



COUNCIL REPORT

Regular Council

Report No. PDS 044-2024

Date: April 03, 2024

File No: 3100-05 PRJ22-004

To: Mayor and Council
From: Daniel Graham, Planner
Subject: Rezoning and Development Permit with Variances applications (33938 and 33946 George Ferguson Way)

RECOMMENDATION

1. That Council extend the deadline for consideration of Application No. PRJ22-004, as under the City's Development Application Procedures Bylaw, 2016, the application has lapsed;
2. That Bylaw No. 3522-2024, "Abbotsford Zoning Bylaw, 2014, Amendment Bylaw No. 608", be given first, second and third readings;
3. That, prior to adoption of Bylaw No. 3522-2024, "Abbotsford Zoning Bylaw, 2014, Amendment Bylaw No. 608", the following conditions be satisfied:
 - (a) entering into a development agreement to provide the necessary road and utility upgrades, in accordance with the Development Bylaw, as detailed in the Works and Services Report;
 - (b) providing a road widening dedication of approximately 3 m along the full frontage of George Ferguson Way, in accordance with the Development Bylaw;
 - (c) providing a Community Benefit Contribution of \$37,500 for future transit and cycle infrastructure, park improvements and affordable housing;
 - (d) consolidating the three properties into one legal lot; and
 - (e) resolving all issues of funding for items not budgeted by the City;
4. That Development Permit with Variances No. 2454 be approved in principle; and
5. That, prior to issuance of Development Permit with Variances No. 2454 the following conditions being satisfied:
 - (a) adoption of Bylaw No. 3522-2024, "Abbotsford Zoning Bylaw 2014, Amendment Bylaw No. 608";
 - (b) submission of photos confirming the installation of protective fencing around trees identified for retention consistent with the final accepted Arborist Report, and the tree protective fencing details of the Tree Protection Bylaw, is complete;
 - (c) providing a landscaping estimate prepared by a Landscape Architect and security to the acceptance of the General Manager, Planning and Development Services, in accordance with the Development Application Procedures Bylaw;

- (d) providing a landscaping inspection fee of 2%, in accordance with the Development Application and Service Fee Bylaw;
- (e) providing a \$46,000 Community Amenity Contribution for future transportation improvements;
- (f) demolishing all existing buildings and structures on site;
- (g) registering a Section 219 Covenant for private garbage and recycling collection;
- (h) owners providing written acknowledgement of the terms and conditions of the permit;
- (i) providing three sets of signed, sealed development permit plans and documents; and
- (j) providing digital unsecured copies of all development permit plans and documents.

REPORT CONCURRENCE	
General Manager	City Manager
The General Manager concurs with the recommendation of this report.	The City Manager concurs with the recommendation of this report.

PURPOSE

To rezone from Urban Residential Zone (RS3) to Mid Rise Apartment Zone (RMM) to construct a six storey, 60 unit apartment building and to issue a Steep Slope and Multifamily Residential Development Permit with Variances to the Abbotsford Zoning Bylaw as follows:

Section 150.3.1 – to reduce the minimum number of required parking spaces from 86 to 84.

SUMMARY OF THE ISSUE

The applicant is proposing to rezone the subject properties from Urban Residential Zone (RS3) to Mid Rise Apartment Zone (RMM) to facilitate the construction of a 60 unit six storey apartment building with a three level, 84 space parkade (see Figures 0-10). The proposed apartment development is consistent with the Urban 1 – Midrise land use designation and staff are therefore supportive of the proposed rezoning.

This application also requests issuance of a Steep Slope and Multifamily Form and Character Development Permit with Variances. The applicant proposes to vary the minimum number of off-street parking spaces from 86 to 84 (2% reduction). Given the relatively small size and topographic challenges of the site, the proposed variance enables retention of four mature trees onsite and five mature trees off site. Staff supports the variance request and the issuance of the Development Permit with Variances.

BACKGROUND

Applicant: SK Architect

Owners: Navjit Sivia

Legal Descriptions: Lot 8 Plan 9370; Lot 9 District Plan 12623; and Lot 10 Plan 15205
Section 22 Township 16 New Westminster District.

OCP Designation: Urban 1 – Midrise

Existing Zoning: Urban Residential Zone (RS3)

Proposed Zoning: Mid Rise Apartment Zone (RMM)

Site Area: 1,731 m² (0.427 acres)

Site Description: This development site consists of three single detached lots: the centre lot is 4.6 m (15 ft) wide and accommodates only a driveway, and the other two conventional lots accommodate single detached dwellings. The site is challenged by steep slopes at the rear of the property that slopes upward towards Car-Lin Lane.

Surrounding Uses: N: George Ferguson Way with a school site (zoned P2) beyond;
S: Car-Lin Lane beyond is a multifamily property (zoned RML) and a duplex (zoned RS4);
E: Single detached lots (zoned RS3); and
W: Multifamily property (zoned RML).

DICUSSION

Context

1. The proposed development is located on the south side of George Ferguson Way, just east of Historic Downtown. A mature single detached residential neighbourhood is located to the east. The surrounding area offers numerous services and amenities such as parks (Jacobsen Park), schools (Abbotsford Virtual School), and commercial services in Historic Downtown (refer to Figure 2). The OCP changes land use designation to Urban 2 – Ground Oriented to the east of the site and an existing multifamily development lays to the west, making the subject site the last land assembly to develop in the Urban 1 Midrise designation on this block. The proposed development will create more housing opportunities and complete the Urban 1 – Midrise build out on the edge of this block.

Official Community Plan and Historic Downtown Neighbourhood Plan

2. The Historic Downtown Neighbourhood Plan and Official Community Plan (OCP) designate the site Urban 1 – Midrise (see Figure 3). This land use designation is intended to enable multifamily housing to strengthen and support Mixed Use Centres, and Primary Transit Corridors. This land use designation allows for multi-storey buildings including low and mid-rises. Heights are limited to a minimum of four and a maximum of six storeys. The density range is from a minimum of 1.0 Floor Space Ratio (FSR) to a maximum of 2.0 FSR. The OCP further allows a 2.5 FSR on existing or consolidated properties that are 2,500 m² or less. The total area of the subject properties is smaller than 2,500 m² and thus qualify for a 2.5 FSR.
3. The proposed development is in keeping with the broad objectives of the Urban Structure of the OCP by:
 - I. Focused Residential Growth – Focus an overall 75% of new residential growth (approximately 45,000 new residents) in centres and existing neighbourhoods, with the most intensification in the Urban Core.

- II. Housing Diversity – Support diverse housing types for a variety of household sizes, incomes, tenures, and preferences;
- III. Residential Intensification – Focus residential intensification around the Urban and Neighbourhood Centers.

Zoning

- 4. The subject properties are currently zoned Urban Residential Zone (RS3). The applicant proposes to rezone the subject properties to Mid Rise Apartment Zone (RMM) to permit the development of a 60 unit apartment building (see Figures 4 through 10).
- 5. The RMM zone permits apartment uses with a maximum height of up to six storeys at a density of 1.0 - 2.0 Floor Space Ratio (FSR) and up to a maximum of 2.5 FSR on existing or consolidated properties that are 2,500 m² or less. The RMM Zone fully aligns with the Urban 1 – Midrise land use designation in the OCP and staff therefore, support the proposed rezoning.
- 6. The applicant's proposal includes a variance request to reduce the required parking spaces that is discussed in detail in subsequent sections of this report. The proposed development complies with the provisions of the RMM Zone with the exception of the proposed parking variance.
- 7. In November 2023 the provincial government passed legislation requiring municipalities to update their zoning bylaws to permit small-scale multi-unit housing, as-of-right, throughout low-density residential areas. The legislation requires that the City's zoning bylaw permit at least one accessory unit on all lots zoned for single-detached dwellings and up to four units on most lots within the Urban Development Boundary that are zoned for single-detached dwellings and duplexes. Staff are currently working on the required zoning updates which, in accordance with the legislation, must be approved by June 30, 2024.

If the subject rezoning proposal does not proceed, the site may be eligible for small-scale multi-unit housing permissions under the existing RS3 Zoning, without the need for a rezoning, as of July 1, 2024.

Strategic Zoning Bylaw Update

- 8. On June 27, 2022, Council adopted the Strategic Zoning Bylaw Update, Bylaw No. 3249-2022 (Bylaw) consisting of items that implement broad policy and planning objectives under Council's 2019-2022 Strategic Plan Zoning Bylaw objective.
- 9. Under the Strategic Update, Council further approved a transition strategy for already approved or in-stream development applications. The intent of this transition strategy is to allow all active applications to move forward under the existing Zoning Bylaw regulations, with the option to pursue the new regulations, in full as amended in the Bylaw by providing a written letter to the General Manager of Planning and Development Services requesting to apply the new Zoning Bylaw regulations in full. The applicant has submitted this letter dated October 13, 2023 and chose to proceed under the new amended Bylaw in full. Thus, the overall zone compliance/review of the proposed development is conducted on the newly amended Bylaw No. 3249-2022.

Affordable Housing Strategy

10. On May 25, 2020 the City adopted an updated Affordable Housing Strategy (AHS). This strategy contains two overarching policy topics; Housing Supply and Partnerships and Coordination. Under the category of Housing Supply, similar to the OCP objectives and policies, the AHS encourages the development of diverse housing options for all stages of life across the housing continuum. The applicant's proposal is consistent with this policy objective.

Development Permit with Variances

11. The proposed development is subject to a Multifamily Form and Character Development Permit (DPT) in accordance with OCP guidelines. The objectives of the multifamily and DPT guidelines are to encourage the construction of well designed, attractive and livable residential streets. New multifamily residential development should seek to enhance the public realm and contribute to neighbourhoods where residents of all ages feel safe.
12. The proposed apartment building consists of a range of unit types and unit sizes from 29 m² (311 ft²) to 65 m² (700 ft²). The proposal includes 60 units with:
 - 30 studio units;
 - 5 one bedroom units;
 - 2 three bedroom two-storey units; and
 - 23 two bedroom units;
13. The proposed development meets the Multifamily Development Permit (DP) guidelines as outlined below:

MF2 Neighbourhood Compatibility Design multifamily residential development to be compatible, in terms of scale and design, with adjacent development and future land uses.

- The proposed development is situated between existing multifamily and single detached residential uses and is compatible with the existing neighbourhood and proposed development currently under application in the surrounding area.

MF17 Building Entrances Locate main entrances adjacent to the public street on which a building is facing. Design entrances to be easily identifiable and architecturally distinct.

- The building entrance faces the street and is clearly identifiable.

MF19 Architectural Interest Vary building materials, colours, rooflines and other architectural elements. Establish a rhythm to the streetscape by integrating vertical elements and breaks in the façade of a building. Large expanses of singular materials, such as vinyl siding and stucco, and blank walls are not permitted.

- The architect has included a complimentary colour palette and quality exterior finish that creates visual interest. The historic influence design and traditional styling is well suited to the Historic Downtown Neighbourhood.

MF11 Public and Private Amenity Spaces Integrate usable, public and private open spaces, including squares, parks and roof-top gardens. Locate them in highly visible areas, overlooked by housing units.

- The private amenity space is setback and wrapping the side of the building and provides some overlook to the street and defines public private space.

Variance

14. The applicant's proposal includes a variance to the Zoning Bylaw to reduce the minimum required off-street parking provision from 86 parking spaces to 84. Given the relatively small site, the applicant indicates the variance is necessary for the viability of the project. The applicant further indicates that the additional parking spaces could be achieved on the site by extending the parkade structure further south, however, this would result in the removal of all nine mature trees. Given the difficult site conditions, surrounding land use context and tree preservation efforts, staff are supportive of the proposed reduction of two parking spaces.

Amenity Contribution

15. In accordance with a 2008 Council resolution E008-2008, staff is negotiating public amenities for development variance requests on a case-by-case basis. In conjunction with this proposal, the developer is requesting variances as described in Section 14 above, to allow for the development of the proposed building and associated parking. The Zoning Bylaw accommodates a parking relaxation provision (cash-in-lieu) for off-street parking spaces where sites are located within 400m of a primary transit corridor in the amount of \$23,000 per space for up to a 10% reduction. The subject site is located beyond 400m and is therefore not eligible for the above relaxation; however, it is located within walking distances to the services and amenities located in Historic Downtown. As such, the developer has agreed to contribute the same \$23,000 per space shortfall (\$46,000 total) towards future transportation improvements in the City. The voluntary contribution aligns with the similar cash-in-lieu provisions of the Zoning Bylaw.

Parking

16. The proposed development includes three levels of parking with access via George Ferguson Way. The Zoning Bylaw requires 74 resident parking spaces and 12 visitor spaces for a total of 86 parking spaces. The accompanying Development Permit with Variances proposes a two-space reduction in the required off street parking as discussed above. The applicant proposes to provide a total of 84 parking spaces. The applicant also proposes to include 60 bicycle parking spaces and a minimum of one parking space per unit must be supplied with a Level 2 electric vehicle charger in accordance with Zoning Bylaw.

Steep Slope Development Permit

17. As per the OCP, development on lands greater than 20% and or within 20m of slopes that are 20% or greater are defined as a Steep Slope Development Permit Area. The proposed multifamily development encroaches into identified slopes to the southeast and therefore requires a Steep Slope Development Permit.
18. The objectives of the Steep Slope guidelines are intended to allow land to be used for its intended purpose, while also protecting residents and property from potential risk of natural hazards. In some cases, development on or near steep slopes is unavoidable and require measures during site and building design, construction and long-term maintenance to minimize the associated risks.

19. The applicant has submitted a geotechnical report, prepared by Able Geotechnical Engineering dated October 20, 2023 (see Attachment C). The geotechnical report contends the site can be safely developed for the intended use (which is residential) subject to the included recommendations related to site preparation, structural fill and back fill, foundation design and seismic considerations. The report is included as a schedule to the accompany Development Permit with Variances.
20. The authority to issue a SSDP is delegated by Council to the Director of Development Planning. Staff recommends that if the proposed Zoning Bylaw variances discussed above are approved by Council, that for administrative purposes, the contents of the SSDP be incorporated into a single Development Permit with Variances. This approach will facilitate administrative efficiencies at the time of permit issuance.

Landscaping/Tree Removal and Replacement

21. Street trees will be provided along the full frontages in accordance with the Development Bylaw.
22. An Arborist report was submitted in conjunction with this application, which was prepared by Central Valley Arborist Consulting Ltd., dated October 19, 2023 (see Attachment D). A total of four mature trees exist on the subject site. The report also evaluated five mature offsite trees located near the property line. According to the Arborist's recommendations all nine trees are recommended for retention as they are in good health and do not impact the building envelope and underground parkade location.
23. As no trees are proposed for removal, protective fencing must be installed around those trees identified for retention consistent with the final accepted Arborist Report in advance of DP issuance.

Lot Consolidation

24. Consolidating the three subject properties into one lot is required as a condition of rezoning noting that the current three lot configuration likely cannot proceed individually once zoned. A new civic address will be assigned once the lots are consolidated.

Community Benefit Contributions

25. On September 11, 2023, Council adopted Policy C007-11 which establishes and describes a Community Amenity Contributions (CAC) program for residential development applications that require rezoning. Under this policy, CAC's are defined as voluntary amenity contributions made by the developer as part of their rezoning proposal and are intended to offset the cost of providing community amenities associated with new residential development. With respect to multifamily developments, the voluntary cash-in-lieu contribution is \$22 per square metre of net floor area with the funds being directed to the Affordable Housing Opportunities Reserve Fund (Affordable Housing), and a Community Amenities Reserve Fund (Recreation Amenities and Green Space, Cultural Amenities and Emergency Service Amenities). The policy applies to all new rezoning applications made after September 11, 2023. As the subject application was made January 20, 2022, the applicant has proposed a community contribution under the

previous Community Benefit Contribution (CBC) practice. The recommended CBC for this application is \$37,500.

Site Development Considerations

26. A staff review of the Works and Services Requirements necessary to support this application has been completed and is outlined within Attachment E (dated May 30, 2022), the details of which will be incorporated into the Development Agreement, a prerequisite for adoption of the rezoning bylaw.
27. In addition to the above comments, the developer is responsible to adhere to all other legislation, which may apply to the land, including:
 - (a) complying with all applicable City bylaws, such as Official Community Plan, Development Bylaw, Tree Protection Bylaw, Building Bylaw, Sign Bylaw, Erosion and Sediment Control Bylaw, and Development Cost Charges Imposition Bylaw administered by the City; and
 - (b) obtaining all other necessary approvals and permits on such terms as they may be issued, including but not limited to a development permit, tree removal permit, subdivision approval, building permit, soil removal/deposit permit, Ministry of Health permit, Ministry of Transportation and Infrastructure approval and Ministry of Environment approval.

