

PROPOSAL:

- **Rezoning** from RA to CD (based on RC)
- **Development Permit**

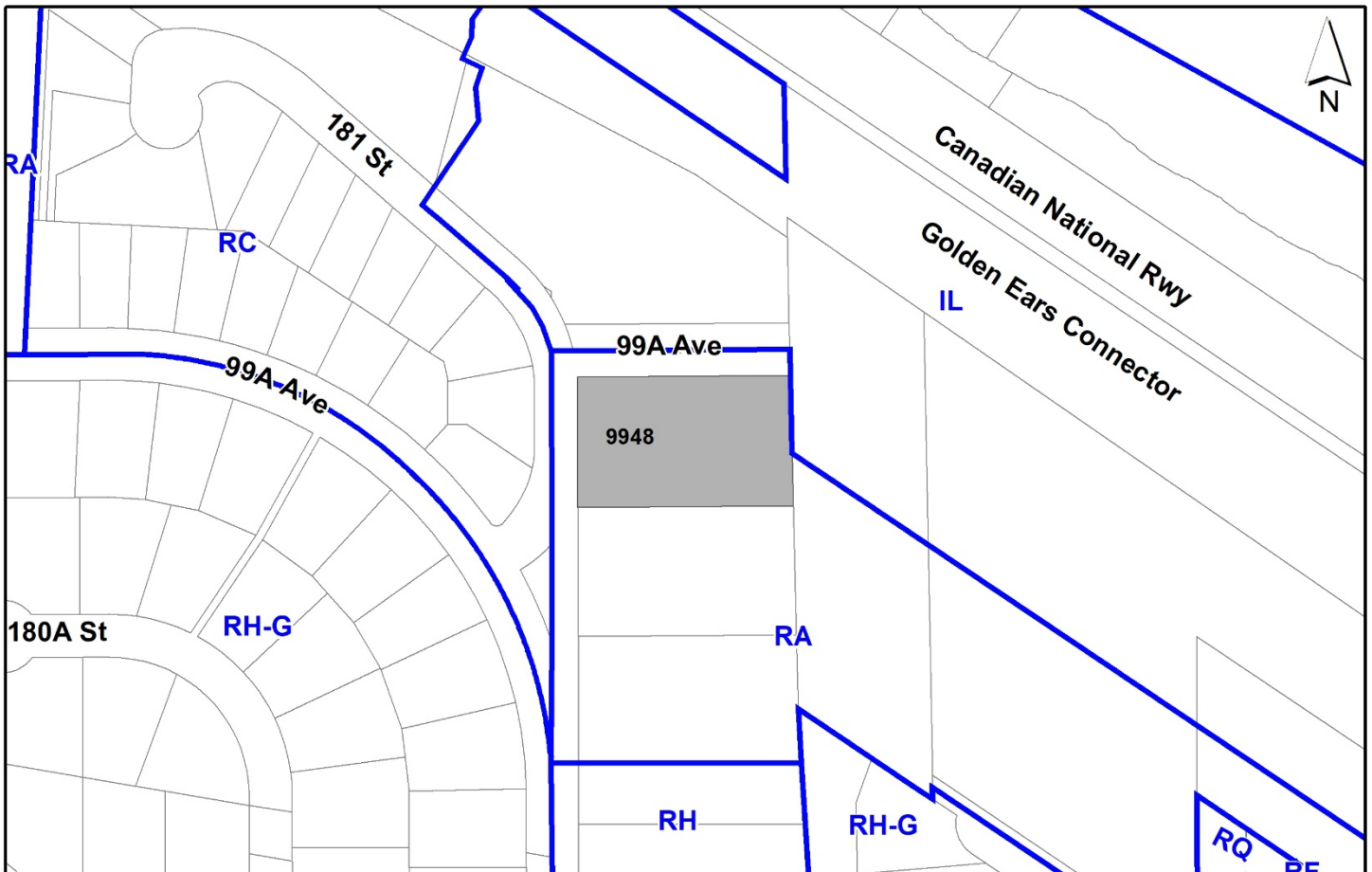
to allow subdivision into three single family lots and one lot to be conveyed to the City for conservation purposes.

LOCATION: 9948 - 181 Street

ZONING: RA

OCP DESIGNATION: Suburban

LAP DESIGNATION: Suburban Residential 2 - 4 upa
 Gross and Future Natural Area



RECOMMENDATION SUMMARY

- Rezoning By-law to proceed to Public Notification. If supported the By-law will be brought forward for First, Second and Third Reading.
- Approval to draft Development Permit for Hazard Lands and Sensitive Ecosystems.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- None.

RATIONALE OF RECOMMENDATION

- The proposal complies with the Suburban designation in the Official Community Plan (OCP).
- The proposal complies with the Suburban Residential 2 – 4 upa Gross designation in the Abbey Ridge Local Area Plan (LAP)
- The proposal complies with the General Urban designation in the Metro Vancouver Regional Growth Strategy (RGS).
- In accordance with the Council Procedure By-law (No. 15300), as amended, a public hearing is not required for the subject rezoning application. The proposed rezoning is in relation to a subdivision creating five or fewer new single-family residential lots. The proposal is consistent with the Official Community Plan (OCP) and the proposal is also consistent with the Secondary Plan for the area, the Abbey Ridge Local Area Plan (LAP). As such, Council is requested to endorse the Public Notification to proceed for the proposed Rezoning By-law. The Rezoning By-law will be presented to Council for consideration of First, Second, and Third Reading, after the required Public Notification is complete, with all comments received from the Public Notification presented to Council prior to consideration of the By-law readings.
- The proposed density and building form are appropriate for this part of Abbey Ridge.
- The proposal complies with the Development Permit requirements in the OCP for Sensitive Ecosystems (Streamside Areas/Green Infrastructure Areas).
- The proposal complies with the Development Permit requirements in the OCP for Hazard Lands (Steep Slopes).

RECOMMENDATION

The Planning & Development Department recommends that:

1. Council endorse the Public Notification to proceed for a By-law to rezone the subject site from "One-Acre Residential Zone (RA)" to "Comprehensive Development Zone CD" (based on RC).
2. Council authorize staff to draft Development Permit No. 7922-0243-00 Hazard Lands (Steep Slopes) and Sensitive Ecosystems (Streamside Areas and Green Infrastructure Areas) generally in accordance with the attached drawings (Appendix VI) and the finalized Ecosystem Development Plan and geotechnical report.
3. 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) Approval from the Ministry of Transportation & Infrastructure;
 - (d) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
 - (e) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department;
 - (f) submission of a finalized Ecosystem Development Plan to the satisfaction of City staff;
 - (g) conveyance of riparian areas and Biodiversity Conservation Strategy areas to the City;
 - (h) submission of a finalized Geotechnical Report to the satisfaction of City staff;
 - (i) the applicant adequately address the City's needs with respect to the City's Affordable Housing Strategy, to the satisfaction of the General Manager, Planning & Development;
 - (j) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department; and
 - (k) registration of a Section 219 Restrictive Covenant with the geotechnical report attached for Hazard Lands (Steep Slopes).

