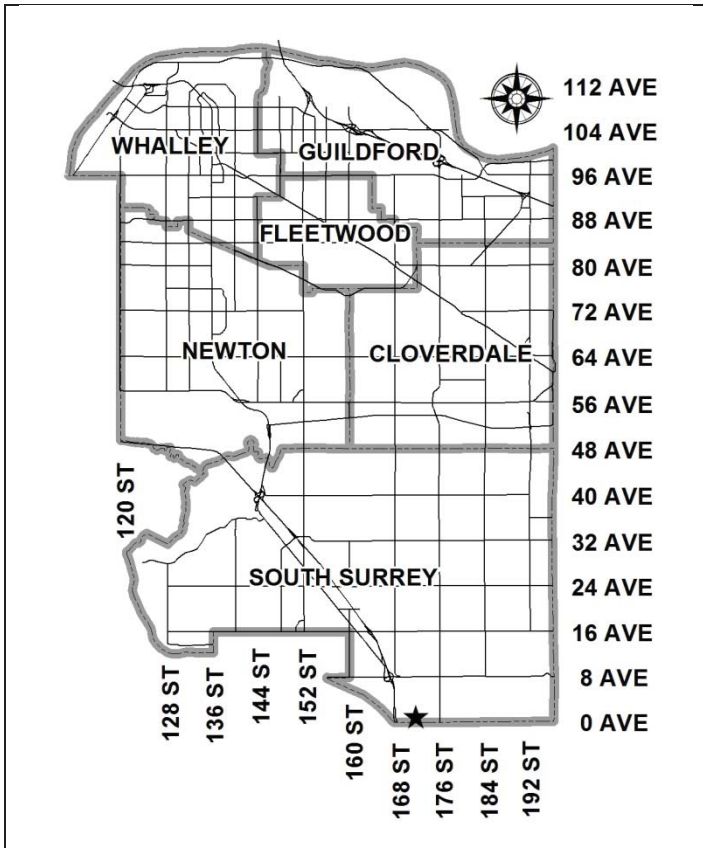


City of Surrey  
**PLANNING & DEVELOPMENT REPORT**

File: 7915-0436-00

Planning Report Date: January 22, 2018



**PROPOSAL:**

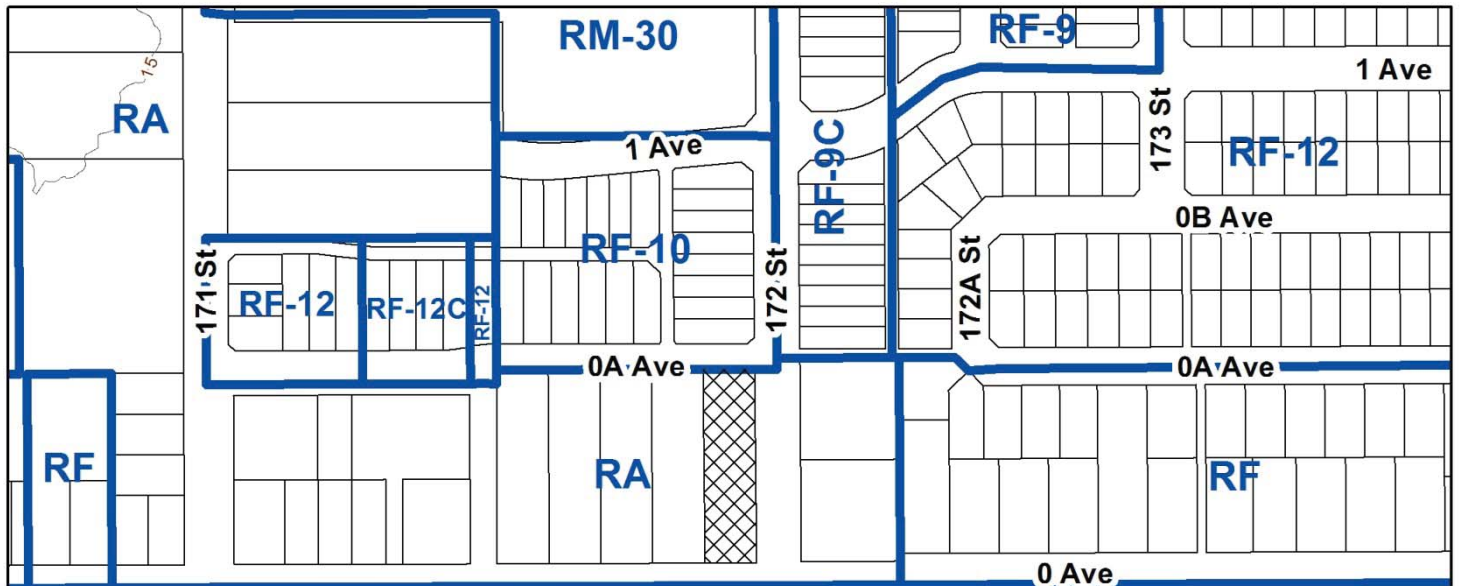
- **NCP Amendment** to modify the proposed road network
- **Rezoning** from RA to RF to allow subdivision into 2 single family lots.

**LOCATION:** 17195 - 0 Avenue

**ZONING:** RA

**OCF DESIGNATION:** Urban

**NCP DESIGNATION:** Urban Single Family (6 u.p.a.)



U.S.A.



### RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for rezoning.

### DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The applicant is proposing a Neighbourhood Concept Plan (NCP) amendment to modify the proposed road network.

### RATIONALE OF RECOMMENDATION

- The proposed development complies with the land use designation in the Official Community Plan.
- The proposed development complies with the land use designation in the Douglas Neighbourhood Concept Plan.
- The proposed cul-de-sac at o Avenue and 172 Street is no longer required as part of the Douglas NCP, as o Avenue will continue to be a through road.

RECOMMENDATION

The Planning & Development Department recommends that:

1. A By-law be introduced to rezone the subject site from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)" and a date be set for Public Hearing.
2. Council instruct staff to resolve the following issues prior to final adoption:
  - (a) ensure that all engineering requirements and issues including restrictive covenants, dedications, and rights-of-way where necessary, are addressed to the satisfaction of the General Manager, Engineering;
  - (b) submission of a subdivision layout to the satisfaction of the Approving Officer;
  - (c) submission of an acceptable tree survey and a statement regarding tree preservation;
  - (d) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
  - (e) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department; and
  - (f) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department.
3. Council pass a resolution to amend the Douglas NCP for changes to the road network when the project is considered for final adoption.

REFERRALS

- Engineering: The Engineering Department has no objection to the project subject to the completion of Engineering servicing requirements as outlined in Appendix III.
- School District: Projected number of students from this development:
- o (zero) Elementary students at Hall's Prairie Elementary School
  - o (zero) Secondary students at Earl Marriott Secondary School
- (Appendix IV)

SITE CHARACTERISTICS

Existing Land Use: Single Family Dwelling

Adjacent Area:

Direction	Existing Use	NCP Designation	Existing Zone
North (Across oA Avenue):	Vacant single family small lots	Small Lot Single Family (10 u.p.a.)	RF-10
East (Across 172 Street):	Currently Single family dwellings. Small lots proposed under Development Application No. 7916-0315-00 (Third Reading).	Urban Single Family (6 u.p.a.)	RA
South (Across o Avenue):	United States of America		
West:	Single family dwelling	Urban Single Family (6 u.p.a.)	RA

JUSTIFICATION FOR PLAN AMENDMENT

- The proposed change to the road network in the Douglas Neighbourhood Concept Plan would allow for o Avenue to continue being used as a through road (Appendix VII). Transportation Planning does not require the proposed cul-de-sac to be constructed.

DEVELOPMENT CONSIDERATIONSBackground

- The property is designated "Urban" in the Official Community Plan (OCP), "Urban Single Family (6 u.p.a.)" in the Douglas Neighbourhood Concept Plan, and zoned "One-Acre Residential Zone (RA)".

Current Proposal

- The applicant is proposing an amendment to the Douglas NCP for changes to the local road network and to rezone the property from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)" to allow subdivision into 2 single family lots (Appendix II).
- The proposed RF lots will be 880 square metres (9,472 sq. ft.) and 874 square metres (9,407 sq. ft.) in area. The proposed lots will exceed the minimum subdivision requirements of the RF Zone for lot area, depth, and width. One RF lot will front onto o Avenue, and the other onto the to-be-constructed oA Avenue.

- The existing single family dwelling on the property will be retained and be located on proposed Lot 1. Accessory buildings in the rear of the property will be removed. The applicant has provided a survey demonstrating that the retained house and lot will comply with the Zoning By-law requirements for the RF Zone, including setbacks, density, and lot coverage.
- The proposed lots are consistent with the "Urban Single Family (6 u.p.a.)" designation under the Douglas NCP and the "Urban" designation under the OCP.
- The road network identified in the Douglas NCP shows that o Avenue was to be disconnected with a cul-de-sac adjacent to the southwest portion of the subject site. Similarly, the portion of the road south of the subject site was to have a green space located within the roadway. Presently, this does not exist as o Avenue is currently a through road (Appendix VII).
- As part of the review of this application, Staff have identified the importance of retaining o Avenue as a through road to provide additional connectivity in the local area.

#### Building Design Guidelines & Lot Grading

- The applicant retained Tynan Consulting Ltd. as the Design Consultant. The Design Consultant conducted a character study of the surrounding homes and proposed Building Design Guidelines for the proposed lots (Appendix V).
- A preliminary lot grading plan was submitted by WSP Canada Ltd. and was found to be acceptable by Staff. Based on the preliminary lot grading plan, basements are proposed for Lots 1 and 2.

#### PRE-NOTIFICATION

- Pre-Notification letters were sent on February 18, 2016 to 38 households within 100 metres (328 ft.) of the site, as well as the Little Campbell Watershed Society. The development proposal sign was erected on November 8, 2017.
- To date, staff has received no phone calls or letters in response to the public notification.

