

City of Surrey  
**PLANNING & DEVELOPMENT REPORT**

File: 7918-0158-00

Planning Report Date: May 27, 2019

**PROPOSAL:**

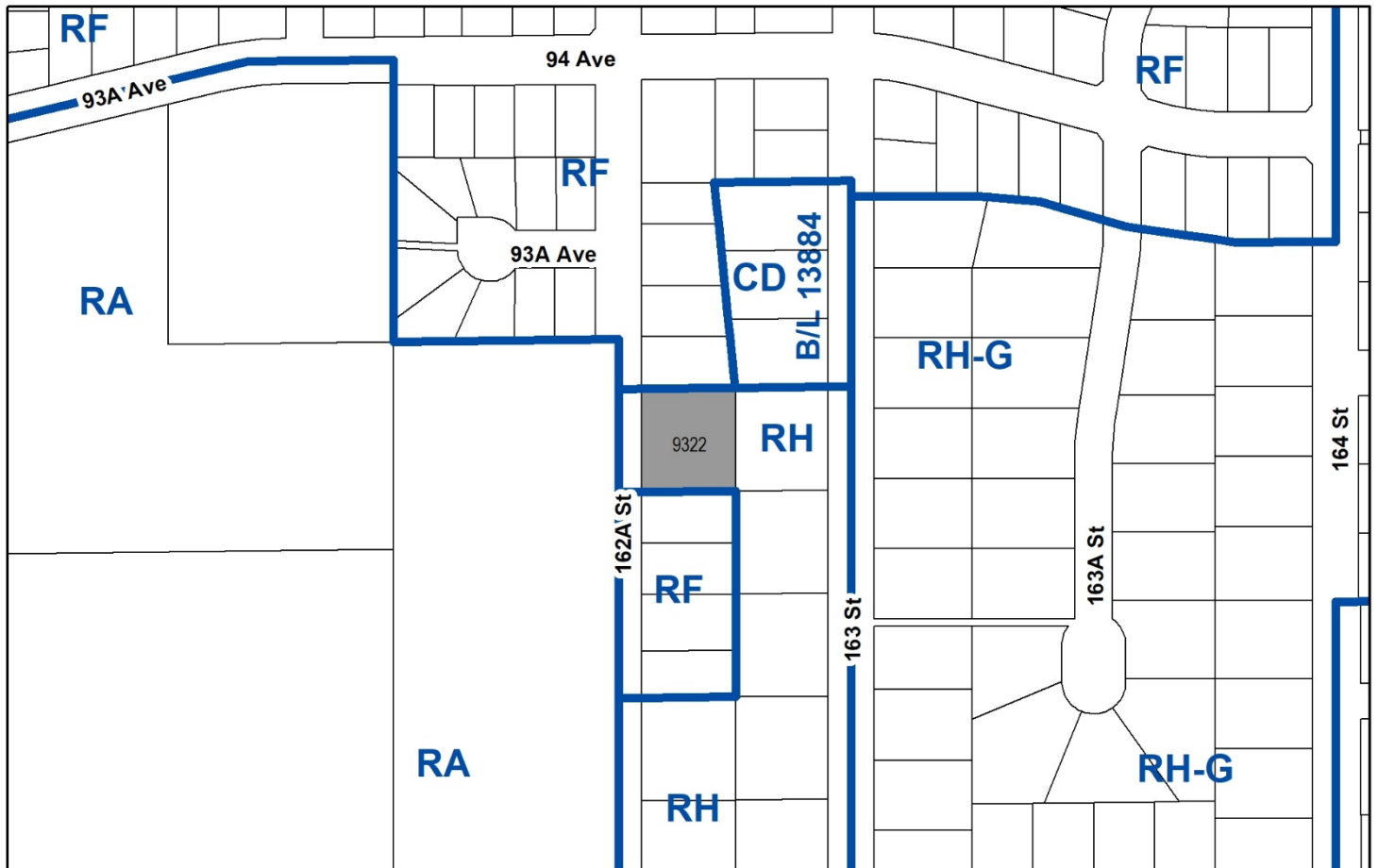
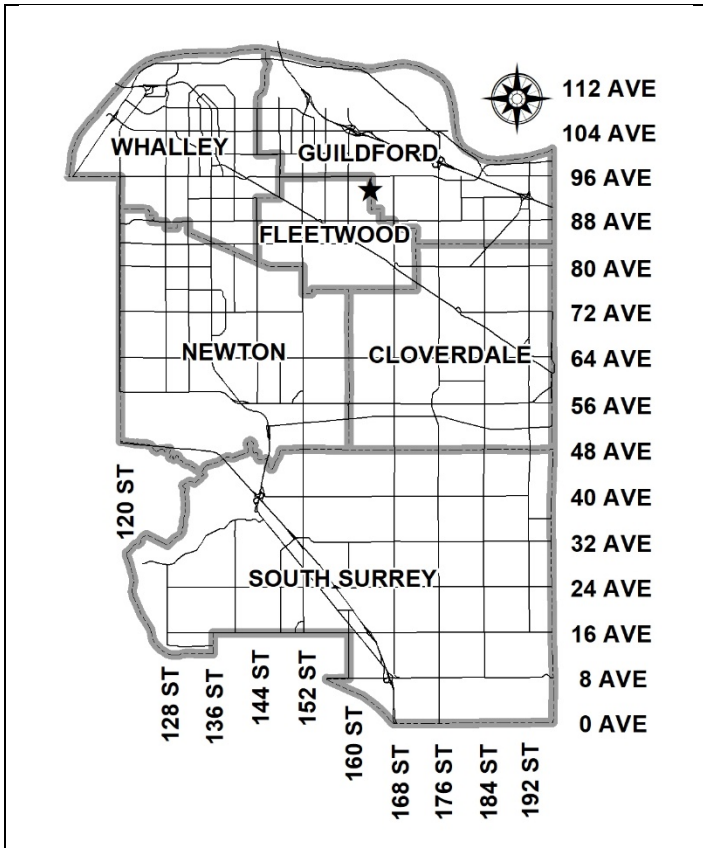
- **OCF Amendment** from Suburban to Urban
- **Rezoning** from RH to RF

to allow subdivision into 2 single family lots.

