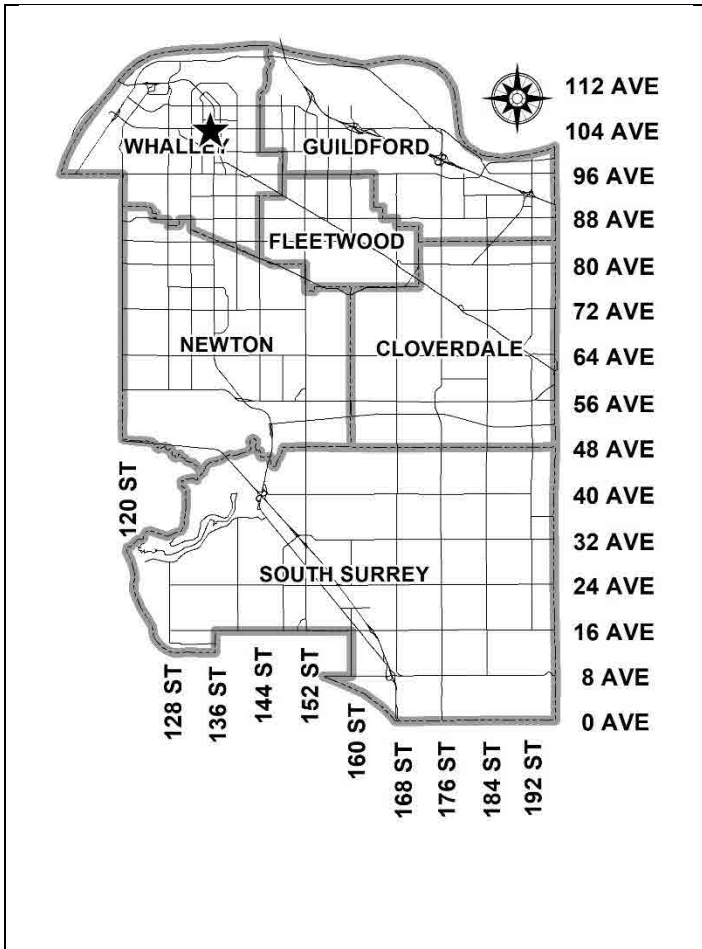


LAND USE APPLICATIONS
(Continued)

City of Surrey
PLANNING & DEVELOPMENT REPORT

Application No.: 7922-0321-00
 7922-0321-01

Planning Report Date: May 6, 2024



PROPOSAL:

- **Rezoning** from C-8 to CD
- **General Development Permit**
- **Detailed Development Permit**
- **Development Variance Permit**

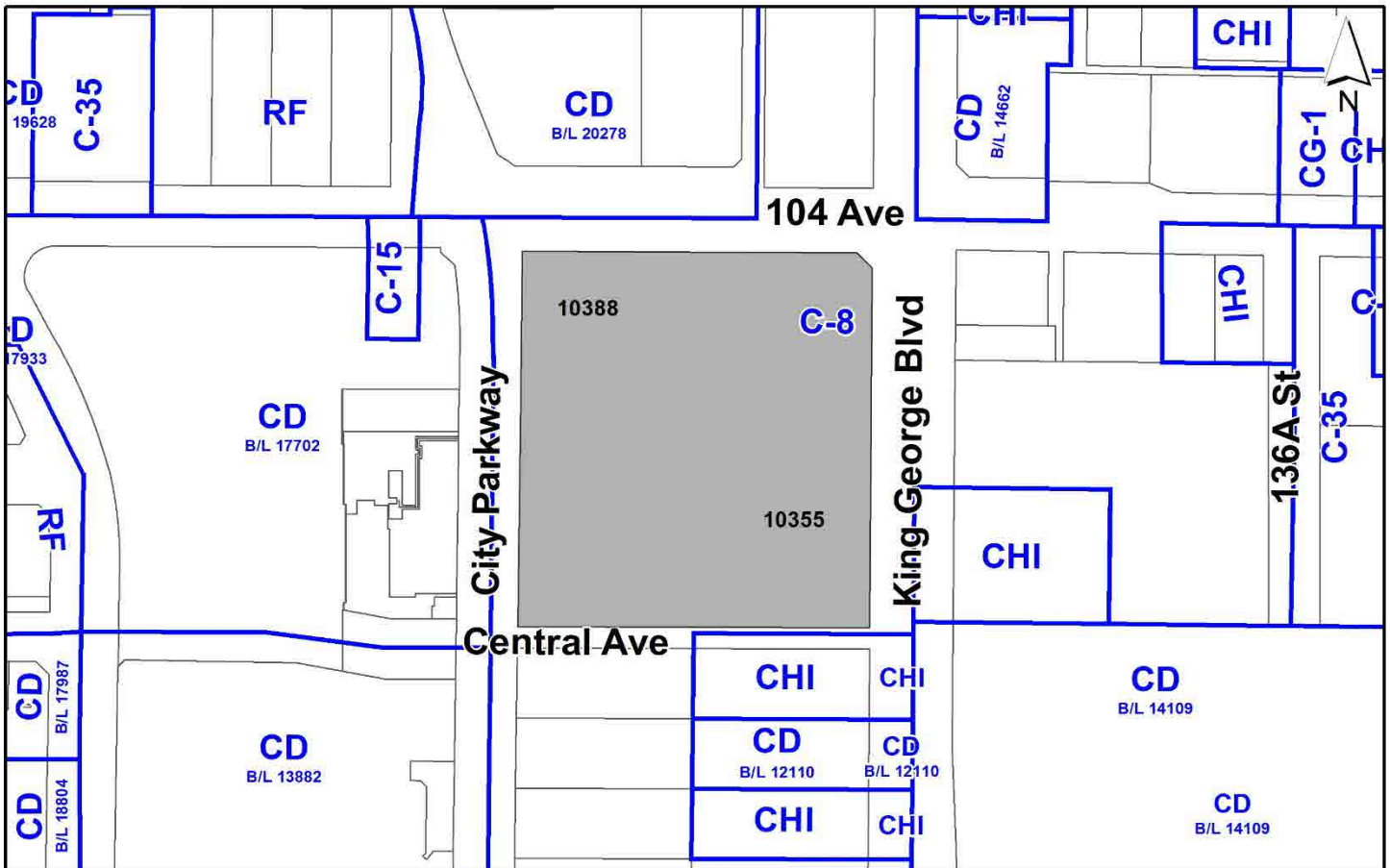
to permit the development of a mixed-use phased development consisting of three high-rise mixed-use towers (55, 60 and 65 storeys) and one stand-alone office building (13 storeys). Phase 1 consists of a 55-storey mixed-use tower with ground floor grocery store, commercial/retail and childcare.

LOCATION: 10355 King George Boulevard
 (10388 City Parkway)

ZONING: C-8

OCP DESIGNATION: Downtown

CITY CENTRE PLAN DESIGNATION: Central Business District – Area 2



RECOMMENDATION SUMMARY

- Rezoning Bylaw to proceed to Public Notification. If supported the Bylaw will be brought forward for First, Second and Third Reading.
- Approval to draft a General Development Permit for Form and Character.
- Approval to draft a Detailed Development Permit for Form and Character.
- Approval for Development Variance Permit to the definition of "Bond" in the *Surrey Subdivision and Development By-law, 1986, No. 8830, as amended* to proceed to Public Notification.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- The applicant is requesting a variance to the definition of "Bond" in the *Surrey Subdivision and Development By-law, 1986, No. 8830, as amended*, to include the use of a Surety Bond for Servicing Agreement No. 7822-0321-00.

RATIONALE OF RECOMMENDATION

- The proposal complies with the Downtown designation in the Official Community Plan (OCP) and the Central Business District – Area 2 designation in the Surrey City Centre Plan.
- The proposed density and building forms are appropriate for this part of Surrey City Centre, and form part of an emerging high-density mixed-use, office and residential hub around Surrey Central SkyTrain Station, Centre Block and Civic Centre.
- The proposed multiple mixed-use towers with residential, commercial/retail, grocery store, daycare and hotel and stand-alone office building will form an integral part of the Central Business District - Area 2 in City Centre.
- The proposed development conforms to the goal of achieving high-rise, high-density development around the three SkyTrain Stations in City Centre. The Surrey Central Skytrain Station is located within walking distance of less than 50 metres (less than 3 minutes) from the subject site.
- The proposal seeks to provide a commercial and office component, with approximately 31,915 square metres of office and commercial floor space and 9,703 square metres of hotel floor space proposed. This equates to an overall 2.1 FAR of commercial, office, daycare and hotel floorspace. The remaining 6.9 FAR is proposed as residential.
- The proposed setbacks achieve an urban, pedestrian streetscape in compliance with the Surrey City Centre Plan, adjacent developments, and in accordance with the Development Permit (Form and Character) design guidelines in the OCP.

- The applicant will provide a density bonus amenity contribution consistent with the Tier 2 Capital Projects Community Amenity Contributions (CACs), in support of the requested increased density.
- The street interface has been designed to a high quality to achieve a positive urban experience between the proposed buildings and the public realm, with a large public plaza proposed at the southwest corner of the site. This plaza space has been designed to serve the site as well as the future Surrey City Centre community.
- The proposed buildings achieve an attractive architectural built form, which utilizes high quality materials, contemporary lines, and unique form.

RECOMMENDATION

The Planning & Development Department recommends that:

1. Council endorse the Public Notification to process for a Bylaw to rezone the subject site from "Community Commercial Zone (C-8)" to "Comprehensive Development Zone (CD)".
2. Council authorize staff to draft General Development Permit No. 7922-0321-00 generally in accordance with the attached drawings (Appendix I).
3. Council authorize staff to draft Detailed Development Permit No. 7922-0321-01 generally in accordance with the attached drawings (Appendix I).
4. Council approve Development Variance Permit No. 7922-0321-00 (Appendix V) to vary to the definition of "Bond" in the *Surrey Subdivision and Development By-law, 1986, No. 8830, as amended*, to include the use of a Surety Bond for Servicing Agreement No. 7822-0321-00 to proceed to Public Notification.
5. Council instruct staff to resolve the following issues prior to final adoption:
 - (a) ensure that all engineering requirements and issues including restrictive covenants, dedications, and rights-of-way where necessary, are addressed to the satisfaction of the General Manager, Engineering;
 - (b) submission of a subdivision layout to the satisfaction of the Approving Officer;
 - (c) resolution of all urban design issues to the satisfaction of the Planning and Development Department;
 - (d) submission of a finalized landscaping plan and landscaping cost estimate to the specifications and satisfaction of the Planning and Development Department;
 - (e) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
 - (f) the applicant provide a density bonus amenity contribution consistent with the Tier 2 Capital Projects CACs in support of the requested increased density, to the satisfaction of the General Manager, Planning and Development Department;
 - (g) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department;
 - (h) registration of an access easement to secure future shared access between the four phases of development and shared parking located on P3, P4 and P5 of the development;
 - (i) registration of an access easement to ensure shared access to the indoor and outdoor amenity facilities between Phases 1 and 2 on Level 2, 3 and outdoor amenity between Phases 1 and 2 on Level 8;

- (j) submission of an acoustical report for the residential units and registration of a Section 219 Restrictive Covenant to ensure implementation of noise mitigation measures;
- (k) registration of a Section 219 Restrictive Covenant to adequately address the City's needs with respect to public art, to the satisfaction of the General Manager Parks, Recreation and Culture and with respect to the City's Affordable Housing Strategy and Tier 1 Capital Project CACs, to the satisfaction of the General Manager, Planning & Development;
- (l) registration of a volumetric statutory right-of-way for the east-west mews and the plaza located at the south-west corner of the site;
- (m) final submission and approval of a wind study; and
- (n) final submission and approval of the Transportation Impact Assessment.

SITE CONTEXT & BACKGROUND

Direction	Existing Use	CCP Designation	Existing Zone
Subject Site	Small scale commercial businesses operating at the northwest corner of the site and a vacant large format grocery store closed in 2021.	Central Business District - Area 2	C-8
North (Across 104 Avenue):	Bosa's Parkway development Phase 1, 37-storey rental residential tower under construction in the southwest corner at City Parkway and 104 Avenue (DP No. 7918-0350-01) and recently approved Bosa Parkway Phase 2, 52-storey mixed-use tower and one 2-storey stand-alone commercial building (DP No. 7923-0218-00).	High Rise Mixed-Use – Type II	CD (Bylaw No. 20278)

Direction	Existing Use	CCP Designation	Existing Zone
East (Across King George Blvd.):	Existing commercial site under development application proposing a 4 phased mixed-use tower development (Application No. 7923-0265-00, Third Reading).	Mid to High Rise Mixed-Use	CHI and C-8
South (Across Central Avenue):	Existing single storey commercial site under development application (Application No. 7921-0006-00, Third Reading).	Central Business District - Area 2	C-8 and CHI
West (Across City Parkway):	Civic Hotel, vacant City-owned land and Surrey City Hall	Central Business District - Area 1	C-15 and CD (Bylaw No. 17702 and 20807)

Context & Background

- The 5.1-acre subject site consists of one property located at 10355 King George Boulevard in City Centre and is bound by 104 Avenue, Central Avenue, City Parkway and King George Boulevard.
- The subject site is designated Downtown in the Official Community Plan (OCP), Central Business District – Area 2 in the City Centre Plan and is zoned Community Commercial (C-8) Zone.
- The subject application is generally consistent with the Downtown designation in the Official Community Plan (OCP) and the Central Business District – Area 2 in the City Centre Plan.
- The proposed development includes 31,915 square metres of office and commercial floor space and 9,703 square metres of hotel floor space which equates to an overall 2.1 FAR of commercial and office floor space. The remaining 6.9 FAR is proposed as residential.
- Staff have worked with the applicant to increase the amount of commercial and office space, provided on the subject site. The applicant is proposing to deliver a food store in Phase 1 of the development and is proposing a 13-storey stand-alone office tower in Phase 4.
- Staff support the proposed 2.1 FAR of commercial and office use.

DEVELOPMENT PROPOSAL

Planning Considerations

- The applicant is proposing the following:
 - Rezoning from C-8 to CD;
 - General Development Permit (site-wide);
 - Detailed Development Permit (Phase 1);

- Development Variance Permit to vary the definition of "Bond" in the *Surrey Subdivision and Development Bylaw, 1986, No. 8830, as amended*, to include the use of a Surety Bond for Servicing Agreement No. 7822-0321-00; and
- Subdivision of the existing lot into 3 lots (Phase 1 to 4).

to permit a phased development consisting of four mixed-use towers on three lots with heights of 55, 60 and 65-storeys, one 13-storey office, 2,070 dwelling units and 46,658 square metres of commercial, retail, hotel and office floor space and an overall gross FAR of 9.0.

- A 1,103-square metre publicly accessible urban plaza is proposed at the southwest corner of the site.
- The project is proposed as a four-phased development and organized as follows:
 - Phase 1 tower is located at the north-east corner of the site (Block A, Lot 1) and consists of a 55-storey mixed use tower and includes 721 residential dwelling units, and 5,370 square metres of commercial and childcare space.
 - Phase 2 tower is located at the south-east corner of the site (Block B, Lot 2) and consists of a 60-storey mixed-use tower and includes 689 residential dwelling units, and 2,274 square metres of commercial floor space.
 - Phase 3 tower is located at the south-west corner of the site (Block C, Lot 3) and consists of a 65-storey mixed-use tower and includes 660 residential dwelling units, and 10,652 square metres of commercial and hotel floor space.
 - Phase 4 building is located at the north-west corner of the site (Block D, Lot 3) and is proposing a 13-storey stand-alone office tower with a total floor space of 25,364 square metres of office with ground floor commercial retail space and a childcare space.
- The following table provides specific details on the proposal:

Proposed Overall Development Data	
Lot Area	
Gross Site Area:	20,557 sq. metres
Road Dedication:	2,573 sq. metres
Undevelopable Area:	n/a
Net Site Area:	17,984 sq. metres
Number of Proposed Lots:	3
Building Heights:	55, 60, 65 and 13-storeys
Floor Area Ratio (FAR):	9.0 gross FAR 10.3 net FAR
Floor Area	
Residential:	145,202 sq. metres
Commercial/Retail:	8,654 sq. metres
Office:	23,261 sq. metres
Hotel:	9,703 sq. metres
Childcare:	2,041 sq. metres
Total:	188,860 sq. metres
Residential Units:	

	Proposed Overall Development Data
Studio:	374
1-Bedroom:	994
2-Bedroom:	677*
3-Bedroom:	25*
Total:	2,070
	*staff will work with the applicant to increase the number of 2 and 3-bedroom units provided

Referrals

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

School District: The School District has advised that there will be approximately 176 school-age children generated by this development, of which the School District has provided the following expected student enrollment.

