



THE CORPORATION OF THE CITY OF VERNON REPORT TO COUNCIL

SUBMITTED BY: Michelle Austin
Current Planner

COUNCIL MEETING: REG COW I/C
COUNCIL MEETING DATE: August 15, 2022
REPORT DATE: August 2, 2022
FILE: 3090-20 (DVP00558)

SUBJECT: DEVELOPMENT VARIANCE PERMIT APPLICATION FOR 8841 ADVENTURE BAY ROAD

PURPOSE:

To present Development Variance Permit Application 00558 (DVP00558) for Council's consideration to increase the height of a retaining wall on a residential property.

RECOMMENDATION:

THAT Council approve Development Variance Permit 00558 (DVP00558) to vary Zoning Bylaw 5000 for PCL A (BEING A CONSOLIDATION OF LOTS 7 AND 8 SEE CA9907243) DL 298 ODYD PL EPP44146 (8841 Adventure Bay Road) as outlined in the report titled "Development Variance Permit Application for 8841 Adventure Bay Road" dated August 2, 2022 and respectfully submitted by the Current Planner, by:

- a) Increasing Section 6.5.1.i, the height of a retaining wall, from 1.2m (4.0ft) to 1.5m (5.0ft) along the front and southwest side lot line within the 4.0m front yard setback; and
- b) Increasing Section 6.5.1.ii, the height of a retaining wall, from 2.0m (6.4ft) to 2.5m (8.3ft) along the southwest side lot line behind the front yard setback;

AND FURTHER, that Council's approval of DVP00558 is subject to the following:

- a) That the driveway and proposed residential unit(s) be constructed to utilize the existing grade; and
- b) That the retaining wall complies with an updated site plan, elevations, and cross sections to be attached to and form part of DVP00558, with the retaining wall being setback three feet from the side property line.

Note: The recommendation is a modified version of the requested variances.

ALTERNATIVES & IMPLICATIONS:

1. THAT Council approve Development Variance Permit 00558 (DVP00558) to vary Zoning Bylaw 5000 for PCL A (BEING A CONSOLIDATION OF LOTS 7 AND 8 SEE CA9907243) DL 298 ODYD PL EPP44146 (8841 Adventure Bay Road) as outlined in the report titled "Development Variance Permit Application for 8841 Adventure Bay Road" dated August 2, 2022 and respectfully submitted by the Current Planner, by:
 - a) Increasing Section 6.5.1.i, the height of a retaining wall, from 1.2m (4.0ft) to 2.5m (8.3ft) along the front and southwest side lot line within the 4.0m front yard setback; and
 - b) Increasing Section 6.5.1.ii, the height of a retaining wall, from 2.0m (6.4ft) to 3.6m (11.7ft) along the southwest side lot line behind the front yard setback;

AND FURTHER, that Council's approval of DVP00558 is subject to the following:

- a) That the retaining wall complies with the elevations (Attachment 2), site plan (Attachment 3) and cross sections (Attachment 5) to be attached to and form part of DVP00558, except that the retaining wall be setback three feet from the property line; and
- b) That the vertical block concrete wall be stained with a color that blends in with the natural surroundings, to the satisfaction of Administration.

Note: Alternative 1 would allow the owner to build the retaining wall as proposed.

ANALYSIS:

A. Committee Recommendations:

At its meeting of July 19, 2022, the Advisory Planning Committee passed the following resolution:

*"THAT Council approve **a modified version of** Development Variance Permit 00558 (DVP00558) to vary Zoning Bylaw 5000 for PCL A (BEING A CONSOLIDATION OF LOTS 7 AND 8 SEE CA9907243) DL 298 ODYD PL EPP44146 (8841 Adventure Bay Road) as outlined in the report titled "Development Variance Permit Application for 8841 Adventure Bay Road" dated July 5, 2022 and respectfully submitted by the Current Planner, by:*

- a) *Increasing Section 6.5.1.i, the height of a retaining wall, from 1.2m (4.0ft) to 1.5m (5.0ft) along the front and southwest side lot line within the 4.0m front yard setback; and*
- b) *Increasing Section 6.5.1.ii, the height of a retaining wall, from 2.0m (6.4ft) to 2.5m (8.3ft) along the southwest side lot line behind the front yard setback;*

AND FURTHER, that Council's approval of DVP00558 is subject to the following:

- i. *That the driveway and proposed residential unit(s) be constructed to utilize the existing grade; and*
- ii. *That the retaining wall complies with an updated site plan, elevations, and cross sections to be attached to and form part of DVP00558, with the retaining wall being setback three feet from the side property line."*

B. Rationale:

1. The subject property is located at 8841 Adventure Bay Rd near the end of the cul-de-sac (Figures 1 and 2).
2. The owner recently consolidated two lots to create the existing 701.1 m² lot. It is vacant but has been graded in preparation for construction of a single detached house or a semi-detached building (Attachment 1 and 2), with a one storey level entry at the front and a three storey walk out at the rear. House plans were not submitted with the variance application.

