I did.

**C24:** I am a principal in three secondary schools, dealt with many young people who are addicted and family members. I am supportive because I want to be part of a community that embraces all people

### **Open House Flip Chart Notes**

#### Rezoning and Land Use Process

- I want to live in a community that solves problems creatively and supports all members of the community, including vulnerable populations
- I, too, want to live in a community that values and supports the least fortunate among us.... For this could be any one of us.
- People in the District value parks
- As population grows, pressure on parks rises
- High school students use the park for their projects
- This is a place for our sisters, mothers and daughters to recover in their own neighbourhood



Turning Point Recovery Society  
Public Information Meeting Summary  
March 12, 2013

- We want a recovery home
- Alternatives was shut down 2 years ago – no alcohol/drug recovery facility to refer people to.
- Without Turning Point we are going back to the Dark Ages
- Would you prefer to send your wife/daughter to a women's only recovery house?

Neighbourhood Improvement Requests

- Sidewalks
- Traffic calming – speed bumps on Lloyd Ave
- Street lighting
- Park lighting – see Parks booth, others?
- Highway noise wall – or other forms of noise mitigation (low noise pavement)
- Lack of parking
- Hwy – exit/entrance
- Equitable treatment to other areas of DNV
- Gladwin St in poor condition
- Traffic from camera crews
- Bathrooms in the park
- Police doing radar checks

Murdo Fraser Park

- Concerned about washrooms
- Golf course – storage across street that was intended for public use (fence has barb wire)
- Location of house in park is wrong location – creek should be protected and open to public
- House should be located in MF across from the golf course
- Existing house location should be kept for public use – community garden
- Traffic
- Support house location – quieter section
- Smoking in parks not permitted – how could this be dealt with on site?

Protection of the Natural Environment

- Highway sound bounces back from new wall on south side of highway right down Lloyd. Can this be baffled on south side? (MOTH)
- Need more trees planted on north side of highway
- Creek should be protected and trees planted



## NEIGHBOURHOOD ADVISORY COMMITTEE

Turning Point Recovery Society  
North Shore Women's Program



**Proposed Terms of Reference**

Turning Point Recovery Society is dedicated to engaging the community in a transparent consultation process about its proposed expansion project, program operations, including the program philosophy and goals, the target population to be served, objectives and requirements for program participants, standards of service provided by staff, and personal expectations and goals for program participants.

The Society wishes to involve neighbours and interested parties to participate in a Neighbourhood Advisory Committee (CAC) to accomplish the following:

1. Learn about the Society, its philosophy about addiction and associated behaviors, its clientele, and its operating style and programs and services.
2. Learn about rezoning processes and the steps required for the proposed development, including the timetable associated with these approvals and the development process.
3. Advise the Society and its Consulting Team regarding planned Public Information Meetings or Open Houses that are contemplated over the coming weeks and months.
4. Provide feedback about the proposed development and its design.
5. Be informed and educated about addictions, the Society and the rezoning proposal and process to be able to comment on the proposal in an informed and respectful manner.
6. To provide a forum for open, respectful discussion about any reasonable concerns and comments participants, or the constituents they represent, may have regarding the proposal as we proceed through the rezoning process.
7. To learn about what supportive housing is and the critical need for it on the North Shore.

We will invite the following to participate on the Neighbourhood Advisory Committee:

1. Up to 5 neighbours who own homes immediately adjacent to the site;
2. Representatives from Gloria Dei Lutheran Church and the Ismaili Center;
3. Community Associations (Pemberton Heights and Edgemont and Upper Capilano) in the catchment area that have a vested interest in the development;
4. Members of the North Shore Substance Abuse Working Group;
5. Service Providers and representatives from Health working on the North Shore who are familiar with addiction recovery;
6. Individuals who have contacted the Society or the District based on information letters sent by the District to households in the neighbourhood adjacent to the site. These individuals represent, or may have been asked to contact the Society or District on behalf of, a collection of individuals;
7. District of North Vancouver Council Member;
8. District of North Vancouver Staff; and
9. Turning Point Recovery Society

We are seeking constructive dialogue from participants. By restricting NAC size to approximately 15-20 people.



# **Diamond Head Consulting Ltd. Preliminary Wildfire Assessment**

**For:**  
**2670 Lloyd Avenue**  
**North Vancouver, BC**

**April 25, 2013**

Submitted to:

Casey Clarkson  
CPA Development Consultants  
1858 Mathers Court  
West Vancouver, BC

Submitted by:



**342 West 8<sup>th</sup> Avenue**  
**Vancouver, BC V5Y 3X2**





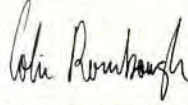
The following Diamond Head Consulting staff performed the site visit and prepared the report. All general and professional liability insurance and individual accreditations have been provided below for reference.