105 Elementary students at Old Yale Road Elementary School
42 Secondary students at Kwantlen Park Secondary School

(Appendix III)

Note that the number of school-age children is greater than the expected enrollment due to students attending private schools, home school or different school districts.

The applicant has advised that the dwelling units in this project are expected to be constructed and ready for occupancy as follows:

Phase 1: Q2 2030

Phase 2: Q3 2031

Phase 3: Q1 2034

Phase 4: Q4 2036

Parks, Recreation & Culture: Royal Kwantlen Park is the closest active park with amenities including, a playground, skate park, sports courts, soccer fields, softball diamonds, outdoor pool, and open space, and is 900 metres walking distance from the development. The park also includes natural area.

Surrey Fire Department: No concerns subject to detailed review in advance of Development Permit and Building Permit issuance.

Advisory Design Panel: The proposal was considered at the ADP meeting on March 7, 2024 and was supported. The applicant has agreed to resolve most of the outstanding items from the ADP review as outlined in the Development Permit section of this report. Any additional revisions will be completed prior to Council's consideration of Final Adoption of the rezoning bylaw, to the satisfaction of the Planning and Development Department.

TransLink: Waiting on response.

Transportation Considerations

Road Network and Infrastructure

- As part of the subject proposal, the applicant will be providing the following road improvements:
 - Dedication and construction of the south side of 104 Avenue to the City Centre arterial road standard;
 - Dedication and construction of the west side of King George Boulevard to the City Centre arterial road standard;
 - Dedication and construction of the east side of City Parkway to accommodate required bus loading and cycling & pedestrian facilities;
 - Dedication and construction of the north side of Central Avenue to the City Centre collector road standard.

Traffic Impacts

- A site-specific Transportation Impact Assessment ("TIA") was required to be submitted as part of the proposal to evaluate site-generated traffic impacts and the surrounding road network and identify any mitigating measures that would be required to address impacts.
- Based on the TIA, the surrounding road network is projected to experience some capacity constraints, which is anticipated for the City Centre context with or without the proposed development. As part of the subject proposal, improvements to the intersection at King George Boulevard and Central Avenue will be required to mitigate the anticipated traffic impacts.

Access and Parking

- Vehicle access to the subject site (underground parking and loading) will be via the new north-south drive aisle bisecting the site and connecting 104 Avenue to Central Avenue. One parkade access is also proposed via King George Boulevard.
- Access via the new north-south connection will help to minimize interruptions to vehicular traffic and to pedestrian and cycling connections on the surrounding roads along the site frontages.

- According to the Zoning Bylaw, the applicant is required to provide a total of 2,866 parking spaces on site. The applicant is proposing to provide a total of 2,301 parking spaces on site.
- Shared parking is proposed between the office requirement and shared with parking spaces required for the proposed residential visitor, retail, grocery, restaurant, hotel, and daycare uses, due to alternate hours of use and anticipated differing temporal peak parking demands. The proposed shared parking is within the allowable 25% reduction for alternate hours of use per the Zoning Bylaw.

Transit

- The site is located within 50 metres of the City Centre transit hub that includes the Surrey Central Skytrain Station and multiple bus routes connecting to all the town centres within Surrey and neighbouring municipalities.

Sustainability Considerations

- The applicant has met all of the typical sustainable development criteria, as indicated in the Sustainable Development Checklist.
- In addition, the applicant has highlighted the following additional sustainable features:
 - The project will replace a paved surface parking lot and retail store with a vibrant mixed-use community with diverse housing choices and substantial green and active roofs.
 - All parking is below grade and the project will be exploring provision of enhanced bicycle parking in a convenient area of the development to promote active transportation.
 - Provision of a grocery store and other retailers along with the neighborhood amenities will reduce trips required by residents living in the development and the surrounding areas.
 - The project will be built to meet Step Code 2 with connection to district energy; and will also be exploring other green building certification.
 - Reductions of building embodied energy will be explored through locally sourced stone and wood and the potential provision of lower impact concrete.
 - On site rainwater retention and re-use will be explored along with exceptional biodiversity including re-wilding and urban agriculture will be provided on the extensive roof decks above the grocery store and podium.

School Capacity Considerations

- The School District has advised that the timing and scale of future high-rise development in this area has the potential to impact the enrollment projections outlined in their comments.
- As of September 2023, the school was operating at 120% capacity. This catchment is projected to see significant growth over the coming years. As part of the 2024/25 Capital Plan, the District has requested a 10-classroom addition and additions at surrounding schools, but no capital funding has been approved at this time.

- As of September 2023, Kwantlen Park Secondary is operating at 133% capacity with 16 portables on site used for enrolling classes, and is projected to grow significantly over the next 10 years. This school will also be impacted by the timing of additional future high-rise development in the area. In February 2023, the District received capital funding approval from the Ministry to build a 500-capacity addition, targeted to open in the fall of 2027.

POLICY & BY-LAW CONSIDERATIONS

Regional Growth Strategy

- The subject site is designated General Urban in Metro Vancouver's Regional Growth Strategy (RGS). The proposed development complies with the RGS.

Official Community Plan

Land Use Designation

- The subject site is designated Downtown in the Official Community Plan, with a permitted maximum density of 7.5 FAR as noted in Figure 16 of the OCP.
- In accordance with the OCP, the density for the subject site may be expressed as floor area ratio (FAR) calculated on the basis of the gross site area.
- The proposed density (9.0 gross FAR) is consistent with the 7.5 gross FAR designation in the City Centre Plan including density bonus. Therefore, an OCP Amendment is not required.
- The proposed development will be subject to both Tier 1 and Tier 2 Capital Plan Project CACs.

Themes/Policies

- The proposed development is consistent with the following OCP Themes and Policies:
 - Growth Management
 - Accommodating Higher Density: Direct residential development into Surrey's City Centre at densities sufficient to encourage commercial development and transit services expansion.
 - Centres, Corridors and Neighbourhoods:
 - Dynamic City Centre: Strengthen Surrey's City Centre as a dynamic, attractive and complete Metropolitan Core, by providing a mix of commercial and residential space in a comprehensively-designed development.
 - Transit Corridors: Support Transit Oriented Development along major corridors linking urban centres and employment areas, through the development of a high density development within walking distance to the SkyTrain and other transit infrastructure.
 - Healthy Neighbourhood: Plan and design urban neighbourhoods with sufficient densities to support a higher-quality transit system that is accessible to most residents.
 - Urban Design: Implement high architectural and urban design standards to create both socially and environmentally sustainable high-density development,

with a unique blend of safe, beautiful, active, and vibrant interconnected and publicly-accessible spaces.

- Ecosystems
 - Energy, Emissions and Climate Resiliency: Design a community that is energy-efficient, reduces carbon emissions and adapts to a changing environment through a design that meets typical sustainable development criteria and conveys additional open space to the City.
- Economy
 - Employment Lands: Ensure sufficient supply and efficient use of employment lands, with the development of commercial space close to the core of City Centre.
 - Employment, Investment, and Innovation: Ensure high-quality, business innovation and diversified employment and investment opportunities, through the development of commercial space.

Secondary Plans

Land Use Designation

- The subject site is designated Central Business District – Area 2 (7.5 FAR) in the City Centre Plan.
- The overall density of the proposed development is 9.0 FAR (gross), which is consistent with the permitted density of 7.5 FAR on this site and within this area, with density bonus. The residential portion of the proposed mixed-use development represents a density of 6.9 FAR for the site, while the proposed floor area accounting for the remaining 2.1 FAR is comprised of commercial/retail, office, hotel and childcare space. These uses form an integral part of a complete community.
- Non-residential uses are exempt from Tier 1 and Tier 2 Community Amenity Contributions (CAC).

Density Bonus

- The proposed development will be subject to Tier 2 Capital Plan Project CACs for proposed density greater than the Secondary Plan designation, as described in the Community Amenity Contribution section of this report and will be calculated and collected in accordance with Schedule G of the Zoning Bylaw prior to Final Adoption.

Themes/Objectives

- The proposed development is consistent with the following guiding principles:
 - Build Density, through the development of a high-density development close to the SkyTrain stations.
 - Encourage Housing Diversity, with a variety of unit types and sizes.
 - Create Vibrant Urban Space, with high quality architectural aesthetics, individual units oriented towards public streets to animate the street, and amenities such as plazas.
 - Green the Downtown, with appropriate new tree planting and landscaping treatments.

- Promote Identity and Sense of Place, with a blend of open landscaped spaces and enclosed residential spaces.

CD Bylaw

- The applicant proposes to rezone the subject site from "Community Commercial Zone (C-8)" to "Comprehensive Development Zone (CD)".
- The table below provides an analysis of the development proposal in relation to the requirements of the Zoning Bylaw, including the "Multiple Residential 135 Zone (RM-135)", the "Community Commercial Zone (C-8)", and parking requirements.

	RM-135 and C-8 Zones	Proposed CD By-law
Land Use	<p>The RM-135 Zone permits multiple unit residential buildings and ground-oriented multiple residential buildings.</p> <p>The C-8 Zone permits commercial uses including:</p> <ul style="list-style-type: none"> • Retail stores; • Personal service uses; • General service uses; • Beverage container return centres; • Eating establishments; • Neighbourhood pubs; • Liquor stores; • Office uses; • Parking facilities; • Automotive service uses; • Indoor recreational facilities; • Entertainment uses; • Assembly Halls; • Community services; • Child care facilities; and • One dwelling unit. 	<ul style="list-style-type: none"> • Multiple unit residential buildings; • Ground-oriented multiple residential buildings; • Retail stores; • Personal service uses; • General service uses; • Eating establishments; • Tourist accommodation; • Neighbourhood pubs; • Liquor stores; • Office uses; • Indoor recreational facilities; • Entertainment uses; • Cultural uses; • Community services; and • Child care facilities.
FAR (Net Density)	2.5	<p>Overall net site density: 10.3 Block A: 6.9 Block B: 13.2 Block C: 12.8</p>
Lot Coverage	33%	60%

	RM-135 and C-8 Zones	Proposed CD By-law
Building Setbacks	50% of the height of the building from all lot lines	<p>Block A: North (104 Ave): 4.5 metres South: 0.0 metres West: 11.5 metres East (KGB): 4.5 metres</p> <p>Block B: North: 0.0 metres South (Central): 4.5 metres West: 11.5 metres East (KGB): 4.5 m</p> <p>Block C: North (104 Ave): 4.5 metres South (Central): 4.5 metres West (City Parkway): 5.0 metres East: 4.5 metres</p>
Building Height	Not Applicable	<p>Block A: 170 metres Block B: 185 metres Block C: 202 metres</p>

Amenity Space		
Indoor Amenity:	<p>Block A: 1,093 sq.m</p> <p>Block B: 1,061 sq. m</p> <p>Block C: 1,032 sq. m</p>	<p>Block A: The proposed 1,988 sq.m exceeds the Bylaw requirement.</p> <p>Block B: The proposed 723 sq.m does not meet the Bylaw requirement*.</p> <p>Block C: The proposed 1,035 sq.m exceeds the Bylaw requirement.</p>
Outdoor Amenity:	<p>Block A: 2,163 sq.m</p> <p>Block B: 2,067 sq. m</p> <p>Block C: 1,980 sq. m</p>	<p>Block A: The proposed 3,889 sq.m exceeds the Bylaw requirement.</p> <p>Block B: The proposed 722 sq.m. does not meet the Bylaw requirement*.</p> <p>Block C: The proposed 522 sq.m does not meet the minimum Bylaw requirement*.</p> <p>*Overall the amount of outdoor amenity exceeds the Bylaw requirement.</p> <p>Public plaza provides 1,103 sq.m. Festival Alley mews provides 384 sq.m.</p>
Parking (Part 5)	Required	Proposed
Number of Stalls		
Residential:	1,859	1,455
Residential Visitor:	207	127
Commercial:	143	169
Office:	326	329
Restaurant:	168	115
Hotel:	131	98
Daycare (including drop-off/pick-up):	32	8
Total:	2,866	2,301
Bicycle Spaces		
Residential Secure Parking:	2,478	2,478
Residential Visitor:	18	18
Hotel:	5	5
Total:	2,501	2,501

- The CD Bylaw outlines specific residential and office/commercial densities in order to protect for the commercial, office and hotel floor space.
- The proposed CD Bylaw will incorporate similar uses as the RM-135 Zone for the residential component and the C-8 Zone for the commercial component.
- The proposed net floor area ratio (FAR) of 10.3 and the lot coverage of 60% will exceed the maximum 2.5 FAR and 33% lot coverage permitted under the RM-135 Zone.
- The proposed lot coverage is appropriate for the proposed high-rise development including significant podiums and is consistent with proposed surrounding developments and with the context of the future Civic Centre to the west.
- The RM-135 Zone requires the setbacks to be 7.5 metres or a minimum of 50% of the building height, whichever is greater. The applicant is proposing reductions for all setbacks in the CD By-law. The reduction in building setbacks is supportable as they allow for more active engagement of the streets, which is desirable for the City Centre area and consistent with the City Centre Plan design guidelines.
- The proposed commercial and office uses are a reflection of the City's objective to concentrate office space within the Central Business District in City Centre and are appropriate for a mixed-use development in the City Centre, providing opportunities for employment, entertainment and service uses.

Proposed Variance

- The applicant is requesting the following variance:
 - to vary the definition of "Bond" in the *Surrey Subdivision and Development By-law, 1986, No. 8830, as amended*, to include the use of a Surety Bond for Servicing Agreement No. 7819-0214-00 and to proceed to Public Notification.
- The pilot program to use Surety Bonds supports the goals of the City's Sustainability Charter to increase housing options and affordability by allowing improved utilization of developers' capital funds for reinvestment. A Surety Bond, which is a three-party agreement between the Developer, Surety Bond Insurer ("Surety") and the City, obligates the Surety to pay the City for the debt or default of the Developer. The Developer's working capital will then be freed for greater liquidity that can then be encouraged for reinvestment into the City.
- The pilot program supports the Sustainability Charter theme of Inclusion, specifically the following Desired Outcomes and Strategic Directions:
 - Housing DO12: Everyone in Surrey has a place to call home;
 - Housing DO13: Appropriate and affordable housing is available to meet the needs of all households in Surrey;
 - Housing SD10: Increase and maintain the supply of affordable and appropriate rental housing across all Surrey communities; and
 - Housing SD11: Ensure development of a variety of housing types to support people at all stages of life.

- The Engineering Department supports the variance to include the use of a Surety Bond for Servicing Agreement No. 7819-0214-00.

Capital Projects Community Amenity Contributions (CACs)

- On December 16, 2019, Council approved the City's Community Amenity Contribution and Density Bonus Program Update (Corporate Report No. R224; 2019). The intent of that report was to introduce a new City-wide Community Amenity Contribution (CAC) and updated Density Bonus Policy to offset the impacts of growth from development and to provide additional funding for community capital projects identified in the City's Annual Five-Year Capital Financial Plan. A fee update has been approved in April 2024, under Corporate Report No. R046; 2024.
- The proposed development will be subject to the Tier 1 Capital Plan Project CACs. The contribution will be payable at the rate applicable at Building Permit Issuance. The current rate is \$2,227.85 on a per unit basis.
- The proposed development will also be subject to the Tier 2 Capital Plan Project CACs. The contribution will be payable at the rate applicable prior to Final Adoption.

