

DEVELOPMENT VARIANCE PERMIT



APPROVED ISSUANCE OF DEVELOPMENT VARIANCE PERMIT NO. DVP16-0164

Issued To: DEBRA JUNE SIEBEN

Site Address: 4338 GALLAGHERS FAIRWAY SOUTH

Legal Description: STRATA LOT 51 SECTION 2 TOWNSHIP 26 OSOYOOS DIVISION YALE DISTRICT STRATA PLAN KAS2124 TOGETHER WITH AN INTEREST IN THE COMMON PROPERTY IN PROPORTION TO THE UNIT ENTITLEMENT OF THE STRATA LOT AS SHOWN ON FORM 1 AND AN UNDIVIDED 1/130 SHARE IN COMMON LOT 1 PLAN KAP63646 (SEE PLAN AS TO LIMITED ACCESS) AND AN UNDIVIDED 1/1560 SHARE IN COMMON LOT G PLAN KAP53116 (SEE PLAN AS TO LIMITED ACCESS)

Zoning Classification: CD6 - COMPREHENSIVE RESIDENTIAL GOLF RESORT

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.

The issuance of a Permit limits the Permit Holder to be in strict compliance with regulations of the Zoning Bylaw and all other Bylaws unless specific Variances have been authorized by the Permit. No implied Variances from bylaw provisions shall be granted by virtue of drawing notations that are inconsistent with bylaw provisions and that may not have been identified as required Variances by the applicant or Municipal staff.

1. TERMS AND CONDITIONS

THAT a variance to the following sections of Zoning Bylaw No. 8000 be granted, as shown on Schedule "A":

Section 7.5.9: Fencing and Retaining Walls Regulation

To vary the height of a side retaining wall from 1.2 metres to up to 2.4 metres in accordance with the drawings attached to the Development Variance Permit shown in Schedule "A"

AND THAT a Section 219 Covenant be registered on title requiring

- 1) That the retaining wall be the sole responsibility of the upland property owner
- 2) That the retaining wall be kept in good repair
- 3) That the retaining wall be inspected every five (5) years by a Professional Engineer who is licenced in the Province of British Columbia

AND THAT the retaining wall be reduced to a maximum height of 1.2 m in any area not being varied by this application, as shown in Schedule "A";

AND FURTHER THAT the applicant be required to complete the above noted conditions of Council's approval of the Development Variance Permit Application in order for the permits to be issued.

2. PERFORMANCE SECURITY

None required.

3. 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 that shall form a part hereof.

If the Permit Holder does not commence the development permitted by this Permit within two years of the date of this Permit, this Permit shall lapse.

This Permit IS NOT a Building Permit.

4. APPLICANT'S AGREEMENT

I hereby declare that all of 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 and/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 Divisional Director of Community Planning & Real Estate.

Should there be any change in ownership or legal description of the property, I undertake to notify the Community Planning 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 Agent

Date

Print Name in Bold Letters

Telephone No.

5. APPROVALS

Issued and approved by Council on the _____ day of _____, 2016.

Ryan Smith, Community Planning Department Manager
Community Planning & Real Estate

