# REPORT TO COUNCIL

Date:

November 18, 2011

To:

City Manager

From:

Land Use Management, Community Sustainability (LT)

Application:

DVP10-0020

Owner/Applicant:

Monaf & Khadijah Haidar

Derek & Margaret Niewinski

Kelowna

Address:

1519 & 1529 Longley Crescent

Applicant:

Monaf (Mike) Haidar

Subject:

**Development Variance Permit Application** 

Existing OCP Designation:

Single/Two-Unit Residential

Existing Zone:

RU1 - Large Lot Housing

### 1.0 Recommendation

THAT Council authorize the issuance of Development Variance Permit No. DVP10-0020 for Lots 4 & 5, Section 13, Township 26, ODYD, Plan KAP71317, located at 1519 & 1529 Longley Cres, Kelowna, BC;

AND THAT variances to the following sections of Zoning Bylaw No. 8000 be granted:

<u>Section 7.5.9 (Fencing & Retaining Walls)</u>: To vary the maximum height of a retaining wall in a residential zone from 1.2m allowed to 3.37m proposed, as per Schedule "A".

AND FURTHER THAT Development Variance Permit issuance be subject to a Building Permit application being made for the retaining wall.

## 2.0 Purpose

This application seeks a Development Variance Permit to allow an over-height retaining wall (from 1.2m allowed to 3.37m proposed) which has already been constructed.

# 3.0 Land Use Management

The Land Use Management Department is concerned about the selected design and materials for the constructed wall, and that finished height is more than double the allowable height in the Zoning Bylaw. While the wall is not visible from Longley Crescent, it is visible from the rear yards of the down slope properties (Large Avenue).

The approved site grading plan for the subdivision did not indicate any need for the retaining walls therefore house construction should have occurred without requiring the over-height walls as constructed. Furthermore, the two properties are not subject to topographic conditions unique to the immediate neighbourhood, which may have justified the overheight retaining wall which was built without first securing the necessary approvals.

Above concerns aside, the Land Use Management Department is prepared to support the proposed variance as the removal of the wall at this time could present significant geotechnical challenges for surrounding homes. The wall has been in place for several years, and the owners have installed landscaping to help limit the visual impact of the wall. The wall was previously inspected (reports dated 2008 & 2009), by a professional engineer for the property owner, to ensure stability.

Staff recognizes that some previously-approved subdivisions have created lots which encourage the construction of retaining walls by individual homeowners. Improved hillside development practices described within the City's Hillside Development Guidelines aim to create lots that respect existing terrain, preserve natural features, and reduce the need for individual retaining walls. Larger lot sizes and widths, reduced road standards, and creative lot layouts will help to limit the construction of retaining walls in hillside areas in the future.

## 4.0 Proposal

A retaining wall was built between the two subject properties several years ago and was constructed without a Building Permit. The construction was agreed to by the two property owners to maximize yard space for each property and they have entered into a retaining wall easement to accommodate their joint use of the wall.

The height of the wall is in contravention of Zoning Bylaw 8000, as the concrete block wall ranges in height up to 3.37m above-grade, where the maximum permitted height is 1.2m. As a result, this Development Variance Permit is being requested for a variance of 2.17m in order to permit the existing 3.37m height.

Should the variance be approved by Council, a Building Permit will be required. As part of the Building Permit process a geotechnical engineer will be required to provide the necessary drawings and schedules for the over-height wall.

The requested variance is summarized below:

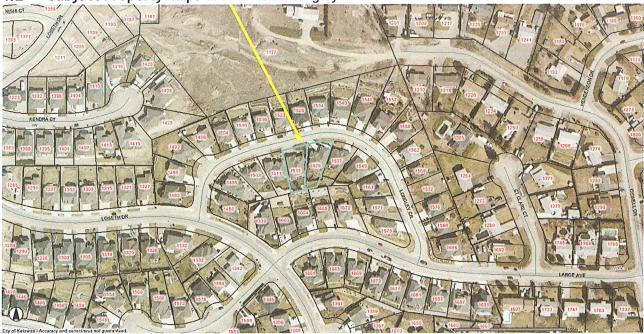
Criteria	Proposal	Bylaw Requirements
Maximum height of a retaining wall on a residential lot	3.37m	1.2m