#### TREES

- Max Rathburn, ISA Certified Arborist of Diamondhead Consulting Ltd. prepared an Arborist Assessment for the subject property. The table below provides a summary of the tree retention and removal by tree species:

**Table 1: Summary of Tree Preservation by Tree Species:**

Tree Species	Existing	Remove	Retain
<b>Alder and Cottonwood Trees</b>			
Alder	3	3	0

Tree Species	Existing	Remove	Retain
<b>Deciduous Trees</b> (excluding Alder and Cottonwood Trees)			
Ash	1	0	1
Japanese Maple	1	1	0
<b>Coniferous Trees</b>			
Douglas Fir	4	2	2
Grand Fir	4	4	0
Western Hemlock	4	0	4
Western Red Cedar	10	6	4
<b>Total (excluding Alder and Cottonwood Trees)</b>	<b>24</b>	<b>13</b>	<b>11</b>
<b>Total Replacement Trees Proposed (excluding Boulevard Street Trees)</b>		<b>4</b>	
<b>Total Retained and Replacement Trees</b>		<b>15</b>	
<b>Contribution to the Green City Fund</b>		<b>\$10,000.00</b>	

- The Arborist Assessment states that there are a total of 24 protected trees on the site, excluding Alder and Cottonwood trees. Three existing trees, approximately 11% of the total trees on the site, are Alder and Cottonwood trees. It was determined that 11 trees can be retained as part of this development proposal. The proposed tree retention was assessed taking into consideration the location of services, building footprints, road dedication and proposed lot grading.
- For those trees that cannot be retained, the applicant will be required to plant trees on a 1 to 1 replacement ratio for Alder and Cottonwood trees, and a 2 to 1 replacement ratio for all other trees. This will require a total of 29 replacement trees on the site. Since only 4 replacement trees can be accommodated on the site, the deficit of 25 replacement trees will require a cash-in-lieu payment of \$10,000.00, representing \$400 per tree, to the Green City Fund, in accordance with the City’s Tree Protection By-law.
- The new trees on the site will consist of a variety of trees including Morgan Red, Katsura Tree, Serbian Spruce, and Weeping Nootka Cedar.
- In summary, a total of 15 trees are proposed to be retained or replaced on the site with a contribution of \$10,000.00 to the Green City Fund.

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INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

- Appendix I. Lot Owners and Action Summary (Confidential), and Project Data Sheets
- Appendix II. Proposed Subdivision Layout
- Appendix III. Engineering Summary
- Appendix IV. School District Comments
- Appendix V. Building Design Guidelines Summary
- Appendix VI. Summary of Tree Survey and Tree Preservation
- Appendix VII. NCP Amendment