Supervisor:



Mike Coulthard, R.P.Bio., R.P.F.  
Senior Forester, Biologist  
Certified Tree Risk Assessor (46)

Project Staff:



Colin Rombough B.Sc.  
ISA Certified Arborist (PN7552A)  
Certified Tree Risk Assessor (1871)  
BC Wildfire Wildlife and Danger Tree Assessor

#### Contact Information

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Website: [www.diamondheadconsulting.com](http://www.diamondheadconsulting.com)

#### Insurance Information

WCB: # 657906 AQ (003)  
General Liability: The Dominion - Policy #CCP8442492, \$5,000,000 (Mar 2012 to Mar 2013)  
Errors & Omissions: Lloyds Underwriters – Policy #1010346D, \$1,000,000 (June 2011 to June 2013)



## 1 Introduction

Diamond Head Consulting Ltd. (DHC) was asked to provide recommendations to mitigate wildfire risk for the following proposed development:

Civic address:	2670 Lloyd Avenue
Project No.:	unknown
Client name:	CPA Development Consultants
Date of site visit:	March 1 <sup>st</sup> 2013

This project is located within the District of North (DNV) Vancouver Wildfire Hazard Development Permit Area. A preliminary wildfire assessment is required for this project. This preliminary assessment must:

- be prepared and signed by a qualified professional;
- determine the extent, location and presence of wildfire hazard;
- determine the probability of a hazardous event affecting an element at risk;
- recommend whether a detailed assessment is required.



Figure 1. Location of project (2670 Lloyd Ave) in the Development Permit Area for Wildfire Hazard





Figure 2. Aerial view of project (2670 Lloyd Ave)

## 2 Assessment

This project falls within the DNV Wildfire Hazard Development Permit Wildfire Risk Area. The site is mostly surrounded by areas that are dominated by tree cover. The areas to the north, east, and west of the site are parkland (Mudro Frazer Park). These areas support mature forests in a predominantly natural state. There is a creek that runs parallel to the south of this property. There is one structure located to the west across Lloyd. Two distinct stand types have been identified and are labeled stand A and stand B in Figure 3.





Figure 3 Location of the stand types relative to project site.

## 2.1 Stand Assessment

Stand A is located adjacent to the west of the project site. This area supports a mix of predominantly deciduous tree species. These areas follow two creeks and have a high moisture regime. There are scattered canopy openings throughout this stand including one for the existing residence. This area is best represented by the D1/D2 fuel type in the Canadian Wildfire Information System. This fuel type has a low wildfire behavior potential.

Stand B is a mature stand with a mix of species. The dominant trees are coniferous with scattered individual and small groups of deciduous species. The most dominant species include western hemlock and western redcedar. This stand is moderately dense. There are scattered small canopy openings. The crowns of most mature trees are well above the forest floor. This area is best represented by the C5 fuel type in the Canadian Wildfire Information System. This fuel type has a moderate wildfire behavior potential.





Image 1: View of Stand A from Lloyd Avenue



Image 2: View of Stand B from just north of the project site.

## 2.2 Wildfire Risk

The proposed development will be located on the west side of the property. The north edge of the garage will be about 5m from the property line and about 8m from the forested stand. The closest conifer tree to the east of the structure will be about 15m away.

### Wildfire risk posed by Stand A

Stand A is located across Lloyd Avenue from the proposed development. It has a high moisture regime and is dominated by deciduous trees species and shrubs with low flammability. There are scattered small pockets or individual conifers in this stand but at a stand composition of less than 20%. The Canadian Wildfire Information System fire behaviour models of this fuel type show that it poses a low wildfire behavior potential. Furthermore, the road to the west will provide a fuel break from any surface fire that might occur in Stand A. As such, Stand A represents a low wildfire danger to the proposed development.

### Wildfire risk posed by Stand B

The greatest risk from wildfire to this development is from Stand B, located 8m to the north and 10-20m to the east of the project site. The Canadian Wildfire Information System indicates that due to the high crown base height (>5m) of the mature conifers and the relatively low flammability of the understory vegetation, Stand B would only support a high intensity wildfire under extreme wildfire behavior conditions. Along the stand edge to the north and east of the



project site there are a number of hazard trees that will be removed. This will reduce the continuity of conifers in this area and further reduce the fire behavior potential.

The proposed project is located at the bottom of the forested slope on which Stand B is found. In the absence of wind, a wildfire would most likely burn and move predominately upslope. As such the wildfire danger posed by Stand B is significantly reduced due to the relative topographical position of the development.

Historical climate data of this region indicates that extreme wildfire behaviour conditions occur infrequently. Due to the prevailing climatic conditions, the fuel type, planned hazard tree removals, and the topographical position of the proposed development, Stand B poses a moderate wildfire risk to the project site.

### 2.3 Recommendations

The wildfire risk to this project is low to moderate. The greatest risk from wildfire comes from Stand B to the north and east. The following recommendation will lower the wildfire risk to the proposed development.