Development Application Procedures Bylaw and Adoption Timelines

28. In March of 2016 City Council adopted Development Application Procedures Bylaw, 2016, which among other things established timelines for closing development applications. In this case, applications were to be advanced to Council for consideration on or before November 12, 2023. The applicant has been actively pursuing completion of these applications since 2022 and as such, staff and the applicant are requesting that Council, grant an extension to allow this application to be considered and move through the Council consideration process.

Communication Plan

On December 11, 2023, Council adopted amendments to the Development Application Procedures Bylaw which removed the requirement for a Public Hearing for rezoning bylaws and Council Hearings for Development Variance Permits. Two advertisements have been published in the City Page of the local newspaper and the City has notified, in writing, the owners and occupiers of land within a 100 meter radius of the subject property, that proposed Bylaw No. 3522-2024 will be considered for 1st, 2nd and 3rd reading at the April 16, 2024 Regular Council meeting.

The City received confirmation on March 8, 2024, that the applicant installed the required Development Notification Sign in accordance with the Development Application Procedures Bylaw, which requires the sign to be installed a minimum of 4 weeks in advance of Council's consideration of the application.

FINANCIAL PLAN IMPLICATION

Any capital works implications arising from this application have been addressed through the rezoning process.

Any fees and charges collected, as mentioned in the recommendation section, will be credited to City's various revenue or deposit accounts.

Komal Basatia

Komal Basatia
General Manager, Finance and Procurement Services
Signed 3/27/2024 1:22 PM

IMPACTS ON COUNCIL POLICIES, STRATEGIC PLAN AND/OR COUNCIL DIRECTION

The proposal aligns with the goals and objectives identified in the 2016 Official Community Plan, the Affordable Housing Strategy, and Council's 2022-2026 Strategic Plan which identifies four Guiding Principles: Inclusive and Connected Community, Sustainable and Safe City, Vibrant and Growing Economy and Organizational Excellence and Integrity.

SUBSTANTIATION OF RECOMMENDATION

The proposed rezoning to Mid Rise Apartment Zone (RMM) is consistent with the OCP land use designation of Urban 1 - Midrise. A Multifamily Form and Character Development Permit with Variances for a 60 unit apartment building has been requested concurrent with rezoning. The density, scale and built form are compatible with the surrounding context, and within walking distance of Historic Downtown. The proposed building, in staff's opinion, is consistent with the objectives contained within the OCP Development Permit Area Guidelines and staff recommends support for the proposed applications.

Daniel Graham

Daniel Graham
Planner
Signed 3/21/2024 2:25 PM

Blake Collins

Blake Collins
Director, Development Planning
Signed 3/26/2024 2:59 PM

Mark Neill

Mark Neill
General Manager, Planning and Development Services
Signed 4/2/2024 11:16 AM

ATTACHMENTS:

PRJ22-004 Council Figures 0-10

Attachment A - Draft Bylaw No. 3522-2024, Abbotsford Zoning Bylaw, 2014, Amendment Bylaw No. 608

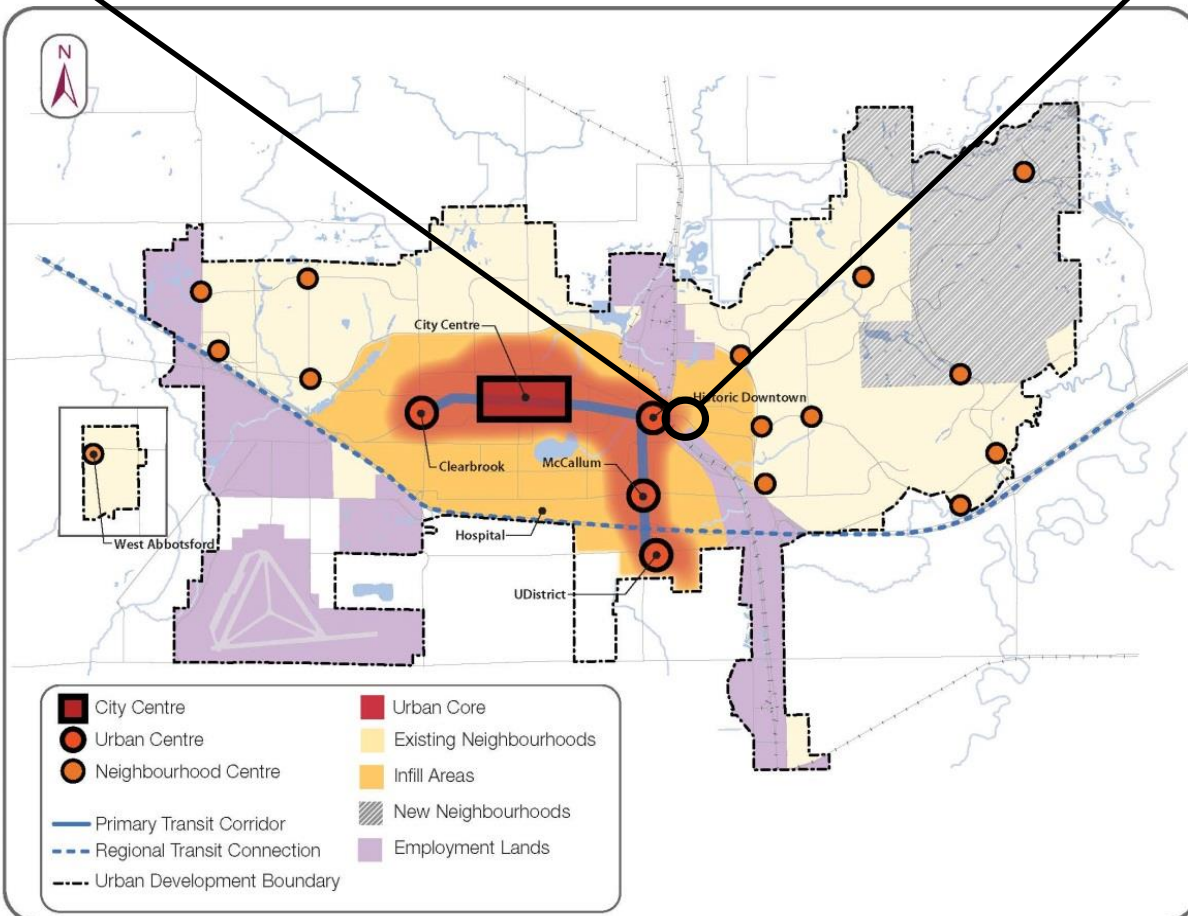
Attachment B - Draft Development Permit No. 2454 with Variances

Attachment C - Geotechnical Report

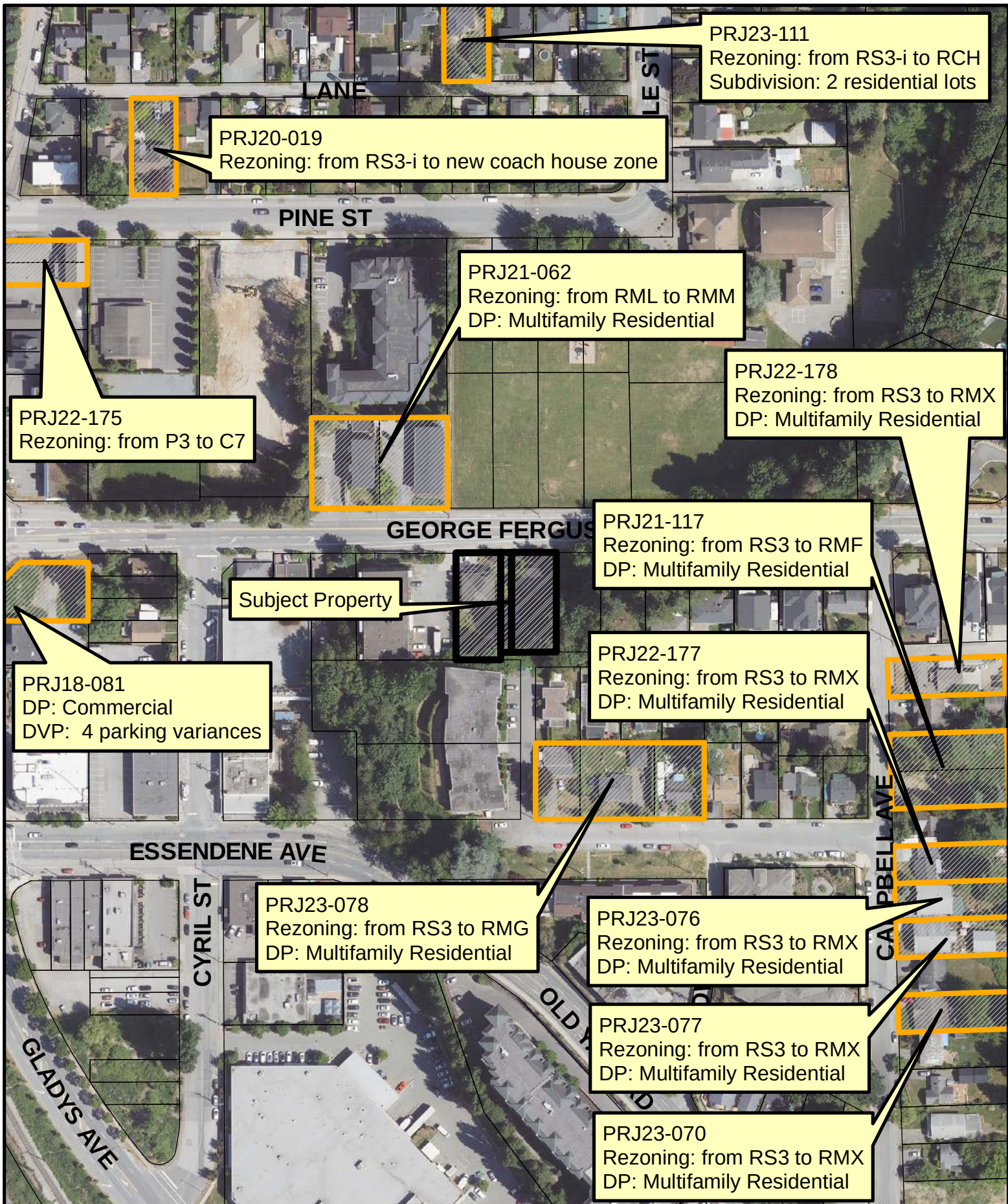
Attachment D - Arborist Report

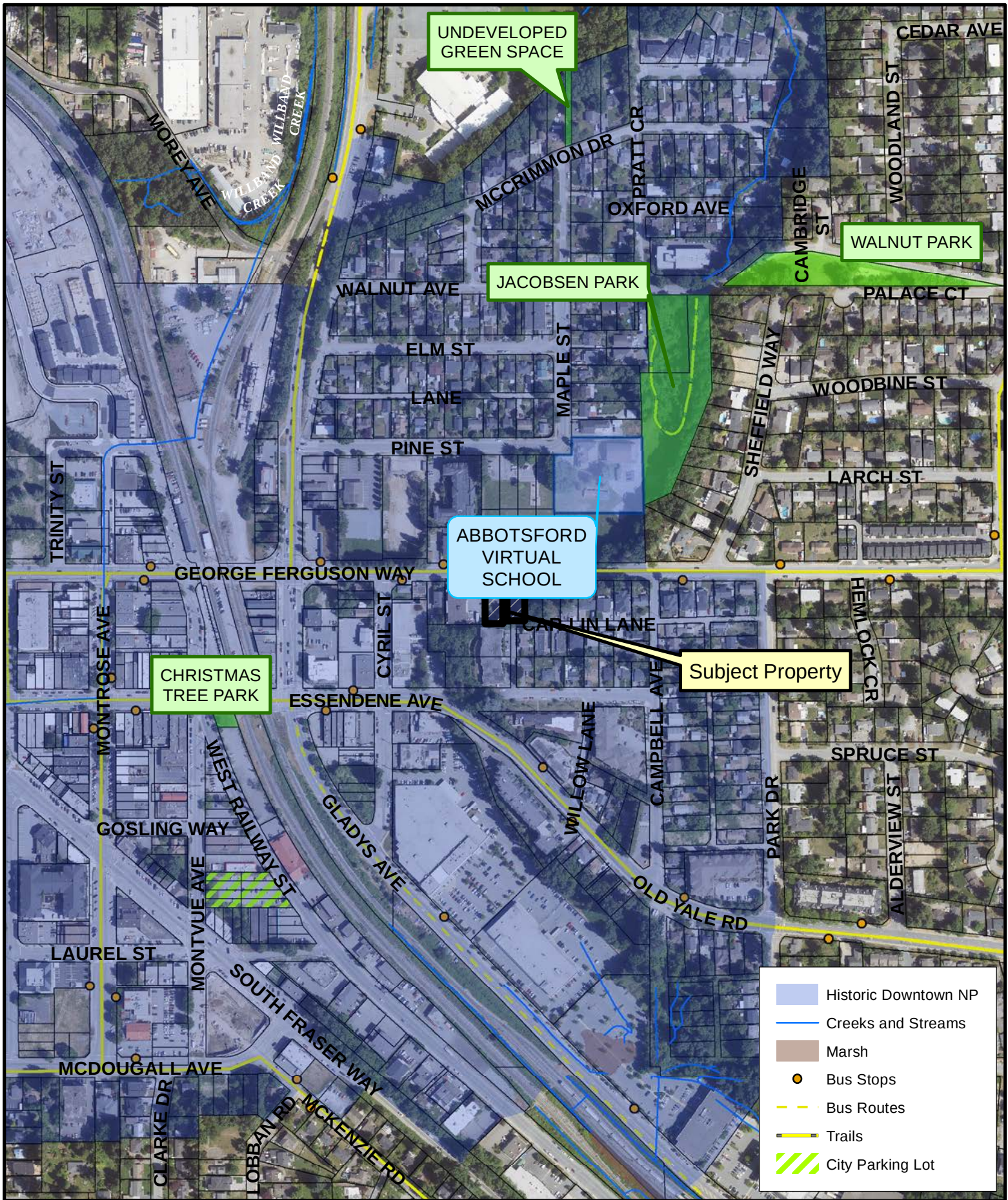
Attachment E - Works and Services Report

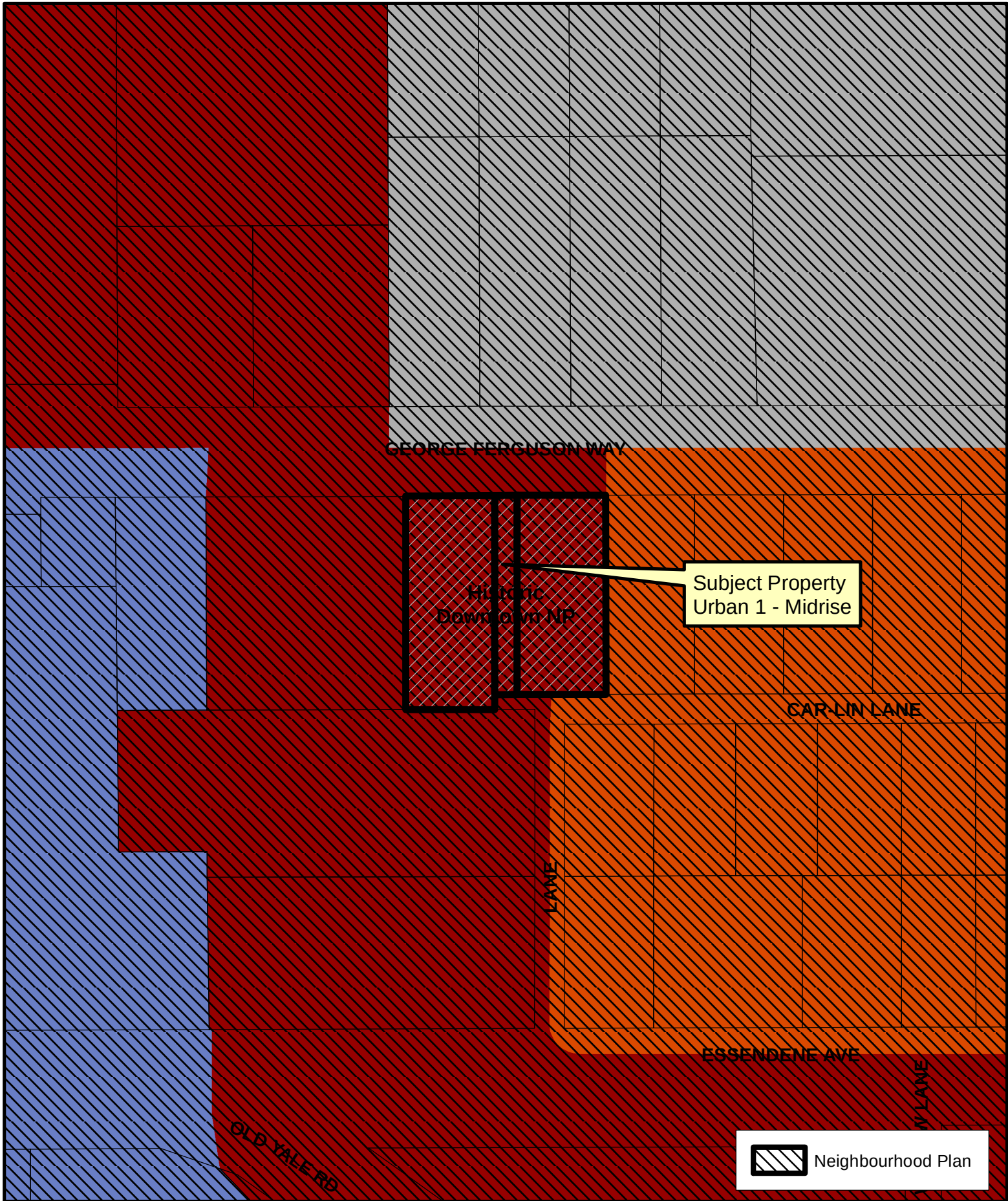
City Context Plan
File: PRJ22-004 Location: 33938 & 33946 George Ferguson Way