Date

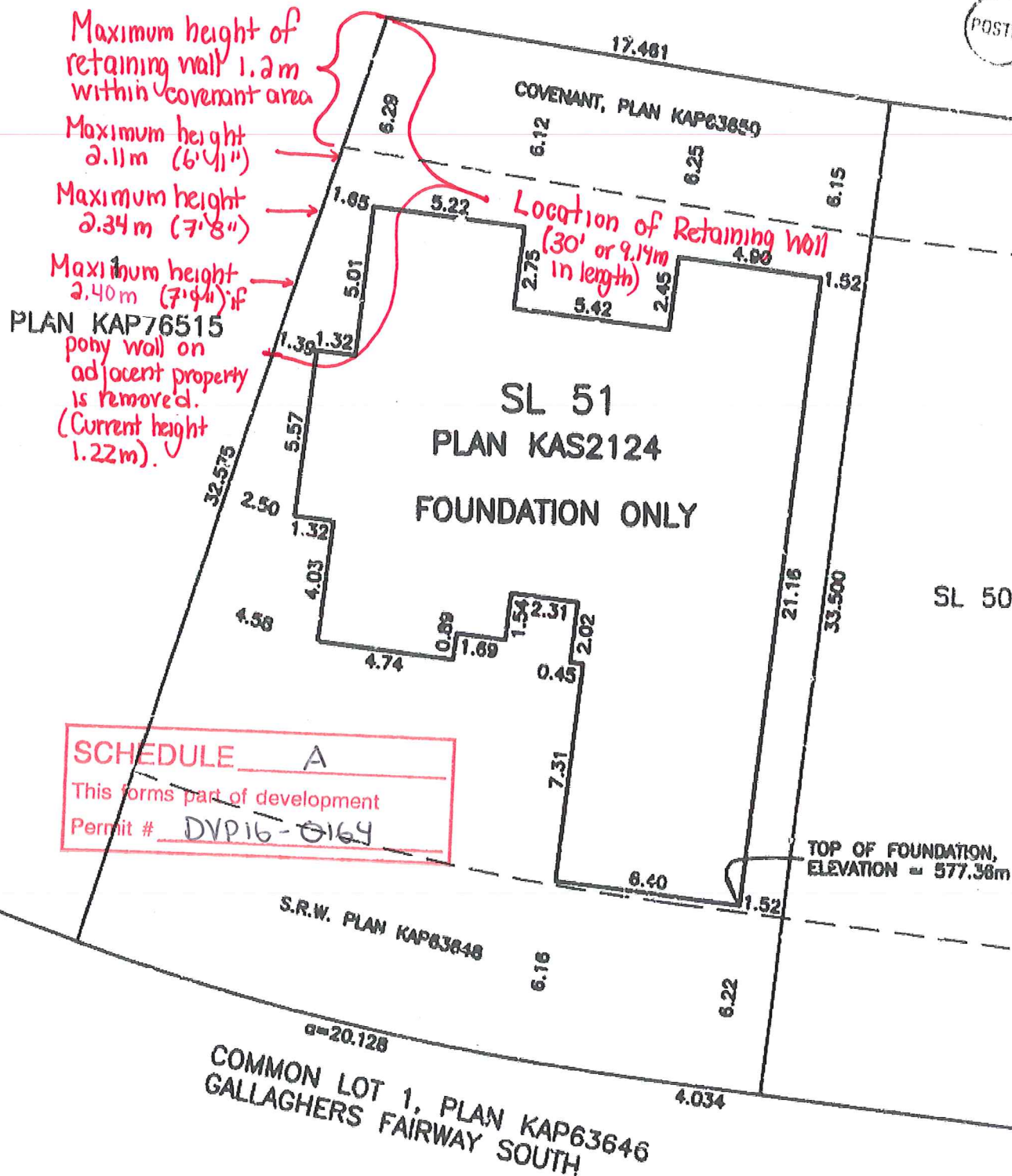
The PERMIT HOLDER is the CURRENT LAND OWNER.

SP-0433 4338 Gallaghers Fairways

P1

B.C. LAND SURVEYORS CERTIFICATE OF LOCATION ON STRATA LOT 51, PLAN KAS2124, SEC. 2, TP. 26, O.D.Y.D. 4338 GALLAGHERS FAIRWAY SOUTH

POSTED



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

T.E. Ferguson
B.C.L.S., C.L.S.

THIS DOCUMENT IS NOT VALID UNLESS ORIGINAL

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.

CLIENT: GALLAGHERS CANYON LAND DEVELOPMENT

DATE: NOVEMBER 29, 2005

SCALE: 1:200 METRES

FILE: 13493.99

T.E. Ferguson Land Surveying Ltd.

B.C. AND CANADA LAND SURVEYORS
216-1828 RICHTER STREET, KELOWNA, B.C.
TELEPHONE: (250) 783-3115

Photo 1: View of the retaining wall taken from the rear property line of 4334 Gallaghers Fairway South, looking towards the South



Photo Two: View of the retaining wall from 4334 Gallaghers Fairway South, looking towards 4338 Gallaghers Fairway South (to the East)