*Original signed by Ron Hintsche*

Jean Lamontagne  
General Manager  
Planning and Development

DZ/da

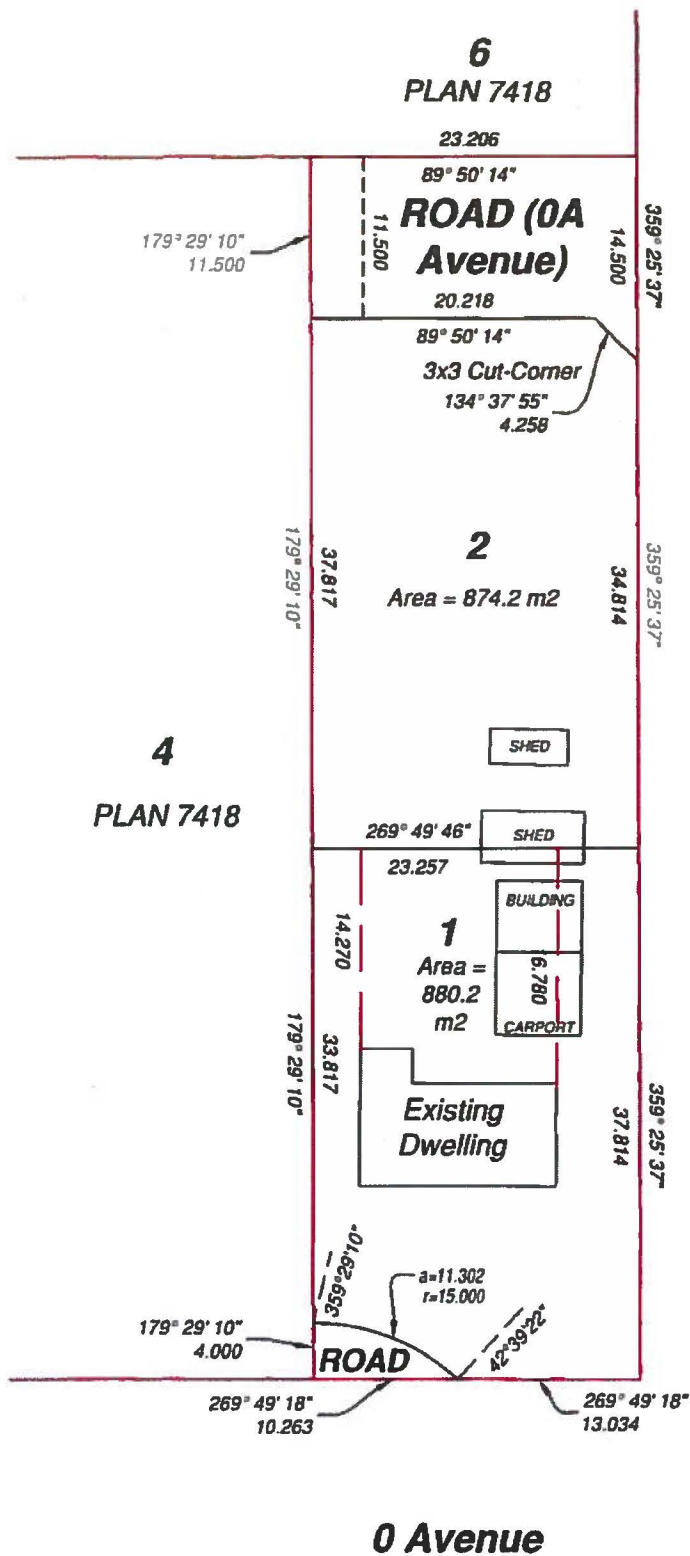
APPENDIX I HAS BEEN  
REMOVED AS IT CONTAINS  
CONFIDENTIAL INFORMATION



## SUBDIVISION DATA SHEET

Proposed Zoning: RF

<b>Requires Project Data</b>	<b>Proposed</b>
<b>GROSS SITE AREA</b>	
Acres	0.5 ac
Hectares	0.2023 ha
<b>NUMBER OF LOTS</b>	
Existing	1
Proposed	2
<b>SIZE OF LOTS</b>	
Range of lot widths (metres)	23.2 metres
Range of lot areas (square metres)	872 square metres
<b>DENSITY</b>	
Lots/Hectare & Lots/Acre (Gross)	9.88 u.p.h. / 4 u.p.a.
Lots/Hectare & Lots/Acre (Net)	
<b>SITE COVERAGE (in % of gross site area)</b>	
Maximum Coverage of Principal & Accessory Building	50%
Estimated Road, Lane & Driveway Coverage	11%
Total Site Coverage	61%
<b>PARKLAND</b>	
Area (square metres)	n/a
% of Gross Site	n/a
	<b>Required</b>
<b>PARKLAND</b>	
5% money in lieu	NO
<b>TREE SURVEY/ASSESSMENT</b>	YES
<b>MODEL BUILDING SCHEME</b>	YES
<b>HERITAGE SITE Retention</b>	NO
<b>FRASER HEALTH Approval</b>	NO
<b>DEV. VARIANCE PERMIT required</b>	
Road Length/Standards	NO
Works and Services	NO
Building Retention	NO
Others	NO

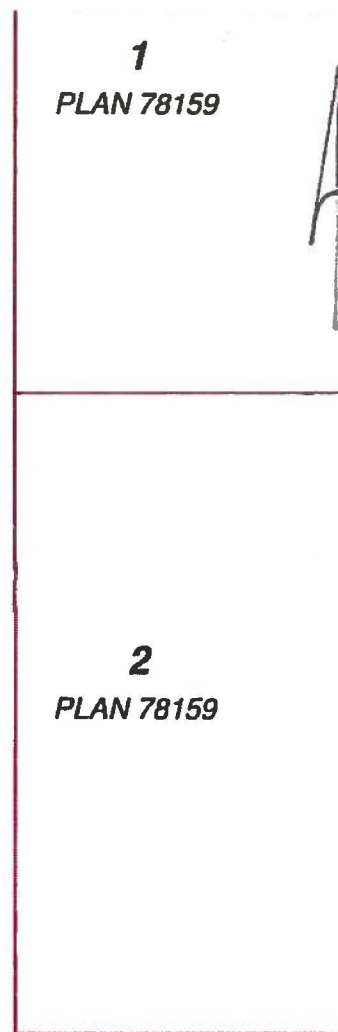


Prepared by:



300 - 65 Richmond Street  
New Westminster, B.C. V3L5P5  
Phone: (604) 525-4651  
File No.:

Date: FEB 1/16



SUBDIVISION CONCEPT  
• 17195 - 0 AVE  
• BASED ON RF ZONE.

UNITED STATES OF AMERICA - INTERNATIONAL BOUNDARY

SURVEY FILE NO. 7915 - 0436-00

P15 - 11108 - 71

INTER-OFFICE MEMO

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TO: **Manager, Area Planning & Development  
- South Surrey Division  
Planning and Development Department**

FROM: **Development Services Manager, Engineering Department**

DATE: **Dec 11, 2017** PROJECT FILE: **7815-0436-00**

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RE: **Engineering Requirements  
Location: 17195 0 Avenue**

**REZONE/SUBDIVISION**

***Property and Right-of-Way Requirements***

- dedicate 3.942 metres fronting 0 Avenue.
- dedicate 3.0m x 3.0m at the intersection of 0 Avenue and 172 Street.
- dedicate 8.5 metres fronting 0A Avenue.
- dedicate 3.0m x 3.0m at the intersection of 0A Avenue and 172 Street.
- dedicate 0.5m ROW fronting 0 Avenue, 0A Avenue and 172 Street.

***Works and Services***

- construct north side of 0 Avenue to a unique local road standard complete with 6.6m asphalt pavement, barrier curb and gutter, boulevard 1.5 metre wide concrete sidewalk street lights and street trees.
- construct west side of 172 Street to a 20.0 metre local road standard complete with 10.50 metre asphalt pavement, barrier curb and gutter, boulevard, 1.5 metre concrete sidewalk street lighting, and street trees.
- Construct south side of 0A Avenue to a 20.0 metres local standard complete with 10.50 metre asphalt pavement, barrier curb and gutter, boulevard, 1.5 metre concrete sidewalk, street lights and street trees.
- construct sanitary, storm sewers and watermain to service the development.

A Servicing Agreement is required prior to Rezone/Subdivision.