Affordable Housing Strategy

- On April 9, 2018, Council approved the City's Affordable Housing Strategy (Corporate Report No. R066; 2018) requiring that all new rezoning applications for residential development contribute \$1,113.92 per new unit to support the development of new affordable housing. The funds collected through the Affordable Housing Contribution will be used to purchase land for new affordable rental housing projects.
- The applicant will be required to register a Section 219 Restrictive Covenant to address the City's needs with respect to the City's Affordable Housing Strategy.

Public Art Policy

- The applicant will be required to provide public art, or register a Restrictive Covenant agreeing to provide cash-in-lieu, at a rate of 0.5% of construction value, to adequately address the City's needs with respect to public art, in accordance with the City's Public Art Policy requirements. The applicant will be required to resolve this requirement prior to consideration of Final Adoption.

PUBLIC ENGAGEMENT

- Pre-notification letters were sent on March 5, 2024, and the Development Proposal Signs were installed on April 19, 2024. Staff received one inquiry from a neighbouring property owner seeking additional information regarding the tower siting and heights.

DEVELOPMENT PERMITS

Form and Character Development Permit Requirement

- The proposed development is subject to a Development Permit for Form and Character and is also subject to the urban design guidelines in the Surrey City Centre Plan.
- The proposed development generally complies with the Form and Character Development Permit guidelines in the OCP and the design guidelines in the Surrey City Centre Plan.
- The applicant is seeking both a General Development Permit and a Detailed Development Permit (Phase 1, Lot 1) as part of the current application and will continue to refine the design of the future phases of the development through subsequent Detailed Development Permit applications. The applicant continues to work with staff on an ongoing basis to resolve specific design-related concerns.
- The applicant has worked with staff to:
 - Develop an attractive mixed-use project that integrates a diverse range of functions and uses, featuring a south-facing, publicly accessible plaza space at the southwest corner of the site;
 - Deliver a large format food store within Phase 1 and a stand-alone office tower in Phase 4, both with specific design requirements;
 - Provide tower height variation between the different phases; and
 - Enhance the pedestrian and public realm experience with a focus on desired pedestrian pathways/mews, and placemaking.
- The applicant and staff will continue to work on the following items prior to final adoption of the Phase 1 development:
 - Clarification of the phasing, interim conditions and associated requirements;
 - Further refinement of the public realm, in particular further detail of the pedestrian mews (festival alley), urban plaza space, all landscape features and site edges;
 - Details on all materials, sections, partial elevations, architectural features and renderings to be included in final drawing submission;
 - Confirming engaged, transparent public realm interfaces including the supermarket frontages;
 - Provision of adequate below-grade soil volume for site trees;
 - Provision of windows in all intended bedrooms;
 - Refinement of massing and design development of elevations; and
 - General design refinements to address ADP and staff comments.
- The multi-phase, mixed-use development proposal “Civic District” is located in the Central Downtown District in City Centre and includes three mixed-use towers 55, 60 and 65 storeys in height and one, stand-alone 13-storey office building, all accompanied by podiums with heights between 1 and 10 storeys.
- The proposal consists of 2,070 dwelling units and 46,658 square metres of commercial, retail, hotel and office floor space and an overall gross FAR of 9.0.

- Integration of a new grocery store committed to the redevelopment in Phase 1 (to replace the former Safeway) was a key design element in the layout of the proposal. The applicant has included ancillary uses to the food store use fronting both 104 Avenue and King George Boulevard to break up the expansive store front of the large format grocery store and provide additional street-oriented uses to provide interest and activation.
- A north-south private drive aisle is proposed through the site to reflect the connection from 104 Avenue to Central Avenue shown in the City Centre Plan. A statutory right-of-way will be registered to allow public rights-of-passage through the site. The drive aisle will function like a dedicated road but will allow for generous pedestrian walkways, pause areas, parking pockets, specialty paving and decorative pedestrian crossings. Additional landscape will also be incorporated into the design with a focus on providing a pedestrian friendly, green connection.
- A six-metre setback has been provided along the west side of the private drive aisle to improve north-south pedestrian connections, enhancing the livability and accessibility of the laneway.
- The proposed site design also includes priority to pedestrian pathways and placemaking through the creation of Festival Alley, an east-west active urban mews lined with retail spaces to direct movement and enhance connectivity to the Civic Plaza to the west.
- The opening up of the southwest corner of the subject site with a large triangular-shaped urban plaza complemented by a hotel and restaurant use aims to activate the ground level and establish this corner as a civic and commercial node.
- The design of the plaza links to another smaller public outdoor space to the east of the drive aisle, offering public entry to numerous amenities on the ground floor. Both spaces serve to bolster future hotel and commercial endeavors at the ground level while also promoting linkage to the east-west mews across the site.
- The three mixed-use towers have been positioned to maximize the tower separations within the site, while prioritizing site objectives of the applicant. Minimum recommended tower separations have not been achieved between the towers or to all future and adjacent towers as per City Centre Plan guidelines. The Phase 1 mixed-use tower location was restricted by the floor plate of the food store; and the Phase 3 tower siting chosen to retain the existing one-storey commercial building in the NW. Staff worked with the applicant to maximize the separation given the design constraints.
- The proposed floorplates of the towers slightly exceed the recommended maximum of 750 square metres for towers exceeding 50 storeys. However, the increase is supported as it is well-accommodated in the building forms.
- The podiums below each residential tower have landscaped amenity roofscapes providing valuable outdoor green space and social gathering areas for occupants of the residential units above. The Level 2 podiums in both Phases 1 and 4 have been designed to accommodate outdoor play areas for purpose-built childcare facilities.
- Each tower features a distinguished design, offering distinctive characters that are simple and elegant. This architectural strategy not only enhances the skyline but also ensures each

building contributes uniquely to the urban fabric of Surrey's City Centre.

- The podiums showcase a simple aesthetic characterized by horizontal louvers and varied vertical fin expressions in some areas, configured in either straight or rhythmically staggered balcony patterns. By integrating a cubical design, the connection between the podiums is emphasized, contributing to a cohesive and uninterrupted urban streetscape.

Landscaping

Ground Level:

- The landscape concept has been designed to respond to the urban core of City Centre as an active, pedestrian-friendly space, oriented to people living, working, and recreating in the City Centre. The overall design considers site circulation and incorporates an inclusive interface between the public and private realm.
- The landscape principles have been focused on a collection of destinations, creating an urban oasis, the function of inside and outside interaction, a unified ground-plane and creating intimacy amongst a tower development.
- Ground level public plaza space at the southwest corner, a north-south private lane, an entry plaza at the northeast corner and an east-west mews through the site provide opportunities for gathering and socializing.
- The open areas proposed at the south end of the site are a key focal point with landscaping and multiple potential gathering spaces consisting of platform seating, a 'green spine' with wood seating, a flowering bosque and a 'Surrey Central Fog Clock' design element proposed in the large plaza space.

Upper levels:

- On Level 2 of Phase 1, outdoor play areas for the proposed daycare spaces include play and seating areas, while Level 2 of Phase 2 include large patio spaces associated with the proposed restaurant use.
- Additional details regarding indoor and outdoor amenity areas are included in sections below.

Indoor Amenity

- Per the Indoor Amenity Space requirements of the Zoning By-law No. 12000, high-rise towers that are 25 storeys or higher must provide 3 square metres of indoor amenity space per unit up to 557 square metres per tower, which equates to 186 units, plus 1 square metre per unit above 557 square metres, plus 4 square metres per micro unit and 1 square metre per lock-off unit for each building.

- Based upon the City's Zoning Bylaw requirement, the proposed development must provide a total of 3,181 square metres of indoor amenity space for the proposed 2,065 residential units, (there are no micro or lock-off units proposed). Of that 3,181 square metres of indoor amenity space, a total of 1,116 square metres must be provided on site (372 square metres per building), and the remainder can be provided through a cash-in-lieu contribution.
- The applicant is proposing 3,746 square metres of indoor amenity space located throughout the development, which exceeds the minimum requirement as outlined in the Bylaw. The proposed indoor amenity spaces on Level 2 and 3 are proposed to be shared between Phases 1 and 2 and the applicant will be required to register an access easement to ensure access to the proposed shared amenity facilities.
- The indoor amenity space in Phase 3 is located on Level 10 and will be for the sole use of the residents in Phase 3.
- Indoor amenity areas are provided in each of the mixed-use residential towers on podium and rooftops levels and are connected to the outdoor amenity areas.
- Phase 1 (north-east mixed-use tower) indoor amenity areas are located on podium Level 2, 3 and 8 for a total of 1,990 square metres.
- Phase 2 (south-east mixed-use tower) indoor amenity areas are located on podium Level 2, 3 and 8 for a total of 655 square metres.
- Phase 3 (south-west mixed-use tower) indoor amenity areas is located on Level 10 for a total of 1,035 square metres.
- Phase 4 (north-west stand-alone office) is not required to provide indoor amenity under the Bylaw.
- The indoor spaces vary in scale and are designed to provide for a wide range of activities and programming.
- The spaces will include gym and fitness centres, coworking, library, games and media rooms and lounge areas with kitchen and dining.
- Indoor spaces are connected to outdoor amenity spaces with their complimentary programs and functions.

Outdoor Amenity

- Based upon the City's Zoning Bylaw requirement of 3 square metres per dwelling unit of outdoor amenity space, a total of 6,195 square metres of outdoor amenity space is required for the proposed development.
- The applicant is proposing 6,236 square metres of outdoor amenity space across the site, which exceeds the total outdoor amenity space required under the Zone.
- The outdoor amenity proposed on this site are unique and include numerous private and publicly accessible spaces.

- The proposed 4,615 square metres of outdoor amenity space provided in Phase 1 and 2 is located on Levels 2, 3 and 8 and exceeds the minimum requirement as outlined in the Bylaw for the two phases. These proposed outdoor amenity spaces are proposed to be shared between Phases 1 and 2 and the applicant will be required to register an access easement to ensure access to the proposed shared amenity facilities.
- The outdoor amenity space proposed in Phases 1 and 2 are extensive and include an open green space, outdoor seating and living room, private contemplation nooks, rooftop bar and pavilion, covered workspace, fitness space, run track, makers space and urban agriculture.
- The proposed 522 square metres of outdoor amenity space provided in Phase 3 is located on Level 10 and includes a ping pong and games area, outdoor breakout space with covered seating area and covered dining area. This private outdoor amenity space in addition to the plaza and mews space exceeds the minimum requirement as outlined in the Bylaw for Phase 3.
- A large scale, 1,035-square metre publicly accessible urban plaza is proposed at the southwest corner of the site that provides for a wide range of programmable space, including a variety of seating options such as retail eddies and wood decking seating, a flowering bosque, a fog clock feature and plaza area adjacent to the restaurant and hotel ground floor. This plaza includes a mix of hard surface areas, trees and greenery.
- An east-west pedestrian mews “Festival Alley” is also provided internal to the site and provides active and passive interaction with the commercial retail uses at ground level, with well-designed hardscaping and seating opportunities.
- This mews space in addition to the plaza is aimed to function as the public interface between the buildings and bring a wide range of users together at the core of the overall development. The plaza is envisioned to host outdoor events such as corporate activities or farmers markets.

Outstanding Items

- The applicant has been provided a detailed list identifying these requirements and has agreed to resolve these prior to Final Approval of the Development Permit, should the application be supported by Council.

TREES

- Glen Murray, ISA Certified Arborist of Froggers Creek Tree Consultants Ltd. prepared an Arborist Assessment for the subject property. The table below provides a summary of the proposed tree retention and removal by tree species:

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

Tree Species	Existing	Remove	Retain
Deciduous Trees (excluding Alder and Cottonwood Trees)			
Cherry	3	3	0
Hedge Maple	1	1	0
Honey Locust	10	10	0
Katsura	2	2	0
Linden	6	6	0
Red Maple	47	47	0
Red oak	7	7	0
Total (excluding Alder and Cottonwood Trees)	76	76	0
Total Replacement Trees Proposed (excluding Boulevard Street Trees)		164	
Total Retained and Replacement Trees Proposed		164	
Estimated Contribution to the Green City Program		n/a	

- The Arborist Assessment states that there are a total of 76 mature trees on the site, excluding Alder and Cottonwood trees. There are no Alder and Cottonwood trees. The applicant proposes to retain no trees as part of this development proposal. The proposed tree retention was assessed taking into consideration the location of services, building footprints, road dedication and proposed lot grading.
- For those trees that cannot be retained, the applicant will be required to plant trees on a 1 to 1 replacement ratio for Alder and Cottonwood trees, and a 2 to 1 replacement ratio for all other trees. This will require a proposed total of 152 replacement trees on the site. The applicant is proposing 164 replacement trees, exceeding City requirements.
- In addition to the replacement trees, boulevard street trees will be planted on all road frontages. This will be determined by the Engineering Department during the servicing design review process.
- The new trees on the site will consist of a variety of trees including Vine Maple, Canadian Serviceberry, Satomi Flowering Dogwood, Southern Magnolia and Japanese Stewartia.
- In summary, a total of 164 trees are proposed to be replaced on the site with no contribution to the Green City Program required.

- The proposed tree retention and replacement strategy will be refined as the applicant works through the detailed design process.

CITY ENERGY

- The subject site is located within Service Area A, as defined in the "City Centre District Energy System By-law" (see Appendix VII for location). The District Energy System consists of three primary components:
 - community energy centres, City-operated facilities that generate thermal energy for distribution through a piped hot water network;
 - distribution piping that links the community energy centres with buildings connected to the system; and
 - City-owned energy transfer stations (ETS) located within the building connected to the system. The ETS transfers heat energy from the distribution system to the building's mechanical system, and is used to meter the amount of energy used.
- All new developments within Service Area A with a build-out density equal to or greater than a floor area ratio (FAR) of 1.0 will be required to provide hydronic thermal energy systems in support of the City's District Energy (DE) system including domestic hot water, make-up air units and in-suite hydronic space heating. The City is committed to having the DE system operational within the timeframe of this project. Therefore, the subject application will be required to connect to the City's DE system prior to occupancy.
- In order to avoid conflicts between the District Energy System and other utilities, the location of the ETS and related service connections are confirmed by Engineering and the applicant at the servicing agreement stage. The Engineering Department also requires the applicant to register a statutory right-of-way and Section 219 Restrictive Covenant over the subject site for the following purposes:
 - City access to, and maintenance and operation of, the ETS within the building and any infrastructure between the building and the property line; and
 - to prevent conflicts with other utilities.
- Prior to the issuance of a building permit, the Engineering Department will confirm that the applicant has met the requirements of the "City Centre District Energy System By-law".

