

MEMORANDUM

Date: March 21, 2022

File No.: Z22-0017

To: Community Planning (MT)

From: Development Engineering Manager (NC)

Subject: 4563-73 Gordon Dr. RU1 to RU6

The Development Engineering Department has the following comments and requirements associated with this application to rezone the subject properties from RU1 – Large Lot Housing to RU6 – Two Dwelling Housing. The Development Engineering Technician for this project is Aaron Sangster.

1. General

a) The following requirements are valid for one (1) year from the reference date of this memo, or until the PLR and/or 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.

2. Domestic Water and Fire Protection

- a) The subject property(s) are currently serviced with multiple water service(s). One metered water service will be required for the development. The disconnection of the existing smaller diameter water services and the tie-in of a larger service is the developer's responsibility. Only one service will be permitted for this development.
- b) The Developer's Consulting Engineer will determine the domestic and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The bylaw requirement for this development is 150 L/s. If it is determined that upgrades to any existing water distribution system must be made to achieve the required fire flows, additional bonding will be required.

3. <u>Sanitary Sewer</u>

- a) These properties are currently serviced with multiple sanitary service. The developer's consulting mechanical engineer will determine the development requirements of this proposed development and establish the service needs. Only one service will be permitted for this development. The applicant, at their cost, will arrange for the removal and disconnection of the existing services and the installation of one new larger service, if necessary.
- b) There is existing sanitary sewer main and services within this development properties that will require them to be relocated without disconnecting any existing serveries being disrupted.



4. Storm Drainage

- a) The property is located within the City of Kelowna drainage service area. For on-site disposal of drainage water, a geotechnical 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) 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.
- c) On-site detention systems are to be compliant with Bylaw 7900, Schedule 4, Section 3.11.1 Detention Storage.
- d) 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.
- e) Show details of dedications, rights-of-way, setbacks and non-disturbance areas on the lot Grading Plan.
- f) Applicant to confirm the nature of the existing creeks noted on PLR Drawing. Additional requirements may be necessary.

5. <u>Electric Power and Telecommunication Services</u>

- a) All proposed distribution and service connections are to be installed underground. Existing distribution and service connections, on that portion of a road immediately adjacent to the site, are to be relocated and installed underground as the subject properties are within the "City Center Urban Center".
- b) Streetlights must be installed on all roads.
- c) Make servicing applications to the respective Power and Telecommunication utility companies. The utility companies are required to obtain the City's approval before commencing construction.
- d) Re-locate existing poles and utilities, where necessary. Remove aerial trespass (es).

6. Road Improvements

a) Gordon Dr. must be upgraded to a residential arterial standard along the full frontage of this proposed development, landscaped irrigated boulevard,



- pavement removal and replacement, and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction.
- b) Only one access will be permitted. A private rear lane must be constructed and all access to proposed lots must come off the rear lane. Existing letdowns must be removed and replaced with barrier curb and gutter, sidewalk, and irrigated boulevard.

7. Road Dedication and Subdivision Requirements

- a) Grant Statutory Rights of Way if required for utility services.
- b) 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 Manager.

8. <u>Erosion Servicing Control Plan</u>

- a) Provide a detailed ESC Plan for this development as per the Subdivision, Development and Servicing Bylaw #7900.
- b) The developer must engage a consulting civil engineer to provide an ESC plan for this site which meets the requirements of the City Subdivision Development and Servicing Bylaw 7900.
- c) Civil consultant is responsible for all inspection and maintenance.
- d) A Security Deposit for ESC Works equal to 3.0% of the Consulting Engineer's opinion of probable costs of civil earthworks and infrastructure will be added to the Servicing Agreement.

9. <u>Design and Construction</u>

- 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.



10. Servicing Agreements for Works and Services

- a) A Servicing Agreement is required for all 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.

11. Geotechnical Report

Provide a geotechnical report 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. The Geotechnical reports must be submitted to the Development Services Department (Subdivision Approving officer) for distribution to the Development Engineering Branch 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, perimeter drains and septic tank effluent on the site.
- (vii) Any items required in other sections of this document.

10. Charges and Fees

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

Nelson Chapman, .Eng.

Development Engineering Manager

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