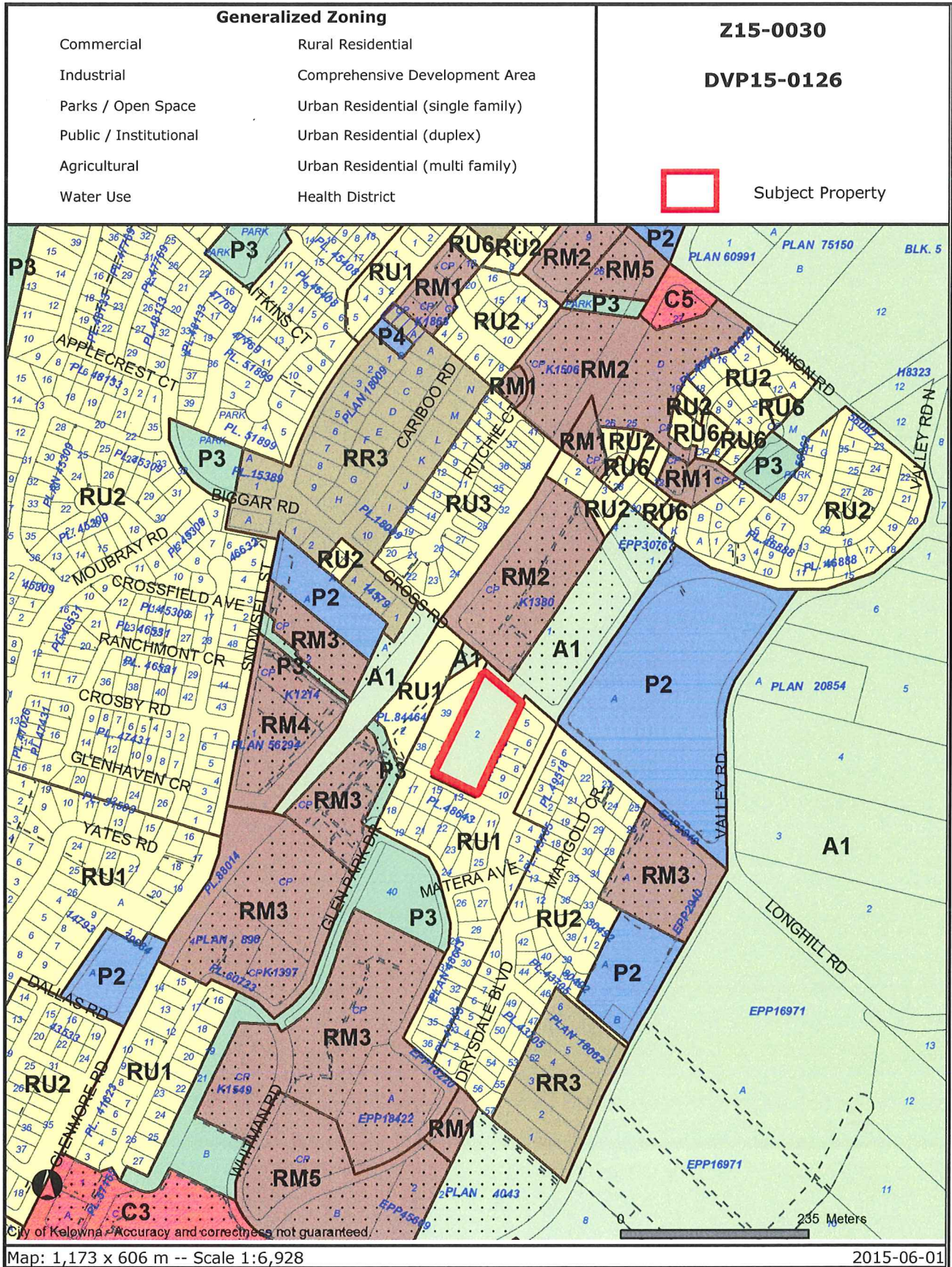


Certain layers such as lots, zoning and dp areas are updated bi-weekly. This map is for general information only.
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CITY OF KELOWNA
MEMORANDUM

Date: July 8, 2015
File No.: Z15-0030
To: Community Planning Department (TY)
From: Development Engineering Manager
Subject: 1981 Cross Rd Hemmerling Ct Plan 10134 Lot 2. Sec 4 TP 23 ODYD

Development Engineering has the following comments and requirements associated with this application to rezone from A-1 to RU2
The road and utility upgrading requirements outlined in this report will be a requirement of this application.

