

## APPL 5210 Assignment 04 - Subdivision Design

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### Introduction

Site B currently includes five existing properties located in the North Grandview neighbourhood of Surrey, British Columbia. The addresses include 3142 and 2982 164 St, as well as 16434, 16466, and 16496 32 Ave (Figure 1). This report outlines and visualizes a proposed subdivision layout for the site. It aims to consider relevant standards, guidelines, and physical constraints to create a suitable design. The included drawing (Appendix B) visualizes the proposal.

### Shape, Size, Surrounding Area

Site B has an area of 8.7 hectares (21.5 acres). It has a rectangular shape with approximate dimensions of 196.8m wide by 407.9m long, including a small protruding section in the southwest corner. The site is surrounded by vegetated land to the south, behind which is a single family subdivision. To the east are a handful of narrow properties similar to Site B, some of which have houses. Farther east of those properties is another single family subdivision. To the north there is a portion of residential and Agricultural Land Reserve (ALR). To the west are a handful of large lots with detached houses.

### Applicable Regulations and Guidelines for the Subdivision Process

A handful of regulations and guidelines must be considered:

- **Zoning Bylaw:** Outlines the legal requirements for lot size, location, dwelling units, uses, setbacks, height, parking, and density.
- **Subdivision Bylaw:** Outlines the legal requirements for plan submission by a developer, geographic and environmental considerations, parkland dedication, road dedication, utilities servicing, amongst other aspects.
- **Development Permit Area (DPA)** regulations and guidelines: These spatially identify areas where development either cannot happen, or where certain development guidelines must be met to protect natural areas or agricultural uses.
- **Costs** such as Development Cost Charges (DCC), Amenity Cost Charges (ACCs), School Site Acquisition fees, administrative fees, and construction costs.

### Road Standards and Dedications

Under the Subdivision Bylaw requirements, roads must be created by the developer so that residents can access their properties. These roads must be dedicated as public property so that they and underlying utility lines can be serviced. For this site and the nature of the subdivision proposal, the [road classification](#) is “local” and will likely have the standard speed limit of 50 km/h. However, [the City may advocate](#) to change it to 40km/h or even 30km/h in the future.

The roads are designed to be the standard 18 metres wide, ensuring that culs-de-sac have an appropriate radius for turning of 14 metres. Generally, lot widths at the cul-de-sac should be

85% of the minimum lot width, which for this proposal would be 21.96 metres. This was not strictly implemented in the design, however. Regarding road placement, the design does not follow the suggestions from the [North Grandview Neighbourhood Plan](#) (1999). The neighbourhood plan does not seem to consider slope and watercourses, does not try to maximize lot yield, and since being created there are new DPAs applied to the site.

### **Amenities and Features**

- **Open Space:** Due to regulatory constraints and limited space for lots, all of the area east of April Creek is dedicated as open space in the proposal, which residents can enjoy. In addition, the area north of the existing Statutory Rights-of-Way is left as open space, mainly due to the detention pond and farm protection area. The current landscape includes a mix of native and non-native plants which would benefit from some landscaping so residents can navigate it comfortably and safely.
- **Watercourse:** Part of the dedicated open space, April Creek is a pleasant natural feature which may be attractive for home buyers. A road crossing extending from the Statutory Rights-of-Way allows residents to walk over the creek to the rest of the site.
- **Views:** There is a slope uphill into the middle of the site, presenting a pleasant Northward view (Figure 2). This may be attractive for home buyers, but also necessitates certain design principles compared to an at-grade structure.

### **Zoning Standards, Lot Size Requirements, and Building Setbacks**

The site is currently zoned for “RA - Acreage Residential”. The subdivision proposal proposes rezoning to “R2 Quarter Acre Residential”. This does not mean the lots themselves have to be exactly a quarter acre. In this case, the design includes minimum 775 square metre lots, with minimum dimensions of 20 x 30m. To be allowed to have these lot size reductions from the default zoning standards, the developer must:

- Pay Tier 2 Capital [Community Amenity Contributions \(CACs\)](#) at \$22,287 per dwelling unit
- Dedicate at least 15% of the development as public open space (Zoning Bylaw p. 14, div. C, s. 2)
  - The 5% parkland dedication required by the Subdivision Bylaw is included in this 15% open space, but if needed cash in lieu may be paid to the City
  - Table 1 outlines how open space requirements were met for this proposal

Other zoning standards which apply to this development include:

- That each lot may accommodate 2 to 6 dwelling units, depending on lot size, and up to 10 lots per gross hectare if certain amenities are provided
- Allowable uses of single family dwellings or duplexes, depending on lot size
- Allowable density (Floor Area Ratios) which depends on the uses and lot size (Table 2)
- Allowable lot coverage and building setbacks which depend on the uses and lot size (Table 2)
- Allowable accessory uses

## Proposal Design

The proposal includes a **total of 40 lots ranging from 784 to 1129 square metres**. There are three access points from 164 St into the subdivision. There is one main vertical road, and there are three culs-de-sac which is a common feature of neighbouring subdivisions. One of the culs-de-sacs could potentially become a second road crossing over April Creek if there are future developments east of Site B. With this in mind, the included creek crossing at the top of the subdivision would allow foot traffic to the open space until future developments necessitate road extension. Table 2 summarizes the applicable density, coverage, setbacks, and heights for these sizes. For example, none of the proposed lots are larger than 1500 square metres, so the maximum lot coverage ranges from 40%-50% (Zoning Bylaw p. 14, div. E.)

