



CORPORATION OF THE CITY OF VERNON

ADVISORY PLANNING COMMITTEE

FEBRUARY 14, 2023, AT 4:00 PM

OKANAGAN LAKE ROOM (COUNCIL CHAMBERS) CITY HALL

A G E N D A

1) CALL TO ORDER

2) LAND ACKNOWLEDGEMENT

As chair of the City of Vernon's Advisory Planning Committee (APC), and in the spirit of this gathering, I recognize the City of Vernon is located in the traditional territory of the Syilx people of the Okanagan nation.

3) ADOPTION OF AGENDA

4) ADOPTION OF MINUTES

a) January 24, 2023 (Attached)

5) NEW BUSINESS

- a) **6450 (PROJECTS/DRIVE THROUGH) Drive-Through Uses Review**
- b) **DVP00573 (5300 Pleasant Valley Road)**
- c) **DVP00580 (7373 Brooks Lane)**
- d) **ZON00379/DVP00591 (2206 32nd Street)**

6) INFORMATION ITEMS

a) Staff Liaison to provide verbal update of APC related items discussed at the last Council meeting.

7) NEXT MEETING

The next meeting is tentatively scheduled for **February 28, 2023**

8) ADJOURNMENT



THE CORPORATION OF THE CITY OF VERNON

**MINUTES OF THE
ADVISORY PLANNING COMMITTEE MEETING
HELD JANUARY 24, 2023
OKANAGAN ROOM (COUNCIL CHAMBER) CITY HALL**

PRESENT: Councillor Mund
Claire Ishoy
Craig Neville
Jessica Kirkham
Jordan Hart
Margaret Jarman
Michaela Gaudreau
Monique Hubbs-Michiel
Scott Chatterton

GUESTS: Ed Stranks

ABSENT: Margo Lupien
Mayor Cumming

STAFF: Cocine Wattie, Development Clerk
Jennifer Pounder, Committee Clerk
Matt Faucher, Current Planner
Michelle Austin, Current Planner

ORDER

The meeting was called to order at 4:00 p.m.

LAND ACKNOWLEDGEMENT

As Chair of the City of Vernon's Advisory Panel Committee, and in the spirit of this gathering, I recognize the City of Vernon is located in the traditional territory of the Syilx people of the Okanagan Nation.

Before approval of the agenda, C. Neville was welcomed to the Committee by the Chair.

The agenda was amended by moving Item C, under New Business, to the February 14, 2023 Advisory Planning Committee meeting.

ADOPTION OF THE AGENDA

Moved by **M. Jarman**, seconded by **C. Neville**:

THAT the agenda of the January 24, 2023 meeting of Advisory Planning Committee be adopted as amended:

CARRIED

ADOPTION OF THE MINUTES

Moved by **S. Chatterton**, seconded by **M. Jarman**:

THAT the minutes for the January 10, 2023 meeting of Advisory Planning Committee be adopted.

CARRIED

NEW BUSINESS:

**ZONING BYLAW REVIEW –
RM1 AND STRATA LOT
CLARIFICATION**

Matt Faucher, Current Planner, provided an overview of the application as follows:

- To propose the clarification of regulations in the RM1 – Row Housing Residential zoning district, as well as regulations pertaining to requirements for strata lots in various zoning districts.
- The current regulations are conflicting and causing confusion in the development community and among staff.
- Administration recommends removing the maximum site coverage of 65% for buildings and structures and 85% for impermeable surfaces from the subdivision regulations, leaving the 50% and 55% respectively to regulate development in the RM1 zoning district.
- Administration also recommends removing the following regulation contained in Section 9.10.7: *“The above noted subdivision and development regulations shall be applied to each strata lot within the strata plan”*. They also recommend removing that regulation from zoning districts R5, R6, RTR, RM2, RH2, HR1 and HR2 for consistency and clarity.

The following questions / comments were posed by members of the Committee:

- The Committee clarified that on either side coverage is 50-55%. Staff confirmed that Zoning R5 is in the 40% range and RM2 is the same as proposed for the RM1 zone.

Moved by **S. Chatterton**, seconded by **J. Kirkham**:

THAT Council support removing lot coverage from the subdivision regulations in the RM1 – Row Housing Residential zoning district and removing the requirement that each strata lot in a strata plan meet the regulations contained in the subdivision and development regulations of the applicable zone from various zoning districts as outlined in the report titled “Zoning Bylaw Review – RM1 and Strata Lot Clarification”, dated January 18, 2023, and respectfully submitted by the Current Planner;

AND FURTHER, that Council direct Administration to prepare public notice of initial readings for “Zoning Text (RM1 and Strata Lot Clarification) Amendment Bylaw 5943, 2023” to clarify regulations in various zoning districts in Zoning Bylaw 5000;

AND FURTHER, that Council not hold a public hearing on “Zoning Text (RM1 and Strata Lot Clarification) Amendment Bylaw 5943, 2023”.

CARRIED

OCP00096/ZON00388/DVP00575 (3903 30TH STREET) **Matt Faucher, Current Planner**, provided an overview of the application on behalf of R. Nuriel, Current Planner, as follows:

- Property backs onto the existing CN Rail. It is a triangle shaped property which causes difficulties for developers and the lot has sat vacant for quite some time. There was an application in 2016 that did not go forward.
- OCP is Medium Density Mixed Use Residential; zoned R2.

- Commercial development is challenging given the location.
- 3 buildings, stacked rowhouse, 36 units in total are proposed.
- There will be a fence installed along rail line as a vision shield and help against noise and alleviate safety concerns.
- CTQ provided a parking study. They recommend a ratio of 1.0 stalls per unit. Applicant is asking for 1.1 stalls per unit.

C. Ishoy joined meeting at 4:20 p.m.

The following comments / questions were posed by members of the Committee:

- Staff confirmed that applicants are asked to submit their landscaping plans after zoning and variances are in place.
- The Committee wanted clarification as to what would be lost by installing the cul-de-sac. Staff clarified there would possibly be a section of parking stalls lost and a few of the units would also be lost.
- The Committee commented that there is already a lane with an exit, why close it and install a cul-de-sac. Staff confirmed this is the applicant's argument as well.
- Staff confirmed the lane will be widened and sufficient access will be in place for emergency service vehicles.
- The Committee commented that it is an interesting resolution to a difficult site.
- E. Stranks, Developer's Agent, confirmed that there will be a sidewalk on private property which will start at the south end and will have access to all the buildings and parking lot areas. There will also be an actual intersection created at 39th Avenue and crosswalks will also be installed.

- Staff confirmed that the garbage disposal details will be defined at the Development Variance Permit stage.
- The Committee was not supportive of keeping garbage cans out front of the units. Staff will let R. Nuriel know to discuss during development stage.

Moved by **S. Chatterton**, seconded by **C. Neville**:

THAT Council support the application to amend the Official Community Plan land use designation of Lot A, Plan KAP50281, Sec 3, Twp 8, ODYD (3903 30th Street) from 'Mixed Use - Medium Density Commercial and Residential' to 'Residential Medium Density', as outlined in the report titled "Official Community Plan Amendment, Rezoning and Development Variance Permit Applications for 3903 30th Street" dated January 11, 2023 and respectfully submitted by the Economic Development Planner;

AND FURTHER, that Council direct Administration to bring forward the "3903 30th Street Official Community Plan Amendment Bylaw 5941, 2023", for initial readings and scheduling of a Public Hearing;

AND FURTHER, that Council support the application to rezone Lot A, Plan KAP50281, Sec 3, Twp 8, ODYD (3903 30th Street) from 'R2 - Large Lot Residential' to 'RH1 - Low-Rise Apartment Residential', in order to develop a 36 unit stacked row housing complex development, subject to the following conditions:

- a) That the owner is to dedicate road right-of-way for the lanes and a new offset frontage adjacent to the subject property and upgrade the lanes to bylaws standards, as shows in Attachment 13;
- b) That the owner is to upgrade 30th Street, south of the subject property to 39th Avenue, including widening of the asphalt and concrete

curb gutter on the east side and sidewalk on the west side; and

c) That the owner is to register a Land Title Act section 219 restrictive covenant specifying the variable level of road maintenance adjacent to the property, as per the City's policies and bylaws;

AND FURTHER, that Council direct Administration to bring forward the "3903 30 Street Rezoning Amendment Bylaw Number 5942, 2023", for initial readings and scheduling of a Public Hearing;

AND FURTHER, that Council support Development Variance Permit Application 00575 (DVP00575) to vary to following sections of Zoning Bylaw 5000 to allow a 36 unit stacked row housing complex development on Lot A, Plan KAP50281, Sec 3, Twp 8, ODYD (3903 – 30th Street):

a) to vary the street access requirements (Section 4.7.1);

b) to vary the minimum east side yard setback for Building #1 from 4.5m to 1.0m (Section 9.12.5); and

c) to vary the minimum number of required off-street parking spaces for residents from 45 spaces to 38 spaces (Section 7.1.2, Table 7.1);

AND FURTHER, that Council support Development Variance Permit Application 00575 (DVP00575) to vary following sections Subdivision and Development Servicing Bylaw 3843 for offsite works adjacent to the property described as Lot A, Plan KAP50281, Sec 3, Twp 8, ODYD (3903 – 30th Street):

a) to vary the driveways, access and road frontage requirements (Section 3.5); and

- b) to vary the requirement for a new offset cul-de-sac adjacent to the subject property (Section 3.7; Schedule O, Standard Drawing 100-10);

AND FURTHER, that Council support of DVP00575 is subject to the following:

- a) That the site plan, floor plans, elevations, landscaping plan, offsite works and road dedication plans and traffic and parking review, generally shown as Attachments 7–15 in the report titled “Official Community Plan Amendment, Rezoning and Development Variance Permit Applications for 3903 30th Street” dated January 11, 2023 by the Economic Development Planner be attached to and form part of DVP00575 as Schedule ‘A’.

CARRIED

INFORMATION ITEMS:

M. Austin, Current Planner, provided a brief overview regarding past applications seen by the Advisory Planning Committee, as follows:

- ZON00329/Bylaw 5773 – Council approved
- ZON00385/Bylaw 5927 – Council approved
- Bylaw 6450 – Council approved, going for first, second and third readings
- Bylaw 5934 – Council approved

NEXT MEETING

The next meeting for the Advisory Planning Committee is set for February 14, 2023 at 4:00 p.m.

ADJOURNMENT

The meeting of the Advisory Planning Committee adjourned at 4:37p.m. by call of the Chair.

CERTIFIED CORRECT:

_____ Chair



THE CORPORATION OF THE CITY OF VERNON

MEMORANDUM

TO: Advisory Planning Committee **FILE:** 6450 (Projects/Drive-Throughs)

FROM: Danielle DeVries **DATE:** January 18, 2023
Transportation Planner

SUBJECT: ZONING BYLAW 5000 AMENDMENTS – DRIVE-THROUGH USES

BACKGROUND:

At Council's Regular Meeting of December 12, 2022, Administration recommended that bylaw amendments be prepared to ban drive-through uses in the City Centre. Council resolved to seek the input of a number of Council Committee prior to deciding whether or not to prepare the bylaw amendments.

Council already approved two policies to ban drive-through uses in the City Centre Neighbourhood Plan. The neighbourhood plan is part of the Official Community Plan (OCP), which is the guiding vision for all land use decisions in the city. However, the Zoning Bylaw, which contains the specific regulations that override the OCP, still allows drive-through uses in the City Centre. This means that even though the City's vision says no drive-through uses, the City's regulations say that they are allowed and developers can build them, if the zoning is already in place.

Council is seeking the recommendation of the Advisory Planning Committee, Climate Action Advisory Committee, Transportation Committee and the Economic Development Advisory Committee based on the Council report (Attachment 1). A number of additional considerations and specific questions for the committee appear below.

CONSIDERATIONS:

At the December 12, 2022 Regular Meeting, there was some discussion amongst Council that banning drive-through uses in part or all of the city would be a step in the right direction to help reach the Climate Action Plan goals and support active transportation. On the other hand, there were some concerns that this would impact the business community and that the idling problem could be resolved through electric vehicles (EVs) replacing fuel powered vehicles.

In addition to the information in the Council report (Attachment 1), the Committee may consider the following:

1. The [Climate Action Plan](#) envisions that active transportation is the first choice to move around Vernon. Efficient public transit is the second choice. Finally, EVs are a positive alternative when a personal vehicle is the only viable option. It is noted that EVs alone will not eliminate Vernon's greenhouse gas emissions, and that we are still many years away from the majority of vehicles in the city being electric.

2. The majority of families in Vernon cannot afford an EV, even with the [Provincial](#) and [Federal](#) rebate incentives. Vernon's median income is \$73,500 per year ([Statistics Canada](#), 2021). With rising housing and food costs, it is estimated that families need to make approximately \$100,000 per year to afford an EV. The Greater Toronto and Hamilton Area found that EV owners are higher income (average \$114,300) than fuel powered vehicle owners ([GTHA](#), 2017). Further, a Canada-wide study found that those with a household income over \$150,000 are most likely to buy an EV ([Ekos](#), 2021).
3. The queuing space required for safe and efficient traffic flow is an uneconomical use of the commercial land available in Vernon. If the regulations are updated to reflect best practice, then a new drive-through restaurant would need at least 252m² just for cars to wait. This is enough space for two more small business units on the site.

DISCUSSION QUESTIONS:

The Advisory Planning Committee is designed to comment on land use and planning proposals. Given this lens, Administration asks the Committee to use the following questions to help with consideration of the attached Council report:

- Are drive-through uses an effective use of commercial land?
- Are there certain areas or zoning districts that should allow drive-through uses?
- Are there certain areas or zoning districts that should ban drive-through uses?
- Are there other zoning regulations that would be better suited to control drive-throughs rather than banning them?
- Are there other land use-related concerns with allowing or banning drive-through uses?

Respectfully submitted:

Danielle Devries,
Transportation Planner

Attachment 1 - Report to Council titled "Zoning Bylaw 5000 Amendments – Drive-Through Uses" dated November 29, 2022

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THE CORPORATION OF THE CITY OF VERNON REPORT TO COUNCIL

SUBMITTED BY: Danielle DeVries
Transportation Planner

COUNCIL MEETING: REG COW I/C
COUNCIL MEETING DATE: December 12, 2022
REPORT DATE: November 29, 2022
FILE: 6450 (Projects/Drive Throughs)

SUBJECT: ZONING BYLAW 5000 AMENDMENTS – DRIVE-THROUGH USES

PURPOSE:

To request Council direction to amend Zoning Bylaw 5000 to remove drive-throughs as permitted uses within the City Centre Neighbourhood Plan Area to align with the Official Community Plan and Climate Action Plan.

RECOMMENDATION:

THAT Council direct Administration to prepare amendments to Zoning Bylaw 5000 to remove 'drive-through services' and 'drive-through vehicle services' as permitted uses within the City Centre Neighbourhood Plan Area as outlined in the report titled "Zoning Bylaw 5000 Amendments – Drive-Through Uses" dated November 29, 2022 and respectfully submitted by the Transportation Planner;

AND FURTHER, that Council direct Administration to prepare amendments to Zoning Bylaw 5000 to revise the specific use regulations for 'vehicular oriented uses' to improve traffic flow where 'drive-through services' and 'drive-through vehicle services' may still be permitted;

AND FURTHER, that Council direct Administration to bring the proposed City Centre drive-through amendments to Zoning Bylaw 5000 to the Transportation Advisory Committee, Climate Action Advisory Committee, Economic Development Advisory Committee, and Advisory Planning Committee for review and comment;

AND FURTHER, that Council direct Administration to consult with the Transportation Advisory Committee, Climate Action Advisory Committee, and Economic Development Advisory Committee, Advisory Planning Committee on their input to extend drive-through prohibitions to the remainder of the city;

AND FURTHER, that Council direct Administration to provide the proposed amendments to Zoning Bylaw 5000 for Council's consideration by March 2023.

ALTERNATIVES & IMPLICATIONS:

1. THAT Council direct Administration to prepare amendments to Zoning Bylaw 5000 to remove 'drive-through services' and 'drive-through vehicle services' as permitted uses within all commercial and mixed-use Zoning Districts as outlined in the report titled "Zoning Bylaw 5000 Amendments – Drive-Through Uses" dated November 29, 2022 and respectfully submitted by the Transportation Planner;

AND FURTHER, that Council direct Administration to prepare amendments to Zoning Bylaw 5000 to revise the specific use regulations for 'vehicular oriented uses' to reflect this change and improve traffic flow where 'drive-through vehicle services' may still be permitted in the I1 Light Industrial Zoning District;

AND FURTHER, that Council direct Administration to bring the proposed drive-through amendments to Zoning Bylaw 5000 to the Transportation Advisory Committee, Climate Action Advisory Committee,

Economic Development Advisory Committee, and Advisory Planning Committee for review and comment;

AND FURTHER, that Council direct Administration to provide the proposed amendments to Zoning Bylaw 5000 for Council's consideration by March 2023.

Note: This would mean that Administration would bring forward proposed Zoning Bylaw 5000 amendments to prohibit drive-through uses in all commercial and mixed-use zoning districts city-wide to the four advisory committees for their review and comment. Administration would report back to Council in March 2023 with proposed amendments to Zoning Bylaw 5000 for first and second readings that reflect recommendations from the four committees.

2. THAT Council receive the report titled "Zoning Bylaw 5000 Amendments – Drive-Through Uses" dated November 29, 2022 and respectfully submitted by the Transportation Planner.

Note: This would result in no changes to Zoning Bylaw 5000, and drive-throughs would still be permitted across the city and within the City Centre Neighbourhood Plan Area. Zoning Bylaw 5000 would continue to contradict the City Centre Neighbourhood Plan and Official Community Plan.

ANALYSIS:

A. Committee Recommendations:

N/A

B. Rationale:

1. The [City Centre Neighbourhood Plan](#), which forms part of the Official Community Plan, provides policy direction for development and redevelopment within the City Centre. The plan has two policies that direct the prohibition of drive-throughs including:
 - a. Polson Gateway Character Area (20): Big box retail and drive-through uses are not permitted; and
 - b. General Policies (82): Prohibit drive through uses, except for Lots 1-4, Block 32, at 3600-3606 27th Street.

However, Administration has not been able to uphold these policies since Zoning Bylaw 5000 currently allows 'drive-through services' and 'drive-through vehicle services' as permitted uses in zoning districts within the City Centre Neighbourhood. For reference, the definitions of 'drive-through services' and 'drive-through vehicle services' are:

- a. 'drive-through services' means the business where customers order and receive services, food or other goods in their motor vehicles via one or more designated drive-through lanes or through one or more car attendant services, but does not include drive-through vehicle services.
 - b. 'drive-through vehicle services' means development providing rapid cleaning, lubrication, and maintenance or repair services to motor vehicles, where the customer typically remains within the vehicle or waits on the premises. Typical uses include but are not limited to automatic or coin operated car washes, rapid lubrication shops, or specialty repair establishments.
2. While the City Centre Neighbourhood Plan only includes policies to prohibit drive throughs in the City Centre, Council has since endorsed the [Climate Action Plan](#), which directs the City of Vernon to be a leader in climate action and develop a clean air space strategy. These policies support expanding the prohibition of drive-throughs across the entire city. Specifically, the Climate Action Plan found that transportation accounts for 63% of the community's greenhouse gas emissions, and identifies an anti-idling bylaw as a tool to improve air quality. Drive-through uses encourage vehicles to idle in the queue; therefore, banning any additional drive-through uses in the City is a step toward reduced idling and improved air quality.

3. Beyond specific policies related to drive-throughs, the City’s high-level goals support a healthier and more compact city. Drive-through uses contradict these goals as they use large spaces for vehicle queuing and promote driving and sedentary behaviour. Specifically, the [Official Community Plan](#) includes guiding principles to:
 - a. create a culture of sustainability;
 - b. create strong, compact and complete neighbourhoods; and
 - c. provide alternative transportation.

The Climate Action Plan focus areas envision that:

- a. Vernon is a healthy, equitable, and resilient community;
- b. Vernon is a leader in tackling Climate Change;
- c. Vernon is made of compact, complete, climate-ready neighbourhoods connected to low carbon transportation networks;
- d. Vernon has a diverse economy with businesses and industries that have embraced the opportunities of the low carbon economy and are resilient to the impacts of climate change; and
- e. Vernon is food secure and has a resilient agriculture and economy.

[Council’s Strategic Plan](#) 2019 – 2022 includes goals to:

- a. Promote transit oriented mixed use development;
- b. Work towards a sustainable Vernon – environmentally, economically, and socially; and
- c. Encourage sustainable infrastructure, agriculture and landscaping.

Each of these goals supports reducing vehicle-oriented development like drive-throughs, and instead encourages more walkable, bikeable, and transit-oriented design. In addition, transit-oriented and mixed use development have been more approachable for smaller, local businesses in other communities, rather than attracting international fast-food and beverage chains.

4. According to the 2018 study “Adoption and diffusion of zoning bylaws banning fast food drive-through services across Canadian municipalities” ([Nykiforuk et al.](#); *BMC Public Health*; 18, 137), 27 Canadian municipalities had already implemented a full or partial ban on drive-throughs by 2016, including the neighbouring Interior communities of Kelowna and Nelson. This study found municipal councils banned drive-throughs for a number of reasons relating to health, economic development, climate action, and transportation that also align with City of Vernon’s plans and priorities:

Health	↑ dietary choices
	↑ active lifestyle
	↓ air pollution
Economic Development	↑ opportunities for local, small businesses
	↑ commercial land available for redevelopment
	↓ commercial land used for vehicle queueing
Climate Action	↓ vehicle idling
	↑ building energy efficiency (no window opening)
Transportation	↑ walkability and connectivity
	↓ traffic safety concerns with queuing
	↑ aesthetic appeal of the built environment

5. A review of similar neighbouring communities to Vernon indicates that additional municipalities have since updated their regulations to either fully ban drive-throughs or partially ban them along with stronger regulations for queuing (Attachment 1). For example, Kamloops has restricted drive-throughs to highway-oriented commercial areas and increased the number of inbound car queueing spaces for food services to 10 and for high-traffic coffee shops to 20 (Vernon’s Zoning Bylaw 5000 currently requires only three inbound spaces).
6. Zoning districts within the City that currently permit drive-through uses include (Attachment 2):

Zoning District	Drive-Through Services	Drive-Through Vehicle Services
C5: Community Commercial	✓	✗
C7: Heritage Business District	✓	✗
C8: Central Business District	✓	✗
C9: Regional Commercial	✓	✗
C10: Tourist Commercial	✓	✗
C10a: Tourist Commercial and Residential	✓	✗
C11: Service Commercial	✓	✓
CD1: Comprehensive Development (Anderson Way)	✓	✗
I1: Light Industrial	✗	✓

Administration recommends that Council consider prohibiting drive-through services in all zoning districts and drive-through vehicle services in all zoning districts (i.e. C11 Service Commercial), except I1 Light Industrial. Prior to considering this city-wide prohibition, Administration recommends the Council refer the report to the Transportation Advisory Committee, Climate Action Advisory Committee, Economic Development Advisory Committee, and Advisory Planning Committee for their review and comment.

7. Administration recommends that the specific use regulations for vehicle-oriented uses (e.g. number of queuing spaces required, circulation requirements, etc.) also be amended to align with best practices for any new drive-through vehicle service developments where they may still be permitted (i.e. in I1 Light Industrial zoning district).
8. Any lots that have existing drive-through services within the impacted zoning districts could continue to operate until redeveloped or lapse of the use for more than six months. The current drive-through services and drive-through vehicle services uses within the City include (Attachment 3 and 4):
 - 20 food and beverage services (i.e. fast food and coffee);
 - 6 financial services (i.e. drive-through ATM);
 - 8 car washes (i.e. coin-operated and automated);
 - 3 rapid vehicle services (i.e. oil change); and
 - 1 liquor primary service.
9. Moreover, Administration would complete processing of any drive-through service applications that are in the City’s application queue until the amendments are adopted.

C. Attachments:

Attachment 1 – Comparison of Drive-Through Regulations with Neighbouring Communities

Attachment 2 – Map of Zoning Districts that Permit Drive-Throughs

Attachment 3 – Map of Existing Drive-Through Locations

Attachment 4 – Comparison of Zoning Districts to Drive-Through Locations

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

The subject Zoning Bylaw 5000 Amendments – Drive-Through Uses involves the following goals/action items in Council’s Strategic Plan 2019 – 2022:

- Promote transit oriented mixed use development
- Work towards a sustainable Vernon – environmentally, economically and socially
- Encourage sustainable infrastructure, agriculture and landscaping

E. Relevant Policy/Bylaws/Resolutions:

1. At its Regular Meeting of May 9, 2011, Council passed the following resolution:

THAT Council direct staff to draft an OCP amendment bylaw to add the “*City Centre Neighbourhood Plan*” as a supplemental plan to “Official Community Plan Bylaw Number 5151, 2008” (OCP);

AND FURTHER, that Council support associated changes to the OCP that reflect the addition of the City Centre Neighbourhood Plan;

AND FURTHER, that Council support the replacement of the existing “*City of Vernon Façade Design and Colour Guidelines*” with the proposed City Centre Neighbourhood Plan Design Guidelines and policies;

AND FURTHER, that Council amend the OCP “Plan Vernon” Map 1 – Land Use Map to redesignate lands in and adjacent to the City Centre District to reflect the policies and direction provided in City Centre Neighbourhood Plan.

2. Official Community Plan guiding principles:

- Create a culture of sustainability;
- Create strong, compact and complete neighbourhoods;
- Provide alternative transportation; and
- Revitalize the Downtown.

3. Climate Action Plan Goals and Actions:

- Active transportation is the first choice to move around Vernon.
- Enable and support the enhancement of the transit network and alternative mobility options.
- Integrate climate change considerations into economic development planning and decisions.
- Identify means of improving local air quality (e.g. anti-idling bylaw, road dust mitigation).

4. Council’s Strategic Plan 2019 – 2022 goals:

- Promote transit oriented mixed use development;
- Work towards a sustainable Vernon – environmentally, economically, and socially; and
- Encourage sustainable infrastructure, agriculture and landscaping.

BUDGET/RESOURCE IMPLICATIONS:

N/A

Prepared by:

x 
Danielle DeVries
Transportation Planner

x 
Kim Flick
Director, Community Infrastructure and Development

Approved for submission to Council:


Will Pearce, CAO

Date: 05 Dec 2022

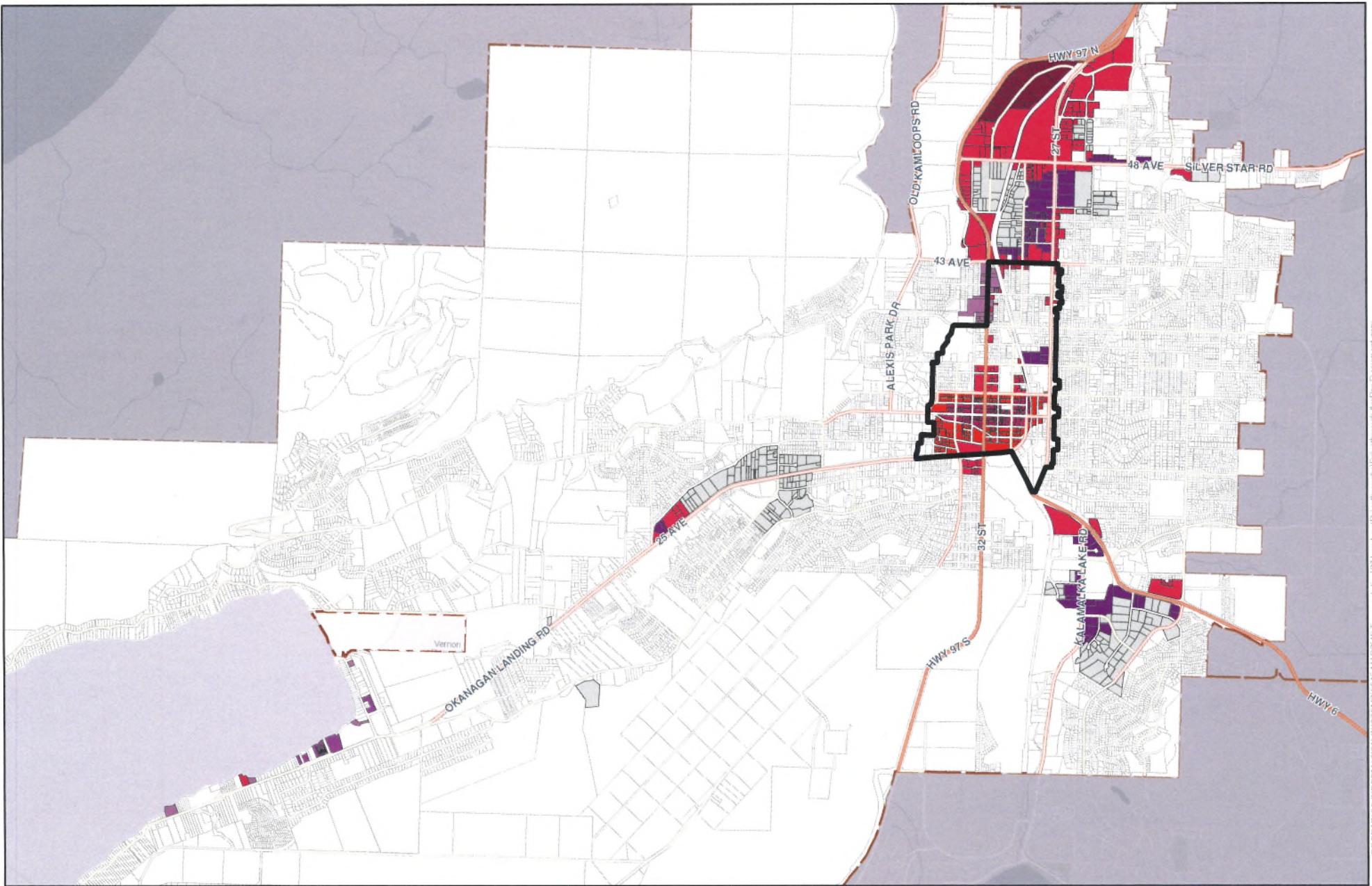
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| <input type="checkbox"/> Financial Services | | <input checked="" type="checkbox"/> Economic Development & Tourism |
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Attachment 1 - Comparison of Drive-Through Regulations with Neighbouring Communities

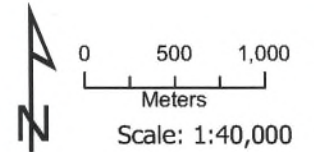
Municipality	Region	Population (2021 census)	Population Density (#/km2)	Reason for comparator	Drive-Through Uses	If permitted, which zones	Specific Regulations
Vernon	Okanagan	44,519	462	-	Regulated	many commercial, mixed-use	yes, queuing
Kamloops	Thompson	97,902	329	neighbour	Regulated	highway-oriented commercial only	yes, increased queuing
Lake Country	Okanagan	15,817	130	neighbour	Regulated	many commercial, mixed-use	yes, queuing
Kelowna	Okanagan	144,576	682	neighbour	Prohibited	Only with site-specific zoning	yes, increased queuing
West Kelowna	Okanagan	36,078	296	neighbour, similar population	Unregulated	all commercial	none
Summerland	Okanagan	12,042	163	neighbour	Unregulated	all commercial	none
Penticton	Okanagan	36,885	857	neighbour, similar population	Regulated	many commercial, mixed-use	yes, increased queuing
Nelson	Kootenay	11,106	931	neighbour	100% prohibited	none	none
Victoria	Island	91,867	4722	leader	100% prohibited	none	none
Ladysmith	Island	8,990	747	leader	100% prohibited	none	none
Central Saanich	Island	17,385	422	leader, similar density	100% prohibited	none	none
Mission	Fraser Valley	41,519	183	leader, similar population	Regulated	highway-oriented commercial only	yes, increased queuing