#### 4.1 Site Context

The subject properties are located in the Black Mountain area, off Loseth Drive. Specifically, adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	RU1 - Large Lot Housing	Single-Family Residential
East	RU1 - Large Lot Housing	Single-Family Residential
South	RU1 - Large Lot Housing	Single-Family Residential
West	RU1 - Large Lot Housing	Single-Family Residential

4.2 Subject Property Map: 1519 & 1529 Longley Cres



## 5.0 Technical Comments

# 5.1 Building & Permitting Department

Building permit required. Geotechnical engineer is to provide drawings and schedules. Double building permit fee will apply.

# 5.2 Development Engineering Department

Does not compromise any municipal services.

# 6.0 Application Chronology

Date of Application Received:

February 2, 2010

Note: The Application was placed on hold to allow applicant time to acquire signatures from the affected neighbours. However, as the applicant was unable to obtain signatures from all neighbours, the application required consideration by the Advisory Planning Commission.

Advisory Planning Commission Fees Paid:

July 21, 2011

Advisory Planning Commission:

September 13, 2011

Additional information received from applicant for report to Council: November 16, 2011

The application was reviewed by the Advisory Planning Commission at the meeting on September 13, 2011 and the following recommendation was passed:

THAT the Advisory Planning Commission supports Development Variance Permit Application No. DVP10-0020 by M & K Haidar; D & M Niewinski, to vary the height of an existing retaining wall between the two properties from 1.2m allowance to 3.37m proposed.

## **APC Comment:**

The Advisory Planning Commission supported the Development Variance Permit; however, the Applicant was encouraged to continue in their efforts (using landscaping and trellis, for instance) to mitigate the visual impact of the over-height retaining on surrounding views. It was noted that removal of the wall would cause considerable geotechnical instability for the impacted properties, and this was a reason of support subject to vegetation efforts to mitigate the visual impact.

Report prepared by:

Luke Turri, Land Use Planner

Reviewed by:

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Danielle Noble, Manager, Urban Land Use

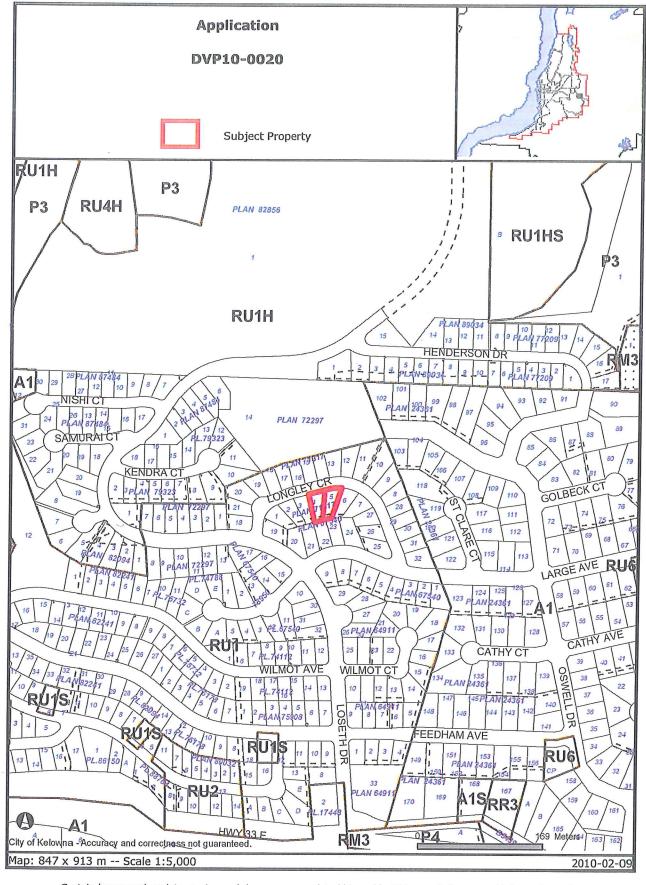
Approved for inclusion:



Shelley Gambacort, Director, Land Use Management

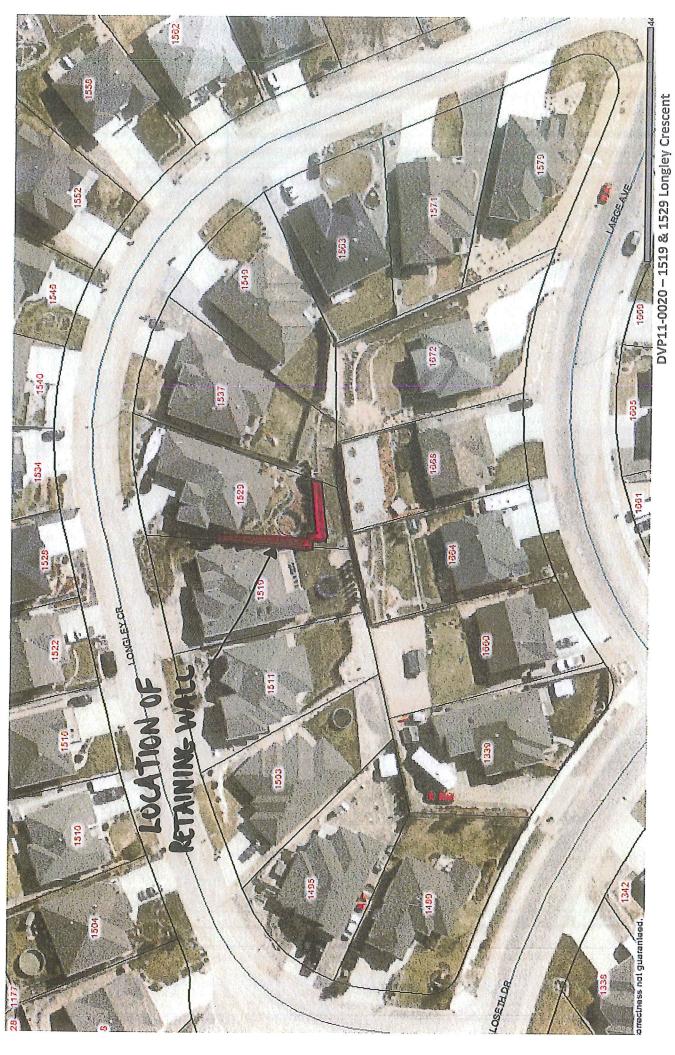
### Attachments:

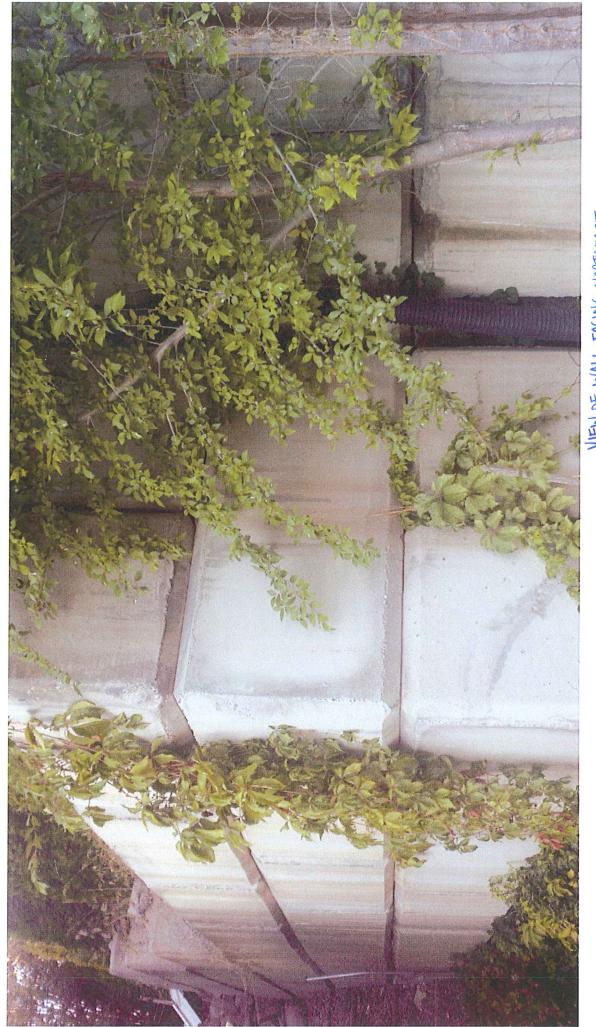
Subject Property Map Site plan Cross-section of retaining wall Existing site photos Retaining wall stability review dated March 9, 2008 Draft Development Variance Permit DVP10-0020