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

- Appendix I. Site Plan, Building Elevations, Landscape Plans and Perspective
- Appendix II. Engineering Summary
- Appendix III. School District Comments
- Appendix IV. Summary of Tree Survey, Tree Preservation and Tree Plans
- Appendix V. Development Variance Permit No. 7922-0321-00
- Appendix VI. ADP Comments and Response
- Appendix VII. District Energy Map

approved by Ron Gill

Don Luymes
General Manager
Planning and Development

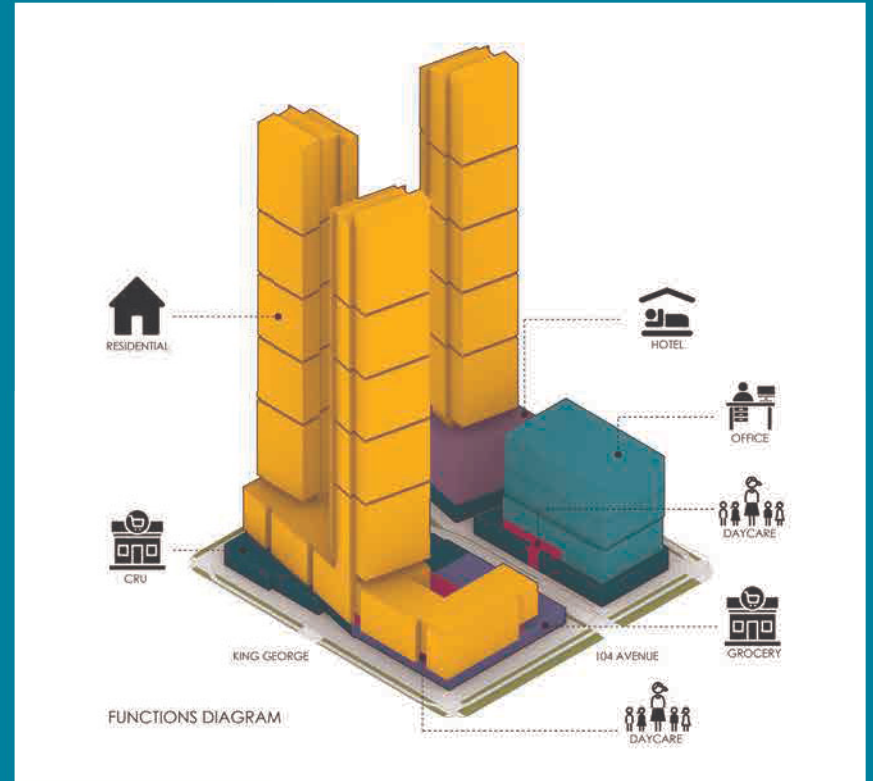
JM/ar

Site Statistics

CONCEPT DESIGN



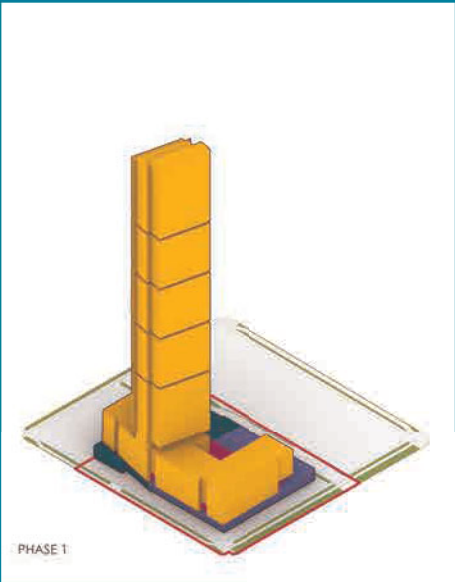
Phase	Quadrant	Residential (GFA)	Retail (GFA)	Office (GFA)	Hotel (GFA)	DayCare (GFA)	Total GFA (sq. ft)
		(sq.ft)	(sq. ft)	(sq. ft)	(sq. ft)	(sq. ft)	
Phase 1	NE	548,325	43,491	0	0	14,305	606,121
Phase 2	SE	517,880	24,472	0	0	0	542,351
Phase 3	SW	496,733	10,215	0	104,436	0	611,385
Phase 4	NW	0	14,975	250,379	0	7,661	273,015
Total		1,562,937	93,152	250,379	104,436	21,965	2,032,872
FAR by Use		6.91	0.42	1.13	0.46	0.07	9.00



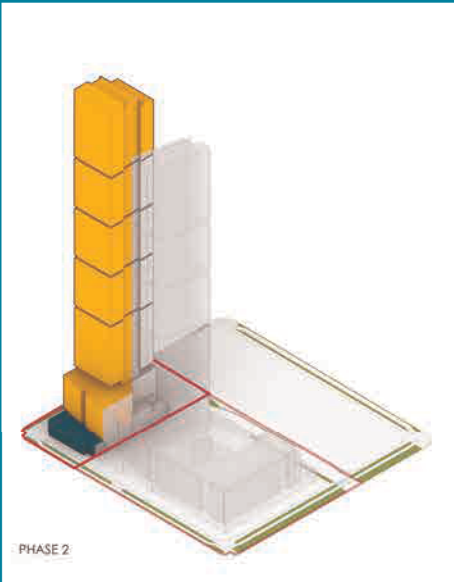
Phasing Strategy

CONCEPT DESIGN

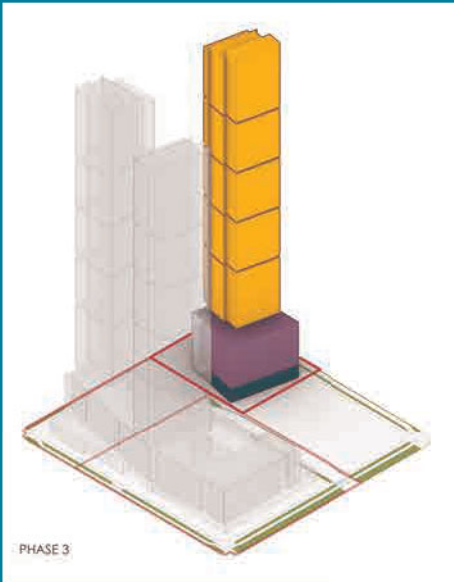
Phase 1



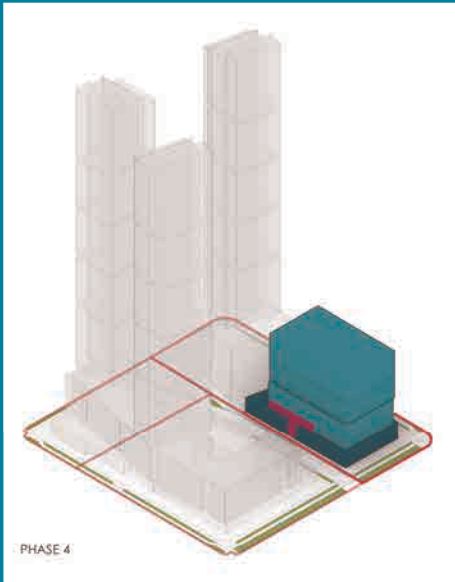
Phase 2



Phase 3



Phase 4



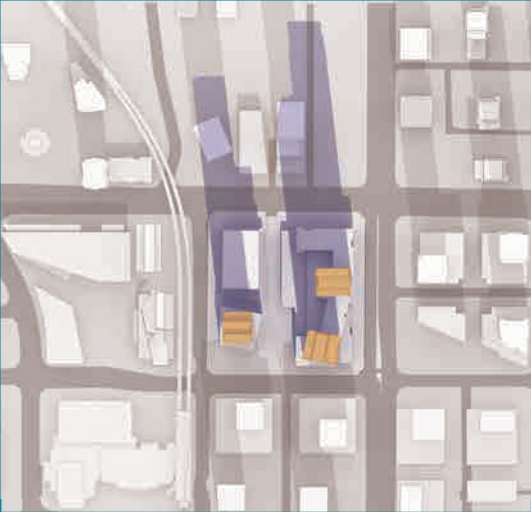
Shadow Study

CONCEPT DESIGN

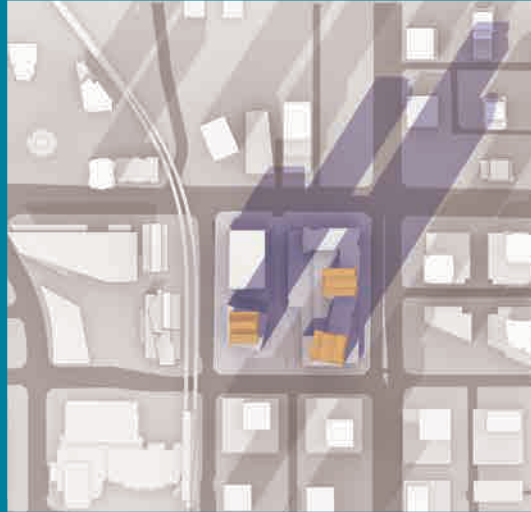
21 Mar 10-00



21 Mar 12-00



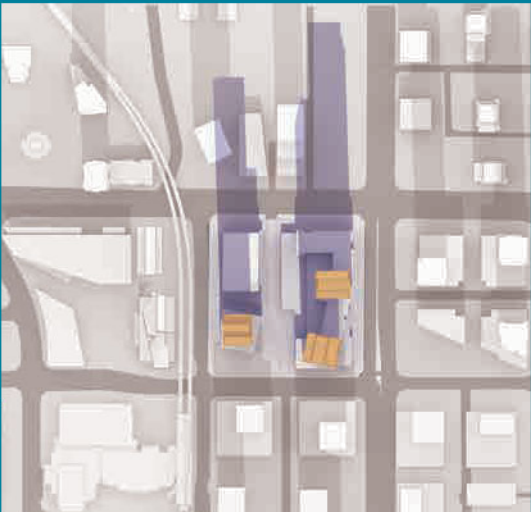
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21 Sep 10-00



21 Sep 12-00



21 Sep 14-00

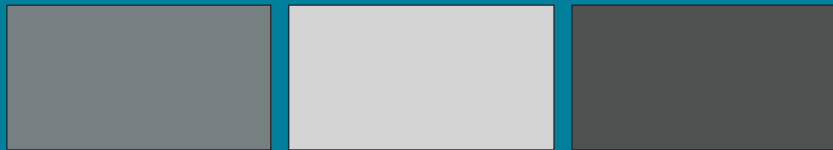


Material Board

CONCEPT DESIGN



Balcony Painted Concrete Dark Grey
 Balcony Painted Concrete White
 Window Wall Glazing Clear Glass (Blue Tint)



Window Wall Spandrel Grey
 Window Wall Mullion Anodized Silver
 Window Wall Mullion Anodized Dark Grey



Architectural Concrete Light Grey
 Aluminum Panel- Wood Pattern
 Metal Panel Dark Grey

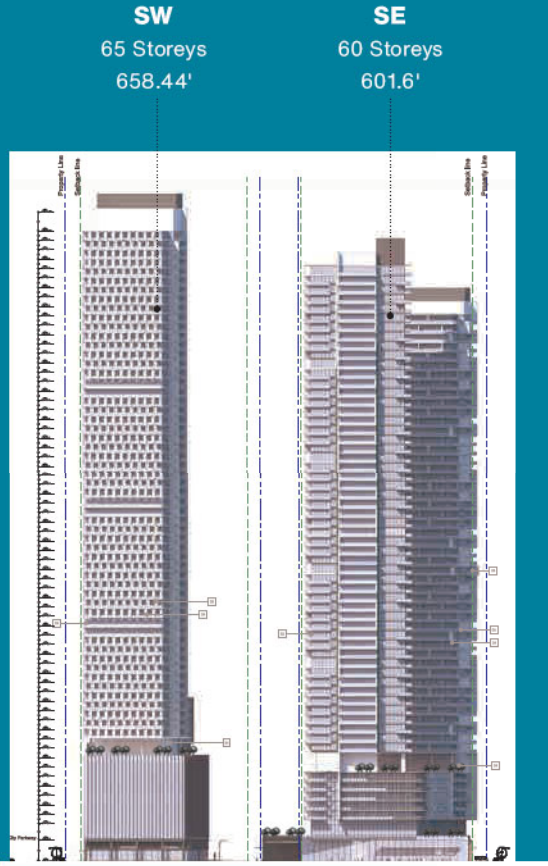
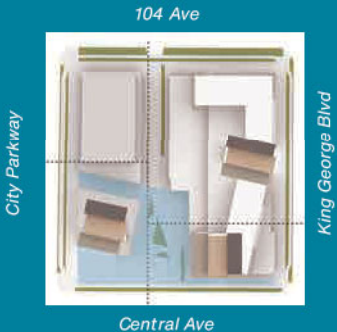


MATERIAL KEY

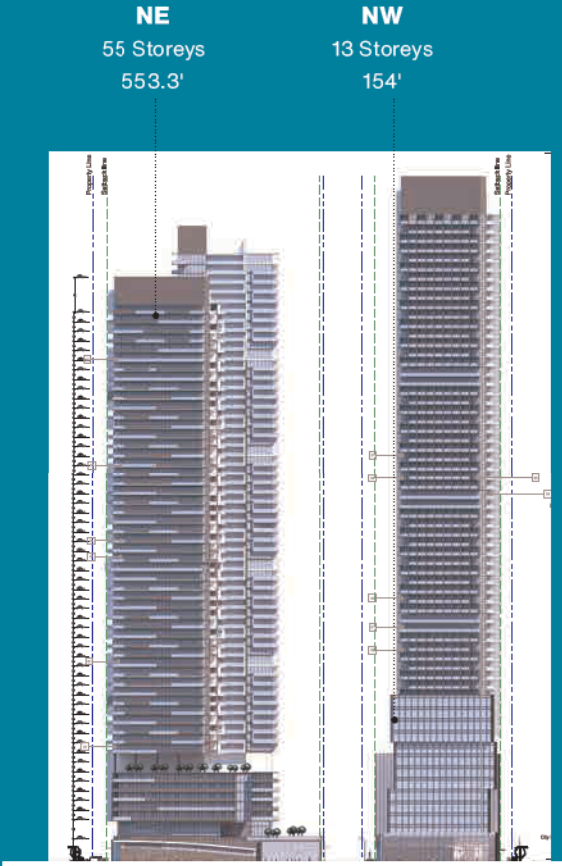
DESCRIPTION	COLOR
Balcony Painted Concrete	White
Balcony Painted Concrete	Dark Grey
Glass Handrail	Anodized Silver Color Mullion/Gray Blue Glazing
Window Wall Glazing	Clear Glass (Blue Tint)
Spandrel Glazing	Grey
Aluminum Panel	Wood Pattern
Window Wall Profiles	Anodized Silver Color Mullion
Window Wall Profiles	Anodized Grey Color Mullion
Metal Panel - Alucobond	Patterned
Metal Panel - Alucobond	Dark Grey
Architectura Concrete	Light Grey

Towers Height

CONCEPT DESIGN



South Elevations



North Elevation



Amenity Diagram

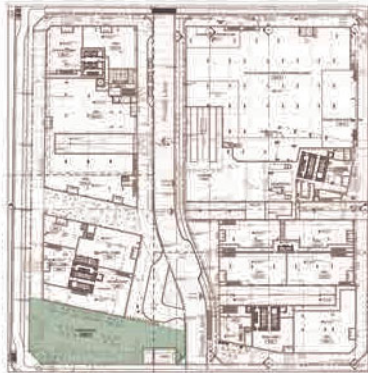
CONCEPT DESIGN

	Phase 1	Phase 2	Phase 3	Phase 4	Total
	T1	T2	T3	Mid-rise	
Number of Units	721	689	660		2,070
Base Requirement: Amenity sq/ut up to 557 (SM)	3	3	3		9
Base Requirement units	185	185	185		555
Base Requirement Amenity	558	558	558		1,674
Number of Units over Base Requirement	535	503	474		1,512
Requirement over 557sq ft unit	1	1	1		3
Amenity Area over Base requirement	535	503	474		1,512
Total Interior Amenity Area (SM)	1,093	1,061	1,032		3,186
Total Interior Amenity Area (Sq.ft)	11,765	11,421	11,108		34,294

Total Required Interior Amenity Area (Sq.ft)	11,765	11,421	11,108		34,294
Provided Indoor Amenity Area (SM)	1,985	723	1,035		3,743
Provided Indoor Amenity (Sq.ft)	21,393	7,787	11,141		40,321
TOTAL PROVIDED INDOOR AMENITY (Sq.ft)	21,393	7,787	11,141		40,321

	Phase 1	Phase 2	Phase 3	Phase 4	Total
	T1	T2	T3	T4	
Number of Units	721	689	660		2,070
Base requirement per unit	3	3	3		9
Total Required Exterior Amenity Area (SM)	2,163	2,067	1,980		6,210
Total Required Exterior Amenity Area (Sq.ft)	23,282.34	22,249.00	21,312.54		66,844