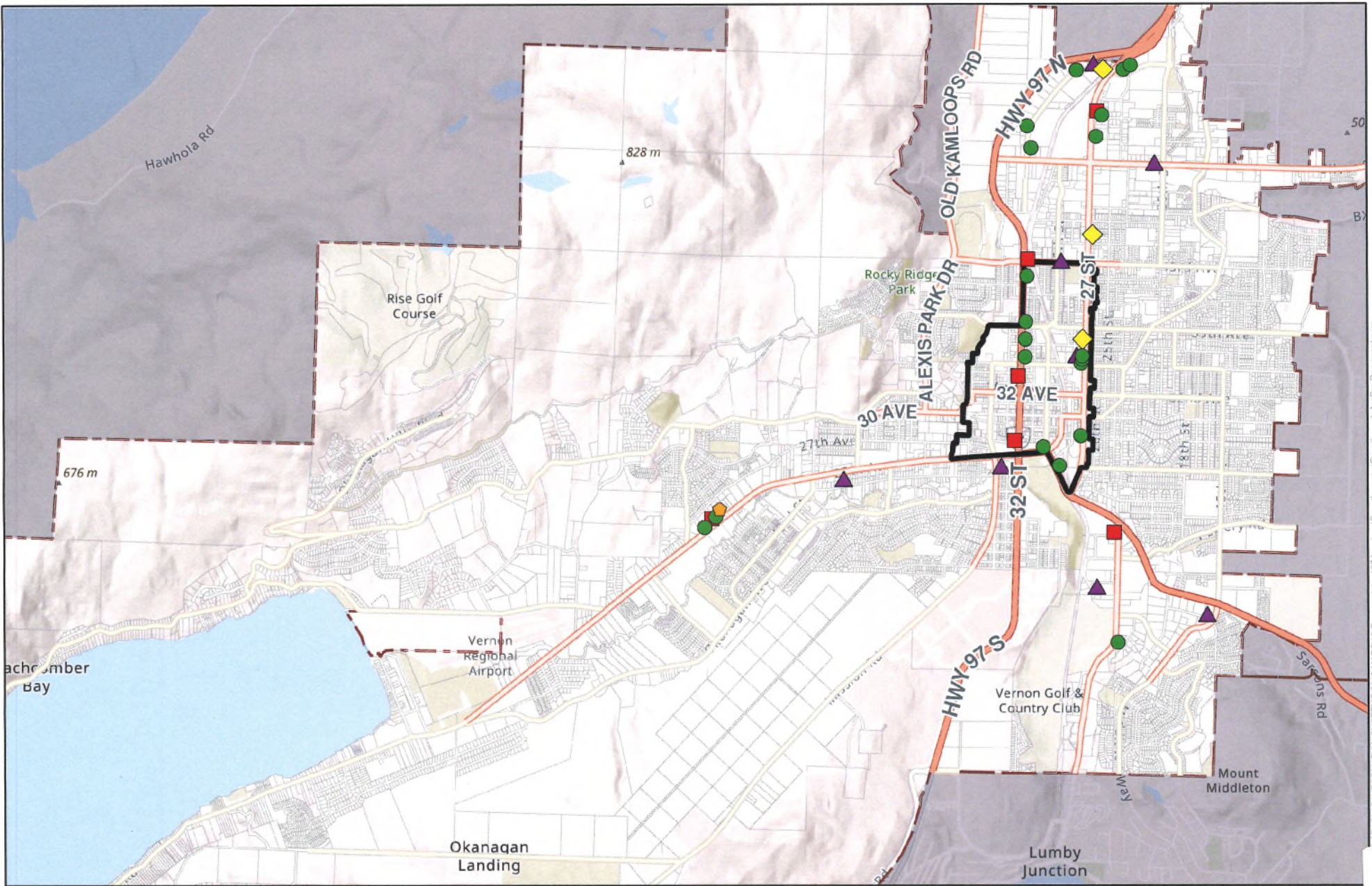
Attachment 2 – Map of Zoning Districts that Permit Drive-Throughs

Legend

C5 COMMUNITY COMMERCIAL	C9 REGIONAL COMMERCIAL	C11 SERVICE COMMERCIAL
C7 HERITAGE BUSINESS DISTRICT	C10 TOURIST COMMERCIAL	CD1 COMPREHENSIVE DEVELOPMENT AREA 1
C8 CENTRAL BUSINESS DISTRICT	C10A TOURIST COMMERCIAL & RESIDENTIAL	I1 LIGHT INDUSTRIAL
		CITY CENTRE DISTRICT



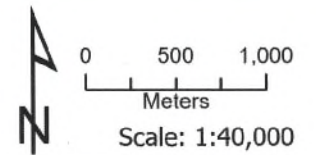
GEOGRAPHIC INFORMATION SYSTEMS MAPS 519 Transnational071 Lantuseel\Drawthroughs\Drawthroughs_Arch\Pro Document.aprx



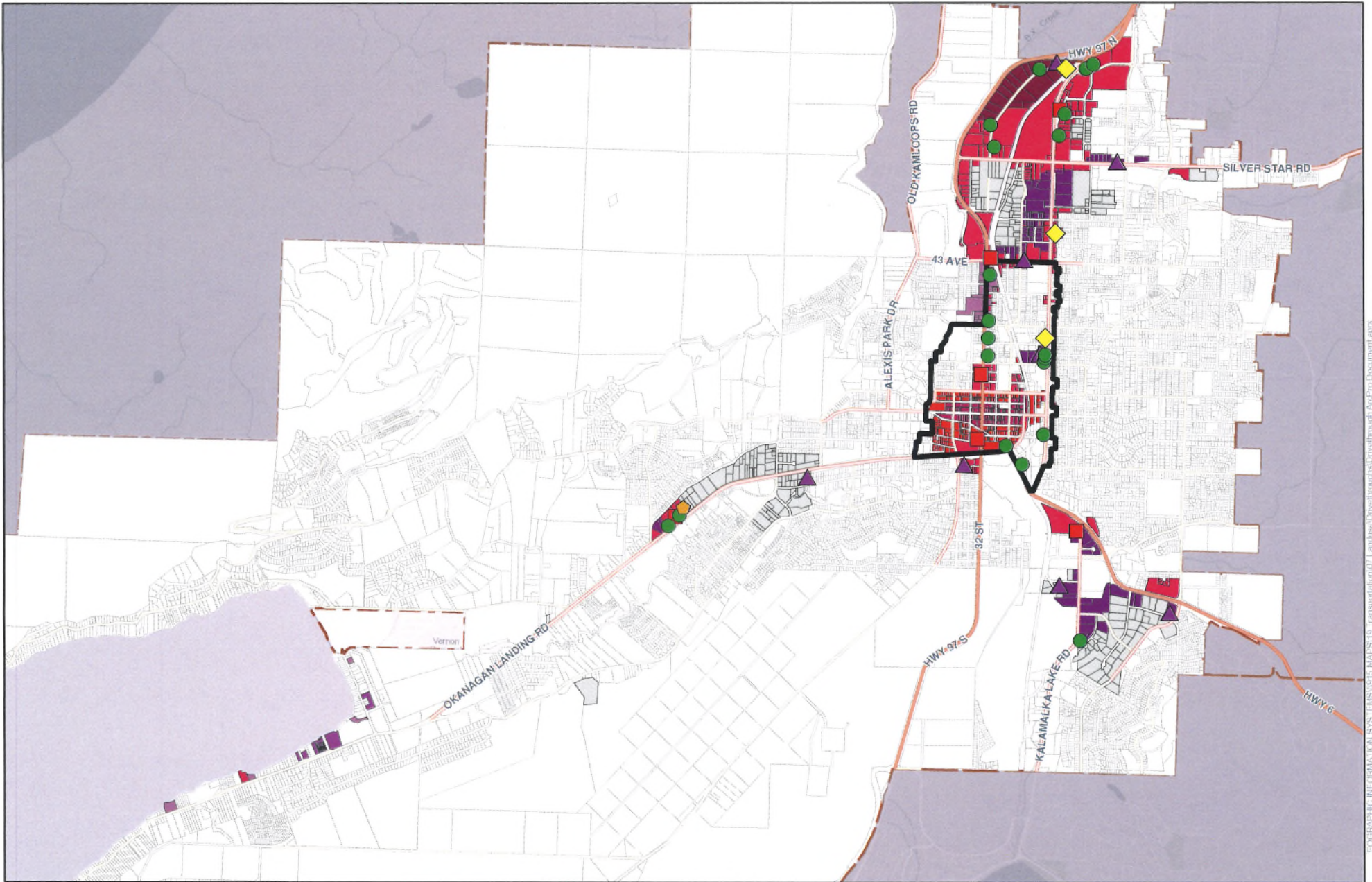
Attachment 3 – Map of Existing Drive-Through Locations

Legend

- ▲ Car Wash
- Financial Service
- Food/Beverage
- ◆ Liquor Primary Service
- ◆ Rapid Vehicle Services
- ▭ CITY CENTRE DISTRICT



GEOGRAPHIC INFORMATION SYSTEMS 8613 MAPS119 Transportation07_Landscape/through/Drivethrough_ArcPict_Document.aprx

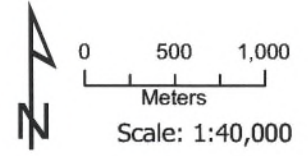


GEOGRAPHIC INFORMATION SYSTEMS MAPS\19 Transportation\1 Landuse\DriveThroughLocationsAndPro Document.aprx

Attachment 4 - Comparison of Zoning Districts to Drive-Through Locations

Legend

- | | | | |
|------------------------|------------------------|------|----------------------|
| Car Wash | Rapid Vehicle Services | C9 | CD1 |
| Financial Service | C5 | C10 | I1 |
| Food/Beverage | C7 | C10A | CITY CENTRE DISTRICT |
| Liquor Primary Service | C8 | C11 | |





THE CORPORATION OF THE CITY OF VERNON REPORT TO COUNCIL

SUBMITTED BY: Matt Faucher, Current Planner

COUNCIL MEETING: REG COW I/C

COUNCIL MEETING DATE: TBD

REPORT DATE: January 17, 2023

FILE: 3090-20 (DVP00573)

SUBJECT: DEVELOPMENT VARIANCE PERMIT APPLICATION FOR 5300 PLEASANT VALLEY ROAD

PURPOSE:

To review Development Variance Permit application 00573 (DVP00573) to vary multiple sections of Zoning Bylaw 5000 to permit construction of five duplexes (ten units) at 5300 Pleasant Valley Road.

RECOMMENDATION:

THAT Council support Development Variance Permit application 00573 (DVP00573) to vary Zoning Bylaw 5000 on LT A, SEC 11, TWP 8, ODYD, PL 23988 (5300 Pleasant Valley Road), as follows:

- a) Section 4.16.1 to allow the construction of buildings, structures and swimming pools on slopes greater than 30%;
- b) Section 6.5.11 to increase the maximum height of a retaining wall from 1.2m to 4.5m; and
- c) Section 7.1.12 to reduce the minimum width of a two-way aisle from 7.0m to 5.5m;

AND FURTHER, that Council's support of DVP00573 is subject to the following:

- a) That the site plan, site grading and cross-sections, intended to illustrate the siting of structures, drive access and retaining wall height (Attachment 1) in the report titled "Development Variance Permit Application for 5300 Pleasant Valley Road" dated January 17, 2023 and respectfully submitted by the Current Planner, be attached to and form part of DVP00573 as Schedule 'A';
- b) That the Geotechnical Investigation and Report (Attachment 2) in the report titled "Development Variance Permit Application for 5300 Pleasant Valley Road" dated January 17, 2023 and respectfully submitted by the Current Planner, be attached to and form part of DVP00573 as Schedule 'B';
- c) That a qualified geotechnical engineer be retained to review the site and any design(s) or other work for soils or for soils related structures connected with this project regarding conformity to the project requirements and intent of the geotechnical report, as well as to monitor the development of the subject property through the construction phase of development; and
- d) That a Section 219 Covenant be registered on the title of the subject property to ensure the following:
 - i. That all buildings and structures, including covered decks, have fire suppression systems (sprinklers) installed;
 - ii. That no parking is permitted on either side of the Deleenheer Road access or drive aisle within the site;

- iii. That no snow accumulation or piles are to be placed or stored in the required vehicle turn arounds; and
- iv. That Technical Memorandum, prepared by Kerr Wood Leidal Consulting Engineers, dated September 9, 2022 (Attachment 5), is attached to ensure any future residents, owners or strata corporation are aware of the requirements imposed on structures, as well as the access route from Deleenheer Rd through the subject property;

AND FURTHER, that issuance of DVP00573 be withheld until a Development Permit for the subject property is authorized to be issued.

ALTERNATIVES & IMPLICATIONS:

- 1. THAT Council not support Development Variance Permit application 00573 (DVP00573) as outlined in the report titled "Development Variance Permit Application for 5300 Pleasant Valley Road" dated January 17, 2023 and respectfully submitted by the Current Planner to vary Zoning Bylaw 5000 on LT A, SEC 11, TWP 8, ODYD, PL 23988 (5300 Pleasant Valley Road).

Note: This alternative does not support the development variance permit application and would require the applicant / owner to develop the site in compliance with Zoning Bylaw 5000.

ANALYSIS:

A. Committee Recommendations:

At its meeting of February 14, 2023, the Advisory Planning Committee passed the following resolution:

"As cited by committee."

B. Rationale:

- 1. The subject property is located at 5300 Pleasant Valley Road (Figures 1 and 2). The property is approximately 3,661m² (0.90ac) in size. The surrounding area contains single detached, multi-family and apartment housing.
- 2. The purpose of the application is to review a request to vary three provisions of Zoning Bylaw 5000 in order to construct five duplexes (ten units) on the subject property.
- 3. The subject property is zoned R5: Fourplex Housing Residential (Attachment 3) and is designated as Residential Medium Density (RMD) in the Official Community Plan (OCP).
- 4. The subject application pertains to development regulation within Section 4.16.1 (30% slopes), Section 6.5.11 (maximum height of a retaining wall) and Section 7.1.12 (minimum width of a two-way aisle) of Zoning Bylaw 5000 (Attachment 4).

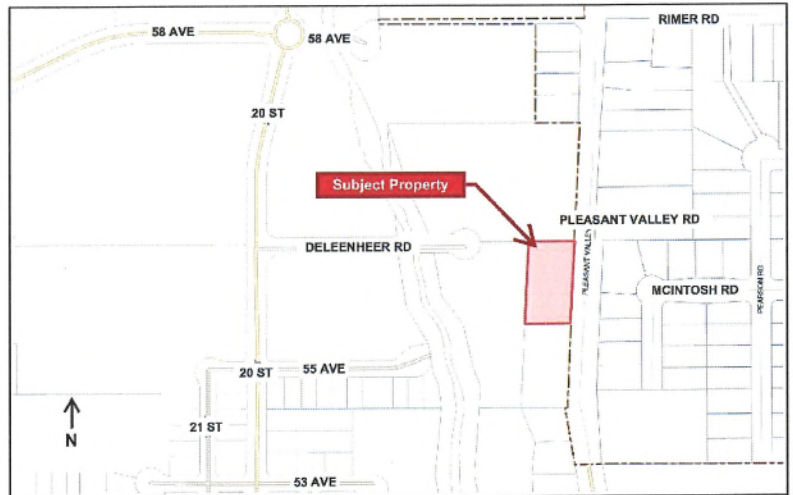


Figure 1 - Property Location Map

5. The subject property contains slopes greater than 30% and requires approval of a variance to proceed with development of the site as proposed.
6. The application requests to vary Section 4.16.1 of Zoning Bylaw 5000 in order to allow the proposed structures and access drive to be located on slopes exceeding 30%. Additionally, the application requests to vary Section 6.5.11 to increase the maximum allowable height of a retaining wall from 1.2m to 4.5m to support the grading required to construct the proposed dwelling units.



Figure 2: Aerial Photo of Property

7. A preliminary geotechnical investigation of the subject property was conducted which reviewed conceptual drawings of the proposed development for five duplexes (ten units) on the subject property (Attachment 2). The report notes that "... from a geotechnical point of view, the proposed constructions are feasible subject to reviewing the final designs and provided the recommendations made in this report are followed", and that, "Based on our observations, we are satisfied that the property can be safely used for the intended purpose of residential development". As such, Administration recommends requiring detailed design drawings to be reviewed by a qualified geotechnical engineer and a letter of engagement from said geotechnical engineer to review and monitor the construction of the proposed development prior to issuance of DVP00573.
8. Due to the topography and slope of the subject property, the application proposes to vary Section 6.5.11 of Zoning Bylaw 5000 in order to allow the construction of retaining structures to a maximum of 4.5m in height to support the slope post development. Retaining walls greater than 1.2m require engineering design and oversight/inspection of their construction. A Building Permit, including sealed schedules, would be required.
9. Additionally, the application proposes to vary the minimum aisle width in Section 7.1.12 of Zoning Bylaw 5000 from 7m to 5.5m. Access to the subject property is provided by a 6m wide utility and access easement through 1700 Deleenheer Rd. The applicant requested that the property owners of 1700 Deleenheer Rd authorize an increase in the width of the access easement, however their request was declined. In light of this, the applicant is proposing an alternative solution to allow for the minimum width of the access to be reduced from the required City bylaw standards.
10. Due to the topography of the site, accessing the development as proposed from Pleasant Valley Road is not practical. The slope between the subject property and Pleasant Valley Road exceeds 40%.
11. The BC Building Code Section 3.2.5.6.1(a) requires that an access route for fire department use is to "have a clear width not less than 6m, unless it can be shown that lesser widths are satisfactory". As such, the applicant was required to submit an alternative solutions proposal sealed by a qualified engineer (Attachment 5) for consideration to the City's Building Official and Vernon Fire Rescue Services. The proposal has been accepted and deemed satisfactory provided the recommendations are followed through the life of the development including the following:
 - That all buildings and structures, including covered decks, have fire suppression systems (sprinklers) installed;

- That no parking is permitted on either side of the Deleenheer Road access or drive aisle within the site; and
- That no snow accumulation or piles are to be placed or stored in the required vehicle turn arounds.

12. To ensure future residents, owners and/or strata corporation are aware of their obligations with respect to the proposed alternative solutions, Administration recommends the registration of a Section 219 Covenant on the subject property prior to issuance of DVP00573.

13. Administration supports the requested variance for the following reasons:

- a) The subject property is designated as RMD in the OCP and requires variances to the maximum 30% slope and maximum height of a retaining wall in order to develop the subject property in accordance with the density permitted in the R5 zoning district;
- b) The applicant has submitted a report from a qualified geotechnical engineer assessing the site and providing recommendations. The engineer has determined that the site is suitable for the proposed development. The applicant will be required to provide review and monitoring of the site during construction; and
- c) The alternative solutions proposed for the reduction in access width was deemed satisfactory, in accordance with the requirements of the BC Building Code, by the City's Building Official and Vernon Fire Rescue Services.

C. Attachments:

Attachment 1 – Site plan, grading and cross-sections

Attachment 2 – Geotechnical Report, prepared by Fletcher Paine Associates Ltd. dated Nov 3, 2021

Attachment 3 – R5: Four-plex Housing Residential

Attachment 4 – Subject Regulations

Attachment 5 – Technical Memorandum, prepared by Kerr Wood Leidal, dated Sept 9, 2022

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. The following provision of Zoning Bylaw 5000 is relevant to the subject application:

- | | |
|----------------|---|
| Section 4.16.1 | No construction of a building, structure or swimming pool is permitted on slopes 30% or greater. |
| Section 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. |
| Section 7.1.12 | Aisles shall be a minimum of 7.0m wide for all two-way aisles and for all 90° parking. One-way aisles shall be 5.5m wide for 60° parking, and 3.6m wide for 45° parking and 3.5m wide for parallel parking. |

2. The following provision of Building Bylaw 5900 is relevant to the subject application:

Section 16.1 Prior to the issuance of a building permit for a simple building of multi-family or commercial occupancy under Part 9 of the building code, the owner must satisfy the building official that the building or structure for which the permit is issued will be served by a fire access route that satisfies the following:

(a) the width of an access route must be not less than 6.0 meters.

BUDGET/RESOURCE IMPLICATIONS:

N/A

Prepared by:

Approved for submission to Council:

X _____
Signer 1
Matt Faucher, CPT
Planner

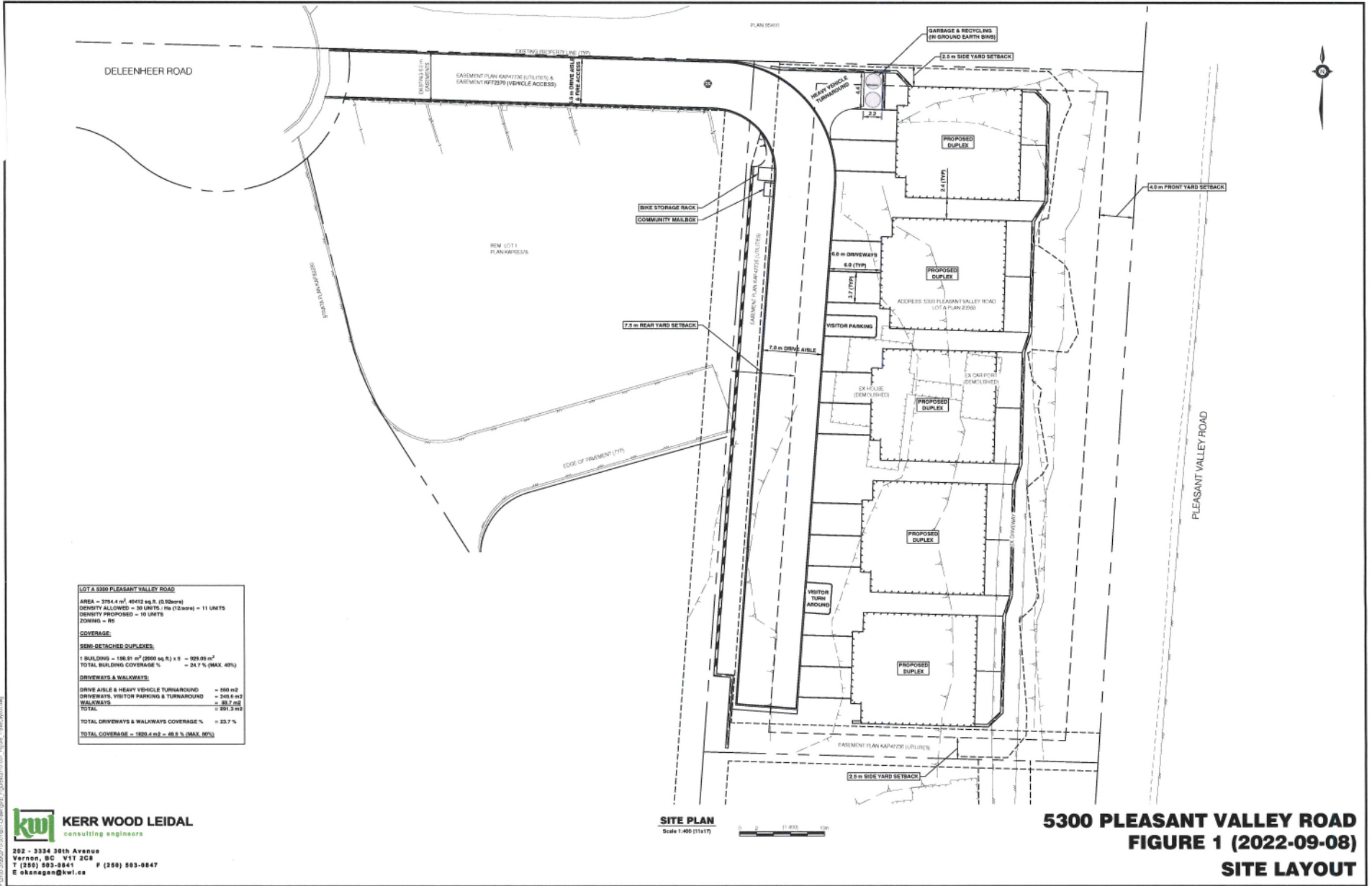
Patti Bridal, CAO

Date: _____

X _____
Signer 2
Kim Flick
Director, Community Infrastructure and Development

REVIEWED WITH		
<input type="checkbox"/> Corporate Services	<input type="checkbox"/> Operations	<input checked="" type="checkbox"/> Current Planning
<input type="checkbox"/> Bylaw Compliance	<input type="checkbox"/> Public Works/Airport	<input checked="" type="checkbox"/> Long Range Planning & Sustainability
<input type="checkbox"/> Real Estate	<input type="checkbox"/> Facilities	<input checked="" type="checkbox"/> Building & Licensing
<input type="checkbox"/> RCMP	<input type="checkbox"/> Utilities	<input checked="" type="checkbox"/> Engineering Development Services
<input checked="" 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 checked="" type="checkbox"/> Transportation
<input type="checkbox"/> Financial Services		<input type="checkbox"/> Economic Development & Tourism
<input checked="" type="checkbox"/> COMMITTEE: APC (Feb 14/23)		
<input type="checkbox"/> OTHER:		

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LOT A 5300 PLEASANT VALLEY ROAD

AREA = 3784.4 m² (4012 sq ft) (0.52acre)
 DENSITY ALLOWED = 30 UNITS / Ha (12.2acre) = 11 UNITS
 DENSITY PROPOSED = 10 UNITS
 ZONING = R5

COVERAGE:

SEMI-DETACHED DUPLEXES:

1 BUILDING = 108.01 m² (2800 sq ft) x 9 = 972.09 m²
 TOTAL BUILDING COVERAGE % = 24.7% (MAX. 40%)

DRIVEWAYS & WALKWAYS:

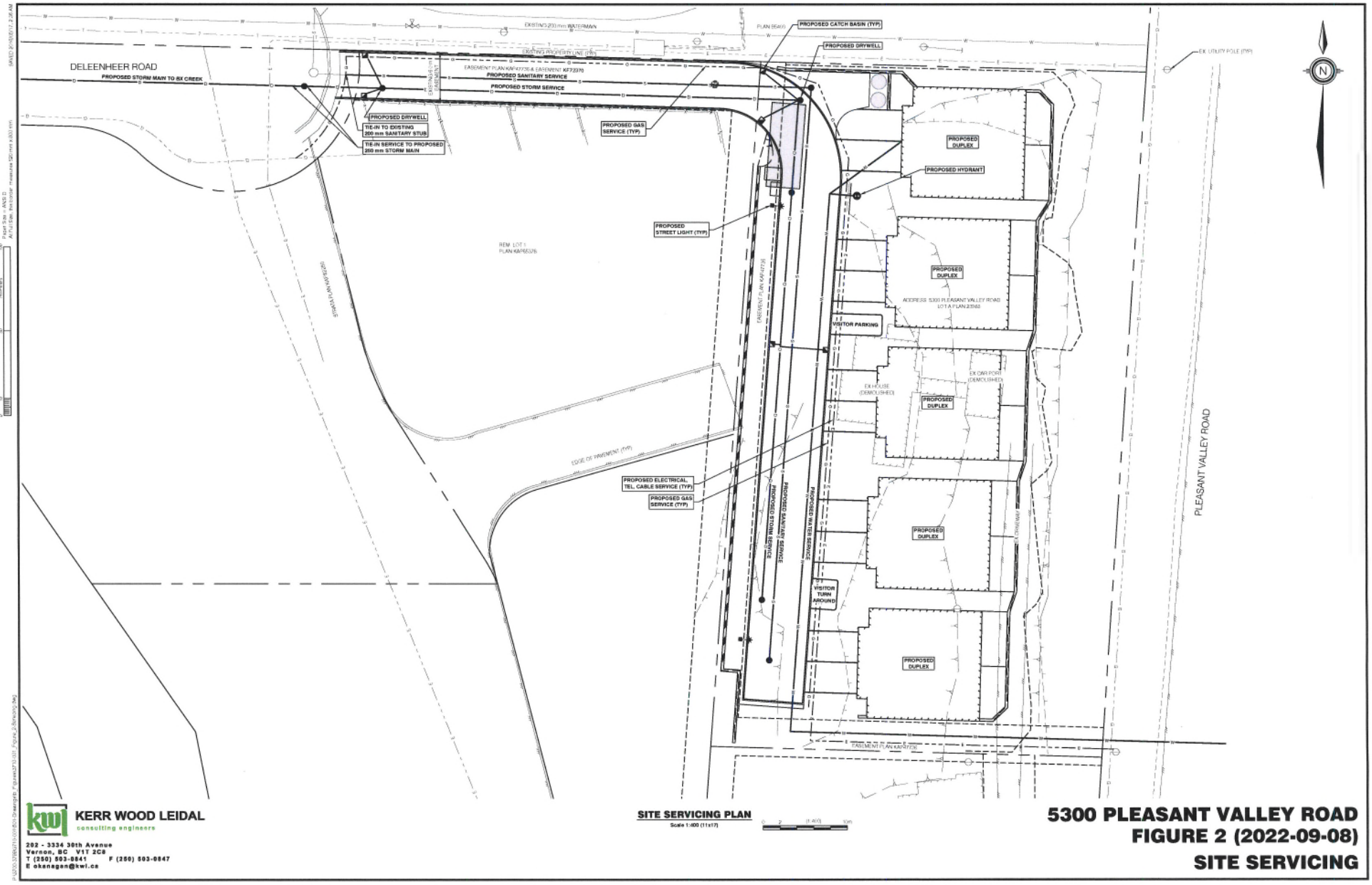
DRIVE AIBLE & HEAVY VEHICLE TURNAROUND = 860 m²
 DRIVEWAYS, VISITOR PARKING & TURNAROUND = 245.6 m²
 WALKWAYS = 89.3 m²
 TOTAL = 1194.9 m²
 TOTAL DRIVEWAYS & WALKWAYS COVERAGE % = 23.7%
 TOTAL COVERAGE = 1867.0 m² = 49.6% (MAX. 60%)

SITE PLAN
 Scale 1:400 (1:1x17)

5300 PLEASANT VALLEY ROAD
FIGURE 1 (2022-09-08)
SITE LAYOUT

kwl KERR WOOD LEIDAL
 consulting engineers

202 - 3334 38th Avenue
 Vernon, BC V1T 2C8
 T (250) 853-8841 F (250) 853-8847
 E klsagan@kwl.ca

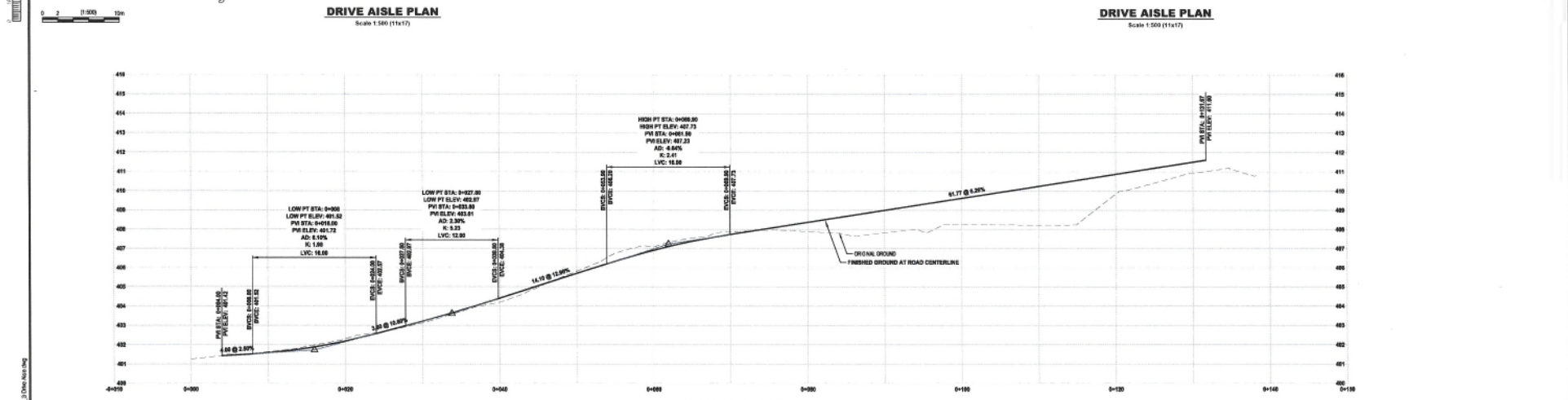
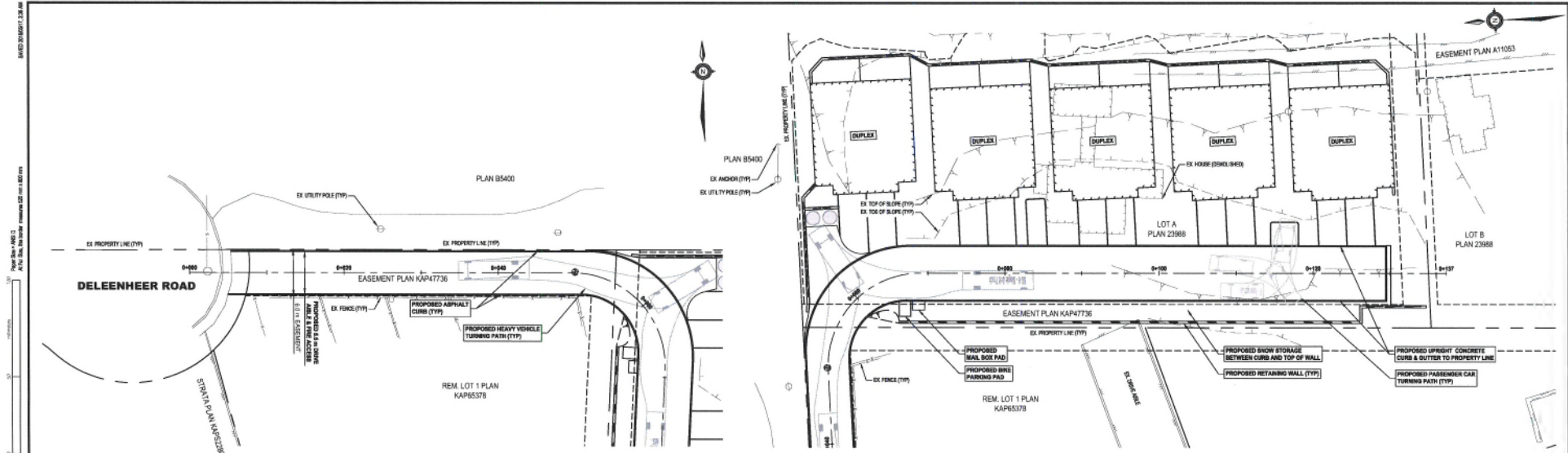


kwl KERR WOOD LEIDAL
consulting engineers

202 - 3334 30th Avenue
Vernon, BC V1T 2C8
T (250) 563-8841 F (250) 563-0847
E okanagan@kwl.ca