**LOCATION:** 9322 - 162A Street

**ZONING:** RH

**OCF DESIGNATION:** Suburban



### RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for:
  - OCP Amendment; and
  - Rezoning

### DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The applicant is proposing to redesignate the subject property from Suburban to Urban in the Official Community Plan (OCP) as part of the development application.

### RATIONALE OF RECOMMENDATION

- The proposed development is consistent with the RF-zoned pattern of development in the surrounding neighbourhood, specifically the properties to the immediate south and north of the subject site fronting 162A Street.
- The proposed development provides an appropriate transition between the adjacent RH-zoned, Suburban-designated lots to the east and the mostly undeveloped 2.4-hectare (6-acre) Urban-designated lot to the west.
- The applicant has volunteered a community benefit contribution of \$9,700 (representing \$4,850 per lot) for the proposed Official Community Plan (OCP) amendment, based on the two (2) proposed Urban lots.
- The existing house to be retained on proposed Lot 2, which was constructed in approximately 1982 must conform to the minimum setback, lot coverage and floor area ratio (FAR) requirements of the RF Zone.
- The proposed subdivision conforms to the City's Infill Policy No. O-30.

RECOMMENDATION

The Planning & Development Department recommends that:

1. A By-law be introduced to amend the OCP by redesignating the subject site in Development Application No. 7918-0158-00 from Suburban to Urban and a date for Public Hearing be set.
2. Council determine the opportunities for consultation with persons, organizations and authorities that are considered to be affected by the proposed amendment to the Official Community Plan, as described in the Report, to be appropriate to meet the requirement of Section 475 of the Local Government Act.
3. A By-law be introduced to rezone the subject site from "Half-Acre Residential Zone (RH)" to "Single Family Residential Zone (RF)" and a date be set for Public Hearing.
4. 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 a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
  - (d) the applicant address the concern that the development will place additional pressure on existing park facilities to the satisfaction of the General Manager, Parks, Recreation and Culture;
  - (e) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department;
  - (f) the application adequately address the City's needs with respect to the City's Affordable Housing Strategy, to the satisfaction of the General Manager, Planning & Development Services;
  - (g) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department; and
  - (h) provision of community benefit for proposed Lots 1 and 2, to satisfy the OCP Amendment policy for Type 2 applications.

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:** 1 Elementary student at Serpentine Heights School  
1 Secondary student at North Surrey School

(Appendix IV)

The applicant has advised that the dwelling unit in this project is expected to be constructed and ready for occupancy by Summer 2020.

**Parks, Recreation & Culture:** Parks supports the application but has some concerns with the pressure that the project will place on park amenities in the area. The applicant has volunteered a \$500/lot Parks Amenity Contribution, totaling \$500 for the one (1) proposed additional lot, and Parks has accepted this amount to address these concerns.

SITE CHARACTERISTICS

**Existing Land Use:** Existing dwelling within the area comprising proposed Lot 2, which is to remain.

Adjacent Area:

<b>Direction</b>	<b>Existing Use</b>	<b>OCP Designation</b>	<b>Existing Zone</b>
North:	Single family dwelling.	Urban	RF
East:	Single family dwelling.	Suburban	RH
South:	Single family dwelling.	Urban	RF
West (Across 162A Street):	Single family dwelling on well treed acreage.	Urban	RA

## DEVELOPMENT CONSIDERATIONS

### Background

- The 0.186-hectare (0.46-acre) subject property is located at 9322 – 162A Street in Fleetwood.
- The site is currently designated "Suburban" in the Official Community Plan and is zoned "Half-Acre Residential Zone (RH)".
- The subject lot was originally created in 1981 as a 0.4 hectare (1 acre) lot. In 1991, the eastern half (9315 – 163 Street) was subdivided off to create two, half-acre lots.
- The subject property contains an existing single family dwelling, which was constructed in 1982, on the southern portion of the lot, which will be retained as part of the development.

### Current Proposal

- The applicant is seeking an amendment to the Official Community Plan (OCP) to redesignate the site from "Suburban" to "Urban" and to rezone from "Half-Acre Residential Zone (RH)" to "Single Family Residential Zone (RF)" in order to permit subdivision into two (2) single family lots.
- Proposed Lots 1 and 2 exceed the minimum lot size requirements of the RF Zone (560 sq.m / 6,000 sq.ft.) both with lot areas of 929 square metres (10,000 sq.ft.).
- The proposed lot widths of 22.5 metres (74 ft.) exceeds the minimum 15-metre (50-foot) lot width requirement of the RF Zone, and conforms to City Infill Policy No. O-30, which requires that proposed lot widths be similar to lot widths of adjacent lots or be a minimum of 16.5 metres (54 ft.) wide. Both proposed lots are 41.3 metres (135.5 ft.) in lot depth, exceeding the minimum 28 metre (92 ft.) lot depth of the RF Zone.
- The proposed lot sizes and dimensions are consistent with those of the existing RF-zoned lots to the north and south.
- The applicant is proposing to retain the existing house on proposed Lot 2, which was constructed in approximately 1982, and will be required to provide a Location Certificate to verify that the house conforms to the density and setback requirements of the RF Zone.

### Road Dedication

- The subject property currently fronts, and is accessed from, 162A Street, a 10-metre (33-foot) wide Through Local road with an ultimate width of 20 metres (66 ft.).
- The applicant will be required to construct the east side of 162A Street to the Through Local standard and register a 0.5-metre (1.6-foot) wide statutory right-of-way for utility access.