SITE CONTEXT & BACKGROUND

Direction	Existing Use	LAP Designation	Existing Zone
Subject Site	Single Family Residential	Suburban Residential 2-4 upa gross; Future Natural Area; Buffer Fishclass A and AO 30 m	RA
North (across unopened 99A Avenue):	City Owned Greenbelt and Drainage Corridor	Existing Natural Area; Buffer Fishclass A and AO 30 m	IL
East:	City Owned Greenbelt	Future Natural Area; Buffer Fishclass A and AO 30 m	RA/IL
South:	Single Family Residential	Suburban Residential 2-4 upa gross; Future Natural Area; Buffer Fishclass A and AO 30 m	RA
West (Across 181 Street):	Single Family Residential	Suburban Residential 2-4 upa gross	RC

Context & Background

- The subject property is located on the east side of 181 Street, south of unopened 99A Avenue. The property is designated Suburban in the Official Community Plan (OCP) and Suburban Residential (2-4 upa Gross) in the Abbey Ridge Local Area Plan (LAP) and is zoned One Acre Residential Zone (RA).
- The site is approximately 0.413 hectares in size, with a lot width of 50 metres and a lot depth of 83 metres.
- The property is encumbered by a Class A (red-coded) watercourse (Leoran Brook) and a Class A (red-coded) pond (Leoran Pond), which are located to the east and north of the subject site. As the subject property is located within 50 metres of the features, it is subject to a Sensitive Ecosystem Development permit in accordance with provisions identified in the OCP.
- It is noted that under Part 7A “Streamside Protection” of the Zoning By-law No. 12000, for new lots (created after September 12, 2016) the minimum setback from top-of-bank for a Class A (red-coded) watercourse is 30 metres.
- As the subject property contains land with steep slopes of a gradient greater than 20%, it is subject to a Hazard Land Development Permit in accordance with provisions identified in the OCP.

- To the north and to the west of the subject property are City-owned greenbelts. Land to the west was purchased by the City for riparian protection. Land to the north was dedicated to the City under Development Application No. 5693-0005-00.

DEVELOPMENT PROPOSAL

Planning Considerations

- The applicant is proposing to rezone the subject site from One Acre Residential Zone (RA) to a Comprehensive Development Zone based on Cluster Residential Zone (RC) and a Development Permit for Hazard Lands and Sensitive Ecosystems, in order to permit subdivision into three single family lots and one lot to be conveyed to the City for conservation purposes.

	Proposed
Lot Area	
Gross Site Area:	0.413 hectares
Park Lot Conveyance:	2,067 square metres
Net Site Area:	2,067 square metres
Number of Lots:	3 single family lots
Unit Density:	7.3 uph or 2.7 upa (gross)
Range of Lot Sizes	686 to 692 square metres
Range of Lot Widths	16.7 metres
Range of Lot Depths	41.3 to 40.9 metres

Referrals

Engineering: The Engineering Department has no objection to the project subject to the completion of Engineering servicing requirements as outlined in Appendix II.

School District: **The School District has advised that there will be approximately 2 school-age children generated by this development, of which the School District has provided the following expected student enrollment.**

- 1 Elementary student at Bothwell Elementary School
- 1 Secondary student at Fraser Heights Secondary School

(Appendix III)

The applicant has advised that the dwelling units in this project are expected to be constructed and ready for occupancy by Fall 2024.

Parks, Recreation & Culture:

Parks will accept the conveyance, without compensation, of 2,067 square metres of aquatic and riparian area to satisfy “maximum safeguarding” requirements of the Sensitive Ecosystem Development Permit Area guidelines.

Barnston Park is the closest active park and contains amenities including open space (at 100A Avenue and 179 Street) and natural areas. The park is 615 metres walking distance from the development.

Ministry of Transportation & Infrastructure (MOTI):

No concerns.

Transportation Considerations

- Vehicle access for proposed Lots 1 to 3 is from 181 Street, along the west property line.

Parkland and/or Natural Area Considerations

- To the north of the subject site is a City-owned greenbelt which was conveyed to the City to preserve and protect environmentally sensitive area through Development Application No. 5693-0005-00. To the west of the subject site is a City-owned greenbelt which was purchased by the City to preserve and protect this environmentally sensitive area in Abbey Ridge.
- The entirety of proposed Lot 4 will be conveyed to the City as a lot for the purposes of riparian protection.

Sustainability Considerations

- The applicant has met all of the typical sustainable development criteria, as indicated in the Sustainable Development Checklist.

School Capacity Considerations

- The School District has advised Bothwell Elementary’s 10 year enrollment projections show a growth trend that can be attributed to increased density being considered along the bluff to the east of Highway 17 (South Fraser Perimeter Road). The School District is requesting to purchase a new site in the Abbey Ridge area in the next 3 to 5 years where they would build a new elementary school after 2030. These projects have yet to be approved by the Ministry of Education.
- The School District has advised Fraser Heights Secondary School is currently operating at 128% capacity. The School District is planning an addition to Fraser Heights Secondary for a 500 capacity addition for the school, targeted to open in 2029. This project has yet to be approved by the Ministry of Education.

POLICY & BY-LAW CONSIDERATIONS

Regional Growth Strategy

- The proposal complies with the General Urban designation in the Regional Growth Strategy.

Official Community Plan

Land Use Designation

- The proposal complies with the Urban designation in the Official Community Plan (OCP).

Themes/Policies

- The proposed development is consistent with the following guiding policies and objectives in the OCP:
 - Support compact and efficient land development that is consistent with Metro Vancouver Regional Growth Strategy (OCP Policy A1);
 - Permit gradual and sensitive residential infill within existing neighbourhoods in areas adjacent to transit corridors, support significant transit improvements, utilize existing infrastructure (A3);
 - Retain existing trees and natural features in existing neighbourhoods (A3);
 - Support infill development that is appropriate in scale and density to its neighbourhood context (A3);
 - Preserve riparian area and watercourses in their natural state and link them with upland areas to develop a connected network of natural areas throughout Surrey (D1);
 - Work towards protecting existing natural urban forest and natural vegetative coverage to maximize Surrey's tree canopy (D1); and
 - Encourage ecological restoration of riparian and/or significant natural areas to improve stream health, to support biodiversity and to improve ecological health of the GIN (D1).

Secondary Plans

Land Use Designation

- The proposal complies with the Suburban Residential (2-4 upa Gross) designation in the Abbey Ridge Local Area Plan (LAP).

Themes/Objectives

- The proposed development is consistent with the following guiding policies and objectives in the Abbey Ridge LAP:
 - Provide appropriate land use transitions; and
 - Protect environmental areas.

CD By-law

- The applicant is proposing a "Comprehensive Development Zone (CD)" to accommodate the development of three single family lots and riparian conveyance on the subject site. The proposed CD By-law for the proposed development site identifies the uses, densities and setbacks proposed. The CD By-law will have provisions based on the "Cluster Residential Zone (RC)".
- A comparison of the density, open space, lot coverage, setbacks, building height and permitted uses in the RC Zone and the proposed CD By-law is illustrated in the following table:

Zoning	RC Zone (Part 15A)	Proposed CD Zone
Permitted Uses:	<ul style="list-style-type: none"> • One single-family dwelling on an individual lot which may contain 1 secondary suite. • Duplexes on individual lots. • Ground-oriented multiple unit residential buildings, or a combination of ground-oriented multiple unit residential buildings, duplexes and single-family dwellings. 	<ul style="list-style-type: none"> • One single-family dwelling on an individual lot which may contain 1 secondary suite.
Lot Area:	Minimum lot area for subdivision shall be 2 ha, except in the case of a remainder lot, where the lots, including the remainder lot which was created by the same plan of the subdivision, are zoned RC.	Not applicable
Unit Density:	<u>Type I:</u> 5.0 uph gross	7.3 uph gross (2.7 upa gross)
Floor Area Ratio:	Maximum 0.45 FAR	Maximum 0.60 FAR for the first 560 Sq. m. and 0.35 FAR for the remaining lot area in excess of 560 sq. m. Maximum floor area of 465 sq. m.
Open Space:	<u>Type I:</u> minimum 50% of the site area for subdivision	Minimum 50% of site area for subdivision
Lot Size: Lot Width: Lot Depth:	<u>For Type I Single Family:</u> 700 sq. m. 18 metres 30 metres	686 sq. m. 16.7 m 40.9 m
Setbacks:	Front: 7.5 m Rear: 7.5 m Side: 1.8 m	Front: 7.5 m Rear: 7.5 m* Side 1.8 m *If the minimum rear yard setback for a principal building is increased to 9.0 m the minimum front yard setback may be reduced to 6.0 m for the entire width of the principal building.