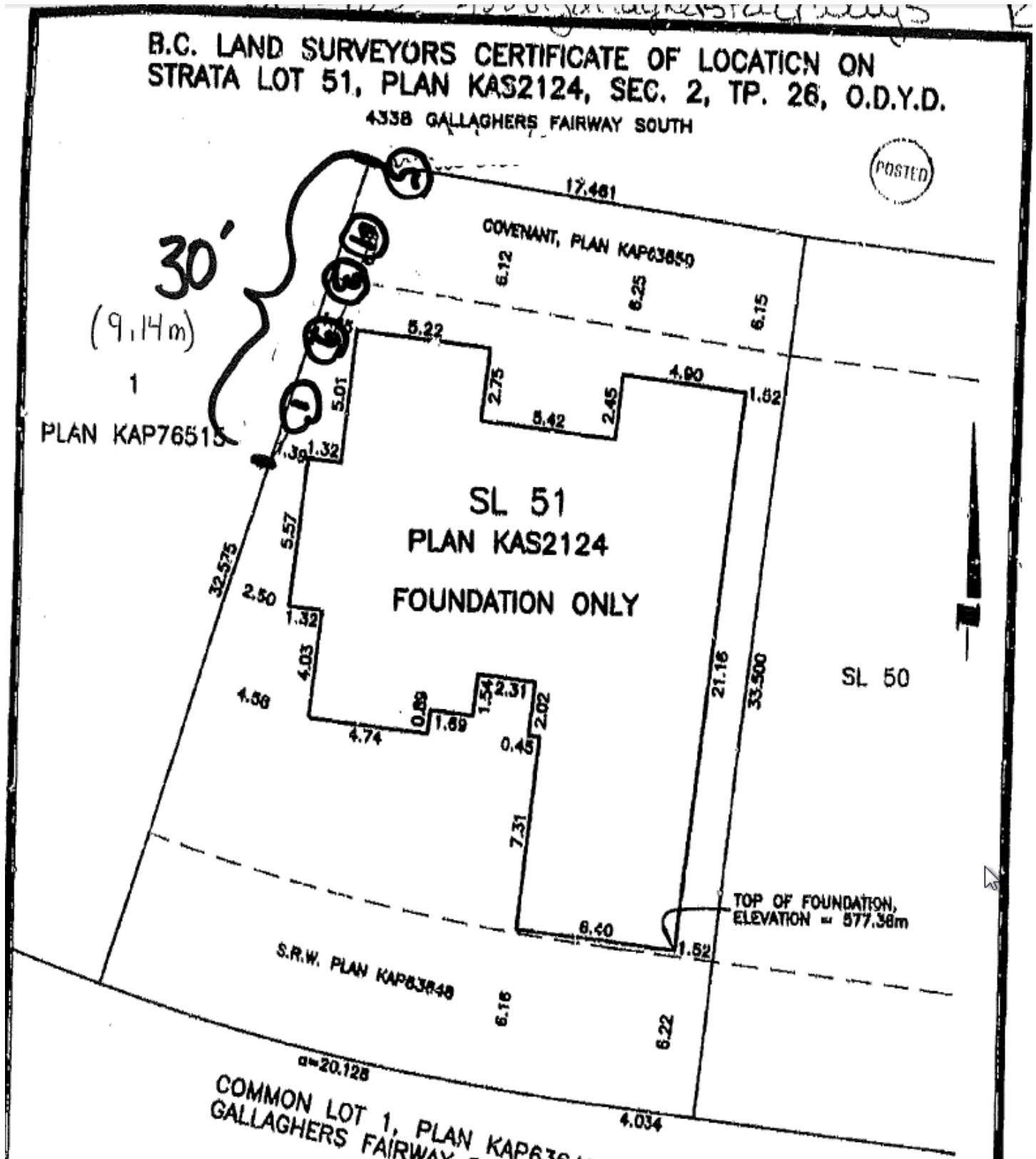


Photo Three: Current retaining wall, at Location #1, as identified on Map One



Photo Four: Current retaining wall, at Location #2, as identified on Map One



Photo Five: Current retaining wall, at Location #3, as identified on Map One



Photo Six: Current retaining wall, at Location #4, as identified on Map One



Photo Seven: Current retaining wall, at Location #5, as identified on Map One



Location #5

Current Height 1.27 m (4'2")

**- INTERIOR -
TESTING SERVICES
- LTD. -**

**MATERIALS TESTING • SOILS
CONCRETE • ASPHALT • CORING
GEOTECHNICAL ENGINEERING**

**1 - 1925 KIRSCHNER ROAD
KELOWNA, B.C. V1Y 4N7
PHONE: 860-6540
FAX: 860-5027**

Mr. Randy Sieben
c/o Integrity Services Inc.
1112 Henderson Drive
Kelowna, B.C. V1P 1L8

April 19, 2016
Job 16.083

Attention: Mr. Sid Molenaar

Dear Sir:

Re: **Proposed Stacked Rock Wall
4338 Gallagher's Fairway South
Kelowna, B.C.**

As requested, Interior Testing Services Ltd. (ITSL) has prepared general recommendations and design drawings for the proposed stacked rock retaining wall at the above noted site. Please find attached a single page of typical wall details and a copy of our two page "Terms of Engagement" that governs our work, and which has been previously signed and accepted.