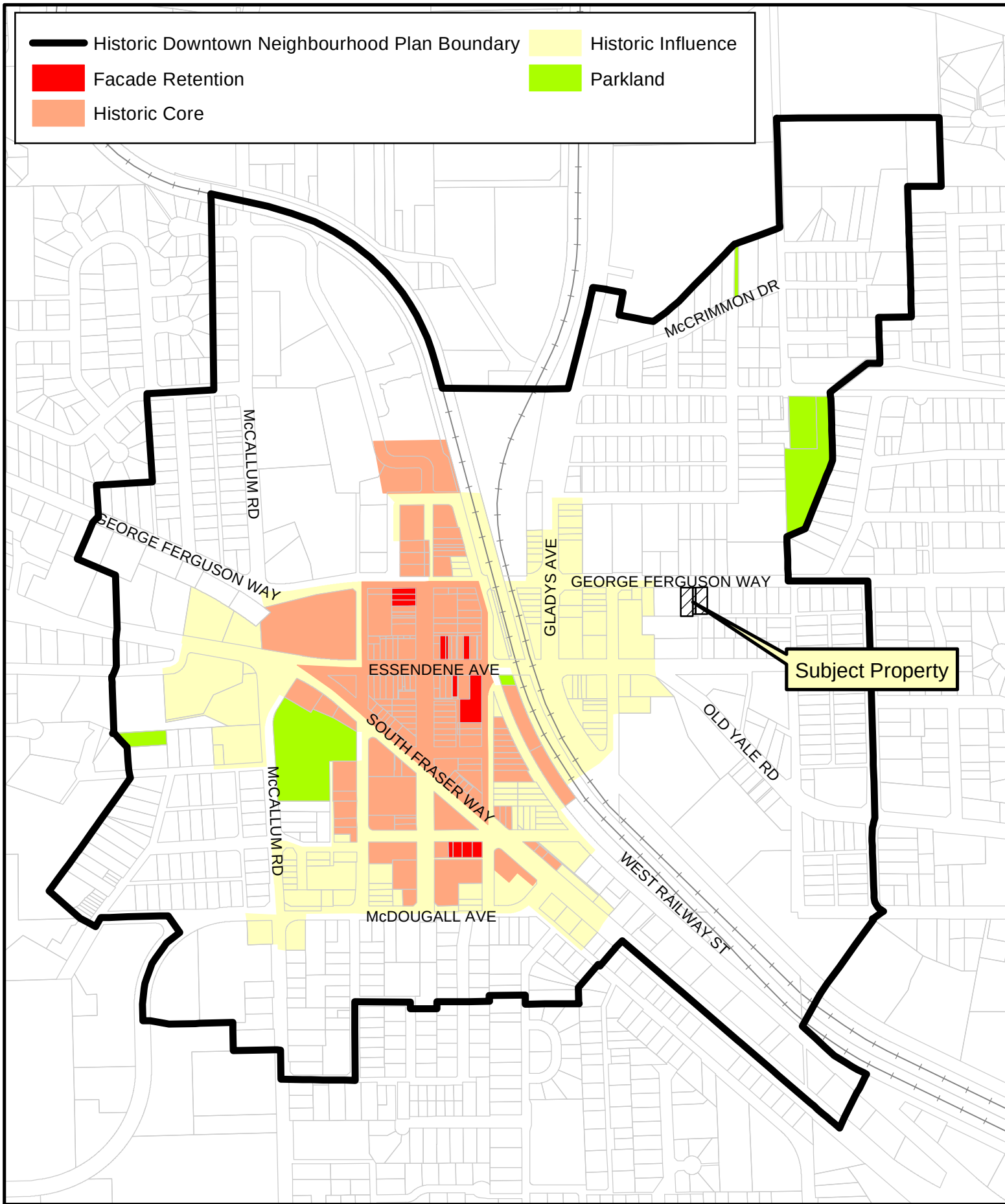


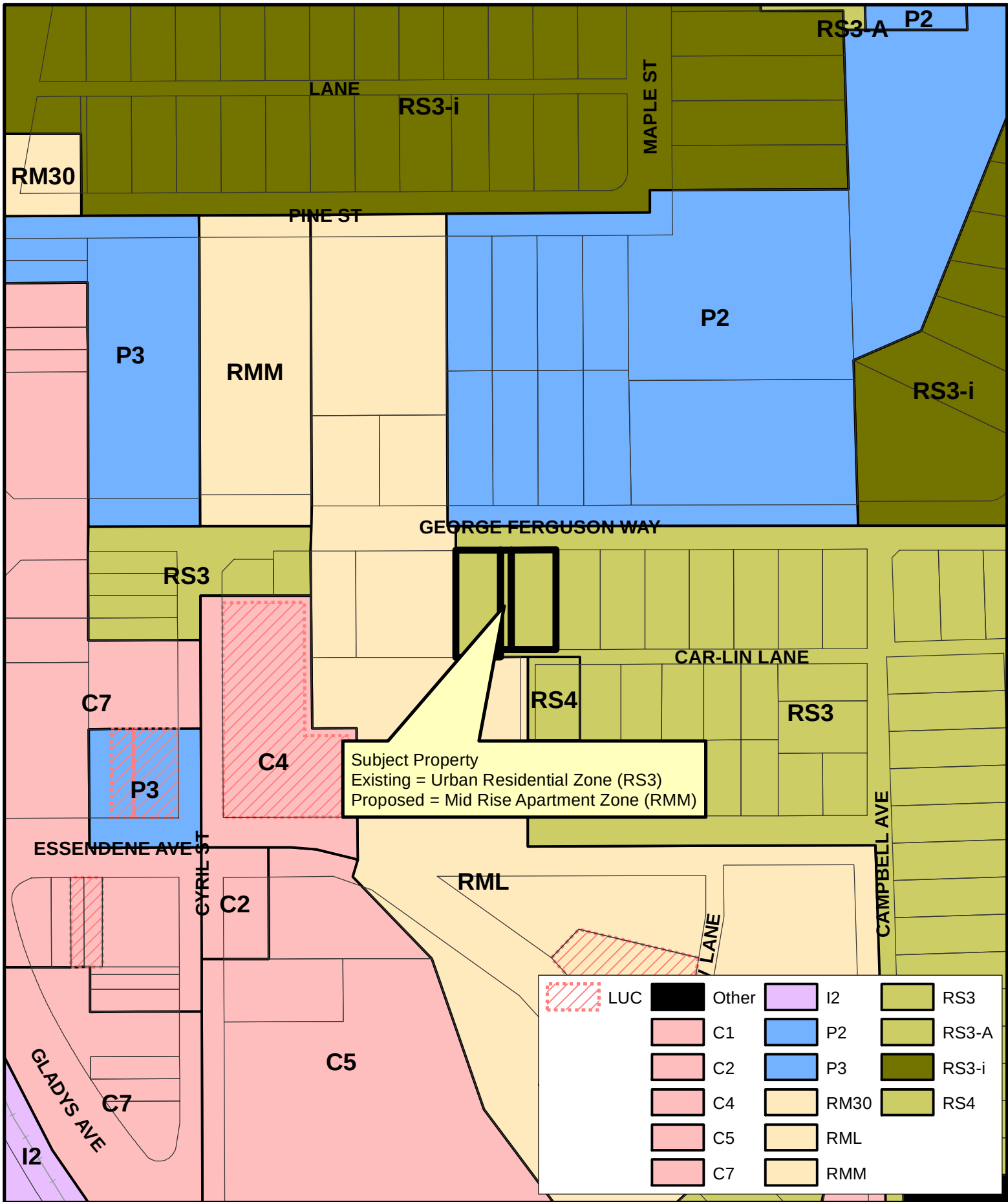


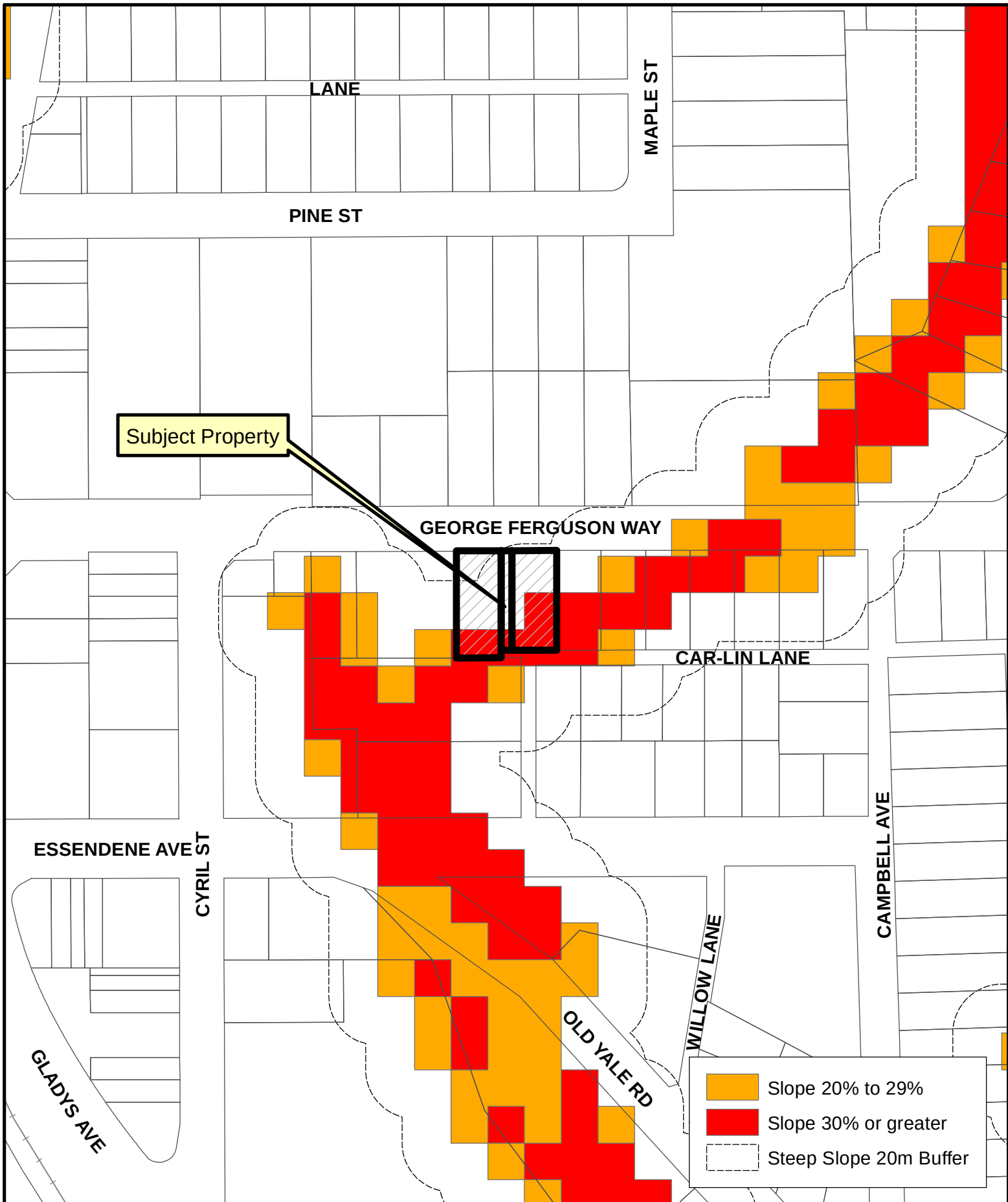










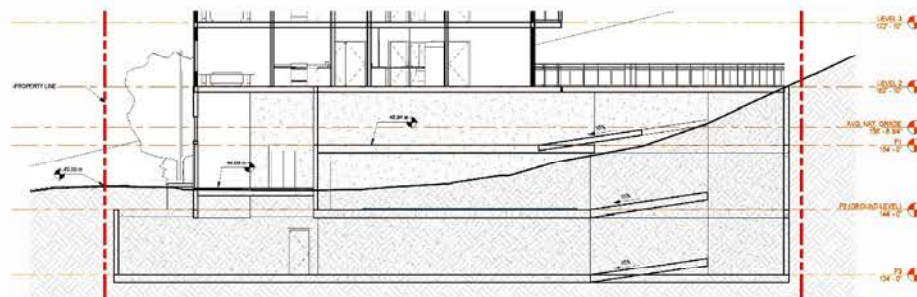


- Slope 20% to 29%
- Slope 30% or greater
- Steep Slope 20m Buffer

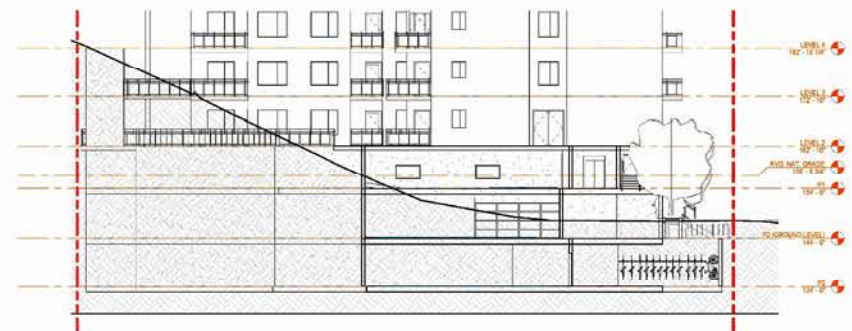




① NORTH ELEVATION
3/32" = 1'-0"



③ NORTH SOUTH BUILDING SECTION 1
1/8" = 1'-0"



② NORTH SOUTH BUILDING SECTION 2
3/32" = 1'-0"