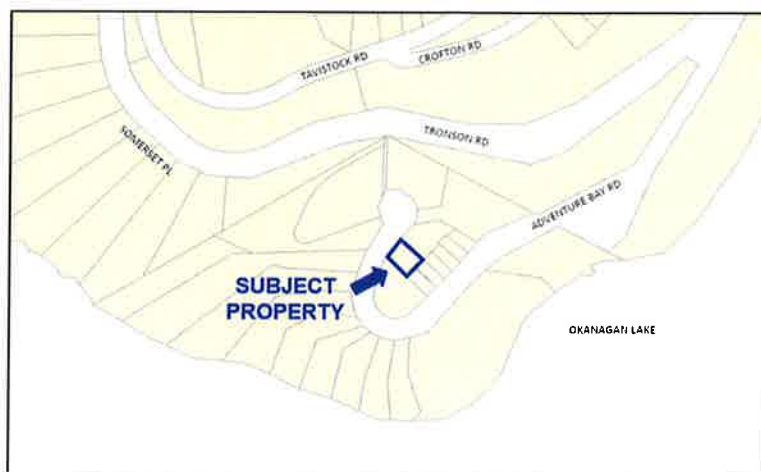


Figure 1: Property Location Map

The property is zoned R5 (four-plex housing residential). With a lot area of 701.1 m², it can support a maximum of two units: a duplex, a semi-detached building or two single detached homes.

3. Based on the proposed level grade, the owner requests to vary the height of a retaining wall (Attachments 2 – 4) as follows:

- To increase retaining wall height from 1.2m (4.0ft) to 2.5m (8.3ft) along the front and southwest side lot line within the 4.0m front yard setback; and,
- To increase retaining wall height from 2.0m (6.4ft) to 3.6m (11.7ft) along the southwest side lot line behind the front yard setback.

4. The natural grade of the lot slopes downhill in a southeast direction from Adventure Bay Road, with an average slope of 23%. Historically fill was placed on the lot to raise the building pad approximately 2m (7ft). Approximately 1.2m (4ft) in depth of additional fill is proposed to be placed to further raise the building pad and create a level driveway. The greater the depth of fill, the higher the retaining wall needs to be to support the upslope land.



Figure 2: Aerial View of Property

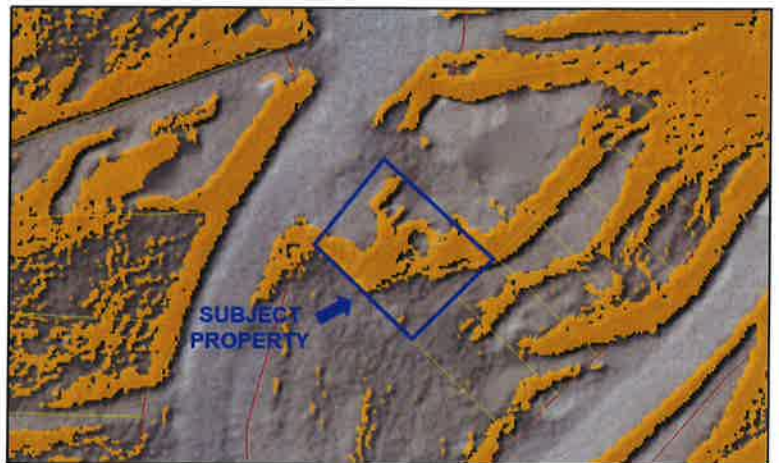


Figure 3: ≥30% Slopes & Hillshade

5. The proposed retaining wall consists of grey verti-blocks that are each two feet high, four feet wide, with varying depths (Attachment 5) (<https://verti-block.com/residential/>). It is possible to color stain these blocks so that they better blend in with the surroundings (<http://verti-crete.com/products/concrete-stain/>).
6. There are potential alternatives available to reduce the necessary height of the retaining wall:
 - While a level driveway is desirable, it may not be necessary. The existing grade may be utilized rather than adding more fill to raise the grade to create a level entry to the house. Subdivision and Development Servicing Bylaw #3843 allows a maximum 8% driveway grade within the boulevard. Less fill and a sloping driveway would lower the house and reduce the necessary retaining wall height. Views from the subject property toward the lake would be diminished by lowering the elevation of the house.
 - It may be possible to engineer the slope to avoid the use of a retaining wall altogether. This alternative may result in a smaller building pad in order to create a gentler slope along the side property line.