SITE SERVICING PLAN
Scale 1:400 (1/4"=1'-0")

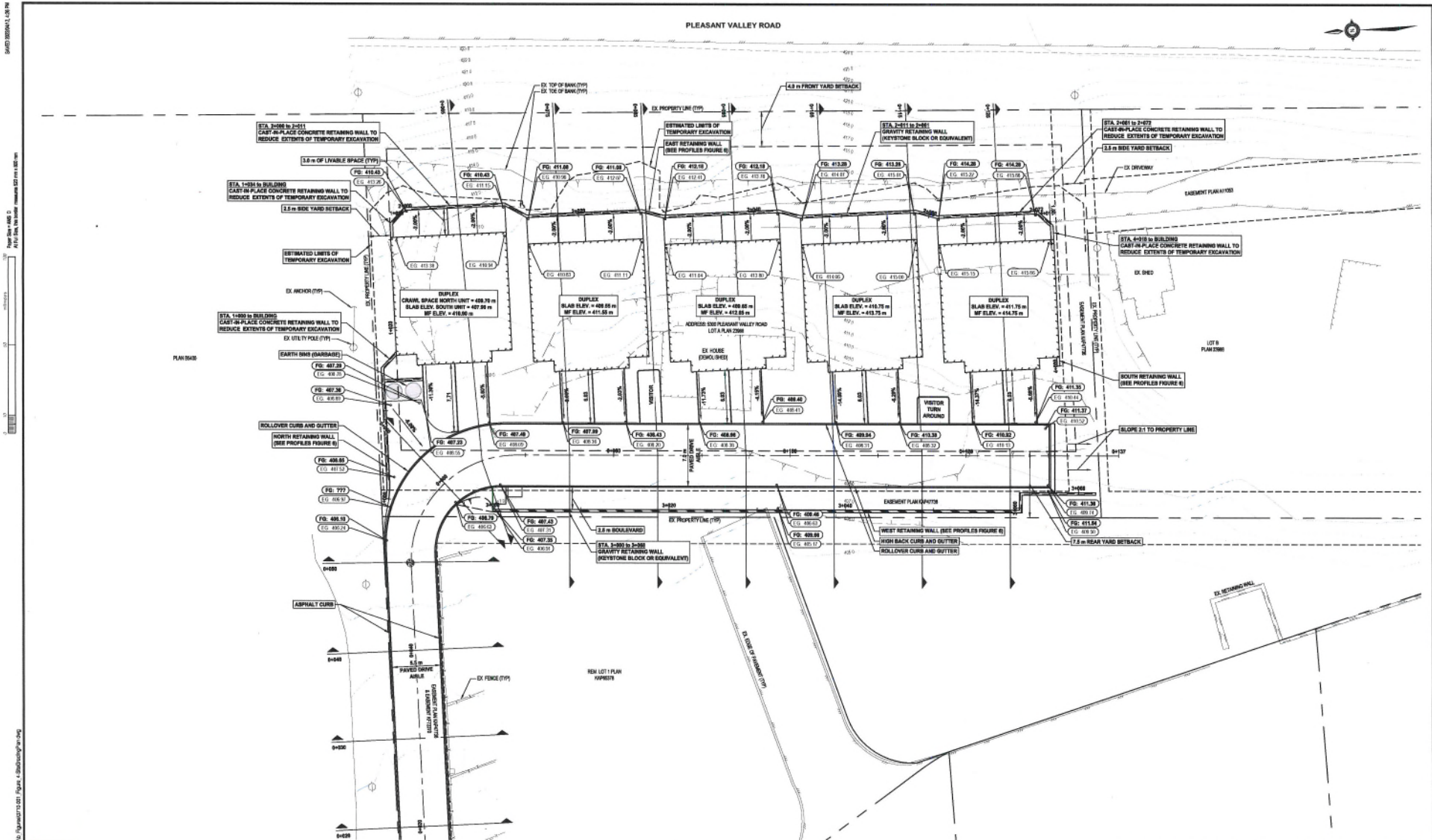
5300 PLEASANT VALLEY ROAD
FIGURE 2 (2022-09-08)
SITE SERVICING



KW **KERR WOOD LEIDAL**
consulting engineers

202 - 3334 30th Avenue
Vernon, BC V1T 2C8
T (250) 853-0141
E okanagan@kwl.ca

5300 PLEASANT VALLEY ROAD
FIGURE 3 (2022-09-08)
DRIVE AISLE

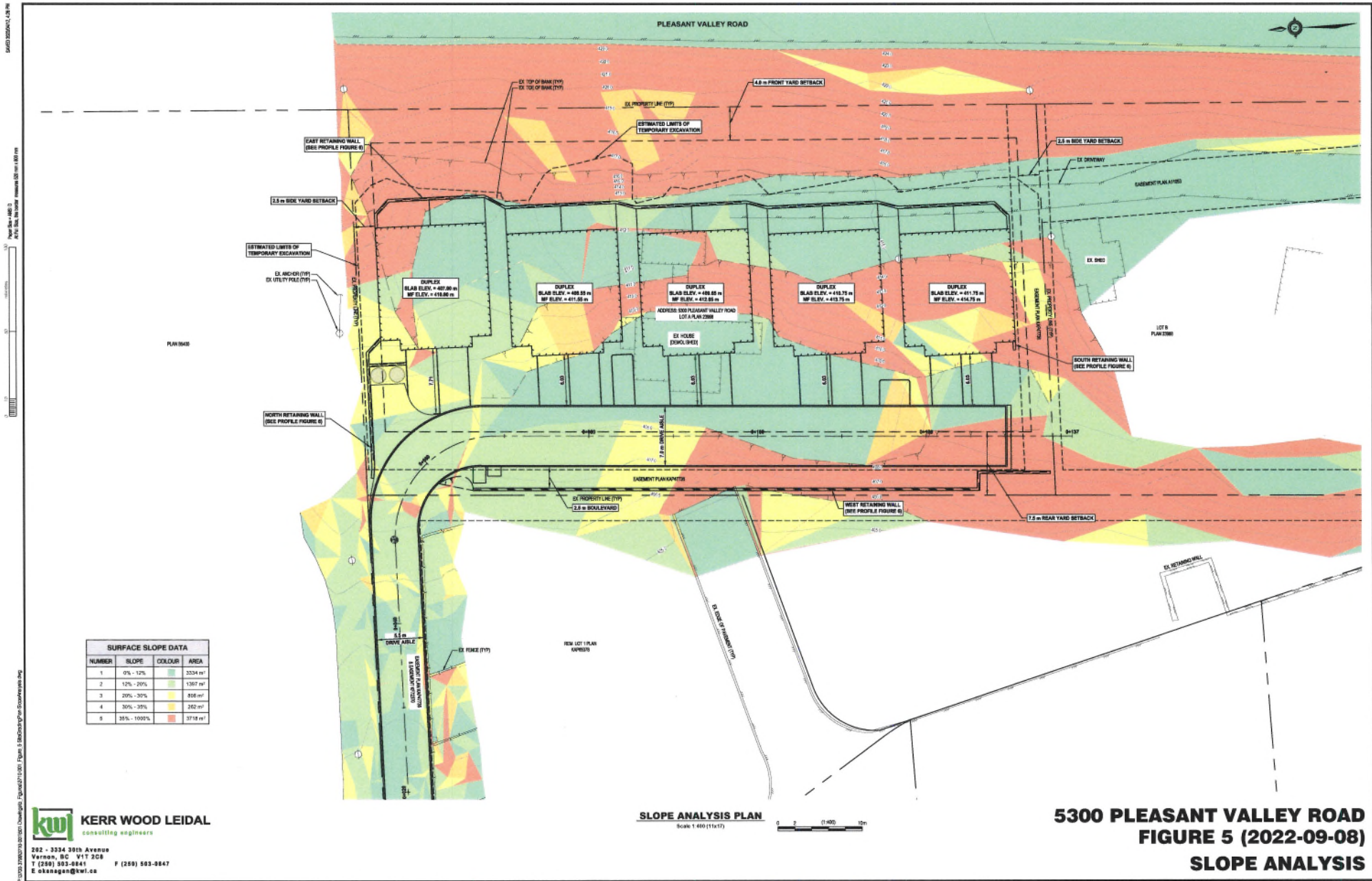


kwl KERR WOOD LEIDAL
consulting engineers

202 - 3334 30th Avenue
Vernon, BC V1T 2C8
T (250) 563-8841 F (250) 563-8847
E kwood@kwl.ca

SITE GRADING PLAN
Scale 1:400 (1 inch = 1 foot)

5300 PLEASANT VALLEY ROAD
FIGURE 4 (2022-09-08)
SITE GRADING

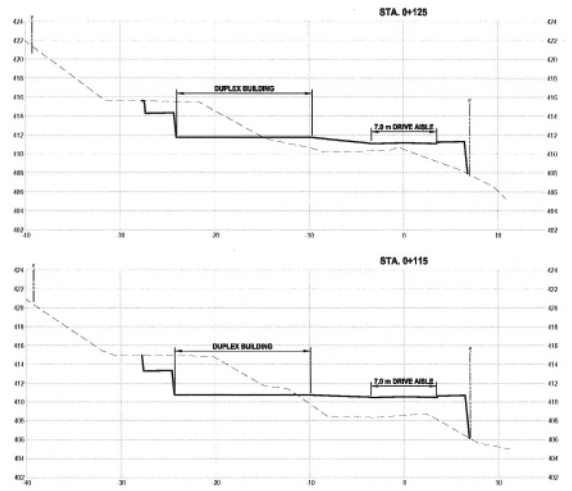
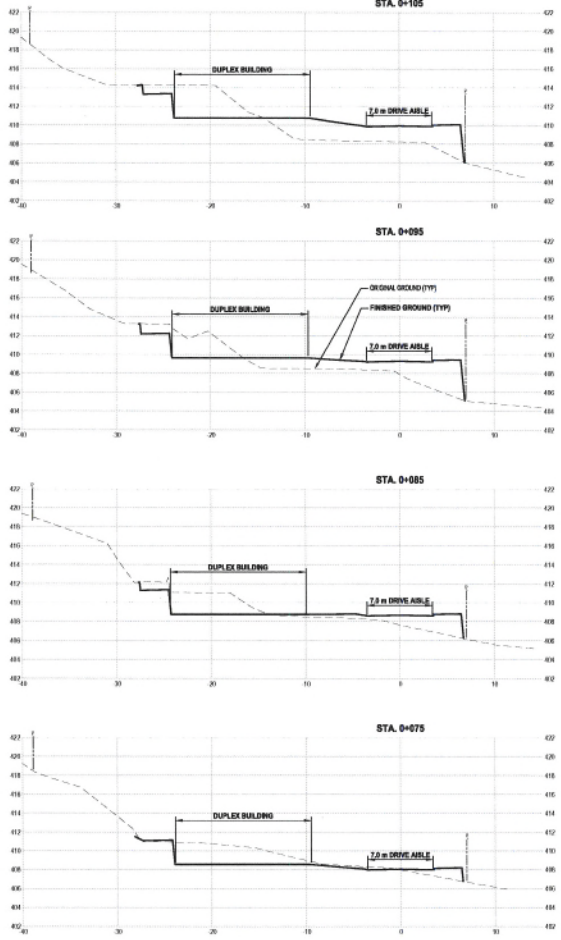
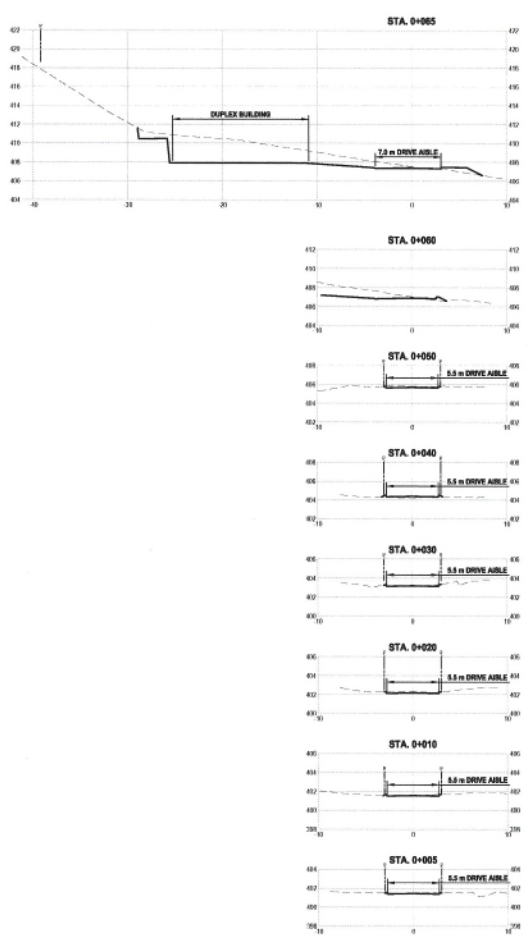


SURFACE SLOPE DATA

NUMBER	SLOPE	COLOR	AREA
1	0% - 12%	Green	3234 m ²
2	12% - 20%	Light Green	1367 m ²
3	20% - 30%	Yellow	806 m ²
4	30% - 35%	Orange	262 m ²
5	35% - 100%	Red	3718 m ²

kw KERR WOOD LEIDAL
consulting engineers

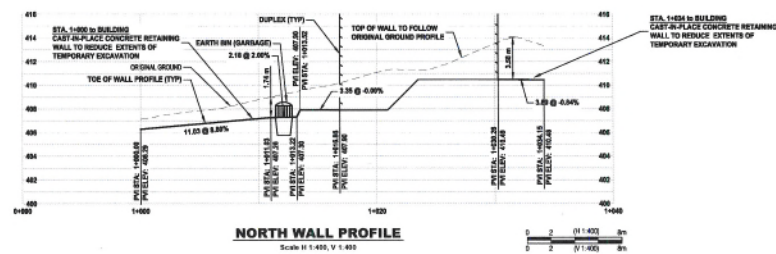
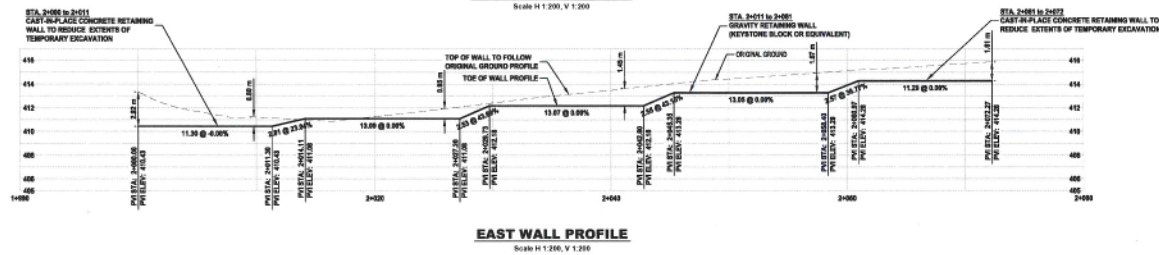
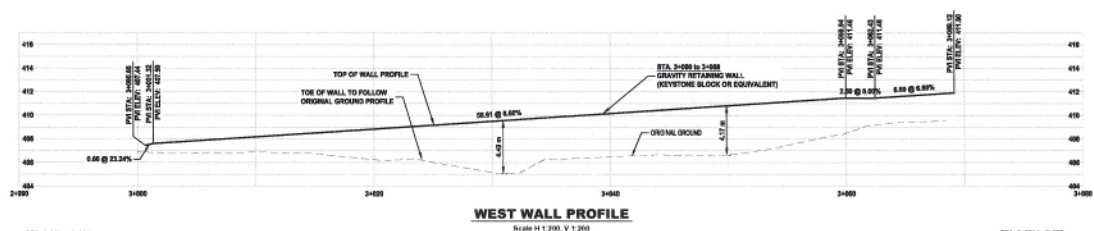
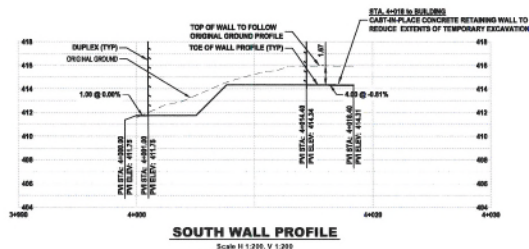
222 - 3224 39th Avenue
Vernon, BC V1T 2G8
T (250) 553-8841 F (250) 553-8847
E ckenagan@kwl.ca



DRIVE AISLE & SITE - SECTIONS
Scale: 1:500

kwl KERR WOOD LEIDAL
consulting engineers
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Vernon, BC V1T 2C8
T (250) 593-8841 F (250) 593-8847
E okanagen@kwl.ca

**5300 PLEASANT VALLEY ROAD
FIGURE 6 (2022-09-08)
SITE SECTIONS**



Fletcher Paine Associates Ltd.

Consulting Geotechnical and Materials Engineers
2250-11th Avenue,
Vernon, B.C.
V1T 7X8

Tel: (250) 542-0377
Fax: (250) 542-1220
E-mail: fletcherpaine@shawlink.ca

File 6588

November 3, 2021

0770910 BC Ltd.
3350 W 53rd Avenue
Vancouver, B.C.
V6N 4C9

Attention: John McKay

Dear Mr. McKay

Geotechnical Investigation and Report
Proposed Residential Development
5300 Pleasant Valley Road, Vernon, B.C.

1.0 INTRODUCTION

1.1 Authorization

The work reported upon in this document was authorized by John McKay on behalf of 0770910 BC Ltd. (The Client) on November 19, 2019.

1.2 Qualifications

Use of this report is subject to the Statement of Qualifications and General Conditions, which is attached. The reader's attention is specifically drawn to these conditions as it is considered essential that they be followed for the proper use and interpretation of this report.

1.3 Terms of Engagement

The terms under which our services are provided are attached.

1.4 Authorized Use of Report

This report has been prepared exclusively for the client listed above, for the use of others on their design team and for the relevant approving authorities.

2.0 SCOPE OF THE REPORT

The contents of this report are intended to provide preliminary geotechnical recommendations related to a proposed residential development located at 5300 Pleasant Valley Road, in Vernon, B.C.

It is understood that the project is currently at the conceptual stage such that detailed design drawings are not available. However, based on available drawings prepared by Kerr Wood Leidal Associates Ltd, dated October 16, 2019, the proposed residential development consists of five 2-storey duplex structures with partially buried basements, approximately 130 m of shared on site access roadways connected to the Deleenheer Road cul-de-sac, and multiple retaining walls, ranging in height between 1.2 m and 4.5 m.

This report addresses the following specific items:

- a) Site description and surficial geology
- b) Geotechnical field and laboratory investigations carried out for the project
- c) The engineering properties and characteristics of the subsoils at the site
- d) Potential reuse of in situ soils for within proposed constructions
- e) Temporary excavations and groundwater considerations
- f) Recommendations for foundations and ground preparation for foundations
- g) Frost protection for foundations
- h) Site, roof, and perimeter foundation drainage
- i) On site trench excavations and backfill recommendations
- j) Pavement structure design recommendations
- k) Recommendations for permanent cut and fill slopes
- l) Preliminary recommendations for retaining wall design

3.0 SITE DESCRIPTION AND SURFICIAL GEOLOGY

3.1 Site Description

The project site is located at 5300 Pleasant Valley Road in Vernon, B.C., as shown on the attached Borehole Location Plan, Figure 6588-1. The subject site is near rectangular shaped, with an approximate area of 3650 m², and is situated within a semi-rural residential area generally surrounded by single and multi family residential structures. The project site is currently accessed from Pleasant Valley Road through a shared driveway located south of the subject property. Single and multi family lots border the rest of the project site. Areal site grades generally slope down towards the west at approximate 4H:1V slope gradients. BX Creek exists approximately 80 m west of the site.

At the time of the investigation, the project site was generally covered with overgrown grasses and mature trees. Old footings for a demolished residential building were still on site and several piles of residential and landscaping debris were scattered throughout the site. The site was generally terraced such that there were two relatively flat benches with a steeper soil embankment between the levels. Steeper soil embankments also existed on the east and west property lines, below Pleasant Valley Road and above the west neighboring multi-family residential buildings, respectively. The steeper areas sloped down towards the west and generally ranged between 1H:1V and 2H:1V slope gradients, while the flatter terraces sloped down towards the north at approximate 20H:1V slope gradients, or flatter.

3.2 Surficial Geology

Available surficial geology mapping indicates that the surficial soils encountered at the site are drumlinoid morainal deposits consisting of till with minor sand, gravel, and silt that were deposited prior to the last ice advance.

The materials encountered during the field investigation were generally consistent with the above descriptions.

4.0 INVESTIGATIONS

4.1 Field Investigation

A geotechnical field investigation was carried out on December 10, 2019 utilizing a track mounted drill rig owned and operated by Mud Bay Drilling Ltd. The geotechnical investigation consisted of making seven boreholes at locations shown on the attached Figure 6588-1. The purposes of the investigation were to identify the stratigraphy of the subsoils at the borehole locations and to recover disturbed samples of the soils for further classification and testing in the laboratory. SDS cone penetration tests were carried out to estimate the relative densities of the subsoils encountered. Standpipe peizometers were installed at select borehole (BH) locations to monitor static groundwater levels, if any, within the investigated extents.

With the exception of BH 3 and BH 4, turf and topsoil was encountered to depths ranging between 0.1 m and 0.3 m below the existing ground surface. Fill soil, generally consisting of a mixture of loose sand and topsoil, was encountered at the locations of BH 1, BH 5 and BH 7 to depths ranging between 0.3 m and 1.5 m below the existing ground surface.

The undisturbed in situ soils encountered at the location of BH 1 consisted of very stiff, highly plastic clay to the terminus of the borehole, at 3.0 m below the existing ground surface.

With the exception of BH 1, the undisturbed in situ soils encountered at the borehole locations generally consisted of dry to wet, compact to very dense sand soils, and sand and silt soils to the terminus of the boreholes, at depths ranging between 1.8 m and 8.2 m below the existing ground surface. BH 2, BH 3, BH 4, BH 5 and BH 7 were terminated due to drill rig refusal in dense to very dense soils.

An empty concrete barrel was encountered during the geotechnical investigation, located approximately 3 m south of the location of BH 7 and approximately 1.0 m below the existing ground surface. The concrete barrel was approximately 1.8 m deep with an unknown diameter and use. Additional fill soils may be encountered in this area, as well as below the barrel base.

Standpipe piezometers were installed at the locations of BH 1, BH 2, BH 3 and BH 6. When checked on December 16, 2019, groundwater was encountered at a depth of 3.6 m below the existing ground surface at the location of BH 6. BH 1, BH 2 and BH 3 were dry when checked on the same day.

Detailed logs of the boreholes are provided on the attached Records of Exploration. Geodetic elevations at the borehole locations were estimated using a topographic survey site plan dated October 16, 2019 and provided by Kerr Wood Leidal Associates Ltd.

4.2 Percolation Rate Testing

As outlined in the original Request for Proposal, the geotechnical investigation consisted of performing two percolation rate tests for the purposes of on site sewerage disposal. It should be noted that the design of the on site sewerage disposal is not in the scope of our services as it will be completed by others.

The percolation rate tests were both performed at a depth of 600 mm below the existing surface and followed the procedure outlined in the British Columbia Ministry of Health authored "Sewerage System Standard Practice Manual Version 3" dated September 2014, as required by the Aboriginal Affairs and Northern Development Canada (AANDC) standards. The test locations were determined by Kerr Wood Leidal Associates Ltd.

The percolation rates at the specific test locations ranged between 12 minutes/inch and 59 minutes/inch. A complete summary of the tested percolation rates are provided on the Summary of Percolation Rates, in Table 6589-1 attached to this report. The percolation rate test locations are shown on the attached Figure 6589-2.

4.3 Laboratory Investigation

The laboratory investigation consisted of natural moisture content determinations on all of the recovered samples, three grain size distribution tests on select coarse-grained soil samples and one Atterberg plastic and liquid limit determination tests on select fine-grained soil sample. The results of the laboratory testing are shown on the attached Records of Exploration and on the attached grain size distribution test reports.

4.4 Possible Future Investigation

The geotechnical engineer of record for the project should be provided the opportunity to observe the foundation soils below the existing concrete structures after they are demolished, including the subsurface concrete barrel encountered near the location of BH 7. Based on the observed conditions, the geotechnical engineer may also recommend a confirmatory subsurface investigation at those locations such that supplementary foundation soil preparation recommendations for the proposed site development can be provided, if necessary.

5.0 ENGINEERING PROPERTIES AND CHARACTERISTICS OF THE SUBSOILS

5.1 Topsoil and Fill

The topsoil and fill materials encountered at the test pit locations are not suitable for any engineering application at the site as no engineering properties can be reasonably assigned to these materials due to their organic and/or non-homogeneous natures.

5.2 Undisturbed In Situ Soils

The undisturbed in situ soils encountered at the site are appropriate to support engineered fill for structural foundations related to the proposed constructions, provided that all foundation soils preparation, and other recommendations, made in this report are adhered to.

5.2.1 Settlement Potential

Sand and Silt, and Sand soils: The in situ sand and silt, and sand soils encountered during the investigation are characterized as compact to very dense in terms of relative density. These soils should experience negligible settlement when subjected to net increases in soil loading typically encountered from shallow foundations supporting residential structures and changes in site grading.

Clays: The in situ clays encountered at during the investigation are characterized as very stiff in terms of consistency. These soils should experience negligible settlement when subjected to net increases in soil loading typically encountered from residential buildings, pavement structures and traffic loading.

5.2.2 Frost Susceptibility

The following table summarizes the grain size test results on the select soil samples, specifically presenting the amount of material passing the 0.075 mm diameter sieve. Soils with greater than 7 percent passing the 0.075 mm diameter sieve are frost susceptible to some degree, and it is expected that the soils encountered at this site are frost susceptible.

Sample Label	Material Description	Percent Passing 0.075 mm Diameter Sieve
BH 3-3 at 4.0 m	Sand, some gravel, trace silt	9.2 %
BH 5-2 at 3.7 m	Sand, some gravel, some silt	13.4%
BH 7-1 at 1.2 m	Sand and Silt, some gravel	41.7 %

5.2.3 Swell Potential

The in situ undisturbed clays encountered at the site have a very high potential for volume change (shrink/swell) with changes in moisture contents, based on the Atterberg limit and natural moisture content determinations, and site stratigraphy/groundwater conditions.

5.2.4 California Bearing Ratio

A California Bearing Ratio (CBR) value of 10 can be used for design where the on site access road subgrade will consist of the undisturbed in situ sand, and silt and sand soils.

A CBR value of 3 can be used for design where the on site access road subgrade will consist of the undisturbed in situ clays.

5.2.5 Lateral Earth Pressure Coefficients

The following design parameters should be used for lateral earth pressure design at this site for the undisturbed compact to very dense sand, and silt and sand soils:

- a) Total Unit Weight: 18 kN / m³
- b) Internal Angle of Friction: 29°
- c) Static Ka: 0.35 (assumes backfill behind wall is horizontal with good drainage adjacent to the wall)
- d) Static Ko: 0.52

6.0 POTENTIAL REUSE OF IN SITU SOILS

6.1 Fill, Organic, Clay and Silt and Sand Soils

The fill, organic, in situ clay and silt and sand soils encountered at this site can be re-used as a non-structural finished surface outside of structural load influence zones. Structural load influence zones include, but are not limited to, soils supporting buildings, roadways and retaining walls.

6.2 Undisturbed In Situ Sand Soils

Subject to the geotechnical engineer's approval and possible additional test results, the in situ sand soils encountered at this site may be re-used for structural fill, subgrade fill, trench backfill above pipe zones and for general site grading purposes provided that:

- i) the soils are moisture conditioned to within three percent of optimum moisture content, placed in 300 mm loose lifts, and compacted in accordance with this report,
- ii) the soils, if used below structures, are used to elevations no higher than 300 mm below the undersides of buildings foundations and slabs, or top of subgrade.

7.0 TEMPORARY EXCAVATION AND GROUNDWATER CONSIDERATIONS

7.1 Groundwater

When measured on December 16, 2019, groundwater was encountered at the location of BH 6, at a depth of 3.6 m below the existing surface. Standpipes at BH 1, BH 2 and BH 3 were dry, and no groundwater seepage was encountered during the investigation. Although groundwater levels may vary on a seasonal basis, it is expected that groundwater should not impact the proposed constructions. In the event that water does eventuate into the excavation, it is expected that conventional sump pumps will be able to manage dewatering requirements for the site.

7.2 Temporary Excavation

Temporary excavated slopes can be made as steep as they can be safely maintained by the contractor provided they are in compliance with the current WorkSafe BC regulations and the project requirements. If unsure of the stability of the excavation side slopes, the contractor should engage the services of a geotechnical engineer to assure compliance with the WorkSafe BC guidelines. The recommendations made in this report are guidelines and are not intended to provide assurances of excavation safety during construction.

8.0 PRELIMINARY RECOMMENDATIONS FOR FOUNDATIONS AND GROUND PREPARATION FOR FOUNDATIONS

8.1 General Foundation Considerations

Strip and pad footings are recommended as the most appropriate foundation method for the proposed buildings. An allowable bearing capacity of 150 kPa can be used for building foundation design provided that all recommendations made in this report are adhered to. Irrespective of the allowable bearing capacity provided above, foundation elements, including those within the interior of the buildings, should be at least 450 mm in width for strip footings and should have plan dimensions of at least 750 mm for pad footings. Perimeter foundations should have their undersides at least 900 mm below finished exterior elevations, and foundations below interior, heated floors should have their undersides at least 600 mm below finished top of slab elevations. The structural engineer should be provided with this report to confirm project requirements.

The final civil, structural, architectural, landscaping and any other relevant design drawings should be provided to the geotechnical engineer prior to construction to ensure the recommendations provided in this report are still appropriate, or whether any subsequent/modified recommendation are required.

8.2 Exterior Concrete Structures

Exterior concrete structures, such as concrete sidewalks or retaining walls, should be constructed such that they are not rigidly connected to the proposed building, and may require a poly bond breaker in between. In the event that these structures are required to be rigidly connected to the buildings, the foundation soil preparation recommendations provided in this report should also be adhered to for these exterior structures.

8.3 Clay Removal

Although it is unlikely, the geotechnical engineer of record should immediately be made aware any clay encountered at locations that are supporting proposed building and/or retaining wall foundations. It is expected that these soils will be removed below structure in their entirety.