## Planning and Design Principles

Besides requirements in the BC Building Code and the Zoning Bylaw for creating structures on the lots, there are several design guidelines to consider:

- Lots which fall within the Sensitive Ecosystems DPA for [Streamside Protection](#) should have a minimum rear setback of 4.5m for houses on the site, for example.
- Lots which fall within the [Hazard Lands](#) Development Permit Area for Steep Slopes should incorporate parking into the natural landscape, and should be graded and terraced in an appropriate way.
- No housing lots fall within the [Farming Protection](#) DPA, but some fall within 200m of the Agricultural Land Reserve (ALR) itself, which means “the allowable density within each portion [within and outside] may be averaged over the entire site area, subject to compatibility with adjacent existing lot sizes” according to the Official Community Plan (OCP).
- While it isn’t ideal to have lots at the end of a T-intersection, one lot in this proposal is, but that is an accepted trade-off to accommodate the overall design.

Regarding major utilities, the existing rights-of-way could not be built on due to regulations, so the road will be improved and widened if needed so that existing utilities can be upgraded or kept as-is. New utility lines will need to be built under the local road dedications across the site. There may also be a need to build some sidewalks on 32 Ave and 164 St. The existing detention pond is kept, surrounded by open space, which will continue providing stormwater drainage and may need upgrades to accommodate more runoff from the newly developed site.

## Conclusion

The proposed subdivision development for Site B was created with several major considerations in mind: the physical environment, regulations and guidelines, infrastructure assessment, and market conditions. The result is a suburban, residential-only subdivision which may have one or more dwellings on each lot. Most likely, single family homes and accessory structures will be built based on the local real estate demands, but may support multi-generational families. While this may be a desirable place to buy a home, there are limits to transit accessibility and school capacities in this area, which may affect who ultimately moves in. Overall, the research and design process led to a realistic development for this site.

**Additional sources**

- [Planning and Development Report \(Application No. 7915-0336-00, City of Surrey, 2025\)](#)

*Generative AI Statement: No generative AI was used for this assignment.*

## Appendix A - Figures and Tables

**Figure 1**

*Site B boundary and existing legal lots*



**Figure 2**

*Northward view from Site B (Google Earth rendering, March 9 2026)*



**Table 1***Open space area calculations and requirements for the site proposal*

Description of site area	Total area	How much area it counts for
Undevelopable 15m buffer on both sides of watercourse	12,216.25 square metres	50% of total area = 6,108.13 square metres
20m buffer from 32 Ave within farm protection DPA for sidewalks/greenways in future.*	925.92 square metres	50% of total area = 462.96 square metres
Farm protection DPA below the 20m buffer	798.79 square metres	50% of total area = 399.40 square metres
Other open space dedication (detention pond area, and non-DPA open space not being developed)	11,360.15 square metres	9,682.38 square metres
Total open space area which counts towards requirement on site		<b>16,330.64 square metres</b>
Required amount of open space (15% of total site area)		<b>13,065.68 square metres</b>
Total site area		<b>87,104.54 square metres</b>