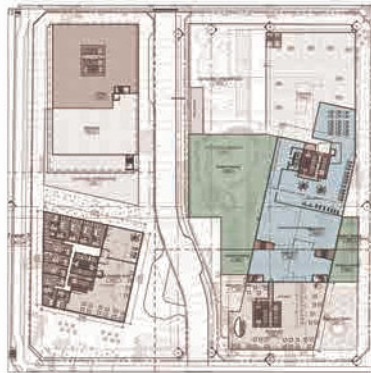
Provided Balconies					
Provided Private Outdoor Amenity (SM)	3,889	722	522		5,133
Provided Private Outdoor Amenity (Sq.ft)	41,860.85	7,771.54	5,618.76		55,251
Provided Public Plaza			11,875		11,875
Total Provided Exterior Amenity Area (Sq.ft)	41,861	7,772	17,491		67,124



Level 1
Indoor Amenity Outdoor Amenity

Phase 1: ---
Phase 2: ---
Phase 3: ---

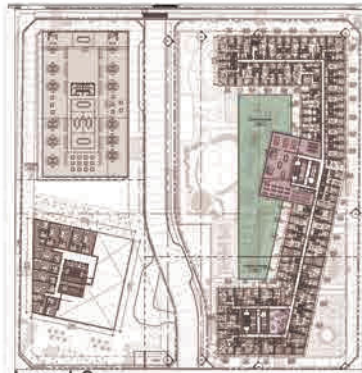
Phase 1: ---
Phase 3: 1103 m2



Level 2
Indoor Amenity Outdoor Amenity

Phase 1: 1,418 m2
Phase 2: 375 m2
Phase 3: ---

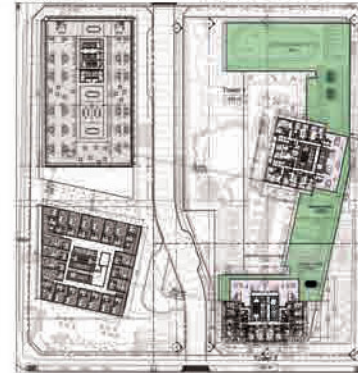
Phase 1: 1,286 m2
Phase 2: 241 m2
Phase 3: ---



Level 3
Indoor Amenity Outdoor Amenity

Phase 1: 388.7 m2
Phase 2: 67.7 m2
Phase 3: ---

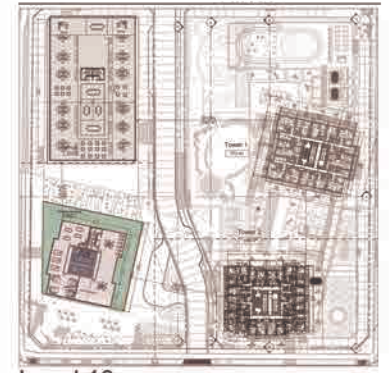
Phase 1: 926 m2
Phase 2: 102 m2
Phase 3: ---



Level 8
Indoor Amenity Outdoor Amenity

Phase 1: 183 m2
Phase 2: 212 m2
Phase 3: ---

Phase 1: 1,678 m2
Phase 2: 379 m2
Phase 3: ---



Level 10
Indoor Amenity Outdoor Amenity

Phase 1: ---
Phase 2: ---
Phase 3 + 3 Mezz: 1,035 m2

Phase 1: ---
Phase 2: ---
Phase 3: 522 m2



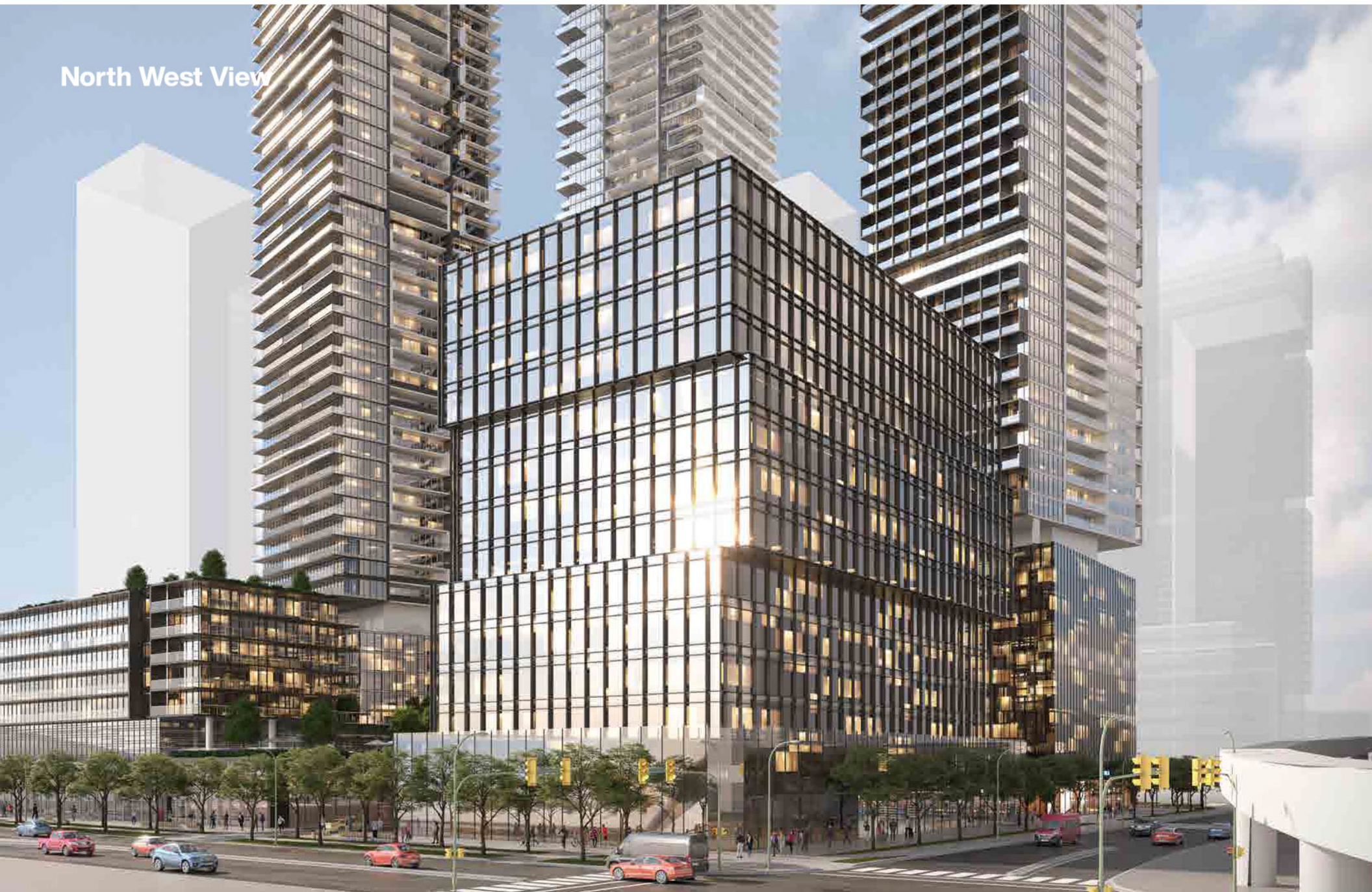
KingGeorge St-W View



104Ave-E View



North West View



North East View



Private Green Lane View



Pedestrian Mews



Plaza View



Plaza View



Daycare View



Southwest View



Northeast View



Southeast View



Southwest View



Southeast Isometric View



Northwest Isometric View



Overall Stats

Site & Project Description

Project Description:	
Mixed Uses Development Consisting 4 towers with commercial, office, daycare and residential uses and underground parking	
Civic Address:	10355 King George,
Legal Address	Lot A Section 27 Block 5 North RANGE 2 New Westminster District Plan EPP 72648
Planning Document	Surrey City Centre Plan
Current Zoning:	C8
OCP Details:	Central Business District
Current Use:	10355 King George Blvd: 1 storey Grocery Store 10388 City Parkway: 1 CRU
Adjacent Zoning:	CD (N. side 104A Ave), CD (W. side City Parkway, C8 (E. side King George Blvd), CHI (S. side Central Ave)
Rezoned to:	CD
Transit:	Bus Lines on City Parkway 250m; Surrey Central Station
Deviations	
Seeking an amendment to the Official Community Plan and City Centre Plan to permit a higher density	

SITE AREA CALCULATIONS

	Gross Site Area	
	Metric (m2)	Imperial (sq.ft.)
Total Gross Site Area (for calc. of density)	20,557	221,274
Dedications	2,543	27,373
Net Site Area (Gross Minus Dedications)	18,014	193,901
Phase 1 (for calc. of density)	8,573	92,276
Phase 2 (for calc. of density)	4,541	48,874
Phase 3 (for calc. of density)	4,105	44,186
Phase 4 (for calc. of density)	3,339	35,938
Total Gross Site Area	20,557	221,274
Dedications	2,543	27,373
Green Lane	1,663	17,900
Subdivided lot area	16,351	176,001

SITE COVERAGE CALCULATIONS

	Metric (m2)	Imperial (sq.ft.)
Gross Site Area	20,557.0	221,274
Building Footprint	11,385.4	122,552
Proposed Site Coverage %		55%
Max. Permitted Lot Coverage %		

SITE DIMENSIONS

	Width (104A Ave Frontage)		Width (Central Ave Frontage)		Depth (King George Blvd Frontage)		Depth (City Parkway Frontage)		Area	
	Metric (m)	Imperial (ft)	Metric	Imperial	Metric (m)	Imperial (ft)	Metric (m)	Imperial (ft)	Metric (sm)	Imperial (sq.ft)
Gross	137.18	450.07	138.01	452.79	149.61	490.85	149.66	491.01	20,557	221,273
Net of Dedication	132.01	433.10	132.78	435.63	136.42	447.57	136.47	447.74	2,543	27,373
Phase 1	84.59	277.53			92.56	303.67			8,572.68	92,275
Phase 2			83.65	274.44	43.86	143.90			4,540.53	48,874
Phase 3			49.13	161.19			73.54	241.27	4,105.00	44,186
Phase 4	47.42	155.58					62.93	206.46	3,338.79	35,938

HEIGHT OF BUILDING (MEASURED FROM LOBBY LEVEL)

Maximum Height of Tower (CD)	(Fronting King George Blvd)	Note 01: Surrey City Centre Plan Section 10.3 (Urban Design Guidelines)
Maximum # of Floors	(Fronting King George Blvd)	

	Phase 1 - Tower		Phase 2		Phase 3		Phase 4	
	metric (m)	imperial (ft)	metric (m)	imperial (ft)	metric (m)	imperial (ft)	metric (m)	imperial (ft)
NUMBER OF FLOORS	55		60		65		13	
TOP OF LAST OCCUPIED LEVEL	168.6	553.3	183.4	601.6	200.7	658.4	46.9	154.0
TOP OF APPURTENANCE								

Note 01: Tower Recommended Height
Recommended Height on King George: 110m - 38 Storeys

FLOOR PLATE SIZES

	Metric (m2)	Imperial (sq.ft.)
Max. Permitted Floor Plate Size	750.0	8,073
Provided Floor Plate size - Phase 1	773.0	8,321
Provided Floor Plate size - Phase 2	783.0	8,428
Provided Floor Plate size - Phase 3	783.0	8,428
Provided Floor Plate size - Phase 4(mid-rise)	1914.0	20,602

Guidelines. Tower floorplate guidelines are: up to 30 storeys – 600 sq. m.; 30-40 storeys – 650 sq. m.; 40-50 storeys – 700 sq. m.; over 50 storeys – 750 sq. m

UNIT COUNT

	Residential Unit Count				
	Studio	1 BR and 1BR+ Den	2 BR and 2BR+Den	3 BR & 3 BR+Den	Total
BLDG 01(Tower) - 55 storey	97	390	219	15	721
BLDG 02(Tower) - 60 storey	112	329	238	10	689
BLDG 03(Tower) - 65 storey	165	275	220	-	660
BLDG 04(Mid-rise) - 13 storey	-	-	-	-	-
Total	374	994	677	25	2,070
Ratio	18%	48%	33%	1.21%	100%

BUILDING SETBACKS

Property Line	Required		Proposed	
	Metric (m)	Imperial (ft)	Metric (m)	Imperial (ft)
North (104A Ave)	4.50	14.76	4.50	14.76
South (Central Ave)	4.50	14.76	4.50	14.76
East (King George Blvd)	4.50	14.76	4.50	14.76
West (City Parkway)	5.00	16.40	5.00	16.40

Note 01: From Surrey City Centre Plan Section 10.5 - 10.7 (Urban Design Guidelines)

AMENITY AREA CALCULATIONS (INDOOR & OUTDOOR)

Required	Tower 01		Tower 02		Tower 03		Tower 04		Total	
	metric (m2)	imperial (ft2)	metric (m2)	imperial (ft2)	metric (m2)	imperial (ft2)	metric (m2)	imperial (ft2)	metric (m2)	imperial (ft2)
Indoor	1,093.0	11,765	1,061.0	11,421	1,032.0	11,108	-	-	3,186.0	34,294
Outdoor	2,163.0	23,282	2,067.0	22,249	1,980.0	21,313	-	-	6,210.0	66,844
Total Required	3,256.0	35,047	3,128.0	33,670	3,012.0	32,421	-	-	9,396.0	101,138
Provided										
Indoor	1,987.7	21,395	723.4	7,787	1,035.0	11,141	-	-	3,746.1	40,323
Outdoor	3,889.0	41,861	722.0	7,772	1,625.0	17,491	-	-	6,236.0	67,124
Total Provided	5,876.7	63,256	1,445.4	15,558	2,660.0	28,632	-	-	9,982.1	107,446

Note 01: Amenity Space - According to City Bylaw Section 27.4

a) Outdoor amenity space, in the amount of 3.0 square metres [32 sq.ft.] per dwelling unit and shall not be located within the required setbacks;

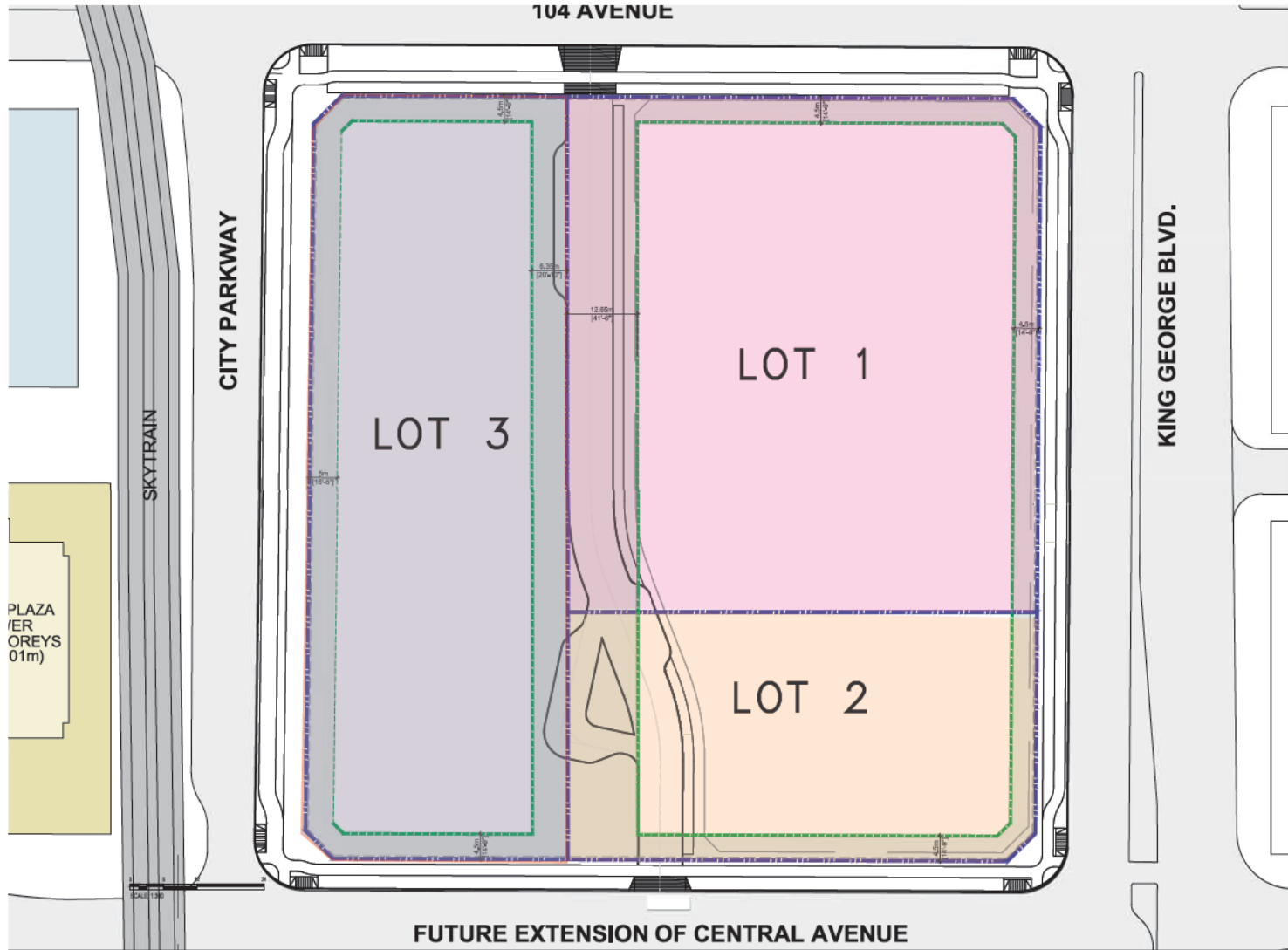
b) Indoor amenity space, in the amount of 3.0 square metres [32 sq.ft.] per dwelling unit, of which a maximum of 1.5 square metres [16 sq.ft.] per dwelling unit may be devoted to a child care centre.