We understand that in order to achieve the grade separation at the property line and create near level backyards for each property, you desire to construct a rock stacked retaining wall. The wall will range from roughly 4 feet high near the rear of the property and increase gradually to as much as 8 feet high in order to maintain walking access along the side of the house.

We understand that the wall location and elevations are to be determined in the field by the contractor, and our scope of work is limited to internal stability of the retaining walls. During our site visit of April 11, 2016, construction of the wall had already started and was near the 3 foot height. To that end, comments on the suitability of the bearing soils for support of this wall remain outside of our scope of work. We can comment however, that our experience in the general area suggests that competent granular soils would be present so that settlement of the wall beyond normal geotechnical objectives of 25 mm is not expected.

We further understand that a flat landscaped area is proposed above the wall. Nominal dead and live load surcharge loading conditions have been applied to the top of the wall within our design calculations. Furthermore, we understand that a landscaping wall of 4 feet or less will be constructed on the downhill property in front of the rock stacked wall. This is not required for the stability of the rock stacked wall and has not been applied as a design input, but will have a positive impact on the overall factor of safety. As this wall is to be considered a landscaping wall, engineering guidance is not required, and as such, we remove this lower wall on the downhill property from our scope of work.

The soils at the base of the proposed wall are anticipated to consist of natural SAND to SAND with some gravel. Typical wall sections ranging from 4 to 8 feet high are included in this retaining wall design, which are attached as Drawing 16.083-1. General comments, recommendations, and construction guidelines are as follows.

1. The wall should be inclined at 9 degree inclination (1 Horizontal to 6 Vertical (1H: 6V)) or flatter, as shown.
2. The wall should be reinforced with Strata 550 geogrid or equivalent, as shown. The geogrid should be placed between the rocks from the front edge of the rocks as shown. Geogrid equivalency is based on the Long Term Design Strength of the geogrid, and different manufacturer's equivalents can be provided if necessary.
3. The wall backfill should consist of clean SAND and GRAVEL. ITSL should be notified if different soils are to be used as wall backfill. The FILL should be placed and compacted in maximum 300 mm lifts to at least 98% SPD. Only light compaction equipment should be used within about 0.8 m of the back of the wall or baskets to minimize compaction induced stresses on the wall.

Field density testing should be carried out by ITSL at every geogrid layer to confirm that adequate compaction has been achieved.

4. It should be noted that the rock has not been tested for durability, but based on our observations does appear to be somewhat competent. However, long term performance may require maintenance including removal of fractured portions of rock and possibly replacement of occasional rocks if they breakdown considerably. Consideration could be given to placing chinking between the large rocks to reduce the potential for larger portions of rock falling out of the rock stacked matrix. The design life of stacked rock walls should be considered to be 20 years.
5. We would normally recommend that for frost protection, a minimum of 0.3 m of the bottom of the wall should be buried for the entire length of the wall as shown. We anticipate that the granular soils expected at the base of the wall would not generally be susceptible to frost heaving. However, as we were not involved at the start of this project, we remove frost protection comments from our scope of work.
6. The zone behind the first or lowest row of rocks should include a 100 mm PVC pipe as part of the drainage system to collect and dispose of any water that may accumulate within the backfill zone. Furthermore, the portion of wall directly behind the rocks are to be filled with drain rock which will provide a chimney drain for the entire height of the wall. Surface water should be directed away from the wall by means of swales or similar as much as possible.
7. It is assumed that any required safety rails at the top of the wall will be designed and constructed by others.
8. If the final heights of the walls are different than provided on the attached sections, it is recommended that ITSL be given an opportunity to review the design to confirm

INTERIOR TESTING SERVICES LTD.

that the geogrid length, placement, and strength is appropriate for the finalized height of wall.