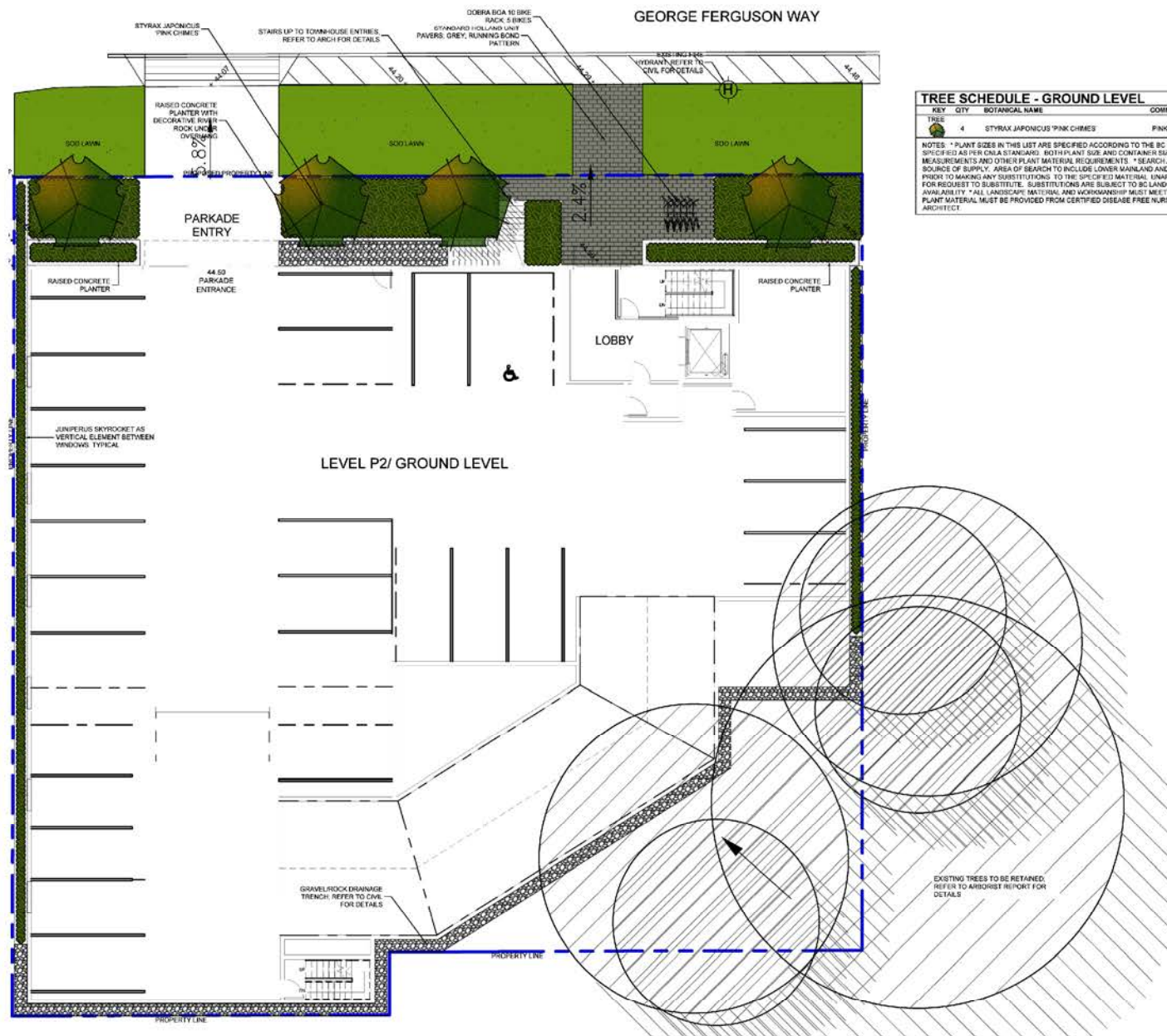


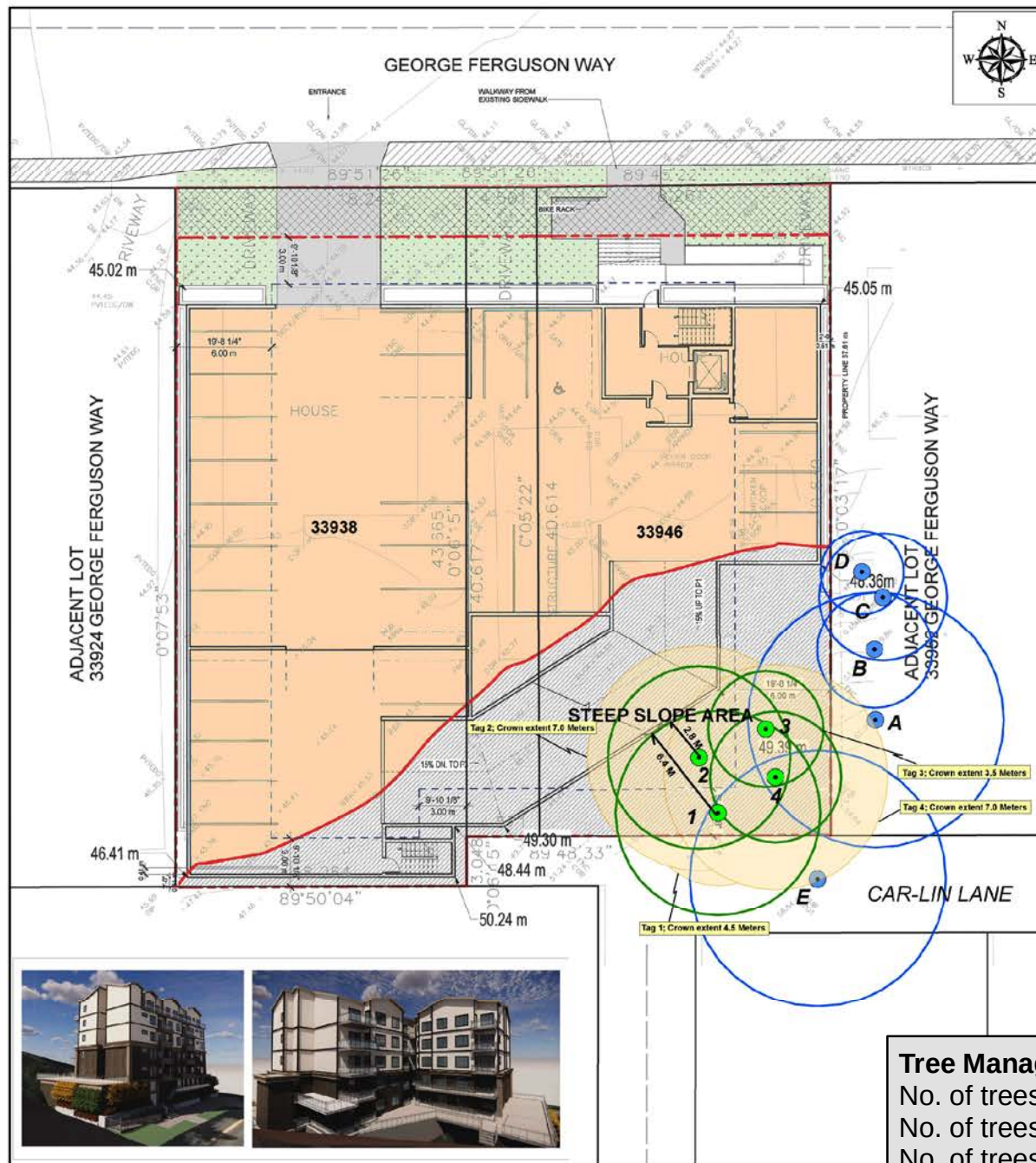
Site Statistics

No. of Units = 60

Floor Space Ratio (FSR) = 2.5

Total Parking Spaces = 84





CITY OF ABBOTSFORD

ABBOTSFORD ZONING BYLAW, 2014, AMENDMENT BYLAW NO. 608

Bylaw No. 3522-2024

PRJ22-004

The Council of the City of Abbotsford, in open meeting assembled, enacts as follows:

1. CITATION

Bylaw No. 3522-2024 may be cited as “Abbotsford Zoning Bylaw, 2014, Amendment Bylaw No. 608”.

2. AMENDS ZONING MAPS

Abbotsford Zoning Bylaw, 2014, Schedule “D”, Urban Area Zoning, as amended, is further amended by changing the zoning of the lands as set out in the attached Appendix “A” and located at 33938 and 33946 George Ferguson Way and PID 009-723-757:

From: Urban Residential Zone (RS3)

To: Mid Rise Apartment Zone (RMM)

READ A FIRST TIME this	day of	, 20__
READ A SECOND TIME this	day of	, 20__
PUBLIC HEARING HELD this	day of	, 20__
READ A THIRD TIME this	day of	, 20__
ADOPTED this	day of	, 20__

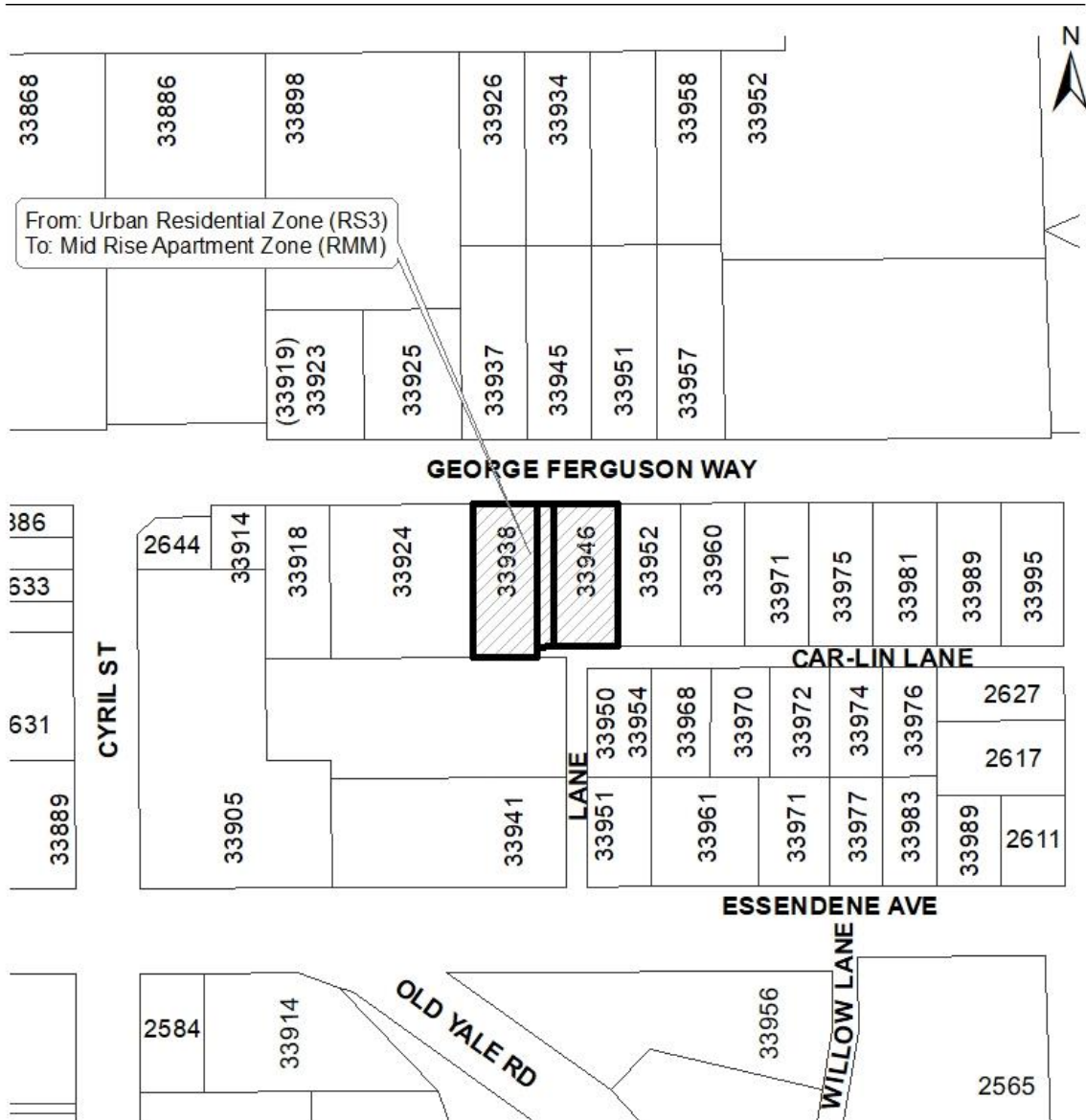
CITY OF ABBOTSFORD

ABBOTSFORD ZONING BYLAW, 2014, AMENDMENT BYLAW NO. 608

Bylaw No. 3522-2024

PRJ22-004

APPENDIX "A"





DEVELOPMENT PERMIT NO. 2454 WITH VARIANCES

1. This Development Permit No. 2454 with variances as applied for under File No. PRJ22-004 is issued to the owner (the "Permittee") and shall apply only to that certain parcel or tract of land within the City of Abbotsford (the "City") described below, and any and all buildings, structures, and other development thereon and shall be binding on a purchaser of the Permittee's interest in the Lands, or portion thereof:

Parcel Identifier: TBD
Legal Description: TBD

(the "Lands")

2. This Development Permit with variances ("DP") is issued pursuant to the *Local Government Act* and the City of Abbotsford Official Community Plan and in accordance with the applicable bylaws of the City, except as specifically varied or supplemented by this Permit.

Development Permit

3. The following DP works, terms and conditions ("DP Measures") shall apply to the Lands:
 - .1 Buildings, structures and off-street parking shall be sited and constructed in material conformance with the site plan and the elevation drawings shown as Schedule A, as attached;
 - .2 Landscaping shall be established in material conformance with the Landscape Plans shown as Schedule B (the "Landscape Measures");
 - .3 Signage shall be installed in material conformance with Schedules A and B (the "Signage Measures");
 - .4 Tree removal and protective fencing shall be installed in accordance with the Arborist Report dated Oct 29, 2023 prepared by Central Valley Arborist Consulting Ltd. attached as Schedule C. The installation of a Tree Removal Authorization Sign along the frontage of the property and visible from the street is required prior to commencing with any tree removal works (the "Tree Removal Measures");
 - .5 Mass site grading shall occur only in accordance with the grading plan attached as Schedule D and the geotechnical recommendations contained within the report prepared by Able Geotechnical Ltd. dated October 20, 2023 attached as Schedule E.

Fees and Securities

4. For the due and proper completion of the DP Measures the following fees and securities are required:
 - .1 For the due and proper completion of the Landscape Measures as set forth in Section 3.2 of this Permit, the Permittee shall deposit and maintain with the City security in the form of an

irrevocable, auto-renewing letter of credit in the sum of \$<>FILE MANAGER – INSERT SECURITY AMOUNT BASED ON COST ESTIMATE RECEIVED FROM APPLICANT'S LANDSCAPE ARCHITECT, or provide cash in the same amount (the "Security"), until all the Landscaping Measures are certified as complete by a qualified Landscape Architect. The Security may be reduced proportionately as areas of the Lands are landscaped and certified complete by a qualified Landscape Architect.

- .2 In the event that the Landscaping Measures are not completed as provided for in this Permit, the City may, at its option, enter upon the Lands to carry out, and complete the Landscaping Measures, and recover the costs of so doing, including the costs of administration and supervision, from the Security deposited by the Permittee.
- .3 In accordance with the Development Application and the Service Fee Bylaw pay to the City, upon execution of this agreement, the sum of \$<> in payment of all landscape inspection and administration costs associated with Landscape Measures.

Development Variances

5. Abbotsford Zoning Bylaw, 2014 shall be varied as follows:

- .1 Section 150.3.1 - to reduce the minimum number of off-street parking spaces from 86 to 84, in accordance with Schedule A, attached.

Permit Limitations

7. This Permit does not constitute subdivision approval, a Soil Removal/Deposit Permit, a Building Permit or Sign Permit and does not entitle the Permittee to undertake any work without the necessary approvals or permits. Site work must be in compliance with the Soil Deposit/Removal Bylaw, the Erosion and Sediment Control Bylaw and the Blasting Regulation Bylaw; other works must be constructed in accordance with engineering plans and specifications acceptable to the City's General Manager of Engineering; and buildings and structures can only be altered, changed in occupancy or constructed in accordance with the B.C. Building Code following issuance of a Building Permit.
8. This Permit does not constitute an approval under, or relieve the Permittee from complying with, any and all federal, provincial or municipal statute, regulation or bylaw governing the Permittee's use and development of the Lands.
9. If trees on the Lands are proposed to be felled during the critical bird breeding windows:
 - General: March 1st to August 31st;
 - Bald Eagle: January 1st to August 31st;
 - Osprey: April 1st to September 14th;

- Heron: January 16th to September 14th;
- Other Raptors: March 1st to September 31st;

then an appropriately qualified environmental professional (QEP) must monitor compliance with all applicable provisions of the:

- *Wildlife Act*;
- *Migratory Birds Convention Act, 1994*;
- any other federal or provincial environmental legislation governing the Permittee's use and development of the Lands;
- the recommendations of the Provincial document, *Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (2014)*; and
- The recommendations of the Provincial document, *Guidelines for Raptor Conservation during Urban and Rural Land Development in BC (2013)*.

The nests of an eagle, peregrine falcon, gyrfalcon, osprey, heron, or burrowing owl are protected under the *Wildlife Act*, regardless of nest activity (i.e. active or inactive) and as such, even if trees are proposed to be felled outside the critical bird breeding window, it is recommended that a QEP undertake an assessment of the trees onsite to ensure that there are no nests of the aforementioned species.