- Along the stand edge to the north and east of the project site there are a number of hazard trees that have been identified. These are tagged #593, 647, 653 and 264. These are mostly mature conifers and their removal will reduce the continuity of conifers in this area. This will reduce the fire behavior potential of the crown fuels.
- There are three conifers (#267, 268 and 266) that are directly north and within 10m of the planned structure. These trees form a natural windfirm edge to this stand. The trees to the north would not be as stable once exposed. Therefore it is recommended these three conifers be retained and that the limbs of the crowns be life pruned up to 5m and side-limbed on the south side up to 10m.
- All small and medium size woody debris from the hazard tree removals must be chipped or removed from the site;
- The crown base height of all adjacent conifers within 20m of the development should be maintained above 5m. All woody debris from pruning must be chipped or removed from the site;
- A defensible space of 10m should be created to protect structures from an approaching wildfire and to reduce the potential for a structural fire spreading to the forest;
- Vegetation within the defensible space should be of a fire-resistant species;
- Deciduous trees retained in the defensible space should be pruned to a height of 4 meters and have no branches overhanging structures;
- Sprinkler irrigation systems are recommended that can be activated in the case of a wildfire;
- Annual grasses within 10 meters of buildings should be kept mowed to 10 centimetres or less and watered regularly during the summer months;
- Ground litter and downed trees should be removed regularly and prior to the fire season;
- Remove all piled debris (firewood, building materials, and other combustible material) to outside of the fuel free zone during summer months;
- Defensible space should be provided by the developer and maintained by the individual property owner.



In addition to the maintenance of a defensible space on the project site, this development must comply with the requirements outlined in Schedule B of the District of North Vancouver's Official Community Plan which can be found on the District website ([http://www.dnv.org/upload/pdocsdocuments/15yn\\_01!.pdf](http://www.dnv.org/upload/pdocsdocuments/15yn_01!.pdf)). These standards along with additional recommendations are summarized as follows:

Guidelines for Building Design

- Fire retardant roofing material should be used, and asphalt or metal roofing should be given preference;
- Decks, porches and balconies should be sheathed with fire resistive materials;
- All eaves, attics, roof vents and openings under floors should be screened to prevent the accumulation of combustible material, using 3mm, non combustible wire mesh, and vent assemblies should use fire shutters or baffles;
- Exterior walls should be sheathed with fire resistive materials;
- All windows should be tempered or double-glazed to reduce heat and protect against wind and debris that can break windows and allow fire to enter the new building or structure;
- All chimneys and wood-burning appliances should have approved spark arrestors; and
- Building design and construction should generally be consistent with the highest current wildfire protection standards published by the National Fire Protection Association or any similar, successor or replacement body that may exist from time to time.

Guidelines During Construction

- 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.
- Prior to construction of any wood frame buildings, there must be fire hydrants within operating range.

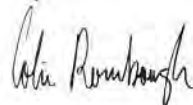
The intent of the Wildfire Hazard DPA is to reduce the risk from wildfire while recognizing the importance of natural features for both landscape character and environmental benefits. If the recommendations made within this report and the requirements of Schedule B are complied with, the risk of wildfire to this project site will be significantly reduced. If there are any questions or concerns as to the contents of this report, please contact us at any time.

Supervisor:



Mike Coulthard, R.P.Bio., R.P.F.  
Senior Forester, Biologist  
Certified Tree Risk Assessor (46)

Project Staff:



Colin Rombough B.Sc.  
ISA Certified Arborist (PN7552A)  
Certified Tree Risk Assessor (1871)  
BC Wildfire Wildlife and Danger Tree Assessor



### 3 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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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.



## Appendix A – Field Assessment Cards

### Appendix A – Field Assessment Cards

#### Plot 1 – Stand B (C5 Fuel Type)

#### WILDLAND URBAN INTERFACE WILDFIRE THREAT WORKSHEET

Plot# 1

User: DHC

Date: 2013-03-01

Photos: ☒ Y ☐ N

Community: District of North Vancouver

Geographic Location/Street Name: 2670 Lloyd Ave, North Vancouver

GPS/UTM:

Land Ownership: DNV

COMPONENT /Subcomponent	LEVELS				
Fuel	A	B	C	D	E
<b>1 Duff and Litter Depth (cm)</b>	1-<2 1	2-<5 2	5-<10 3	10-<20 4	20+ 5
<b>2 Flammable Surface Vegetation Continuity (% cover)</b>	<20 0	20-40 1	41-60 2	61-80 4	>80 5
<b>3 Vegetation Fuel Composition*</b>	Moss, Herbs, Irrigated Crops 1	Herbs, Decid Shrubs 2	Lichen, Conifer Shrubs 3	Pinegrass, Juniper 4	Sagebrush, Bunchgrass, Antelope Brush, Scotch Broom 5
<b>4 Fine Woody Debris Continuity (.7cm)</b>	<1% coverage 1	Scattered, <10% coverage 2	10-50% coverage 5	>50% coverage, 10 cm deep 7	>50% coverage, > 10 cm deep 10
<b>5 Large Woody Debris Continuity (&gt;7cm)</b>	<1% coverage 0	Scattered, <10% coverage 2	10-25% coverage 3	> 25% coverage, not elevated 4	>25% coverage, partially elevated 5
<b>6 Coniferous Crown Closure (%)</b>	<20 2	20-40 5	41-60 10	61-80 15	>80 20
<b>7 Deciduous Crown Closure (%)*</b>	>80 0	61-80 2	41-60 5	20-40 7	<20 10
<b>8 Conifer Crown Base Height (m)*</b>	5+, 20% Conifers 0	3-5 2	2-<3 5	1-<2 8	< 1 10
<b>9 Suppressed &amp; Understory Conifers (Stems Per Ha)</b>	<100 1	100-200 2	201-400 3	401-600 4	>600 5
<b>10 Continuous Forest Land (ha)</b>	<4 1	4-10 2	10.1-50 5	50.1-100 7	>100 10
<b>11 Coniferous Forest Health (% cover of polygon)*</b>	Standing Dead and Down, no foliage < 5% 0	Standing Dead and Down, no foliage 5-50% 4	Standing Dead and Down, no foliage >50% foliage <25% 7	Standing Dead and Down with foliage 25.50% 10	Standing Dead and Down with foliage >50% 15
Sub Total /100					44