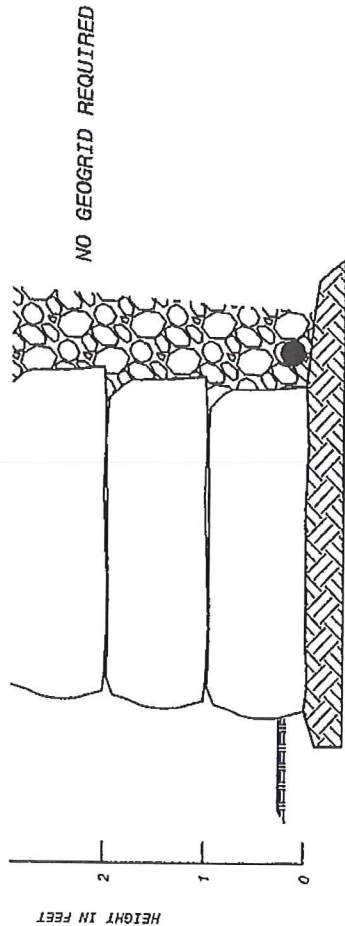
When construction commences, ITSL should be called out during construction to provide engineering observations and materials testing services, as necessary. This is to give ITSL the opportunity to confirm the appropriateness of the design and to provide recommendations for remedial measures, if necessary, as well as input for construction methodology. In addition, ITSL should be given the opportunity to review any proposed changes to determine their potential effects on the overall integrity and performance of the wall system.

We trust this is sufficient for your present needs. Please call if you have any questions.

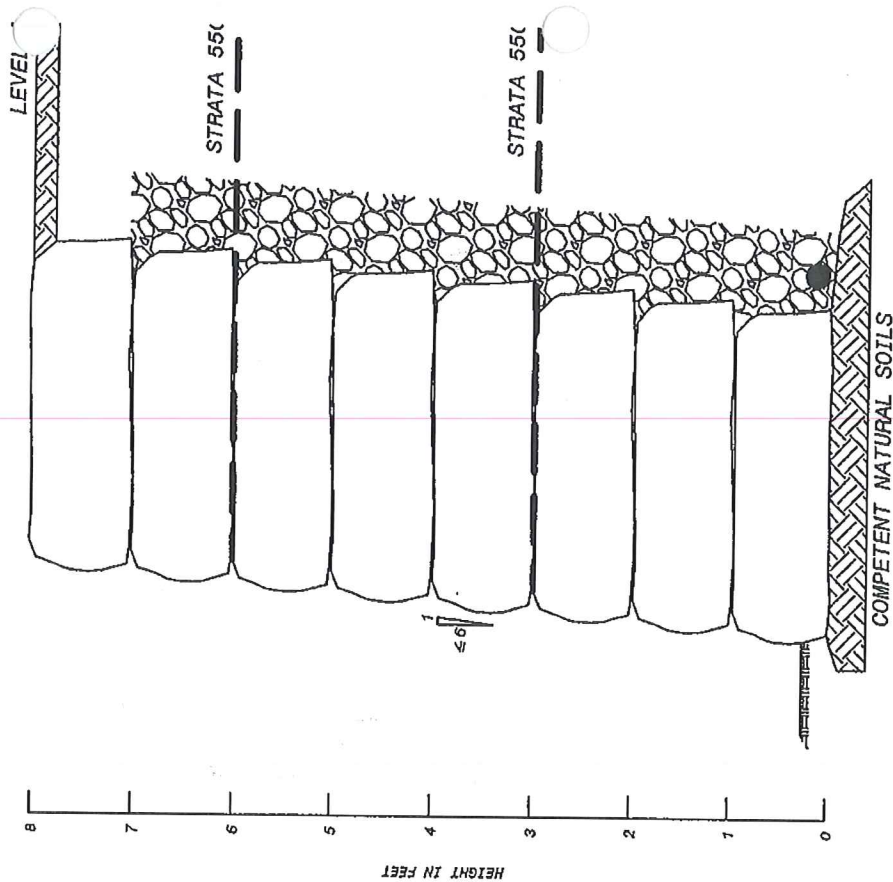
Yours truly,
Interior Testing Services Ltd.