### Neighbourhood Character Study and Building Scheme

- The applicant retained Ran Chahal, of Apex Design Group Inc., as the Design Consultant to prepare a Character Study and Building Design Guidelines for the subject property to generally maintain a consistency with the existing single family dwellings in the adjacent neighbourhood.
- The Character Study involved reviewing a number of existing homes in the neighbourhood in order to establish suitable design guidelines for the proposed subdivision. The study found that the majority of the existing "West Coast Traditional" style homes in the surrounding area provide suitable context for future development. The Building Design Guidelines, a summary of which is attached (Appendix V), will contain updated design standards that meet or exceed the massing design, construction standards as well as trim and material standards of the existing context homes.

### Lot Grading

- A preliminary lot grading plan was prepared and submitted by CitiWest Consulting Ltd. The plan was reviewed by staff and found to be generally acceptable.
- The applicant proposes a full-height basement proposed Lot 1, with minimal fill. The existing house to be retained on Lot 2 was constructed without a basement and will likely be able to achieve a basement if a new home is constructed.
- Final confirmation on whether an in-ground basement is achievable will be determined once final Engineering drawings have been received and approved by the City's Engineering Department.

### Affordable Housing Strategy

- On April 9, 2018 Council approved the City's Affordable Housing Strategy (Corporate Report No. R066; 2018) requiring that all new rezoning applications for residential development contribute \$1,000 per unit to support the development of new affordable housing. The funds collected through the Affordable Housing Contribution will be used to purchase land for new affordable rental housing projects.
- As a condition of Final Adoption of the Rezoning By-law, the applicant will be required to provide a \$1,000 per unit contribution to the Affordable Housing Reserve Fund, totaling \$2,000 for two (2) proposed lots.

### PRE-NOTIFICATION

Pre-notification letters were sent out on January 11, 2019 and a development proposal sign, for the proposed 2-lot subdivision and the retention of the existing house on proposed Lot 2, was installed on July 25, 2018.

- Staff received one comment from a neighbourhood resident requesting that the sidewalk be extended along the east side of 162A Street between 92 Avenue and 93A Avenue. The applicant is required to construct the sidewalk fronting the subject site as a condition of the rezoning and subdivision. The two properties to the south at 9288 and 9292 162A Street will be constructing a sidewalk in the near future as a condition of Development Application No. 7913-0243-00 which was completed in the summer of 2018. In total approximately 136 metres (450 ft.) of sidewalk will be constructed along the east side of 162A Street, which will be extended to 92 Avenue when 9232 – 162A Street redevelops. The western side of the road and sidewalk network will be completed when the large 2.4 hectare (6 acre) lot at 16203 – 92 Avenue develops on the west side of 162A Street.

### JUSTIFICATION FOR PLAN AMENDMENT

- The proposed Official Community Plan (OCP) amendment, from Suburban to Urban (Appendix VII), is consistent with recent development in the general area. The properties to the west, across 162A Street, and further north, along the west and east side of 162A Street, are designated Urban. The neighbouring property (formerly 9292- 162A Street) directly to the south of the subject property was redesignated to Urban and rezoned from RH to RF under Development Application No. 7913-0243-00 on May 7, 2018.
- The current proposal is consistent with the pattern of development that extended the Urban designation along this portion of 162A Street.
- The applicant is proposing a Type 2 Official Community Plan (OCP) amendment from Suburban to Urban (Appendix VII). A Type 2 OCP Amendment requires the applicant to demonstrate a community benefit.
- As a community benefit to support the proposed development the applicant is volunteering a \$4,850/lot community benefit contribution, totaling \$9,700 for the two (2) proposed lots, which is consistent with that collected under the neighbouring application. This contribution will be collected prior to the project being considered for Final Adoption.

### PUBLIC CONSULTATION PROCESS FOR OCP AMENDMENT

Pursuant to Section 475 of the Local Government Act, it was determined that it was not necessary to consult with any persons, organizations or authorities with respect to the proposed OCP amendment, other than those contacted as part of the pre-notification process.

TREES

- Aelicia Otto, ISA Certified Arborist of Arbortech Consulting 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 and Cottonwood	Nil	Nil	Nil
<b>Deciduous Trees (excluding Alder and Cottonwood Trees)</b>			
None	Nil	Nil	Nil
<b>Coniferous Trees</b>			
Western Red Cedar	12	10	2
<b>Total (excluding Alder and Cottonwood Trees)</b>	<b>12</b>	<b>10</b>	<b>2</b>
<b>Total Replacement Trees Proposed (excluding Boulevard Street Trees)</b>		<b>6</b>	
<b>Total Retained and Replacement Trees</b>		<b>8</b>	
<b>Contribution to the Green City Fund</b>		<b>\$5,600</b>	

- The Arborist Assessment states that there are a total of 12 protected trees on the site, excluding Alder and Cottonwood trees. No trees on the site are Alder and Cottonwood trees. It was determined that two (2) 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 2 to 1 replacement ratio. This will require a total of 20 replacement trees on the site. Since only 6 replacement trees can be accommodated on the site (based on an average of three [3] trees per lot), the deficit of 14 replacement trees will require a cash-in-lieu payment of \$5,600 representing \$400 per tree, to the Green City Fund, in accordance with the City's Tree Protection By-law.
- In summary, a total of eight [8] trees are proposed to be retained or replaced on the site with a contribution of \$5,600 to the Green City Fund.

SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on April 24, 2018. The table below summarizes the applicable development features of the proposal based on the seven (7) criteria listed in the Surrey Sustainable Development Checklist.



Sustainability Criteria	Sustainable Development Features Summary
1. Site Context & Location (A1-A2)	• Plan is consistent with development pattern within the block.
2. Density & Diversity (B1-B7)	• Proposed home will have a rental suite.
3. Ecology & Stewardship (C1-C4)	• Backyard garden potential is available in the rear yard.
4. Sustainable Transport & Mobility (D1-D2)	• The development will expand the sidewalk network along the block.
5. Accessibility & Safety (E1-E3)	• None proposed.
6. Green Certification (F1)	• None proposed.
7. Education & Awareness (G1-G4)	• Public Hearing/Development Proposal Sign/Pre-Notification letters.

### INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	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.	OCP Redesignation Map

*original signed by Ron Gill*

Jean Lamontagne  
General Manager  
Planning and Development

JKS/cm

## SUBDIVISION DATA SHEET

Proposed Zoning: RF

<b>Requires Project Data</b>	<b>Proposed</b>
<b>GROSS SITE AREA</b>	
Acres	0.46 ac
Hectares	0.0189 hectares
<b>NUMBER OF LOTS</b>	
Existing	1
Proposed	2
<b>SIZE OF LOTS</b>	
Range of lot widths (metres)	22.5 metres
Range of lot areas (square metres)	929 m <sup>2</sup>
<b>DENSITY</b>	
Lots/Hectare & Lots/Acre (Gross)	10.76 lots/ha 4.35 lots/ac
Lots/Hectare & Lots/Acre (Net)	
<b>SITE COVERAGE (in % of gross site area)</b>	
Maximum Coverage of Principal & Accessory Building	34%
Estimated Road, Lane & Driveway Coverage	12%
Total Site Coverage	46%
<b>PARKLAND</b>	
Area (square metres)	
% of Gross Site	
	<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



- NOTES:**
1. ALL DIMENSIONS ARE APPROXIMATE ONLY BASED ON MASTER PLAN.
  2. LAYOUT IS PRELIMINARY AND SUBJECT TO APPROVALS AND SURVEY.
  3. EXISTING HOUSE TO BE RETAINED (LOCATION TO BE CONFIRMED).

No.	Date	Revision	Dr	Ch

**CitiWest Consulting Ltd.**  
 No.101-9030 KING GEORGE BLVD., SURREY, BC, V3V 7Y3  
 TELEPHONE 604-591-2213 FAX 604-591-5518  
 E-MAIL: office@citiwest.com



ARRON NIRPAT C/O PAULI GILL  
 16212 - 92 AVENUE, SURREY, BC V4N 3C4 PH: 604-961-7951 EMAIL: PAULIGHOMES@GMAIL.COM

**PRELIMINARY LOT LAYOUT**  
 SUBDIVISION AT 9322 - 162A STREET, SURREY, BC

Scale: 1:500	Mun. Proj. No.	Dwg. No.
Drawn: EK	Mun. Dwg. No.	/
Designed: NP	Job No. 18 - 3627	Of
P.W. P.U.	Date DEC/2018	Revision
Approved:		

INTER-OFFICE MEMO

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

FROM: **Development Engineer, Engineering Department**

DATE: **Jan 30, 2019** PROJECT FILE: **7818-0158-00**

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RE: **Engineering Requirements  
Location: 9322 162 A Street**

**OCP AMENDMENT**

There are no engineering requirements relative to the OCP Amendment.

**REZONE AND SUBDIVISION**

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

- Register 0.5 m statutory right-of-way (SROW) along the frontage of 162 A Street.

***Works and Services***

- Construct the east side of 162 A Street to the Half Road Standard;
- Construct a sanitary, storm and water service connection to the fronting mains along 162 A Street for each lot;
- Construct a 6.0 m concrete driveway letdown to each lot; and
- Provide on-lot sustainable stormwater features to meet Upper Serpentine ISMP requirements.

A Servicing Agreement is required prior to Rezone and Subdivision.



Tommy Buchmann, P.Eng.  
Acting Development Services Manager

SC



Planning

January 30, 2019

**THE IMPACT ON SCHOOLS**

APPLICATION #: 18 0158 00

**SUMMARY**

The proposed are estimated to have the following impact on the following schools:

2 Single family with suites

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

Elementary Students:	1
Secondary Students:	1

**September 2018 Enrolment/School Capacity**

<b>Serpentine Heights Elementary</b>	
Enrolment (K/1-7):	47 K + 301
Operating Capacity (K/1-7)	38 K + 396
<b>North Surrey Secondary</b>	
Enrolment (8-12):	1415
Capacity (8-12):	1175

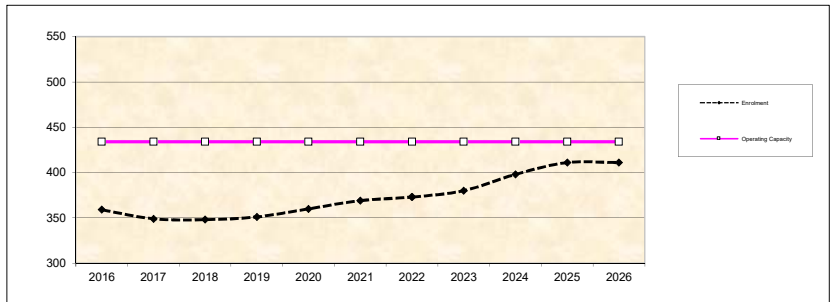
**School Enrolment Projections and Planning Update:**

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

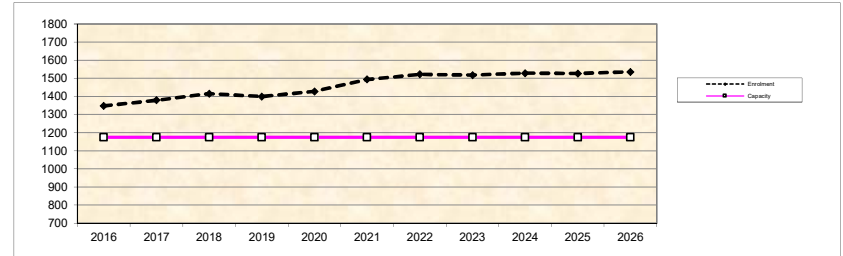
Serpentine Heights is one of the few elementary schools in the northeast area of the District that still has enrolling space available, and whose enrollment is projected to continue at its current level over the next 10 years. However, when city services are extended further into the Port Kells area, this school will be ideally located to accommodate students from the potential new developments in South Port Kells. As the need to address immediate growth is more urgent in other areas of the District, there are no current capital plan requests for adding additional space in the catchment.