8.4 Ground Preparation for Foundation Soils

For good performance of the building foundations constructed at this site, the following foundation soil preparation procedures should be adhered to:

- a) Excavations for foundation soil preparation must conform to WorkSafe BC regulations and guidelines.
- b) Excavation should include the removal of all topsoil, fill, clay, loose, disturbed, soft, frozen and any other deleterious materials within a perimeter of the proposed structure footprints, to expose the in situ, undisturbed coarse-grained soils encountered at the site.

The excavation should be further continued to an elevation at least 300 mm below the underside of the proposed foundation elevations.

The outside edge at the base of excavation should extend outside all sides of the proposed structural foundation elements, including exterior deck column support foundations, by a horizontal distance of at least 1.0 m, or to a distance at least equal to the thickness of fill required between the base of excavation and underside of footing, whichever distance is greater.

In the event that foundations will be set at elevations above existing grades, the extents of the base of excavation should be further widened for a horizontal distance defined by the point of intersection between an imaginary line starting at least 2.0 m outside the perimeter footings and extending outside the building at a 2H:1V slope gradient, and the competent undisturbed granular materials.

A geotechnical engineer should be provided an opportunity to observe the base of excavation prior to proceeding with the engineered fill placement stage.

Any groundwater that eventuates into the excavation should be managed with a system of conventional sump pumps that drain to an approved location.

c) The base of excavation should be covered with import, clean (less than 7 percent passing the 0.075 mm sieve), well-graded and crushed 75 mm (-) sand and gravels, or with salvaged soils placed in accordance with this report, to an elevation no greater than 300 mm below the underside of foundation elevations. The upper 300 mm directly below foundations should be backfilled with the import 75 mm (-) sands and gravels. The engineered fill should be placed in 300 mm loose, horizontal lifts, moisture conditioned to within two percent of optimum moisture content, and compacted to 98 percent of maximum Modified Proctor dry Density (MPD) in accordance with ASTM D-1557.

Where trench excavations for utility installations will be located below base of interior and/or exterior foundation elevations they should be backfilled in accordance with the above recommendations prior to installing form-work for foundations. Alternatively, conduit can be installed prior to foundation constructions for later utility installs. Any utility installation should be done such no excavation will be required after foundation construction within a horizontal distance of the foundations that is equal to twice the vertical distance between the base of foundation and the utility line and/or conduit.

d) Foundation elements can be constructed on the above prepared surface.

e) Following the removal of the concrete foundation structure form-work, clean 75 mm (-) sands and gravels can be placed, moisture conditioned to within two percent of optimum moisture content and compacted in 300 mm loose lifts to 98 percent of MPD to an elevation at least 150 mm below the undersides of interior slabs. The upper 150 mm below interior slabs should consist of clean, 25 mm (-) sands and gravels or 25 mm fractured drain rock, that is moisture conditioned to within two percent of optimum moisture content and compacted to 98 percent of MPD.

Any utility services requiring installation below the undersides of the floor slabs should be installed during the above backfilling stage.

e) Concrete for slabs can be poured directly on the above prepared surface.

9.0 FROST PROTECTION

Adequate frost protection for structural foundations and non-heated slab-on-grades will require at least 900 mm of ground cover above foundations, at least 900 mm of non frost-susceptible soils below foundations or slabs, or the equivalent in Styrofoam insulation (R10 or better).

10.0 DRAINAGE

10.1 General Site Drainage

Finished outside ground surfaces should be graded such that surface water is directed away from and/or around, and not toward, the structures.

10.2 Roof Drainage

Roof drainage should be done in accordance with the current edition of the British Columbia Building Code.

The roof drainage should not connect to the perimeter foundation drainage under any circumstances.

10.3 Perimeter Foundation Drainage

The proposed structures should be provided with perimeter foundation drainage.

The following procedures should be adhered to for perimeter drainage construction:

- i) The perimeter drains should be 100 mm diameter rigid perforated PVC pipe.
- ii) The pipe should be set with perforations facing downwards on a non-woven geotextile filter fabric (Nilex 4535 or an approved equivalent), approximately 200 mm outside of foundation edges and at or below underside of foundation elevations. The pipe should be provided with adequate frost protection in accordance with Section 9.0 of this report.
- iii) The top and sides of the pipe should be covered with approximately 150 mm of washed and clean 25 mm drain rock. The pipe/drain rock combination

should be completely enclosed within the geotextile filter. Where it closes, the geotextile filter should overlap by at least 150 mm.

- iv) Where it leaves the foundation perimeter, the pipe should be connected to a 100 mm diameter rigid non-perforated PVC pipe and directed with positive downward drainage away from the structure to an approved, frost-free outlet.
- v) In no circumstances should the perimeter drain system be connected to the roof drain system.

11.0 TRENCH EXCAVATIONS AND BACKFILL RECOMMENDATIONS

Trench constructions must conform to WorkSafe BC regulations and guidelines.

In the event that the base of excavation becomes soft or weak, it should be removed and replaced with approved materials before proceeding with construction. The geotechnical engineer of record should be consulted for specific recommendations during the construction phase.

Specifications and methods related to trench backfill materials, construction methods and procedures, and quality assurance and control testing should conform with relevant City of Vernon bylaw specifications and this report.

12.0 ACCESS ROAD PAVEMENT STRUCTURE DESIGN

12.1 General

The paved access road pavement structure recommended below assumes that frost protection does not need to be fully addressed. Although the recommendations below are expected to provide good long-term performance, in the event that engineering assurances of performance for a specific design life must be provided, all fill should be removed and, if required, native in situ soils should be removed and replaced to a depth of at least 900 mm below finished access road surfaces, or alternative frost protection should be provided.

It is also noted that standard road structure design does not fully address potential stresses associated with shrinking/swelling clay subgrade soils. To fully remove this risk, it is expected that a significant portion of the clay soils would have to be removed and replaced.

The pavement structure design life assumes that a road maintenance program exists such that any asphalt cracks that eventuate are filled before the underlying road structure is damaged due to the introduction of moisture.

12.2 Pavement Structure Requirements

For the purposes of good long term performance, the following minimum pavement structure is recommended for the on site access road and parking areas used for the proposed residential development:

THICKNESS (mm)	MATERIAL
50	CoV Surface Course Hot Mix Asphalt
100	Cov 25 mm (-) Crushed Granular Base Course
400*	CoV 75 mm (-) Crushed Granular Subbase Course
	For Prepared Subgrade (See Section 12.3 below)

*300 is acceptable if upper 300 mm of subgrade surface consists of granular soils

12.3 Subgrade Preparation

a) Subgrade preparation should include the removal of all soft, loose, frozen, organic, non-engineered fill, and any other deleterious materials below travelled areas to expose the undisturbed in situ soils.

The horizontal extent of the excavated subgrade surface should be extended at least 600mm outside the edges of the proposed travelled areas, curb and gutter, and/or sidewalk. At locations where a road embankment must be constructed to support the roadway, the extents of the base of excavation should be further widened for a horizontal distance defined by an imaginary line extending outside the roadway, curb and gutter and/or sidewalk, at a 2H:1V slope gradient, until it intersects the competent undisturbed soils.

The exposed base of excavation should be observed by the geotechnical engineer to confirm a competent subgrade surface before proceeding with the next stage of construction.

b) Where excavation to levels that exceed the thickness requirements given in the above noted road structures are needed, backfill materials used to elevate the subgrade to the design elevation should consist of clean, well-graded 150 mm (minus) sands and gravels, or approved salvaged materials, that are moisture conditioned to within two percent of optimum moisture content and compacted in 300 mm loose lifts to at least 95 percent of MPD to the top of subgrade elevations.

c) The finished subgrade surface should be provided with a crown or cross fall gradient of at least three percent to allow efficient drainage toward the outer edges of the travelled surface areas of any moisture that may accumulate within the finished road structure.

d) It is recommended that the finished subgrade surface be inspected by the geotechnical engineer and possibly proof rolled in order to identify any soft or weak areas before placing subbase materials. Soft or weak areas should be excavated and replaced with clean, well-graded 150 mm (minus) sands and gravels compacted to at least 95 percent of MPD.

f) Fine-grained subgrade soils can be softened or weakened if they are subjected to excessive dynamic loading and construction traffic should avoid exposed subgrade surfaces as much as practicable, especially during and after recent rainfall. Construction traffic should not continue to travel on any surfaces that appear to be rolling due to pumping actions at the subgrade levels, and vibratory compaction should not continue in areas where pumping of the soils is occurring. The geotechnical engineer should be contacted immediately for advice if any of these phenomena become apparent.

12.4 Pavement Structure Material Constructions

Specifications and methods related to the pavement structure materials, construction methods and procedures, and quality assurance and control testing should conform with related City of Vernon bylaw specifications and this report.

12.5 Concrete Sidewalks, Curbs, and Gutters

Specifications related to concrete sidewalk, curb, and gutter materials, construction methods and procedures, and quality assurance and control should conform with relevant City of Vernon bylaw specifications and this report.

12.6 Drainage

During the construction phase, the site should be maintained in a well-drained condition throughout the construction to reduce the potential for damage to damp subgrade soils by construction traffic due to pumping actions in the subsoils and to prevent excessive erosion of the unfinished construction during storm events.

It is understood that the site will be provided with permanent storm water drainage control by use of curb and gutters and underground storm utility lines.

13.0 PERMANENT SITE GRADING SLOPES

Finished permanent cut and fill slopes should be constructed such that side slope gradients are 2.0H:1V or flatter, where feasible; otherwise retaining structures and/or soil reinforcement methods using geogrid and/or geotextiles may be required.

All fill materials placed against existing slopes with slope gradients steeper than 5H:1V should be done in accordance with MoTI construction specifications, which state that the construction shall be terraced in a continuous series of steps a minimum of 1.5 m wide as the embankment rises.

Finished slopes should be provided with erosion protection. Compaction requirements of earthen fill slopes will vary depending on application and location, and can be discussed with the geotechnical engineer during construction.

14.0 PRELIMINARY MODULAR BLOCK RETAINING WALL RECOMMENDATIONS

As outlined on the original Request for Proposal, and as shown on the Kerr Wood Leidal Associates Ltd. drawing set, the residential development includes several retaining walls, ranging between 1.2 m and 4.5 m in height, which may be gravity walls or cast-in-place concrete walls. The purposes of these walls are to support the Pleasant Valley Road embankment fills, east of the project site, or to support the on site access roadway.

Based on the intended uses, typical surcharge loads and limited room for geogrid lengths, it is recommended that cast-in-place concrete walls are the most suitable type of retaining walls used for these purposes. Gravity walls may be considered for limited use in areas with low wall heights and surcharges, and additional analysis would be needed to determine suitable configurations or locations in the event that they are selected. The lateral earth parameters provided in Section 5.2.5 of this report may be used for retaining wall design, as well as the bearing capacity and foundation soil preparation recommendations in Section 8.1.

15.0 CONCLUSIONS AND RECOMMENDATIONS

It is concluded that, from a geotechnical point of view, the proposed constructions are feasible subject to reviewing the final designs and provided the recommendations made in this report are followed.

It is recommended that:

- a) The items contained in Sections 6.0 to 14.0, inclusive, of this report are followed.
- b) The geotechnical engineer inspect all soils and soils related construction on the project to assure that:
 - i) all soils conditions are as good or better than those inferred in this report, and that
 - ii) all soils and soils related construction conforms to this report, designs provided, and appropriate specifications for the work.
- c) Any design(s) or other work for soils or for soils related structures connected with this project and prepared by others be submitted to the geotechnical engineer for review regarding conformity to the project requirements and intent of this report.

We trust that the contents of this report are appropriate for your immediate needs. If you should have any questions please call our office at your convenience.

Yours truly,
Fletcher Paine Associates Ltd.



Robert M. Scherz, P.Eng.
Geotechnical Engineer



Ryan C. Stearns, P.Eng.
Review Engineer

STATEMENT OF QUALIFICATIONS AND GENERAL CONDITIONS

1. Standard of Care

This report has been prepared in accordance with generally accepted geotechnical engineering practices in this area. No other warranty, expressed or implied, is made.

2. Basis of the Report

This report has been prepared for the specific site, design objective, development and purpose that was described to Fletcher Paine Associates Ltd. (FPA) by the client and summarized in this letter. The applicability and reliability of any of the findings, recommendations, suggestions, or opinions expressed in the report are only valid to the extent that there has been no material alteration to or variation from any of the said descriptions provided to FPA, unless FPA was specifically requested by the Client to review and revise the report in light of such alteration or variation.

3. Uses of the Report

The information and opinions expressed in this report are for the sole benefit of the Client. NO OTHER PARTY MAY USE OR RELY UPON THIS REPORT OR ANY PORTION THEREOF WITHOUT FPA'S EXPRESS WRITTEN CONSENT. FPA WILL CONSENT TO ANY REASONABLE REQUEST BY THE CLIENT TO APPROVE THE USE OF THIS REPORT BY OTHER PARTIES AS APPROVED USERS. The ownership and copyright of this report remain the property of FPA, who authorizes only the Client and Approved Users to make copies of the report, and only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell or otherwise make available the report or any portion thereof, or any copy of the report or portion thereof, to any other party without the express written permission of FPA.

4. Complete Report

The report is of a summary nature and is not intended to stand alone without reference to the instructions given to FPA by the Client, communications between FPA and the Client, and to any other reports prepared by FPA for the Client relative to the specific site described in the report.

IN ORDER TO PROPERLY UNDERSTAND THE SUGGESTIONS, RECOMMENDATIONS, AND OPINIONS EXPRESSED IN THE REPORT, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT. FPA CANNOT BE RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TO THE WHOLE REPORT.

5. Interpretation of the Report

a) Nature and Exactness of Soil Description: Classification and identification of soils, rocks, and geologic units have been based upon commonly accepted methods employed in professional geotechnical practice. This report contains descriptions of the systems and methods used. Where deviations from these systems have been used they are specifically mentioned. Classification and identification of the type and condition of soils, rocks and geologic units are judgmental in nature. Accordingly, FPA cannot warrant or guarantee the exactness of the descriptions of in situ ground conditions set forth in the Report.

b) Logs of Test Holes, Pits, Trenches, etc.: The test hole logs are a record of information obtained from field observations and laboratory testing of selected samples as well as an interpretation of the likely subsurface stratigraphy at the test holes sites. In some instances normal sampling procedures do not recover a complete or any sample. Soil, rock or geologic zones have been interpreted from the available data. The change from one zone to another, indicated on the logs as a distinct line, may be transitional. The same limitations apply to test pit and other logs.

c) Stratigraphic and Geologic Sections: The stratigraphic and geologic sections indicated on drawings contained in this report are interpreted from logs of test holes, test pits or other available information. Stratigraphy is inferred only at the locations of the test holes or pits to the extent indicated by items 5. a) and b) above. The actual geology and stratigraphy, particularly between these locations, may vary considerably from that shown on the drawings. Since natural variations in geologic conditions are inherent and a function of the historic site environment, FPA does not represent or warrant that the conditions illustrated are exact and the user of the report should recognize that variations may exist.

d) Groundwater Conditions: Groundwater conditions shown on logs of test holes and test pits, and/or given within the text of this report, record the observed conditions at the time of their measurement. Groundwater conditions may vary between test hole and test pit locations and can be affected by annual, seasonal, and special meteorological conditions, or by tidal conditions for sites near the seas. Groundwater conditions can also be altered by construction activity. These types of variation need to be considered in design and construction.

e) Changes of Exposed Ground: Many geologic materials deteriorate rapidly upon exposure to climatic elements. Deterioration may be caused by precipitation, sunshine and/or the action of frost. Therefore, site conditions may vary

considerably from the time of the making of the tests performed for preparation of the report and the time of actual construction.

f) **Influence of Construction Activity:** Construction activities can alter and damage the in situ ground conditions. The influence of all anticipated construction activities on the geologic environment should be considered in formulating and implementing the final design and construction techniques.

Wherever changes in the site occur after the preparation of the report or conditions are observed which indicate results clearly incompatible with the test results on which the report is based, the client and any other users of this report should notify FPA as soon as possible so that FPA will be able to provide necessary revisions to its report prior to any commencement of or alteration in design and construction.

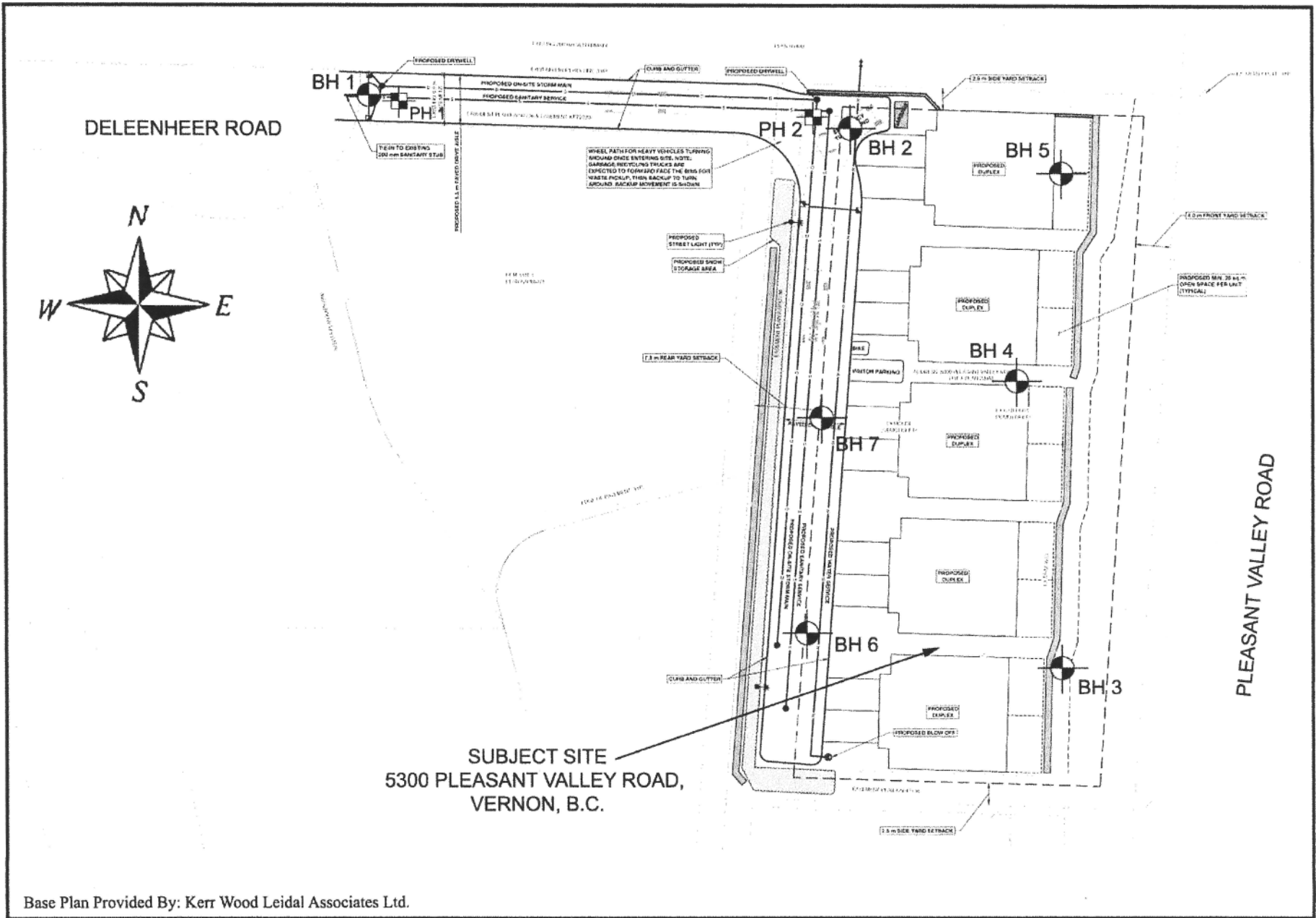
6. **Observations during Construction**

Observations of geologic conditions should be carried out during the site preparation, excavation and construction to verify the conditions predicted by the report. Such observations should be communicated to FPA to allow for confirmation and/or alteration of the geotechnical recommendations or design guidelines presented in the report.

Whenever changes in the site occur after the preparation of the report or conditions are observed which indicate results clearly incompatible with the test results on which the report is based, then the client should notify FPA as soon as possible so that FPA will be able to provide necessary revisions to its report prior to any commencement of or alteration in design and construction.

7. **Samples**

FPA normally disposes of all unused soil and rock samples after 90 days of completing the testing program for which the samples were obtained. Further storage or transfer of samples can be made at the owner's expense upon written request.



Borehole Location Plan

Figure: 6488-1

Date: 10-Dec-2019 Scale: nts

Record of Exploration - Borehole No. 1

Project No: 6588

Project: Residential Development - 5300 P.V.Road

Client: 0770910 BC Ltd.

Project Location: Vernon, B.C.

Borehole Location: See Figure 6588-1

Drilling Contractor: Mud Bay Drilling Ltd.

Drilling Date: December 10, 2019

Auger Size: 150 mm solid stem

SUBSURFACE PROFILE			SAMPLE		TESTING		Standpipe Data		
Approximate Elevation (m)	Depth (m)	Symbol	Description	Number	Sample Type	qu (kPa), p.p. disturbed		SDS Cone Penetration Test (blows/0.3m)	Moisture Content (%)
401.4	0		Ground Surface						
	0		TURF AND TOPSOIL					Standpipe Data December 16, 2019 dry	
	1		FILL mixture of topsoil, turf and clay, loose, brown, damp	1		250		● —	
	2		CLAY high plasticity, very stiff, brown, moist	2		250		●	
398.4	3		End of borehole at 3.0 m below ground surface.						
	4								
	5								
	6								
	7								
	8								
	9								
	10								

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This Record of Exploration forms a part of the report referenced by the above Fletcher Paine Associates Ltd. project number. It should not be read or interpreted on a stand-alone basis and dissemination of the information is limited as outlined in the referenced report.

Record of Exploration - Borehole No. 2

Project No: 6588

Project: Residential Development - 5300 P.V.Road

Client: 0770910 BC Ltd.

Project Location: Vernon, B.C.

Borehole Location: See Figure 6588-1

Drilling Contractor: Mud Bay Drilling Ltd.

Drilling Date: December 10, 2019

Auger Size: 150 mm solid stem

SUBSURFACE PROFILE			SAMPLE		TESTING					Standpipe Data							
Approximate Elevation (m)	Depth (m)	Symbol	Description	Number	Sample Type	qu (kPa), p.p. disturbed	SDS Cone Penetration Test (blows/0.3m)					Moisture Content (%)					
							10	30	50		70	90	10	30	50	70	90
407.8	0		Ground Surface														
407.5	0		TURF AND TOPSOIL														
	1		SAND AND SILT trace to some gravel, compact to very dense, brown, damp	1													
	2			2													
	3			3													
403.8	4		End of borehole at 4.0 m below ground surface due to drill rig refusal in dense soils.														
	5																
	6																
	7																
	8																
	9																
	10																

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Record of Exploration - Borehole No. 3

Project No: 6588

Project: Residential Development - 5300 P.V.Road

Client: 0770910 BC Ltd.

Project Location: Vernon, B.C.

Borehole Location: See Figure 6588-1

Drilling Contractor: Mud Bay Drilling Ltd.

Drilling Date: December 10, 2019

Auger Size: 150 mm solid stem

SUBSURFACE PROFILE			SAMPLE		TESTING					Standpipe Data									
Approximate Elevation (m)	Depth (m)	Symbol	Description	Number	Sample Type	qu (kPa), p.p. disturbed	SDS Cone Penetration Test (blows/0.3m)					Moisture Content (%)							
							10	30	50		70	90	10	30	50	70	90		
414.9	0		Ground Surface																
	0		SAND trace to some silt, trace to some gravel, compact to very dense, brown, dry to damp														Standpipe Data December 16, 2019 dry		
	1			1															
	2																		
	3																		
	4																		
	5																		
	6																		
	7																		
	8																		
406.7	8			6															
	9		End of borehole at 8.2 m below ground surface due to drill rig refusal in very dense soils.																
	10																		

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Record of Exploration - Borehole No. 4

Project No: 6588

Project: Residential Development - 5300 P.V.Road

Client: 0770910 BC Ltd.

Project Location: Vernon, B.C.

Borehole Location: See Figure 6588-1

Drilling Contractor: Mud Bay Drilling Ltd.

Drilling Date: December 10, 2019

Auger Size: 150 mm solid stem

SUBSURFACE PROFILE			SAMPLE		TESTING		Standpipe Data		
Approximate Elevation (m)	Depth (m)	Symbol	Description	Number	Sample Type	qu (kPa), p.p. disturbed		SDS Cone Penetration Test (blows/0.3m)	Moisture Content (%)
								10 30 50 70 90	10 30 50 70 90
410.9	0		Ground Surface						
409.1	0		SAND trace to some silt, trace to some gravel, compact to very dense, brown, dry				▲		
	1			1	■		▲	●	
	2		End of borehole at 1.8 m below ground surface due to drill rig refusal in very dense soils.						
	3		No groundwater seepage encountered.						
	4								
	5								
	6								
	7								
	8								
	9								
	10								

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Record of Exploration - Borehole No. 5

Project No: 6588

Project: Residential Development - 5300 P.V.Road

Client: 0770910 BC Ltd.

Project Location: Vernon, B.C.

Borehole Location: See Figure 6588-1

Drilling Contractor: Mud Bay Drilling Ltd.

Drilling Date: December 10, 2019

Auger Size: 150 mm solid stem

SUBSURFACE PROFILE			SAMPLE		TESTING					Standpipe Data								
Approximate Elevation (m)	Depth (m)	Symbol	Description	Number	Sample Type	qu (kPa), p.p. disturbed	SDS Cone Penetration Test (blows/0.3m)					Moisture Content (%)						
							10	30	50		70	90	10	30	50	70	90	
411.0	0		Ground Surface															
409.5	0	~	TURF AND TOPSOIL															
	1	▨	FILL topsoil mixed with sand, loose, black, damp															
	2	▩	SAND trace to some silt, trace to some gravel, compact to very dense, brown, dry to damp	1	▩													
404.9	3	▩																
	4	▩																
	6	▩																
	7		End of borehole at 6.1 m below ground surface. No groundwater seepage encountered.															
	8																	
	9																	
	10																	

Fletcher Paine Associates Ltd.
 2250 - 11th Avenue
 Vernon, B.C. V1T 7X8
 Ph. (250) 542-0377 Fax. (250) 542-1220
 Email: fletcherpaine@shawlink.ca

This Record of Exploration forms a part of the report referenced by the above Fletcher Paine Associates Ltd. project number. It should not be read or interpreted on a stand-alone basis and dissemination of the information is limited as outlined in the referenced report.

Record of Exploration - Borehole No. 6

Project No: 6588

Project: Residential Development - 5300 P.V.Road

Client: 0770910 BC Ltd.

Project Location: Vernon, B.C.

Borehole Location: See Figure 6588-1

Drilling Contractor: Mud Bay Drilling Ltd.

Drilling Date: December 10, 2019

Auger Size: 150 mm solid stem

SUBSURFACE PROFILE			SAMPLE		TESTING					Standpipe Data							
Approximate Elevation (m)	Depth (m)	Symbol	Description	Number	Sample Type	qu (kPa), p.p. disturbed	SDS Cone Penetration Test (blows/0.3m)					Moisture Content (%)					
							10	30	50		70	90	10	30	50	70	90
408.4	0		Ground Surface														
408.1	0		TURF AND TOPSOIL														
	1		SAND AND SILT trace to some gravel, compact to dense, brown, damp to wet	1													
	2		2.1 m - tree roots encountered	2													
	3																
	4			3													
	5																
402.3	6			4													
	7		End of borehole at 6.1 m below ground surface.														
	8																
	9																
	10																

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Record of Exploration - Borehole No. 7

Project No: 6588

Project: Residential Development - 5300 P.V.Road

Client: 0770910 BC Ltd.

Project Location: Vernon, B.C.

Borehole Location: See Figure 6588-1

Drilling Contractor: Mud Bay Drilling Ltd.

Drilling Date: December 10, 2019

Auger Size: 150 mm solid stem

SUBSURFACE PROFILE			SAMPLE		TESTING		Standpipe Data		
Approximate Elevation (m)	Depth (m)	Symbol	Description	Number	Sample Type	qu (kPa), p.p. disturbed		SDS Cone Penetration Test (blows/0.3m)	Moisture Content (%)
								10 30 50 70 90	10 30 50 70 90
408.1	0		Ground Surface						
407.8	0		TURF AND TOPSOIL						
407.5	0.5		FILL mixture of topsoil and sand, loose, brown, damp						
	1		SAND AND SILT trace to some gravel, compact to dense, brown, dry to damp	1					
	2			2					
	3								
404.4	3.7		End of borehole at 3.7 m below ground surface due to drill rig refusal in dense soils.						
	4		No groundwater seepage encountered.						
	5								
	6								
	7								
	8								
	9								
	10								

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This Record of Exploration forms a part of the report referenced by the above Fletcher Paine Associates Ltd. project number. It should not be read or interpreted on a stand-alone basis and dissemination of the information is limited as outlined in the referenced report.

GRAIN-SIZE DISTRIBUTION

ASTM C136 & C117

PROJECT: Residential Development - 5300 Pleasant Valley Rd

CLIENT: 0770910 BC Ltd.

SOURCE: Borehole 3

DATE: 10-Dec-2019


LOCATION: Vernon, B.C.

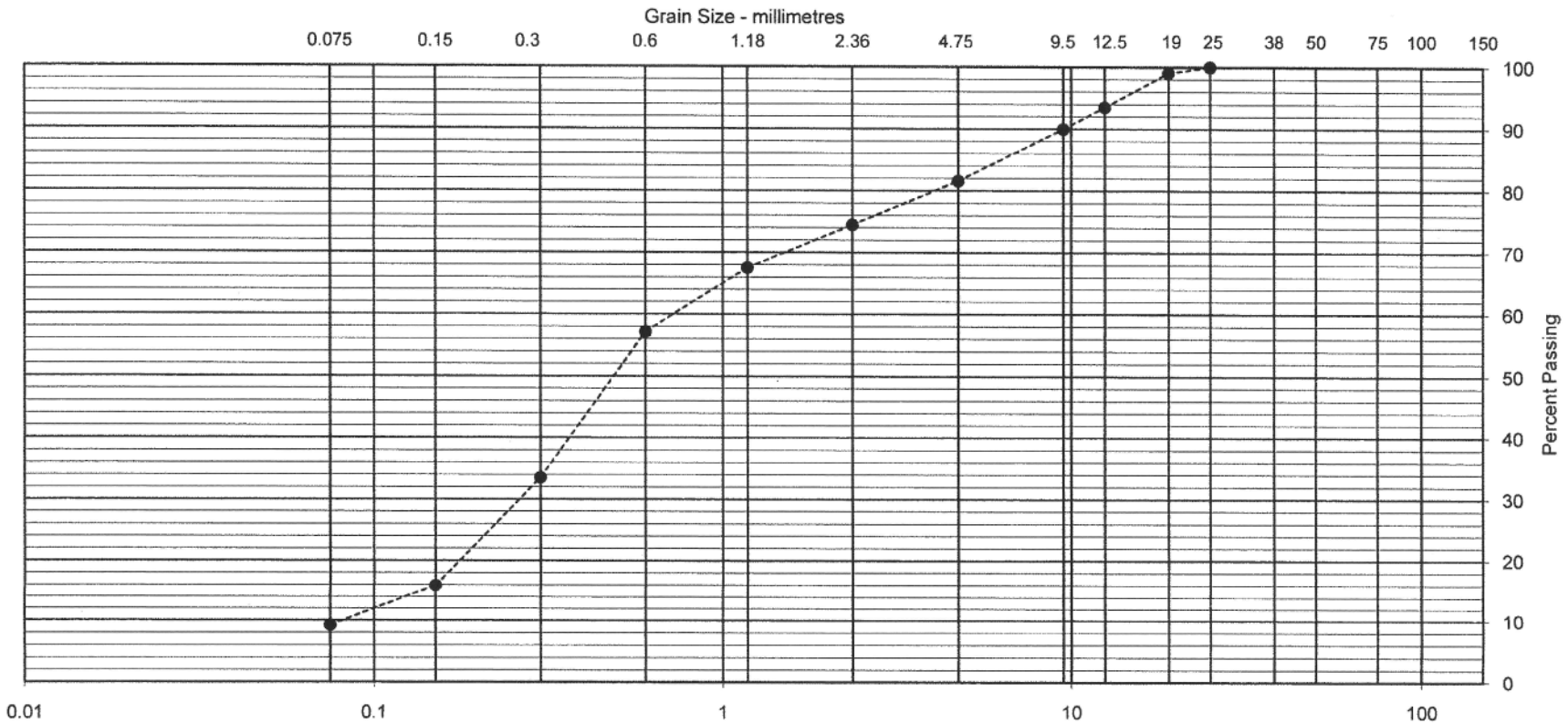
MATERIAL: Sand, some gravel, trace silt

Sampled By: RMS

Project No: 6588

GRADATION SPECIFICATIONS: No Specification

WASH ANALYSIS		LIMITS		WASH ANALYSIS		LIMITS		REMARKS:
SIEVE (mm)	% Passing	MIN. %	MAX. %	SIEVE (mm)	% Passing	MIN. %	MAX. %	
150				9.50	89.9			 _____ _____ - Sampled from Borehole 3, Sample 3, Depth 4.0 m _____ _____ _____
100				4.75	81.6			
75				2.36	74.5			
50				1.18	67.5			
38.0				0.600	57.1			
25.0	100			0.300	33.5			
19.0	99.0			0.150	15.9			
12.5	93.5			0.075	9.2			



Reporting of this test result constitutes testing services only. Engineering interpretation or evaluation of the test result is provided only upon written request. Data presented in this report is for the exclusive use of the Client listed above. F.P.A. will not take any responsibility for any unauthorized use.

