



Stantec Consulting Ltd
205 – 1302 7th Avenue, Prince George, B.C.

April 16, 2024
File: 115824013

Attention: Leah Labarrere

Planning and Development Services
1100 Patricia Boulevard,
Prince George, B.C.
V2L 3V9

Dear Ms. Labarrere,

**Reference: 1451187 B.C. Ltd.
3737 Highway 16 East, Prince George, B.C.
Application for Zoning Amendment and Subdivision**

On behalf of 1451187 B.C. Ltd, we are pleased to provide this letter and attachments in support of applications to amend the zoning and to subdivide the above referenced property.

BACKGROUND

The subject property was originally re-zoned and subdivided to its current lot size (14.75 Ha) at the time of development of the former Ritchie Bros. site on the opposite side of Highway 16 East.

The process of re-zoning and subdivision included:

- Re-zoning of the northern portion (8.8 Ha) to C-5 Visitor Commercial land use.
- Re-zoning of the southern portion of the site (6.0 Ha) to M1 – Light Industrial Land Use.

At the time, the re-zoning was specific to the intent to relocate NR Motors R.V. sales and service business from its 1st Avenue location to the property, with the sales and service business proposed to be located on the M1 portion of the property and an R.V. park / campground on the northern (C-5 zoning) portion of the property. The R.V. park / campground use was seen to be a secondary use that supported the primary R.V. Sales and Service business of N.R. Motors.

N.R. Motors did not relocate to the site and has since sold the property. The current owners desire to re-zone the northern portion to M1 Light Industrial so that the zoning is consistent across the site. Establishing consistent M1 zoning across the site is desired to support a proposed subdivision of the site into a approximately 6 lots, with average lot sizes in the order of magnitude of 4 Acres (some smaller, some larger). The M1 Light Industrial zone provides for a relatively broad mix of business and light industrial uses. While it is difficult to speculate which of these uses specifically would be developed upon completion of subdivision, the general intent of subdividing into relatively large lot sizes is to provide for the uses that typically require larger yard space for storage of vehicles, equipment, or materials.

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PROPOSED ZONING – NORTHERN PORTION

Re-zoning of the northern portion of the property from C5 Visitor Commercial to M1 Light Industrial is proposed to create a zoning that is consistent across the property and that is consistent with many of the lands on the east side of Prince George, between the Fraser River and the airport lands.

REMOVAL OF RESTRICTIVE COVENANT – SOUTHERN PORTION

As described in the introduction, previous plans to develop the property were specific to the business operations of N.R. Motors. The current intent is to develop a subdivision that would provide for the range of uses that are permitted within the M1 Light Industrial zoning designation.

A review of charges against the title of the property has found that previous owners entered into a restrictive covenant with the City that limits permitted uses of the southern portion of the property to R.V. sales or service, car sales or service, storage of cars and recreational vehicles and the sale / servicing of small engines. These uses appear to have been specific to the intentions of N.R. Motors but do not allow for the range of uses that would normally be permitted under the M1 zoning designation. As a part of this re-zoning application, we are asking that the City remove this restrictive covenant from the title of the property.

MUNICIPAL SERVICING (WATER, SANITARY SEWER, STORM DRAINAGE)

A site servicing study (Ritchie Bros. Properties Ltd. / N.R. Motors Ltd. Site Servicing Study, Access Engineering Consultants, March 2000) was prepared at the time of the previous re-zoning and subdivision. The site servicing study completed in 2000 confirmed that the properties could be provided with municipal services, providing the services require extension along the Old Caribou Highway and, in the case of the subject property, across Highway 16. The servicing study included concept designs for off-site servicing requirements for both the Ritchie Bros. site and the subject property.

In general terms, the concepts and recommendations from the 2000 servicing study can be applied to the current development proposal with minor changes that are described in the sections that follow.

Watermain Extension

Water modelling completed by the City of Prince George in January 2010 recommended that a 350 mm diameter watermain be extended along the Old Caribou Highway in order to provide water to the Ritchie Bros site and across Highway 16 East to the subject property. Approximately 430 meters of 350 mm diameter watermain was extended to the southwest corner of the Ritchie Bros site. Another 450 meters of 350 mm diameter watermain extension (including highway crossing) is expected to be required to provide water service to the subject property.

When the water system was modelled in 2000 it was estimated that by extending the 350 mm watermain to the site, a water demand of approximately 167 L/s could be provided to the site. By today's standards, the required fire flow could be as high as 250 L/s, depending on the size and type of building constructed on the site.

Fortunately, we do not expect that the type of development or building size will need to be limited / affected by the availability of water for fire protection. As a result of construction of Boundary Road and a new

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Boundary Road water storage reservoir (scheduled for completion in 2024), we expect that the City of Prince George water distribution system will be able to provide in excess of 250 L/s to the property.

As a part of the subdivision process, we will make application to the City for water modelling to confirm the availability of suitable water for fire protection.

Sanitary Sewermain Extension

A 200 mm diameter sanitary sewermain exists along the Old Cariboo Highway, to the southwest corner of the Ritchie Bros. site. An extension of another 330 meters of 200 mm diameter sanitary sewermain, including a crossing of Highway 16 East is required to extend sewer service to the subject property.