North Surrey Secondary is currently operating at 118%. Over the next 10 years, enrolment is projected to grow by over 150 students. As part of the District's 2019/20 Five Year Capital Plan submission, there is a request 325 capacity addition targeted to open September 2022.

**Serpentine Heights Elementary**



**North Surrey 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****V.1.0**

**Surrey Project no.:** 18-0158  
**Property Location:** 9322- 162A Street, Surrey, B.C

**Design Consultant:** Ran Chahal, Architectural Technologist AIBC, CRD.ASTTBC  
 Apex Design Group Inc.  
 #157- 8120 -128 Street, Surrey, BC V3W 1R1  
 Off: 604-543-8281 Fax: 604-543-8248

The draft Building Scheme proposed for this Project has been files 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 area surrounding the subject site is an urban area built out in the 1960's - 2000's. Most homes are simple "West Coast Traditional" style structures with habitable areas of between 1500-3000sf and over.

Most of the existing homes have mid to mid-massing characteristics with 62.00% of the homes having a one storey front entry.

Roof pitch varies from economical low pitch of 4-5/12 to a medium pitch of 6-9/12 and over common truss roofs with simple gables and common hips with Asphalt Roof Shingles being most common.

Wall surface materials are limited in the most part to one of the following: Stucco (dominant), Vinyl & Cedar. Brick or Stone for an accent material. Accent trims are evident on most of the existing homes.

Landscaping is of a moderate planting standard with 46.00% of the homes having Asphalt driveways.

**1.2 Prevailing Features of the Existing and Surrounding Dwellings Significant to the Proposed Building Scheme:**

Most of the existing homes located in the study area have covered front verandas and would be encouraged to be constructed in any new home to be built in the future. Since the majority of the existing homes in the study area 20-60 years old, a new character area will be created. The new homes will meet modern development standards especially with respect to overall massing and balance in each design and to proportional massing between individual elements. Trim and detailing standards and

construction materials standards will meet 2000's levels. Continuity of character will be ensured through style and home type restrictions as described below.

**Dwelling Types:**

“Two-Storey”	77.00%
“Basement /Cathedral Entry”	0.00%
“Rancher (Bungalow)”	23.00%
“Split Levels”	0.00%

**Dwelling Sizes:  
(Floor Area)**

Size range: 8.00% under 2000 sq.ft excl. garage
23.00% 2001 - 2500 sq.ft excl. garage
69.00% over 2501 sq.ft excl. garage

**Exterior Treatment  
/Materials:**

Stucco: 61.00%	Vinyl: 31.00%	Cedar: 8.00%
Brick or stone accent on 23.00% of all homes		

**Roof Pitch/Materials:**

Asphalt Shingles: 39.00%	Cedar Shingles: 0.00%
Concrete Tiles: 61.00%	Tar & Gravel: 0.00%
31.00% of homes have a roof pitch of 4/5:12 and	
69.00% have a roof pitch of 6:12 to 9:12 and greater.	

**Window/Door Details:** 69.00% of all homes have rectangular windows

**Streetscape:** A variety of simple “Two Story”, 20-60 year old “West Coast Traditional” homes in a common urban setting. Roofs on most homes are simple low pitch common hip or common gable forms with Asphalt Roof Shingles is on most of the homes. Most homes are clad in Stucco, Vinyl and Cedar.

**Other Dominant Elements:** Most of the existing homes located in the immediate study area have covered front verandas.

## 2. Proposed Design Guidelines

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

The guidelines will ensure that the existing character of the homes are maintained with modestly sized Two-Storey, Bungalow and Split Level type homes are constructed to 2000's standard. Continuity of character will be achieved with restrictions permitting the use of compatible styles, roof forms and exterior construction materials. Landscapes will be constructed to a modern urban standard.

### 2.2 Proposed Design Solutions:

<b>Dwelling Types:</b>	Two-Storey, Split Levels and Ranchers (Bungalows).	
<b>Dwelling Sizes:</b>	Two-Storey or Split Levels -	2000 sq.ft. minimum
<b>Floor Area/Volume:</b>	Basement Entry -	2000 sq.ft. minimum
	Rancher or Bungalow -	1400 sq.ft. minimum

(Exclusive of garage or in-ground basement)

**Exterior Treatment  
/Materials:**

No specific interface treatment. However, all permitted styles including: "Neo-Traditional", "Neo-Heritage", "Rural-Heritage" or "West Coast Modern" will be compatible with the existing study area homes.

**Exterior Materials  
/Colours:**

Stucco, Cedar, Vinyl, Hardiplank, Brick and Stone in "Neutral" and "Natural" colours. "Primary" and "Warm" colours not permitted on cladding. Trim colours: Shade variation on main colour, complementary, neutral or subdued contrast.

**Roof Pitch:**

Minimum 5:12, with some exceptions, including the possibility of 3:12 for feature roofs to permit "West Coast Contemporary" designs.

**Roof Materials/Colours:**

Cedar shingles, Concrete roof tiles in a shake profile and asphalt shingles in a shake profile. Grey, brown or black tones only.

**Window/Door Details:**

Dominant: Rectangular or Gently arched windows.

**In-ground basements:**

Permitted if servicing allows.

**Landscaping:**

Trees as specified on Tree Replacement Plan plus min. 20 shrubs (min. 5 gallon pot size).

**Compliance Deposit:**

\$ 5,000.00

**Summary prepared and submitted by:**



Ran Chahal, Design Consultant  
Architectural Technologist AIBC, CRD.ASTTBC  
Apex Design Group Inc.

May 15, 2018

Date



**OFF-SITE TREES ON NEIGHBOURING PRIVATE PROPERTY:**

PROTECT 8 off-site private trees as detailed herein and on the attached appendices.