- The list of permitted uses has been amended to remove duplexes and ground-oriented multiple unit residential buildings in the CD Zone. Only single family dwellings, which may contain one secondary suite, will be permitted to be constructed on proposed Lots 1 to 3.
- The minimum lot area for subdivision is not applicable for this proposal. The proposed zone will be applicable only to the subject site.
- The permitted density has increased from 5.0 uph gross for Type I lots to 7.3 uph gross in the CD Zone. The proposed density complies with the Abbey Ridge Local Area Plan.
- The permitted floor area and floor area ratio provisions have been taken from the “Single Family Residential Zone (RF)” to support construction of a reasonable sized dwelling on each of the proposed lots. The maximum floor area is capped at 465 square metres.
- The minimum site area to be provided as open space for subdivision is 50%, based on the RC Type I lot provisions for single family development.
- The minimum standards for subdivision where open space is provided have been adjusted as follows:
 - The minimum lot size has decreased from 700 sq. m. to 686 sq. m.;
 - The minimum lot width has decreased from 18 metres to 16.7 metres; and
 - The minimum lot depth has increased from 30 metres to 40.9 metres.
- The proposed lot dimensions are compatible with existing single family lots in the area.
- An additional setback provision, to allow a reduced front yard setback for a principal building where an increased rear yard setback is provided, has been included in the CD Zone in order to help facilitate the retention of a significant tree specimen to the east of proposed Lot 1.

Lot Grading and Building Scheme

- The applicant retained Tejeshwar Singh of Simplex Consultants Ltd. as the Design Consultant. The Design Consultant conducted a character study of the surrounding homes and based on the findings of the study, proposed a set of building design guidelines (Appendix V).
- Styles recommended for this site include west coast modern.
- A preliminary lot grading plan, submitted by Hub Engineering Inc., and dated September 21, 2023, has been reviewed by staff and found to be generally acceptable. The applicant does propose in-ground basements. The feasibility of in-ground basements will be confirmed once the City’s Engineering Department has reviewed and accepted the applicant’s final engineering drawings.

Capital Projects Community Amenity Contributions (CACs)

- On December 16, 2019, Council approved the City's Community Amenity Contribution and Density Bonus Program Update (Corporate Report No. R224; 2019). The intent of that report was to introduce a new City-wide Community Amenity Contribution (CAC) and updated Density Bonus Policy to offset the impacts of growth from development and to provide additional funding for community capital projects identified in the City's Annual Five-Year Capital Financial Plan. A fee update has been approved in April 2023, under Corporate Report No. R037; 2023.
- The proposed development will be subject to the Tier 1 Capital Plan Project CACs. The contribution will be payable at the rate applicable at the time of Final Subdivision Approval. The current rate is \$2,136 per new unit.
- The proposed development will not be subject to the Tier 2 Capital Plan Project CACs as the proposal complies with the densities in the OCP and Secondary Plan designation.

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 new 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. A fee update has been approved in April 2023, under Corporate Report No. R037;2023.
- The applicant will be required to contribute \$1,068 per new lot to support the development of new affordable housing.

PUBLIC ENGAGEMENT

- Pre-notification letters were originally sent on February 17, 2023, with revised letters sent on June 1, 2023, to reflect a change to the proposed lot layout. The Development Proposal Sign was installed on May 30, 2023.
- Staff received one response from a neighbouring resident asking about potential tree impacts. *(staff comments in italics):*

(Staff have worked with the applicant to review any proposed tree removal and retention, including an analysis of any removal due to conflicts with proposed building envelopes and servicing connections. The Arborist Assessment states that there are a total of 43 mature trees on the site, with no Alder and Cottonwood trees present. This includes 30 trees located within a City-owned hedge along 181 Street. It was determined that 2 trees can be retained as part of this development proposal. Additionally, 31 trees were identified within the riparian area proposed to be conveyed to the City. All 31 of these trees are proposed to be retained.)

- The subject development application was reviewed by the Fraser Heights Community Association. The Fraser Heights Community Association provided the following comments *(staff comments in italics):*
 - Concerns raised regarding narrow lot frontages and small lot sizes compared to surrounding neighbourhood.

(Staff have worked with the applicant and the Fraser Heights Community Association on a revised lot layout to address concerns with proposed lot width. All three single family lots are proposed to have a lot width of 16.7 metres, presenting a consistent streetscape along 181 Street.

In response to concerns about the proposed lot sizes, a significant portion of the subject site is encumbered by steep slopes and streamside setback areas for adjacent riparian features. As such, 50% of the subject property is proposed to be conveyed to the City to protect riparian area along the east property line.

The proposed density and conveyance is consistent with the existing land use designations in the Abbey Ridge LAP.)

DEVELOPMENT PERMITS

Sensitive Ecosystems (Streamside Areas) Development Permit Requirement

- The subject property falls within the Sensitive Ecosystems Development Permit Area (DPA) for Streamside Areas in the OCP, given the location of an existing Class A (red-coded) watercourse which flows south to north, and an existing Class A (red-coded) lake to the east. The Sensitive Ecosystems (Streamside Areas) Development Permit is required to protect aquatic and terrestrial ecosystems associated with streams from the impacts of development.
- In accordance with Part 7A Streamside Protection setbacks of the Zoning By-law, a Class A (red-coded) watercourse requires a minimum streamside setback of 30 metres, as measured from the top of bank. The applicant has chosen to apply the flex provision that is permitted under Part 7A to comply with the setback requirements. The flex provision states that the minimum distance from the top of bank of a watercourse may be reduced by no more than 5 metres and increased by no more than 10 metres as long as there is no net loss in the total size of the streamside setback area. The applicant is proposing to reduce the streamside setback to a minimum of 28.2 metres and increase the maximum to 31.44 metres. As a result there is no net loss of the streamside setback area. The proposed setbacks comply with the requirements outlined in the Zoning By-law.
- The riparian area is proposed to be conveyed to the City as a lot for conservation purposes as a condition of rezoning approval, in compliance with the OCP.
- An Ecosystem Development Plan, prepared by Kyla Milne, R.P. Bio., of Pacific Land Group Inc. and dated July 23, 2023 was reviewed by staff and found to be generally acceptable, with some modifications to content and format of the report still required. The finalized report and recommendations will be incorporated into the Development Permit.

Sensitive Ecosystems (Green Infrastructure Areas) Development Permit Requirement

- The subject property falls within the Sensitive Ecosystems DPA for Green Infrastructure Areas in the OCP, given the location of a Biodiversity Conservation Strategy (BCS) Green Infrastructure Network (GIN) Corridor located along eastern portions of the site. The Sensitive Ecosystems (Green Infrastructure Areas) Development Permit is required to protect environmentally sensitive and/or unique natural areas from the impacts of development.

- The City of Surrey Biodiversity Conservation Strategy (BCS) Green Infrastructure Network (GIN) map, adopted by Council on July 21, 2014 (Corporate Report No. R141; 2014), identifies a Regional BCS Corridor within the subject site, in the Surrey Bend BCS management area, with a Moderate ecological value.
- The BCS further identifies the GIN area of the subject site as having a Very High habitat suitability rating, derived from species at risk presence, species accounts and known ecosystem habitat inventories. The BCS recommends a target Corridor width of 60 meters.
- The development proposal conserves 2,067 square meters of the subject site through Parkland Conveyance which is 50% of the total gross area of subject site. This method of GIN retention/enhancement will assist in the long-term protection of the natural features and allows the City to better achieve biodiversity at this location consistent with the guidelines contained in the BCS.
- An Ecosystem Development Plan, prepared by Kyla Milne, *R.P. Bio.*, of Pacific Land Group Inc. and dated July 23, 2023 was reviewed by staff and found to be generally acceptable, with some modifications to content and format of the report still required. The finalized report and recommendations will be incorporated into the Development Permit.