Properties on the north side of the new subdivision access road will be able to connect to the new subdivision sanitary sewer main with gravity sewer connection laterals to new buildings. Properties on the south side of the subdivision will be able to connect to the new sanitary sewermain with gravity connections if buildings are constructed within approximately 25 meters of the front lot line. New buildings that area constructed a further distance from the proposed front lot line may require a pump to deliver sewage to the service connection at the property line. The extent to which pumped service connections are required shall be confirmed during detailed design. Where pumped connections are expected to be required, a restrictive covenant may be required to be registered on the title of the property at the time of issuance of a building permit (in advance of physically making a connection between the building sewer and the sanitary sewer service).

Storm Drainage

The subject property is at the "height of land" in the area. Surrounding properties do not drain onto the property. With relatively minor exceptions along its western boundary, the topography of the subject property is such that it drains from the higher elevations along the north and west property boundaries in a south east direction towards Highway 16. Drainage is currently received by an existing ditch along the north side of Highway 16 which conveys stormwater towards an existing seasonal drainage channel and culvert crossing Highway 16. The seasonal drainage channel and culvert crossing Highway 16 direct drainage via overland flow towards a large natural, low-lying swamp as short distance from Highway 16. The swamp does not appear to have a defined outlet and potentially holds water on a seasonal basis. Beyond the swamp, the topography directs surface drainage across undeveloped rural lands and along an adjacent BC Hydro right of way. Drainage is ultimately received by Bittner Creek which in turn flows to the Fraser River.

As a matter of standard engineering practice, the Ministry of Transportation and Infrastructure (MoTI) will require that storm water detention be provided to ensure that post-development storm water run-off rates do not exceed pre-development rates. The previous stormwater study suggested that a pond of approximately 500 m³ volume would be required on-site. An updated, more detailed stormwater drainage study will be required to confirm the required stormwater detention volume. Detailed stormwater detention designs will be required to confirm what form of on-site detention can be utilized to manage stormwater from the site and whether or not it is possible for stormwater detention to be entirely in the for of private on-site systems (as compared to common infrastructure that would need to be owned and maintained by the City of Prince George). An updated drainage study will be provided as a part of the subdivision design and approval process.

LOT GRADING / FILL COVENANT

Average grades across the site range from 0-55. The topography is generally well suited to the proposed development where the large lot sizes are expected to require relatively well graded (flat) yard space for outside storage of vehicles, equipment, or materials. Elevations range from approximately 694 meters at the height of the north property line to 687 meters along the south frontage of the site. An earthworks cut / fill design will be required to provide for lowering of the north east and south west sides of the site and raising of the south end of the site. Upon completion of road construction and site earthworks, we envisage that that average elevations will be in the order of 690 meters, slightly higher than Highway 16 to the south. The general intent will be to design a cut / fill earthworks that will limit fills to less than 1.2 meters as much as possible to that requirements for “engineered fill” or fill covenants are limited.

Areas where additional lot grading / bulk earthworks are expected to be required include:

- Approximately 2 – 3 meters of excavation / soil removal will be required to lower grades at the south west corner of the site to provide for the installation of municipal utilities (water & sewer) and to provide for the proposed road connection.
- Approximately 2 meters of fill may be required in an isolated area along the mid point of the south highway frontage to raise an isolated low spot so that it is higher than Highway 16
- Surplus soils (in excess of that required for general lot grading) are expected to be disposed of on-site at the northwest corner of the site. At this location, there is a depression (approximately 2 acres in size) that is substantially lower than the rest of the site. If this area if filled more than 1.2 meters depth with uncompacted fill, a fill covenant will be required to be registered on title to document that this portion of the newly created lot will not be suitable for construction of buildings on the fill material.

A geotechnical investigation / study will be completed prior to construction of the subdivision in order to provide engineering guidance with respect to road construction, utility installation and lot grading.

SITE ACCESS

The site is bounded by the most northerly leg of the Old Cariboo Highway, at the southwest corner of the site and by Highway 16 along the southeast property line. Access to the site is proposed to be provided by construction of a new municipal road, with an intersection connecting to the Old Cariboo Highway, at approximately 65 meters from the intersection of the Old Cariboo Highway with Highway 16 East. The new subdivision road is proposed to be constructed to the rural / suburban standard with asphalt pavement road structure, and open ditches for drainage and overhead power and telecommunications cable (as per City of Prince George standard drawing R1).

TRAFFIC STUDY

A traffic study was completed (L&M Engineering, March 13, 2000) at the time of the original subdivision of the Ritchie Bros and N.R. Motors sites. The traffic study evaluated the combined impacts of the Ritchie

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Bros and N.R. Motors developments on the road network. In addition to confirming the feasibility of proposed accesses to the Ritchie Bros. site, the study recommended that a west bound direct taper deceleration land be provided in conjunction with development of the N.R. Motors site. At a minimum, we expect that the proposed westbound direct taper deceleration lane will need to be constructed to facilitate access to the site from Highway 16 at the intersection with the Old Cariboo Highway.