Issuance / Expiry

10. This Permit expires if the permit holder does not substantially start any construction within two years from the date of issuance, in accordance with Section 504 of the *Local Government Act*.

AUTHORIZING RESOLUTION PASSED by Abbotsford City Council on the <> day of <>, 20<>

THIS PERMIT IS ISSUED this day of , 20<>.

The Corporate Seal of the CITY OF
ABBOTSFORD was hereunto affixed
in the presence of:

Mayor, Ross Siemens

Corporate Officer, Gabryel Joseph

Attachments:

Schedule A	Architectural Drawings prepared by SK Architect dated Feb 12, 2024
Schedule B	Landscape Plans prepared by PMG Landscape Architects dated Jan 15, 2024
Schedule C	Arborist Report prepared by Central Valley Arborist Consulting dated Oct 19, 2023
Schedule D	Grading Plan prepared by Citiwest Consulting Ltd. dated Dec 19, 2023
Schedule E	Geotechnical Site Assessment Report prepared by Able Geotechnical Ltd. dated October 20, 2023

DRAFT



October 20, 2020

File: 769-2

0725694 BC Ltd.
8136 - 192 Street
Surrey, BC V4N 5S9

Attn: Navi Sivia

**Re: Geotechnical Site Assessment (R1)
Proposed Condominium Development
33938 and 33946 George Ferguson Way, Abbotsford**

1.0 INTRODUCTION

This report presents the results of a geotechnical site assessment conducted by Able Geotechnical Ltd. for the proposed condominium development at the above referenced project site. The purpose of the assessment was to evaluate the site soil conditions in order to provide geotechnical recommendations in relation to the following.

- Depth to competent subgrade for the proposed building footings.
- Subgrade preparation for proposed building foundations.
- Allowable soil bearing pressure for building foundations.
- Shoring and excavation comments.
- Suitability of native soil as structural fill.
- Slope stability analysis and comments.

2.0 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The site is bounded by George Ferguson Way to the north, Lane to the south and existing single family dwellings to the other two sides. The site comprises of two properties, 33938 and 33946. The site is rectangular in shape and measures approximately 40 m NS by 50 m EW. A single family dwelling occupied the each property at time of site investigation. The site is generally flat-lying, however the south east quadrant is sloping steeply down from the rear lane to north-west. The overall slope height is 8 m and it meets the flat area of the site in approximately 16 m horizontal distance. This makes the slope gradient approximately 50% (26 degrees). The slope was densely vegetated with trees and bushes, however the flat portion of the site site was landscaped.

Based on the conceptual drawing obtained from the Architect, it is understood that the subject site will be developed in to a condominium building. The building would have 3 level of underground parking. The lowest parking level P3 will be dug at approximate elevation (EL) of 41 m. The contour near the proposed cut line is approximately 50m, indicating that the excavation will be up to 9 m deep.



3.0 SUBSURFACE INVESTIGATION (TEST PITS)

The subsurface exploration consisted of two testpits (TP1 to TP2) excavated up to depths of 1.1 to 2.2 m below the existing site grade. A track-mounted excavator was utilized to conduct the testpit program. An engineer from Able supervised the field work, located the testpits, classified the soils encountered in the testpits and sent representative soil samples to the laboratory for moisture content determination. Site conditions and features of geological significance were also recorded.

The approximate locations of the testpits are shown on the attached Testpit Location Plan. The soil logs showing soil type and moisture contents are also included. The depths indicated on the logs are related to the ground surface at the time of the subsurface exploration. The testpits were backfilled with excavated soil upon completion of the investigation and compacted with the bucket.

4.0 SOIL AND GROUNDWATER CONDITIONS

Geological map (GeoMap Vancouver – Robert J.W. Turner and John J. Clauge) indicates that the site is located within a formation of till-like soils belonging to Ice Age sediments. The subsurface conditions encountered were generally consistent with the published geological information. The soil conditions were generally very consistent in all the testpits. The following soil conditions were encountered in the order of increasing depth:

- **Fill.** Surficial layer of fill was encountered in both testpits and its thickness was 0.7 – 1.0 m. It consists of sand, some silt. Underlain by;
- **Sand.** The fill was underlain by deposit of sand. This layer was encountered in testpit TP1. The sand was medium grained, trace gravel, compact, grey brown in color, and moist. The thickness of this layer was approximately 0.8 m. Underlain by;
- **Sand&Gravel.** This deposit was encountered at approximately 1.0 m to 1.5 m depth below the existing grade. The sand was medium grained, gravel 200 mm minus, pitrun, compact, grey brown in color and moist. Both the testpits terminated in this layer. Based on the geological map and our previous experience in this area, this stratum is likely to extend to a considerable depth.

The soil conditions as described above are generalized and are based on the testpit information. Minor variations in the soil stratigraphy should be expected between the testpit locations and the areas of site not investigated. The soil logs should be referenced for soil and groundwater conditions at specific areas.

Groundwater: No groundwater seepage was encountered in any of the testpits. Information from BC Water Resources Atlas indicates that the static groundwater level is approximately at 40 m depth (well tag #67306, and 100133). Therefore, it is expected that groundwater seepage should not be encountered during the excavation. Groundwater table typically fluctuate with changes in season, precipitation and land use.



5.0 DISCUSSION AND RECOMMENDATIONS

5.1 General

Based on the subsurface investigation, the site has satisfactory soil conditions for the proposed condominium building supported on conventional footings. The excavation to lowest parkade level will be up to 9 m deep. The excavation will would expose the native dense sand&gravel for the support of building. Shoring will be required for the vertical cut. Appropriate measures should be taken during construction to minimize erosion and prevent sediment from entering contaminating storm water systems. The site investigation indicates that the underlying soils are granular which typically would be suitable for on-site infiltration system. The following sections provide our recommendation in further detail.

5.2 Excavation and Shoring

As discussed above, the proposed excavation will be approximately 3.5 m deep along north-west, and upto 9 m in the south-west. Shoring will be required for the support of the vertical excavation. Shoring typically consists of anchored shotcrete system. The anchors will encroach below the adjacent lane and the adjacent properties. Shoring by others.

5.3 Slope Stability Analyses

The steep slope at the south-east quadrant of the site will be cut to accommodate the underground parking. Shoring will be required for the temporary support of the cut. However the proposed condominium building weight will retain the leftover slope above the contour of 50m on permanent basis. Typically the slope stability and building setbacks are required when the proposed building is on the top of bank side of the slope. In this case the building is on the toe side of the slope, therefore slope instability, if any is not expected to impact the proposed development. The slope stability analysis are completed to review the slope stability as independent slope and the rear lave. It is understood that the site is located in steep slope area such that Steep Slope Development Permit Guidelines are applicable. These guidelines discuss that slopes steeper than 30% are to be avoided. As discussed above, the proposed building will retain the leftover slope, which would be only 4 m $\pm$ high.

In order to determine the stability of the slope, static and seismic slope stability analyses were completed. The purpose of the slope stability analysis was to evaluate the slope stability. The stability analyses for both, static and seismic conditions were completed. The slope geometry was modeled based on the site topography by topographic survey and City's online mapping system. The analysis was conducted using software Slide 7.0.

A pseudo-dynamic limit equilibrium slope stability analysis was conducted. The seismic analysis was conducted based on the guidelines published by EGBC. "Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC". These guidelines correspond to a 1 in 2475 year seismic event. (2% Probability of failure occurring in 50 years, 1:2475 year return period). The input soil strength parameters were estimated from site investigation findings, surficial geological map and literature. Liquefaction of the subsoils is not anticipated, hence, the full strength parameters were used in the seismic slope stability analysis. The following seismic parameters were used in the analysis:



- The design peak ground acceleration (PGA) is based on the 1 in 2475 year return period (2% probability of exceedance in 50 years).
- A 'slope displacement based' coefficient (k_{15}) for 15 cm displacement given by the equation $K15 = (0.006 + 0.038 M) * S(0.5) - 0.026$ ($K15 = 0.13$)
- Earthquake magnitude (M) of 7.0
- Spectral acceleration for a period of 0.5 s, $S(0.5)$ of 0.59

The results of the slope stability analyses in terms of factor of safety (FoS) are presented below:

Analysis Type	Minimum Required FoS	Calculated FoS
Static	1.5	1.6
Seismic	1.0	1.2

The static and seismic slope stability analyses sheets are attached for reference. To satisfy the BC Building code requirements and as per the EGBC Legislated Landslide Assessment guidelines, the static and seismic FOS should be minimum 1.5 and 1.0 respectively. Some surficial erosion and or shallow and localized sloughing of the slope should be expected, however a deep seated rotational failure of the slope is not expected. Since the calculated FoS are higher than the minimum required FoS, the slope is stable.

It is understood that the slope and the vegetation on it would remain undisturbed. Provided that the recommendations of this report are followed, the site is considered safe for the intended use. Landslide Assessment Assurance Statement (Appendix D) is attached.

5.4 Subgrade Preparation

Areas of building envelope, driveways, and sidewalks should be stripped and cleared of organic soils, loose/soft soils, and other deleterious material to expose an inorganic subgrade consisting of the dense native sand and gravelly soils. Stripping should be carried out with clean-up bucket of excavator to minimize disturbance to the subgrade. The excavator should progressively retreat from stripped areas to avoid disturbance to the exposed subgrade. Where the stripping depth exceeds minimum footing depth, structural fill (explained below) may be required to raise the grade. *Stripped subgrade should be compacted with a heavy ride-on compactor, and proof-rolled in the presence of the Geotechnical Engineer.*

5.5 Foundations

The proposed building may be supported on spread and strip footings on the native sand&gravelly soils. Footings founded on approved subgrade may be designed for the following parameters:

Serviceability Bearing Pressure (SLS)	200 kPa
Ultimate Bearing Pressure (ULS)	300 kPa
Site Class	D

Basement walls should be designed to resist the lateral pressure as indicated in the attached Lateral Loading Sketch. Footings constructed as recommended above are expected to experience a total settlement of 35 mm and differential settlement of 25 mm over a 10 m span



under static loading conditions. *All footing subgrades must be reviewed and approved by the geotechnical engineer to confirm the bearing pressure, before covering with gravel/structural fill.* Minimum footing widths should be 0.45 m for strip footings and 0.6 m for pad footings, in accordance with the requirements of the 2018 British Columbia Building Code, which is expecting revision in December 2023. Footings should have a minimum embedment of 0.45 m for frost protection and confinement. Footing subgrades should be stripped of water softened or loose soil prior to placing concrete.

Adjacent footings at different elevations should be offset from each other by a distance at least equal to the difference in elevation. For example two adjacent footings separated by 1 m in elevation should be minimum 1 m apart, edge to edge. Footings within 1H:1V of each other may impose additional loading and such footings would require further geotechnical review. Similarly, the utility excavation bottom should be beyond a 1.5H:1V line projected down from the outer edge of footing to avoid its undermining.

5.6 Slab-on-Grade

The fill under the concrete floor slabs-on-grade should consist of compacted 20 mm (3/4 inch) clear crushed gravel. A moisture barrier consisting of 0.15 mm (6 mil) polyethylene sheeting may be installed under the slab to minimize potential for slab dampness. All tears in the polyethylene sheeting should be repaired with red polyethylene tape. The compaction should be done by minimum 500 lb plate compactor. *The compaction of the sub-slab fill must be approved by the geotechnical engineer prior to installation of polyethylene sheet. The Geotechnical Engineer must be given the opportunity to review and approve the compaction while the compactor is working on-site.*

5.7 Foundation Drainage System

The foundation drainage system should consist of 150 mm diameter perforated solid wall PVC drain pipe placed around perimeter footing, and at any steps in the foundation wall. The invert of the pipe should be at the base level of the footings, and a minimum of 200 mm below the underside of floor slab. The pipe should be placed with its perforations pointing downwards. The drainage pipe should be surrounded on top and sides by 150 mm thick 19 mm (3/4 inch) clear crushed gravel. A layer of non-woven geotextile (Nilex 4545 or equivalent) should then be blanketed over the top and sides of the clear crushed gravel to act as a filter against piping of fines from the backfill. The perimeter drainage pipe should be provided with permanent clean-outs, and should be sloped to direct water by gravity into a storm sewer. Su-floor drains are not expected, however the Geotechnical Engineer must review the excavation and provide site specific guidelines during construction.

Elevator pits should be waterproofed and sealed, and its perimeter drain may be avoided. All below grade walls should be thoroughly damp-proofed with an approved spray-on damp-proofing agent (by others).



5.8 Structural fill

Structural fill is defined as fill placed beneath any load bearing area. Imported structural fill should consist of well-graded, 75 mm minus pit run sand and gravel or other granular material approved by the Geotechnical Engineer. It should be non-organic and clean, less than 8% fines (passing 0.075 mm sieve by weight). Structural fill should be placed in maximum 0.3 m lifts. In building envelope, it should be compacted to at least 95% of Modified Proctor maximum dry density or to the satisfaction of geotechnical engineer. Walk behind plate compactors (500 lb or 1000 lb) may be used to compact the structural fill. Field density testing should be conducted to confirm that the compaction is adequate.

5.9 Re-use of Native Soils

The reuse of sand&gravelly soils may be considered suitable as trench backfill, subgrade fill under foundations, and backfill around the parking wall, subject to on-site approval by the geotechnical engineer immediately before use. The suitability depends on the moisture and weather conditions at the time of use. If planned, these materials should be stripped neat and stored under the cover of thick and secured polyethylene sheet. The materials should be free of organics and should not have more than 10% fines (silt and clay, passing 0.075 mm sieve). It is cautioned that if the native materials are wet or contain more than 10% fines, it becomes difficult to achieve the desired compaction.

5.10 Geotechnical Reviews

Recommendations presented herein are based on interpretation of the information collected during the site investigation. During construction, the Geotechnical Engineer must complete field reviews to assess the actual soil conditions to confirm the assumptions used from site investigation. Where conditions differ significantly from those assumed, the above recommendations may need revision. The field reviews are not carried out for the benefit of Contractors, therefore do not affect the Contractor's obligation to perform under his/her contract. It will be the Contractor's responsibility to advise Able (minimum 24 in advance) that a field review is required. It is also critical that Contractor should view this report in advance of work. The following construction reviews should be completed by Able.

1. Review of excavation deeper than 1.2 m for safe manned entry (if required).
2. Review of stripped footing subgrade for all footings by proof-rolling.
3. Compaction review of sub-slab fill before placing the poly sheeting.

Able cannot assume responsibility or liability for the adequacy of its recommendations when they are used in the field without Able being retained to review and approve the soil conditions during construction.

6.0 CLOSURE AND LIMITATIONS

The subsurface conditions may vary between testpits. The interpretation of subsurface conditions provided is an opinion and not a certification. Stratigraphic variations in ground conditions are expected due to its historic nature. As such, all explorations involve an inherent uncertainty that some conditions will not be detected, as expected. Environmental considerations are outside the scope of this geotechnical report. Samples obtained from site will be retained in our laboratory for 60 days. Should no instructions be received to the contrary, these samples will then be discarded. This report has been made in accordance with the generally accepted soil and foundation engineering practices. No other warranty, expressed or

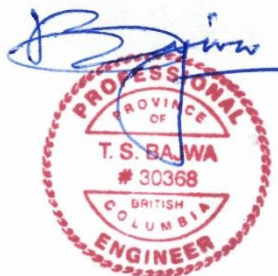


implied, is made. This report has been prepared for the exclusive use of 0725694 BC Ltd., Client's design and construction team, City of Abbotsford for specific application to the development mentioned in the report. Able and its employees accept no responsibility to another party for loss or liability incurred as a result of use of this report. The site contractor should make their own assessment of subsurface conditions and select the construction means and methods most appropriate to the site conditions. Any use of this report for purposes other than the intended, should be approved in writing by Able. The use of this report is subjected to the attached Report Limitations and Conditions. The reader must read these as it is essential that these be followed for proper use and interpretation. The recommendations in this report are provided on the assumption that the contractor will be suitably qualified and experienced. This report should not be included in the specifications without suitable qualifications approved by the Geotechnical Engineer.

We appreciate the opportunity to be of service to you. If you have any questions regarding the contents of this report, or if we can be of further assistance to you on this project, please call the undersigned.