Hazard Lands (Steep Slope) Development Permit Requirement

- The subject property falls within the Hazard Lands (Steep Slope) Development Permit Area (DPA) in the OCP, given that the site contains steep slopes in excess of 20% gradient. The Hazard Land (Steep Slope) Development Permit is required to protect developments from hazardous conditions.
- The topography of the site is relatively flat with a gentle slope from west to east, and an average site slope of 7%. The creek bank slope gradient was approximately 75%, with localized over-steep slopes up to 85% observed.
- A geotechnical report, prepared by Tagbir S. Bajwa, *P. Eng.*, of Able Geotechnical Ltd. and dated September 2, 2023, was peer reviewed by Qiyang (Rick) Jiang, *P. Eng.*, of *Tetris Geotechnical Engineering Ltd.* and found to be generally acceptable by the peer reviewer. The report and peer review were reviewed by staff and found to conform to the OCP Development Permit guidelines for Hazard Lands. The finalized geotechnical report will be incorporated into the Development Permit.
- The geotechnical report investigated issues related to slope stability and natural storm water drainage, from a geotechnical perspective, to determine the feasibility of developing the site and proposes recommendations to ensure the ongoing stability of the slope.
- The consultant has determined that the development is feasible provided that the recommendations in their report are incorporated into the overall design of the site, including preparing the subgrade, foundation systems, perimeter drainage, and structural fill.
- Registration of a Section 219 Restrictive Covenant that requires the owner to develop the site in accordance with the conditions in the geotechnical report is required as a condition of final adoption.

- At Building Permit stage, the Building Division will require Letters of Assurance from a geotechnical engineer to ensure that the building plans comply with the recommendations in the approved geotechnical report.

TREES

- Mitch Davis, ISA Certified Arborist of Diamond Head Consulting prepared an Arborist Assessment for the subject property. The table below provides a summary of the proposed tree retention and removal by tree species:

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

Tree Species	Existing	Remove	Retain
Deciduous Trees (excluding Alder and Cottonwood Trees)			
Maple	3	3	0
Coniferous Trees			
Cedar	4	3	1
Cypress	1	1	0
Cypress (within City owned hedge)	30	30	0
Pine	5	3	2
Total (excluding Alder and Cottonwood Trees)	43	40	3
Additional Trees in the Proposed Riparian Area	31	0	31
Total Replacement Trees Proposed (excluding Boulevard Street Trees)		11	
Total Retained and Replacement Trees Proposed		14	
Estimated Contribution to the Green City Program		\$37,950	

- The Arborist Assessment states that there are a total of 43 mature trees on the site, with no Alder and Cottonwood trees present. This total includes 30 Cypress trees located within a City-owned hedge which runs along the western edge of the site adjacent to 181 Street. The applicant proposes to retain three (3) trees on-site 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.
- Table 1 includes an additional 31 protected trees that are located within the proposed riparian area. All 31 trees within the proposed riparian area will be retained, except where removal is required due to hazardous conditions. This will be determined at a later time, in consultation with the Parks, Recreation and Culture Department.

- 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 80 replacement trees on the site. Since only 11 replacement trees can be accommodated on the site (based on an average of four (4) trees per lot), the proposed deficit of 11 replacement trees will require an estimated cash-in-lieu payment of \$37,950, representing \$550 per tree, to the Green City Program, in accordance with the City's Tree Protection By-law.
- In addition to the replacement trees, boulevard street trees will be planted on 181 Street. This will be determined by the Engineering Department during the servicing design review process.
- In summary, a total of 14 trees are proposed to be retained or replaced on the site with a \$37,950 contribution required to the Green City Program.

INFORMATION ATTACHED TO THIS REPORT

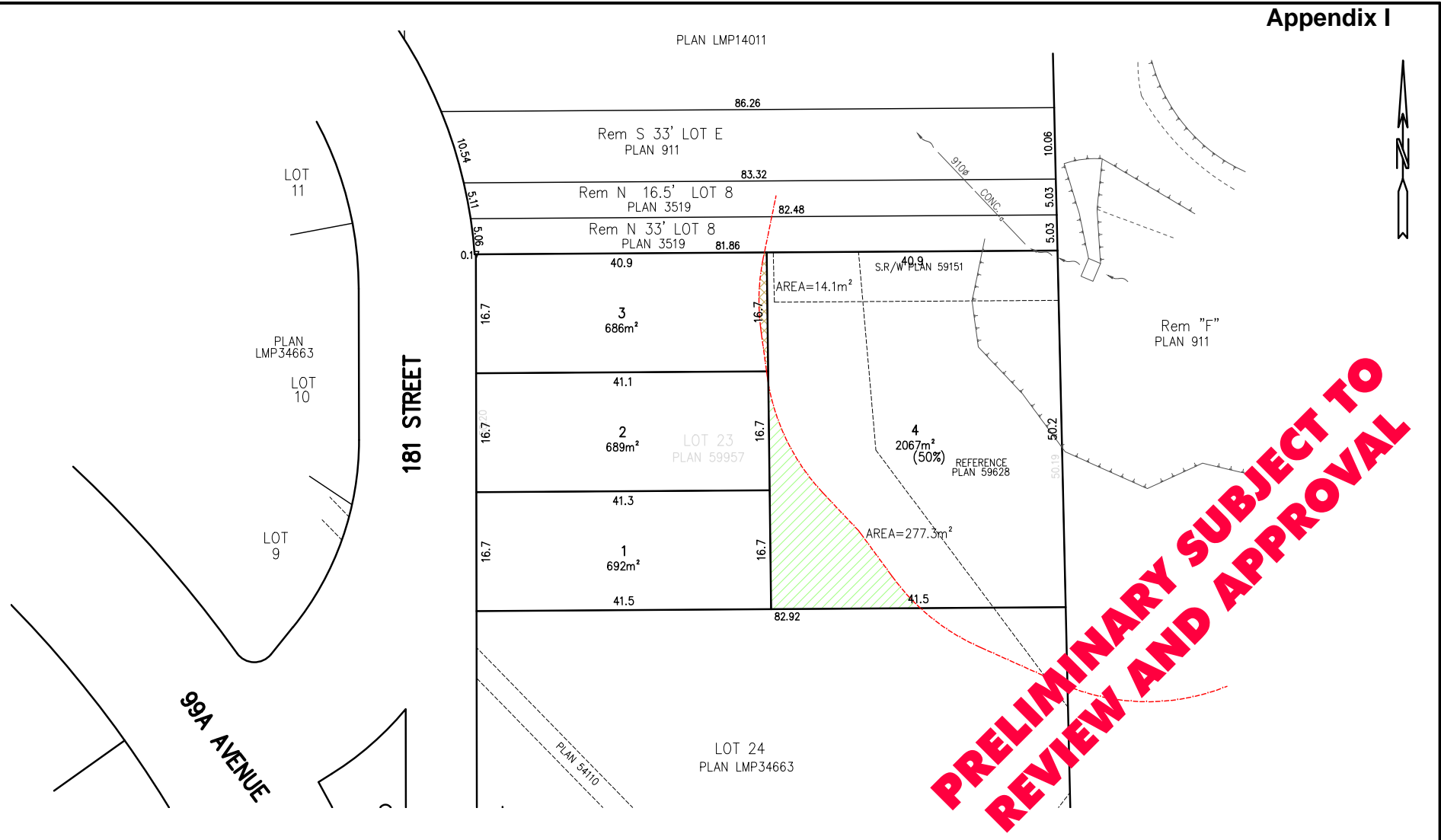
The following information is attached to this Report:

Appendix I.	Proposed Subdivision Layout
Appendix II.	Engineering Summary
Appendix III.	School District Comments
Appendix IV.	Summary of Tree Survey, Tree Preservation and Tree Plans
Appendix V.	Building Design Guidelines Summary
Appendix VI.	Streamside Setback Map

approved by Ron Gill

Don Luymes
General Manager
Planning and Development

SR/kd



G:\Projects\21080\21080\21080\Drawings\LAYOUTS\Lot Layout - Op - 19 - Apr 5, 2023.dwg [Lot Layout - 11x17] 7/18/2023 5:05PM