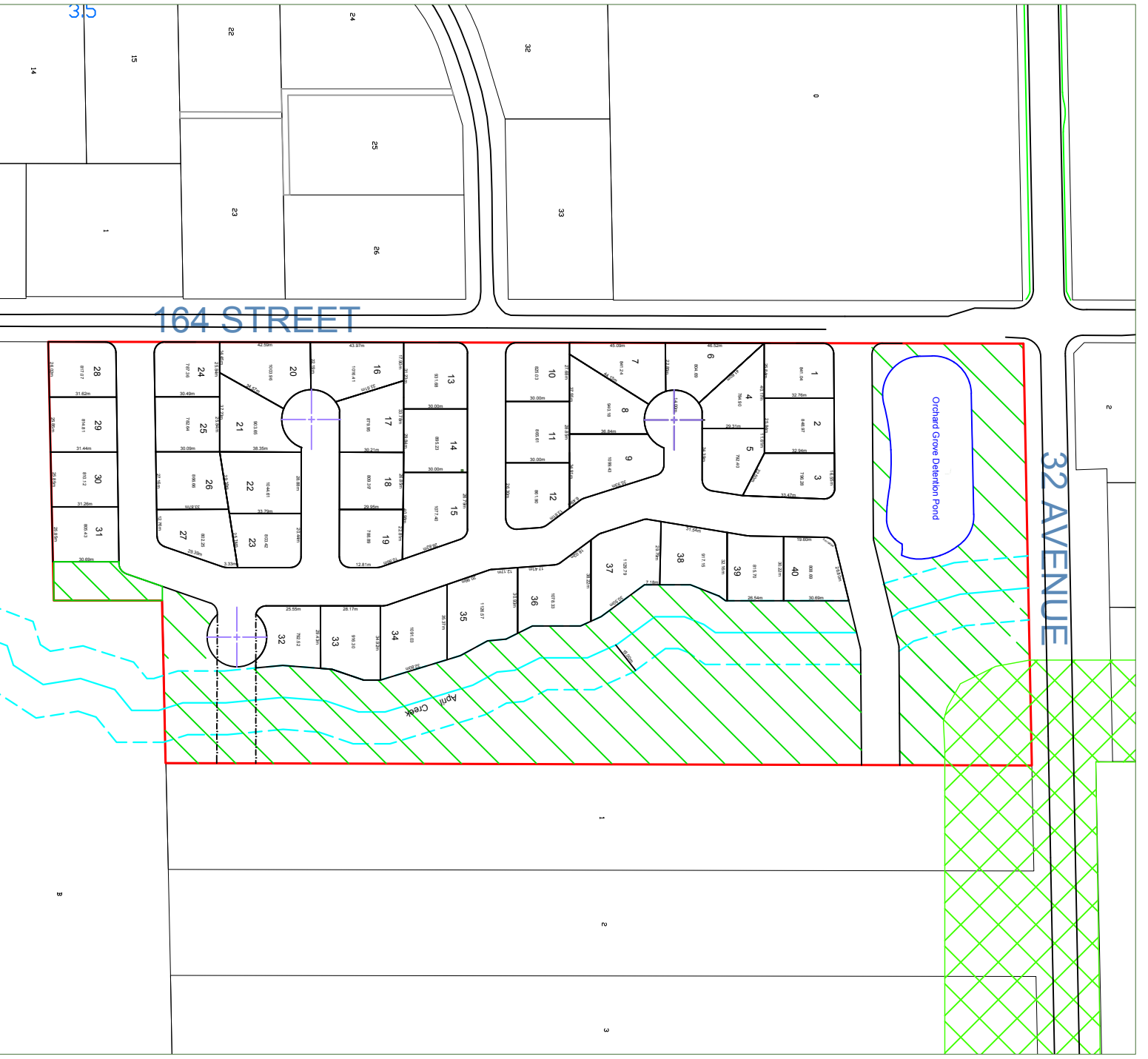
\* This is consistent with neighbouring development applications [such as this one.](#)

**Table 2***Density allowed for the Site B proposed lots (Source: Surrey Zoning Bylaw)*

Building Type	Lot Size	Max Lot Coverage	Max (FAR)	Setbacks	Max Height
Single Family Dwelling with or without a Secondary Suite	560 - 1,262 sq.m	40% reduced at a rate of 2% for each 93 sq.m of additional lot area until 25% is reached.	0.6 - 0.35	FY: 7.5 RY: 7.5 SY: 2.4 SSY: 3.6	7.3 - 10m
Single Family Dwelling with or without a Secondary Suite, and a Coach House, or Garden Suite	560 - 1,262 sq.m	45% reduced at a rate of 2% for each 93 sq. m of additional lot area until 30% is reached.	Not provided directly	Not provided directly	Not provided directly
Duplex with or without a Secondary Suite	≤ 1,500 sq. m	Not provided directly	0.6	FY: 7.5 RY: 7.5 SY: 1.8 SSY: 3.6	6.5 - 8.5m
Duplex with or without a Secondary Suite, Coach House, or Garden Suite	560 - 1,262 sq.m	50% reduced at a rate of 2% for each 93 sq.m of additional lot area until 35% is reached	Not provided directly	Not provided directly	Not provided directly

## **Appendix B - Infrastructure Drawing**

*See next page.*



Title: SITE B - SUBDIVISION PLAN

Current legal description:

LOT 17, LOT 18, LOT 19, LOT 20  
SECTION 24 TOWNSHIP 1 PLAN  
NWP5893 NWD PART NE 1/4

LOT A  
SECTION 24 TOWNSHIP 1 PLAN  
NWP14114 NWD PART NE 1/4

Project  
North Grandview Heights  
APPL 5210 Land Development

Current zoning  
RA - Acreage Residential

Proposed zoning  
R2 - Quarter Acre Residential

Lot yield: 40  
Typical lot size: 25.84 m x 30m, min 775m<sup>2</sup>  
Density approx: 4 units per hectare (min)

Drawing Date: March 10, 2026  
Marina Miller

Scale: 1:66  
Site B Area 8.7 ha



Note: This is a concept plan

	Proposed lot lines
	Watercourse - April Creek with 15m buffer
	Drainage Pond Boundary
	Site Boundary
	Open space for public dedication
	Farmland Protection Development Permit Area (FPDA)
	Potential future road crossing over creek