7. Although the proposed retaining wall is high (3.6m/11.7ft), views of it from surrounding properties should be minimal for a couple of reasons: main views face southeast toward the lake as opposed to northeast toward the wall and several of the surrounding properties are still vacant.
8. Administration supports a modified variance to retaining wall height for the following reasons:
 - a) It attempts to balance the owner's desire to maximize views, construct a level driveway and a three storey walk out, with maintaining the natural character of the residential neighbourhood.
 - b) Although retaining walls are common in hilly areas, it is preferred planning practice to work with the natural slope of the land, avoiding excessive fill and high retaining walls that can impact the neighbours and the residential character of the neighbourhood.
 - c) Fill has already been placed on the property, raising the elevation of the building platform. There are potential alternatives to a ~12ft high retaining wall including a sloped driveway accessing the main floor of a house at a lower elevation than what is proposed or an engineered slope.

C. Attachments:

Attachment 1: Photos
Attachment 2: Elevations
Attachment 3: Site Plan
Attachment 4: Retaining Wall Regulations
Attachment 5: Cross Sections

D. Council's Strategic Plan 2019 – 2022 Goals/Action Items:

The subject application involves the following goals/action items in Council's Strategic Plan 2019 – 2022:

➤ N/A

E. Relevant Policy/Bylaws/Resolutions:

1. Zoning Bylaw 5000, 6.5 Fencing and Retaining Walls

6.5.1 Subject to traffic sight lines, the following height limitations shall apply to fences, walls, chainlink fences and hedges in all Residential zones:

- i) 1.2m (4.0ft) if situated along the lot lines within front yard setbacks;
- ii) 2.0m (6.4ft) if situated behind the front yard setback;
- iii) 2.0m (6.4ft) if situated along the interior and exterior and/or rear yard.

BUDGET/RESOURCE IMPLICATIONS:

N/A

Prepared by:

Approved for submission to Council:


X 

Signer 1
Michelle Austin
Planner, Current Planning



Will Pearce, CAO

Date: 10 AUGUST 2022

X 

Signer 2
Kim Flick
Director, Community Infrastructure and Development

REVIEWED WITH

- | | | |
|---|---|--|
| <input type="checkbox"/> Corporate Services | <input type="checkbox"/> Operations | <input type="checkbox"/> Current Planning |
| <input type="checkbox"/> Bylaw Compliance | <input type="checkbox"/> Public Works/Airport | <input type="checkbox"/> Long Range Planning & Sustainability |
| <input type="checkbox"/> Real Estate | <input type="checkbox"/> Facilities | <input type="checkbox"/> Building & Licensing |
| <input type="checkbox"/> RCMP | <input type="checkbox"/> Utilities | <input checked="" type="checkbox"/> Engineering Development Services |
| <input type="checkbox"/> Fire & Rescue Services | <input type="checkbox"/> Recreation Services | <input type="checkbox"/> Infrastructure Management |
| <input type="checkbox"/> Human Resources | <input type="checkbox"/> Parks | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Financial Services | | <input type="checkbox"/> Economic Development & Tourism |
| <input checked="" type="checkbox"/> COMMITTEE: APC (July 19/2022) | | |
| <input type="checkbox"/> OTHER: | | |



Photo 1: Verti-blocks, site fill and grading and silt fencing (approx. location of retaining wall)