CLIENT:		PROJECT: 9948 181 STREET, SURREY			
DRAWING TITLE: RESIDENTIAL SUBDIVISION					
PROJECT No.	21080	DATE:	APR 2023	LEGAL:	
			SCALE:	1:500	MUNICIPAL PROJECT No.:
PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES					

Hub Engineering Inc.
 Engineering and Development Consultants

Member
PACIFIC LAND GROUP

Suite 212, 12992 - 76 Avenue, Surrey, B.C. V3W 2V6
 tel: 604-572-4328 | fax: 604-501-1625 | mail@hub-inc.com | www.hub-inc.com

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

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

DATE: **September 27, 2023** PROJECT FILE: **7822-0243-00**

RE: **Engineering Requirements
Location: 9948 181 St**

REZONE/SUBDIVISION

Property and Right-of-Way Requirements

- Register a 0.5m statutory right-of-way along east of 181 Street.
- Discharge S68005 Public Access & Drainage SRW.

Works and Services

- Construct the east half of 181 Street.
- Remove hardscape surface within 99A Avenue and restore with sod and topsoil.
- Provide 6.0m wide concrete driveway to each lot.
- Construct low pressure sanitary main along 181 Street.
- Provide adequately sized storm, sanitary and water service connection to each lot.
- Register RC for operation and maintenance of on-site sanitary pumps; and
- Pay frontender, DWA and latecomer fees.

DEVELOPMENT PERMIT

The following issues are to be addressed as a condition of issuance of the Development Permit:

- Provide drainage service connection as recommended by peer reviewed geotechnical report.



Jeff Pang, P.Eng.
Development Services Manager
RH

Department: **Planning and Demographics**
Date: **February 16, 2023**
Report For: **City of Surrey**

Development Impact Analysis on Schools For:
Application #: **22 0243 00**

The proposed development of **3** Single Family with Suite units are estimated to have the following impact on elementary and secondary schools within the school regions.

School-aged children population projection	2
---------------------------------------------------	----------

Projected Number of Students From This Development In:	
Elementary School =	1
Secondary School =	1
Total Students =	2

Current Enrolment and Capacities:	
Bothwell Elementary	
Enrolment	276
Operating Capacity	294
# of Portables	1
Fraser Heights Secondary	
Enrolment	1535
Operating Capacity	1200
# of Portables	8

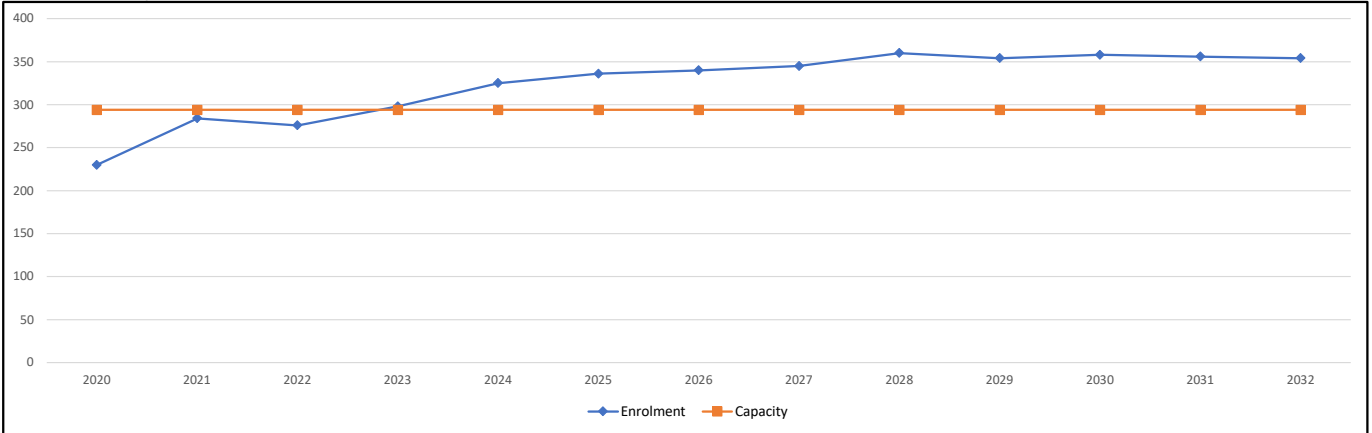
Summary of Impact and Commentary

The following tables illustrate the historical, current and future enrolment projections including current/approved ministry operating capacity for the elementary and secondary schools serving the proposed development.

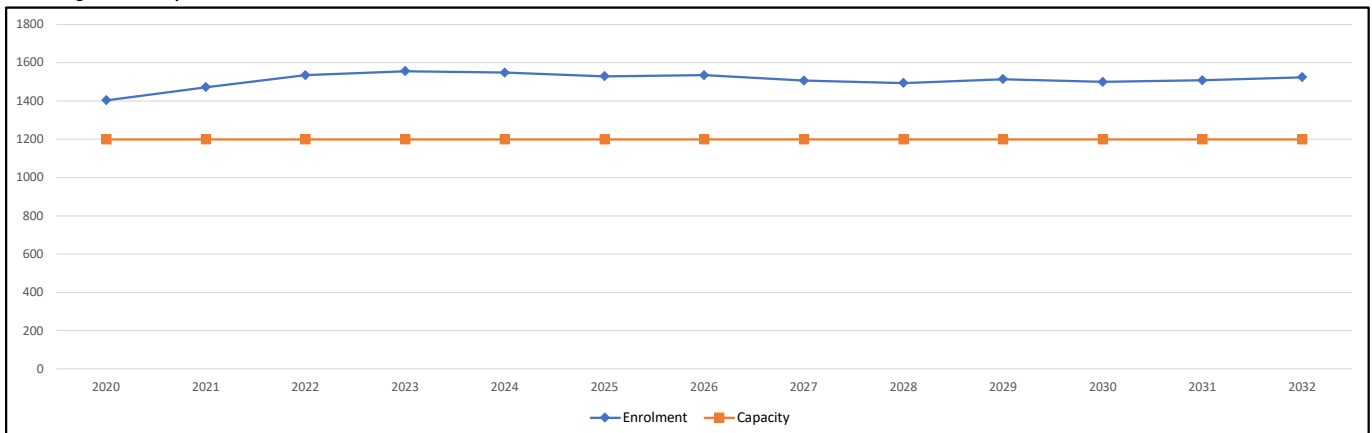
Bothwell Elementary 10 year enrolment projections show a growth trend that can be attributed to the increased density being considered along the bluff to the east of Highway 17 (South Fraser Perimeter Road). With Highway 17 dissecting the Bothwell catchment, as part of the District's 2023/2024 Capital Plan submission to the Ministry, the District is requesting to purchase a new site in the new Abbey Ridge area in the next 3-5 years: followed by, building a new elementary school after 2030. There has been no Ministry funding approval for these project. Until then, enrolment growth at Bothwell elementary will be accommodated by portables.

Fraser Heights Secondary is the only secondary school that serve the communities located on the north side of Highway 1. The school is currently operating at 128% capacity. The school's 10 year projections show enrolment to continue at this level and potentially grow as the Bothwell and Abbey Ridge communities start to build. As a result, the District has requested as part of their 2023/2024 Capital Plan submission to the Ministry a 500 capacity addition for the school, targeted to open in 2029. There has been no Ministry funding approval for this project.

Bothwell Elementary



Fraser Heights Secondary



Population: The projected population of children aged 0-17 impacted by the development.
Enrolment: The number of students projected to attend the Surrey School District ONLY.