GRAIN-SIZE DISTRIBUTION

ASTM C136 & C117

PROJECT: Residential Development - 5300 Pleasant Valley Rd

CLIENT: 0770910 BC Ltd.

SOURCE: Borehole 5

DATE: 10-Dec-2019


LOCATION: Vernon, B.C.

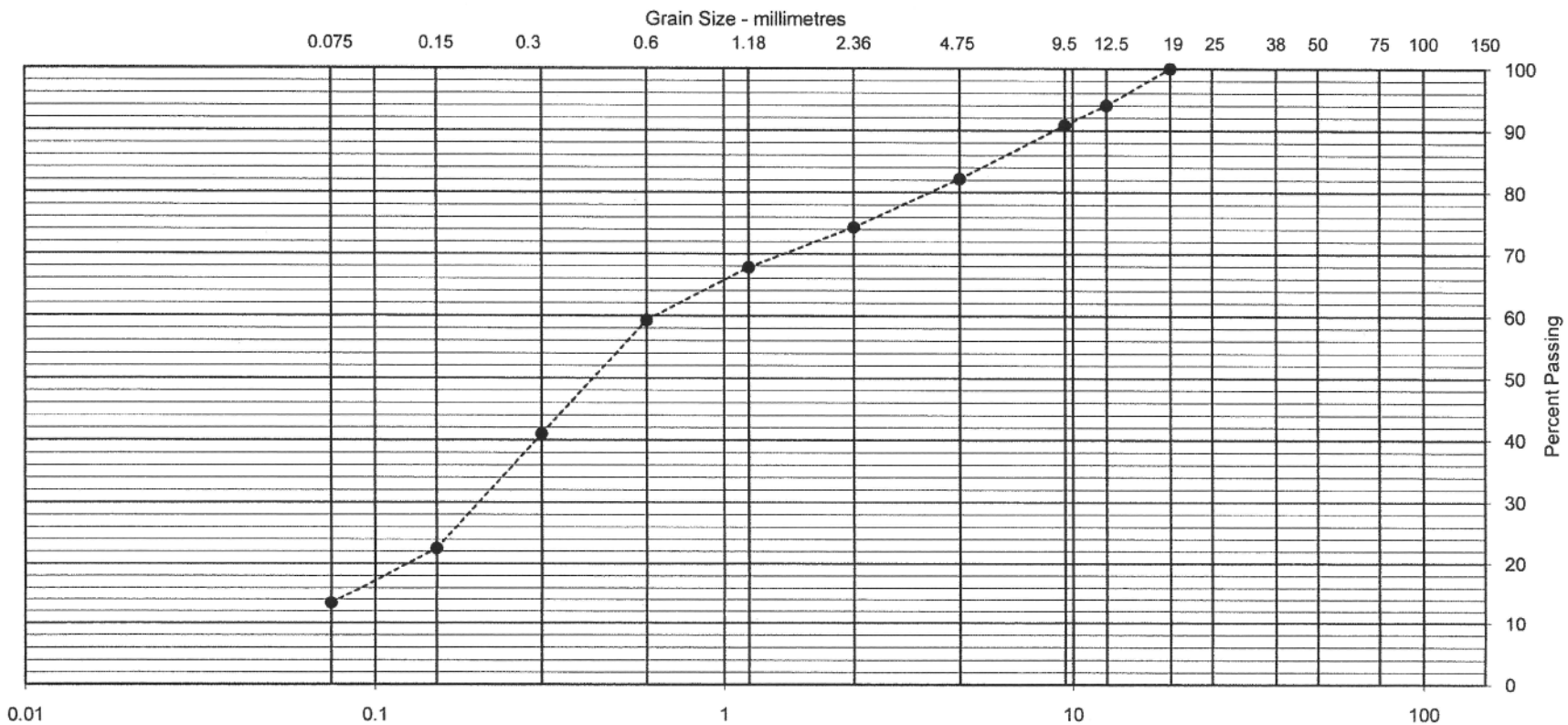
MATERIAL: Sand, some gravel, some silt

Sampled By: RMS

Project No: 6588

GRADATION SPECIFICATIONS: No Specification

WASH ANALYSIS		LIMITS		WASH ANALYSIS		LIMITS		REMARKS:
SIEVE (mm)	% Passing	MIN. %	MAX. %	SIEVE (mm)	% Passing	MIN. %	MAX. %	
150				9.50	90.8			 - Sampled from Borehole 5, Sample 2, Depth 3.7 m
100				4.75	82.2			
75				2.36	74.3			
50				1.18	67.8			
38.0				0.600	59.3			
25.0				0.300	41.0			
19.0	100			0.150	22.5			
12.5	94.0			0.075	13.4			



Reporting of this test result constitutes testing services only. Engineering interpretation or evaluation of the test result is provided only upon written request. Data presented in this report is for the exclusive use of the Client listed above. F.P.A. will not take any responsibility for any unauthorized use.

GRAIN-SIZE DISTRIBUTION

ASTM C136 & C117

PROJECT: Residential Development - 5300 Pleasant Valley Rd

CLIENT: 0770910 BC Ltd.

SOURCE: Borehole 7

DATE: 10-Dec-2019


LOCATION: Vernon, B.C.

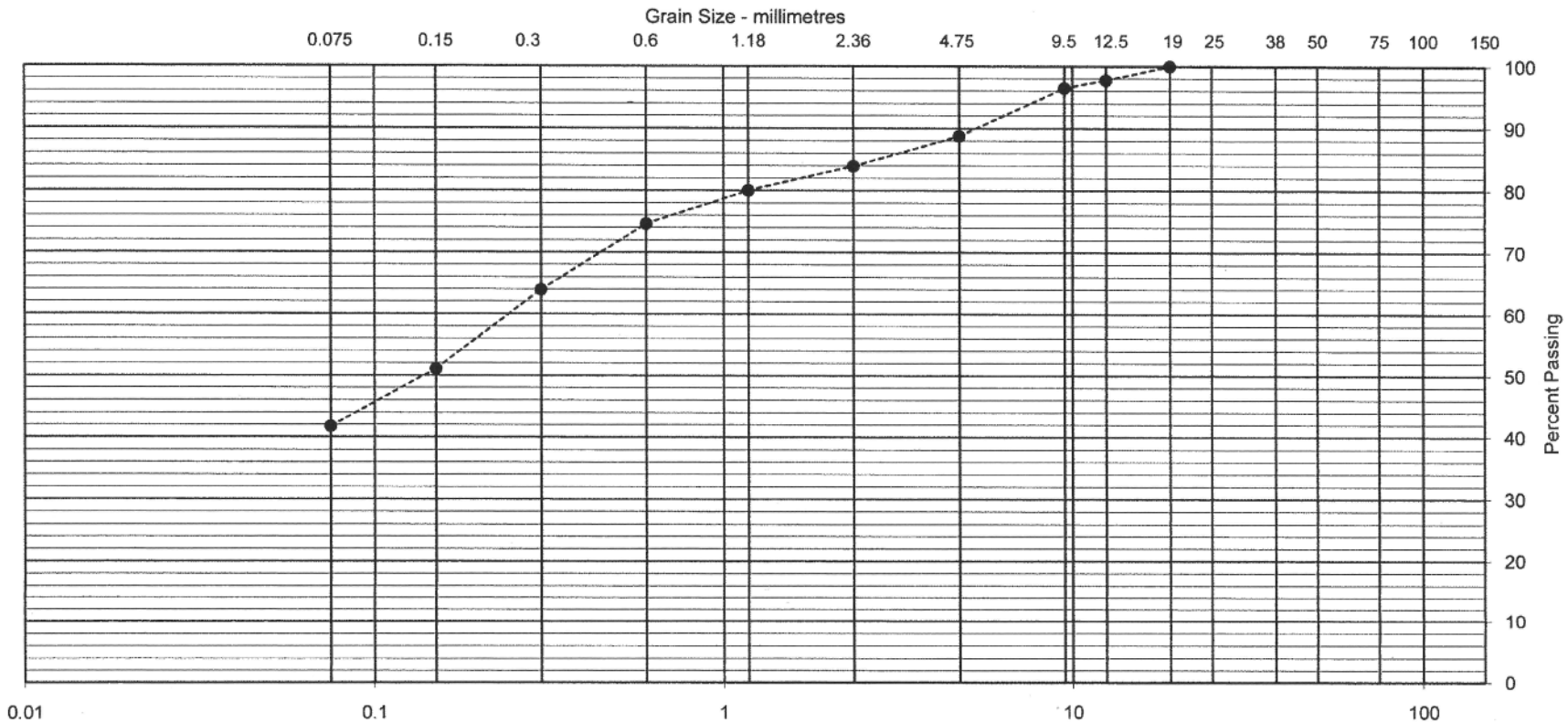
MATERIAL: Sand and Silt, some gravel

Sampled By: RMS

Project No: 6588

GRADATION SPECIFICATIONS: No Specification

WASH ANALYSIS		LIMITS		WASH ANALYSIS		LIMITS		REMARKS:
SIEVE (mm)	% Passing	MIN. %	MAX. %	SIEVE (mm)	% Passing	MIN. %	MAX. %	
150				9.50	96.5			 - Sampled from Borehole 7, Sample 1, Depth 1.2 m
100				4.75	88.7			
75				2.36	84.0			
50				1.18	80.0			
38.0				0.600	74.6			
25.0				0.300	63.9			
19.0	100			0.150	51.1			
12.5	97.7			0.075	41.7			



Reporting of this test result constitutes testing services only. Engineering interpretation or evaluation of the test result is provided only upon written request. Data presented in this report is for the exclusive use of the Client listed above. F.P.A. will not take any responsibility for any unauthorized use.

Project:	Residential Development 5300 Pleasant Valley Road	Project No:	6588
Client:	0770910 BC Ltd.	Test Hole Locations:	See Figure 6588-1
Project Location:	Vernon, B.C.	Test Date:	26-Nov-2019
Tested By:	RMS	Weather:	Sunny, ~-3°C

Table 6588-1
SUMMARY OF PERCOLATION RATES

(Percolation Test Procedures as per Appendix III-8.3.2 of BC Ministry of Health's "Sewerage System Standard Practice Manual, Version 3")

Test Location and Ground Elevation (m)	Soil Description	Percolation Test Depth (mm below existing surface)	Tested Percolation Rate (min / inch)
PH 1 at 401.5 m	Stiff Clay	600 mm	59
PH 2 at 407.3 m	Compact Sand and Silt	600 mm	12

- Data Presented in this report is for the exclusive use of the client listed above. FPA will not take any responsibility for any unauthorized use of this report.
 - Reporting of these test results constitute a testing services only. Engineering interpretation or evaluation of test results is provided only upon written request.

TERMS OF ENGAGEMENT

1. General

Fletcher Paine Associates Ltd. (FPA) shall render its services to the Client for this project with that degree of care, skill and diligence normally provided in the performance of services for projects of a similar nature to that contemplated.

In rendering services to the Client, FPA may, at its discretion and at any stage, engage subconsultants to FPA to carry out its duties and responsibilities as set forth.

2. Compensation

Charges for the services rendered will be made in accordance with our Schedule of Fees in effect at the time the work is performed. All charges will be made in, and will be payable in, Canadian Dollars. Invoices will be due and payable on receipt without holdback. A monthly service charge will be applicable to invoices remaining unpaid after 30 days.

3. Notices

FPA will designate a project manager who shall be responsible for the project. The Client shall designate an authorized representative to act with respect to the project.

4. Termination

Either party may terminate this engagement with cause upon seven (7) days notice in writing. The Client shall forthwith pay for all services performed, including all expenses and other charges payable that are associated with obligations incurred by FPA for this project.

5. Environment and Pollution

The FPA field investigation, laboratory testing and engineering recommendations are not intended to address or evaluate pollution of soil or pollution of groundwater. When practical, FPA will cooperate with the Client's environmental consultant during the field work phase of the investigation.

6. Professional Responsibility

FPA will provide the standards of care, skill and diligence normally provided by a Professional Engineer in the performance of engineering services as contemplated for this project.

7. Limitations of Liability

FPA shall not be responsible for:

- a) The failure of a Contractor to perform work in accordance with the relevant contract documents for the Project;
- b) The design of, or defects in, equipment provided by or on behalf of the Client by others, for incorporation into the Project;
- c) Any damage to subsurface structures or utilities; resulting from subsurface investigations for the Project;
- d) Any cross-contamination of ground or groundwater resulting from subsurface investigations for the Project;
- e) Any costs incurred for stopping the flow of artesian water from test holes in the event that such conditions are encountered during any field investigation for the Project;
- f) Any decisions made by the Client in relation to the Project that are inconsistent with, or contrary to, the advice provided by FPA;
- g) Any consequential loss, injury, or damages suffered by the Client, including but not limited to loss of use, loss of earnings, or business interruption;
- h) The distribution of any document or report prepared for the Client by or on behalf of FPA for the Project without express authorization by FPA.

Notwithstanding anything to the contrary, the aggregate liability of FPA, including liability for professional negligence and fundamental breach of contract, shall be limited to the lesser of \$50,000 or fees and shall be limited to a period of two years from completion of any services provided by FPA.

The Client's failure to accept the professional recommendations and advice of FPA with respect to the geotechnical conditions at the Project shall relieve FPA of and from any and all legal liability, whether in contract or in tort, to the Client for all manner of loss and damage accruing to the Client, including consequential loss and damage, which may arise out of the FPA services.

Page 1 of 2 Client or authorized representative initials: JKK

Fletcher Paine Associates Ltd.

8. Personal Liability

The Client agrees that FPA's principals and employees 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, and expressly agrees that it will bring no proceedings and take no action in any court of law against any of FPA's principals or employees in their personal capacities.

9. Third Party Liability

This report was prepared by FPA for the Client and the material presented in it reflects the opinions and judgements of FPA as based upon the information available at the time of its preparation. Any use(s) made of this report by a third party is/are the sole responsibility of such third parties. FPA will not accept any responsibility for damages suffered by any third party as a result of decisions made or actions taken that are ostensibly based upon this report. Any use or reliance upon this report by a third party must be authorized in writing by FPA.

10. Documents

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

11. Field Services

Where applicable, the field services recommended are the minimum necessary to ascertain that the Contractor's work is being carried out in general conformity with the intent of our recommendations. Any reduction from the level of services recommended will result in FPA providing qualified opinions regarding the adequacy of the work.

12. Confirmation of Professional Liability Insurance

As required by the Association of Professional Engineers and Geoscientists of British Columbia, it is required that our firm advise whether or not Professional Liability Insurance is held. It is also required that a space for you to acknowledge this information is provided. Accordingly, this notice serves to advise you that FPA carries professional liability insurance. If you wish to acknowledge receipt of this information please sign and return a copy of this form. By signing this document or by otherwise authorizing FPA to proceed with the work the client expressly accepts and agrees to be bound by these Terms of Engagement.

Acknowledged by:

Print Name:

John McKay
~~Client or authorized representative~~

Signature:

JOHN MCKAY

Date:

R5

9.6 R5 : Four-plex Housing Residential

9.6.1 Purpose

The purpose is to provide a **zone** for the **development** of a maximum of four ground oriented **dwelling** units in the form of **single detached, semi-detached, duplex, three-plex** or **four-plex housing** on urban services. The R5c sub-zoning district allows for **care centre, major** as an additional use. The R5h sub-zoning district allows for **home based business, major** as an additional use. *(Bylaw 5467)*

9.6.2 Primary Uses4

- **care centre, major** *(use is only permitted with the R5c sub-zoning district)*
- **duplex housing**
- **four-plex housing**
- **group home, major**
- **semi-detached housing**
- **single detached housing**
- **three-plex housing**
- **seniors housing**

9.6.3 Secondary Uses

- **boarding rooms**
- **care centres, minor**
- **home based businesses, minor**
- **home based businesses, major** *(in single detached housing only) (use is only permitted with the R5h sub-zoning district)*
- **secondary suites (in single detached housing only)**
- **seniors assisted housing**
- **seniors supportive housing**

9.6.4 Subdivision Regulations

- Minimum **lot width** is 20.0m, except it is 22.0m for a **corner lot**.
- Minimum **lot depth** is 30.0m.
- Minimum **lot width** for single detached housing is 14.0m, except it is 16.0m for a **corner lot**.
- Minimum **lot area** for single detached housing is 450m².
- Minimum **lot area** is 700m², except it is 800m² for a **corner lot**, or 10,000m² if not serviced by a **community sewer system**. *(Bylaw 5339)*

9.6.5 Party Wall Subdivision Regulations

Lot Type	Minimum Lot area		Minimum Lot Width	
	interior	corner	interior	corner
Semi-Detached Housing	350m ²	400m ²	10.0m	12.0m
Three-Plex Housing	235m ²	285m ²	7.0m	9.0m
Four-Plex Housing	175m ²	225m ²	7.0m	9.0m

9.6.6 Development Regulations

- Maximum **site coverage** is 40% and together with driveways, parking areas and **impermeable surfaces** shall not exceed 50%.

- Maximum **floor space ratio** is 0.6.
- Maximum **height** is the lesser of 10.0m or 2.5 **storeys**, except it is 4.5m for **secondary buildings** and **secondary structures**.
- Minimum **front yard** is 4.0m, except it is 6.0m for a garage or **carport** to the back of curb or sidewalk for a front entry garage, or it is 0.6m to the side of the garage and 2.6m to the front building façade for side-entry garage and driveway layouts.
- Minimum **side yard** is 2.0m for a 1 or 1.5 **storey** portion of a **building** or a **secondary building or structure** and 2.5m for a 2 or 2.5 **storey** portion of a **building**, except it is 4.0m from a **flanking street** unless there is a garage accessed from the **flanking street**, it is 4.0m or it is 2.6m to the building for a side-entry garage and driveway from a flanking street and at least 6.0m from the back of curb or sidewalk. Where there is no direct vehicular access to the **rear yard** or to an attached garage or **carport**, one **side yard** shall be at least 3.0m. The minimum **side yard** setback for shared interior **party walls** shall be 0.0m. The minimum **side yard** setback for **single detached housing** is 1.5m, except it is 4.0m from a **flanking street** unless there is a garage accessed from the **flanking street**, it is 4.0m or it is 2.6m to the building for a side-entry garage and driveway from a **flanking street** and at least 6.0m from the back of curb or sidewalk.
- Minimum **rear yard** is 6.0m for a 1 or 1.5 **storey** portion of a **building** and 7.5m for a 2 or 2.5 **storey** portion of a **building**, except it is 1.0m for **secondary buildings**.
- The maximum **height** of any vertical wall element facing a **front, flanking or rear yard** (including **walkout basements**) is the lesser of 6.5m or 2.5 **storeys**, above which the **building** must be **set back** at least 1.2m.
- Maximum **density** is 30 units per gross hectare (12 units/gross acre).
- Maximum four **dwelling** units located in a **building**, with each unit having a minimum width of 6.5m. (*Bylaw 5339*)

9.6.7 Other Regulations

- In order for bareland strata **developments** to be consistent with the character of the surrounding neighborhood, the strata plan shall be considered as one **site** for defining the overall use, **density** and **site coverage**.
- The above noted **subdivision** and **development** regulations shall be applied to each strata **lot** within the strata plan.
- A minimum area of 25m² of **private open space** shall be provided per **dwelling**.
- Where **development** has access to a rear **lane**, vehicular access to the **development** is only permitted from the rear **lane**.
- For **seniors assisted housing, seniors housing and seniors supportive housing**, a safe drop-off area for patrons shall be provided on the **site**.
- For strata developments, common recreation buildings, facilities and amenities may be included in the strata plan. Recreational buildings shall be treated as **secondary buildings** for the purpose of determining the **height** and **setbacks** of the **building** as specified in each **zone**.
- For multi-unit residential housing, one **office** may be operated for the sole purpose of the management and operation of the multi-unit residential **development**.
- In addition to the regulations listed above, other regulations may apply. These include the general **development** regulations of Section 4 (secondary **development, yards**, projections into **yards**, lighting, agricultural setbacks, etc.); the specific use regulations of Section 5; the **landscaping** and fencing provisions of Section 6; and, the parking and loading regulations of Section 7.
- As per Section 4.10.2 - All **buildings** and **structures, excluding perimeter fencing (garden walls and fences)** on **lots abutting** City Roads as identified on Schedule "B" shall not be sited closer to the City Road than the setback as per the appropriate zone measured from the offset Rights of Way as illustrated on Schedule "B". (*Bylaw 5440*)

4.15 Development Covenants

4.15.1 At the time of rezoning, prior to bylaw adoption, City Council may at its discretion require the property owner to register a covenant on the title of the property limiting the permitted uses and/or densities within the approved land use zones, so as to reflect the specific approved development plan.

4.16 Hillside Development Areas

4.16.1 Vernon's Official Community Plan (OCP) establishes Development Permit Areas (DPAs) for all areas within the City of Vernon. Vernon's Hillside Guidelines and Regulations Policy defines hillsides and provides Goals and Objectives for development of lands on hillsides and slopes under 30%. No construction of a building, structure or swimming pool is permitted on slopes 30% or greater.

4.16.2 No subdivision of land creating lots is permitted where less than 100m² of contiguous buildable area which meets all bylaw regulations herein for each lot is provided, with the exception of boundary lot adjustments.
(Bylaw 5433)

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).

Size

7.1.11 Each required on-site **parking space** shall conform to the following provisions, as illustrated in Diagram 7.1:

- except as provided below, each required on-site **parking space** shall be a minimum of 2.5m in width with a minimum clear length of 6.0m exclusive of access drives or aisles, ramps, columns. **Parking spaces** shall have a vertical **clearance** of at least 2.0m. For parallel parking, the length of the **parking spaces** shall be increased to 7.0m, except that an end space with an open end shall be a minimum of 5.5m. For **parking spaces** other than parallel **parking spaces**, up to 40% of the required **parking spaces** may be of a length shorter than that required above, to a minimum of 5.0m.
- where the **use** of a **parking space** or **accessible parking space** is limited on both sides by a wall or a column, the unobstructed width from face to face of the obstructions shall be the width of the **parking space** or **accessible parking space** increased by 0.5m, and if in this case, a **building** door opens into the **parking space** or **accessible parking space** on its long side, the unobstructed width of the **parking space** or **accessible parking space** increased by 0.8m. *(Bylaw 5787)*
- where the use of a **parking space** or **accessible parking space** is limited to one side by a wall or a column, the unobstructed width of the **parking space** or **accessible parking space** shall be increased by 0.2m, and if in this case, a **building** door opens into the **parking space** or **accessible parking space** on its long side, the unobstructed width shall be increased by 0.5m. *(Bylaw 5787)*
- **parking spaces** for oversized **vehicles** shall be a minimum of 4.0m in width with a minimum clear length of 12.0m exclusive of access drives or aisles, ramps, columns. Oversized **parking spaces** shall have a vertical **clearance** of at least 4.0m. *(Bylaw 5787)*
- **accessible parking spaces** shall be a minimum 2.6m in width and minimum 6.0m in length if perpendicular or angled, or 7.0m in length if parallel; *(Bylaw 5787)*
- Perpendicular or angled **accessible parking spaces** shall provide a 2.0m side aisle that may be shared between two **accessible parking spaces** located beside each other, and shall be marked with diagonal pavement markings; *(Bylaw 5787)*
- Parallel **accessible parking spaces** shall provide a 2.0m rear access aisle marked with diagonal pavement markings; *(Bylaw 5787)*
- boat launch **vehicle** and trailer **parking spaces** shall be a minimum of 3.0m in width and a minimum of 12.0m in length.

7.1.12 Aisles shall be a minimum of 7.0m wide for all two-way aisles and for all 90° parking. One-way aisles shall be 5.5m wide for 60° parking, and 3.6m wide for 45° parking and 3.5m wide for parallel parking. For aisles associated with the

Maintenance

- 14.5 A person may not use or *occupy* a swimming *pool*, including a spa or hot tub unless the *owner* or *occupier* of property on or in which a *pool*, spa or hot tub is located maintains every fence or cover required under sections 14.2 to 14.4 in good order. and without limitation maintains and repairs in good order at all times all sagging gates, loose parts, torn mesh, missing materials, worn latches, locks or broken or binding members.

Leaks or Other Failures

- 14.6 A person may not obtain a valid and subsisting *building permit* for or use or *occupy* a swimming *pool* without first delivering to the *building official* at the time of the *building permit* application an opinion of a *registered professional* that the *design* of the *pool* will not cause or result in leaks or other failures of the *pool*.

PART 15: ENERGY CONSERVATION AND GHG EMISSION REDUCTION

- 15.1 In relation to the conservation of energy and the reduction of GHG emissions, the City of Vernon incorporates by reference the Step Code as outlined in the Building Code in accordance with Section 15.2 and 15.3.
- 15.2 A building regulated by Part 3 of the Building Code must be designed and constructed to meet the minimum performance requirements specified in
- a) Step 1 of the Step Code as of July 1, 2022 for all Part 3 Buildings.
- 15.3 A building regulated by Part 9 of the Building Code, of new residential construction, must be designed and constructed to meet the minimum performance requirements specified in
- a) Step 1 of the Step Code as of January 10, 2022 for all Part 9 residential buildings;
 - b) Step 3 of the Step Code as of January 1, 2023 for all Part 9 residential buildings.

PART 16: ACCESS ROUTE FOR FIRE VEHICLE

- 16.1 Prior to the issuance of a *building permit* for a *simple building* of multi-family or commercial occupancy under Part 9 of the *building code*, the *owner* must satisfy the *building official* that the *building* or *structure* for which the *permit* is issued will be served by a fire access route that satisfies the following:

- (a) the width of an access route must be not less than 6.0 meters;
- (b) the centerline radius of an access route must be 12.0 meters;
- (c) the overhead clearance of an access route must be 5.0 meters;
- (d) the gradient of the access route must not change more than 1 in 12.5 over a minimum distance of 15.0 meters;
- (e) the access route must comply with the bearing load and surface material standards of the City's Subdivision and Development Servicing Bylaw, as amended or replaced from time to time; and
- (f) the length above which a dead-end portion of an access route requires turnaround facilities is 90.0 meters.

PART 17: OFFENCES

Violations

- 17.1 Without limiting Part 4 of this bylaw, every person who
- (a) violates a provision of this bylaw;
 - (b) *permits*, suffers or allows any act to be done in violation of any provision of this bylaw; and
 - (c) neglects to do anything required to be done under any provision of this bylaw,
- commits an offence and on summary conviction by a court of competent jurisdiction, the person is subject to a fine of not more than \$10,000.00, or a term of imprisonment not exceeding three months, or both, in addition to the costs of prosecution. Each day during which a violation, contravention or breach of this bylaw continues is deemed to be a separate offence.
- 17.2 Every person who fails to comply with any order or notice issued by a *building official*, or who allows a violation of this bylaw to continue, contravenes this bylaw.
- 17.3 Every person who commences work requiring a *building permit* without first obtaining such a *permit* must, if a Stop Work notice is issued and remains outstanding for 30 days, pay an additional charge as outlined in the City bylaws.



Okanagan
202 - 3334 30th Avenue
Vernon, BC V1T 2C8
T 250 503 0841
F 250 503 0847

Technical Memorandum

DATE: September 9, 2022

TO: Matt Faucher, Current Planner
City of Vernon

FROM: Bruce Van Calsteren, P.L.Eng., ASCT

RE: **Multi-Family Development - 5300 Pleasant Valley Road**
Access Variance Permit
Our File 3710.001-300

Kerr Wood Leidal Associates (KWL) has been retained by Company 0770910 BC Ltd. (Owner) to assist with development of 5300 Pleasant Valley Road (Lot A, Plan 23988, SEC 11, TP 8, ODYD). The following information is provided in response to the City's Referral Review letter dated August 8th, 2022 for Development Permit DP00971 and Development Variance Permit DVP00573.

Access Variance Through Easement KF72370

An existing easement (Easement KF72370) in favour of the development property is registered on 1700 Deleenheer Road (Lot 1 Section 11 TP 8 ODYD Strata Plan KAS2280) granting construction of a private roadway for vehicle and pedestrian access from Deleenheer Road to the development property. The easement is 6.0 m wide, and the proposed development requires a development variance permit to reduce the required 7.0 m drive aisle and 6.0 m fire access route paved widths, to 5.5 m through the easement.

Once onsite the drive aisle width transitions to 7.0 m wide along the building frontages to accommodate 90-degree parking in driveways. A hammerhead turnaround is provided at the north end of the drive aisle for heavy vehicles (refuse trucks or fire trucks) to turn around prior to exiting along the easement.

Fire Access

The proposed fire access route meets fire access route design requirements outlined in the City's Building Bylaw #5900 and BC Building Code, Division B, Part 3, Section 3.2.5.6 with the exception of the 5.5 m paved access through the easement. Additionally, it does not meet the City's Fire and Rescue Services' request to accommodate access for drive through or turn around of an aerial apparatus fire truck. The following solutions are proposed to address fire access and firefighting within the development:

Buildings:

1. Minimum building separation of 2.4 m.
2. Sprinkler systems in all buildings.
3. Building exteriors consisting of fire-resistant materials such as stucco.



Fire Access Route and Firefighting:

1. A proposed on-site fire hydrant located near the entrance to the property provides a maximum unobstructed distance of 60 m from the hydrant to the front of the furthest duplex unit.
2. A proposed hammerhead turnaround on-site reduces the maximum access route length to 70 m.
3. 'No parking' signs will be posted along the fire access route through the easement and along the drive aisle on-site.
4. The 5.5 m paved width within the easement provides sufficient width for a standard pumper fire truck axle width of approximately 3.2 m to drive down the easement.
5. There are no structures adjacent to the access route along the easement and it is landscaped beyond the curbing to provide a 6.0 m wide obstruction free width.
6. BC Building code fire access route design requirements of 6.0 m clear width can be reduced if lesser widths are satisfactory as per Section 3.2.5.6 1) a).

Vehicle Access

The proposed access drive aisle meets vehicular access design requirements outlined in the City's Zoning Bylaw #5000 with the exception of the 5.5 m paved access aisle through the easement. The proposed reduced paved access aisle does meet the City's typical section, Standard Drawing Number 100-3 (attached) for a Residential Lane. A visitor vehicle turnaround stall is located between the last two units to provide opportunity for visitors to turnaround if all driveways and the visitor parking stalls are full.

We trust this meet the needs of the development permit application. If further information is needed, please contact Bruce Van Calsteren:

Email: bvancalsteren@kwj.ca
Office: (250) 503-5802
Cell: (250) 308-6844

KERR WOOD LEIDAL ASSOCIATES LTD.

Prepared by:

Bruce Van Calsteren, P.L.Eng., ASCT
Project Manager

BV/tdl

Encl.: CoV Standard Drawing Number 100-3

Reviewed by:



Mark Forsyth, P.Eng.
Senior Reviewer



Statement of Limitations

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This document represents KWL's best professional judgement based on the information available at the time of its completion and as appropriate for the project scope of work. Services performed in developing the content of this document have been conducted in a manner consistent with that level and skill ordinarily exercised by members of the engineering profession currently practising under similar conditions. No warranty, express or implied, is made.