Yours truly,

Able Geotechnical Ltd. (Permit To Practice # 1003426)



Oct 20, 2023

Tegbir S. Bajwa, P. Eng.
Geotechnical Engineer

Enclosures:

Testpit Location Plan

Soil Logs

Slope Stability Analysis Sheets

Appendix D

Lateral Loading Sketch

CAR-LII

SOIL LOGS

Project: Proposed Condominium Development
Site: 33938 George Ferguson Way, Abbotsford, BC

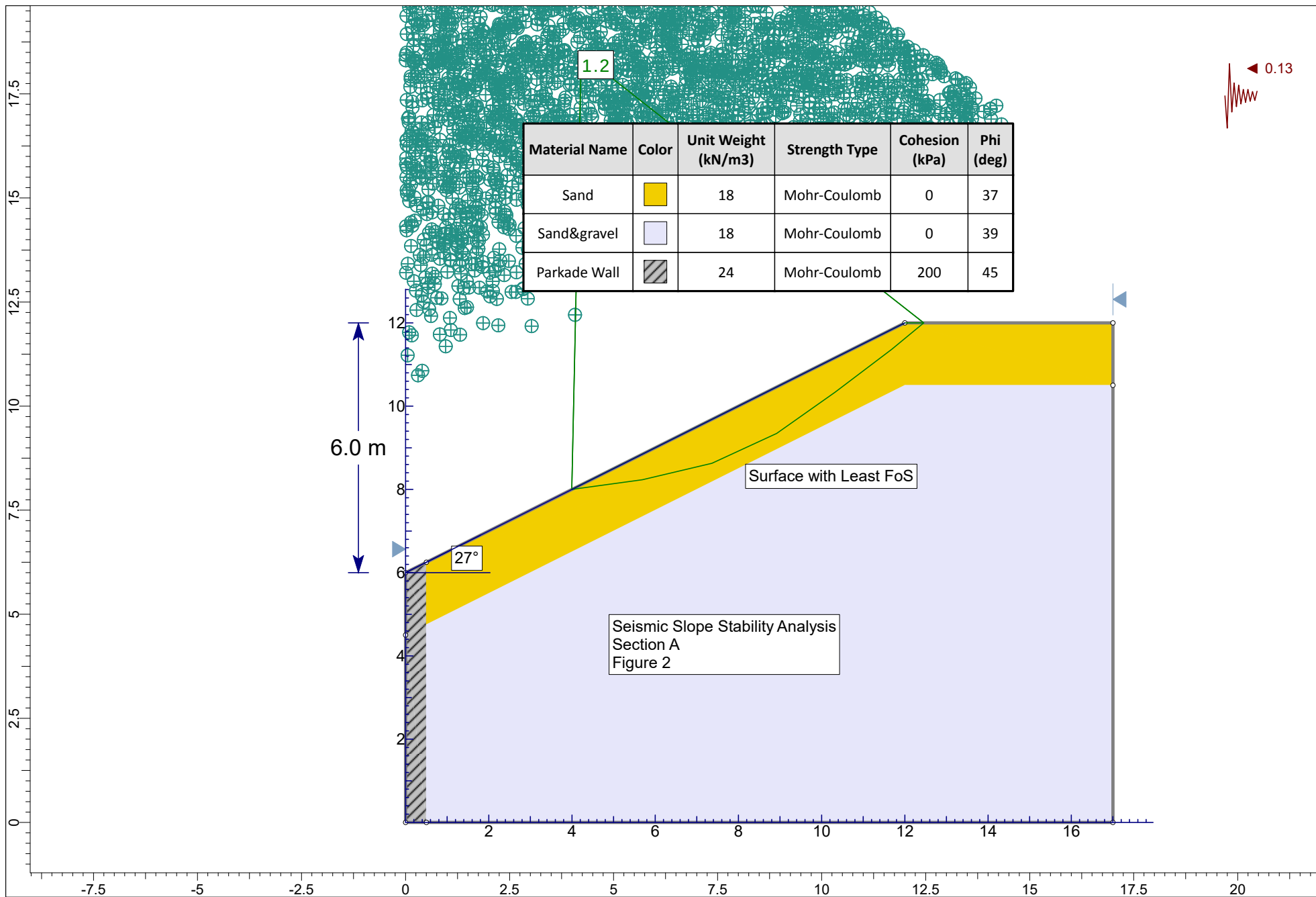
Machine Type: Tracked Excavator
Date Logged: October 22, 2018

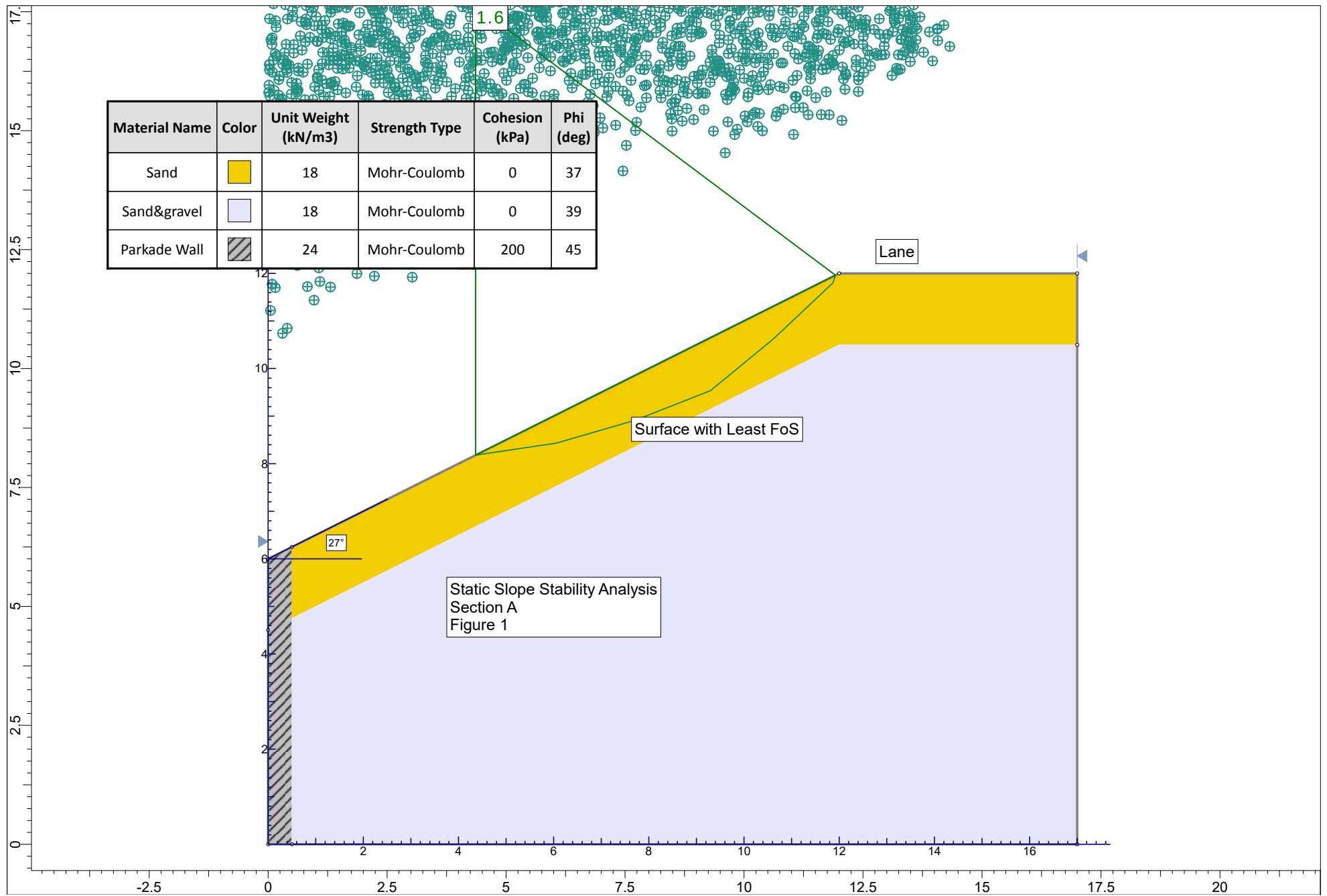
TP 1

DEPTH (m)	SOIL CONDITIONS	Moisture (%)
0.0 – 0.7 m	Fill Sand, trace silt, trace roots, loose to compact, rust brown, damp	At 0.5 w = 15%
0.7 – 1.5 m	Sand Medium grained sand, trace gravel, compact, grey brown, moist	
1.5 – 3.0 m	Sand&gravel Medium grained sand, gravel 200 mm minus, pitrun, isolated cobbles, compact, grey brown, moist Becomes dense below 2.7 m	At 1.7m w = 10%
3.0 m	Bottom of testpit No seepage encountered Testpit stayed open	

TP 2

DEPTH (m)	SOIL CONDITIONS	Moisture (%)
0.0 – 1.0 m	Fill Sand, trace silt, trace roots, loose to compact, rust brown, damp	
1.0 – 2.0 m	Sand&gravel Medium grained sand, gravel 150 mm minus, pitrun, loose to compact, grey brown, damp	At 1.8 w = 12%
2.0 m	Bottom of testpit No seepage encountered Testpit stayed open	





LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Notes: This statement is to be read and completed in conjunction with the Engineers and Geoscientists BC *Professional Practice Guidelines – Landslide Assessments in British Columbia* (“the guidelines”) and the current BC Building Code (BCBC), and is to be provided for Landslide Assessments (not floods or flood controls), particularly those produced for the purposes of the *Land Title Act*, *Community Charter*, or *Local Government Act*. Some jurisdictions (e.g., the Fraser Valley Regional District or the Cowichan Valley Regional District) have developed more comprehensive assurance statements in collaboration with Engineers and Geoscientists BC. Where those exist, the Qualified Professional is to fill out the local version only. Defined terms are capitalized; see the Defined Terms section of the guidelines for definitions.

To: The Approving Authority (or Client)
City of Abbotsford

Date: October 20, 2023

Jurisdiction/name and address

With reference to (CHECK ONE):

- ☐ A. *Land Title Act* (Section 86) – Subdivision Approval
- ☒ B. *Local Government Act* (Sections 919.1 and 920) – Development Permit
- ☐ C. *Community Charter* (Section 56) – Building Permit
- ☐ D. Non-legislated assessment

For the following property (the “Property”): 33938 George Ferguson Way, Abbotsford

Civic address of the Property

The undersigned hereby gives assurance that they are a Qualified Professional and a professional engineer or professional geoscientist who fulfils the education, training, and experience requirements as outlined in the guidelines.

I have signed, authenticated, and dated, and thereby certified, the attached Landslide Assessment Report on the Property in accordance with the guidelines. That report must be read in conjunction this statement.

In preparing that report I have:

[CHECK TO THE LEFT OF APPLICABLE ITEMS]

- ☒ 1. Collected and reviewed appropriate background information
- ☒ 2. Reviewed the proposed Residential Development or other development on the Property
- ☒ 3. Conducted field work on and, if required, beyond the Property
- ☒ 4. Reported on the results of the field work on and, if required, beyond the Property
- ☒ 5. Considered any changed conditions on and, if required, beyond the Property
- 6. For a Landslide Hazard analysis or Landslide Risk analysis, I have:
 - ☒ 6.1 reviewed and characterized, if appropriate, any Landslide that may affect the Property
 - ☒ 6.2 estimated the Landslide Hazard
 - ☒ 6.3 identified existing and anticipated future Elements at Risk on and, if required, beyond the Property
 - ☒ 6.4 estimated the potential Consequences to those Elements at Risk
- 7. Where the Approving Authority has adopted a Level of Landslide Safety, I have:
 - ☐ 7.1 compared the Level of Landslide Safety adopted by the Approving Authority with the findings of my investigation
 - ☐ 7.2 made a finding on the Level of Landslide Safety on the Property based on the comparison
 - ☐ 7.3 made recommendations to reduce Landslide Hazards and/or Landslide Risks

LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

8. Where the Approving Authority has not adopted a Level of Landslide Safety, or where the Landslide Assessment is not produced in response to a legislated requirement, I have:
- ☒ 8.1 described the method of Landslide Hazard analysis or Landslide Risk analysis used
 - ☒ 8.2 referred to an appropriate and identified provincial, national, or international guideline for Level of Landslide Safety
 - ☒ 8.3 compared those guidelines (per item 8.2) with the findings of my investigation
 - ☒ 8.4 made a finding on the Level of Landslide Safety on the Property based on the comparison
 - ☒ 8.5 made recommendations to reduce Landslide Hazards and/or Landslide Risks
- ☒ 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections

Based on my comparison between:

[CHECK ONE]

- ☐ the findings from the investigation and the adopted Level of Landslide Safety (item 7.2 above)
- ☒ the appropriate and identified provincial, national, or international guideline for Level of Landslide Safety (item 8.4 above)

Where the Landslide Assessment is not produced in response to a legislated requirement, I hereby give my assurance that, based on the conditions¹ contained in the attached Landslide Assessment Report:

A. SUBDIVISION APPROVAL

- ☐ For subdivision approval, as required by the *Land Title Act* (Section 86), “the land may be used safely for the use intended”
[CHECK ONE]
 - ☐ with one or more recommended additional registered Covenants
 - ☐ without an additional registered Covenant(s)

B. DEVELOPMENT PERMIT

- ☒ For a development permit, as required by the *Local Government Act* (Sections 488 and 491), my report will “assist the local government in determining what conditions or requirements it will impose under subsection (2) of [Section 491]”
[CHECK ONE]
 - ☒ with one or more recommended additional registered Covenants
 - ☐ without an additional registered Covenant(s)

C. BUILDING PERMIT

- ☐ For a building permit, as required by the *Community Charter* (Section 56), “the land may be used safely for the use intended”
[CHECK ONE]
 - ☐ with one or more recommended additional registered Covenants
 - ☐ without any additional registered Covenant(s)

¹ When seismic slope stability assessments are involved, Level of Landslide Safety is considered to be a “life safety” criteria, as described in Commentary JJJ of the *National Building Code of Canada (NBC) 2015*, Structural Commentaries (User’s Guide – NBC 2015: part 4 of division B). This states:

“The primary objective of seismic design is to provide an acceptable level of safety for building occupants and the general public as the building responds to strong ground motion; in other words, to minimize loss of life. This implies that, although there will likely be extensive structural and non-structural damage, during the DGM (design ground motion), there is a reasonable degree of confidence that the building will not collapse, nor will its attachments break off and fall on people near the building. This performance level is termed ‘extensive damage’ because, although the structure may be heavily damaged and may have lost a substantial amount of its initial strength and stiffness, it retains some margin of resistance against collapse.”

LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Tegbir Bajwa, P. Eng.

October 20, 2023

Name (print)

Date

15580 79A Avenue

Address

Surey, BC V3S 8R8

778 995 2404

Telephone

tegbir@ablegeo.com

Email



(Affix PROFESSIONAL SEAL and signature here)

The Qualified Professional, as a registrant on the roster of a registrant firm, must complete the following:

Able Geotechnical Ltd.

I am a member of the firm

(Print name of firm)

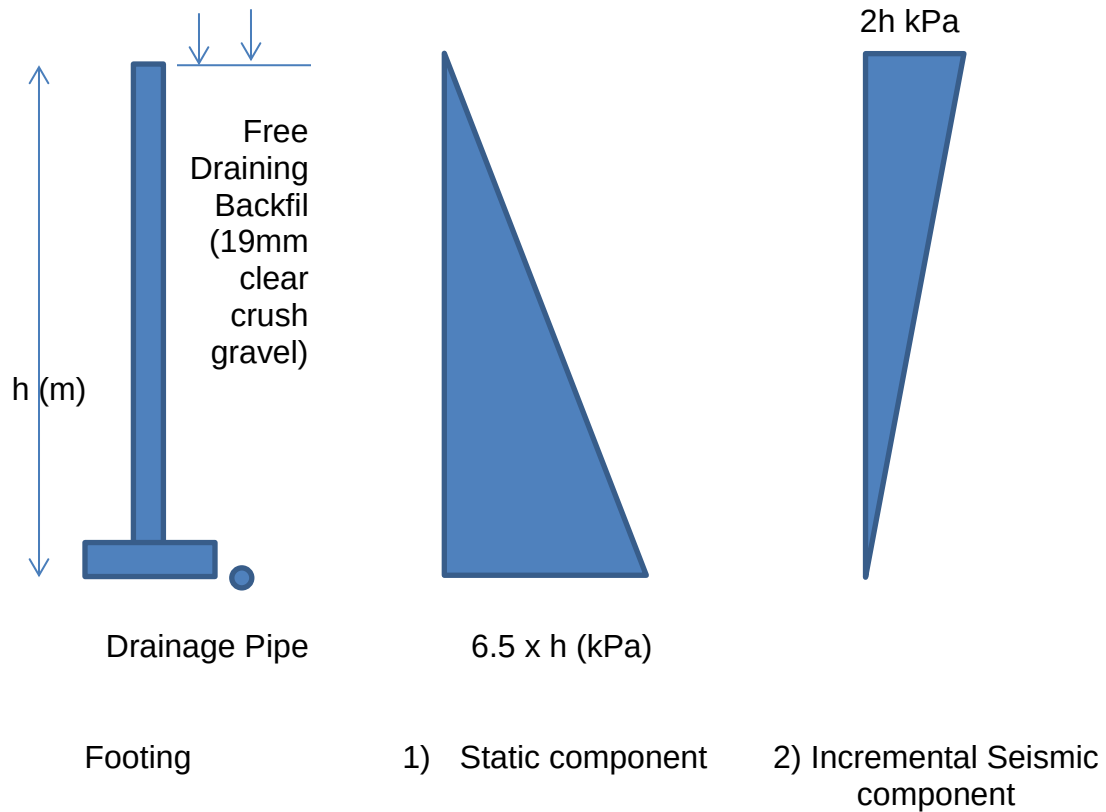
1003426

with Permit to Practice Number

(Print permit to practice number)

and I sign this letter on behalf of the firm.