4.0 Tree Preservation Summary

Table 2: City of Surrey tree preservation summary table for on-site and off-site trees, including the number of replacement trees proposed.

Surrey Project Number Unknown
 Site Address 9448 181 Street
 Registered Arborist Louis Hoon

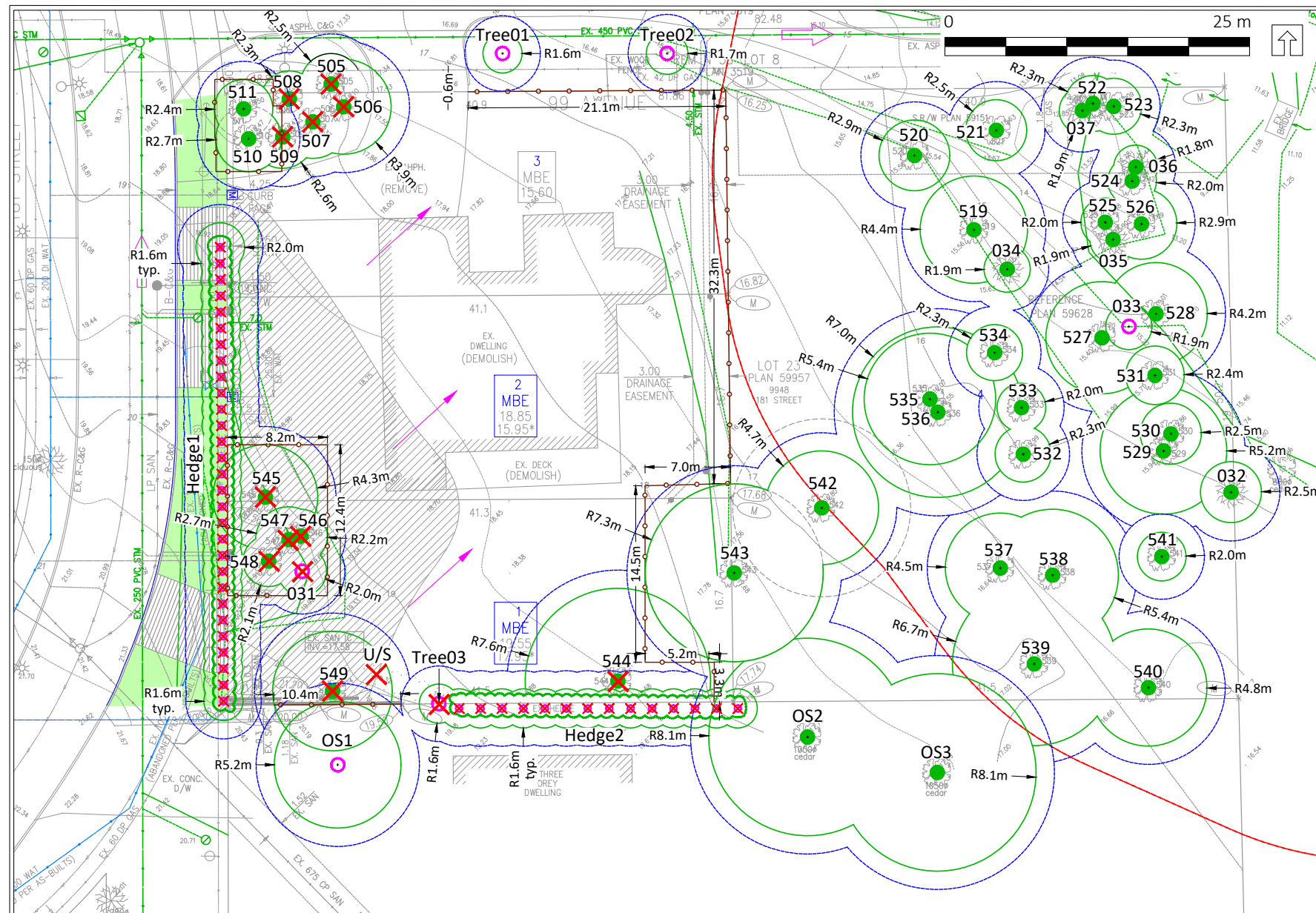
On-Site Trees	Number of Trees
Protected Trees Identified (On-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	43
Protected Trees to be Removed	40
Protected Trees to be Retained (Excluding trees within proposed open space or riparian areas)	3
Total Replacement Trees Required: - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio 0 X one (1) = 0 - All other Trees Requiring 2 to 1 Replacement Ratio 40 X two (2) = 76	80
Replacement Trees Proposed	11
Replacement Trees in Deficit	72
Protected Trees to be Retained in Proposed Open Space / Riparian Areas	31

Off-Site Trees	Number of Trees
Protected Off-Site Trees to be Removed	0
Total Replacement Trees Required: - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio 0 X one (1) = 0 - All other Trees Requiring 2 to 1 Replacement Ratio 1 X two (2) = 30	0
Replacement Trees Proposed	0
Replacement Trees in Deficit	0

Summary, report, and plan prepared and submitted by


 Signature of Arborist

December 5, 2023
 Date



LEGEND

- CRITICAL ROOT ZONE
- NO-BUILD ZONE
- TREE PROTECTION ZONE (WHERE APPLICABLE) AND FENCING
- SURVEYED TREE TO BE RETAINED
- UN-SURVEYED TREE TO BE RETAINED (MUST BE SURVEYED)
- X TREE TO BE REMOVED
- U/S UNDER BYLAW SIZE

- NOTES**
- The location of un-surveyed trees on this plan is approximate. Their location and ownership cannot be confirmed without being surveyed by a Registered BC Land Surveyor.
 - All tree protection fencing must be built to the relevant municipal bylaw specifications. The dimensions shown are from the outer edge of the stem of the tree.
 - The tree protection zone shown is a graphical representation of the critical root zone, measured from the outer edge of the stem of the tree. (½ the trees diameter was added to the graphical tree protection circles to accommodate the survey point being in the center of the tree)
 - No work is permitted within the Tree Protection Zone with the exception of swales. Swale construction is only permitted under the direct supervision of an arborist.
 - The 1.5m area No Build Zone does not allow for any building foundation wall encroachment. Excavation is permitted within this area under the direct supervision of an arborist.
 - Drainage works such as lawn basins, associated piping or services are permitted within the No Build Zone under the direct supervision of an arborist.
 - This plan is based on a topographic and tree location survey provided by the owners' Registered British Columbia Land Surveyor (BCLS) and layout drawings provide by the owners' Engineer (P Eng).
 - This plan is provided for context only, and is not certified as to the accuracy of the location of features or dimensions that are shown on this plan. Please refer to the original survey plan and engineering plans.

- REFERENCE DRAWINGS**
- Base Survey by South Fraser Land Surveying Ltd. dated May 26, 2017.
 - Residential Subdivision (Preliminary Plan) by Hub Engineering Inc. dated June 5, 2023.