Weather	A	B	C	D	D
<b>12 BEC zone</b>	SWB, CWH, MW, AT, Irrigated 1	CDF, SBS 5	MS, ESSF, BWBS, SBPS 10	ICH, IDF 15	BG, PP 20
<b>13 Historical Wildfire Occurrence (by MoFR Fire Zone)</b>	G5, R1, R2, G6, V5, R9, V9, V3, R5, R8, V7 1	G3, G8, R3, R4, V6, G1, G9, V8 5	G7, C5, G4, C4, V1, C1, N6 10	K1, K5, K3, C2, C3, N5, K6, N4, K7, N2 15	N7, K4, K2, N1 20
				<b>Sub Total /40</b>	<b>11</b>
Topography	A	B	C	D	D
<b>14 Aspect</b>	North 2	East 5	Flat (South exposure) 10	West 12	South 15
<b>15 Slope (%)</b>	<15 1	15-29 5	30-44 10	45-54 12	55+ 15
<b>16 Terrain</b>	Flat 1	Rolling 3	Ridges, shallow gullies 5	Consistent slope, shallow gully(s) 7	Consistent slope, deep gullies 10
				<b>Sub Total /40</b>	<b>25</b>
Structural	A	B	C	D	D
<b>17 Position of Structure Community to Rating Area</b>	No Developments 0	Bottom of Slope 5	Mid-slope, Benchland 8	Mid-slope, continuous 12	Upper 1/3 of slope 15
<b>18 Type of Development</b>	No Structure directly impacted 0	Perimeter interface, uphill side 5	Perimeter interface, down or side hill 8	Intermix < 1 structure/ha 12	Intermix > 1 structure/ha, Infrastructure 15
				<b>Sub Total /30</b>	<b>13</b>
				<b>Total:</b>	<b>88</b>

**Wildfire Threat Class**

Low <55

Moderate 55-115

High 116-130

Extreme > 130



**Plot 2 – Stand A (D1/D2 Fuel Type)**

**WILDLAND URBAN INTERFACE WILDFIRE THREAT WORKSHEET**

Plot# 2

User: DHC

Date: 2013-03-01

Photos: **Y** N

Community: District of North Vancouver

Geographic Location/Street Name: 2670 Lloyd Ave, North Vancouver

GPS/UTM:

Land Ownership: DNV

COMPONENT /Subcomponent	LEVELS				
Fuel	A	B	C	D	E
<b>1 Duff and Litter Depth (cm)</b>	1-<2 1	2-<5 2	5-<10 3	10-<20 4	20+ 5
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<b>3 Vegetation Fuel Composition*</b>	Moss, Herbs, Irrigated Crops 1	Herbs, Decid Shrubs 2	Lichen, Conifer Shrubs 3	Pinegrass, Juniper 4	Sagebrush, Bunchgrass, Antelope Brush, Scotch Broom 5
<b>4 Fine Woody Debris Continuity (.7cm)</b>	<1% coverage 1	Scattered, <10% coverage 2	10-50% coverage 5	>50% coverage, . 10 cm deep 7	>50% coverage, > 10 cm deep 10
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<b>6 Coniferous Crown Closure (%)</b>	<20 2	20-40 5	41-60 10	61-80 15	>80 20
<b>7 Deciduous Crown Closure (%)*</b>	>80 0	61-80 2	41-60 5	20-40 7	<20 10
<b>8 Conifer Crown Base Height (m)*</b>	5+, 20% Conifers 0	3-5 2	2-<3 5	1-<2 8	< 1 10
<b>9 Suppressed &amp; Understory Conifers (Stems Per Ha)</b>	<100 1	100-200 2	201-400 3	401-600 4	>600 5
<b>10 Continuous Forest Land (ha)</b>	<4 1	4-10 2	10.1-50 5	50.1-100 7	>100 10
<b>11 Coniferous Forest Health (% cover of polygon)*</b>	Standing Dead and Down, no foliage < 5% 0	Standing Dead and Down, no foliage 5- 50% 4	Standing Dead and Down, no foliage >50% foliage <25% 7	Standing Dead and Down with foliage 25.50% 10	Standing Dead and Down with foliage >50% 15
<b>Sub Total /100</b>					<b>16</b>