Photo 2: Site fill and grading



Photo 3: View toward lake



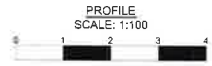
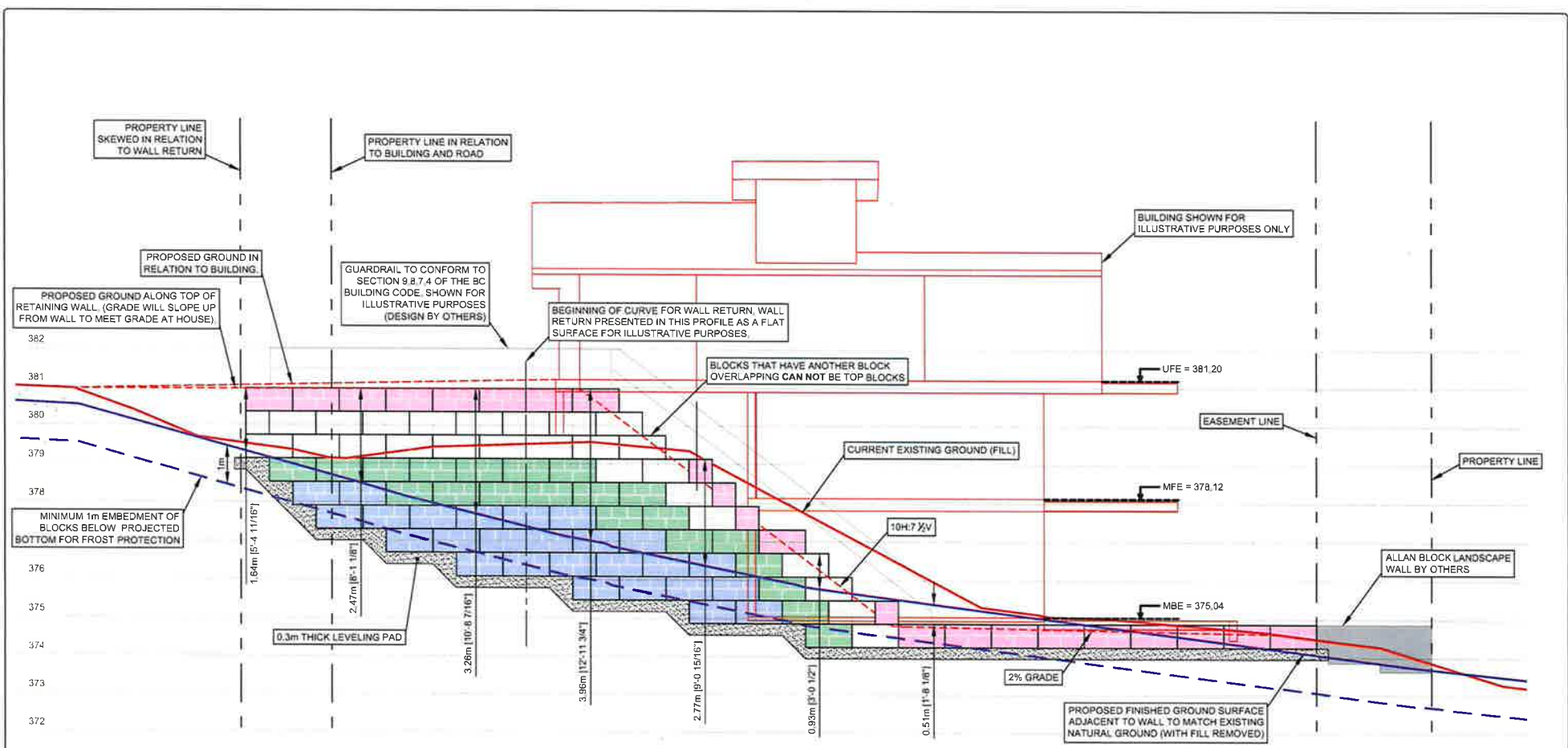
Photo 4: Vacant property adjacent to proposed retaining wall



Photo 5: View of graded site at hairpin corner of road



Photo 6: View of graded site just after hairpin

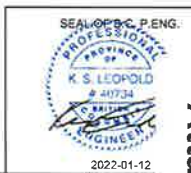


VERTI-BLOCK COLOUR LEGEND

36" TOP BLOCK		48" BLOCK MASS EXTENDER	
36" BLOCK		60" BLOCK MASS EXTENDER	

VERTI-BLOCK MATERIALS LIST

QTY	ITEM DESCRIPTION
18	36" TOP BLOCK
24	36" STANDARD BLOCK
4	36" HALF TOP BLOCK
1	36" HALF BLOCK
21	48" MASS EXTENDER BLOCK
26	60" MASS EXTENDER BLOCK