LATERAL LOADING ON UNDERGROUND WALLS



For Static Condition: 1

For Seismic Condition: 1+2

The lateral loads are calculated based on unfactored soil parameters. Therefore the loads should be assumed to be unfactored as well.

Based on Mononobe-Okabe equation

ABLE GEOTECHNICAL LTD.



Central Valley Arborist Consulting Ltd.

Email: kwak@centralvalley.ca

REVISED

ARBORIST REPORT

For

33938 and 33946 GEORGE FERGUSON WAY

ABBOTSFORD, BC

Prepared for: **NAVI SIVIA, M. ARCH**
 AZURE GROUP

Prepared by: **Brian Kwak**
 Certified Arborist ISA #PN #7306A
 Certified Tree Risk Assessor P#1472

Date: **October 19, 2023**

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• Photographs	9-14
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• Qualifications of Author	16
• Assumptions and Limiting Conditions	17





Central Valley Arborist Consulting Ltd.

Email: kwak@centralvalley.ca

October 19, 2023

Navi Sivia, M. Arch
Azure Group
c/o navisivia@hotmail.com

Introduction

The following revised arborist report has been prepared by Brian Kwak, (Certified Arborist) for the proposed development located at **33938 and 33946 George Ferguson Way, Abbotsford, BC.**

On October 12, 2023, I received a copy of an updated site plan for the proposed development. As a result, the previously completed arborist report dated July 8, 2020, had to be revised. The following details the subsequent changes.

Site Overview

The subject site has a steep bank at the rear of the property with two existing houses. The proposed development is a multi-family, four level apartment complex and is accessed from George Ferguson Way. (See Site Plan for details)

On Site Evaluation

On October 18, 2023, I re-attended the site to assess the trees. The overall health and structural condition of the trees were reassessed. As stated before there are a total of 4 trees with a DBH 20 centimeters or greater located on the proposed development property. Included in this report are 5 neighboring trees labeled A to E, which have been added to the report because of their proximity to the development property. (See attached Evaluation Summary and Site Plan for details)

Note: The rating criteria for “Overall Tree Health and Structural Condition” and “Tree Retention Value Rating” are located on page 5 of this report.

Tree Retention and Removal

On-Site Trees to be RETAINED within the Subject Property

- All four trees are recommended to be retained.

Note: Tree Tag #2 is a mature Douglas fir tree with a DBH of 95 centimeters. The optimal root protection zone for this tree is 7.6 meters. Due to its location in relationship to the proposed building envelope the root protection zone for this tree has been adjusted to 6.0 meters. At this point in time, it is my recommendation to retain this tree with the requirement that an arborist be on site during the excavation of the site. If it is determined at that time that the anchoring roots are compromised the tree will have to be removed.

On-Site Trees to be REMOVED within the Subject Property

- There are no trees recommended to be removed.

Off-Site Trees within City Lands:

- nil

Off Site Trees on Neighboring Private Property:

- **PROTECT 5** off-site neighboring trees labeled, A, B, C, D and E. (See Site Plan for Details)

Tree Replacement

The replacement requirements will be confirmed by the city in relation to their policies. The city requires replacement trees for each bylaw tree 20-30cm to be removed (2 to 1 quota), and three replacement trees for each bylaw tree >30cm DBH to be removed (3 to 1 quota). (See attached Preservation Summary)

The replacement trees must meet city requirements for minimum size at planting (i.e., 6 cm DBH for deciduous species and 3.0 meters height for coniferous species) and criteria.

Construction Guidelines

Eight times the diameter was used to determine the critical root zone (CRZ). **The optimal root protection zone is to be measured in the field from the outer edge of the stem of the tree.** The CRZ is the area around the tree in which no grading or construction activity may occur without project arborist approval and is required for the tree to retain good health and vigor.

The following are tree preservation guidelines and standards for the CRZ's.

- No soil disturbance or stripping.
- The natural grade shall be maintained within the protection zone.
- No storage, dumping of materials, parking, underground utilities, or fires.
- Any plan affecting trees should be reviewed by a consultant including demolition, erosion control, improvement, utility, drainage, grading, landscape, and irrigation.
- Special foundations, footings and paving designs are required if within the tree protection zone.
- Utilities should be routed around the CRZ.
- Excavation within the tree protection zone should be supervised by a consulting arborist.
- Surface drainage should not be altered to direct water into or out of the CRZ; and
- Site drainage improvements should be designed to maintain the natural water table levels within the CRZ.

Respecting these guidelines will prevent changes to the soil and rooting conditions, wounding of the trees and contamination due to spills and waste. Any plans for work or activities within the CRZ that are contrary to these guidelines should be discussed with the project arborist so that mitigation measures can be implemented.



Tree Protection Fences

Prior to any construction activity on site, tree protection fences must be constructed at the specified distance from the tree trunks. The protection barrier or temporary fencing must be at least 1.2 meters in height and constructed of 2 by 4 lumber with orange plastic mesh screening. This must be constructed prior to tree removal, excavation or construction and remain intact throughout the entire period of construction. (See attached fencing instructions)

If there are any further questions, please do not hesitate to contact our office.

Respectfully submitted,



Brian Kwak
Certified Arborist PN #7306A
Qualified Tree Risk Assessor (TRAQ)

TREE RATING CRITERIA

Overall Health and Structural Rating

- **Excellent** = Tree of possible specimen quality, unique species or size with no discernible defects, or heritage tree.
- **Normal** = Tree is in good condition with no significant structural weaknesses or health concerns considering its growing environment and species.
- **Moderate** = Tree has noted health and/or minor structural weaknesses; however, treatments may be recommended to improve the health or structural condition of the tree.
- **Poor** = Tree is in serious decline from its typical growth habits and has multiple very definable health and/or structural weaknesses. These trees may have difficulty adapting to land use changes.
- **Dead/Dying** = Tree was found to be dead, and/or has severe defects and is in severe decline.

Tree Retention Value Rating

This rating provides guidance for tree retention planning and takes into account the tree's species profile and its growing conditions.

- **High** = Trees are worthy of consideration for retention. This includes dominant trees in a stand as well as open grown individual trees would be typically included in this category.
- **Medium** = Trees may be considered for retention with limitations and/or treatments. This may include trees growing within groves, moderately difficult topography for root system expansion, recently exposed trees or trees with minor structural defects that can be mitigated through pruning.
- **Low** = Trees with structural/health defects that are not currently high risk or imminent for failure. Trees should not be considered for retention if within striking distance of a high value target. These include poor species profiles* for long term viability. Trees growing in poor locations such as dense stands of trees with high height to diameter ratios, recently exposed edge trees or areas with high water tables leading to shallow constricted rooting.
- **Nil** = Trees should not be considered for retention due to high risk condition or extenuating circumstances that have led to the tree being at high risk of failing and dead or dying trees.

*The species profile is based upon mature age and height/spread of the species, adaptability to land use changes and tree species susceptibility to diseases, pathogen and insect infestation.

CENTRAL VALLEY ARBORIST CONSULTING LTD. TREE EVALUATION SUMMARY

Address: 33938 & 33946 George Ferguson Way, Abbotsford, BC

Date: October 18, 2023

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Health & Structural Rating	Retention Value Rating	Comments	Retain/Remove	Tree Retention Comments	Critical Root Zone (m)
1	Cedar	80	15	Moderate	Low to Medium	Previously topped multi stemmed upper crown re growth @ 10m above ground – included bark & attachment point	Retain	This tree is not in direct conflict with the proposed development. Recommend Cobra bracing the upper crown.	6.4 m
2	Douglas Fir	95	22	Moderate	Low	Previously topped multi stemmed re growth at 14 m above ground	Retain	To mitigate the risk posed by this tree I recommend crown reducing this tree to a height just below the past crown reduction. If the city is against this, an aerial inspection should be done. If the attachment points are sound the upper crown should be cobra braced.	Adjusted to 6.0
3	Douglas Fir	45	17	Poor	Low	Previously topped single stemmed upper crown re growth @ 12 m above ground – poor attachment point	Retain	To mitigate the risk posed by this tree I recommend crown reducing this tree to a height just below the past crown reduction	3.6m
4	Douglas Fir	51	17	Poor	Low	Previously topped single stemmed upper crown re growth @ 12 m above ground – poor attachment point	Retain	To mitigate the risk posed by this tree I recommend crown reducing this tree to a height just below the past crown reduction	4.08m
A	Cedar	100+	22	Normal	Medium	Co-dominant stemmed at 2.5 m above ground	Retain	This tree is located on the neighboring property to the east	8.0m

CENTRAL VALLEY ARBORIST CONSULTING LTD. TREE EVALUATION SUMMARY

Address: 33938 & 33946 George Ferguson Way, Abbotsford, BC

Date: October 18, 2023

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Health & Structural Rating	Retention Value Rating	Comments	Retain/Remove	Tree Retention Comments	Critical Root Zone (m)
B	Maple	45	17	Moderate	Medium	Irregular shaped crown - No limbs on the southeast side of the tree	Retain	This tree is located on the neighboring property to the east.	3.6m
C	Maple	50	17	Moderate	Medium	Irregular shaped crown - No limbs on the southeast side of the tree	Retain	This tree is located on the neighboring property to the east	4.0m
D	Maple	32	12	Moderate	Low	Dead and decayed branches in upper crown	Retain	This tree is located on the neighboring property to the east	2.56m
E	Douglas Fir	100+	26	Normal	Medium	It is suspected that the top of this tree sustained past storm damage - several broken branches throughout crown	Retain	This tree is located on the neighboring property to the east	8.0m

Central Valley Arborist Consulting Ltd - Tree Preservation Summary

Project Location:	33938 & 33946 George Ferguson Way, Abbotsford, BC
Applicant/Developer:	Navi Sivia Azure Group
Consultant:	Central Valley Arborist Consulting Ltd PO Box 882, Station A, Abbotsford, BC, V2T 7A2 Brain Kwak 604-850-4938

Summary of Proposed Trees Retained, Removed and Replaced

This Tree Protection Summary is a quick reference for the Arborist's Evaluation Report submitted for this development and is to be read in conjunction with that report.

A	Number of trees 20 centimeters DBH or greater	4
B	Number of trees retained (0 between 20-30cm DBH and 4 with a 30cm DBH or greater)	4
C	Number of trees to be remove (0 between 20-30cm DBH and 0 with a 30cm DBH or greater)	0
D	Number of replacement trees required. (2:1 between 20-30cm and 3:1 with a 30cm DBH or greater)	*
E	Credit for retained trees at 2:1 between 20-30cm DBH and 3:1 with a 30cm DBH or greater. (0 between 20-30cm DBH and 0 with a 30cm DBH or greater)	*
F	Net total of replacement trees (3-0 credits)	*

* Unknown at this time (To be advised by City of Abbotsford)

Date: October 19, 2023

Summary Proposed and Submitted by:



Brian Kwak
Certified Arborist PN #7306A
Qualified Tree Risk Assessor



Photograph #1: View of the proposed development property from George Ferguson Way



Photograph #2: Tree Tag #1 (Western Red Cedar) This tree was previously topped at 10 meters above the ground; note the multi stemmed upper crown re growth - it is suspected that there is included bark at the attachment point of the multi-stems.



Photograph #3: Tree Tag #2 (Douglas Fir Tree) This tree was previously topped at approximately 14 meters above; note the multi stemmed upper crown re growth. To mitigate the risk posed by this tree, I recommend crown reduction to a height just below the location where this tree was previously topped.

If the city is against this an aerial inspection of the attachments points should be completed. If the attachment is sound the upper crown should be cobra braced.



Photogrpah #4: Tree Tag #3 (Douglas Fir Tree) This tree was previously topped at approximately 12 meters above the ground; note the single stemmed upper crown regrowth. To mitigate the risk posed by this tree, I recommend crown reduction to a height just below the location where this tree was previously topped.

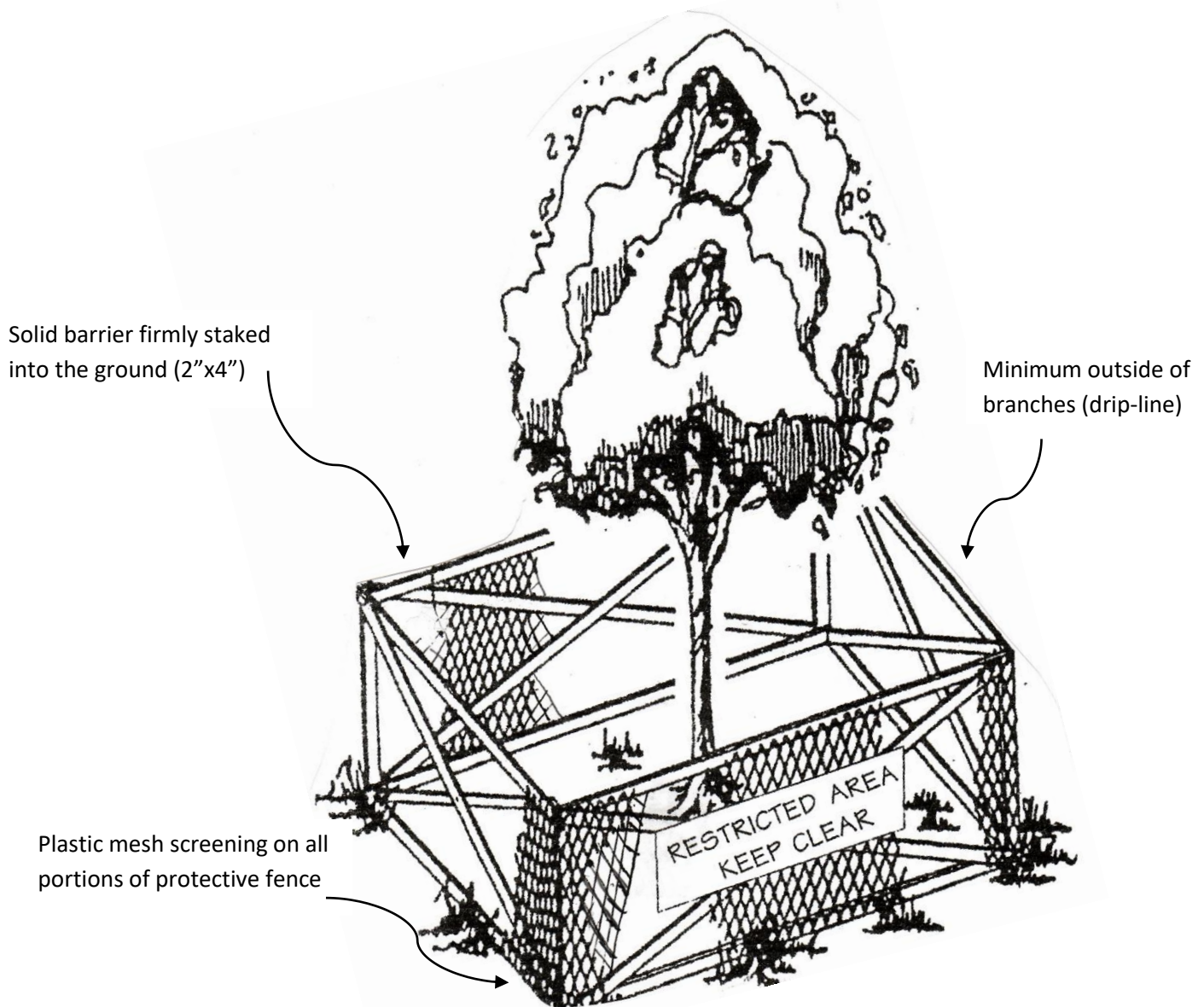


Photograph #5: Tree Tag #4 (Douglas Fir Tree) This tree was previously topped at approximately 12 meters above the ground; note the single stemmed upper crown regrowth. To mitigate the risk posed by this tree, I recommend crown reduction to a height just below the location where this tree was previously topped.