The Traffic Impact Study will need to be updated as part of the process of development of the property. We have briefly discussed the current development proposal with staff from the Ministry of Transportation and Infrastructure (MoTI) (e-mail with Sol Chavez, Senior Development Officer, MoTI). From our initial discussions it is our understanding that MoTI will not require a Traffic Impact Study as a condition of rezoning but will require a Traffic Impact Study as a condition of subdivision approval.

The study completed in 2000 was based upon trip generation rates that were specific to the defined uses of N.R. Motors business (RV Sales and Service and RV Park). The 2000 study suggested total trip generation of 146 vehicles / hour (peak p.m. rates). The updated Traffic Impact Study will need to review trip generation rates that are expected to be applicable to the development if the entire site is to be zoned / developed for the uses permitted by M1 Light Industrial zoning. As an example, the tables below suggest that Trip Generation for the site could range between 51 and 222 vehicles per hour at the am peak (median 146 vehicles per hour) if 300,000 sq. ft. of light industrial building space were developed on the site.

300,000 sq. ft. of building space is an initial estimate based upon 20% building site coverage for the subdivision. A high-level overview of site coverage for similar light industrial subdivisions (Airport, Danson, BCR) suggests that site coverage is frequently in the order of 15 % of the site, when the lot sizes are larger than 1.0 Ha.

Trip generation rates- ITE 11				
ITE code	Land use	Independent Variable	AM	PM
			Average Rate	Average Rate
110	Industrial / General Light Industrial	1000 Sq. Ft GFA	0.74	0.65
130	Industrial / Industrial Park	1000 Sq. Ft GFA	0.34	0.34
140	Industrial / Manufacturing	1000 Sq. Ft GFA	0.68	0.74
150	Industrial / Warehouses	1000 Sq. Ft GFA	0.17	0.18

Total Trip Generation				
ITE code	Land use	Developed GFA (x1000 Sq. Ft)	AM	PM
			Trips	Trips
110	Industrial / General Light Industrial	300	222	195
130	Industrial / Industrial Park	300	102	102
140	Industrial / Manufacturing	300	204	204
150	Industrial / Warehouse	300	51	54
	Average	300	146	139

The process of updating background traffic volumes, forecasting future traffic volumes, and applying anticipated Trip Generation / Distribution from the proposed development to the intersection of Highway 16 and the Old Cariboo Highway will allow for an operational analysis to be completed with respect to the impact of the development on the intersection. At a high level, one of the key objectives of the study will be to confirm whether or not the existing eastbound left turn lane on Highway 16 provides a sufficient length of vehicle storage to support the development. The previous study suggested that the eastbound left turn lane would not need to be upgraded. This recommendation needs to be updated taking into account the current conditions and development proposal for light industrial land use.

SUBDIVISION WORKS & SERVICES (ON-SITE)

The subject property is designated as semi-urban by Schedule B of the City of Prince George Subdivision and Development Bylaw. Lands that are designated as semi-urban are required to provide the following works and services as a condition of subdivision:

- New road structure with a 10.2-meter-wide paved asphalt pavement surface.
- Street signage.
- City standard lighting (may required a variance if Hydro Pole mounted lease lighting is to be considered).
- Boulevard landscaping (from back of ditch to property line).
- Electric power and telecommunications via poles and overhead wiring.
- Buried sanitary sewer main with service connection laterals to each new lot created.
- Open channel drainage for the road network.

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- Buried water distribution system including fire hydrants and new water service connection laterals for each new lot created.

OFF-SITE WORKS AND SERVICES (OLD CARIBOO HIGHWAY)

In addition to extension of water and sanitary sewer mains and construction of a westbound right turn direct taper deceleration lane onto the northern leg of the Old Cariboo Highway, the City had previously required that paving of the Old Cariboo Highway (north of Highway 16 East to the development access) would be required at the time of development of the N.R. Motors site. While it appears that this section of the site access has since been paved, upgrading of this section of the Old Cariboo Highway (75 meters length of road up to the PGARA access) may be required in conjunction with the subdivision works and services. An evaluation of the northerly leg of the Old Cariboo Highway will be completed as a part of the required Traffic Impact Study.

PRELIMINARY SUBDIVISION LAYOUT DRAWINGS

In support of the attached re-zoning and subdivision applications, we are pleased to provide copies of the original servicing study and traffic impact study, along with updated site plans including:

- Site Plan - Rezoning Application
- Site Plan – Proposed Subdivision
- Site Servicing Plan (water and sewer)

We trust that the preliminary design narrative provided here and attached drawings are sufficient to support the re-zoning and subdivision applications such that the re-zoning application may be processed (including requisite referrals) and that the City may review the subdivision application and provide issuance of Preliminary Layout Review.

We look forward to discussing any questions the City or MoTI may have in advance of completing required geotechnical investigation, drainage study, traffic impact study and designs for required servicing infrastructure.

Regards,

Stantec Consulting Ltd.

Scott Robert
Billbrough --
P.Eng. - EGBC

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Scott Bilbrough P.Eng.

Office Leader

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