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**CITY OF KELOWNA**  
**MEMORANDUM**

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**Date:** August 29, 2017  
**File No.:** Z17-0057

**To:** Urban Planning (LG)

**From:** Development Engineering Manager (JK)

**Subject:** 2825 Richter Street *REVISED*  
to RM2

RU6

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Development Engineering Department have the following comments and requirements associated with this application. The road and utility upgrading requirements outlined in this report will be a requirement of this development.

The Development Engineering Technologist for this project is Jason Angus.

1. Domestic Water and Fire Protection

- (a) The existing lot is serviced with 19mm diameter water service. The developer's consulting mechanical engineer will determine the domestic and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The estimated cost of this construction for bonding purposes is **\$8,000.00**
- (b) The applicant, at his cost, will arrange for the removal of the existing service on Coopland Crescent and the installation of one new larger metered water service.
- ~~(c) The applicant at his cost, will arrange for the installation of a new hydrant on Richter Street. The estimated cost of this construction for bonding purposes is **\$10,500.00**~~
- (d) The developer must obtain the necessary permits and have all existing utility services disconnected prior to removing or demolishing the existing structures. The City of Kelowna water meter contractor must salvage existing water meters, prior to building demolition. If water meters are not salvaged, the developer will be invoiced for the meters.

2. Sanitary Sewer

- (a) The existing lot is serviced with a 100mm diameter sanitary service. The developer's consulting mechanical engineer will determine the requirements of this proposed development and establish the required size and preferred location of the new service. Only one service will be permitted for this development. The applicant, at his cost, will arrange for the removal of the existing small diameter service and the installation of a new larger service. The estimated cost of this construction for bonding purposes is **\$4,000.00**

### 3. Storm Drainage

- (a) The developer must engage a consulting civil engineer to provide a storm water management plan for this site which meets the requirements of the City Storm Water Management Policy and Design Manual. The storm water management plan must also include provision of lot grading plans, minimum basement elevations (MBE), if applicable, and provision of a storm drainage service and recommendations for onsite drainage containment and disposal systems.
- (b) Only one service will be permitted for this development. The applicant, at his cost, will arrange for the installation of one new overflow service. The estimated cost of this construction for bonding purposes is **\$5,000.00**

### 4. Road Improvements

- (a) Richter Street must be upgraded to an urban standard along the full frontage of this proposed development, including curb and gutter, sidewalk, landscaped boulevard complete with street trees drainage system including catch basins, manholes and pavement removal and replacement, street lighting and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. The estimated cost of this construction for bonding purposes is **\$31,700.00**
- (b) Coopland Crescent must be upgraded to an urban standard along the full frontage of this proposed development, including curb and gutter, sidewalk, landscaped boulevard complete with street trees drainage system including catch basins, manholes and pavement removal and replacement, street lighting and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. The estimated cost of this construction for bonding purposes is **\$12,400.00**
- (c) Lane must be upgraded along the full frontage of this proposed development including pavement removal and replacement, manhole in Richter Street, extension of storm main, catch basin and concrete sidewalk thru the lane. The estimated cost of this construction for bonding purposes is **\$12,400.00**

### 5. Subdivision

- (a) Grant Statutory Rights Of Way if required for utility services.
- (b) Dedicate a 6.0m corner rounding at the intersection of Richter Street and Coopland Crescent.
- (c) 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.

### 6. Electric Power and Telecommunication Services

- a) All proposed distribution and service connections are to be installed underground.
- b) Streetlights must be installed St Paul Street if needed.



- 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).

7. Engineering

Road and utility construction design, construction supervision, and quality control supervision of all off-site and site services including on-site ground recharge drainage collection and disposal systems, must be performed by an approved consulting civil engineer. Designs must be submitted to the city engineering department for review and marked "issued for construction" by the city engineer before construction may begin.

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 Works & Utilities 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

*This requirement can be deferred to DP/BP but must be provided by the owner by means of a geotechnical report prepared by a Professional Engineer qualified in the field of hydro-geotechnical survey to address the following:*

- (a) Area ground water characteristics.
- (b) Site suitability for development, unstable soils, etc.
- (c) Drill and / or excavate test holes on the site and install pisometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, Identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.
- (d) List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.
- (e) Additional geotechnical survey may be necessary for building foundations, etc.

12. Bonding and Levy Summary

(a) Bonding

(i) General Requirements

(1) Water Upgrades	\$ 8,000.00
(2) Sanitary Sewer upgrades	\$ 4,000.00
(3) Storm Drainage Service Upgrades	\$ 5,000.00

(ii) Richter Street Improvements	\$31,700.00
(iii) Coopland Crescent Improvements	\$10,100.00
(iv) Lane Improvements	\$12,400.00

**Total Bonding** **\$71,200.00**

- (b) The City wishes to defer the sidewalk upgrades to Coopland Crescent fronting this development. Therefore, cash-in-lieu of immediate construction is required and the City will initiate the work later, on its own construction schedule.

Coopland Crescent Sidewalk (Southside) \$ 2,300.00

**Total Cash-in-lieu** **\$2,300.00**

NOTE: The bonding amount shown above are comprised of estimated construction costs escalated by 140% to include engineering design and contingency protection and are provided for information purposes only. The owner should engage a consulting civil engineer to provide detailed designs and obtain actual tendered construction costs if he wishes to do so. Bonding for required off-site construction must be provided and may be in the form of cash or an irrevocable letter of credit, in an approved format.

The owner must also enter into a servicing agreement in a form provided by the City.

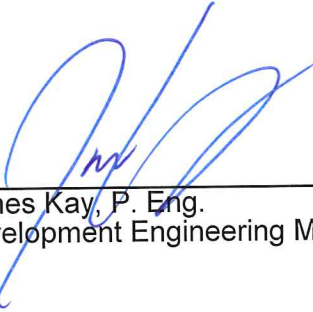
12. Development Permit and Site Related Issues

Access and Manoeuvrability

- (i) The access to the site should be from the lane only.
- (ii) Indicate on the site, the locations of loading bays as well as the garbage and recycle bins.

13. Administration Charge

An administration charge will be assessed for processing of this application, review and approval of engineering designs and construction inspection. The administration charge is calculated as (3.5% of Total Off-Site Construction Cost plus GST)



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James Kay, P. Eng.  
Development Engineering Manager  
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