- **Tree Tag/ID's: N01, N02, N03, N04, N05, N06, N07 and N08.**
- Protect with measures as shown on the Tree Management Drawing (appendix C), and described in the Tree Protection Specifications (appendix D) and detailed in the Letter of Undertaking (appendix E).
- The project arborist must be on-site during any works within and directly adjacent to the Tree Protection Zone to undertake root pruning, direct low impact methods and make recommendations in accordance with arboricultural best management practices.

**Table 1.** Summary of Tree Preservation by Species  
Includes City owned Road Frontage Trees  
Exclude Off-Site Private Trees, Parks Dedication Areas and ESA's)

	Total	Remove	Retain
<b><u>Alder and Cottonwood Species:</u></b>			
Alder ( <i>Alnus rubra</i> )	0	0	0
Cottonwood ( <i>Populus trichocarpa</i> )	0	0	0
<b>subtotal alder/cottonwood</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b><u>Broadleaf Species:</u></b>			
N/A	0	0	0
<b>subtotal broadleaf</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b><u>Coniferous Species</u></b>			
Western redcedar ( <i>Thuja plicata</i> )	12	10	2
<b>subtotal coniferous</b>	<b>12</b>	<b>10</b>	<b>2</b>
<b>Subtotal broadleaf and coniferous</b>	<b>12</b>	<b>10</b>	<b>2</b>
<b>TOTAL (including alder/cottonwood)</b>	<b>12</b>	<b>10</b>	<b>2</b>
<b>Total Replacement Trees Proposed</b> (excludes new street trees)	<b>6</b>		
<b>Total Retained and Replacement Trees</b> (Development Area Only)	<b>8</b>		
<b>Contribution to the Green City Fund</b> (for shortfall - to a maximum of \$30,000 per acre of cleared lands)	<b>14</b>	@ \$400 each	<b>\$ 5,600</b>

**TREE PROTECTION PRESCRIPTION**

Refer to Tree Management Drawing (Appendix C), Tree Protection Specifications (Appendix D) and Letter of Undertaking (Appendix E) for further details. The owner is required to seek guidance and/or arrange on-site field services or supervision by the project arborist from this office, as specified on those documents.

**TREE REPLACEMENT**

Pursuant to Surrey Tree Protection Bylaw No. 16100, following are the **Tree Replacement** calculations.

**Table 2.** Tree Retention and Replacement Summary. City denotes any city owned tree that is proposed for removal due to conflict with development/construction requirements (excludes Park and ESA Trees).

<u>Tree Retention:</u>	On-Site	City (Road Frontage)	Off-Site (Private)	Total
Trees to be Retained	0	2	8	10
Trees to be Removed	1	9	0	10
<b>Trees Considered</b>	<b>1</b>	<b>11</b>	<b>8</b>	<b>20</b>

<u>Tree Replacement:</u>	Quan	Subtotal	Quan	Subtotal	Quan	Subtotal	Total
1:1 Replacement Quota	0	X1	0	X1	0	X1	0
2:1 Replacement Quota	1	X2	9	X2	0	X2	20
<b>Replacement Trees Required</b>		<b>2</b>		<b>18</b>			<b>20</b>

The tree replacement design is shown on the attached Tree Management Drawing. If the required quantity of replacement trees cannot be achieved within the site, then the owner may seek approval for planting in other locations, and/or the city may be required to provide cash-in-lieu contribution to the Green Fund for use in Parks Department Tree Planting Programme.

Certified by:  <b>Aelicia Otto, Project Arborist</b>	ISA Certified Arborist #PN-2019A Qualified Tree Risk Assessor (TRAQ) Certified Tree Risk Assessor
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- Enclosures:
- Appendix A: Tree Photos
  - Appendix B: Tree Inventory
  - Appendix C: Tree Management Drawing
  - Appendix D: Tree Protection Specifications
  - Appendix E: Letter of Undertaking/Comfort Letter
  - Appendix F: Municipal Tree Summary Form

**Assumptions and Limiting Conditions:**

This report was prepared for and on the behalf of the client as addressed herein. Upon receipt of payment of our account in full, this report will become the property of the client. This report is intended for the exclusive use of our client, but in its entirety. Arbortech Consulting shall not accept any liability derived from partial, unintended, unauthorized or improper use of this report.

This report is restricted only to the subject trees as detailed herein, and no other trees were inspected or assessed.

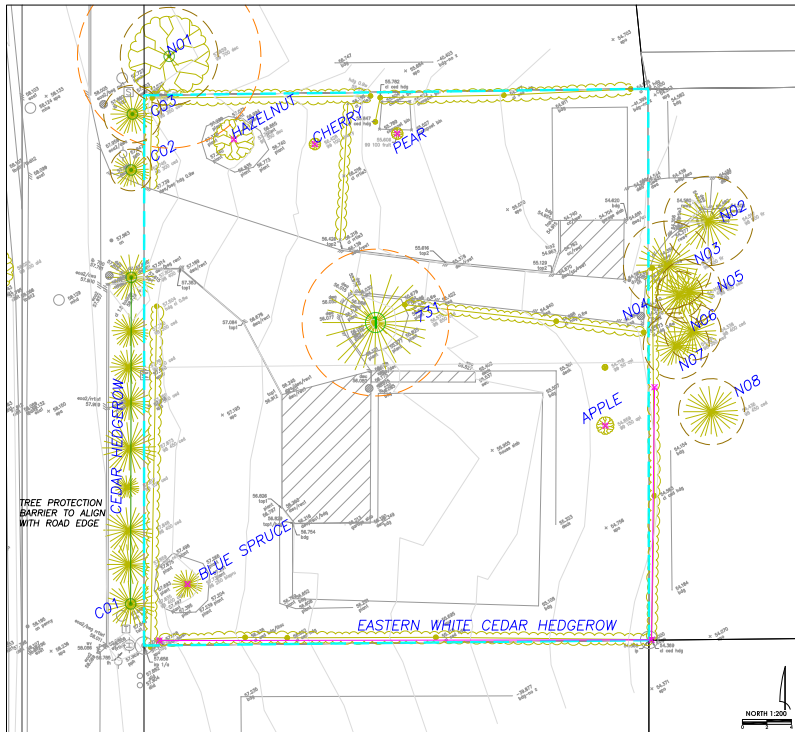
The inner tissue of the trunk, limbs and roots, as well as the majority of the root systems of trees are hidden within the tree and below ground. Trees have adaptive growth strategies that can effectively mask defects. Our assessment is limited by relying on the outward signs and non-destructive testing to identify the severity of defects that may be indicators of structural deficiencies. We use our training, experience and judgement in this regard, however not all defects can be diagnosed through available methods. It may not be feasible to identify certain defects, or to measure the severity, without causing mortal injury to the tree. Further, we must acknowledge that extreme weather and environmental influences are unpredictable, and that any tree has risk of failure in such events. Arbortech Consulting does not guarantee or warrant that a tree is free of defect or that it will not fail.