*Indoor Amenity excluded from Residential GFA

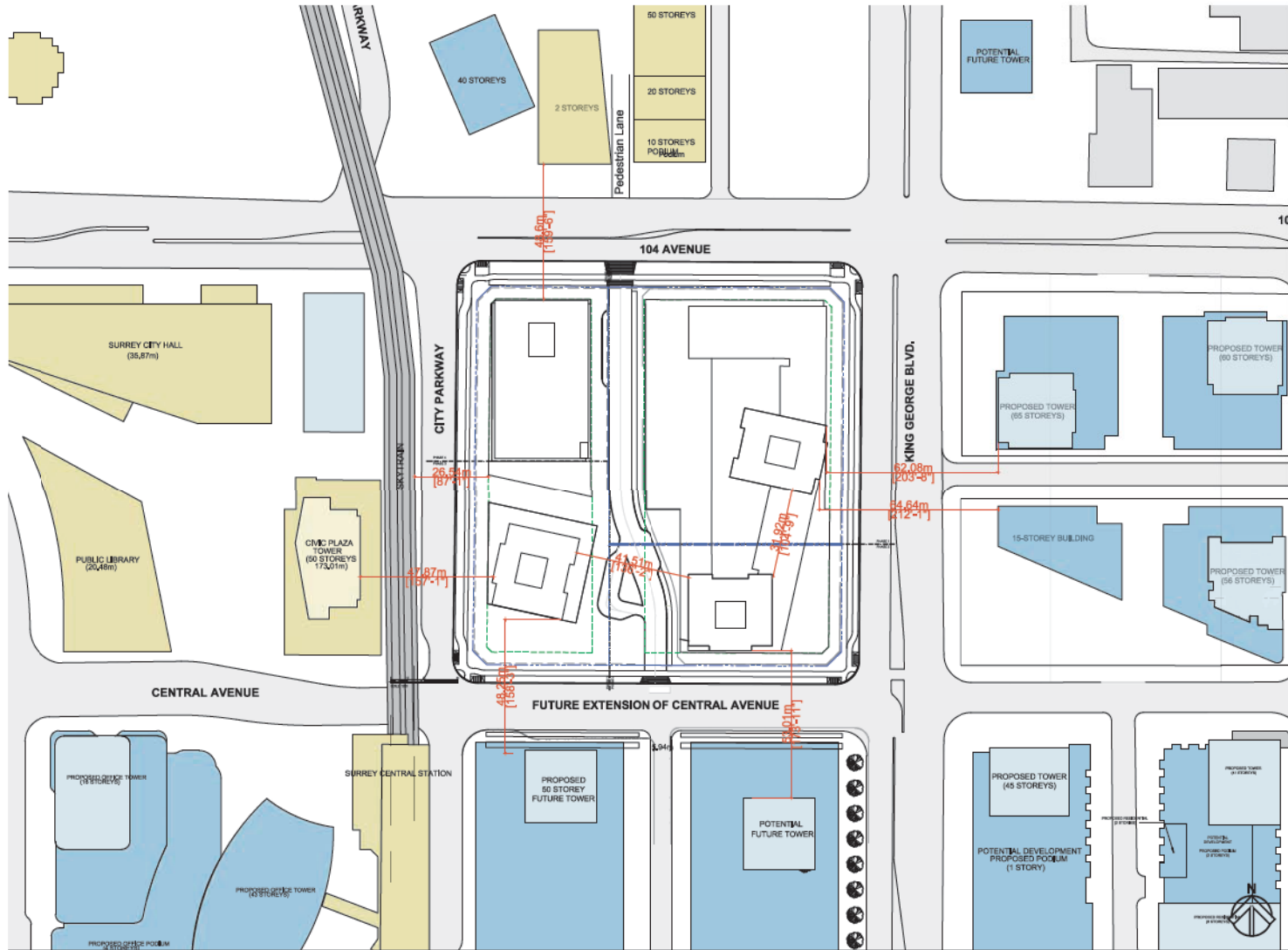
FLOOR AREA (FAR) CALCULATIONS

Based on Site Total Area

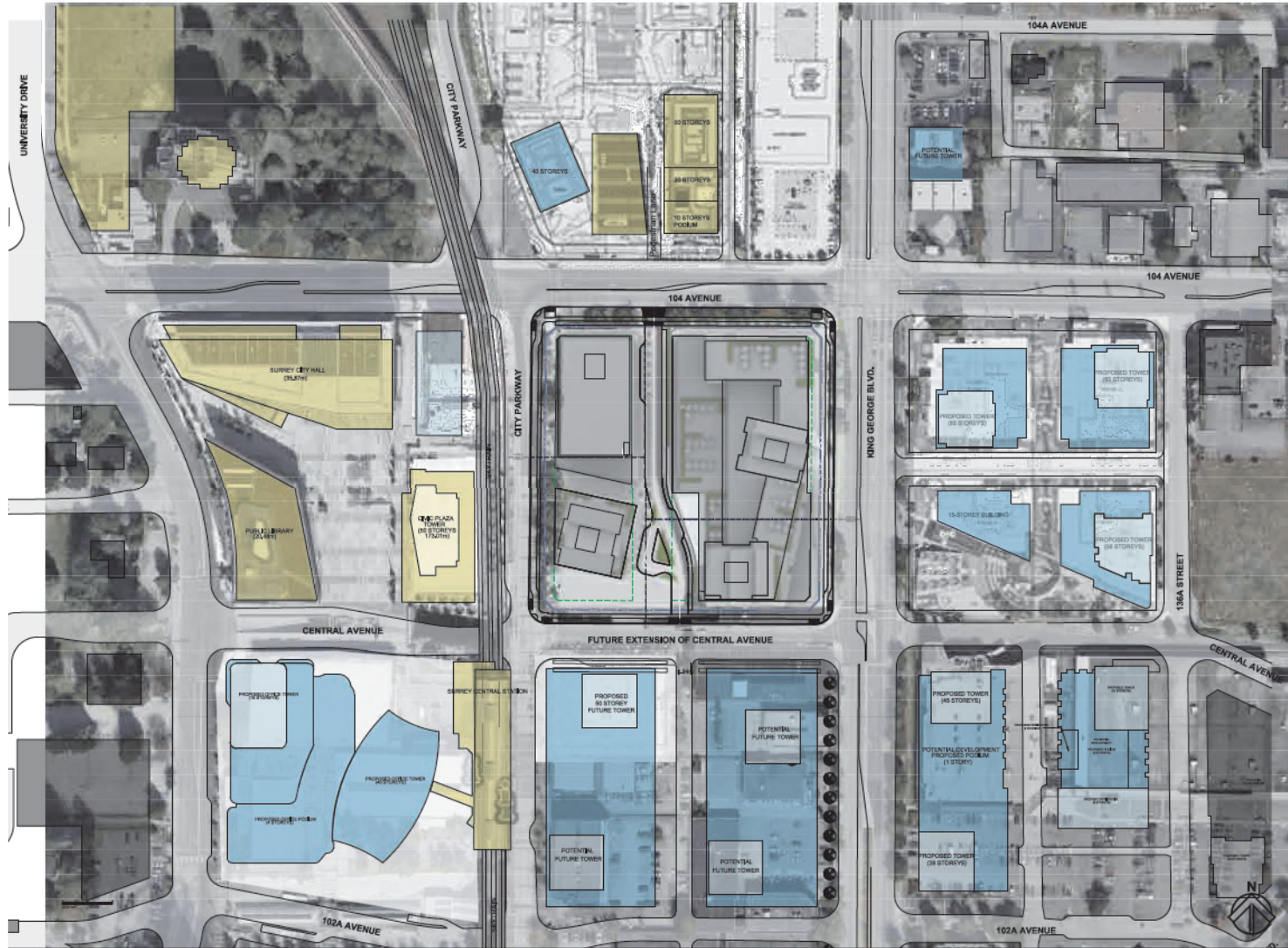
Components	FAR	Metric (m ²)	Imperial (sq.ft.)
Total	9.00	185,114	1,992,550