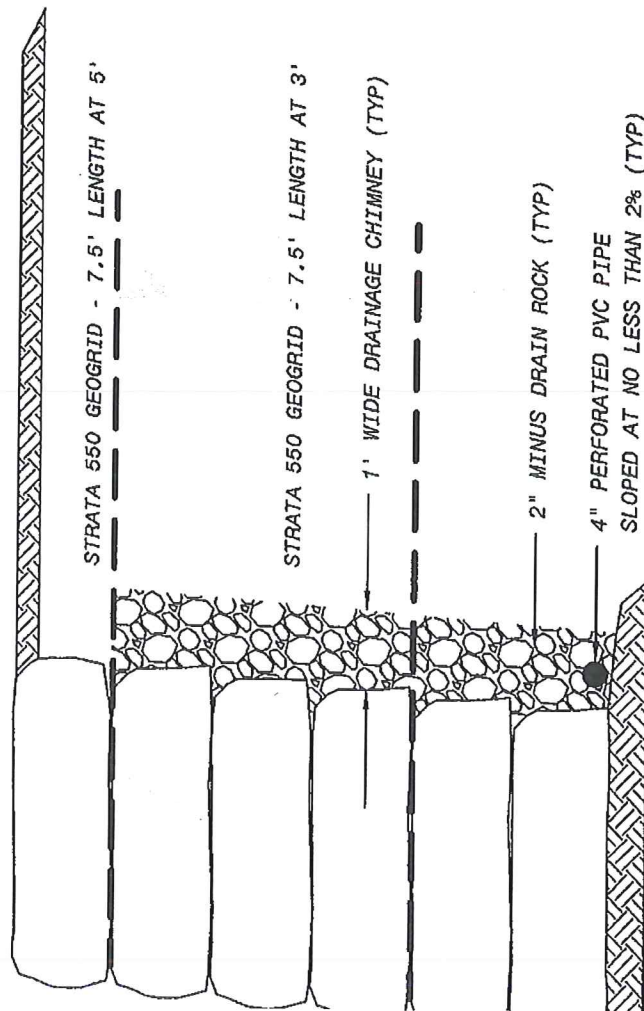
Peter Hanenburg, P. Eng.



4' SECTION



8' SECTION



6' SECTION

INTEGRITY SERVICES INC.	INTERIOR 1-1925 KIRSC
PROPOSED RETAINING WALL	TYPICAL

APRIL 19, 2016, FOR CONSTRUCTION DETAILS.
 TUNNELS, CURBS, AND/OR SIDEWALKS ARE TO BE DESIGNED AND

TERMS OF ENGAGEMENT

GENERAL

Interior Testing Services Ltd. (ITSL) shall render the Services performed for the Client on this Project in accordance with the following Terms of Engagement. ITSL may, at its discretion and at any stage, engage subconsultants to perform all or any part of the Services. Unless specifically agreed in writing, these Terms of Engagement shall constitute the entire Contract between ITSL and the Client.

COMPENSATION

Charges for the Services rendered will be made in accordance with ITSL's Schedule of Fees and Disbursements in effect from time to time as the Services are rendered. All Charges will be payable in Canadian Dollars. Invoices will be due and payable by the Client within thirty (30) days of the date of the invoice without hold back. Interest on overdue accounts is 12% per annum.

REPRESENTATIVES

Each party shall designate a representative who is authorized to act on behalf of that party and receive notices under this Agreement.

TERMINATION

Either party may terminate this engagement without cause upon thirty (30) days' notice in writing. On termination by either party under this paragraph, the Client shall forthwith pay ITSL its Charges for the Services performed, including all expenses and other charges incurred by ITSL for this Project.

If either party breaches this engagement, the non-defaulting party may terminate this engagement after giving seven (7) days' notice to remedy the breach. On termination by ITSL under this paragraph, the Client shall forthwith pay to ITSL its Charges for the Services performed to the date of termination, including all fees and charges for this Project.

ENVIRONMENTAL

ITSL's field investigation, laboratory testing and engineering recommendations will not address or evaluate pollution of soil or pollution of groundwater. ITSL will co-operate with the Client's environmental consultant during the field work phase of the investigation.

PROFESSIONAL RESPONSIBILITY

In performing the Services, ITSL will provide and exercise the standard of care, skill and diligence required by customarily accepted professional practices and procedures normally provided in the performance of the Services contemplated in this engagement at the time when and the location in which the Services were performed. ITSL makes no warranty, representation or guarantee, either express or implied as to the professional services rendered under this agreement.

LIMITATION OF LIABILITY

ITSL shall not be responsible for:

- (a) the failure of a contractor, retained by the Client, to perform the work required in the Project in accordance with the applicable contract documents;
- (b) the design of or defects in equipment supplied or provided by the Client for incorporation into the Project;
- (c) any cross-contamination resulting from subsurface investigations;
- (d) any damage to subsurface structures and utilities;
- (e) any Project decisions made by the Client if the decisions were made without the advice of ITSL or contrary to or inconsistent with ITSL's advice;
- (f) any consequential loss, injury or damages suffered by the Client, including but not limited to loss of use, earnings and business interruption;
- (g) the unauthorized distribution of any confidential document or report prepared by or on behalf of ITSL for the exclusive use of the Client.