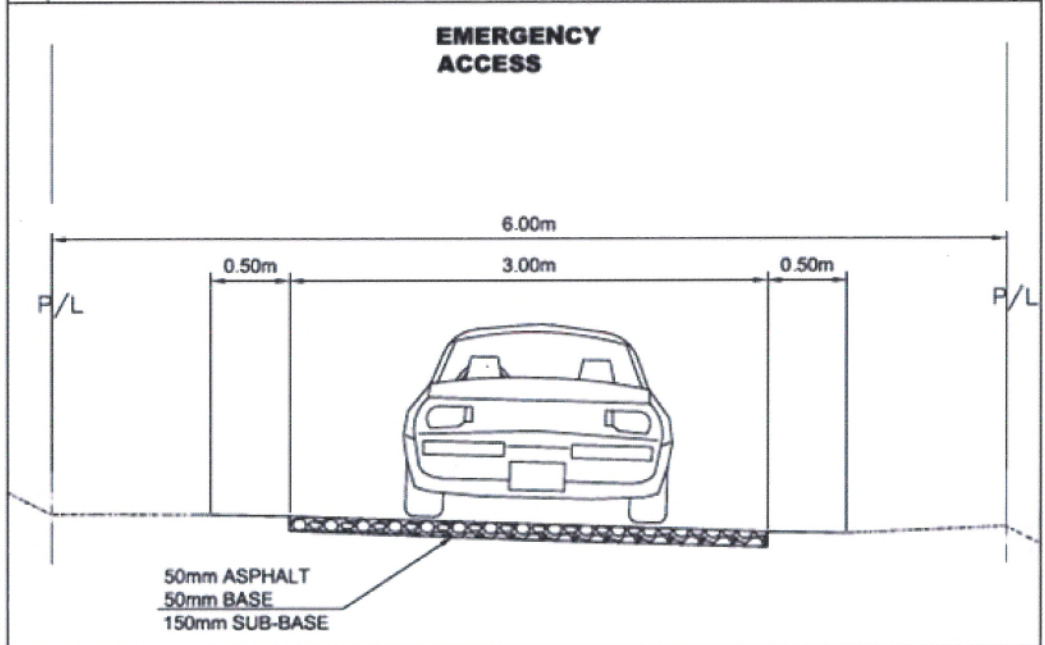
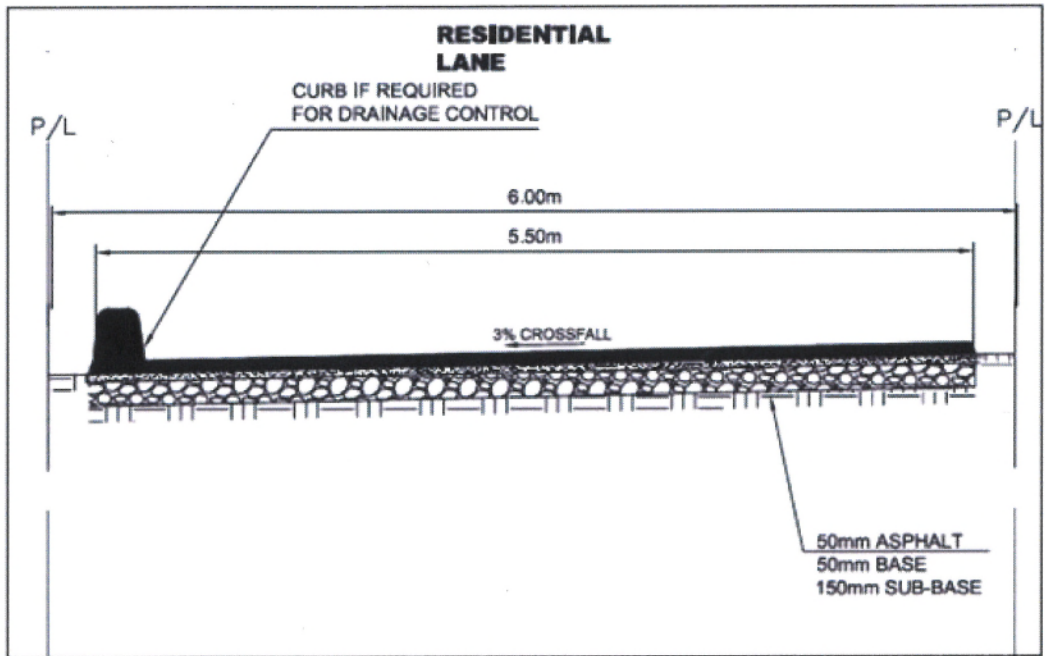
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Revision History

Revision #	Date	Status	Revision Description	Author
1	2022-09-10	FINAL	Issued for Development Permit Approval	BV

Proudly certified as a leader in quality management under Engineers and Geoscientists BC's OQM Program from 2013 to 2021.



	TITLE TYPICAL LANE & EMERGENCY ACCESS			
	DRAWN	DATE	SCALE NTS	DWG. No. 100-3
REVISIONS				



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: March 13, 2023
REPORT DATE: February 9, 2023
FILE: 3090-20 (DVP00580)

SUBJECT: DEVELOPMENT VARIANCE PERMIT APPLICATION FOR 7373 BROOKS LANE

PURPOSE:

To review a development variance permit application to increase fence height within a front yard area and combined retaining wall/fence height along a side lot line.

RECOMMENDATION:

THAT Council approve Development Variance Permit 00580 (DVP00580) to vary Zoning Bylaw 5000 for Common Property Strata Plan KAS3991 (7373 Brooks Lane) as outlined in the report titled "Development Variance Permit Application for 7373 Brooks Lane" dated February 9, 2023 and respectfully submitted by the Current Planner, by increasing:

- a) Section 6.5.1.i, height of a fence within a front yard, from 1.2m (4ft) to 1.93m (6.3ft); and
- b) Section 6.5.12, combined height of a fence on top of a retaining wall, behind the front yard along the east property line, from 2m (6.4ft) to 2.8m (9.1ft) at the south end and to 3.6m (11.7ft) at the north end;

AND FURTHER, that Council's approval of DVP00580 is subject to the following:

- a) That the fencing complies with the site plan (Attachment 1), fencing design (Attachment 2) and east side elevation (Attachment 3), to be attached to and form part of DVP00580;
- b) That the fencing not be located within the Riparian Assessment Area;
- c) That fire rescue services be provided with emergency access to the main gate; and
- d) That the main gate be a slide gate and not swing open into the public right of way.

Note: The recommendation includes a condition that the fencing design, along the side yards behind the front yard area, be the same as the fencing design within the front yard. This means that a 3ft high solid stucco wall on the bottom and 3ft high black metal pickets/rail on top would be required as opposed to a 4ft high solid stucco wall on the bottom and 2ft high black metal pickets/rails on top as proposed by the Strata owners. This would reduce the visual block to residents on either side of the subject property.

ALTERNATIVES & IMPLICATIONS:

1. THAT Council approve Development Variance Permit 00580 (DVP00580) to vary Zoning Bylaw 5000 for Common Property Strata Plan KAS3991 (7373 Brooks Lane) as outlined in the report titled "Development Variance Permit Application for 7373 Brooks Lane" dated February 9, 2023 and respectfully submitted by the Current Planner, by increasing:

- a) Section 6.5.1.i, height of a fence within a front yard, from 1.2m (4ft) to 1.93m (6.3ft); and
- b) Section 6.5.12, combined height of a fence on top of a retaining wall, behind the front yard along the east property line, from 2m (6.4ft) to 2.8m (9.1ft) at the south end and to 3.6m (11.7ft) at the north end;

AND FURTHER, that Council's approval of DVP00580 is subject to the following:

- a) That the fencing complies with the site plan (Attachment 1) and east side elevation (Attachment 3), to be attached to and form part of DVP00580;
- b) That the fencing complies with the fencing design (Attachment 2), to be attached to and form part of DVP00580, except that, behind the front yard, the fencing design would be a 4ft high solid stucco wall on the bottom and 2ft high black metal pickets/rails on top;
- c) That the fencing not be located within the Riparian Assessment Area;
- d) That fire rescue services be provided with emergency access to the main gate; and
- e) That the main gate be a slide gate and not swing open into the public right of way.

Note: Consistent with the proposal, Alternative 1 would allow the Strata owners to construct, along the side yards behind the front yard area, a 4ft high solid stucco wall on the bottom and 2ft high black metal pickets/rail on top. This would create a greater visual block to residents on either side of the subject property.

- 2. THAT Council deny Development Variance Permit 00580 (DVP00580) to vary Zoning Bylaw 5000 for Common Property Strata Plan (7373 Brooks Lane) as outlined in the report titled "Development Variance Permit Application for 7373 Brooks Lane" dated February 9, 2023 and respectfully submitted by the Current Planner, to increase;
 - a) Section 6.5.1.i, height of a fence within a front yard, from 1.2m (4ft) to 1.93m (6.3ft); and
 - b) Section 6.5.12, combined height of a fence on top of a retaining wall, behind the front yard along the east property line, from 2m (6.4ft) to 2.8m (9.1ft) at the south end and to 3.6m (11.7ft) at the north end.

Note: Denial of the variance would require the owner to modify the proposed fencing to comply with the height restriction of 1.2m (4ft) within the front yard and 2.0m elsewhere.

ANALYSIS:

A. Committee Recommendations:

At its meeting of February 14, 2023, the Advisory Planning Committee passed the following resolution:

"(to be cited by the Advisory Planning Committee)."

B. Rationale:

1. The subject property is located at 7373 Brooks Lane, two properties south of The Strand (Figures 1 and 2). The property consists of 18 strata units, with a mix of single detached and semi-detached housing.
2. The Strata owners have applied for a development variance permit to increase the height of proposed fencing along the front and side property lines as follows:

- from 1.2m (4ft) to 1.93m (6.3ft) along the front property line and down the west side lot line within the front yard area; and
- from 2m (6.4ft) to 2.8m (9.1ft) at the south end and to 3.6m (11.7ft) at the north end for a combined height of a fence on top of a retaining wall along the east side lot line (Attachments 1 – 4).

3. The main reasons the Strata is asking to build a higher fence is for security from transient traffic and to improve the aesthetics of the development from the street.

4. Fencing and retaining wall heights on private property are regulated under Zoning Bylaw 5000, Section 6 Landscape Screening, Section 6.5 Fencing and Retaining Walls (Attachment 5). Regulations limit fence height to 1.2m (4ft) within a front yard area. The property zoning (C10a – Tourist Commercial and Residential) has a minimum front yard of 4.5m (14.8ft) which means that fencing along the front and side lot lines, within the 4.5m deep front yard, must not exceed 1.2m (4ft) in height. Fencing constructed behind the front yard area can be as high as 2m (6.4ft). In the case of a fence being constructed on top of a retaining wall, its combined height can not exceed 2m (6.4ft) measured from the grade on the lower side, as shown in Figure 3.

5. Along the front and side property lines within the front yard area, the fencing design consists of 8ft wide sections interrupted by 1.3ft wide stone-clad posts (Figure 4 and Attachments 2 and 4). The fence would be 6ft high and the posts 6.3ft high. The fencing sections would comprise a 3ft high solid stucco wall on the bottom with 3ft high black metal pickets/rails on top. There would be a service gate located on the east side for both pedestrian and vehicle access. The main entrance gate would be located in the middle of the frontage, with two 16ft wide gates that slide to the left and right. The gate would take approximately 12 seconds to open from when the sensor detects a vehicle or pedestrian entering or exiting.



Figure 1: Property Location Map



Figure 2: Aerial View of Property

6. The fencing design, behind the front yard and along the side property lines, would be similar to what is proposed within the front yard. The difference is that a 4ft high solid stucco wall is proposed on the bottom and 2ft high black metal pickets/rails on top (as opposed to a 3ft high solid stucco wall on the bottom and 3ft high black metal pickets/rails on top). A height variance is not needed along the west property line as the fence sections are 1.83m (6ft) high and the posts are 1.93m (6.3ft) high, less than the maximum 2m (6.4ft) height restriction. However, the proposal requires a height variance along the east property line as the combined height of the existing retaining wall with the fence on top is 2.8m (9.1ft) at the south end and to 3.6m (11.7ft) at the north end, greater than the maximum 2m (6.4m) height restriction (Attachment 4).

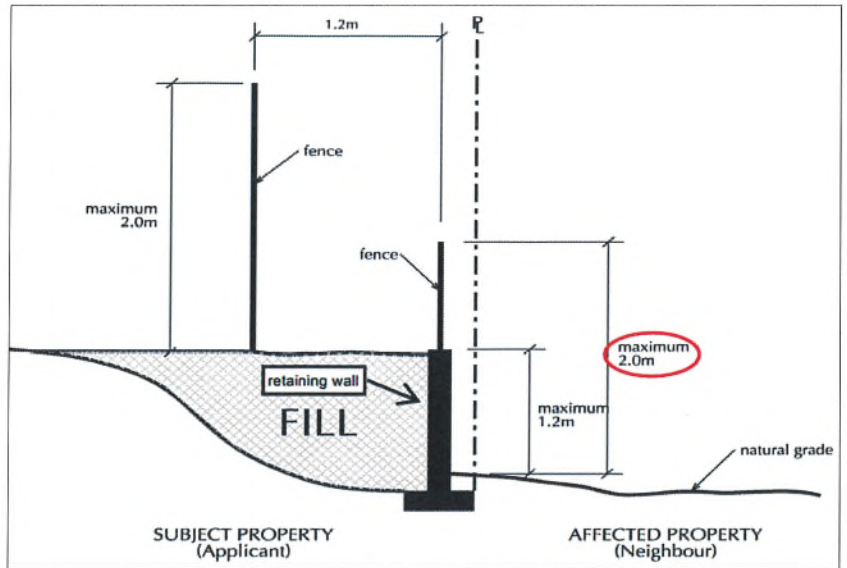


Figure 3: Combined Height of Retaining Wall and Fence

7. Brooks Lane currently acts as a shared road/multi-use path; however, a future multi-use path (MUP) is planned along the frontage of the subject property. In consultation with Administration, improvements have been made to the original fencing design to improve visibility and safety for MUP users including the addition of pickets and narrowing of posts. The strata corporation is also prepared to provide fire and emergency services with access to the main gate.



Figure 4: Proposed Fence Design in Front Yard

8. Attachment 4 (Photos) show the existing fencing and retaining walls along the front and east property line and the proposed height in comparison. With respect to new fencing along the front property line, the proposed height is not significantly greater than what currently exists. Front yard fencing of other properties along Brooks Lane is substantially higher than what is being proposed for the subject property.

9. Due to the sloping nature and elevated grade of the subject property, there is a significant difference in the finished grade between the subject property and 7349 Brooks Lane to the east. The property at 7349 Brooks Lane is about 4.75m lower (Attachment 4). This means that any proposed fencing erected at the finished grade of the subject property must include, within the maximum 2m allowance, the height of the existing retaining wall. In order to comply with this, the maximum height of a fence that the Strata could build would be 1ft-3in high without a variance. If Council supports the recommendation in this report, the height of the solid portion of the fence at the rear would be approximately in line with the existing fence. The pickets would extend about 3ft above the existing fence and approximately 2ft above the existing lattice.

10. Administration supports the fence height variance requests for the following reasons:

- a) New uniform fencing along the front and side lot lines may improve the aesthetics of the property from the street;

- b) Under the fencing regulations, the owner could build a solid 4ft high fence within the front yard area along the front and side property lines. The supported design (3ft solid on the bottom and 3ft pickets/rail on top) is better from a visibility and safety standpoint;
- c) The existing retaining wall along the east property line represents a safety hazard as someone could potentially fall 6ft down off the retaining wall into the neighbouring property. Erecting a fence on top of the retaining wall would prevent this; and
- d) The proposed fence height seems fitting for the size of the existing development and height of surrounding buildings.

C. Attachments:

- Attachment 1: Site Plan
- Attachment 2: Fencing Design
- Attachment 3: East Side Elevation
- Attachment 4: Photos
- Attachment 5: Fencing Regulations

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.

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).

BUDGET/RESOURCE IMPLICATIONS:

N/A

Prepared by:

Approved for submission to Council:

X _____
Michelle Austin
Current Planner

Patricia Bridal, CAO

Date: _____

X

Kim Flick
Director, Community Infrastructure and Development

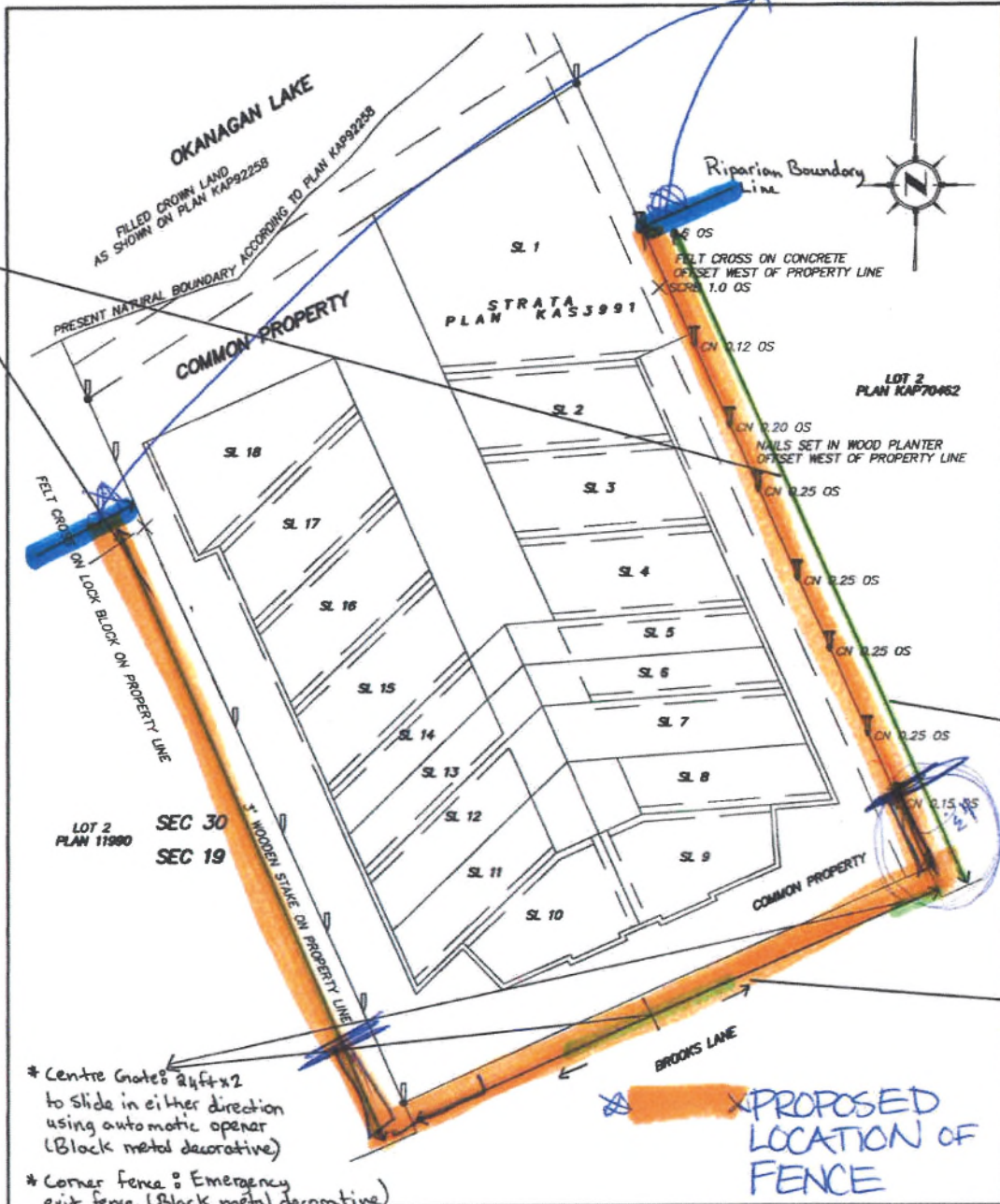
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<input type="checkbox"/> Bylaw Compliance	<input type="checkbox"/> Public Works/Airport	<input type="checkbox"/> Long Range Planning & Sustainability
<input type="checkbox"/> Real Estate	<input type="checkbox"/> Facilities	<input type="checkbox"/> Building & Licensing
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<input type="checkbox"/> Human Resources	<input type="checkbox"/> Parks	<input checked="" type="checkbox"/> Transportation
<input type="checkbox"/> Financial Services		<input type="checkbox"/> Economic Development & Tourism
<input checked="" type="checkbox"/> COMMITTEE: APC (Feb. 14/23)		
<input type="checkbox"/> OTHER:		

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Please Note s
Shows repair
be no fence int

onwards towards
Shore line

Green Highlight
- Shows fence posts and corners
- colour to match houses
- precast concrete caps
- Next page shows replica fence for reference



Riparian Boundary Line

Section 1. (Final page shows picture for elaboration)

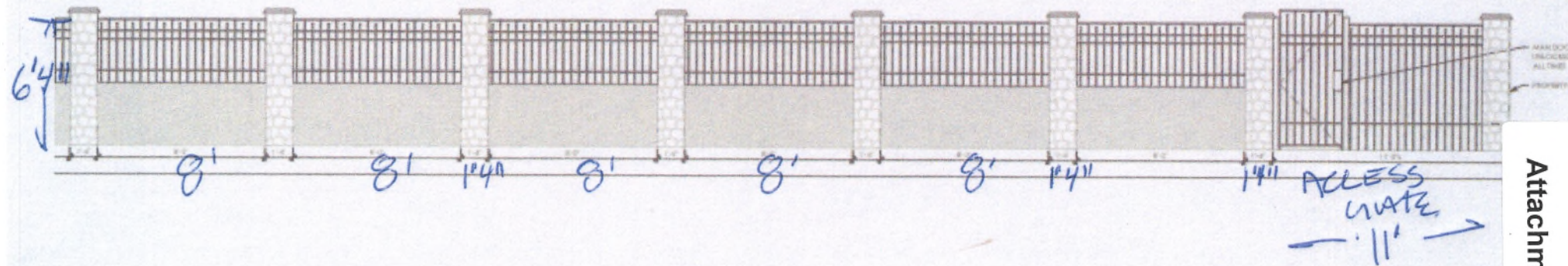
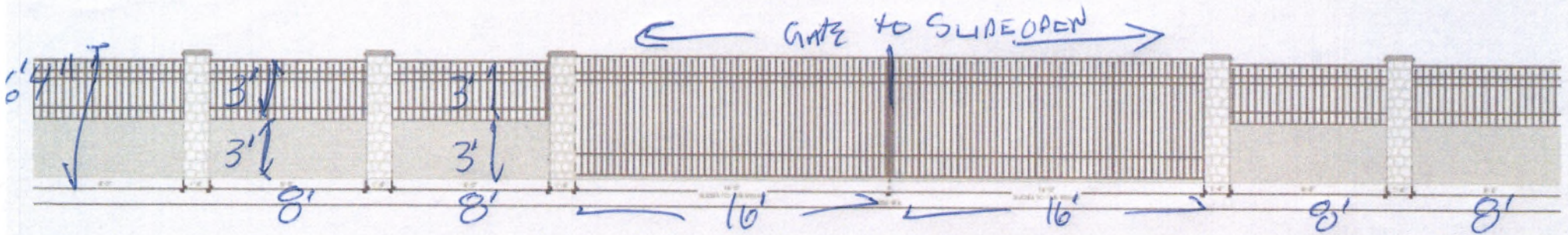
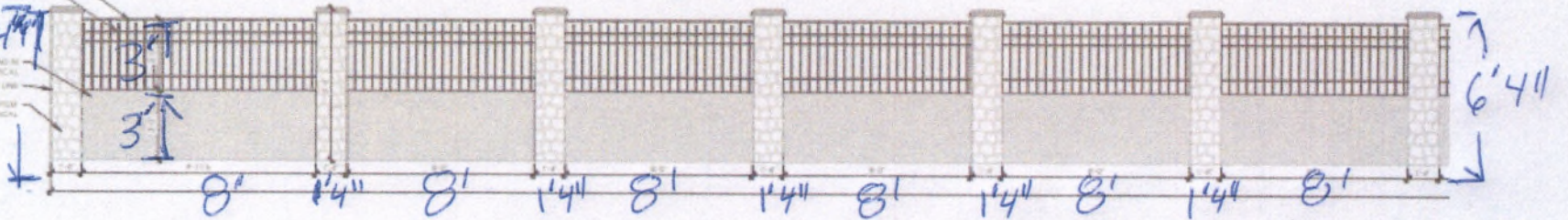
* Centre Gate: 24ft x 2 to slide in either direction using automatic opener (Black metal decorative)
* Corner fence: Emergency exit fence (Black metal decorative)

Yellow highlight
- Masonry work on Posts
- Show bottom 3ft corners
- Black decorative top 3ft
* Next Page shows replica fence for reference

<p>PROPERTY LINE STAKING SKETCH</p> <p>10m 0m 10m 20m 30m</p> <p>SCALE: 1:500</p> <p>THE INTENDED PLOT SIZE OF THIS PLAN IS 280mm IN WIDTH BY 432mm IN HEIGHT (B SIZE) WHEN PLOTTED AT A SCALE OF 1:500</p> <p>CIVIC ADDRESS: 7373 BROOKS LANE, VERNON BC</p> <p>LEGAL DESCRIPTION: PART OF LOT A SECTIONS 19 AND 30 TOWNSHIP 9 OSOYOOS DIVISION YALE DISTRICT PLAN KAP92258</p>	<p>LEGEND</p> <p>↓ DENOTES NAIL SET IN WOOD PLANTER OFFSET (OS) FROM PROPERTY LINE LABELED IN METERS</p> <p>! DENOTES 3" WOOD STAKE SET</p> <p>● DENOTES STANDARD IRON PIN FOUND</p> <p>× DENOTES FELT CROSS ON CONCRETE</p> <p>THIS PLAN WAS PREPARED FOR THE EXCLUSIVE USE OF TUSCAN TERRACES.</p> <p>THIS DOCUMENT SHALL NOT BE USED TO DEFINE PROPERTY LINES OR PROPERTY CORNERS.</p> <p>MONASHEE SURVEYING AND GEOMATICS, 2020. ALL RIGHTS RESERVED.</p> <p>MONASHEE SURVEYING AND GEOMATICS ACCEPT NO RESPONSIBILITY FOR AND HEREBY DISCLAIM ALL OBLIGATIONS AND LIABILITIES FOR DAMAGES INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, SPECIAL, AND CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH ANY DIRECT OR INDIRECT USE OR RELIANCE UPON THE PLAN BEYOND ITS INTENDED USE.</p>	<p>SURVEYED BY: DT/SG AUG 07 2020</p> <p>DRAFTED BY: SC AUG 10 2020</p> <p>CHECKED BY: RT AUG 10 2020</p> <table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>DRAWING: 7.375 C.3D BASE.dwg</p> <p>MONASHEE SURVEYING - GEOMATICS</p> <p>3710A 28th Street Vernon, B.C. V1T 9K2 Tel. (250) 545 6900 Fax (250) 545 6912</p> <p>SHEET 1 OF 1 SHEETS</p>	REV	DATE	BY									
	REV	DATE	BY											

SITE PLAN (NTS)

BLACK METAL
 POLISHED FINISH
 BLACK METAL ELECTRICAL
 BARS TYPICAL
 6' 4" 1/2
 3'
 3'
 MAIN LEAD IN
 ELECTRICAL PANEL
 PERMITTED LINE
 600V CAPACITY
 TYPICAL

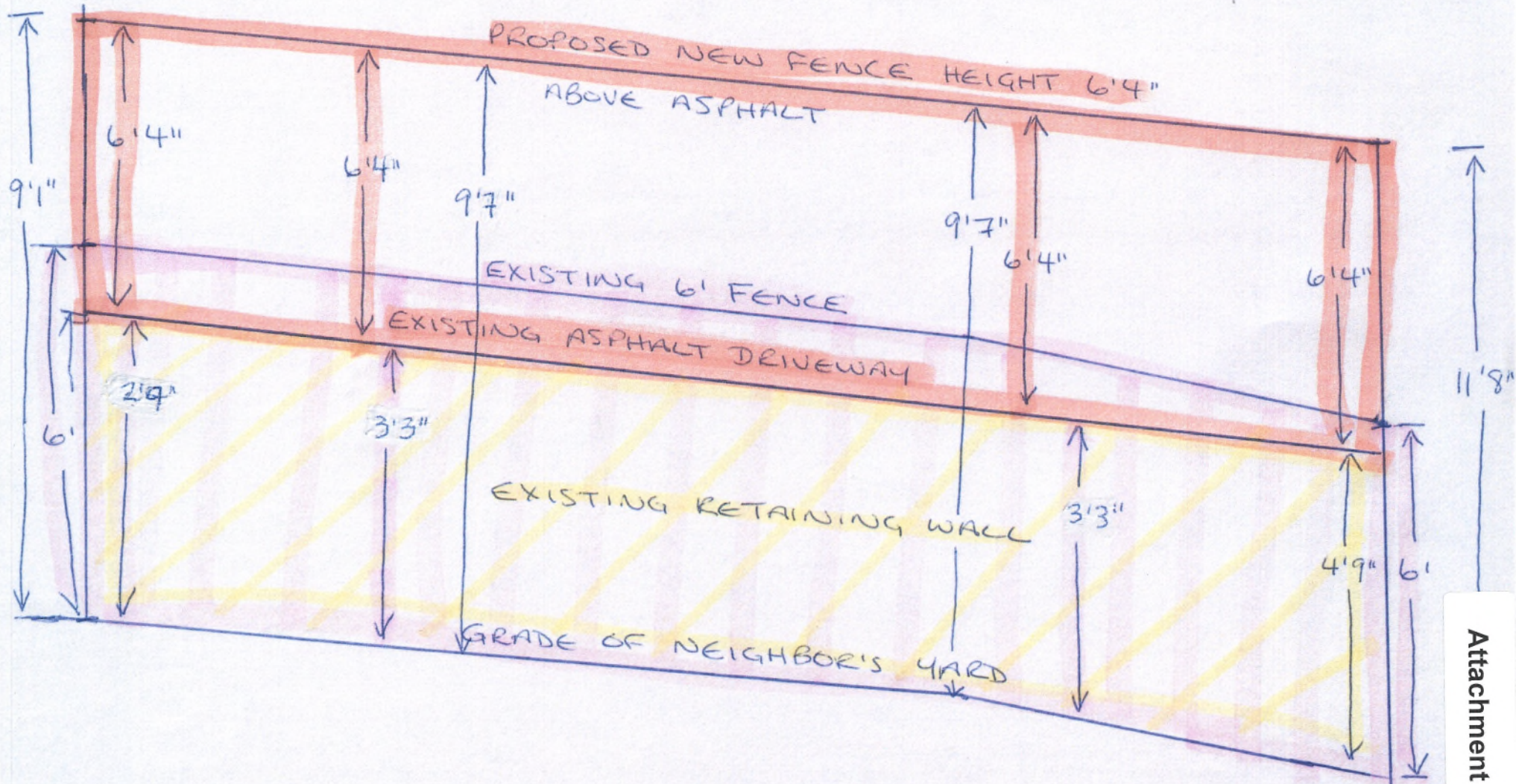


Attachment 2

EAST SIDE PROPERTY ELEVATION

← BROOKS
LANE

LAKE →



Attachment 3



Photo 1: Photo Locations



Photo 2: Existing fence and pillars compared to proposed fence heights along front



Photo 3: Existing fence compared to proposed fence height at east front corner



Photo 4: Existing driveway access from Brooks Lane



Photo 5: Existing pathway using Brooks Lane



Photo 6: Existing retaining wall/fencing at rear (NE corner) between 7373 & 7349 Brooks Lane



Photo 7: Retaining wall height at rear (NE corner) between 7373 & 7349 Brooks Lane



Photo 8: Proposed fence height at rear (NE corner) between 7373 & 7349 Brooks Lane

6.4 Urban Plazas

- 6.4.1 Urban plazas, when permitted pursuant to Section 6.6, must be solely for pedestrian **use** and accessible to the public from both the **street** and from the **development**.
- 6.4.2 The minimum plaza **street** frontage is 6.0m.
- 6.4.3 The minimum plaza depth is 4.0m.
- 6.4.4 For any urban plazas in lieu of a **landscape buffer**, the following are minimum requirements:
- all **hard surface** areas shall **use** a decorative paving surface;
 - a minimum of two benches for public seating shall be provided;
 - a minimum of 3 trees, with a minimum 65mm **caliper** and rootball of 900mm, shall be provided; and,
 - pedestrian and decorative lighting must be provided.