Weather	A	B	C	D	D
<b>12 BEC zone</b>	SWB, CWH, MW, AT, Irrigated 1	CDF, SBS 5	MS, ESSF, BWBS, SBPS 10	ICH, IDF 15	BG, PP 20
<b>13 Historical Wildfire Occurrence (by MoFR Fire Zone)</b>	G5, R1, R2, G6, V5, R9, V9, V3, R5, R8, V7 1	G3, G8, R3, R4, V6, G1, G9, V8 5	G7, C5, G4, C4, V1, C1, N6 10	K1, K5, K3, C2, C3, N5, K6, N4, K7, N2 15	N7, K4, K2, N1 20
				<b>Sub Total /40</b>	<b>11</b>
Topography	A	B	C	D	D
<b>14 Aspect</b>	North 2	East 5	Flat (South exposure) 10	West 12	South 15
<b>15 Slope (%)</b>	<15 1	15-29 5	30-44 10	45-54 12	55+ 15
<b>16 Terrain</b>	Flat 1	Rolling 3	Ridges, shallow gullies 5	Consistent slope, shallow gully(s) 7	Consistent slope, deep gullies 10
				<b>Sub Total /40</b>	<b>12</b>
Structural	A	B	C	D	D
<b>17 Position of Structure Community to Rating Area</b>	No Developments 0	Bottom of Slope 5	Mid-slope, Benchland 8	Mid-slope, continuous 12	Upper 1/3 of slope 15
<b>18 Type of Development</b>	No Structure directly impacted 0	Perimeter interface, uphill side 5	Perimeter interface, down or side hill 8	Intermix < 1 structure/ha 12	Intermix > 1 structure/ha, Infrastructure 15
				<b>Sub Total /30</b>	<b>5</b>
				<b>Total:</b>	<b>44</b>

**Wildfire Threat Class**

Low <55

Moderate 55-115

High 116-130

Extreme > 130



# **Diamond Head Consulting Ltd. Arborist Report**

**For:**  
2670 Lloyd Avenue  
North Vancouver, BC

**April 25, 2012**

Submitted to:

Casey Clerkson  
CPA Development Consultants  
1858 Mathers Court  
West Vancouver, BC

Submitted by:



**342 West 8<sup>th</sup> Avenue  
Vancouver, BC V5Y 3X2**



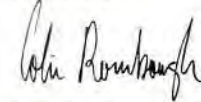
The following Diamond Head Consulting staff performed the site visit and prepared the report. All general and professional liability insurance and individual accreditations have been provided below for reference.

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#### Insurance Information

WCB: # 657906 AQ (003)  
General Liability: The Dominion - Policy #CCP8442492, \$5,000,000 (Mar 2011 to Mar 2013)  
Errors & Omissions: Lloyds Underwriters – Policy #1010346D, \$1,000,000 (June 2011 to June 2013)



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## 1. Introduction

Diamond Head Consulting Ltd. (DHC) was asked to complete an assessment of the trees on and adjacent to the following proposed development:

Civic address:	2670 Lloyd Ave, North Vancouver
Project No.:	unknown
Client name:	CPA Development Consultants
Date of site visit:	March 6, 2013

The objective of this report is to ensure the proposed development is in compliance with District of North Vancouver Bylaws that applies to tree retention. These requirements are covered in the Tree Protection Bylaw (#7671). Protected trees as defined by this bylaw include:

- a. Any *tree* on land owned by or in the possession of the *District*, including, without limitation, a *tree* in a park or on a boulevard, road or lane allowance;
- b. Any *tree* within a *protected area*;
- c. Any *tree* on *sloping terrain*;
- d. Any *replacement tree*;
- e. Any *retained tree*;
- f. Any *heritage tree*;
- g. Any *wildlife tree*;
- h. Any *tree* located on *wetland* or *waterfront*;
- i. Any *tree* of the following species:
  - i. *Arbutus (Arbutus menziesii)*;
  - ii. *Garry Oak (Quercus garryana)*;
  - iii. *Oregon Ash (Fraxinus spp)*;
  - iv. *Pacific Yew (Taxus brevifolia)*;
  - v. *Western White Pine (Pinus monticola)*; or
  - vi. *Yellow-cedar (Chamaecyparis nootkatensis)*.

All trees (>20cm in diameter) on and immediately adjacent to the site were assessed, including: species, diameter at breast height (dbh) measured to the nearest 1 cm at 1.4 m above tree base, estimated height and general health and defects. Critical root zones were calculated for each of the trees with the potential for development impacts. Tree hazards were assessed according to International Society of Arboriculture and WCB standards. Suitability for tree retention was evaluated based on the health of the trees and their location in relation to the proposed building envelopes and infrastructure.