Photograph #6: Neighboring Tree (Labeled E) This tree is suspected to have sustained past storm damage to the top of the tree.

Central Valley Arborist Consulting Ltd – Protective Fencing Instructions



Note: No storage of building materials within or against protection barrier and no booms or equipment to enter drip-line at anytime. Barrier is not to be moved once erected.

Central Valley Arborist Consulting Ltd – Qualifications of Author

Brian J. Kwak

P.O Box 882, Station A
Abbotsford, BC
V2T 7A2

Telephone: 604-850-4938

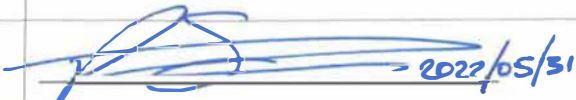
Email: kwak@shaw.ca

- Central Valley Arborist Consulting Ltd: 2015 to present
- Central Valley Tree and Arborist Services Ltd: 2002 to 2015
- Owner of Westland Tree Services: 2000 to 2002
- B.K. Tree Services Ltd: 1981 to 1999 (subcontractor)
- International Society of Arboriculture; Certified Arborist PN-7306A
- PNW-ISA Qualified Tree Risk Assessor (TRAQ)
- Consulting Arborist: July 2011 – Present
- Member: International Society of Arboriculture (ISA)
Pacific Northwest Chapter of Arborist
- Over 35 of years professional work in the tree industry and land clearing business.
- Insurance policy #040149195 (\$5,000,000 Liability) – Saxbee Insurance Agencies Ltd.
- Business License: Abbotsford IntraMunicipal 2017-119485
- Work Safe BC – 961482-AA

CENTRAL VALLEY ARBORIST CONSULTING LTD – ASSUMPTIONS AND LIMITING CONDITIONS

1. Except as expressly set out in this report and in these Assumptions and Limiting Conditions, Central Valley Arborist Consulting Ltd. (Central Valley) makes no guarantee, representation or warranty (express or implied) with regard to: this report; the findings, conclusions and recommendations contained herein; or the work referred to herein.
2. This report has been prepared, and the work undertaken in connection herewith has been conducted, by Central Valley for **Navi Sivia for 33938 and 33946 George Ferguson Way, Abbotsford, BC**. It is intended for the sole and exclusion use by the Client, for the purpose(s) set out in this report. Any use of, reliance on, or decisions made based on this report by any person other than the Client, for any purpose other than the purpose(s) set out in this report, is the sole responsibility of, and at the sole risk of, such other person or the Client, as the case may be. Central Valley accepts no liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm (including without limitation financial or consequential effects on transactions or property values, and economic loss) that may be suffered or incurred by any person as a result of the use of or reliance on this report or the work referred to herein. The copying, distribution or publication of this report (except for the internal use of the Client) without the express written permission of Central Valley (which consent may be withheld in Central Valley's sole discretion) is prohibited. Central Valley retains ownership of this report and all documents related thereto both generally and as instruments of professional service.
3. The findings, conclusions and recommendations made in this report reflect Central Valley's best professional judgment in light of the information available at the time of preparation. This report has been prepared in a manner consistent with the level of care and skill normally exercised by arborists currently practicing under similar conditions in a similar geographic area and for specific application to the trees subject to this report as at the date of this report. Except as expressly stated in this report, the finds, conclusions and recommendations set out in the report are only valid for the day on which the assessment leading to such finds, conclusions and recommendations was conducted. If generally accepted assessment techniques or prevailing professional standards and best practices change at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Central Valley expressly excludes any duty to provide any such modification if generally accepted assessment techniques and prevailing professional standards and best practices change.
4. Conditions affecting the trees subject to this report (the "Conditions", including without limitation structural defects, scares, decay, fungal fruiting bodies, evidence of insect attack, discolored foliage, condition of root structures, the degree and direction of lean, the general condition of the tree(s) and the surrounding site, and the proximity of property and people) other than those expressly addressed in this report may exist. Unless otherwise expressed: information contained in this report covers only those conditions and trees that are expressly stated to be subject to this report and only reflects such Conditions and trees at the time of inspection; and the inspection is limited to visual examination of such Conditions and trees without dissection, excavation, probing, or coring. While every effort has been made to ensure that the trees recommended for retention are both healthy and safe, no guarantees, representations or warranties are made (express or implied) that those trees will remain standing or will not fail. The Client acknowledges that it is both professionally and practically impossible to predict with absolute certainty the behavior of any single tree, or group of trees, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure and this risk can only be eliminated if the risk is removed. If Conditions change or if additional information becomes available at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Central Valley expressly excludes any duty to provide any such modification if Conditions change or additional information becomes available.
5. Nothing in this report is intended to constitute or provide a legal opinion, and Central Valley expressly disclaims any responsibility for matters legal in nature (including, without limitation, matters relating to title to and ownership or real or personal property and matters relating to cultural and heritage values). Central Valley makes no guarantee, representation or warranty (express or implied) as to the requirements of or compliance with applicable laws, rules, regulations, or policies established by federal, provincial, local government or first Nations bodies (collectively, "Governmental Bodies") or as to the availability of licenses, permits or authorizations of any Governmental Body. Revisions to any regulatory standards (including by-laws, policies, guidelines and any similar directions of a Government bodies in effect from time to time) referred to in this report may be expected over time. As a result, modifications to the findings, conclusions and recommendations in this report may be necessary. Central Valley expressly excludes any duty to provide any such modification if any such regulatory standard is revised.
6. Central Valley shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
7. In preparing this report, Central Valley has relied in good faith on information provided by certain persons, Governmental Bodies, government registries and agents and representatives of each of the foregoing, and Central Valley assumes that such information is true, correct and accurate in all material respects. Central Valley accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of or information provided by such persons, bodies, registries, agents and representatives.
8. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
9. Loss or alteration of any part of this report invalidates the entire report.

REZONING WORKS AND SERVICES REQUIREMENTS

File No:	PRJ22-004
Planner:	Daniel Graham, Planner
Prepared By:	Stephen Stemler, Development Technologist II
Approved By:	 for Sarb Toor, Senior Manager, Development Engineering
Date:	May 30, 2022
Applicant:	Flat Architecture
Development Property:	33946 George Ferguson Way Lot 8 Section 22 Township 16 Plan Nwp09370 Nwd Lot 9, Plan Nwp12623, Section 22, Township 16, New Westminster Land District. 33938 George Ferguson Way Lot 10 Section 22 Township 16 Plan Nwp15205 Nwd Part Sw 1/4. 33946 George Ferguson Way Lot 8 Section 22 Township 16 Plan Nwp09370 Nwd Lot 9, Plan Nwp12623, Section 22, Township 16, New Westminster Land District.

The Local Government Act authorizes local governments to require development to meet current works and services standards as set out in the City's Development Bylaw and Policies.

This report includes the Works & Services **Requirements** to meet the applicable bylaws and policies and **Future Considerations** that may apply to the next phase of development.

Please have your consulting engineer email Sstemler@abbotsford.ca in regard to this report and any other servicing matters relating to this application.



REQUIREMENTS

The portion of proposed surface works that front neighbouring properties require detailed design to ensure their integration with the existing infrastructure.

Additional dedications, SRWs, works, features or limits of construction may be needed as identified through the design and construction phases.

At this time, based on the limited information supplied at Development Permit stage, the following comments are to be brought to the attention of the applicant.

Drainage Collection and Disposal

On George Ferguson Way, from the east property line of the Lands to the downstream storm manhole fronting 33925 George Ferguson Way, construct a 300mm diameter storm sewer. Design will require coordination with works under application PRJ21-062 at 33925 George Ferguson Way.

Provide a storm water management plan showing how onsite drainage will be accommodated through onsite infiltration for the 1 in 100-year event. If onsite infiltration is not feasible, provide a storm water management plan showing how onsite drainage will be accommodated offsite. All offsite storm water works and services including new installations and upgrades to existing offsite systems required by the storm water management plan shall be designed and constructed in accordance with said storm water management plan.

Portions of the above noted works may be eligible for Latecomer Charges. (900-9-01)

Sewage Collection and Disposal

On George Ferguson Way, from the east property line of the Lands to the downstream sanitary manhole fronting 33886 Pine Street, upgrade the existing 200mm diameter to a 250mm diameter sanitary sewer system.

Portions of the above noted works may be eligible for Latecomer Charges. (900-9-01)

Water Distribution Domestic and Fire Fighting

The existing fire hydrant fronting the Lands may require relocation with road works.

Highways – Dedications and Rights-of-Ways

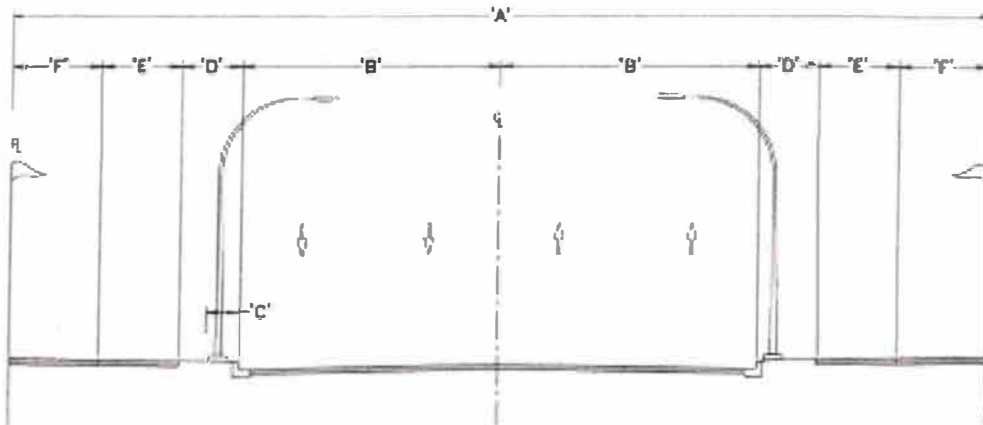
The OCP designates George Ferguson Way as an Urban Collector which is required to be a minimum 24.5 m wide highway right-of-way.

On George Ferguson Way a dedication of approximately 3.0m is required along the full frontage of the Lands.

Urban Roadways - Construction

On George Ferguson Way, along the full frontage of the Lands, construct half of the below noted road cross-section with Urban Highway design features, including;

- barrier curb and gutter on the south side;
- off-street asphalt bike lane;
- concrete sidewalk on the south side;
- Curb & gutter, sidewalk, boulevard and pavement tapers at both ends to meet existing;
- LED street lighting;
- Traffic signage;
- Traffic lane markings;
- soil(s) to support street trees;
- boulevard improvements on the south side; and
- associated drainage.



ROW TYPES	ROAD ALLOWANCE	PAVEMENT	OFFSET FROM CURB	BOULEVARD	BIKE PATH	SIDEWALK	LANE CONFIGURATION
	'A'	'B'	'C'	'D'	'E'	'F'	WITHIN 'B'
24.5m MAJOR COLLECTOR	24.5	6.6	0.8	1.65	2.0	2.0	(3.5m-3.1m)x2

NOTES:

- SIDEWALKS AND BIKE PATHS ON BOTH SIDES
- TREE STRIP/FURNISHING ZONES ON BOTH SIDES
- TWO VEHICLE TRAVEL LANES IN EACH DIRECTION
- STREETSCAPE STANDARDS TO INDICATE PUBLIC REALM TREATMENTS

A geotechnical report shall be submitted with any roadway design, confirming the structural adequacy of any existing roadway and/or new roadway being constructed by the Developer.

The above noted works are not eligible for Latecomer Charges. (900-9-01)

Access

Provide a detailed review of the access location and turning movements and confirming that it meets or exceeds the minimum TAC design and safety requirements for existing and future traffic volumes.

Review the loading and turning movements of delivery (HSU), moving, garbage and fire trucks. Please ensure all trucks and emergency vehicles have enough clearance to access the site for fire hydrant, loading, or emptying garbage bins.

Power/Telecommunications

Service Connection:

Provide underground power and telecommunications services from the distribution system to the property line.

Power/Telecommunications

Distribution System:

Provide underground power and telecommunications distribution along the length of the property frontages.

Erosion and Sediment Control

All works shall be performed in substantial conformance with the City's Development By-law, the Provincial 'Land Development Guidelines' and the City's Erosion and Sediment Control Bylaw, in the control and prevention of erosion and sediment during all phases of construction. No release of silt, sediment laden waters or deleterious substances is permitted into any existing City storm or drainage system during any phase of development of the Lands.

The ESC Plan requires 4 drawings, each indicating the ESC methods for that stage of construction;

- site preparation
- site servicing
- building construction
- warranty period

Rezoning Development Agreement Preparation Fee

Pay \$500 Development Agreement preparation fee.

Works & Services Security & Warranty Deposit

Provide as Security Deposit, the estimated construction cost plus 10% for engineering (min \$25,000) and 5% for as-constructed drawings (minimum \$15,000) in cash or letter of credit.

Administration & Inspection Fee

Pay 5% of the first \$300,000 + 3% of the remainder of the estimated construction cost for administration and inspections.



DEVELOPMENT ENGINEERING DIVISION

City Services Fees

Tie-in inspection fee (\$50 per inspection) for water, sanitary, and storm sewer services.

Water and sewer main connections and wet taps are supervised and/or performed by City crews at the developer's expense and payable upon invoice.

Street and traffic signs are supplied and installed by the City at the developer's expense and payable upon invoice.

Pay to energize street lights at \$50 per street light.

Latecomer Charges - *receivable Policy 900-9-01*

The Developer is required to submit an acceptable Latecomer Report prior to Latecomer Charges being enacted.

FUTURE CONSIDERATIONS

Upon further development an additional works and services review will apply related to that application. Listed below are some items to consider.

Bylaws

- the applicant is to be familiar with the Development Bylaw to ensure an understanding of possible future Works and services that may impact the development
- the applicant is to review the Works and Services identified in the Development Agreement and how they may impact the building.

Stormwater Management

- detention and infiltration will be required. Ensure that adequate room and proper placement has been reviewed.

Traffic Management

- the increase in vehicle traffic will be reviewed for its impact on the access and nearest intersections. Access may be restricted.
- road dedications, statutory rights-of-way and easements to accommodate the works and lot grading may require adjustments to the placement or size of the building.

Service Connections

- water, sanitary and storm connections may have specific tie in locations. Review and confirm locations prior to design.
- calculations related to the required domestic and fire water demand will be reviewed. There may be a service, meter or flow restrictions.
- Fire Department review may result in geometric changes to onsite roadways, additional fire hydrants, emergency access and building placement.
- Provide underground power and telecommunications services from the distribution system to the proposed building(s).

Development Cost Charges.

- Development Cost Charges are applicable at Building Permit or Subdivision

Lot Grading

- A Lot Grading Plan is required. Final lot grading shall conform to City's Lot Grading Policy and Guidelines. Any retaining walls that the Developer or Consulting Engineer consider are necessary to effectively grade the Lands to prevent negative impacts on finished neighbouring Lands, either existing or proposed, shall be constructed by the Developer. The standard "Lot Grading Covenant shall be registered against title to all proposed lots.
- Lot grading shall also provide for the collection of surface runoff and other drainage that will discharge to the City Drainage system. Lot grading may be designed to allow for surface sheet flows or collected in swales and directed to lawn basins as necessary to the satisfaction of the General Manager, Engineering. Any collection of surface flows to a concentrated point discharge location shall include provision for easements or rights-of-



DEVELOPMENT ENGINEERING DIVISION

way across impacted Lands as necessary. All lot grading shall be designed to take care of surface flows emanating from onsite grading.

Building Permit Submissions

- In order to avoid delays in receipt of building permits, the builder shall be responsible for ensuring that building permit applications on the Lands conform to the intent of the accepted Lot Grading plan(s) prior to submission to the City.
- The developer or his designate shall review and approve building permit applications prior to submission to the City. When submitted, the building permit plans shall provide lot grading information that shall, at time of final inspection for building occupancy or approval, comply with the accepted lot grading plan or the intent of the lot grading design accepted by the General Manager, Engineering prior to construction.