The Development Engineering Technologist for this project is John Filipenko. AScT

.1) General

- a) The postal authorities must be contacted to determine whether or not a "community mailbox" will be utilized, and if so, its location should be determined and the proposed location shown on the construction plans. Please contact the Canadian Post Corporation, Delivery Services, P.O. Box 2110, Vancouver, B.C. V6B 4Z3 (604) 662-1381 in this regard.

.2) Geotechnical Report

- b) Prior to initial consideration, provide a Geotechnical report prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the following:
 - (i) Confirm that each development node (neighbourhood) is suitable for the proposed land use.
 - (ii) Identify lands that should not be developed such as environmentally sensitive or hazardous conditions areas.
 - (iii) Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.
 - (iv) Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).
 - (v) Any special requirements for construction of roads, utilities and building structures.

- (vi) Suitability of on-site disposal of storm water, including effects upon adjoining lands.
- (vii) Identify slopes greater than 30%.
- (viii) Recommendations for items that should be included in a Restrictive Covenant.
- (ix) Any special requirements that the proposed subdivision should undertake so that it will not impact adjacent properties.

.3) Water

- a) The property is located within the Glenmore Ellison Irrigation District (GEID) service area. The developer is required to make satisfactory arrangements with the GEID for these items. All charges for service connection and upgrading costs are to be paid directly to the GEID.
- b) Provide an adequately sized domestic water and fire protection system. The water system must be capable of supplying domestic and fire flow demands of the project in accordance with the Subdivision, Development & Servicing Bylaw. Provide water calculations for this development to confirm this. 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.

.4) Sanitary Sewer

- a) Provide an adequately sized sanitary sewer system.
- b) Provide sanitary routing design complete with calculations ensuring the downstream infrastructure is capable of supporting this rezoning

.5) Drainage

- a) Provide an adequately sized drainage system. The Subdivision, Development and Servicing Bylaw require that each lot be provided with an individual connection.
- b) Provide the following drawings:
 - i) A detailed Lot Grading Plan (indicate on the Lot Grading Plan any areas that have greater than 1.0 m of fill);
 - ii) A detailed Stormwater Management Plan for this rezoning; and,
 - iii) An Erosion and Sediment Control Plan.
- c) Show details of dedications, rights-of-way, setbacks and non-disturbance areas on the lot Grading Plan.

.6) Roads

- a) The Cross Road frontage is urbanized. Removal of the existing driveway and curb letdown is required. Construction will require curb, gutter, sidewalk removal and reconstruction. Boulevard treatment shall match the existing materials and stamped pattern. Also included is the relocation and / or removal of the existing utilities (poles) as may be required.
- b) Hemmerling Court fronting this development is to be constructed to a SS-R4 Standard including fillet pavement, a rollover concrete curb and gutter, monolithic sidewalk, storm drainage system including manholes and catchbasins.
- c) Road A is to be constructed to a Local – Class 2 standard (SS-R4) complete with concrete sidewalk. Provide a coseptual design for the extension of Road A beyond this development
- d) The proposed lot layout will be further reviewed at the PLR stage.
- e) Provide traffic control and street name signs where required. The City will install all signs and traffic control devices at the developer's expense.

.7) Power and Telecommunication Services and Street Lights

- 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
- b) Street lights 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.

.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) 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 Branch. 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 Agreements for Works and Services

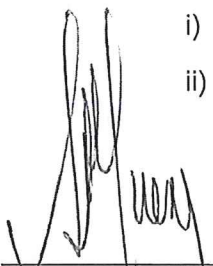
- a) A Servicing Agreement is required for all works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The 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.

.10) Other Engineering Comments

- a) Provide all necessary Statutory Rights-of-Way for any utility corridors required, including those on proposed or existing City Lands.
- b) Dedicate 2.72m road widening along the full frontage of Cross Road.
- c) Dedicate 2.66m road widening along the full frontage of Hemmerling Court.
- d) In order to promote pedestrian connectivity in this neighbourhood between proposed Proposed Road A and the existing concrete sidewalk on Cross Road, construction of a 3 metre wide asphalt pathway between lots 9 and 10 is requested. To delineate both sides of the pedestrian pathway a 1.2m high black vinyl coated chain link fence to City of Kelowna standards should be installed by the developer 15 cm inside both private property lines.
- e) Provide a sidewalk connection on Hemmerling Court by extending the existing sidewalk on Drysdale Boulevard to the new sidewalk fronting this development.