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

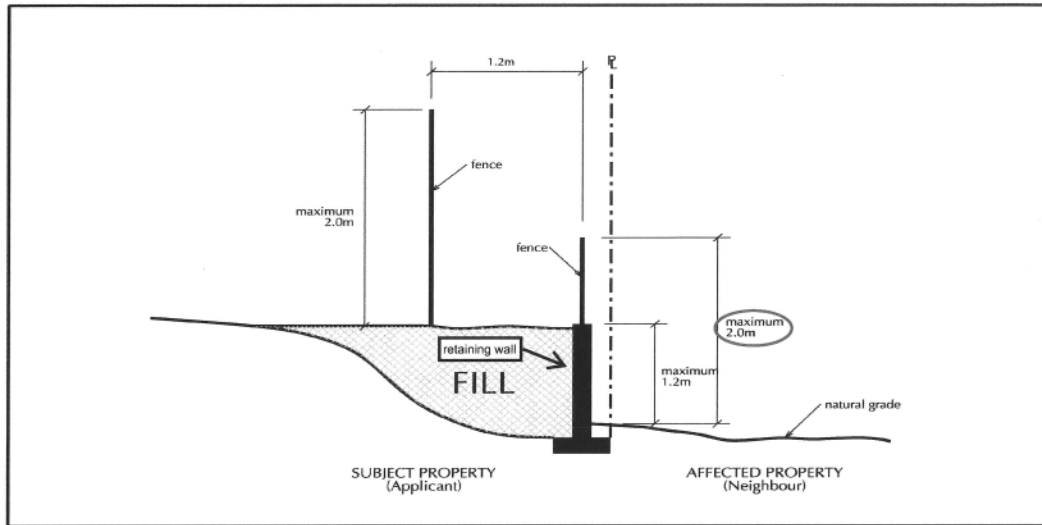
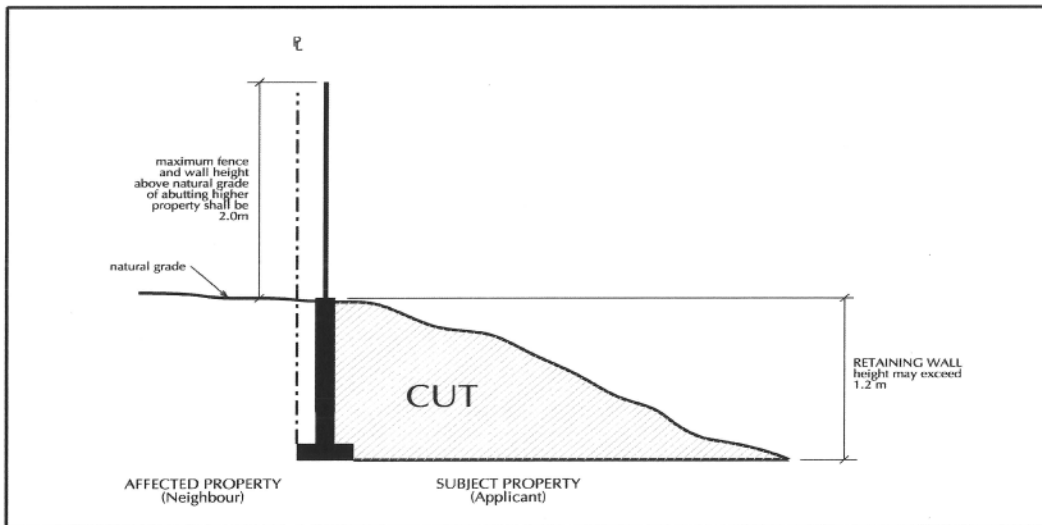


Diagram 6.2



6.6 Minimum Landscape Buffers

6.6.1 **Landscape buffers** are intended to improve land use compatibility and environmental quality by reducing noise, lighting glare and other **nuisances**, or facilitating natural drainage and wildlife movement.



THE CORPORATION OF THE CITY OF VERNON REPORT TO COUNCIL

SUBMITTED BY: Michelle Austin
Planner, Current Planning

COUNCIL MEETING: REG COW I/C
COUNCIL MEETING DATE: February 27, 2023
REPORT DATE: February 9, 2023
FILE: 3360-20 (ZON00379) / 3090-20 (DVP00591)

SUBJECT: ZONING AND DEVELOPMENT VARIANCE PERMIT APPLICATIONS FOR 2206 32ND STREET

PURPOSE:

To present for Council's consideration zoning and development variance permit applications for the properties located at 2206 32nd Street in order to construct a semi-detached building.

RECOMMENDATION:

THAT Council support Zoning Application 00379 (ZON00379) to rezone Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) from R2 – Large Lot Residential to RM1 – Row Housing Residential as outlined in the report titled "Zoning and Development Variance Permit Applications for 2206 32nd Street" dated February 9, 2023 and respectfully submitted by the Current Planner;

AND FURTHER, that Council's support of ZON00379 is subject to the following:

- a) That road dedication on Highway 97 be provided to satisfy the Ministry of Transportation;

AND FURTHER, that Council not hold a public hearing, pursuant to 464(2) of the *Local Government Act*, on a proposed bylaw to rezone Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) from R2 – Large Lot Residential to RM1 – Row Housing Residential;

AND FURTHER, that Council direct Administration to issue a public notice of initial readings and prepare a proposed bylaw to be brought forward for Council's consideration at the Regular Meeting of March 27, 2023 to rezone Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) from R2 – Large Lot Residential to RM1 – Row Housing Residential;

AND FURTHER, that Council be advised that Development Variance Permit Application 00591 (DVP00591) will be brought forward for Council's consideration and public input at the Regular Meeting of March 27, 2023, to vary Zoning Bylaw 5000 for Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) by:

- a) Decreasing Section 9.10.6, minimum unit width for semi-detached housing units, from 7.5m to 5.96m;
- b) Varying Table 6.1, minimum landscape buffer schedule for the RM1 zone, for the side yards from "Level 1 (1.5m)" to "0m with a fence", except that a 1.5m landscape buffer is required along the side yards adjacent to the proposed parking stalls; and
- c) Varying Table 6.1, minimum landscape buffer schedule for the RM1 zone, for the rear yard from "Level 2 (1.5m with a fence)" to "0m without a fence";

AND FURTHER, that issuance of DVP00591 is subject to the following:

- a) That a detailed landscape plan, including an estimate for works to be completed, be provided to the satisfaction of Administration; and
- b) That security in the amount of 125% of the landscape estimate be provided to the City to be held until the works are complete and a satisfactory landscaping inspection has been completed by Administration.

ALTERNATIVES & IMPLICATIONS:

1. THAT Council support Zoning Application 00379 (ZON00379) to rezone Lot 11 and 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) from R2 – Large Lot Residential to RM1 – Row Housing Residential as outlined in the report titled “Zoning and Development Variance Permit Applications for 2206 32nd Street” dated February 9, 2023 and respectfully submitted by the Current Planner;

AND FURTHER, that Council’s support of ZON00379 is subject to the following:

- a) That road dedication on Highway 97 be provided to satisfy the Ministry of Transportation;

AND FURTHER, that Council hold a public hearing, pursuant to 464(1) of the *Local Government Act*, on a proposed bylaw to rezone Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) from R2 – Large Lot Residential to RM1 – Row Housing Residential;

AND FURTHER, that Council be advised that Development Variance Permit Application 00591 (DVP00591) will be brought forward for Council’s consideration and public input, on the same date as the public hearing, to vary Zoning Bylaw 5000 for Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) by:

- a) Decreasing Section 9.10.6, minimum unit width for semi-detached housing units, from 7.5m to 5.96m;
- b) Varying Table 6.1, minimum landscape buffer schedule for the RM1 zone, for the side yards from “Level 1 (1.5m)” to “0m with a fence”, except that a 1.5m landscape buffer is required along the side yards adjacent to the proposed parking stalls; and
- c) Varying Table 6.1, minimum landscape buffer schedule for the RM1 zone, for the rear yard from “Level 2 (1.5m with a fence)” to “0m without a fence”;

AND FURTHER, that issuance of DVP00591 is subject to the following:

- a) That a detailed landscape plan, including an estimate for works to be completed, be provided to the satisfaction of Administration; and
- b) That security in the amount of 125% of the landscape estimate be provided to the City to be held until the works are complete and a satisfactory landscaping inspection has been completed by Administration.

Note: This alternative allows the public to make representations to Council on the proposed bylaw.

2. THAT Council not support Zoning Application 00379 (ZON00379) to rezone Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) from R2 – Large Lot Residential to RM1 – Row Housing

Residential as outlined in the report titled “Zoning and Development Variance Permit Applications for 2206 32nd Street” dated February 9, 2023 and respectfully submitted by the Current Planner;

AND FURTHER, that Council not support Development Variance Permit Application 00591 (DVP00591) to vary Zoning Bylaw 5000 for Lot 11 and Lot 12, Blk 2, DL 73, ODYD, Plan 225 (2206 32nd Street) to:

- a) Decrease Section 9.10.6, minimum unit width for semi-detached housing units, from 7.5m to 5.96m;
- b) Vary Table 6.1, minimum landscape buffer schedule for the RM1 zone, for the side yards from “Level 1 (1.5m)” to “0m with a fence”, except that a 1.5m landscape buffer is required along the side yards adjacent to the proposed parking stalls; and
- c) Vary Table 6.1, minimum landscape buffer schedule for the RM1 zone, for the rear yard from “Level 2 (1.5m with a fence)” to “0m without a fence”.

Note: This alternative does not support the rezoning and variance requests and would prevent the semi-detached development from moving ahead. Under the existing R2 (Large Lot Residential) zone, each property could support a single detached house but only with a building width variance from 7m to ~4.6m given the narrowness of the lots (~7.6m each) and the 1.5m side yard setbacks. A semi-detached building, straddling the common property line between Lot 11 and Lot 12, could not be constructed.

ANALYSIS:

A. Committee Recommendations:

At its meeting of February 14, 2023, the Advisory Planning Committee passed the following resolution:

“(to be cited by the Advisory Planning Committee).”

B. Rationale:

1. The subject properties (Lots 11 and 12) are located at 2206 32nd Street, fronting Highway 97 and across from Vernon Jubilee Hospital (Figures 1 and 2). They are currently undeveloped (Attachment 1). Development plans are to construct a semi-detached building straddling the two existing lots (Attachments 2 and 3).
2. The intent of the rezoning and variance applications are to request that Council:

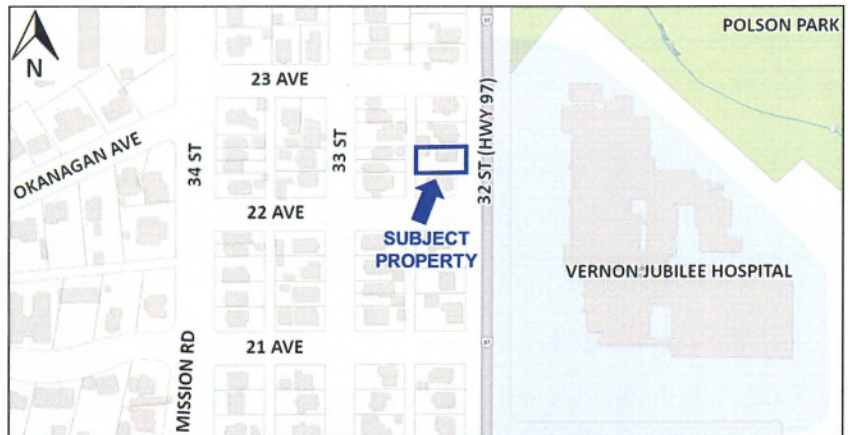


Figure 1: Location Map

- Rezone the properties from R2 – Large Lot Residential (Attachment 4) to RM1 – Row Housing Residential in order to construct a semi-detached building (Attachment 5); and
- Support the following variance requests to:

- Decrease minimum unit width from 7.5m to 5.96m;
- Not require a 1.5m landscape buffer along the side yards, except along the parking stalls, and require a fence (Attachment 6); and
- Not require a 1.5m landscape buffer or a fence along the rear yard.



Figure 2: Aerial Photo

3. Each unit is approximately 2,150ft² with three floors, a rooftop patio and four bedrooms. Private open space provisions of 25m² per dwelling would be met with the rooftop patios and front yard area. Access to the units would be from the rear lane (Lane W of 32nd St – S of 23rd Ave). Two uncovered off-street parking spaces are proposed per unit at the rear.
4. The properties are designated as Residential Medium Density (RMD) within the Official Community Plan (OCP) which has density range between 30 units/ha (12 units/ac) and 110 units/ha (44.5 units/ac). The proposed RM1 zone is more compatible with this designation than the existing R2 zoning. The R2 is a lower density zone most compatible with the RLD – Residential Low-Density designation. Table 1 below compares the R2 and RM1 zones with respect to permitted housing form and density.

	Existing R2	Proposed RM1
Housing Form	<ul style="list-style-type: none"> • Single detached housing 	<ul style="list-style-type: none"> • Single detached housing • Duplex housing • Semi-detached housing • Four-plex housing • Row housing
Max. Density	<ul style="list-style-type: none"> • One (1) single detached house per lot = 2 units 	<ul style="list-style-type: none"> • 48 units/ha = 2 units

Table 1: Zoning Comparison – Residential Uses

5. As shown in the table above, semi-detached buildings are not permitted within the R2 zone. This zone would allow a narrow single detached house on each lot; however, a building width variance would be necessary. Each lot is only 7.6m wide and the R2 zone requires a single detached house to be setback at least 1.5m from each side lot line. A width of approximately 4.6m would remain for a new house on each lot. The proposed alternative, to building two narrow single detached homes, is to rezone the properties to RM1 which allows semi-detached housing and party wall subdivisions.
6. Surrounding land uses are similar and compatible with the proposed multi-family development, as shown in Table 2.

	Zoning	Actual Use
North	R2 – Large Lot Residential	Single detached housing
East	P2 – Public Institutional	Vernon Jubilee Hospital
South	R2 – Large Lot Residential	Vacant lot
West	RM1 – Row Housing Residential	Single detached housing

Table 2: Surrounding Properties – Zoning & Actual Use

7. The proposed decrease in minimum unit from 7.5m to 5.96m would not negatively impact neighbours and is less than what would be required if single detached housing was proposed on each lot. At it's Regular Meeting of February 27, 2023, Council will be considering giving 1st, 2nd and 3rd readings to an amendment bylaw to remove minimum building and unit width provisions from all residential zones within the Zoning Bylaw. This amendment bylaw could be adopted as early as March 13, 2023.
8. Landscaping and screening provisions in Zoning Bylaw 5000 require minimum landscape buffers along all lot lines within the RM1 zone. These provisions are not always workable. The minimum side yard setbacks of the RM1 zone are 1.2m and the minimum vegetative buffer is 1.5m. Rather than providing a landscape buffer along the side lot lines, a fence is being proposed to enhance the development and replace existing fencing that is in disrepair. Landscaping would still be required as per bylaw standards in the front yard and along the side lots line adjacent to the parking stalls.
9. Administration supports the proposed rezoning and variance requests for the following reasons:
 - a) The proposal brings the zoning into better alignment with the RMD OCP designation;
 - b) Rezoning and constructing a semi-detached building utilizes the land area more efficiently;
 - c) The proposed unit width variance would not have any impact on the neighbours or neighbourhood; and
 - d) The proposed landscaping and screening are more suitable for the property and development that what is required under the Zoning Bylaw.

C. Attachments:

- Attachment 1 – Photos
- Attachment 2 – Site Plans
- Attachment 3 – Building Elevations
- Attachment 4 – R2 – Large Lot Residential Zone
- Attachment 5 – RM1 – Row Housing Residential Zone
- Attachment 6 – Landscape and Screening Regulations

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

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

- N/A

E. Relevant Policy/Bylaws/Resolutions:

- 1. Official Community Plan Bylaw 5470:
 - OCP Designation – Residential Medium Density (RMD)
 - Development District 2 – Neighbourhood

- 2. Zoning Bylaw 5000:
 - Sec. 9.10 RM1 – Row Housing Residential
 - Sec. 6 Landscape and Screening

BUDGET/RESOURCE IMPLICATIONS:

N/A

Prepared by:

Approved for submission to Council:

X _____
 Michelle Austin
 Current Planner

_____ Patti Bridal, CAO
 Date: _____

X _____
 Kim Flick
 Director, Community Infrastructure and Development

REVIEWED WITH		
<input checked="" type="checkbox"/> Corporate Services	<input type="checkbox"/> Operations	<input checked="" 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 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 (Feb. 14/23)		
<input type="checkbox"/> OTHER:		

G:\3000-3699 LAND ADMINISTRATION\3360 ZONING AND REZONING\20 Applications\ZON00379\2 PROC\Rpt\230209_MA_APC Rpt_ZON00379_DVP00591.docx

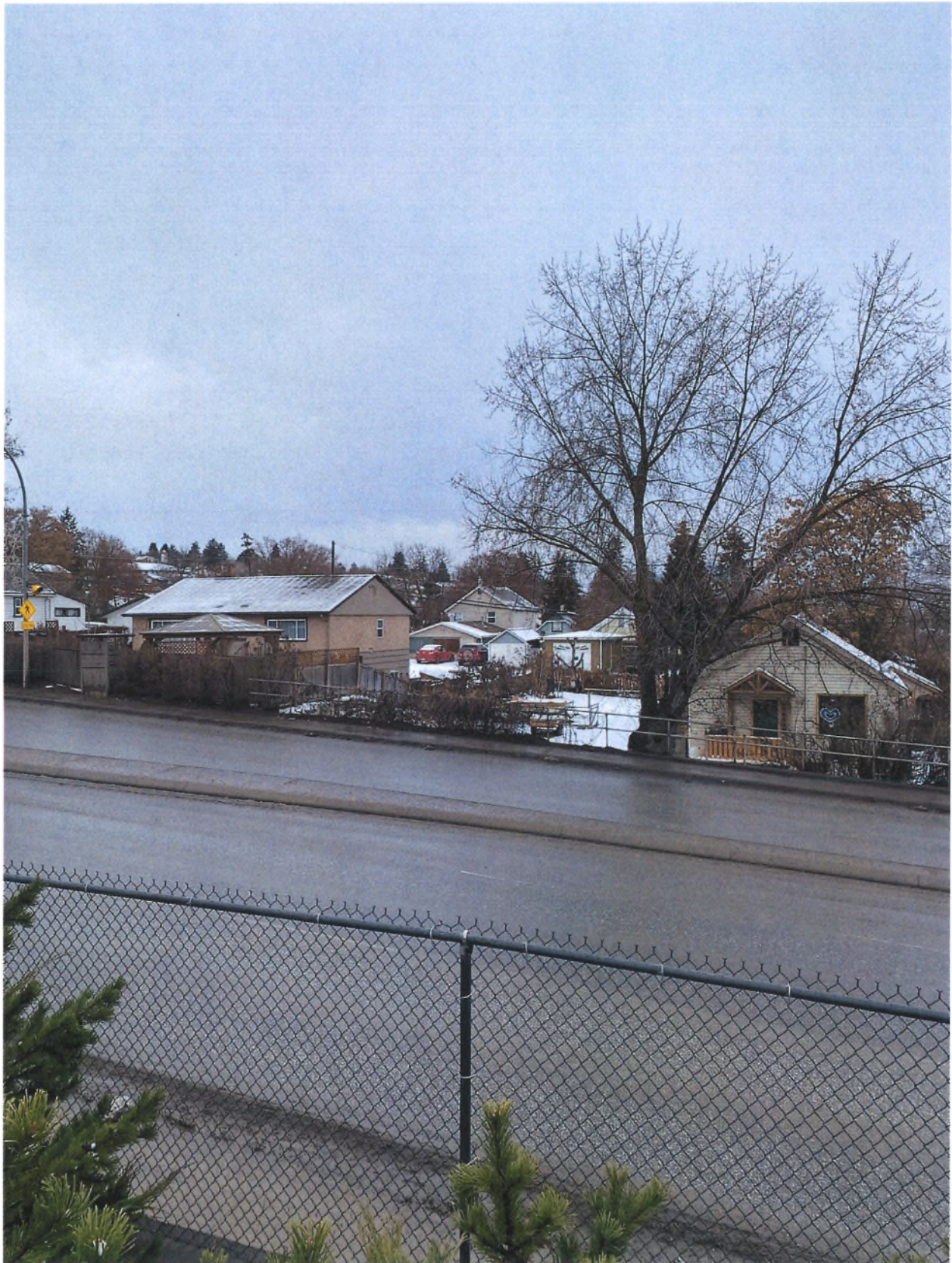


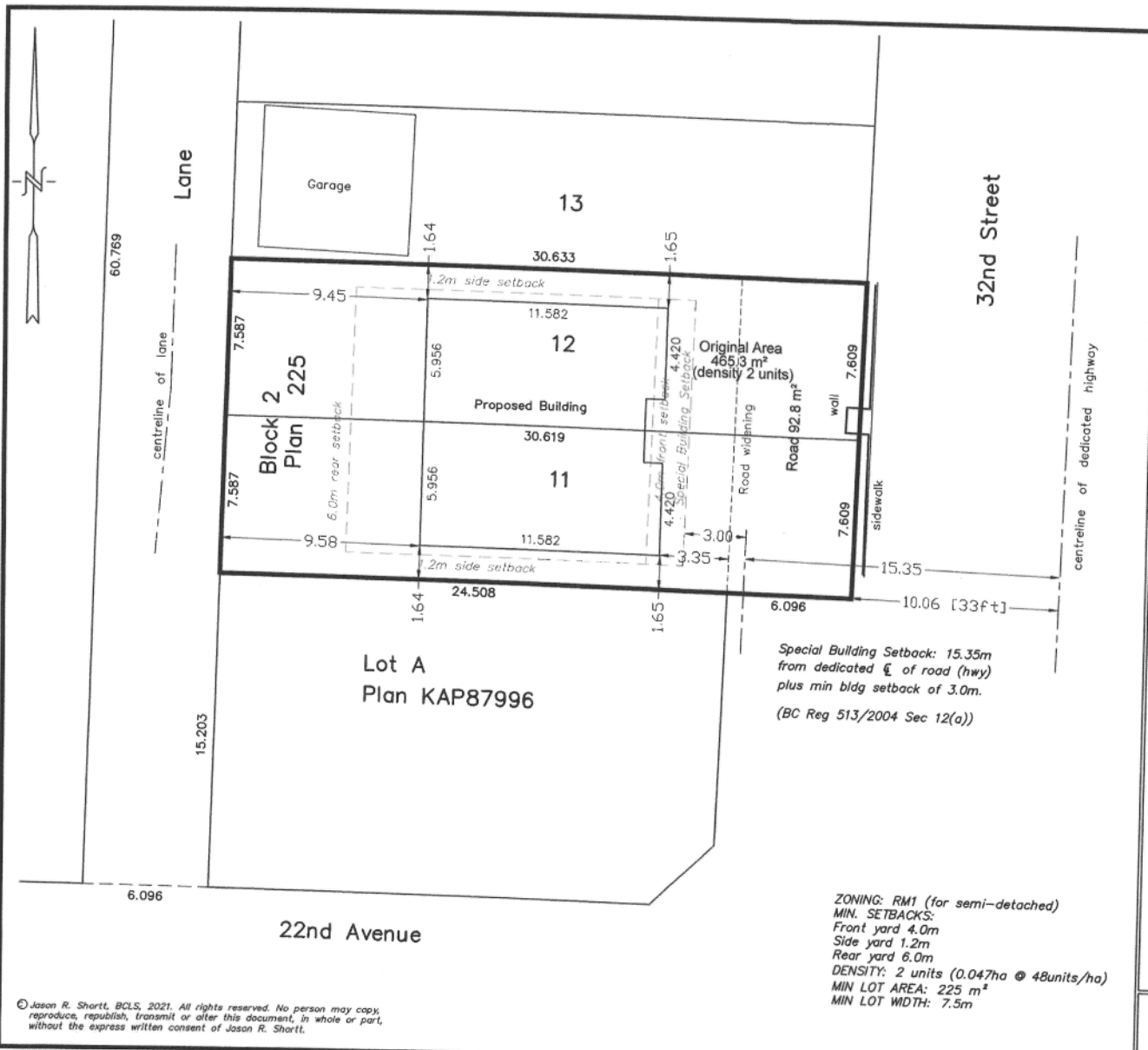
Photo 1: Front of Subject Property – photo taken from hospital parking lot



Photo 2: Rear of Subject Property – photo taken from lane



Photo 3: Fence at southwest corner of property – photo taken from lane



Site plan of Lots 11 and 12, Block 2, DL 73, ODYD, Plan 225.

Client: Purewal
Civic address: 2206 32nd Street

SCALE 1:200



The intended plot size of this plan is 432mm in width by 280mm in height (ANSI B) when plotted at a scale of 1:200

Contour interval = 1m
Elevations are shown in metres, and are based on City of Vernon Integrated Survey monuments, which use the CVD28BC datum, and are derived from GPS observations/field ties.

This plan was prepared for design purposes and is for the exclusive use of Purewal.

Distances are shown in metres and decimals thereof.
Parcel dimensions are derived from Plan 225 and field survey.
This plan shows horizontal ground level distances except where otherwise noted.

Bearings and distances are derived from field survey observations and are referred to the central meridian of UTM zone 11N, NAD83 CSRS

This plan has been prepared based on Land Title and Survey Authority records and a field survey completed on September 22, 2021. Unregistered interests have not been included or considered.

The Certificate of Title PID 012-576-832, 012-576-875 was searched on September 1, 2021.

Jason R. Shortt accepts no responsibility for and hereby disclaim all obligations and liabilities for damages including, but not limited to, direct, indirect, special, and consequential damages arising out of or in connection with and direct or indirect use or reliance upon the Plan beyond its intended use.

DECEMBER 20, 2021 - building with RM1 setbacks
DECEMBER 16, 2021 - revised building size & location
NOVEMBER 19, 2021 - show RH1 setbacks and building as proposed
OCTOBER 6, 2021

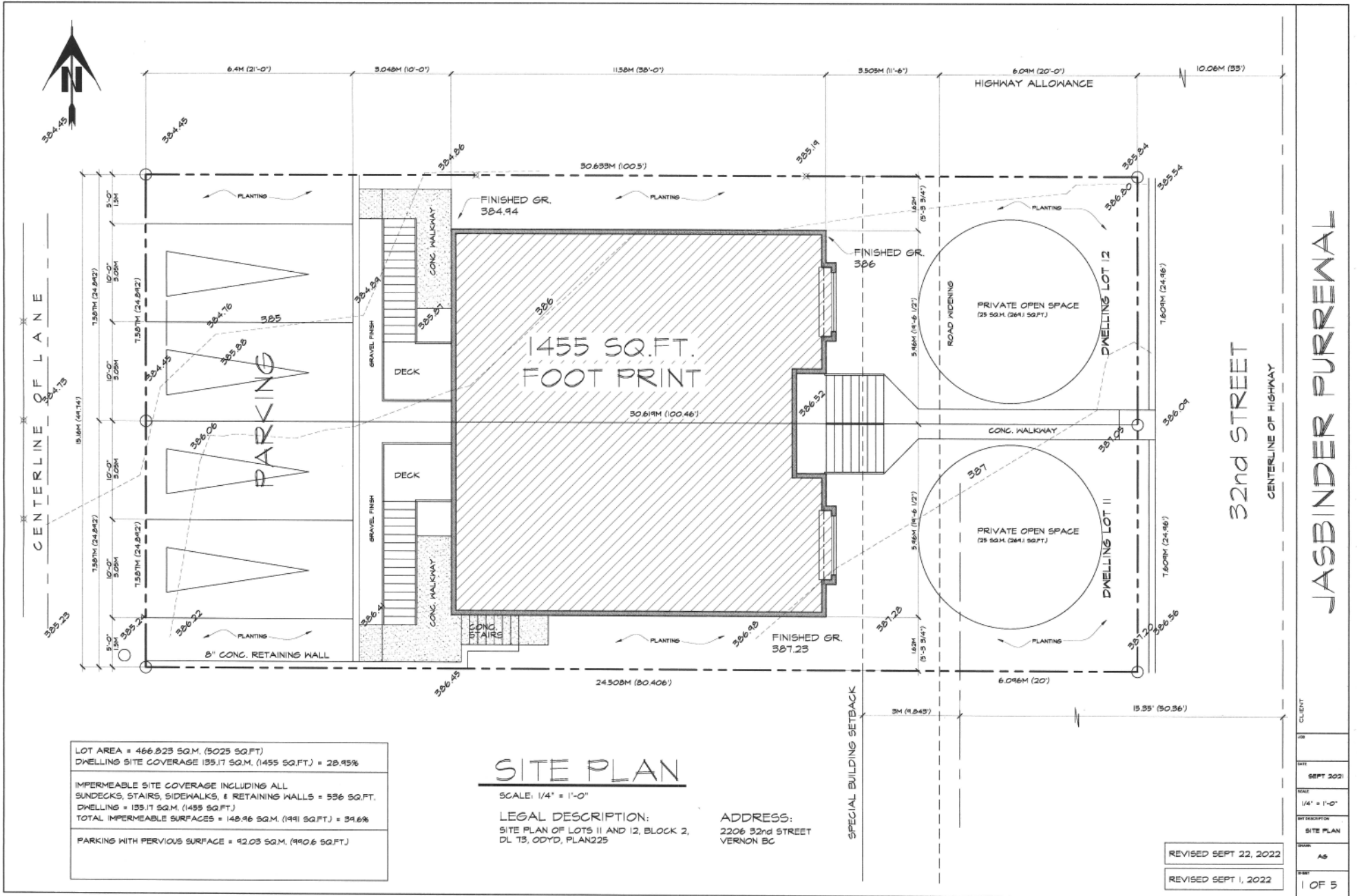
russell shortt		FILE: 30052
land SURVEYORS		
2801-32nd Street, Vernon, B.C. V1T 5L8		
Phone: (250)545-0511	Email: jasons@rshortt.ca	F.B. 1324 p120

ZONING: RM1 (for semi-detached)
MIN. SETBACKS:
Front yard 4.0m
Side yard 1.2m
Rear yard 6.0m
DENSITY: 2 units (0.047ha @ 48units/ha)
MIN LOT AREA: 225 m²
MIN LOT WIDTH: 7.5m

Special Building Setback: 15.35m from dedicated $\frac{1}{2}$ of road (hwy) plus min bldg setback of 3.0m.
(BC Reg 513/2004 Sec 12(a))

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Attachment 2



LOT AREA = 466.823 SQ.M. (5025 SQ.FT.) DWELLING SITE COVERAGE 135.17 SQ.M. (1455 SQ.FT.) = 28.95%
IMPERMEABLE SITE COVERAGE INCLUDING ALL SUNDECKS, STAIRS, SIDEWALKS, & RETAINING WALLS = 536 SQ.FT. DWELLING = 135.17 SQ.M. (1455 SQ.FT.) TOTAL IMPERMEABLE SURFACES = 148.96 SQ.M. (1611 SQ.FT.) = 31.6%
PARKING WITH PVIOUS SURFACE = 92.03 SQ.M. (990.6 SQ.FT.)