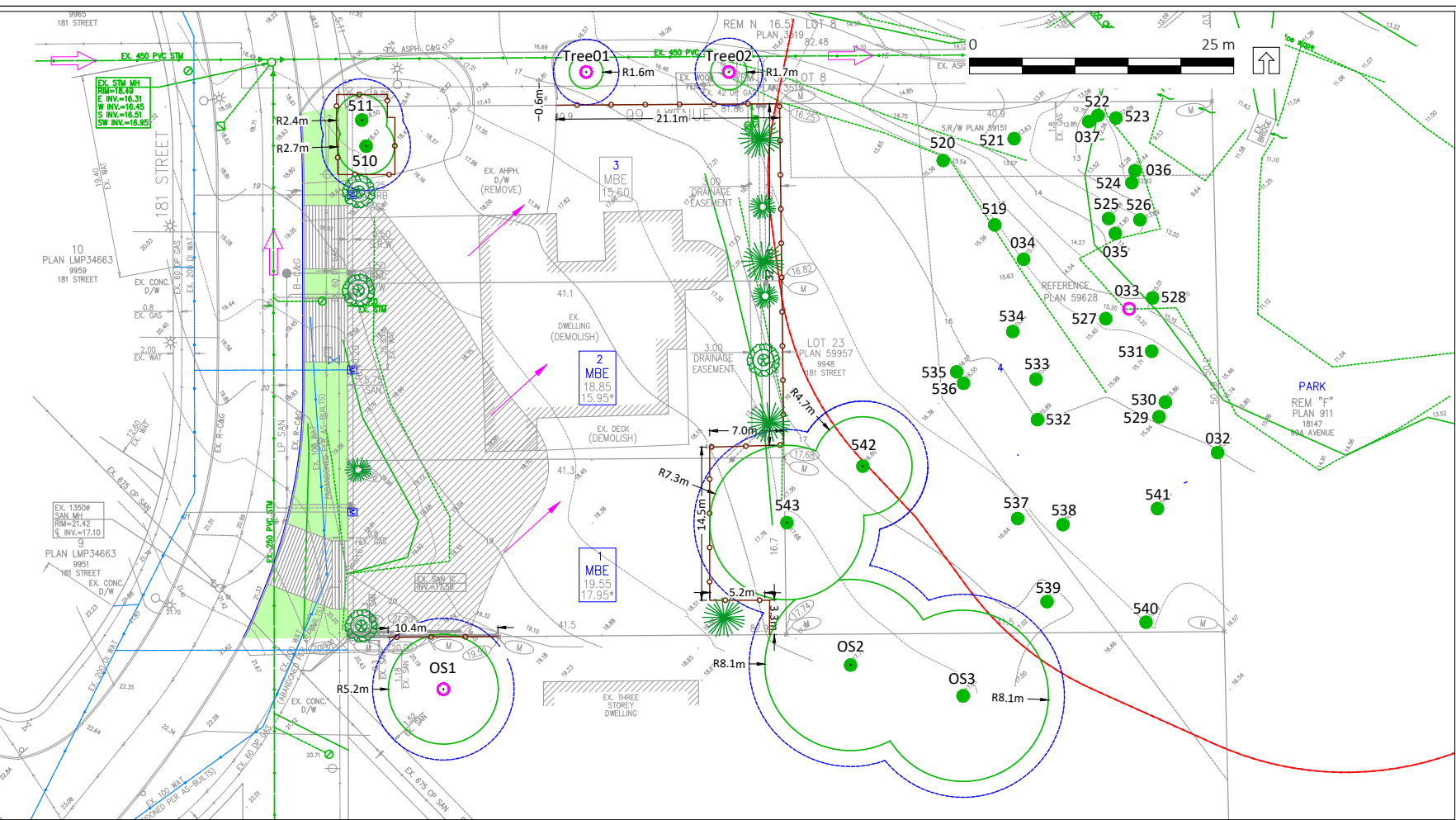


3559 COMMERCIAL STREET
VANCOUVER BC | V5N 4E8
T 604.733.4886

Drawing Title: Tree Management Plan
Project Address: 9948 181 Street, Surrey, BC
Client: Tavinder Randhawa

Drawing No: 02
Date: 2023/11/15
Drawn by: LH
Page Size: TABLOID 11"x17"

Page #
1 of 2



- LEGEND**
- TREE PROTECTION ZONE
 - TREE PROTECTION FENCE
 - SURVEYED TREE TO BE RETAINED
 - UN-SURVEYED TREE TO BE RETAINED

NOTES

1. The location of un-surveyed trees on this plan is approximate. Their location and ownership cannot be confirmed without being surveyed by a Registered BC Land Surveyor.
2. All tree protection fencing must be built to the relevant municipal bylaw specifications. The dimensions shown are from the outer edge of the stem of the tree.
3. The tree protection zone shown is a graphical representation of the critical root zone, measured from the outer edge of the stem of the tree. (½ the trees diameter was added to the graphical tree protection circles to accommodate the survey point being in the center of the tree)
4. Any construction activities or grade changes within the tree protection zone must be approved by the project arborist.
5. This plan is based on a topographic and tree location survey provided by the owners' Registered British Columbia Land Surveyor (BCLS) and layout drawings provide by the owners' Engineer (P Eng).
6. This plan is provided for context only, and is not certified as to the accuracy of the location of features or dimensions that are shown on this plan. Please refer to the original survey plan and engineering plans.
7. **PLANTING STANDARDS:** All planting works should be done in accordance with the current edition of Canadian Landscape Standards.
8. Tree Replacement symbols are not shown to scale, and the tree may not be planted in the exact location shown.

REFERENCE DRAWINGS

1. Base Survey by: South Fraser Land Surveying Ltd.

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	COMMENTS
	Cornus 'Eddies White Wonder'	Dogwood	4	6 cm. cal	As shown	B. & B.
	Picea omorika	Serbian spruce	3	3.0 meters	As shown	B. & B.
	Chamaecyparis nootkatensis 'pendula'	Weeping Nootka Cedar	4	3.0 meters	As shown	B. & B.

TOTAL REPLACEMENT TREE: 11



3559 COMMERCIAL STREET
VANCOUVER BC | V5N 4E8
T 604.733.4886

Drawing title: Tree Management Plan
Project address: 9948 181 Street, Surrey
Client: Tavinder Randhawa

Drawing No: 02
Date: 2023/12/05
Drawn by: MR
Page Size: TABLOID 11"x17"

Page #
1 of 1

BUILDING GUIDELINES SUMMARY

Surrey Project: #7922-0243-00
 Project Location: 9948 181 Street, Surrey, B.C.
 Design Consultant: Simplex Consultants Ltd., (Tejeshwar Singh, b.t.arch, ASCT, CRD, at.aibc)

This building scheme draft is proposed for the above noted project and has been filed with the City Clerk. Below is the Residential Character Study and the Design Guidelines summary which highlights the important features and forms 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:

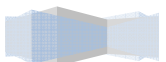
The area surrounding the subject property consists of a majority of homes built approximately 10-15 years ago. The style of the homes in the area "traditional west coast" and "neo-traditional" which range from 5000sf up to 9000 sf. There is a green space park directly east of the property.

Homes in the neighborhood include the following:

- The context homes surrounding the property which are approximately 10-15 years old "traditional west coast" style homes with mid-scale massing characteristics. These homes have various roof pitches from 4:12 up to 10:12. Roof surfaces are asphalt shingles and the cladding is hardi with stone or brick accents. These newer homes can be used as context homes. There are also modern homes that are more recently built and currently under construction.

1.2 Features of the Existing and Surrounding Dwelling Homes Significant to the Proposed Building Scheme:

- 1) Context styles of homes for the proposed building scheme are "neo-traditional".
- 2) All context homes are 2 to 3 storey homes.
- 3) Front entrances are 1 and 2 storey in height.
- 4) Massing: Old homes are mostly traditional west coast or ranchers context.
- 5) Exterior cladding: variation of wall cladding materials allows for a wide range of selection for cladding.
- 6) Roof surface: variation of roofing materials allows for a wide range of selection for roofing.
- 7) Roof pitch is a minimum 4:12 for the newer context homes.



Dwelling Types/Locations: 2 storey split levels.

Exterior Treatment /Materials: Context homes are clad in stucco, or vinyl siding, and have a stone or brick accent veneer.

Roof Pitch and Materials: A variety of roofing products have been used, and a variety could be permitted.

Window/Door Details: Rectangle or arched.

Streetscape: The neighborhood is fairly new with a similar character within each dwelling. Homes include West Coast Modern style 2 and 3 storey homes that meet modern massing design, modern trim and detailing standards, and modern roofing and construction materials standards. Landscapes range from "modest old urban" to "moderate modern urban".

2. Proposed Design Guidelines

2.1 Proposed Design Solutions:

Dwelling Types/Location: 2 storey or 3 storey split levels.