Certain layers such as lots, zoning and dp areas are updated bi-weekly. This map is for general information only.

The City of Kelowna does not guarantee its accuracy. All information should be verified.





VIEW OF WALL FACING NORTHEAST



VIEW OF WALL FACING EAST

Try ...... 17 ... B.C. LAND SURVEYORS CERTIFICATE OF LUCATION ON LOT 5, PLAN KAP71317, SEC. 13, TP. 26, O.D.Y.D. 1529 LONGLEY CRESCELT LONGLEY CRESCIENT 5.488 TOP OF GARAGE FLOOR, ELEVATION = 618.12m FRAMED HOUSE LONCRETE BLOCK FOUNDATION DIMENSIONS SHOWN RETAINING WALL 2.59 ....6 4 DECK LOT PLAN KAP71317 S.R.W. PLAN KAP71318 SCHEDULE 12.000 This forms part of development 77 Permit # DVP10-0020 22 THIS PLAN IS FOR THE USE OF THE BUILDING INSPECTOR AND/OR MORTGAGEE ONLY AND IS NOT TO BE USED FOR THE RE-ESTABLISHMENT OF PROPERTY BOUNDARIES.

I HEREBY CERTIFY THAT THE ABOVE SKETCH SHOWS THE REGISTERED DIMENSIONS OF THE ABOVE DESCRIBED PROPERTY AND RELATIVE LOCATION OF THE BUILDINGS THEREON.

B.C.L.S., C.L.S.
THIS DOCUMENT IS NOT VALID UNLESS ORIGINALLY
SIGNED AND STEALED

CLIENT: TESCHNER

JULY 22, 2003 DATE: 1:250 METRE 3 SCALE: 15562 FILE:

OT.E. FERGUSON LAND SURVEYING LTD.

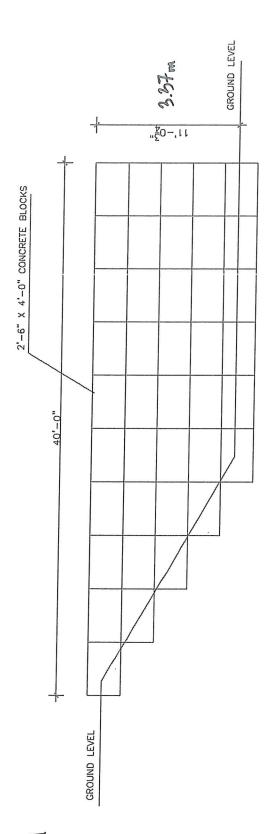
T.E. Ferguson Land Surveying Ltd. B.C. AND CANADA LAND SURVEYORS 216-1626 RICHTER STREET, KELOWNA, B.C. TELEPHONE: (250) 763-3115 FAX: (250) 763-0321

NA NA

SCHEDULE A

This forms part of development Permit # DVP10 - 0020

MIKE HAYDAR LOT 4 LONGLEY CRESCENT



LONGLEY CARS

# 517611 ALBERTA CORP.

MILOS STEPANEK, M.Sc., P.Eng. Geotechnical Consultant

March 9, 2008

Mr. Derek Neiwinski 1529 Longley Crescent Kelowna, B.C. V1P 1N1

Re: Retaining Wall Stability Review.