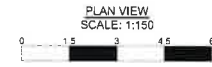
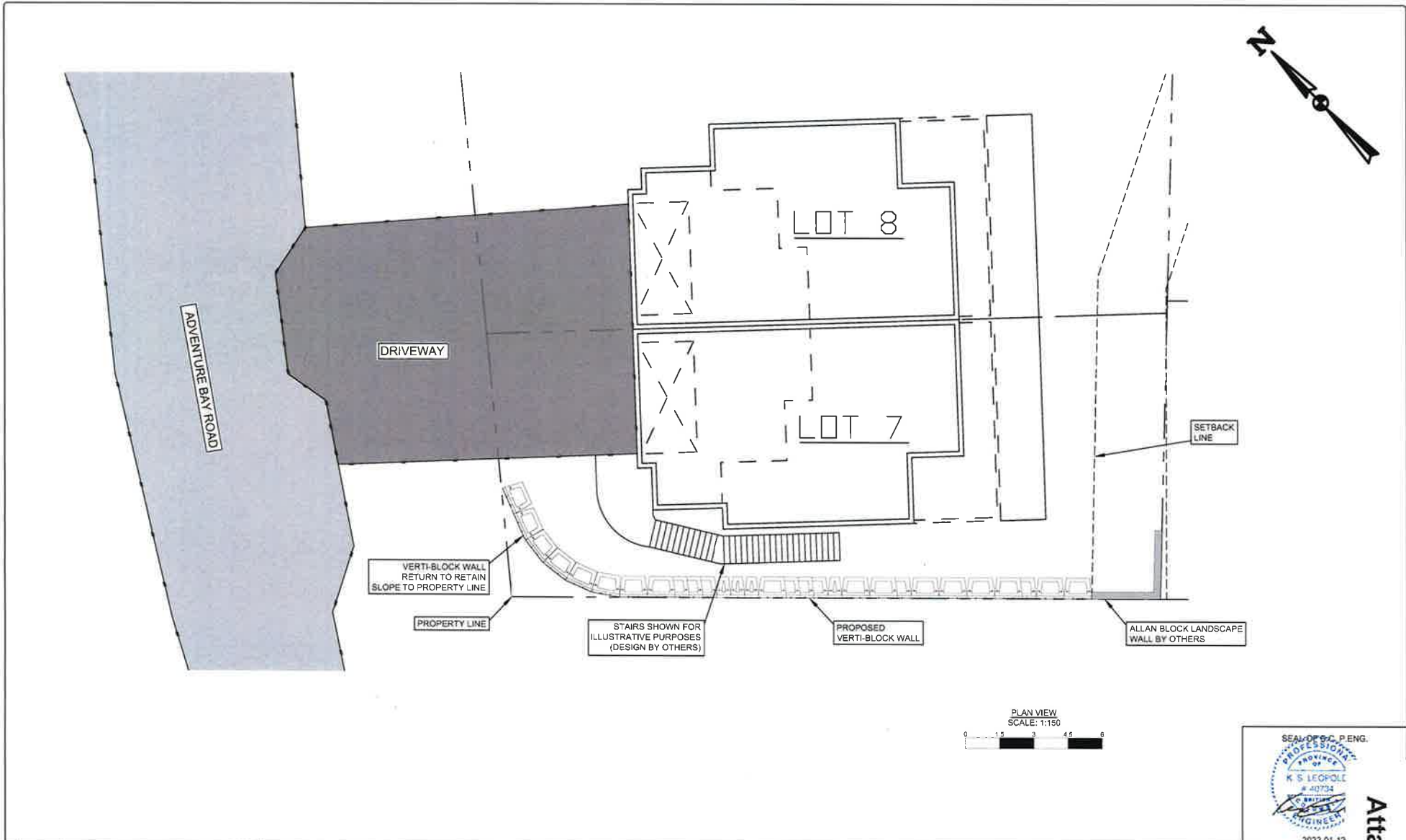
No.	Date	Revision	Drawn	Checked
1	JAN 13/2022	ISSUED FOR PERMIT APPLICATION	J. SM	

Designed	SM
Drawn	SM
Checked	KL
Transmitted	
Date	8/28/2022

represented by
ONSITE Engineering Ltd.
 2080 H.L. GERRARD DRIVE
 SUITE 102 MARKHAM ONTARIO
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JOHN WATSON
 8853 ADVENTURE BAY ROAD, VERNON BC
 ADVENTURE BAY SUBDIVISION
 LOT 7 RETAINING WALL

2022-01-12
 2237
 Sheet 2 of 3



Attachment 3

No.	Date	Revision	Drawn	Checked
1	JAN 12/2022	ISSUED FOR PERMIT APPLICATION	J. 332	

Drawn:	SSM
Checked:	KL
Date:	JAN 2022

PROFESSIONAL
ONSITE
Engineering Ltd.
CORPORATE OPERATIONS
SUITE 106 1500 AVENUE 66 WEST
VANCOUVER, BC V6P 6E6
PH: (604) 275-1000 FAX: (604) 275-1001
CORP. PERMIT TO PRACTICE NUMBER: 38424

2022-01-12
Client Project No:
8853 ADVENTURE BAY ROAD, VERNON BC
ADVENTURE BAY SUBDIVISION
LOT 7 RETAINING WALL
Drawing No:
2231
Sheet 1 of 1

6.5 Fencing and Retaining Walls

6.5.1 Subject to traffic sight lines, the following **height** limitations shall apply to **fences**, walls, chainlink **fences** and hedges in all **Residential zones**:

- i) 1.2m (4.0ft) if situated along the **lot lines** within **front yard setbacks**;
- ii) 2.0m (6.4ft) if situated behind the **front yard setback**;
- iii) 2.0m (6.4ft) if situated along the interior and exterior and/or **rear yard**.