### 1.1 Limits of Assignment

- Our investigation is based solely on our visual inspection of the trees on March 5, 2013;
- Our inspection was conducted from ground level. We did not conduct soil tests or root examination to assess the condition of the root system of the trees;
- This report is valid for six months from the date of submission. Additional site visits and report revisions are required after this point to ensure accuracy of the report for the District's development permit application process.

### 1.2 Purpose and Use of Report

- Provide documentation pertaining to on and off site trees to supplement the proposed development permit application.



Figure 1. Location of site 2670 Lloyd Ave

## 2. Observations

### 2.1 Site Overview

The site consists of one lot that has been partially cleared. The site is mostly surrounded by areas that are dominated by tree cover. The areas to the north and east and west of the site is parkland (Mudro Frazer Park). These areas support mature forests in a predominantly natural state. There is a creek that runs parallel to the south of this property.



Figure 2. Aerial photograph of 2670 Lloyd Ave



## 2.3 Photographs



Photo 1. View of the project site looking east from Lloyd Avenue .



Photo 2. View of the riparian protection area along the south boundary of property .



Photo 3. Example of one of the two heritage stumps on site.



Photo 4. View of the mature conifers on the north boundary of the site.

## 2.2 Tree Inventory

The following is an inventory of assessed trees, each of which was marked with a numbered tag. Tree species, characteristics, comments, recommendations and required root protection zones have been suggested (Table 1). Their locations are illustrated on the accompanying survey map. The tree that are tagged with the number series 200 have not been surveyed. The Districts Bylaw applies to all of these trees as they are growing on land owned by the District. There are two heritage stumps identified (#261 and #262).

### Tree Risk Assessment

Using the *Tree Risk Assessment in Urban Areas and the Urban/Rural Interface Release 1.4* manual, published by the International Society of Arboriculture, a Risk Rating out of 12 maximum points was given to the tree as shown in Table 2. The formula used was: **Probability of Failure + Size of Part + Target Area = Tree Risk Assessment (Rating)**.

In the Tree Risk Assessment, the tree was rated as follows:

**Probability of Failure = (1 low to 5 Extreme)**. This is the likelihood of branch or whole tree failure. One is the lowest possible score; five is the highest likelihood of tree part failure.

**Size of Defective Part = (1 small to 3 large)**. This section identifies the largest part, which could fail. A part greater than 50 cm is given a rating of 3, a part between 10 and 50 cm is given a rating of 2 and all parts less than 10 cm are given a rating of 1.

**Target Area = (1 low to 4 high)**. The target that the tree could strike is designated a value from 1 to 4 based on the potential to cause personal injury or damage structures and infrastructure.

A value for each of the three categories is assessed and added together in the Risk Rating calculation shown in Table 2. A score of 3-5 indicates a low risk, 6-8 is a moderate risk, 9-11 is a high risk and 12 indicates an extreme risk. Please refer to the table in Appendix 1 for detailed information on interpretation and implications of risk ratings and categories. A target rating of three was used for the planned development.



Table 1. Tree Inventory

Tag # (03 = Off rise tree)	Common Name	Botanical Name	DBH (cm)	Ht (m)	Live Crown Ratio (%)	Overall Condition	Comment	Retain/ Remove	Root Protection Zone (m)
0261	Western Redcedar	<i>Thuja plicata</i>	0	2	Dead	Dead	Big heritage stump. Retain and work into the landscaping	Retain	N/A
0262	Western Redcedar	<i>Thuja plicata</i>	0	2	Dead	Dead	Big heritage stump. Retain and work into the landscaping	Retain	N/A
0263	Portugal laurel	<i>Prunus lusitanica</i>	19	16	70-79%	Good	Healthy tree on creek	Retain	2.0
0264	Western Hemlock	<i>Tsuga heterophylla</i>	41	28	70-79%	Fair	Tree growing on a very high nurse stump. Poor rooting. Hazard tree	Remove	N/A
0265	Western Hemlock	<i>Tsuga heterophylla</i>	41	24	60-69%	Fair	Tree growing with a stem sweep on nurse log. Not a hazard	Retain	4.1
0266	Western Redcedar	<i>Thuja plicata</i>	29	14	70-79%	Fair	Healthy tree	Retain	2.9
0267	Western Redcedar	<i>Thuja plicata</i>	84	32	50-59%	Good	Healthy tree	Retain	5.0
0268	Western Redcedar	<i>Thuja plicata</i>	117	34	60-69%	Good	Healthy tree	Retain	5.0
0269	Red Alder	<i>Alnus rubra</i>	42	21	60-69%	Fair	Healthy tree	Retain	4.2
0270	Western Redcedar	<i>Thuja plicata</i>	61	23	80-89%	Good	Healthy tree	Retain	5.0
593	Western Hemlock	<i>Tsuga heterophylla</i>	67	31	70-79%	Poor	Severe mistletoe infection and o dominant tops. Hazard tree.	Remove	N/A
596	Western Redcedar	<i>Thuja plicata</i>	130	34	70-79%	Good	Co dominant top which would need to be pruned to mitigate risk. Cannot strike proposed development.	Retain	5.0
597	Western Hemlock	<i>Tsuga heterophylla</i>	32	24	70-79%	Fair	Healthy tree on the creek edge	Retain	2.0
598	Red Alder	<i>Alnus rubra</i>	33	23	60-69%	Good	Healthy tree on the creek edge	Retain	3.3
599	Red Alder	<i>Alnus rubra</i>	13	17	40-49%	Fair	Small tree leaning towards the creek	Retain	2.0
600	Red Alder	<i>Alnus rubra</i>	37	22	60-69%	good	Healthy tree on creek edge	Retain	3.7