.11) Charges and Fees

- a) Development Cost Charges (DCC's) are payable
- b) Fees per the "Development Application Fees Bylaw" include:
 - i) Street/Traffic Sign Fees: at cost if required (to be determined after design).
 - ii) Engineering and Inspection Fee: 3% of construction value (plus GST).



Steve Muenz, P.Eng.
Development Engineering Manager
JF



Phone: 250-763-6506

Glenmore-Ellison Improvement District
445 Glenmore Road
Kelowna, BC V1V 1Z6

Email: glenmore.ellison@shaw.ca
Website: www.glenmoreellison.com

Fax: 250-763-5688

SCHEDULE B
This forms part of development
Z15-0030

OUR FILE No.: 0127
CITY OF KELOWNA FILE No.: DVP15-0126 / Z15-0030
FOLIO: 217-03285.000

July 13, 2015

City of Kelowna
Development Services
1435 Water Street
Kelowna, B.C. V1Y 1J4

Attention: Damien Burggraeve (*via email to: dburggraeve@kelowna.ca*)

Re: Conditions of water service for proposed subdivision (12 lots) located at 1981 Cross Rd., Lot 2, Section 4, Plan 10134, City of Kelowna

In response to the above referenced application, the following information is required for water service prior to Subdivision Approval.

1. All water supplies are subject to Glenmore-Ellison Improvement District (GEID) Water bylaws, rules and regulations, and the City of Kelowna Bylaw #7900. Copies of all GEID bylaws are available at the GEID office and on the GEID website at www.glenmoreellison.com.
2. There is an existing 6-inch water service available on the Hemmerling Road Frontage. The applicant may connect to the 6-inch watermain on Hemmerling Court and install a new adequately sized watermain on the proposed Road A through the development. If this service is not utilized for this development, the service must be physically removed and replaced with a C900 spool piece complete with C900 double bell couplers.

Two existing services on the Cross Road Frontage must be deactivated by turning off the corporation stops and cut off. The applicant's engineer is to complete inspections during construction in accordance with GEID's inspection policy.

3. The Kelowna Fire Department shall review the existing and proposed fire hydrant spacing. The applicant must acquire written confirmation from the Fire Department confirming the existing and proposed hydrant spacing has been approved. It is the applicant's responsibility to ensure the hydrant spacing is approved by the City of Kelowna.
4. Prior to water service approval, a servicing feasibility study is required to be completed by GEID's Engineer to determine if a waterworks upgrade is required and/or if the development can be serviced from the GEID waterworks system. The cost for this study will be the actual costs of the engineering services plus disbursements and administration.

The cost of the feasibility study is estimated at \$900.00, and a deposit of this amount is required. Following payment of this amount, please allow approximately 3-4 weeks for the study to be completed. The final amount invoiced to the applicant will be the actual cost of the work, plus disbursements at a charge rate of \$110.00 per hour.

5. All metallic joints and fittings shall be protected by Denso paste and tape and/or protected by sacrificial anodes, as determined by a corrosion specialist. The applicant must complete a soil resistivity study to confirm if a higher or alternative level of corrosion control is required.
6. The GEID Waterworks Crew shall witness and inspect all connections from the existing water main fronting the site. The operation of any utility valves or curb stops must be performed by the GEID Waterworks Crew unless authorized in writing by the GEID. Current bylaw rates apply. Please notify GEID Staff at least two weeks prior to the preferred connection date to schedule GEID crews to witness the inspection.
7. The applicant will be required to engage a professional engineer to design the required works and services. The applicant must submit engineering plans for all servicing within and to the proposed development prior to construction of any water works.
8. The applicant's engineer should consult with GEID Staff prior to commencement of detailed engineering design. Construction on any waterworks portion of the project shall not commence unless authorized by the GEID. The engineer shall provide a construction schedule and notification of start of construction 48 hours before construction begins on the waterworks portion of the project. All waterworks construction shall proceed in compliance with GEID standard inspection policy.
9. The applicants must submit detailed engineering drawings to the Public Health Engineer of the Interior Health Authority (IH). An IH Waterworks Construction Permit shall be submitted to the GEID prior to construction of any water system. No construction shall commence until the GEID and the IH have accepted the engineering drawings.