6.5.2 Screen **fences** shall be consistent with the quality of **building** design and materials of the primary **building**.

6.5.3 Screening **fences** required for outdoor storage areas for temporary shelters shall be a combination of opaque and translucent or lattice design to ensure nature surveillance is permitted into the space. Screen **fences** and walls shall complement **building** design and materials. *(Bylaw 5788)*

6.5.4 Fencing type may be established in neighbourhood plans, building schemes or by precedent from **adjacent** properties.

6.5.5 Wood **fences** shall be designed to a high level of finish with materials of lumber grade standard or better. Wood posts shall be treated against rotting to provide for the longevity of the **fence**. **Fences** shall be constructed with all components of sufficient size, materials, and strength

to prevent sagging and to minimize rot. Along sloping ground, the top of wood **fences** shall be horizontal with vertical drops at the posts.

- 6.5.6 Screening **fences** shall be opaque double-sided **construction**. Where screen **fences** are allowed or required by this Bylaw, they shall be of an opaque or a combination of opaque, translucent or lattice design.
- 6.5.7 No **fence** constructed at the **natural grade** in residential **zones**, shall exceed 2.0m in **height**, except where **abutting** an **agricultural** or **commercial zone** the maximum **height** is 2.4m. No fence shall have pickets or finials extending above the horizontal rail that may pose a danger to wildlife. *(Bylaw 5890)*
- 6.5.8 No **fence** in a **commercial** or **industrial zone** shall exceed 2.4m.
- 6.5.9 **Industrial zones** are to have an opaque 2.4m high **fence** along all **property lines abutting** non-industrial **zones** and around **wrecking yards** that are visible from a **street abutting** the property.
- 6.5.10 No barbed wire or electrified fencing shall be allowed in any **residential, commercial, public** or **industrial zones** except:
- in RR **zone** for **use in livestock** enclosures; and
 - in P2 **zone** where the **site** is used for **detention and correctional services**.
- Razor wire fences shall not be permitted in any zone.
- 6.5.11 **Retaining walls** on all residential **lots**, except those required as a condition of **subdivision** approval, must not exceed a **height** of 1.2m measured from grade on the lower side, and must be constructed so that multiple **retaining walls** are spaced to provide at least a 1.2m horizontal separation between them.
- 6.5.12 In the case of a **retaining wall** constructed in accordance with Section 6.5.11, the combined **height** of a **fence** on top of a **retaining wall** at the **property line** or within 1.2m of the **property line** shall not exceed 2.0m, measured from **natural grade** at the **property line** (see Diagram 6.1).
- 6.5.13 Notwithstanding Section 6.5.11, a **retaining wall** may be higher than 1.2m, measured from grade, where the **natural grade** of the subject property is lower than the **abutting** property (see Diagram 6.2).
- 6.5.14 In the case of a **retaining wall** constructed in accordance with Section 6.5.13, the maximum **height** of a **fence**, or portion of **retaining wall** extending above the **natural grade** of the **abutting** higher property, or combination thereof, shall be 2.0m, measured from the **natural grade** of the **abutting** higher property (see Diagram 6.2).

6.5.15 Notwithstanding Section 6.5.14, where an affected property remains at **natural grade** and the subject property **constructs a retaining wall** and a **fence** within 1.2m of the **property line**, the maximum **height** for a **fence** on the affected property shall be no greater than 1.8m above the **height** of the **retaining wall** or 2.0m whichever is less (see Diagram 6.1). (Bylaw 5440)