Tommy Buchmann, P.Eng  
Development Engineer

LR1



December-22-17

Planning

**THE IMPACT ON SCHOOLS**

APPLICATION #: 7915 0436 00

**SUMMARY**

The proposed 2 single family lots are estimated to have the following impact on the following schools:

**Projected # of students for this development:**

Elementary Students:	0
Secondary Students:	0

September 2017 Enrolment/School Capacity

<b>Hall's Prairie Elementary</b>	
Enrolment (K/1-7):	37 K + 142
Nominal Capacity (K/1-7)	19 K + 93
<b>Earl Marriott Secondary</b>	
Enrolment (8-12):	1857
Capacity (8-12):	1500
Maximum Operating Capacity*(8-12);	1620

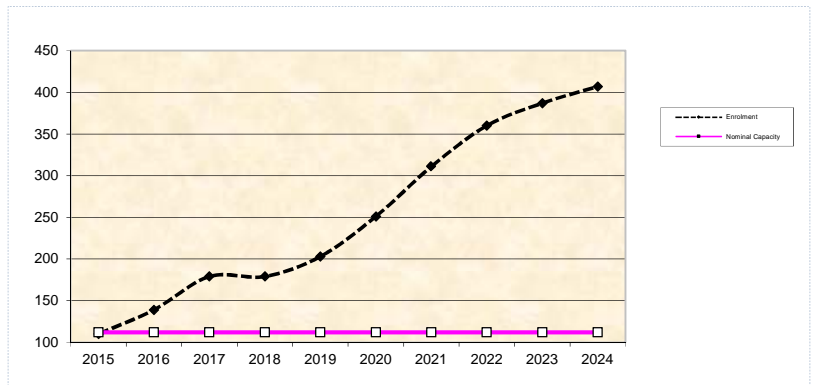
**School Enrolment Projections and Planning Update:**

The following tables illustrate the enrolment projections (with current/approved ministry capacity) for the elementary and secondary schools serving the proposed development.

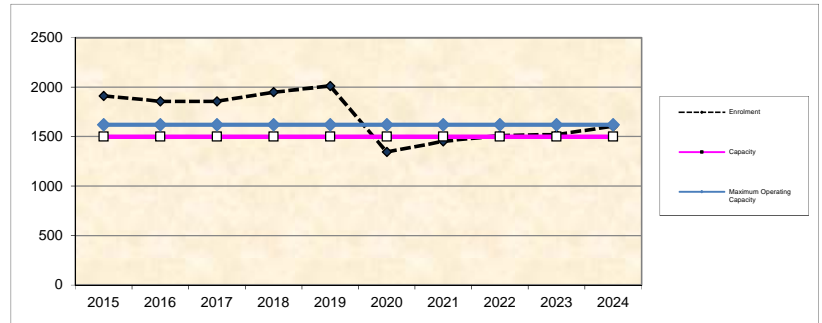
Hall's Prairie is currently over capacity. Much of the in-catchment student population attends other nearby neighbourhood schools as cross boundary students. As the existing site for Hall's Prairie is not large enough to accommodate a significant addition, the 2018/19 Capital Plan submission, prepared by School District No. 36 (Surrey), is requesting a new elementary school to be built in the Douglas Area which will relieve the pressure at Hall's Prairie. The District is anticipating a project funding approval announcement from the Ministry of Education sometime in early 2018.

Earl Marriott Secondary also exceeds its capacity. A new Grandview Area Secondary School is currently in the design stage and is targeted to be open in the Fall 2020. The new secondary school will relieve the enrollment demand on Earl Marriott.

**Hall's Prairie Elementary**



**Earl Marriott Secondary**



\* Nominal Capacity is estimated by multiplying the number of enrolling spaces by 25 students. Maximum operating capacity is estimated by multiplying the number of enrolling spaces by 27 students.

## BUILDING GUIDELINES SUMMARY

Surrey Project no: 7915-0436-00  
 Project Location: 17195 - 0 Avenue, Surrey, B.C.  
 Design Consultant: Tynan Consulting Ltd., (Michael E. Tynan)

**The draft Building Scheme proposed for this Project has been filed with the City Clerk. The following is a summary of the Residential Character Study and the Design Guidelines which highlight the important features and form the basis of the draft Building Scheme.**

### 1. Residential Character

#### 1.1 General Description of the Existing and/or Emerging Residential Character of the Subject Site:

The emerging character in this area of Douglas is defined by homes comprising an area-defining 325 lot development identified as Surrey Project number 7904-0411-00. The building scheme for the 325 lot site contains regulations applying to a variety of zonings including RF-9C, RF-9, RF-12, RF, RH, and CD. All homes are Two-Storey type, and all can be described as "Neo-Traditional", "Neo-Heritage", "Heritage", and "Colonial" styles. All new homes in this area have desirable mid-scale massing characteristics with purposely reduced upper floor massing. All of these new homes have well balanced, correctly proportioned massing designs. Most have a one storey well identified covered front entrance veranda. A desirable feature of the massing design is that the garage is recessed at least 1.0 metres (and usually 2.0 metres) behind the front entrance, resulting in garages which are subdominant to other features on the front of the home.

Most roof structures in this 325 lot context site are comprised of a main common hip roof and two or more street facing feature gable projections at roof slopes ranging from 8:12 to 12:12. Roofs are surfaced with high quality shake profile asphalt shingles accompanied by a pre-formed (manufactured) raised ridge cap. Roof colours are in a relatively narrow range from "Weathered wood" to charcoal grey and black.

Vinyl is not permitted in this area. The vast majority of homes are configured with Hardiplank siding in a horizontal lap application. Colour schemes are relatively bold compared to most "earth-tone and neutral-hue" subdivisions. Colonial red, blue, and green have been used, usually with bold white trim. Many homes have a stone feature veneer. Gable ends are articulated with either wood wall shingles, or with 1x4 wood battens over Hardipanel. Furred out wood posts and/or solid wood posts and timbers have been used on most homes. Trim and detailing standards are considered high in relation to standards used in most new subdivisions.