Project Fees

The applicants engineer shall submit an estimate of the construction costs of the waterworks to be used for calculation of fees owing. The estimate shall include an additional 10% for engineering and inspection services during construction. If the submitted project cost estimate is lower than expected, the GEID is not bound to accept the estimate. In this case, a revised cost estimate will be issued by the GEID and forwarded to the applicant's engineer. As part of the cost estimate submission, the applicant's engineer shall identify and propose for GEID review, the proportion of costs of providing water facilities that can be considered excess or extended service pursuant to section 747.2 of the *Local Government Act*.

The following application, review and inspection fees are required prior to construction approval.

Fee Description	Rate	Payable Prior to...	Total
Development Application Fee	\$150 per subdivision	Application Review	\$150.00 (paid)
Engineering and Inspection Fee	3% of the estimated construction cost of water portion of project.	Issuance of Water Letter <u>or</u> Commencement of Works	To Be Determined

The following **Performance Bond** payment is required prior to GEID approval to construct waterworks on public land or to subdivide. The Performance Bond shall be in the form of an automatically renewable, irrevocable, standby letter of credit written in favor of the GEID. Upon Substantial Completion of the works to the satisfaction of the GEID, registration of all water required SRW's and assumption of the works by GEID, the applicant may apply to have the Performance Bond replaced with a Maintenance Bond. The one-year Maintenance Bond period will not commence until all works have been approved and connected to the GEID community water system and GEID has assumed ownership.

The **Maintenance Bond** will be held for a minimum period of one year, and will only be released following satisfactory final inspection and submission of signed and stamped as-built drawings, digital as-built drawings in a format acceptable to GEID, and completion of all water works in accordance with GEID standards, including satisfactory inspection by GEID and amendment of all deficiencies and submission of all other documentation as required by the GEID.

In the event that works are not completed to the satisfaction of GEID, the works may not be accepted and an extended maintenance bonding period may be required following any re-construction or repairs.

The Capital Expenditure Charge for all proposed single family lots must be paid in full prior to Subdividing. All Capital Expenditure Charges will be assessed in accordance with the GEID Bylaw that governs at the time of payment.

Payment of the Capital Expenditure Charges will not be accepted until all other subdivision requirements have been fulfilled and the City of Kelowna Approving Officer is prepared to issue final subdivision approval.

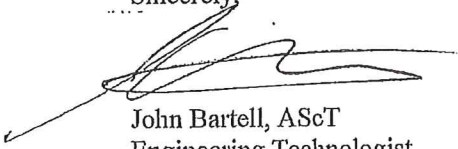
Fee Description	Rate	Payable Prior to...	Total
Performance Bond	125% of estimated construction cost of the water system works (for proposed waterworks located on public land) (capital costs shall include 10% engineering and 15% contingency).	Working on GEID property, working on public road, or Issuance of Water Letter	To Be Determined
Maintenance Bond	50% of estimated construction cost of the water system works (for proposed waterworks located on public land) (capital costs shall include 10% engineering).	Return of Performance Bond	To Be Determined
Capital Expenditure Charge	Rate per single family lot as per current GEID Capital Expenditure Charge Bylaw in effect at the time of subdivision. Current Rate \$5,300.00 per lot (12 lots proposed).	Subdivision Approval or issuance of GEID Water Letter	\$63,600.00
New account set-up	\$20.00 for each newly developed unit to be registered in the Land Titles Office (12 units proposed).	Subdivision Approval or issuance of GEID Water Letter	\$240.00
Connection-Disconnection Inspection Fee	\$500.00 per inspection of a water service connection sized greater than 50mm. \$100.00 per inspection for services sized 50mm or less (2 disconnections required). (\$500.00 + \$100.00 + \$100.00)	Inspection or issuance of Water Letter.	\$700.00

Further details regarding GEID Fees, conditions and development policies are available at the GEID office.

This review is valid for **ONE (1) YEAR** from the date of this letter provided that there are no changes in legislation, regulations, or bylaws in which case alterations to this review may be required to comply with the new legislation, regulations, or bylaws. It is now the applicant's responsibility to fulfill the conditions of this review.

If you have any questions regarding the above fees and conditions, please feel free to contact our office at 250-763-6506. Please reference our file number on all correspondence.

Sincerely,



John Bartell, ASCT
Engineering Technologist

sv/jb

cc: Applicant: Aplin & Martin Consultants Ltd. Attn: Cory Barker (via email: cbarker@aplinmartin.com) on behalf of
Sean Khurana
Owner: Lorne Pearson, 1981 Cross Road, Kelowna, B.C. V1V 2E4

Attach: GEID Inspection Requirements and Construction Standards