Diagram 6.1

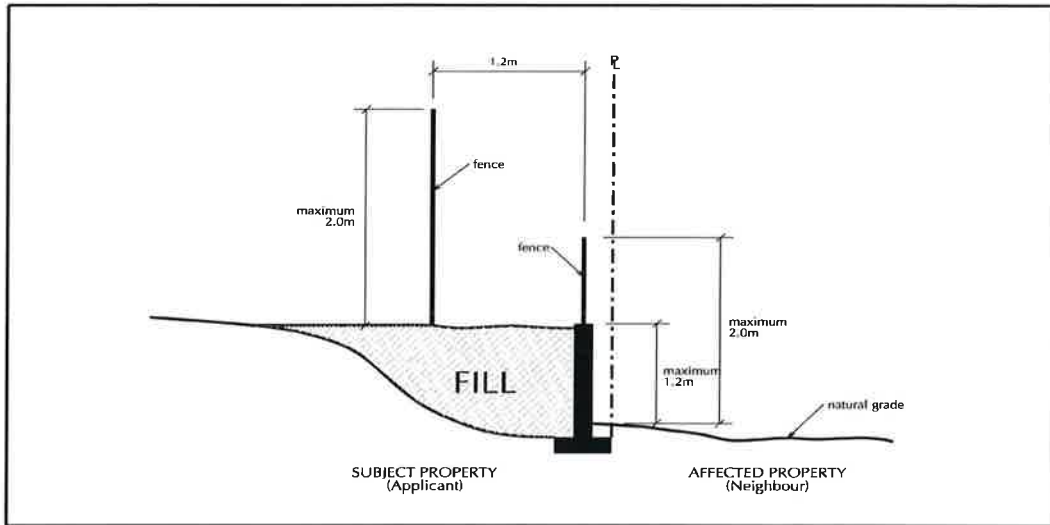
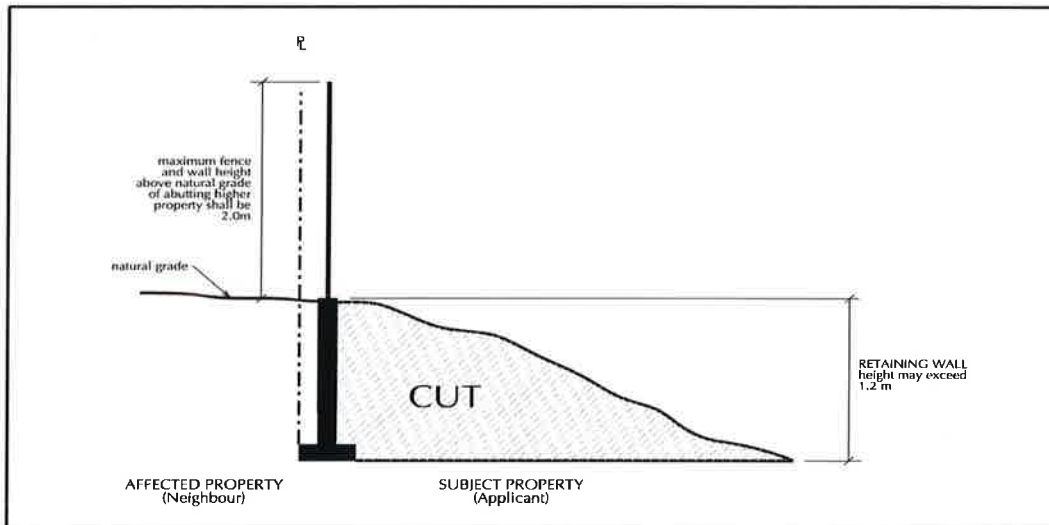
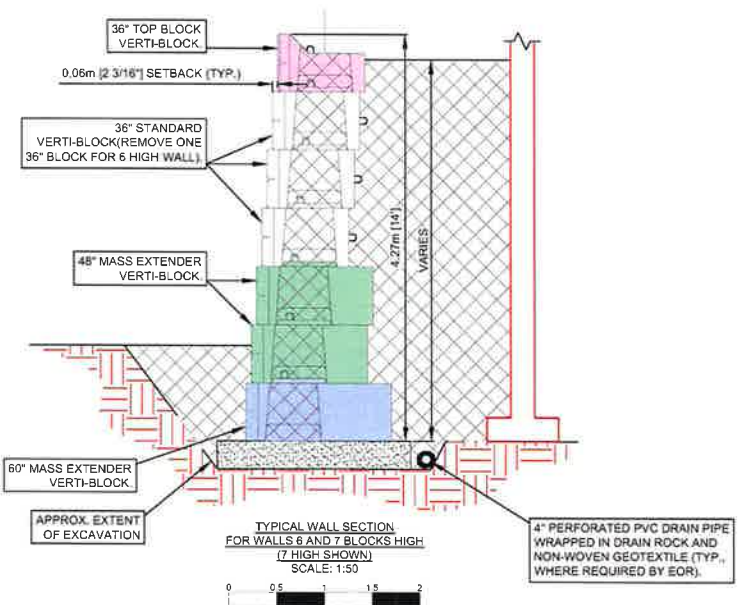
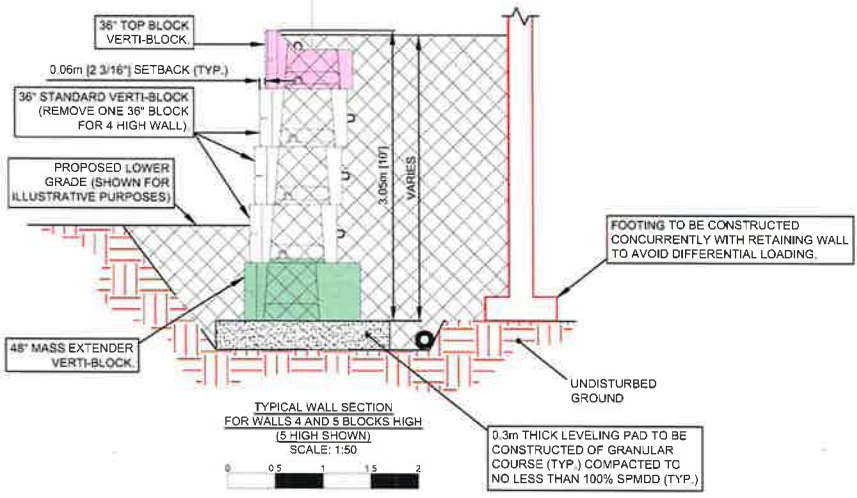
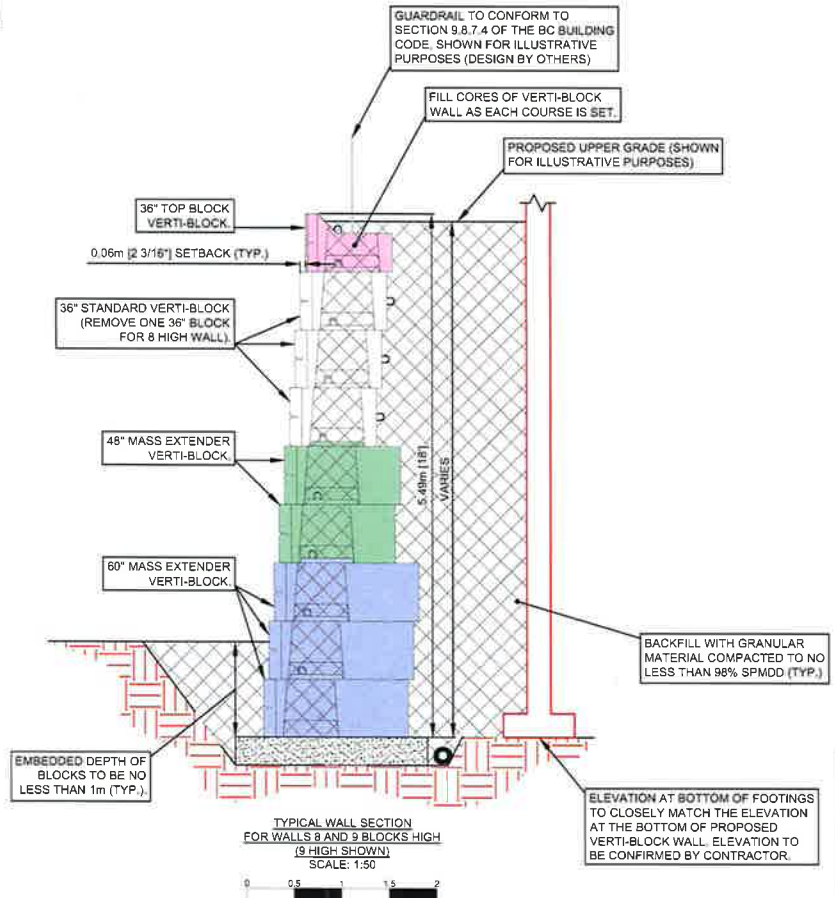


Diagram 6.2





NOTE:
FOR WALLS 3 BLOCKS HIGH AND LOWER WALLS SHALL BE COMPRISED OF 36" BLOCKS



No.	Date	Revised	By	Checked
1	JAN 13/2022	ISSUED FOR PERMIT APPLICATION	JL	SM

Designed	SM
Drawn	JL
Checked	KL
Approved	
Date	JAN 2022

PREPARED BY ONSITE Engineering Ltd 2000 WILSON AVENUE SUITE 104 VERNON BC V1B 1P1 PH: 250-251-2121 FAX: 250-251-2146 EGAC PERMIT TO PRACTICE NUMBER: 100276	JOHN WATSON 8853 ADVENTURE BAY ROAD, VERNON BC ADVENTURE BAY SUBDIVISION LOT 7 RETAINING WALL	SEAL OF P. ENG. PROFESSIONAL PROVIDER K. S. LEOPOLD 9 80734 2022-01-12 Client Project No. Drawing No. 2237 Sheet 3 of 3
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