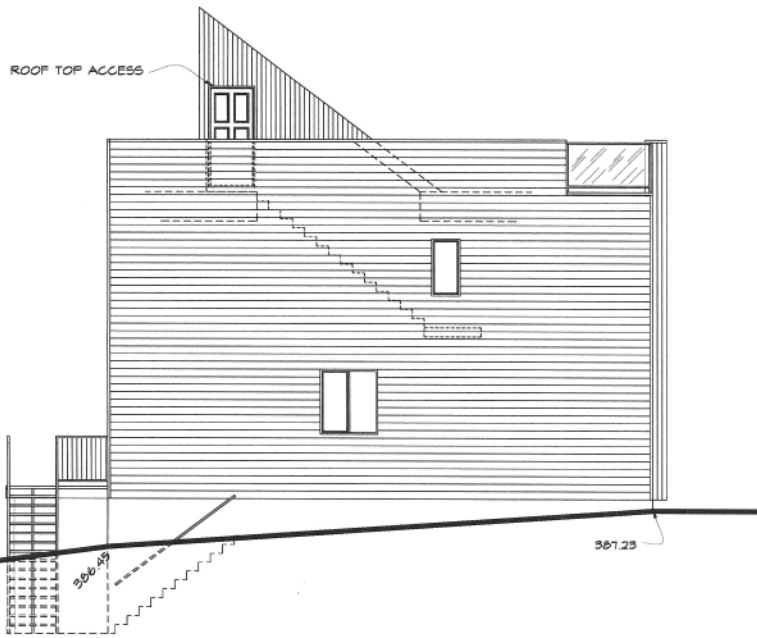
SITE PLAN

SCALE: 1/4" = 1'-0"
 LEGAL DESCRIPTION:
 SITE PLAN OF LOTS 11 AND 12, BLOCK 2,
 DL T5, ODYD, PLAN225

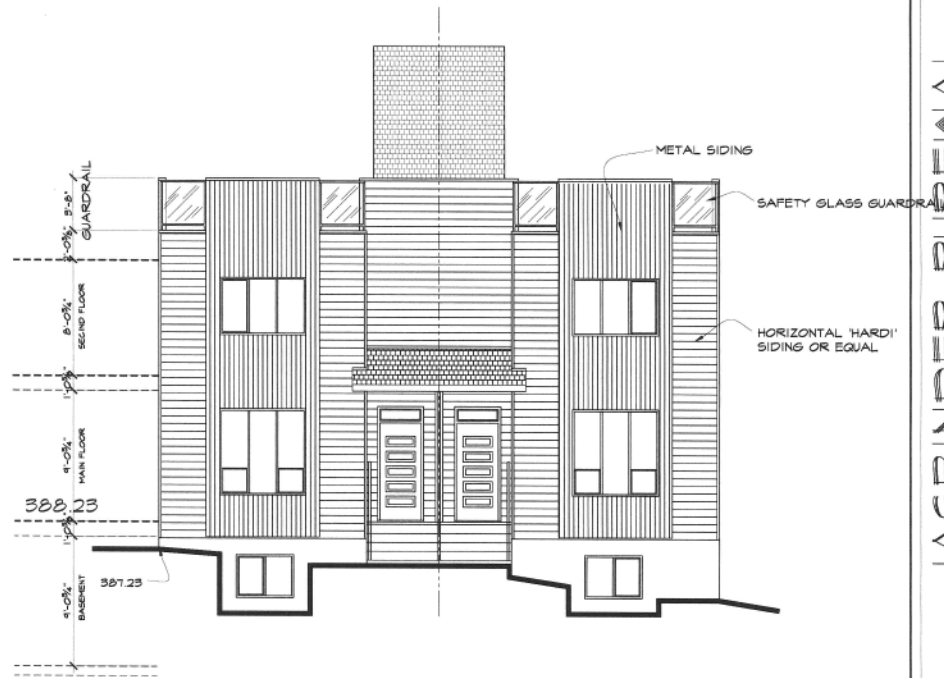
ADDRESS:
 2206 32nd STREET
 VERNON BC

REVISED SEPT 22, 2022
 REVISED SEPT 1, 2022

CLIENT	
DATE	SEPT 2021
SCALE	1/4" = 1'-0"
DESCRIPTION	SITE PLAN
DRAWN	AS
CHECKED	
SHEET	1 OF 5



SOUTH ELEVATION



EAST ELEVATION
32nd STREET VIEW

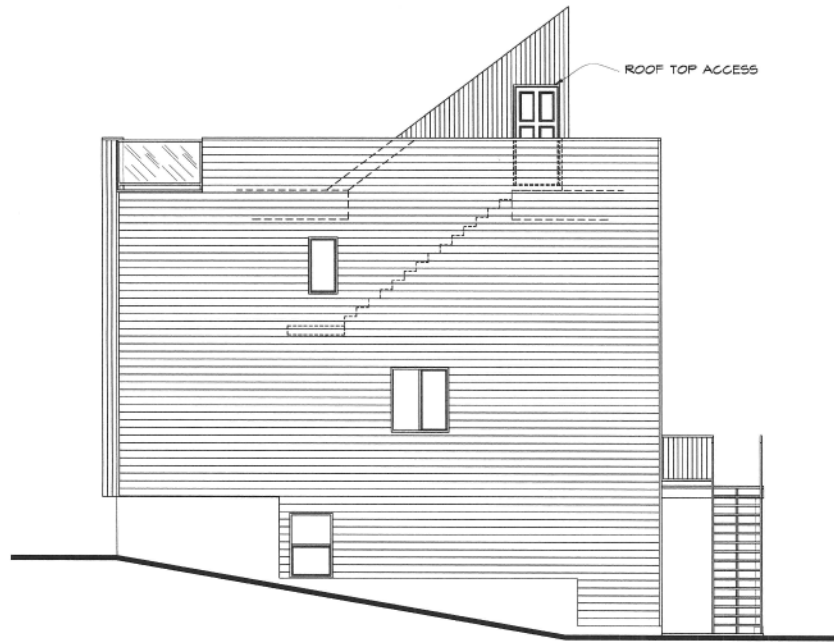
JASBINDER PURENAL

549-7095
#004 - 3300 32nd AVE
VERNON BC
V1T 2N6

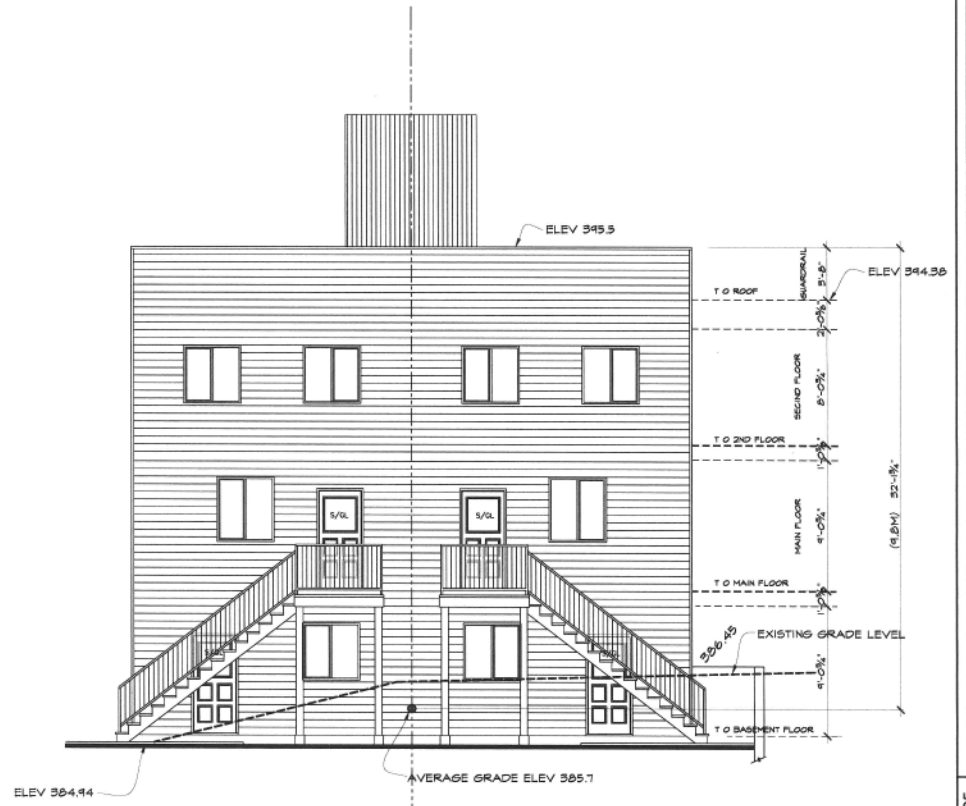
*Goetsen
Residential
Design Inc.*

Attachment 3

REVISED SEPT 1, 2022



NORTH ELEVATION



WEST ELEVATION

JASBINDER PURENAL

549-7095
800-308-3204 AVE
VERNON BC
V1T 2M6

Geotrex Residential Design Inc.

DATE: JULY 2015
SCALE: 1/4" = 1'-0"
DESCRIPTION: EXTERIOR ELEVATIONS

DATE: A6

REVISED SEPT 1, 2022

SHEET: 5 OF 5

R2

9.3 R2 : Large Lot Residential

9.3.1 Purpose

The purpose is to provide a **zone** for **single detached housing**, and compatible **secondary uses**, on large sized urban serviced **lots**. The R2c sub-zoning district allows for **care centre, major** as an additional use. The R2h sub-zoning district allows for **home based business, major** as an additional use. *(Bylaw 5467)*

9.3.2 Primary Uses

- **care centre, major** *(use is only permitted with the R2c sub-zoning district)*
- **single detached housing**

9.3.3 Secondary Use

- **boarding rooms**
- **bed and breakfast homes** *(in single detached housing only) (Bylaw 5498)*
- **care centres, minor**
- **group home, minor**
- **home based businesses, minor**
- **home based businesses, major** *(use is only permitted with the R2h sub-zoning district)*
- **secondary suites**
- **seniors supportive housing**

9.3.4 Subdivision Regulations

- Minimum **lot width** is 18.0m.
- Minimum **lot area** is 557m², or 10,000m² if not serviced by a **community sewer system**.

9.3.5 Development Regulations

- Maximum **site coverage** is 40% and together with driveways, parking areas and **impermeable surfaces** shall not exceed 50%.
- Maximum **height** is the lesser of 10.0m or 2.5 **storeys**, except it is 4.5m for **secondary buildings** and **secondary structures**.
- Minimum **front yard** is 5.0m.
- Minimum **side yard** is 1.5m, except it is 5.0m from a **flanking street**. Where there is no direct vehicular access to the **rear yard** or to an attached garage or **carport**, one **side yard** shall be at least 3.0m.
- Minimum **rear yard** is 7.5m, except it is 1.0m for **secondary buildings**. Where the **lot width** exceeds the **lot depth**, the minimum **rear yard** is 4.5m provided that one **side yard** shall have a minimum width of 4.5m.
- The maximum **height** of any vertical wall element facing a **front, flanking** or **rear yard** (including **walkout basements**) is the lesser of 6.5m or 2.5 **storeys**, above which the **building** must be **set back** at least 1.2m.

9.3.6 Other Regulations

- There shall be no more than one **single detached house** per **lot**.
- Where **development** has access to a rear **lane**, vehicular access to the **development** is only permitted from the rear **lane**.
- For **seniors supportive housing**, a safe drop-off area for patrons shall be provided on the **site**.

- **Seniors supportive housing** shall be for no more than four residents. *(Bylaw 5467)*
- In addition to the regulations listed above, other regulations may apply. These include the general **development** regulations of Section 4 (secondary **development, yards**, projections into **yards**, lighting, agricultural setbacks, etc.); the specific use regulations of Section 5; the **landscaping** and fencing provisions of Section 6; and, the parking and loading regulations of Section 7.
- As per Section 4.10.2 - All **buildings and structures, excluding perimeter fencing (garden walls and fences)** on **lots abutting** City Roads as identified on Schedule "B" shall not be sited closer to the City Road than the setback as per the appropriate zone measured from the offset Rights of Way as illustrated on Schedule "B".
(Bylaw 5440)

RM1

9.10 RM1 : Row Housing Residential

9.10.1 Purpose

The purpose is to provide a **zone** for ground oriented medium **density row housing** on urban services.

9.10.2 Primary Uses

- care centre, major
- duplex housing
- four-plex housing
- group home, major
- row housing
- **semi-detached housing**
- seniors housing
- single detached housing

9.10.3 Secondary Uses

- **boarding rooms** (*Bylaw 5440*)
- care centres, minor
- home based businesses, minor
- **secondary suites (in single detached housing only)**
- seniors assisted housing
- seniors supportive housing

9.10.4 Subdivision Regulations

- Minimum **lot width** is 26.0m, except it is 7.5m for fee simple **row housing** and **semi-detached dwellings**.
- Minimum **lot area** is 800m², or 10,000m² if not serviced by a **community sewer system**.
- Maximum **density** is 48.0 units per gross hectare (19.5 units/gross acre).
- Maximum **site coverage** is 65% and together with driveways, parking areas and **impermeable surfaces** shall not exceed 85%.

9.10.5 Party Wall Subdivision Regulations

Lot Type	Minimum Lot Area		Minimum Lot Width	
	interior	corner	interior	corner
Semi-Detached Housing	225m ²	275m ²	7.5m	9.0m
Row Housing	150m ²	200m ²	6.5m	7.8m

9.10.6 Development Regulations

- With a housing agreement pursuant to Section 4.9, the maximum **density** shall be 60.0 units per gross hectare (24.5 units/gross acre).
- Where **parking spaces** are provided completely beneath habitable space of a primary **building** or beneath useable common amenity areas, providing that in all cases the **parking spaces** are screened from view, the maximum **density** shall be 60.0 units per gross hectare (24.5 units/gross acre). Where all the required parking is not accommodated completely beneath the habitable space of a primary **building** or useable common amenity areas, the additional density permitted shall be

determined through multiplying the additional 12.0 units per gross hectare (5 units/gross acre) by the percentage of parking proposed to be provided beneath habitable space of a primary **building** or useable common amenity areas.

- **Maximum site coverage** is 50% and together with driveways, parking areas and **impermeable surfaces** shall not exceed 55%.
- **Maximum height** is the lesser of 10.0m or 2.5 **storeys**, except it is 4.5m for **secondary buildings** and **secondary structures**.
- **Minimum front yard** is 4.0m, except it is 6.0m from a garage or **carport** to the back of curb or sidewalk for vehicular entry.
- **Minimum side yard** is 1.2m, or 0.0m for shared interior **party walls** except it is 4.5m from a **flanking street**. Where there is no direct vehicular access to the **rear yard** or to an attached garage or **carport**, one **side yard** shall be at least 3.0m. **The side yard** is 0.0m for fee simple **row housing** and **semi-detached dwellings**.
- **Minimum rear yard** is 6.0m, except it is 1.0m for **secondary buildings**.
- Maximum six **dwelling** units located in a **building**, with each row housing unit having a minimum width of 6.5m and 7.5m for semi-detached housing units.

9.10.7 Other Regulations

- For multi-unit residential housing, one **office** may be operated for the sole purpose of the management and operation of the multi-unit residential **development**.
(Bylaw 5540)
- In order for bareland strata **development** to be consistent with the character of the surrounding neighborhood, the strata plan shall be considered as one **site** for defining the overall use, **density** and **site coverage**.
- The above noted **subdivision** and **development** regulations shall be applied to each strata **lot** within the strata plan.
- For strata developments, common recreation buildings, facilities and amenities may be included in the strata plan. Recreational buildings shall be treated as **secondary buildings** for the purpose of determining the size, **height** and **setbacks** of the **building** as specified in each **zone**.
- **A minimum area of 25m² of private open space shall be provided per dwelling.**
- Vehicular access to the **development** is only permitted through either a driveway shared by at least 3 units or a rear **lane**.
- For **seniors assisted housing, seniors housing and seniors supportive housing**, a safe drop-off area for patrons shall be provided on the **site**.
- No more than 6 **dwellings** may be located in a **row house building**.
- In addition to the regulations listed above, other regulations may apply. These include the general **development** regulations of Section 4 (secondary **development, yards**, projections into **yards**, lighting, agricultural setbacks, etc.); the specific use regulations of Section 5; the **landscaping** and fencing provisions of Section 6; and, the parking and loading regulations of Section 7.
- As per Section 4.10.2 - All **buildings and structures, excluding perimeter fencing (garden walls and fences)** on **lots abutting** City Roads as identified on Schedule "B" shall not be sited closer to the City Road than the setback as per the appropriate zone measured from the offset Rights of Way as illustrated on Schedule "B".
(Bylaw 5440)

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

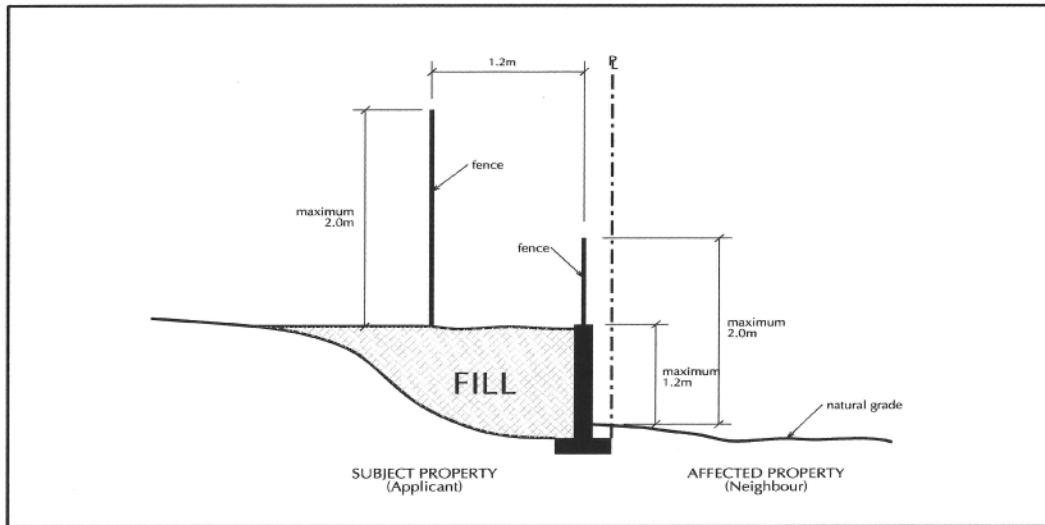
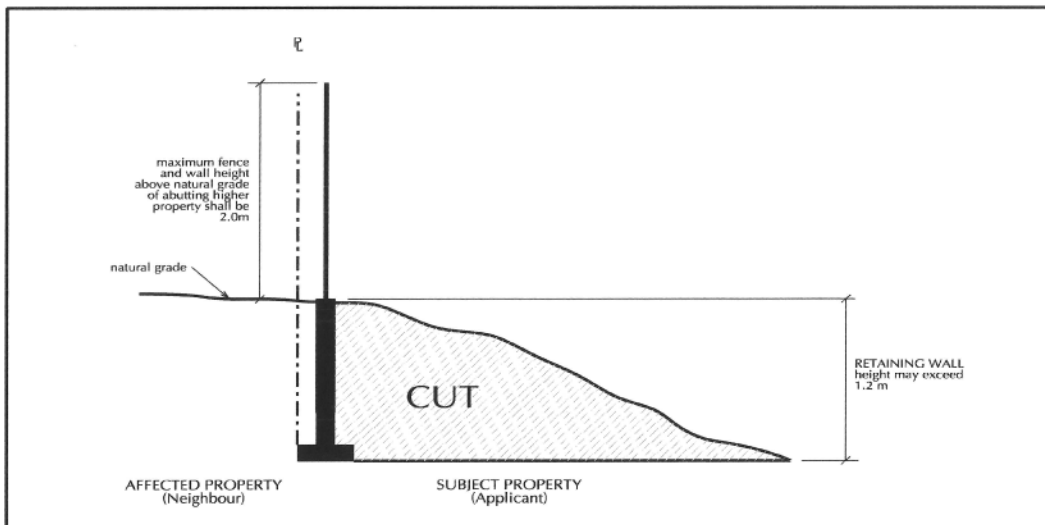


Diagram 6.2



6.6 Minimum Landscape Buffers

6.6.1 **Landscape buffers** are intended to improve land use compatibility and environmental quality by reducing noise, lighting glare and other **nuisances**, or facilitating natural drainage and wildlife movement.

6.6.2 **Landscape buffers**, of a design as shown on the Minimum Landscape Buffer Treatment Drawings (Levels 1 through 5), for the **front yard, side yards**, and **rear yard** depending upon the **zone** as indicated by Section 6.6.5, are as follows:

- Level 0 : no specific guidelines for the design of the **landscape buffer**;
- Level 1 : to separate **uses** from **adjacent** properties, a minimum 1.5m **landscape buffer** is required and will consist of a vegetative buffer only, unless a **fence** is required for other reasons;
- Level 2 : to separate **uses** from **adjacent** properties, a minimum 1.5m vegetative **landscape buffer** combined with a **fence** is required;
- Level 3 : to separate **uses** from **adjacent** properties, a minimum 2.0m vegetative **landscape buffer** combined with a **fence** is required;
- Level 4 : to separate **uses** from **adjacent** properties, a minimum 3.0m **landscape buffer** is required;
- Level 5 : a **landscape buffer** is required for all land **abutting** ALR land where non-farm **uses** exist. The minimum buffer shall meet the guidelines in the Landscape Buffer Specifications document prepared by the Agricultural Land Commission.

6.6.3 Trees shall be spaced, on average, to the dimensions specified in the approved drawings. The equivalent of 1 tree per 10.0 lineal metre of required **landscape buffer**, including **walkways**, driveways and required utility boxes, shall be planted on the subject property. Deciduous trees shall have a minimum **caliper** of 60mm with a minimum clearstem **height** of 1.5m. Conifers shall be a minimum of 2.5m high. Irrigated No. 2 pot shrubs are to be placed at a maximum spacing of 1.0m on center with 10cm ground cover at a maximum spacing of 0.5m on center. The equivalent of 1 shrub per 1 linear metre of required landscape buffer, including walkways, driveways, and required utility boxes, shall be planted on the subject property. The shrubs shall be irrigated No. 2 pot shrubs and are to be placed at a maximum spacing of 1.0m on center.

6.6.4 In order to provide heritage trees for future generations, trees required according to Section 6.6.3 shall include **legacy trees**. One out of every ten trees required according to Section 6.6.3 shall be designated as a **legacy tree** and accordingly located and identified on approved drawings. A minimum of 1 **legacy tree** shall be provided.

6.6.5 Trees or shrubs higher than 0.6m shall not be located in the visual triangle indicated on the drawings and specified by the City of Vernon Traffic Regulations Bylaw #2749, as amended.

- 6.6.6 Where a visual screen is required it may consist of either vegetation or decorative **fence** or wall. The minimum **height** of the screen is 1.2m for Level 3 (at maturity for vegetation, planted at a minimum of 1.0m high on an maximum spacing of 1.0m on center), 1.5m for Level 4, and 1.8m for Level 5.
- 6.6.7 Notwithstanding Section 6.6.1, buffer widths may be reduced to the width of the actual setback of the **building** or **structure** if the actual setback of the **building** or **structure** is narrower than the buffer specified in Section 6.6.1.
- 6.6.8 Notwithstanding Section 6.6.1, parking lots **abutting** major roads as identified on Map 4 of *Official Community Plan*, require an additional **landscape buffer** of a minimum of 3.0m.
- 6.6.9 Notwithstanding any other provisions in this Bylaw, where **leave strips** are required along stream corridors in accordance with the *Official Community Plan*, the land and vegetation shall remain undisturbed. In the case of **leave strips** along Okanagan Lake, land is to remain in its natural condition or be landscaped in a manner that either enhances conditions for fish and wildlife or maintains conditions equivalent to those that would have existed had no **development** occurred. **Retaining walls** along the Okanagan Lake waterfront are permitted under the terms of a **development** permit where required to protect lakefront property.
- 6.6.10 In addition to the minimum **landscape buffer** treatment levels above:
- all lands **adjacent** to provincial highways, except those in **agricultural zones** and within Town Centres, are required to have Level 4 **landscape buffer** treatment unless superceded by **development permit area guidelines**;
 - all internal **lot lines** on a **site** being comprehensively developed are exempt from **side yard buffer zones**;
 - all **industrial zone** properties shall have a Level 3 buffer **zone** when **adjacent** to non-industrial **zone** properties;
 - all commercial zoned properties shall have a Level 3 buffer zone when adjacent to non-commercial and non-industrial properties;
 - **CD zones** shall specify **landscape buffer** treatment for the **CD site**;
 - all non-secondary surface parking **lots** in a **commercial zone** shall have a Level 3 buffer **zone**;
 - required landscape islands in parking areas shall have the same level of **landscaping** as a Level 1 buffer **zone**; and

- recreational **vehicle** parking compounds in residential **zones** shall have a Level 4 buffer **zone**.

6.6.11 Notwithstanding Section 6.6.1, all landscape areas should reflect the character and intent of the *Official Community Plan*.

6.6.12 Where a **side yard landscape buffer** treatment is required and an opaque barrier is included in the Landscape Buffer Treatment Design, the opaque barrier may be located at the **property line**.

6.6.13 **Landscape buffer** treatments for school **sites** may be amended from the standards indicated in Table 6.1 - **Minimum Landscape Buffer Schedule**. Where changes to the standards are proposed, supporting documentation from a registered landscape architect must be provided that contains that the following objectives have been met:

- that sufficient screening to **adjacent** residential properties has been achieved;
- that adequate **landscaping** has been provided to provide shade for **buildings** and play areas;
- driveway entrances and parking areas have been appropriately **landscaped** for optimization of screening and vehicular **site** lines; and,
- **landscaping** around active play areas ensures safety to children on the school grounds.

Where perimeter **landscaping** cannot be provided due to any of the above noted objectives, the School District will be required to provide or upgrade boulevard trees on all **abutting** roads.

Table 6.1
Minimum Landscape Buffer Schedule

Location	Front Yard	Rear Yard	Side Yard	Urban Plaza Permitted
Agricultural Zones				
A1, A2, A3*	0	0	0	NO
Residential Zones				
RST1, RST2, RR, R1, R2, R3, R4, R5A, R6, RTR, HR1	0	0	0	NO
R5, R7	1	1	1	NO
RM1, RM2, RH2	1	2	1	NO
RH1, RH3	1	2	2	YES
HR2, HR3	4	4	4	NO
Commercial Zones				
C3, C4, C5, C6	3	3	3	YES

C1, C2, C3, C7, C8	1	1	1	YES
C9	4	3	3	YES
C11	1	3	3	YES
C10, C10A, RTC	3	3	3	YES
RTCA				

Industrial Zones

I1, I2	4	3	3	NO
I3	3	0	0	NO
I4	4	3	3	YES
I5	4	3	3	NO

Public & Institutional Zones

P1, P5	0	0	0	N/A
P2, P3	4	1	1	YES
P4	3	1	1	NO
W1	N/A	N/A	N/A	N/A

Comprehensive Development Zones

CD1	AS SPECIFIED			
CD2	3	3	3	NO
CD3	1	2	2	NO

* Non-farm **development** on ALR lands will require a Level 5 buffer.

Diagram 6.3: Level 1 - MINIMUM LANDSCAPE BUFFER TREATMENT

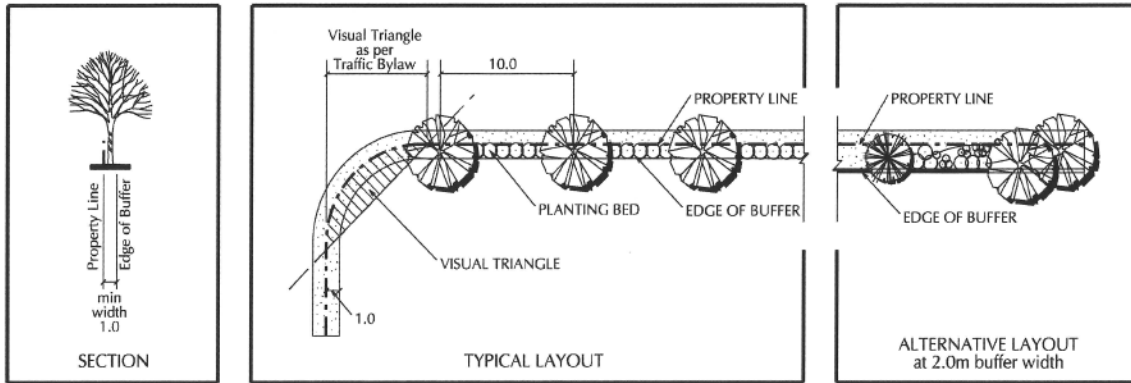


Diagram 6.4: Level 2 - MINIMUM LANDSCAPE BUFFER TREATMENT

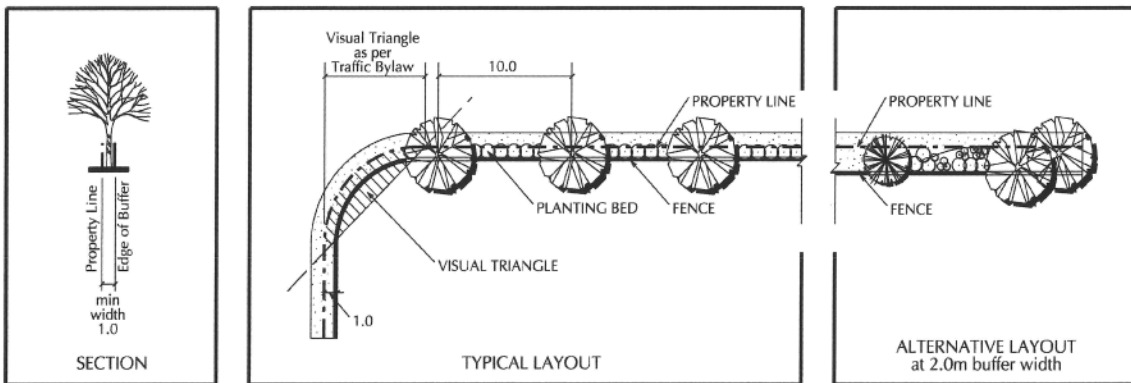


Diagram 6.5: Level 3 - MINIMUM LANDSCAPE BUFFER TREATMENT

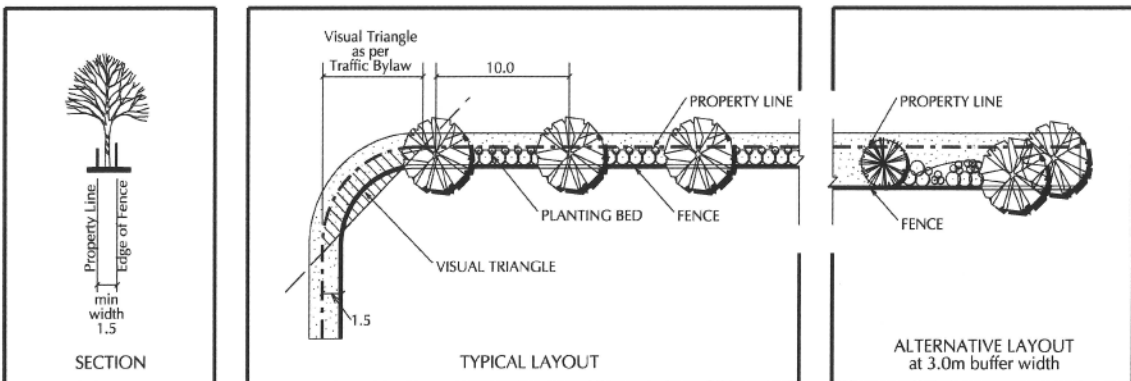


Diagram 6.6: Level 4 - MINIMUM LANDSCAPE BUFFER TREATMENT

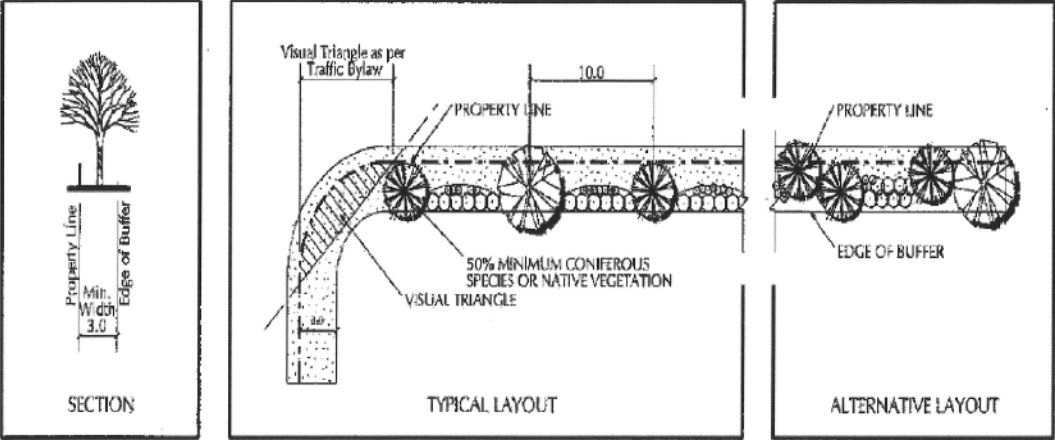


Diagram 6.7: Level 5 - MINIMUM LANDSCAPE BUFFER TREATMENT ALR