Overall, these new homes provide ideal architectural context for the subject site. New homes constructed at the subject site should be similar in theme, representation and character to those homes described above.

Homes in the *immediate area* surrounding the subject site were built out over a time period spanning from the 1960's to the post year 2010's. The age distribution from oldest to newest is: 1960's (36%), 1970's (27%), 2000's (27%), and post 2010's (9%). A majority these homes have a floor area in the 1501 - 2000 sq.ft. size range. Home size distribution is: 1000 - 1500 sq.ft. (27%), 1501 - 2000 sq.ft. (36%), 2001 - 2500 sq.ft. (18%), 3001 - 3550 sq.ft. (18%). Styles include: "Old Urban" (45%), "West Coast Traditional" (9%), "Rural Heritage" (9%), "Neo-Heritage" (27%), and "Traditional" (9%). Home

types include: Bungalow (27%), Split Level (9%), Basement Entry (9%), Cathedral Entry (9%), and Two-Storey (45%).

Massing designs of homes in the immediate area range from low mass to box-like. Most of these homes have a one storey front entrance. The range of roof slopes is flat (6%), 4:12 (17%), 5:12 (22%), 7:12 (6%), 8:12 (22%), 12:12 (11%), and greater than 12:12 (17%). Main roof forms (largest upper floor truss spans) include: common gable (82%), Boston hip (9%), and flat (9%). Feature roof projection types include: Common Hip (8%), Common Gable (75%), and Shed (17%). Roof surfaces include: Tar and gravel (8%), Roll roofing (8%), Interlocking tab type asphalt shingles (8%), Rectangular profile asphalt shingles (42%), Shake profile asphalt shingles (25%), and Cedar shingles (8%).

## 1.2 Features of Surrounding Dwellings Significant to the Proposed Building Scheme:

- 1) **Context Homes:** There are three RF-9C zoned homes near the subject site (74 - 172 Street, 70 - 172 Street, and 66 - 172 Street that provide acceptable style context. However there is only one home within the character study area, at 17241 -0 Avenue, that provides "ideal context" for the subject site. This is a new (less than 10 year old) "Traditional" style Two-Storey type dwelling with proportionally consistent, well balanced massing design, that is constructed on an RF zone lot. It has a one storey front entrance veranda in a heritage tradition. Roofs are steeply sloped common gable forms, highly articulated with natural-stained wood shingles and elaborate gable end wood bracing details. The home has a feature copper roof over a boxed window. This home provides an appropriate standard for future development of RF lots in this area.
- 2) **Style Character :** Most neighbouring homes can be classified as old urban homes that have massing designs and exterior trim and detailing standards that do not meet modern standards. However, there is an appropriately styled context home at 17241 -0 Avenue Street, and there are numerous style samples within the aforesaid 325 lot context site that provide good style context. The recommendation is to utilize styles including "Neo-Traditional", "Neo-Heritage", "Craftsman-Heritage", "Rural Heritage", "Colonial" and compatible styles. Note that style range is not specifically restricted in the building scheme. However, the consultant refers to the character study when reviewing plans for meeting style-character intent.
- 3) **Home Types :** There are a wide range of home types evident, and so some flexibility is justified. Home type (Two-Storey, Bungalow, Basement Entry, Split Level, etc..) will not be regulated in the building scheme.
- 4) **Massing Designs :** Massing designs should meet new standards for post year 2015 RF zoned subdivisions. New homes should exhibit "mid-scale" massing. Various elements and projections on the front of the home should be interesting architecturally, and should be in pleasing natural proportions to one another. These elements and projections should be located so as to create balance across the façade.
- 5) **Front Entrance Design :** Front entrance porticos range from one to 1 ½ storeys in height. The recommendation is to limit the range of entrance portico heights to between one storey and 1 ½ storeys to ensure there is not proportional overstatement of this one element.
- 6) **Exterior Wall Cladding :** Vinyl is a low cost utility cladding material that is well suited to areas where affordability is an objective. This is not the case here, as all lots and new homes will be of high value. Vinyl therefore, is not recommended.
- 7) **Roof surface :** This is area in which most homes have asphalt shingle roofs. It is expected that most new homes will also have asphalt shingle roofs, and for continuity, asphalt shingles are recommended. A single cedar shingle or concrete tile roof would stand out as inconsistent due the large difference in textures (thickness) between asphalt shingles and

cedar shingles or concrete tiles, and so these products are not recommended. However, where opportunities arise to introduce new environmentally sustainable products, they should be embraced. Generally, these materials have thicknesses between asphalt shingles and cedar shingles and will not appear out of place texturally. Therefore, to ensure consistency of character, only shake profile asphalt shingles and shake profile sustainable products are recommended.

- 8) **Roof Slope :** Roof slopes of 7:12 or higher have been used on context homes. This is a suitable minimum roof slope given the objectives of ensuring continuity with context homes and to ensure that homes appear style-authentic within the proposed style range.