Dear Sir:

Further to your request, the undersigned reviewed stability of the Lock-block concrete retaining wall constructed more than two years ago at the above location. The wall is 1.8 to 2.5 m high and about 10 m long, located along the west property boundary. The evaluation is based on the site visit (undertaken on November 22, 2007) and construction photographs.

The contractor build a vertical wall instead of routinely used batter front face 6(V):1(H). As a result of soil pressure, the uppermost segments of the middle portion of the wall bowed slightly outward, causing concern regarding the wall stability (Photo 1).

### **OBSERVATIONS**

Maximum horizontal displacement at the crest of the wall is estimated to be about 25 mm, resulting in about 0.01 gradient over the wall height.

Concrete blocks were used for the wall foundation. At least 50 % of the height of the bottom layer of blocks is embedded into the ground, resting on a layer of crushed gravel. The subsoil is competent colluvium overlying bedrock. The ground is well drained. There is no evidence of ground or wall blocks deformation at the foundation level.

All blocks are well interlocked, including the deformed wall segment.

There are no fissures or cracks at the wall crest. The downslope corner of the wall (Photo 2) provides a solid support and there is no visible deformation at this wall segment. Similarly, there is no displacement at the upslope end of the wall.



Photo 1: View of the south face of the retaining wall.

# **EVALUATION**

Concrete prefabricated block walls are flexible and designed for active earth pressure. The active earth pressure is the minimum value of lateral earth pressure that a soil mass can exert against a yielding retaining structure. It represents a failure condition at which the shear strength in the soil is fully mobilized in resisting gravity forces. The lateral strain (expansion) required to mobilize the soil strength is relatively small, but is is only possible in structures which are flexible.

It appears that the magnitude of the wall rotation (about 0.01) is sufficient to fully mobilize the shear strength of the soil behind the wall (Canadian Foundation Engineering Manual, sec. 25.3).

# CONCLUSIONS and RECOMMENDATIONS

It is likely that the wall reached equilibrium condition and that no further deformations would develop.

It is recommended to install one bench mark on stable ground outside of the wall and five reference points on the top of the wall and survey them every three months. If no significant deformations are recorded during one year monitoring program, the wall achieved the equilibrium condition and the hazard of the failure should be less than one in fifty years.

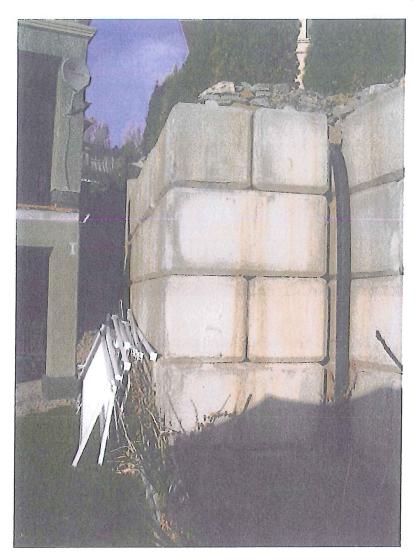


Photo 2: Downslope corner of the wall. There are no visible deformations in this wall segment.

I trust that this information meets your current requirements. If you have any questions, contact me at your convenience.

Yours truly,

Milos Stepanek, P. Eng.

11-3103 Thacker Ridge Crt. Kelowna

769 4171

# CITY OF KELOWNA

# APPROVED ISSUANCE OF A:

☐ Development Variance Permit No.:

DVP10-0020

EXISTING ZONING DESIGNATION:

RU1 - Large Lot Housing

**DEVELOPMENT VARIANCE:** 

To vary maximum of a retaining wall.