Interfacing Treatment with existing dwellings Strong relationship with neighboring "context homes" including new homes will be of a similar home type and size. Similar massing characteristics, roof types, roof pitches, roofing materials, and siding materials.

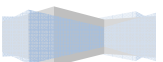
Restrictions on Dwellings No basement entry homes.

Exterior Materials: Stucco, Hardiplank, Brick, and Stone.

Colours: "Natural" colours such as browns, greens, clays, and other earth-tones, and "Neutral" colors such as grey, white, and cream are permitted. "Primary" colors in subdued tones such as navy blue, or forest green can be considered as approved by the consultant. Colours such as pink, rose, peach, salmon are not permitted.

Roof Pitch: Minimum roof pitch must be 4:12.

Roof Materials: Shake profile concrete roof tiles, and shake profile asphalt shingles with a raised ridge caps are permitted in Grey, Brown, or Black.



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

Landscaping: Landscaping: Moderate modern urban standard: minimum 40 shrubs of a minimum 3 gallon pot size. Sod from street to face of home. Driveways: exposed aggregate, interlocking masonry pavers, stamped concrete, or "broom" or "brush-finished" concrete.

Tree Planting Deposit: **\$1,000** (to developer)
– 50% will be refunded after inspection by developer
- Remaining 50% one year after completion of construction

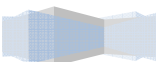
Compliance Deposit: **\$12,500** (to developer)

Summary prepared and submitted by: Simplex Consultants Ltd.

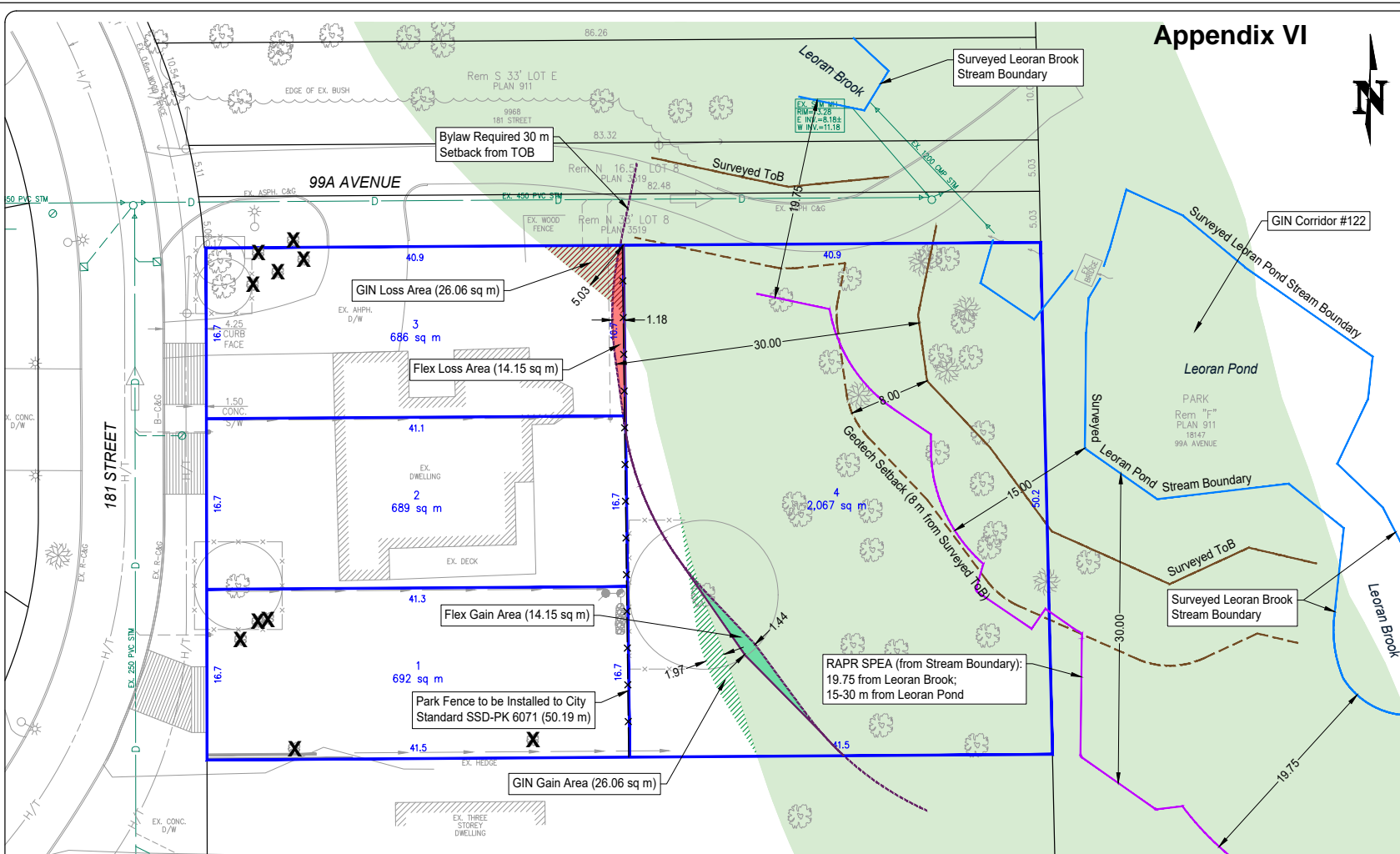
Date: November 2, 2021

Reviewed and Approved by: Tejeshwar Singh, b.t.arch, ASCT, CRD, at.aibc

Date: November 2, 2021



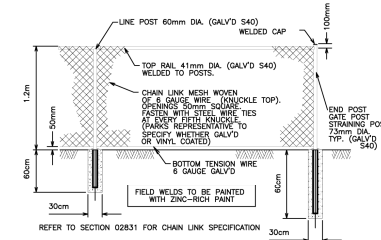
Appendix VI



- LEGEND**
- Subject Properties (4,135 sq m / 1.02 ac)
 - Surveyed Stream Boundary (SB)
 - Surveyed Top of Bank (ToB)
 - Surveyed Drainage Infrastructure
 - Geotechnical Setback (8 m from Surveyed ToB)
 - Bylaw Required 30 m Setback from ToB
 - RAPR SPEA (from SB): 19.75 m from Leoran Brook; 15-30 m from Leoran Pond
 - Existing Trees to be Removed
 - Proposed Flex Setback
 - Flex Gain Area (14.15 sq m)
 - Flex Loss Area (14.15 sq m)
 - GIN Corridor #122
 - GIN Gain Area (26.06 sq m)
 - GIN Loss Area (26.06 sq m)
 - 1.2 m Black Chain Link Park Fence to be Installed to City Standard SSD-PK 6071 and Inset into Property by 0.1 m (50.19 m)

STATISTICS

Total Dedication Area: 2,067 sq m / 22,253 sq ft
 Total SPEA with Setback Flex: 1,804 sq m / 19,419 sq ft
 GIN Loss and Compensation Area: 26.06 sq m / 280.51 sq ft



PACIFIC LAND GROUP
 Land Use, Development & Environmental Strategists

Pacific Land Resource Group Inc.

Suite 212 - 12992 - 76 Avenue
 Surrey, British Columbia
 Canada V3W 2V6

Tel: 604-501-1624
 Fax: 604-501-1625

www.pacificlandgroup.ca
 info@pacificlandgroup.ca

PROJECT:

9948 181 Street, Surrey

DRAWING TITLE:

Environmental Setback Plan with Proposed Subdivision and Flex Provision

PRELIMINARY PLAN - SUBJECT TO APPROVAL(S) FROM FEDERAL, PROVINCIAL AND LOCAL AUTHORITIES

CLIENT:

Tav Randhawa

SCALE:

1:400

DATE:

August 1, 2023

PROJECT No:

18-1685

DRAWING No:

01

DESIGNED BY: **JM** CHECKED BY: **KM**