**Streetscape:** At the context site to the northeast (325 lot site) there is obvious continuity of appearance - new modern urban compact lot homes designed and detailed to a high modern standard. However in the area surrounding the subject site, there is a wide variety of old urban homes including simple small Bungalows, Split Level, Cathedral Entry and Two-Storey designs all finished to common standards from 40-60 years ago. A striking feature of the streetscape is the obvious edge between the furthest extent of the new growth area and the existing older homes.

## 2. Proposed Design Guidelines

### 2.1 Specific Residential Character and Design Elements these Guidelines Attempt to Preserve and/or Create:

- the new homes are readily identifiable as one of the following styles: "Neo-Traditional", "Neo-Heritage", or compatible style as determined by the design *consultant*. Note that the proposed style range is not contained within the building scheme, but is contained within the residential character study which forms the basis for interpreting building scheme regulations.
- a new single family dwelling *constructed* on any *lot* meets year 2000's design standards, which include the proportionally correct allotment of mass between various street facing elements, the overall balanced distribution of mass within the front facade, readily recognizable style-authentic design, and a high trim and detailing standard used specifically to reinforce the style objectives stated above.
- trim elements will include several of the following: furred out wood posts, articulated wood post bases, wood braces and brackets, louvered wood vents, bold wood window and door trim, highly detailed gable ends, wood dentil details, stone or brick feature accents, covered entrance verandas and other style-specific elements, all used to reinforce the style (i.e. not just decorative).
- the development is internally consistent in theme, representation, and character.
- the entrance element will be limited in height (relative dominance) to 1 to 1 ½ storeys.

### 2.2 Proposed Design Solutions:

#### **Interfacing Treatment with existing dwellings)**

There is one home in this area (17241 - 0 Avenue) that can be used to provide specific context. There are however numerous homes in the 325 lot subdivision to the northeast (and several other subdivisions based on the building scheme for the 325 lot site) that could be considered to provide acceptable architectural context. The subject site will have similar home types and sizes, similar massing characteristics, similar roof types, roof pitch, roofing materials, and similar siding materials to those of other new RF zone homes in Douglas.

**Exterior Materials/Colours:** Stucco, Cedar, Hardiplank, Brick, and Stone. Vinyl siding not permitted on exterior walls.

“Natural” colours such as browns, greens, clays, and other earth-tones, and “Neutral” colours such as grey, white, and cream are permitted. “Primary” colours in subdued tones such as navy blue, colonial red, or forest green can be considered providing neutral trim colours are used, and a comprehensive colour scheme is approved by the consultant. “Warm” colours such as pink, rose, peach, salmon are not permitted. Trim colours: Shade variation of main colour, complementary, neutral, or subdued contrast only.

**Roof Pitch:** Minimum 7:12, with exceptions to prevent roof ridges from becoming too high (overshadowing of neighbouring lots), to allow for veranda roofs that do not cover upper floor windows, to allow for artistic expression in feature roofs, and to provide a path for exceptional designs with lower slope roofs to be approved subject to consultant approval.

**Roof Materials/Colours:** Only shake profile asphalt shingles with a raised ridge cap and new environmentally sustainable roofing products providing that aesthetic properties of the new materials are equal to or better than the traditional roofing products. Greys, browns, or black.

**In-ground basements:** Permitted, subject to determination that service invert locations are sufficiently below grade. Basements will appear underground from the front.

**Treatment of Corner Lots:** Significant, readily identifiable architectural features are provided on both the front and flanking street sides of the dwelling, resulting in a home that architecturally addresses both streets. One-storey elements on the new home shall comprise a minimum of 40 percent of the width of the front and flanking street elevations of the single family dwelling. The upper floor is set back a minimum of 0.9 metres [3'- 0"] from the one-storey elements.

**Landscaping:** *Moderate modern urban standard:* Tree planting as specified on Tree Replacement Plan plus minimum 20 shrubs of a minimum 3 gallon pot size in the front yard. These corner lots shall have an additional 10 shrubs of a minimum 3 gallon pot size, planted in the flanking street sideyard. Sod from street to face of home. Driveways: exposed aggregate, interlocking masonry pavers, or stamped concrete.

**Compliance Deposit:** \$5,000.00

**Summary prepared and submitted by:** Tynan Consulting Ltd. Date: June 21,2016

**Reviewed and Approved by:**



Date: June 21,2016



Table 2. Tree Preservation Summary

**TREE PRESERVATION SUMMARY**

Surrey Project No:  
 Address: 17195 0 Avenue, Surrey BC  
 Registered Arborist: Max Rathburn  
 ISA Certified Arborist (PN0599A)  
 ISA Certified Tree Risk Assessor (159)  
 BC Parks Wildlife and Danger Tree Assessor

On-Site Trees	Number of Trees
<b>Protected Trees Identified</b> (on-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	<b>27</b>
<b>Protected Trees to be Removed</b>	<b>16</b>
<b>Protected Trees to be Retained</b> (excluding trees within proposed open space or riparian areas)	<b>11</b>
<b>Total Replacement Trees Required:</b>	
- Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio $\frac{3}{1} \times \text{one (1)} = 3$	<b>29</b>
- All other Trees Requiring 2 to 1 Replacement Ratio $13 \times \text{two (2)} = 26$	
<b>Replacement Trees Proposed</b>	<b>4</b>
<b>Replacement Trees in Deficit</b>	<b>25</b>
<b>Protected Trees to be Retained in Proposed [Open Space / Riparian Areas]</b>	
Off-Site Trees	Number of Trees
<b>Protected Off-Site Trees to be Removed</b>	
<b>Total Replacement Trees Required:</b>	
- Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio $\frac{\quad}{1} \times \text{one (1)} = 0$	<b>0</b>
- All other Trees Requiring 2 to 1 Replacement Ratio $\quad \times \text{two (2)} = 0$	
<b>Replacement Trees Proposed</b>	
<b>Replacement Trees in Deficit</b>	<b>0</b>

