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**CITY OF KELOWNA**

**MEMORANDUM**

**Date:** March 8, 2023  
**File No.:** Z23-0007  
**To:** Urban Planning (BS)  
**From:** Development Engineering Manager (NC)  
**Subject:** 215-235 Nickel Rd

<b>ATTACHMENT</b>	A
This forms part of application # Z23-0007	
Planner Initials	BS
 <b>City of Kelowna</b> DEVELOPMENT PLANNING	

RU1 to MF2

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The Development Engineering Department has the following comments associated with this application to rezone the subject properties from RU1 - Large Lot Housing and RU2 - Medium Lot Housing to MF2 - Townhouses to facilitate a townhouse development. The Development Engineering Technician for this file is Sarah Kelly (skelly@kelowna.ca).

**1. GENERAL**

- a. The following comments and requirements are valid for a period of one (1) year 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 modify some or all items in this memo if an application for Building Permit is not made within this time.
- b. This proposed development may require the installation or modification 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 determine requirements.
- c. All City Trees must be protected as per Bylaw 8042 Schedule C – Tree Barrier and Installation Policy requirements. Removal of City Trees will require prior approval of the City’s Urban Forestry Supervisor and may be subject to replacement, at a minimum two for one ratio, and compensation payment as per the City of Kelowna Equitable Compensation as defined in Section 8.2 of Bylaw 8042.
- d. There is a possibility of a high groundwater table or surcharging of storm drains during major storm events. Non-basement buildings may be required. This should be considered in the design of the onsite system, lot grading, and minimum basement elevations.
- e. Comments and requirements contained herein assume the subject properties will be consolidated into a single lot.

**2. DEVELOPMENT PERMIT COMMENTS AND SITE-SPECIFIC REQUIREMENTS**

- a. Only one driveway of maximum 6.0m width, will be permitted. Letdown to be constructed to SS-C7. The proposed driveway configuration appears consistent with this requirement.

- b. Indicate, on the site, the locations of the garbage and recycle bins. Provide turning movements for a HSU vehicle to confirm maneuverability on site without requiring a reverse movement onto public roads.
- c. Approximately 1 m road dedication along the entire frontage of Nickel is required to achieve a ROW width of 22 m in accordance with OCP Functional Road Classification objectives.

### 3. DOMESTIC WATER AND FIRE PROTECTION

- a. The subject property is located within the Black Mountain Irrigation District (BMID) Water Supply Area. The Developer's Consulting Engineer will determine the servicing and fire protection requirements of this proposed development. The Developer is required to make satisfactory arrangements with BMID for all water servicing and fire protection requirements.
- b. All fire flow calculations are to be provided to the City's Development Engineering Department upon submittal of Building Permit application or off-site civil engineering drawings, as the case may be. Confirmation of adequate servicing and fire protection from BMID must be provided to the City Engineer prior to issuance of Building Permit.

### 4. SANITARY SEWER SYSTEM

- a. Our records indicate that these properties are each currently serviced with a 100 mm diameter sanitary service off Nickel Rd. Only one service connection will be permitted for this development.
- b. The Developer's Consulting Engineer will determine the sanitary sewer servicing requirements for this development. If upgrades are determined to be necessary to achieve adequate servicing, the Developer must complete any such upgrades at their cost.
- c. Service connections are to be completed as per SS-S7 with an inspection chamber and Brooks Box, with consideration given to SS-S50 for connections to mains. Any obsolete services must be fully decommissioned at the main.

### 5. STORM DRAINAGE

- a. The subject property is located within the City of Kelowna drainage service area. Only one service connection will be permitted per lot.
- b. The Applicant must engage a Consulting Engineer to provide the following drawings for the site, in accordance with Bylaw 7900 requirements:
  - i. A detailed Lot Grading Plan;
    - a. Indicate on the Lot Grading Plan the building slab elevations, finished grade elevations throughout the site, any slopes that are steeper than 30%, areas that have greater than 1.0 m of fill, finished grade slopes, and perimeter grades to match existing grades;
    - b. Grading directly to a natural drainage path must include adequate erosion control and water quality improvement measures;

- ii. A detailed Stormwater Management Plan;
  - a. Surface runoff during a storm event of 1:100 year return period from this development must not discharge from the site in excess of the 1:5 year pre-development rate;
  - b. On-site detention systems are to be compliant with Bylaw 7900, Schedule 4, Section 3.11.1 *Detention Storage*;
  - c. 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, applied to post-development rainfall intensity curve stage (IDF) in Section 3.7.2;
- iii. An Erosion and Sediment Control (ESC) Plan;
  - a. Prepare as per section 3.14 of Schedule 4 of Bylaw 7900 and best practices;
  - b. 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. Register statutory right of ways on site for all storm water infrastructure or flow paths carrying, conveying, detaining and/or retaining storm water that is generated from the public properties or public road right of ways. Show details of dedications, rights-of-way, setbacks and non-disturbance areas.
- d. 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. Intermittent pumping of groundwater for structures within seasonal range of the groundwater table may be permitted with some conditions. 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.