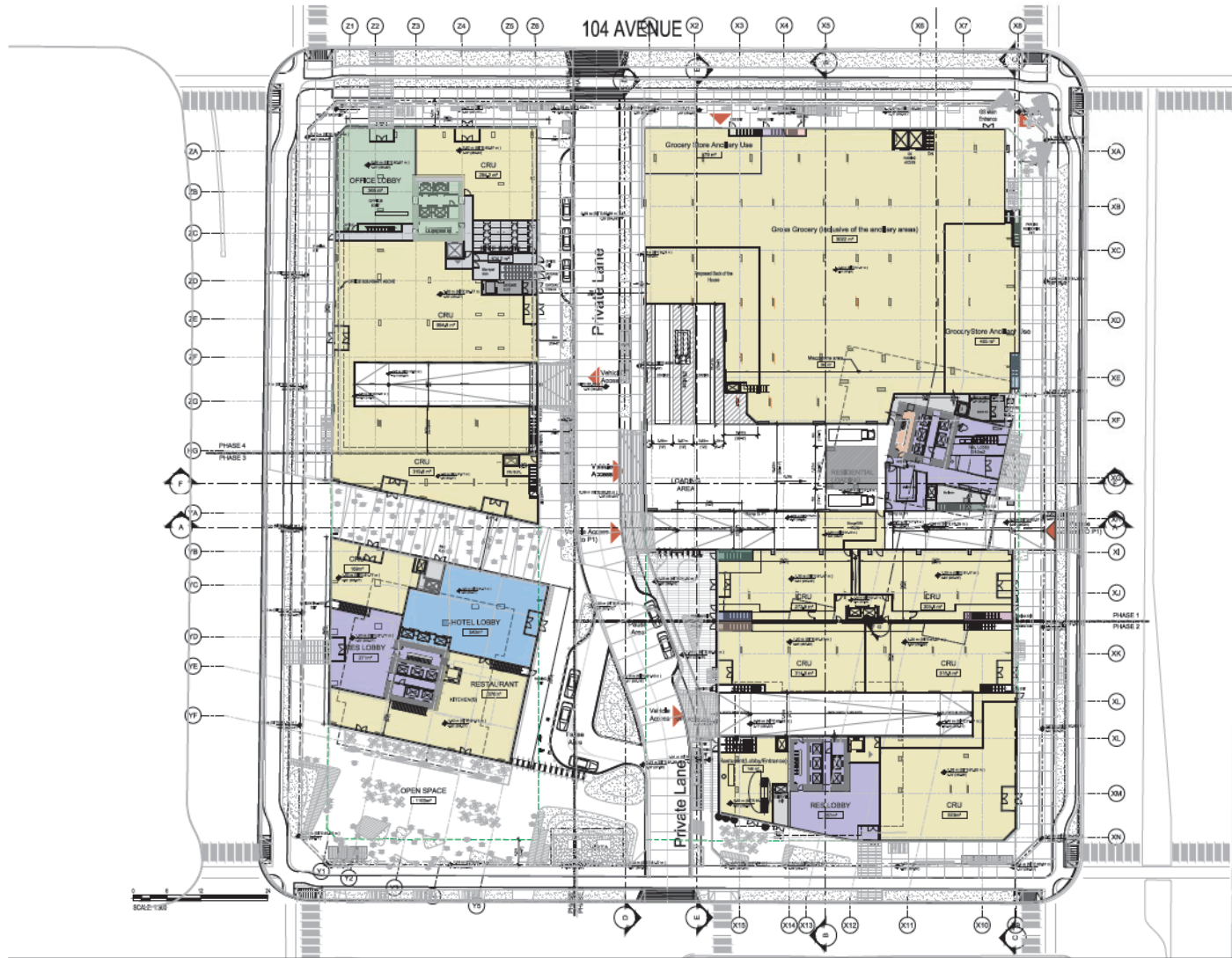
Base Plan



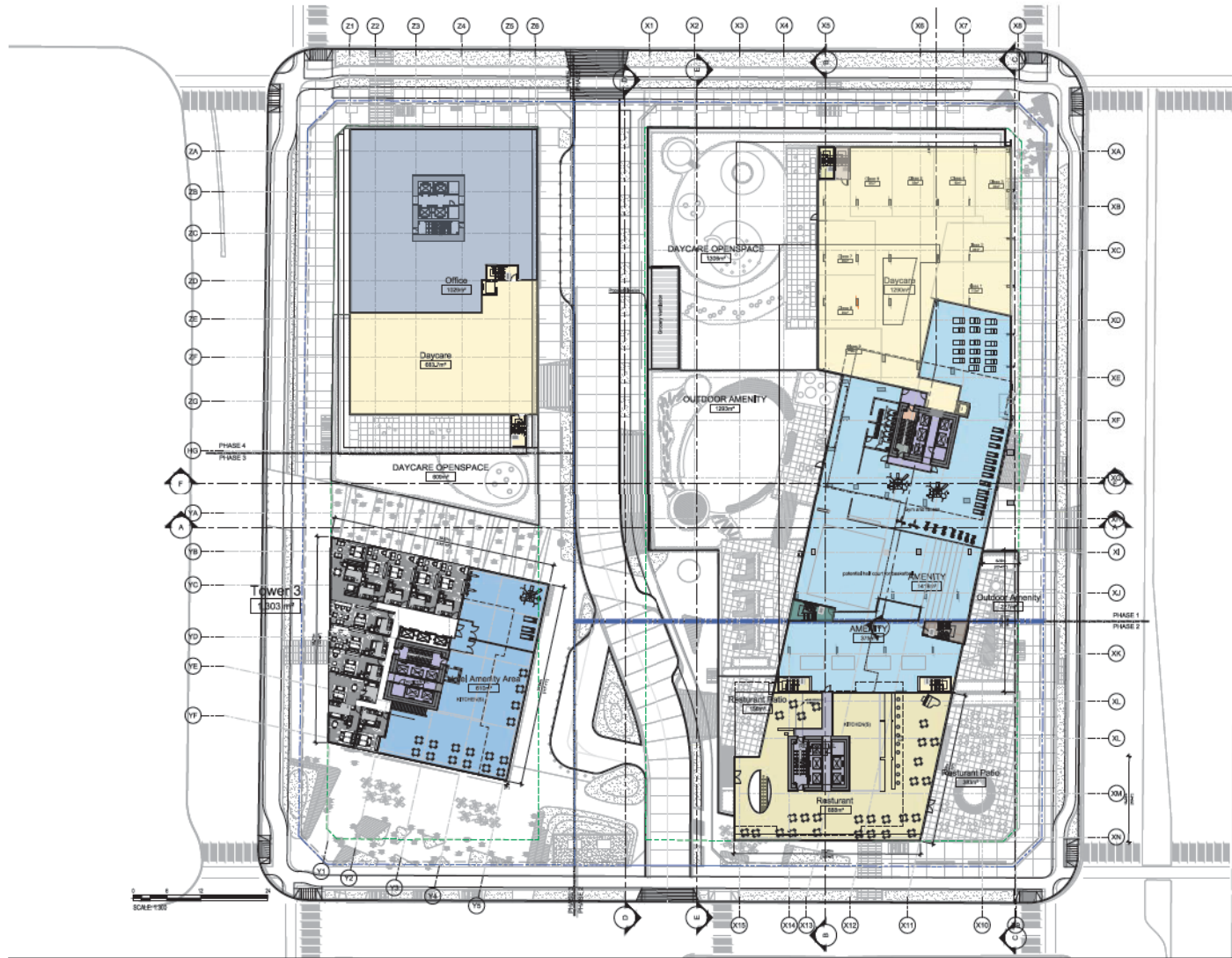
Tower Separation



context Plan

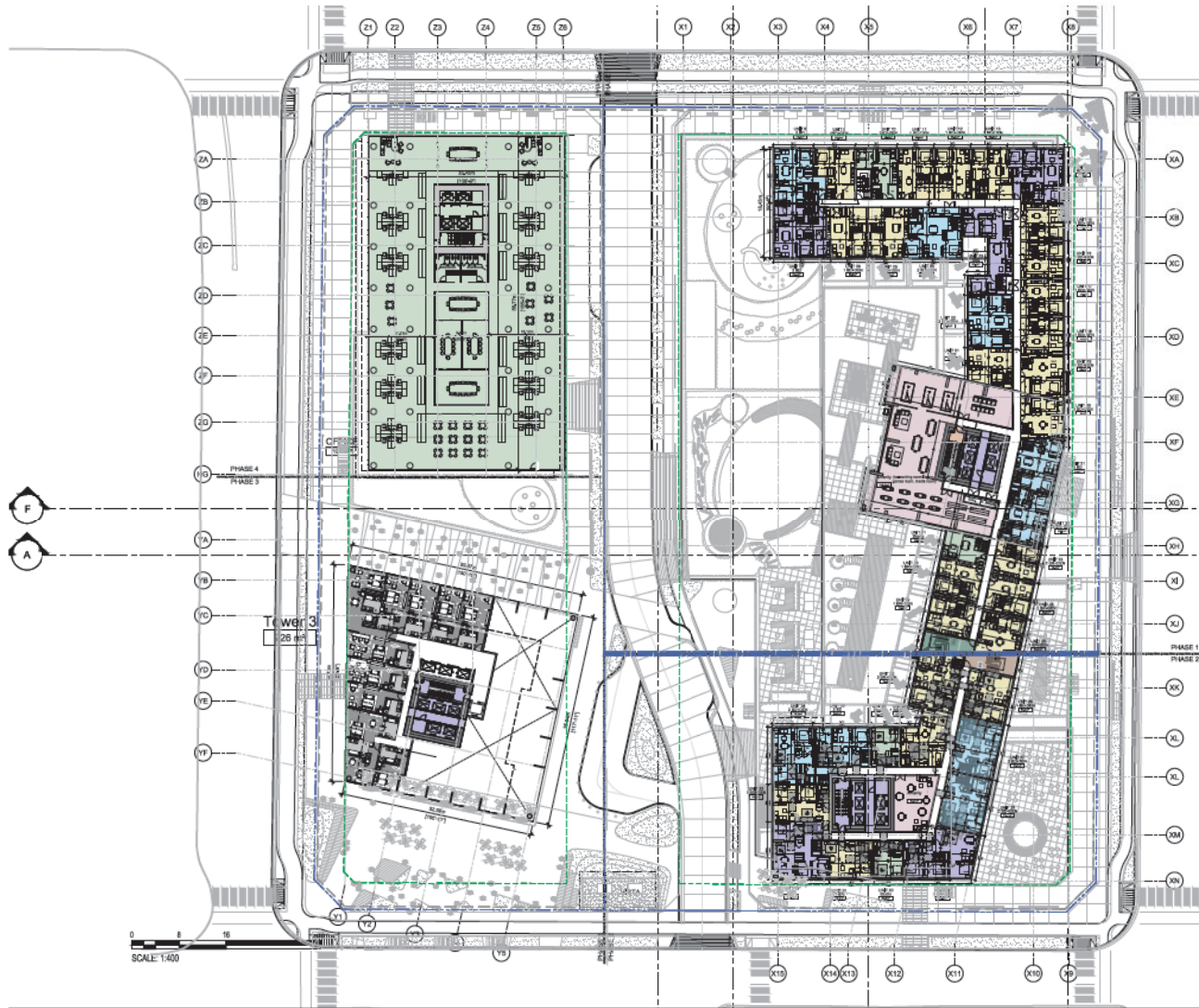


Plan Level 01

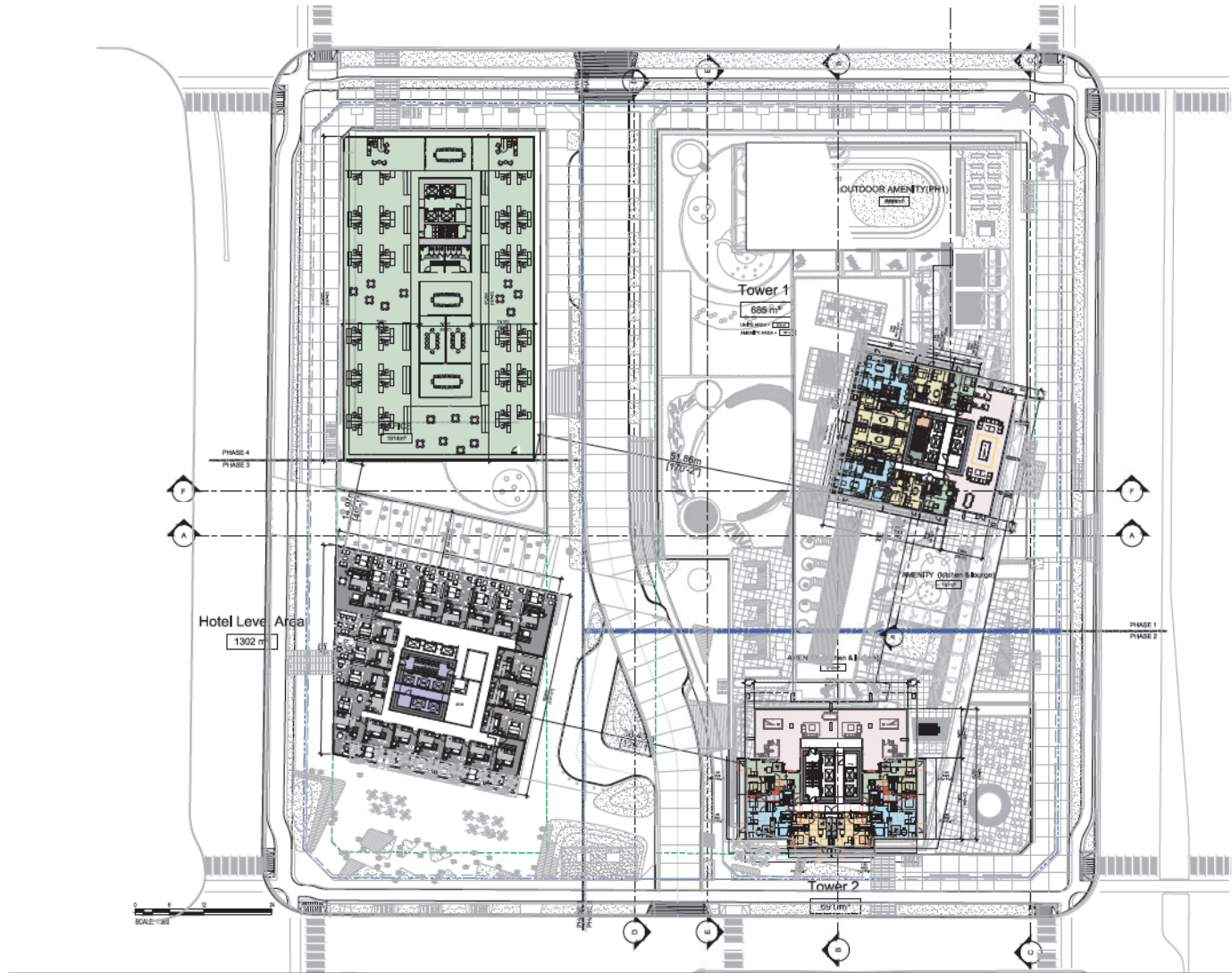


Plan Level 02

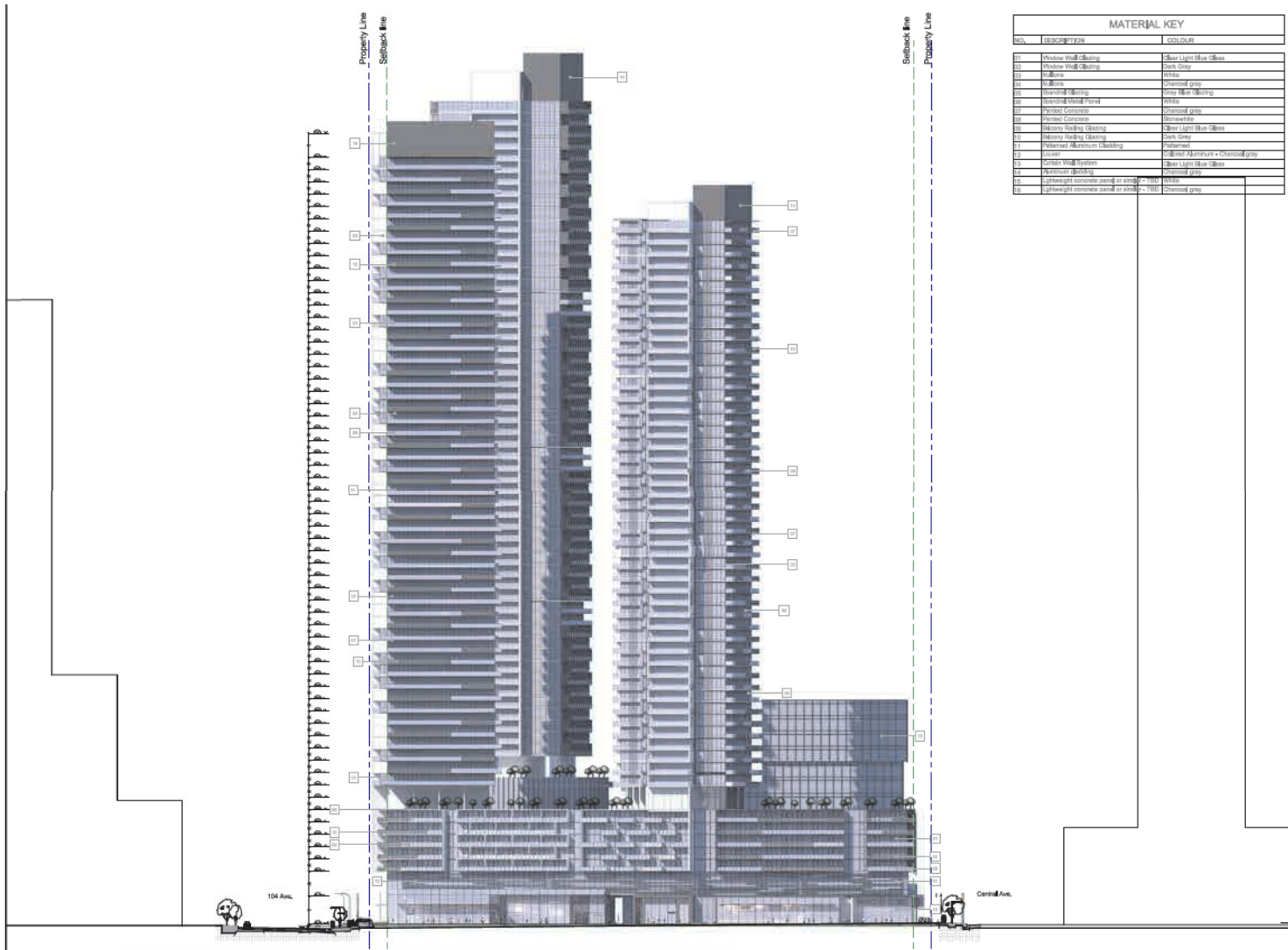




Plan Level 03

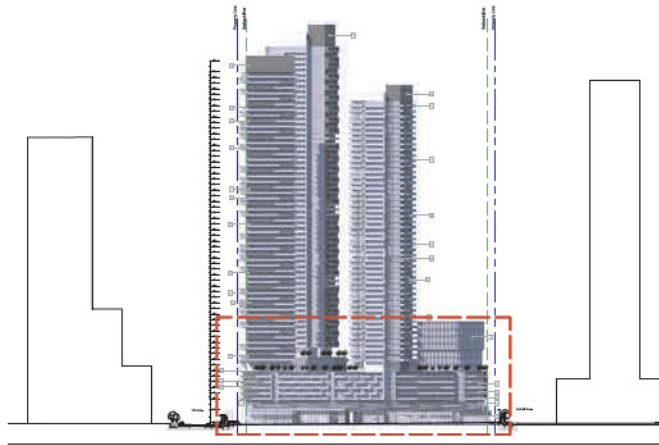


Plan Level 08



MATERIAL KEY		
NO.	DESCRIPTION	COLOR
01	Concrete Wall Cladding	Clear Light Blue Glass
02	Concrete Wall Cladding	Dark Gray
03	Wall Core	White
04	Wall Core	Thermal Gray
05	Vertical Cladding	Gray Blue Cladding
06	Concrete Wall Panel	White
07	Panel Concrete	Thermal Gray
08	Panel Concrete	Concrete
09	Concrete Wall Cladding	Clear Light Blue Glass
10	Concrete Wall Cladding	Dark Gray
11	Thermal Aluminum Cladding	Thermal
12	Panel	Thermal Aluminum - Thermal Gray
13	Concrete Wall Cladding	Clear Light Blue Glass
14	Concrete Wall Cladding	Thermal Gray
15	Lightweight concrete panel or stone	White
16	Lightweight concrete panel or stone	Thermal Gray

