

CITY OF KELOWNA

MEMORANDUM

Date: June 28, 2021
File No.: Z21-0059
To: Planning and Development Officer (KB)
From: Development Engineering Manager (RO)
Subject: 301-305 Drysdale Blvd RM1 to RM5

The Development Engineering Branch has the following comments and requirements associated with this application to rezone the subject lots from RM1 – Four Dwelling Housing to RM5 – Medium Density Multiple Housing).

1. GENERAL

- a. The following requirements are valid for two (2) years from the reference date of this memo, or until the application has been closed, whichever occurs first. The City of Kelowna reserves the rights to update/change some or all items in this memo once these time limits have been reached.
- b. This proposed development may require the installation of centralized mail delivery equipment. Please contact Arif Bhatia, Delivery Planning Officer, Canada Post Corporation, 530 Gaston Avenue, Kelowna, BC, V1Y 2K0, (250) 859-0198, arif.bhatia@canadapost.ca to obtain further information and to determine suitable location(s) within the development.
- c. There is a possibility of a high water table or surcharging of storm drains during major storm events. This should be considered in the design of the onsite system.

2. DOMESTIC WATER AND FIRE PROTECTION

- a. The property is located within the Glenmore Ellison Improvement District (GEID) service area. The developer is required to make satisfactory arrangements with GEID for all water and fire protection-related issues. All charges for service connection and upgrading costs, as well as any costs to decommission existing services, shall be the responsibility of the developer.
- b. The developer's consulting mechanical engineer will determine the domestic, fire protection requirements of this proposed development and establish hydrant requirements and service needs. The water system must be capable of supplying domestic and fire flow demands of the project in accordance with the Subdivision, Development & Servicing Bylaw. No. 7900. Provide water flow calculations for this development to confirm bylaw conformance. Ensure every building site is located at an elevation that ensures water pressure is within the bylaw pressure limits. Note: Private pumps are not acceptable for addressing marginal pressure.

3. **SANITARY SEWER SYSTEM**

- a. Our records indicate that each of the subject lots are currently serviced with a 200-mm diameter sanitary sewer service. The Applicant's Consulting Mechanical Engineer will determine the requirements of the proposed development and establish the service needs. Only one service will be permitted.
- b. The applicant will arrange for the removal and disconnection of one of the existing services or, if necessary, both of the existing services and the installation of one new larger service at the applicants cost.

4. **STORM DRAINAGE**

- a. The property is located within the City of Kelowna drainage service area. For on-site disposal of drainage water, a hydrogeotechnical report will be required complete with a design for the disposal method (i.e. trench drain / rock pit). The Lot Grading Plan must show the design and location of these systems.
- b. Our records indicate that each of the subject lots are currently serviced with a 200-mm diameter sanitary sewer service. The Applicant's Consulting Mechanical Engineer will determine the requirements of the proposed development and establish the service needs. Only one service will be permitted for this development.
- c. The applicant will arrange for the removal and disconnection of one, or if necessary both, of the existing services at the applicants cost.
- d. Provide the following drawings:
 - i. A detailed Lot Grading Plan (indicate on the Lot Grading Plan any slopes that are steeper than 30% and areas that have greater than 1.0 m of fill);
 - ii. A detailed Stormwater Management Plan for this subdivision; and,
 - iii. An Erosion and Sediment Control Plan is to be prepared by a Professional Engineer proficient in the field of erosion and sediment control. The plan is to be prepared as per section 3.14 of Schedule 4 of Bylaw 7900. If a line item for ESC is not included in the Engineer's cost estimate for off-site work, then an additional 3% will be added to the performance security based on the total off-site construction estimate.
- e. On-site detention systems are to be compliant with Bylaw 7900, Schedule 4, Section 3.11.1 *Detention Storage*.
- f. As per Bylaw 7900, Schedule 4, Section 3.1.3 *Climate Change*, the capacity of storm works will include an additional 15 percent (15%) upward adjustment, and applied to the rainfall intensity curve stage (IDF) in Section 3.7.2.
- g. Show details of dedications, rights-of-way, setbacks and non-disturbance areas on the lot Grading Plan.
- h. Register right of ways on private properties for all the storm water infrastructure carrying, conveying, detaining and/or retaining storm water that is generated from the public properties, public road right of ways, and golf course lands.

- i. Where structures are designed or constructed below the proven high groundwater table, permanent groundwater pumping will not be permitted to discharge to the storm system. The City will approve designs that include provisions for eliminating groundwater penetration into the structure, while addressing buoyancy concerns. These design aspects must be reviewed and approved by the City Engineer.

5. ROAD IMPROVEMENTS

- a. Drysdale Blvd has been upgraded to a full urban standard, the only required improvements are landscaped and irrigated boulevard.
- b. Glen Park Dr has been upgraded to a full urban standard the only required frontage upgrades are removal of concrete letdown for unused driveway and replacement with barrier curb & gutter and sidewalk, and landscaped and irrigated boulevard.
- c. All Landscape and Irrigation plans require design and inspection by a Qualified Professional registered with the BCSLA and the IIABC. Landscape and irrigation plans require approval by the Development Engineering Branch at the same time as other “issued for construction” drawings.
- d. All stairs and ramps must be contained entirely on private property.