The ownership of trees is determined based on the location of the trunk where it emerges from the ground relative to the property line. This determination may require the advice from a duly qualified professional surveyor.

Third party information provided to the consultant may have been relied upon in the formation of the opinion of the consultant in the preparation of this report, and that information is assumed to be true and correct. Arbortech has not verified that information, and does not warrant it as correct.

The use of maps, sketches, photographs and diagrams are intended only as a reference for the readers' use in understanding the contents and findings of this report, and are not intended as a representation of fact.

Approvals from a municipality and/or regulatory agency may be required prior to carrying out any treatments recommended in this report. The client is responsible to make application for, pay related fees and costs, and meet all requirements and conditions for the issuance of such permits, approvals or authorizations.



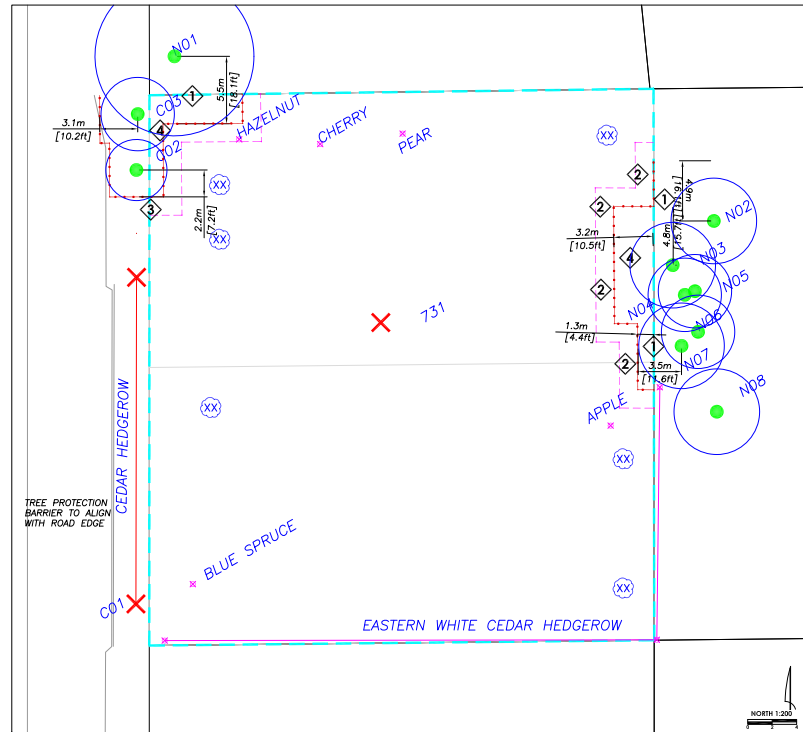
TREE ASSESSMENT DETAIL

LEGEND-TREE ASSESSMENT:

**LEGEND-TREE ASSESSMENT:**

- 1** **XXXX** denotes **TAG NUMBER** or **ID REFERENCE**
- denotes **PRIORITY 1** tree **SUITABLE** for preservation (retainable if design can accommodate it)
- 2** denotes **PRIORITY 2** tree **MARGINAL** for preservation. (possible candidate subject to design and other conditions)
- N** denotes **PRIORITY NIL** tree **UNSUITABLE** for preservation (not viable)
- X** denotes **UNDERSIZE** tree that is exempt from permitting (not viable)
- denotes **OFF-SITE** tree within influencing distance (neighbour or city to be advised or consulted)
- denotes **OPTIMAL TREE PROTECTION SETBACK** (for planning and design consideration)
- denotes **6 TIMES DBH SETBACK** (for reference only – not a specification)

AIL



TREE MANAGEMENT DETAIL

**LEGEND-TREE MANAGEMENT IN DEVELOPMENT AREA:**

- See arborist report for further details.
- XXX** denotes **TAG NUMBER** or **ID REFERENCE** (see tree inventory and assessment list)
- denotes **RETENTION** tree (protection measures as specified)
- X** denotes **REMOVAL** tree (TAGGED TREE) (municipal permit or approvals may be required)
- denotes **HIGH RISK** tree to be **REMOVED** or **MODIFIED** (see tree inventory and report – permit or approvals required)

**LEGEND-TREE PROTECTION:**

- denotes **CROWN PROTECTION ZONE – CPZ** Exclusion zone – no aerial encroachment of buildings to within 1.0m (min)
- denotes **ROOT PROTECTION ZONE – RPZ** This is the minimum alignment for **TREE PROTECTION BARRIERS**
- denotes **WORKING SPACE SETBACK – WSS** Offset from RPZ as specified by Project Arborist – Site works within WSS requires approval and on-site supervision by the Project Arborist
- denotes **SPECIAL MEASURES** required See report for further details. Project Arborist to direct or implement.
- Note:** All tree protection setbacks are measured from the **centre** of trunk