The total amount of all claims the Client may have against ITSL under this engagement, including but not limited to claims for negligence, negligent misrepresentation and breach of contract, shall be strictly limited to the lesser of our fees or \$50,000.00.

No claim may be brought against ITSL in contract or tort more than two (2) years after the Services were completed or terminated under this engagement.

PERSONAL LIABILITY

For the purposes of the limitation of liability provisions contained in the Agreement of the parties herein, the Client expressly agrees that it has entered into this Agreement with ITSL, both on its own behalf and as agent on behalf of its employees and principals.

The Client expressly agrees that ITSL's employees and principals shall have no personal liability to the Client in respect of a claim, whether in contract, tort and/or any other cause of action in law. Accordingly, the Client expressly agrees that it will bring no proceedings and take no action in any court of law against any of ITSL's employees or principals in their personal capacity.

THIRD PARTY LIABILITY

This report was prepared by ITSL for the account of the Client. The material in it reflects the judgement and opinion of ITSL in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. ITSL accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. This report may not be used or relied upon by any other person unless that person is specifically named by us as a beneficiary of the Report. The Client agrees to maintain the confidentiality of the Report and reasonably protect the report from distribution to any other person.

INDEMNITY

The client shall indemnify and hold harmless ITSL from and against any costs, damages, expenses, legal fees and disbursements, expert and investigation costs, claims, liabilities, actions, causes of action and any taxes thereon arising from or related to any claim or threatened claim by any party arising from or related to the performance of the Services.

DOCUMENTS

All of the documents prepared by ITSL or on behalf of ITSL in connection with the Project are instruments of service for the execution of the Project. ITSL retains the property and copyright in these documents, whether the Project is executed or not. These documents may not be used on any other project without the prior written agreement of ITSL.

FIELD SERVICES

Where applicable, field services recommended for the Project are the minimum necessary, in the sole discretion of ITSL, to observe whether the work of a contractor retained by the Client is being carried out in general conformity with the intent of the Services.

DISPUTE RESOLUTION

If requested in writing by either the Client or ITSL, the Client and ITSL shall attempt to resolve any dispute between them arising out of or in connection with this Agreement by entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with the mediator, the dispute shall be referred to and finally resolved by an arbitrator appointed by agreement of the parties.

CONFIRMATION OF PROFESSIONAL LIABILITY INSURANCE

As required by by-laws of the Association of Professional Engineers and Geoscientists of British Columbia, it is required that our firm advises whether or not Professional Liability Insurance is held. It is also required that a space for you to acknowledge this information be provided.

Our professional liability insurance is not project specific for the project and should not be regarded as such. If you require insurance for your project you should purchase a project specific insurance policy directly.

Accordingly, this notice serves to advise you that ITSL carries professional liability insurance. Please sign and return a copy of this form as an indication of acceptance and agreement to the contractual force of these Terms of Engagement.

ACKNOWLEDGEMENT: _____

1 - 1925 KIRSCHNER ROAD
KELOWNA, B.C. V1Y 4N7
PHONE: 860-6540
FAX: 860-5027

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GEOTECHNICAL ENGINEERING

JOB 16.083

MR. RANDY SIEBEN
c/o INTEGRITY SERVICES INC

4335 GALLAGHER FAIRWAY SUMM

A/R 26/1

RE: ROCK STACK WALL @ NW CORNER OF SITE

11:15 - 2nd LAYER OF GEO GRID

- ITSL ON SITE TO OBSERVE PROOF ROLL OF 6" MINUS DRAIN ROCK PLACED & COMPACTED BEHIND ROCK STACK WALL
- 1000 LB PLATE TAMPER USED FOR PROOF ROLL
- THERE WAS NO DEFLECTION OR SOFT AREAS NOTICED

GRID LENGTH - 6' LONG

NOTE: FINISHED WALL HEIGHT LESS THAN 7' 2" ALWAYS
↓ CONTRACTOR PLACED 3 GEOTEXTILE LAYERS.

FIELD NOTES

REVIEWED & APPROVED



PETER HANENBURG, P.ENG.