ISSUED TO:

Monaf & Khadijah Haidar; Derek & Margaret Niewinski

LOCATION OF SUBJECT SITE:

1519 & 1529 Longley Cres

	LOT	SECTION		PLAN
LEGAL DESCRIPTION:	4 & 5	13.	ODYD	KAP71317

SCOPE OF APPROVAL
This Permit applies to and only to those lands within the Municipality as described above, and any and all buildings, structures and other development thereon.
This Permit is issued subject to compliance with all of the Bylaws of the Municipality applicable thereto, except as specifically varied or supplemented by this Permit, noted in the Terms and Conditions below.
Applicants for Development and Development Variance Permit should be aware that the issuance of a Permit limits the applicant to be in strict compliance with regulations of the Zoning Bylaw or Subdivision Control Bylaw unless specific Variances have been authorized by the Permit. No implied Variances from bylaw provisions shall be granted by virtue of drawing notations which are inconsistent with bylaw provisions and which may not have been identified as required Variances by the applicant or City staff.

## 1. <u>TERMS AND CONDITIONS</u>:

a) THAT variances to the following section of Zoning Bylaw No. 8000 are granted as per Schedule "A":

<u>Section 7.5.9 (Fencing & Retaining Walls)</u>: To vary the maximum height of a retaining wall in a residential zone from 1.2m allowed to 3.37m proposed, as per Schedule "A".

### 2. PERFORMANCE SECURITY:

As a condition of the issuance of this Permit, Council is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Permittee and be paid to the Permittee if the security is returned. The condition of the posting of the security is that should the Permittee fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the Municipality may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Permittee, or should the Permittee carry out the development Permitted by

this Permit within the time set out above, the security shall be returned to the Permittee. There is filed accordingly:

(a)	Cash in the amount of \$N/A	•		
(b)	A Certified Cheque in the amount of \$	N/A		
(c)	An Irrevocable Letter of Credit in the amour	nt of \$	N/A	

Before any bond or security required under this Permit is reduced or released, the Developer will provide the City with a statutory declaration certifying that all labour, material, workers' compensation and other taxes and costs have been paid.

### DEVELOPMENT:

The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

If the Permittee does not commence the development Permitted by this Permit within one year of the date of this Permit, this Permit shall lapse.

This Permit is not transferrable unless specifically Permitted by the Municipality. The authorization to transfer the Permit shall, if deemed acceptable, be granted by Council resolution.

THIS Permit IS NOT A BUILDING Permit.

### 4. APPLICANT'S AGREEMENT:

I hereby declare that all the above statements and the information contained in the material submitted in support of this Permit are to the best of my belief, true and correct in all respects. Upon issuance of the Permit for me by the Municipality, then in such case, I covenant and agree to save harmless and effectually indemnify the Municipality against:

- (a) All actions and proceedings, costs, damages, expenses, claims, and demands whatsoever and by whomsoever brought, by reason of the Municipality granting to me the said Permit.
- (b) All costs, expenses, claims that may be incurred by the Municipality if the construction by me of engineering or other types of works as called for by the Permit results in damages to any property owned in whole or in part by the Municipality or which the Municipality by duty or custom is obliged, directly or indirectly in any way or to any degree, to construct, repair, or maintain.

I further covenant and agree that should I be granted a Development Permit or Development Variance Permit, the Municipality may withhold the granting of any occupancy Permit for the occupancy and/or use of any building or part thereof constructed upon the hereinbefore referred to land until all of the engineering works or other works called for by the Permit have been completed to the satisfaction of the Municipal Engineer and the Director of Land Use Management.

Should there be any change in ownership or legal description of the property, I undertake to notify the Land Use Management Department immediately to avoid any unnecessary delay in processing the application.

I HEREBY UNDERSTAND AND AGREE TO ALL THE TERMS AND CONDITIONS SPECIFIED IN THIS PERMIT.

Signature of Owner/Authorized Ager	nt Da	ate	
Print Name in Bold Letters	Te	elephone No.	
5. <u>APPROVALS</u> :			
AUTHORIZING RESOLUTION PASSED BY M	UNICIPAL COUNCIL THE @ OF	<b>@, 20@@.</b>	
ISSUED BY THE LAND USE MANAGEMENT USE MANAGEMENT.	DEPARTMENT OF THE CITY OF	F KELOWNA THE @ DAY OF	@, 20@@, BY THE DIRECTOR OF LAND
Shelley Gambacort Director of Land Use Management			
		<b>)</b>	