6. POWER AND TELECOMMUNICATION SERVICES

- a. All proposed distribution and service connections are to be installed underground. It is the developer's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for these services, which would be at the applicant's cost.
- b. Re-locate existing poles and utilities, where necessary. Remove aerial trespass (es). If any road dedication or closure affects lands encumbered by a Utility right-of-way (such as Hydro, Telus, Gas, etc.) please obtain the approval of the utility. Any works required by the utility as a consequence of the road dedication or closure must be incorporated in the construction drawings submitted to the City's Development Engineering Manager.

7. GEOTECHNICAL STUDY

- a. Provide a comprehensive geotechnical report (3 copies), prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below: **NOTE: The City is relying on the Geotechnical Engineer's report to prevent any damage to property and/or injury to persons from occurring as a result of problems with soil slippage or soil instability related to this proposed subdivision.**
- b. The Geotechnical reports must be submitted to the Planning and Development Services Department (Planning & Development Officer) for distribution to the Works & Utilities Department and Inspection Services Division prior to submission of Engineering drawings or application for subdivision approval.
 - i. Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.
 - ii. Site suitability for development.

- iii. Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).
 - iv. Any special requirements for construction of roads, utilities, and building structures.
 - v. Recommendations for items that should be included in a Restrictive Covenant.
 - vi. Recommendations for roof drains and perimeter drains.
 - vii. Recommendations for erosion and sedimentation controls for water and wind.
 - viii. Any items required in other sections of this document.
- c. Should any on-site retaining walls surpass the following limits, an Over Height Retaining Wall Permit will be required:

“Retaining walls on all lots, except those required as a condition of subdivision approval, must not exceed a height of 1.2 m measured from natural grade on the lower side, and must be constructed so that any retaining walls are spaced to provide a 1.2 m horizontal separation between tiers. The maximum number of tiers is two with a maximum total height of 2.4 m. Any multi-tier structure more than 2 tiers must be designed and constructed under the direction of a qualified professional engineer.”

The design of all retaining walls is to conform with Engineer & Geoscientists British Columbia’s Professional Practice Guidelines for Retaining Wall Design. Submission requirements for the Over Height Retaining Wall Permit include Engineer of Record documents (Appendix A of Retaining Wall Design Guideline) and any necessary independent reviews (as per EGBC’s Documented Independent Review of Structural Designs).

- d. Any modified slopes having a finished slope greater than 2H:V1 (50%) and an elevation change greater than 1.2 m must be installed under the direction of a qualified professional engineer.
- e. Any exposed natural rock surface on a lot that has the potential for materials to displace causing a hazardous condition, must be reviewed by a qualified professional engineer with the appropriate and measures undertaken as prescribed by the engineer. For adequate Rockfall Protection adjacent to walls and rock cuts, please consider BC MoTI Supplement to TAC Geometric Design Guide 440, page 440-8, which outlines a ditch bottom width depending on wall height. Sidewalks and utilities should be kept out of this protection area. Additional ROW may be required.

Where walls are on the high side, the City’s preference is that the walls remain setback and on private property. Where the walls hold up a public road, the City’s preference is that additional dedication be provided, and the walls be owned by the City. Please design any geogrids or tie-backs so that they do not encroach into the required road ROW.

8. **DESIGN AND CONSTRUCTION**

- a. Design, construction supervision, and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- b. Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- c. Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (refer to Part 5 and Schedule 3).
- d. A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- e. Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Development Engineering Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

9. **SERVICING AGREEMENT FOR WORKS AND SERVICES**

- a. A Servicing Agreement is required for all offsite works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- b. Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

10. **CHARGES AND FEES**

- a. Development Cost Charges (DCC's) are payable.
- b. Fees per the "Development Application Fees Bylaw" include:
 - i. Street Marking/Traffic Sign Fees: at cost (to be determined after detailed design completed).
 - ii. Survey Monument Fee: \$50.00 per newly created lot (GST exempt).
 - iii. Survey Monument, Replacement Fee: \$1,200.00 (GST exempt) – only if disturbed.
 - iv. Engineering and Inspection Fee: 3.5% of construction value (plus GST).

c. Approved methods of payment for Performance Security:

- i. Personal Cheques < \$5,000
- ii. Letter of Credit*, Certified Cheque, or Bank Draft > \$5,000
**Minimum value for Letter of Credit is \$50,000*

FOR *A Sangster*
Ryan O'Sullivan
Development Engineering Manager
SK



Glenmore Ridge
Issue 02 - RZ Application
301, 305 Drysdale Boulevard, Kelowna, BC

ATTACHMENT A

This forms part of application
Z21-0059

Planner Initials KB



City of
Kelowna
DEVELOPMENT PLANNING



Siegrist
ARCHITECTURE

Perspective
Render
A-0.102



NOTE: ALL GEODETIC ELEVATIONS ARE TO BE CONFIRMED ONCE A LEGAL SURVEY HAS BEEN PRODUCED - TO BE RETAINED BY THE DEVELOPER



Siegrist
ARCHITECTURE

May 31, 2021
Issue 02 - RZ Application

011

Site Plan

1 Site Plan
SCALE: 1/8" = 1'-0"

A-1.200