Tag # (OS + DT plus tree)	Common Name	Botanical Name	DBH (cm)	Ht (m)	Live Crown Ratio (%)	Overall Condition	Comment	Retain/ Remove	Root Protection Zone (m)
601	Black Cottonwood	<i>Populus trichocarpa</i>	50	32	60-69%	Good	Healthy tree on creek edge	Retain	5.0
605	Western Hemlock	<i>Tsuga heterophylla</i>	58	28	50-59%	good	Healthy tree on road and creek edge	Retain	5.0
637	Amabilis Fir	<i>Abies amabilis</i>	26	11	70-79%	Fair	Good taper but tree has crown dieback in middle. Can be retained.	Retain	2.6
638	Western Hemlock	<i>Tsuga heterophylla</i>	37	24	80-89%	Fair	Healthy tree	Retain	3.7
639	Lombardy Poplar	<i>Populus nigra var Italica</i>	55	24	60-69%	Fair	Healthy tree	Retain	5.0
640	Bigleaf Maple	<i>Acer macrophyllum</i>	133	18	70-79%	Good	Healthy maple with four stems measuring 41cm, 32cm, 32cm, and 28cm. Adjacent to the road and creek edge	Retain	5.0
642	Weeping Willow	<i>Salix babylonica</i>	33	6	70-79%	Fair	Cavity at base. Tree previously failed and is leaning at 45 degrees. Growing 2m from the proposed structure. Remove	Remove	3.3
643	Western Hemlock	<i>Tsuga heterophylla</i>	43	30	60-69%	Fair	Healthy tree	Retain	4.3
645	Western Hemlock	<i>Tsuga heterophylla</i>	60	31	70-79%	Fair	Healthy tree	Retain	5.0
646	Western Redcedar	<i>Thuja plicata</i>	78	30	50-59%	Good	Healthy tree	Retain	5.0
647	Western Hemlock	<i>Tsuga heterophylla</i>	80	34	60-69%	Fair	Healthy tree but growing on a tall nurse stump with poor rooting. Hazard tree.	Remove	N/A
649	Western Hemlock	<i>Tsuga heterophylla</i>	42	30	60-69%	Fair	Healthy tree	Retain	4.2
653	Western Hemlock	<i>Tsuga heterophylla</i>	69	33	60-69%	Fair	Mistletoe in the stem and growing on a nurse log. Hazard tree.	Remove	N/A
665	Red Alder	<i>Alnus rubra</i>	32	22	60-69%	Good	Healthy tree on creek edge	Retain	3.2
667	Western Redcedar	<i>Thuja plicata</i>	100	36	70-79%	Good	Healthy tree	Retain	5.0



Tag # (OS = off site tree)	Common Name	Botanical Name	DBH (cm)	Ht (m)	Live Crown Ratio (%)	Overall Condition	Comment	Retain/ Remove	Root Protection Zone (m)
668	Western Hemlock	<i>Tsuga heterophylla</i>	86	36	60-69%	Good	Healthy tree	Retain	5.0
669	Lombardy Poplar	<i>Populus nigra var Italica</i>	41	24	50-59%	Good	Healthy tree	Retain	4.1
678	Portugal laurel	<i>Prunus lusitanica</i>	100	11	80-89%	Fair	Gnarly at the base but is a healthy tree with 7 stems measuring 45cm, 32cm, 16cm, 14cm, 25cm, 22cm, and 37cm growing on creek edge	Retain	4.0
699	Apple sp.	<i>Malus sp.</i>	45	5	50-59%	Good	Older apple in decline with 3 stems measuring 17cm, 17cm, and 11cm growing on creek edge	Retain	3.5
700	Western Hemlock	<i>Tsuga heterophylla</i>	56	14	80-89%	Good	Three small stems growing close together. Hemlocks measure 21cm and 15cm and the Cedar measures 20cm.	Retain	3.5





### LEGEND

- Remove Tree
- Hazard Tree
- Retain Tree
- Heritage Stump



Map Produced: March 12, 2013  
Aerial Photograph Year: 2011

0 3 6 12 m



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### 3. Discussion

All trees within striking distance of the proposed development, trees in the riparian area (within 15m of the creek), and trees whose roots may be impacted by the development were inventoried in Table 1. Trees that pose a hazard were identified and recommendations for mitigation or removal are provided.