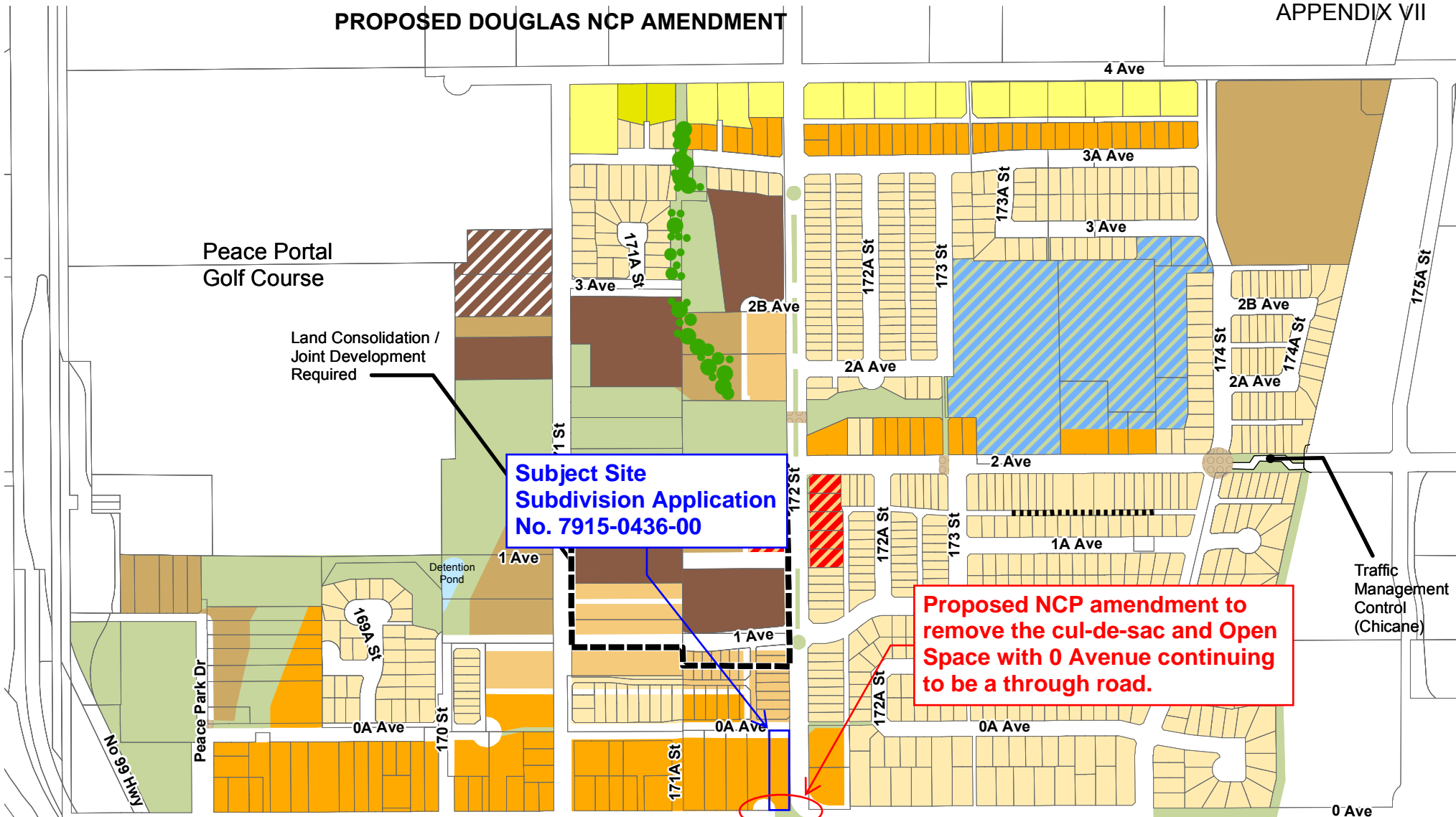
Summary prepared and submitted by:



Feb, 24, 2016

Arborist

Date



**DOUGLAS Neighbourhood Concept Plan**

CITY OF SURREY - PLANNING & DEVELOPMENT DEPARTMENT

- |                                     |   |                                  |              |                                     |
|-------------------------------------|---|----------------------------------|--------------|-------------------------------------|
| Creeks & Rivers                     | Townhouses 15 u.p.a.                        | Suburban 1/2 Acre (2 u.p.a.)     | Strata Lots  | Future Lane                         |
| Special Paving Areas                | Townhouses 20 u.p.a.                        | Suburban Transition (2-4 u.p.a.) | Pond Buffers | Traffic Circles & Landscaped Median |
| Main Pedestrian Corridors           | Townhouses 30 u.p.a.                        | Commercial / Residential         | Open Space   | Significant Vegetation Corridor     |
| Buffer to Industrial Area           | Single Family Residential Flex (6-14.5 upa) | School / Park Site               |              |                                     |
| Small Lot Single Family (10 u.p.a.) | Urban Single Family (6 u.p.a.)              |                                  |              |                                     |