# APPENDIX F

## TREE PRESERVATION SUMMARY



Appendix F

### TREE PRESERVATION SUMMARY

Surrey Project No.: 7918-0158-00  
Project Address: 9322 – 162A Street, Surrey, BC  
Project Arborist: Aelicia Otto

ON-SITE TREES:	QUANTITY OF TREES
<b>Total Bylaw Protected Trees Identified</b> (on-site and shared trees, including trees within boulevards and proposed streets and lanes, excluding Park and ESA dedications)	<b>20</b>
<b>Bylaw Protected Trees to be Removed</b>	<b>10</b>
<b>Bylaw Protected Trees to be Retained</b> (excludes trees in Park dedication areas and ESA's)	<b>10</b>
<b>Replacement Trees Required:</b>	
Alder and Cottonwood at 1:1 ratio:                      0 times 1 =    0	<b>0</b>
All Other Bylaw Protected Trees at 2:1 ratio:        10 times 2 =   20	<b>20</b>
TOTAL:	<b>20</b>
<b>Replacement Trees Proposed</b>	<b>6</b>
<b>Replacement Trees in Deficit</b>	<b>14</b>
<b>Protected Trees Retained in Proposed Open Space/ Riparian Areas</b>	<b>N/A</b>

OFF-SITE TREES:	QUANTITY OF TREES
<b>Bylaw Protected Off-Site Trees to be Removed</b>	<b>0</b>
<b>Replacement Trees Required:</b>	
Alder and Cottonwood at 1:1 ratio:                      0 times 1 =    0	<b>0</b>
All Other Bylaw Protected Trees at 2:1 ratio:        0 times 2 =    0	<b>0</b>
TOTAL:	<b>0</b>
<b>Replacement Trees Proposed</b>	<b>6</b>
<b>Replacement Trees in Deficit</b>	<b>14</b>

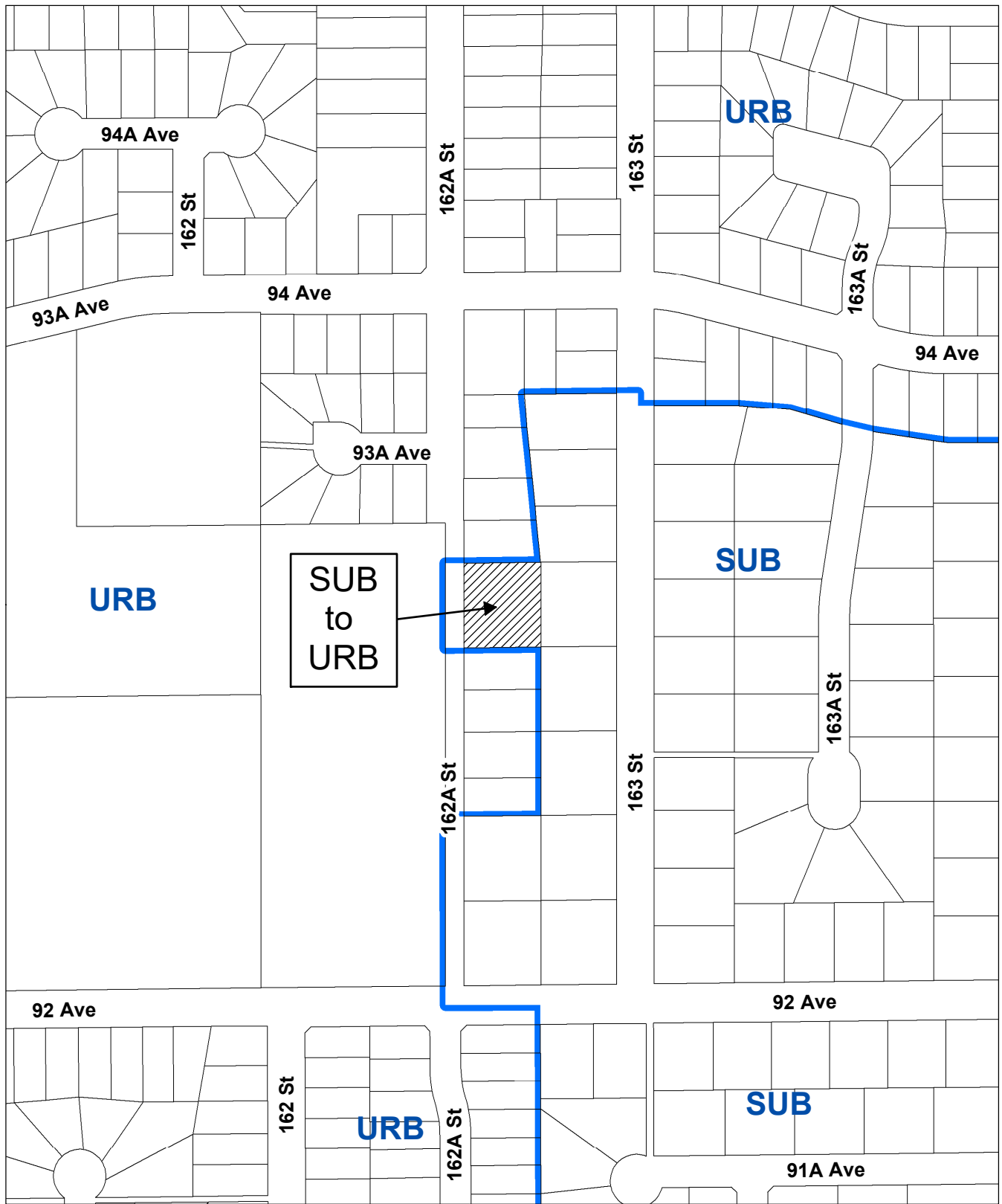
N/A denotes information "Not Available" at this time.

This summary and the referenced documents are prepared and submitted by:

Aelicia Otto, Project Arborist

Dated: May 9, 2019

Direct: 604 813 3911  
Email: aelicia@aclgroup.ca



OCP Amendment 7918-0158-00  
Proposed amendment from Suburban to Urban