The site inventory identified 34 trees (<20cm diameter) and 2 heritage stumps on and immediately adjacent to the subject site. All trees are on District land and therefore are protected under the tree bylaw. Four of these trees (tag # 0264, 593, 647, 653) will need to be removed to mitigate any hazards to the potential development. One tree (#642) should be removed as it is in poor condition and will be in conflict with the planned building. One large cedar (tag # 596), with multiple tops will require strategic pruning only if the development plan changes and buildings are situated closer to the tree. The hazard tree removal work will not create a new stand edge and the stability of surround trees should not be affected. All work must be done by an experienced ISA Certified arborist and all slash debris must be chipped or removed from the site to mitigate wildfire hazard concerns.

For wildfire risk mitigation it is recommended that all conifers within 20m of the development should be lift pruned to 5m. There are three conifers (#267, 268 and 266) that are directly north and within 10m of the planned structure. These trees are within the recommended defensible zone to be established for wildfire hazard mitigation. However they form a stable and natural windfirm edge to this stand. The trees to the north would not be as stable once exposed. It is recommended these three conifers be retained and that the limbs of the crowns be lift pruned up to 5m and side-limbed on the south side up to 10m. All small and medium size woody debris from the hazard tree removals must be chipped or removed from the site.

The trees growing along the creek on the south side of the property consists of a closed stand of young to mature deciduous trees. These are generally growing together as a group in soils with a higher moisture regime. The outer exposed trees have grown in place and have adapted to oncoming winds. The trees in the middle of this stand have a higher height to diameter ratio and generally rely on neighboring trees for stability. A 15m riparian area setback will be established along the creek. This setback requires that measures be taken to ensure the trees remain stable and windfirm. The proposed development does not encroach into the riparian area or create any conflicts with trees in the set back.

Once the development plan has been finalized, the following tree protection measures should be considered during the construction process:

- A permanent tree protection zone of the dimensions shown in table 1 should be established from the base of the trees to protect their roots. A tree protection fence should be established out from the base of all trees that are within close proximity to construction sites. Within these tree protection zones, no work activities or disturbance is permitted;
- Excavation that takes place within 5 meters of the base of any trees to be protected should be done carefully to ensure that roots are not ripped back toward the trees. A certified arborist should be on site to monitor the excavation if work is to be taken place within this



zone. As soon as roots that are greater than 5cm in diameter are encountered, the remaining areas around the roots should be excavated with hand tools and the roots pruned off clean;

- Excavation and construction activities adjacent to SPEAs can influence the moisture availability to subject trees. Soil moisture conditions within the tree protection zones should be monitored during hot and dry weather. When soil moisture conditions are dry, supplemental irrigation should be provided; and
- If there are concerns regarding the clearance required for machinery and workers within the tree protection zone or just outside it, the project arborist should be consulted so that a pruning prescription can be developed or a zone surrounding the crowns can be established. All heavy machinery working adjacent to the trees (excavators, cranes, dump trucks, etc.) operating machinery within five meters of the crowns of these trees should be made aware of the proximity of these trees to their activities. If there is to be a sustained period of machinery working within five meters of the crowns of these trees a line with coloured flags should be suspended at the height of the crowns along the length of the protected trees.

#### 4. Final Remarks

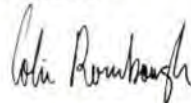
This report summarizes the condition of tree growing on and immediately adjacent to the project site. This information should be used by the project planners to determine opportunities and constraints for tree retention. If there are any questions or concerns as to the contents of this report, please contact us at any time.

Sincerely,  
Supervisor:



Mike Coulthard, R.P.Bio., R.P.F.  
Senior Forester, Biologist  
Certified Tree Risk Assessor (46)

Project Staff:



Colin Rombough B.Sc.  
ISA Certified Arborist (PN7552A)  
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Insurance: Proof of Professional Liability Insurance attached



## Appendix A - Requirement for Tree Protection Barrier as per Tree Protection Bylaw 7671

8. A person performing work on lands containing one or more *retained trees* shall:

- a) install a *tree protection barrier* around any *retained tree* or group of *retained trees* at the *drip line* of the outermost *tree*, the outside boundary of the *critical root zone* of the outermost *tree*, or 5 metres from the stem of the outermost *tree*, whichever is greatest;
- b) ensure that such *tree protection barrier* is constructed of chain link or plywood fastened to solid wood or equivalent framing with railings along the tops, sides and bottom, or is constructed of materials otherwise satisfactory to the *Environmental Protection Officer*;
- c) display signage indicating that the area within the *tree protection barrier* is a "protection zone," and stating that no encroachment, storage of materials or damage to *trees* is permitted within the "protection zone;"
- d) arrange for inspection by the *Environmental Protection Officer* before any work commences, and refrain from commencing work until the *Environmental Protection Officer* has approved the *tree protection barrier*; and
- e) ensure that the *tree protection barrier* remains in place until written approval of its removal is received from the *Environmental Protection Officer*.

9. No work is permitted within the "protection zone" referred to in section 11(c) except in accordance with plans and procedures authorized by a *tree permit*.

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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,



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