## 6. ROADWAY AND STREETScape

- a. Nickel Rd is classified in the 2040 OCP as a Core Area Collector with Bike Lanes and must be upgraded to an urban standard along the full frontage of the subject property to facilitate additional corridor density associated with this development. Required upgrades to include sidewalk, curb and gutter, LED street lighting, landscaped and irrigated boulevard, pavement removal and replacement and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. Road cross-section will be provided to consulting engineer upon request; please contact the development technician for this project.
- b. It is the responsibility of the Developer's consulting engineer to provide a design for the frontage such that is compatible with the existing conditions and sidewalk to the north and south of the subject lots.
- c. All Landscape and Irrigation plans require design and inspection by a Qualified Professional registered with the BCSLA and the IIABC, are to be included as a line item in the estimate for the Servicing Agreement performance security. Landscape and irrigation plans require approval by the Development Engineering Branch at the same time as other "issued for construction" drawings.

- d. Streetlights must be installed on all public roads. All streetlighting plans are to include photometric calculations demonstrating Bylaw 7900 requirements are met and require approval by the Development Engineering Branch at the same time as other “issued for construction” drawings.

**7. POWER AND TELECOMMUNICATION SERVICES**

- a. All proposed 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. Utility companies are required to obtain the City’s approval before commencing construction.
- b. Provide all necessary Statutory Rights-of-Ways for any utility corridors as may be required.

**8. GEOTECHNICAL STUDY**

- a. Provide a Geotechnical Report prepared by a Professional Engineer competent in the field of geotechnical or hydrogeological engineering as applicable. The Geotechnical Report must be submitted to the Development Services Department as part of the Building Permit submission and prior to the City’s review of Engineering drawings. Geotechnical Report to address, at a minimum, any of the applicable items below:
  - i. Site suitability for development;
  - ii. Area ground water characteristics, including any springs and overland surface drainage courses traversing the property, as well as any monitoring required;
  - iii. Site soil characteristics (i.e., fill areas, 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 erosion and sedimentation controls for water and wind;
  - vii. Any items required in other sections of this memo;
  - viii. Recommendations for roof drains, perimeter drains, and septic tank effluent on the site;

**9. DESIGN AND CONSTRUCTION OF OFFSITE WORKS**

- a. Offsite Works and Services are required of this development as outlined above. The Developer must Design and enter into a Servicing Agreement and provide security for the Construction of the Works prior to issuance of Building Permit.
- b. Design of all offsite works and site servicing must be completed in accordance with Subdivision, Development, and Servicing Bylaw No. 7900 and is subject to the approval of the City Engineer prior to construction or execution of a Servicing Agreement.
  - i. See Bylaw 7900 Sections 6.0, 7.0, and 9.0, as well as Schedule 4 for procedural guidance, approval requirements, and design standards.
  - ii. Design must be completed by a suitably qualified and experience Consulting Engineer.

- iii. Engineering drawing submissions are to be in accordance with *Council Policy 265 – Engineering Drawing Submission Requirements*. Drawings must be submitted digitally in PDF format and sealed in accordance with EGBC Guidelines.
- c. A Servicing Agreement is required for all Works and Services on City lands (Offsite Works).
  - i. The Servicing Agreement must be in the form of Schedule 2 of Bylaw 7900.
  - ii. The Developer’s Consulting Engineer, prior to preparation of a Servicing Agreement, must provide adequate drawings and estimates for the Works to the City Engineer.
  - iii. Bylaw 7900, Part 3 – Security for Works and Services, Sections 7.1 - 7.2, describes the Security requirements of an Owner for entering into Servicing Agreements. Security must be in the form of an irrevocable letter-of-credit, bank draft, or certified cheque.
- d. Construction of the required Works and Services must be completed in accordance with Bylaw 7900 requirements and is subject to several approvals prior to work commencing. These include, but are not necessarily limited to, the following:
  - i. Before any construction of the Works commences, design drawings must be reviewed and approved for construction by the City Engineer.
  - ii. A “Consulting Engineering Confirmation Letter” (City template provided upon request) must be executed by the Owner and Consulting Engineer and provided to the City.
  - iii. The Developer’s Consulting Engineer must undertake adequate inspections during construction of the Work, as outlined in EGBC’s *Guide to the Standard for Documented Field Reviews During Implementation or Construction*. A Quality Control and Assurance Plan acceptable to the City Engineer must be submitted prior to construction approval. Refer to Bylaw 7900, Schedule 3.
  - iv. Insurance requirements are outlined in Bylaw 7900, Section 7.3. A compliant Certificate of Insurance must be provided prior to construction approval.
  - v. Contractor must provide a current WorkSafe BC Clearance Letter.
- e. Construction completion, maintenance period, and return of Performance Security requirements are outlined in Bylaw 7900, Sections 9.5 - 9.7 and Sections 10.0 - 10.4.

## 10. **CHARGES, FEES, AND SECURITIES**

- a. Fees per the “Development Application Fees Bylaw” include:
  - i. Survey Monument, Replacement Fee: \$1,200.00 (GST exempt) – only if disturbed.
  - ii. Survey Monument Fee: \$50.00 per newly created lot (GST exempt).
  - iii. Engineering and Inspection Fee: 3.5% of construction value (plus GST).

A Sangster on behalf of  
 Nelson Chapman, P.Eng.  
 Development Engineering Manager  
 SK

<b>ATTACHMENT</b>		<b>A</b>
This forms part of application		
# DP23-0007		
Planner Initials	<b>BS</b>	 <b>City of Kelowna</b> DEVELOPMENT PLANNING