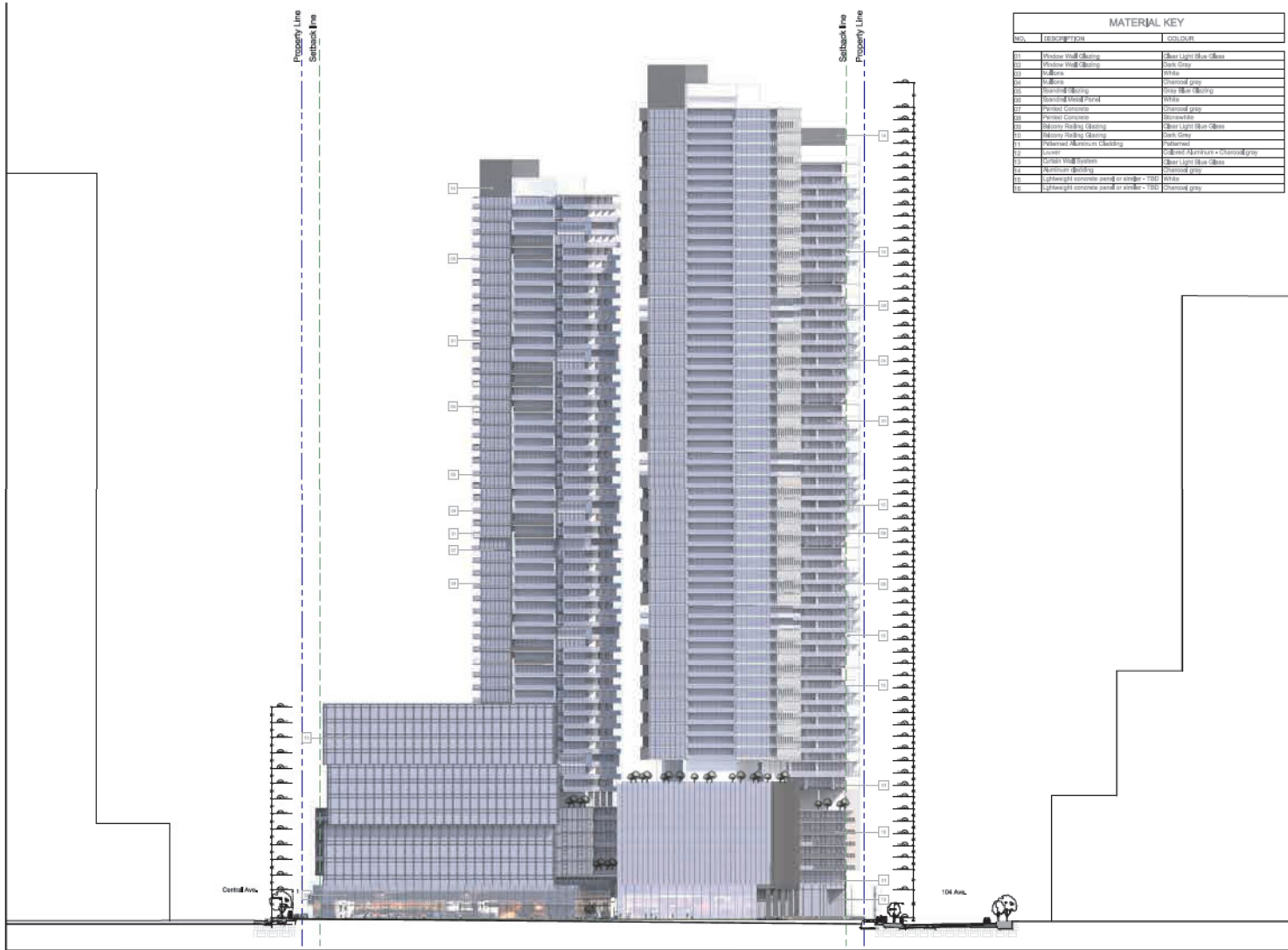
East Elevation



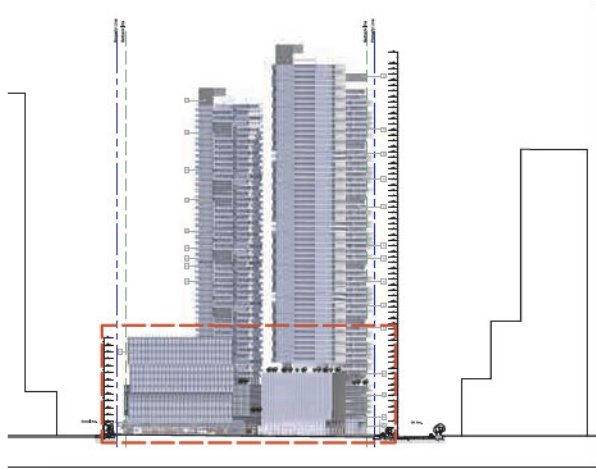
MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Cladding	Clear Light Blue Glass
02	Window Wall Cladding	Dark Grey
03	Wall Panel	White
04	Wall Panel	Charcoal Grey
05	Window Wall Cladding	White Blue Mosaic
06	Window Wall Panel	White
07	Window Wall Panel	Charcoal Grey
08	Window Wall Panel	Charcoal Grey
09	Window Wall Cladding	Clear Light Blue Glass
10	Window Wall Cladding	Dark Grey
11	Polished Aluminium Cladding	Polished
12	Window Wall Cladding	Polished Aluminium - Horizontal Grey
13	Window Wall Cladding	Clear Light Blue Glass
14	Aluminium Cladding	Charcoal Grey
15	Lightweight concrete panel or similar - 150	White
16	Lightweight concrete panel or similar - 150	Charcoal Grey



East Elevation(Blow up)



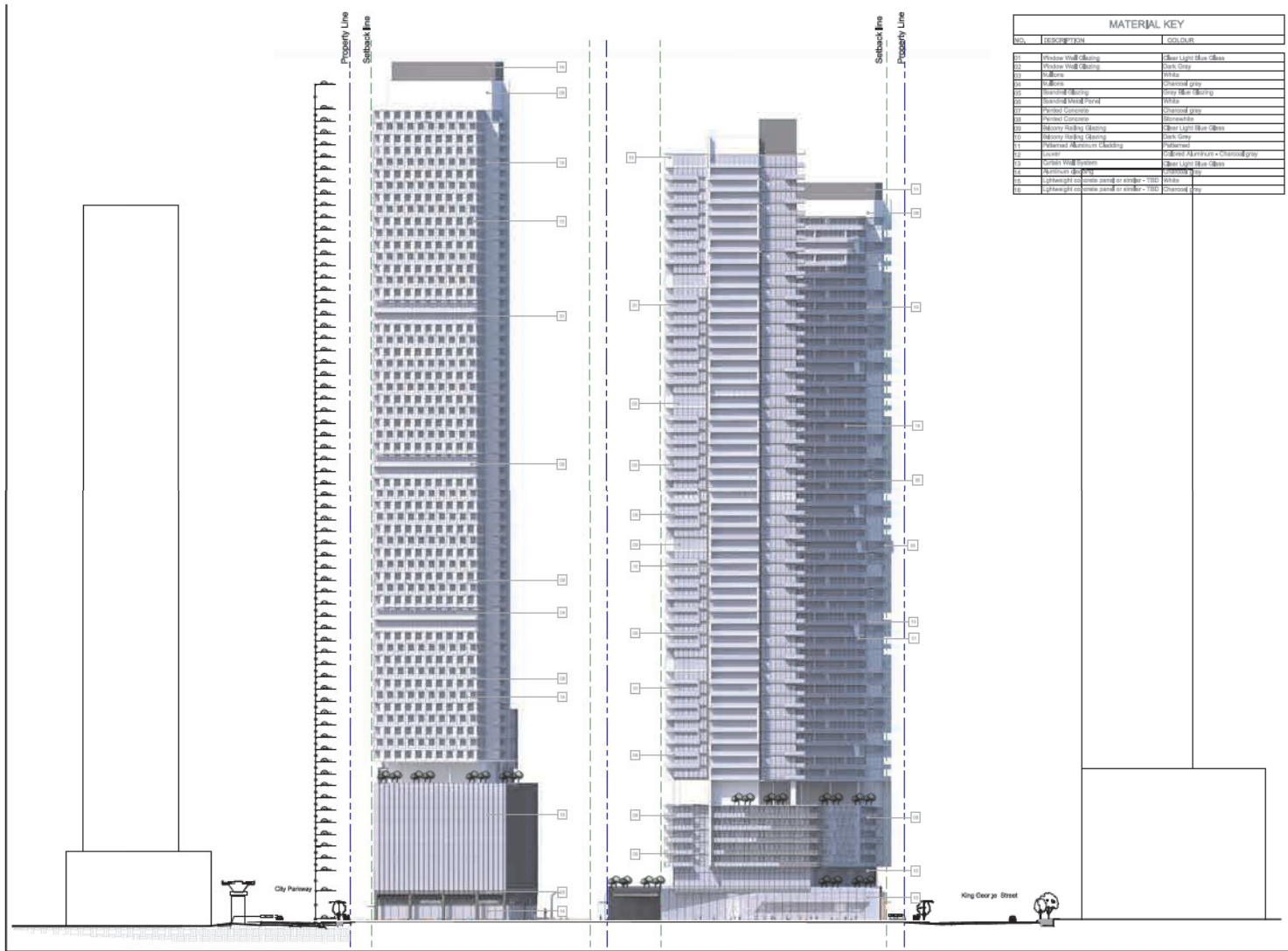
West Elevation



MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Glazing	Anodized silver Mullion/Clear Light Blue Glass
02	Spandrel Glazing	Anodized silver Mullion/Gray Blue Glazing
03	Balcony Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	StoneWhite
05	Spandrel Metal Panel	White
06	Clower	Charcoal grey

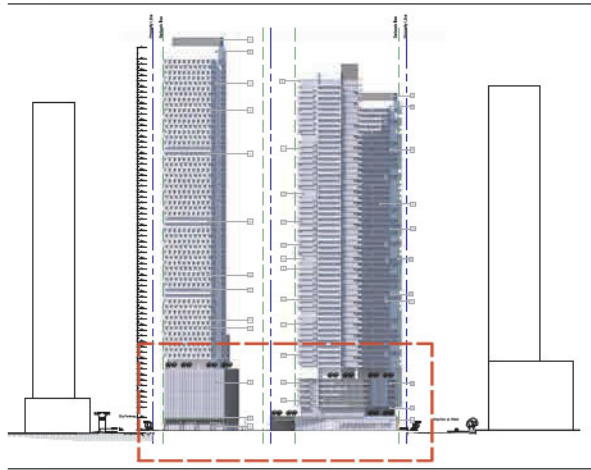


West Elevation(Blow up)



MATERIAL KEY		
NO.	DESCRIPTION	COLOR
01	Concrete Wall Cladding	Clear Light Blue Glass
02	Concrete Wall Cladding	Dark Gray
03	Wall Core	White
04	Wall Core	Shaded Gray
05	Vertical Cladding	Gray Blue Cladding
06	Concrete Wall Panel	White
07	Panel Concrete	Shaded Gray
08	Panel Concrete	Shadeable
09	Shaded Wall Cladding	Clear Light Blue Glass
10	Shaded Wall Cladding	Dark Gray
11	Shaded Aluminum Cladding	Shaded
12	Panel	Shaded Aluminum - Horizontal/Gray
13	Panel Wall Cladding	Clear Light Blue Glass
14	Shaded Wall Cladding	Shaded Gray
15	Shaded Wall Cladding or similar - 100	White
16	Shaded Wall Cladding or similar - 100	Shaded Gray

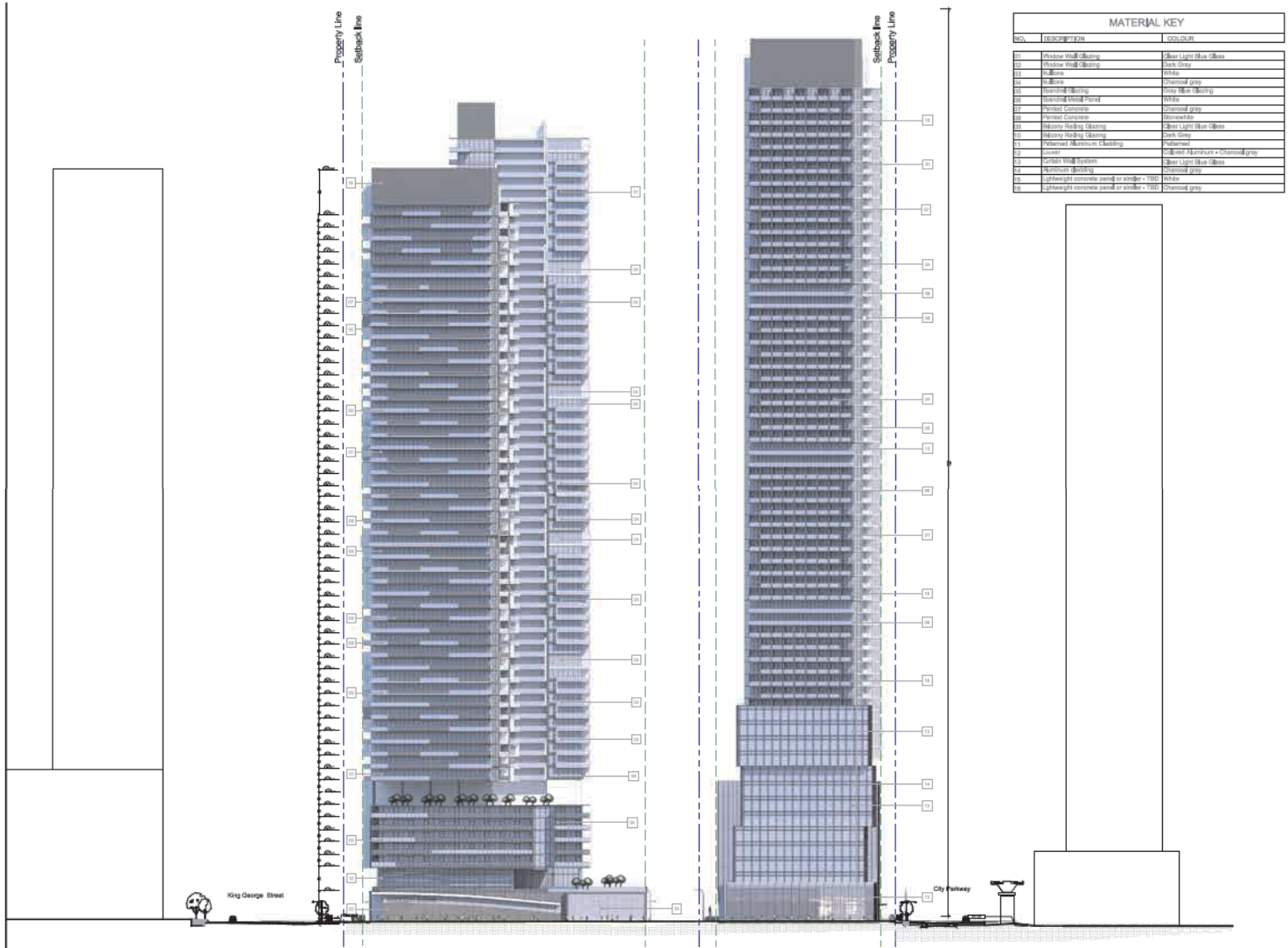
South Elevation



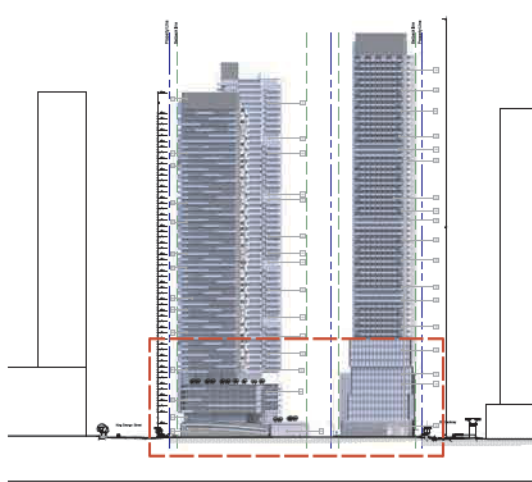
MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Clazing	Anodized silver Mirror/Clear Light Blue Glass
02	Spandrel Clazing	Anodized silver Mirror/Gray Blue Clazing
03	Balcony Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	Stonewhite
05	Spandrel Metal Panel	White
06	Clouze	Charcoal grey



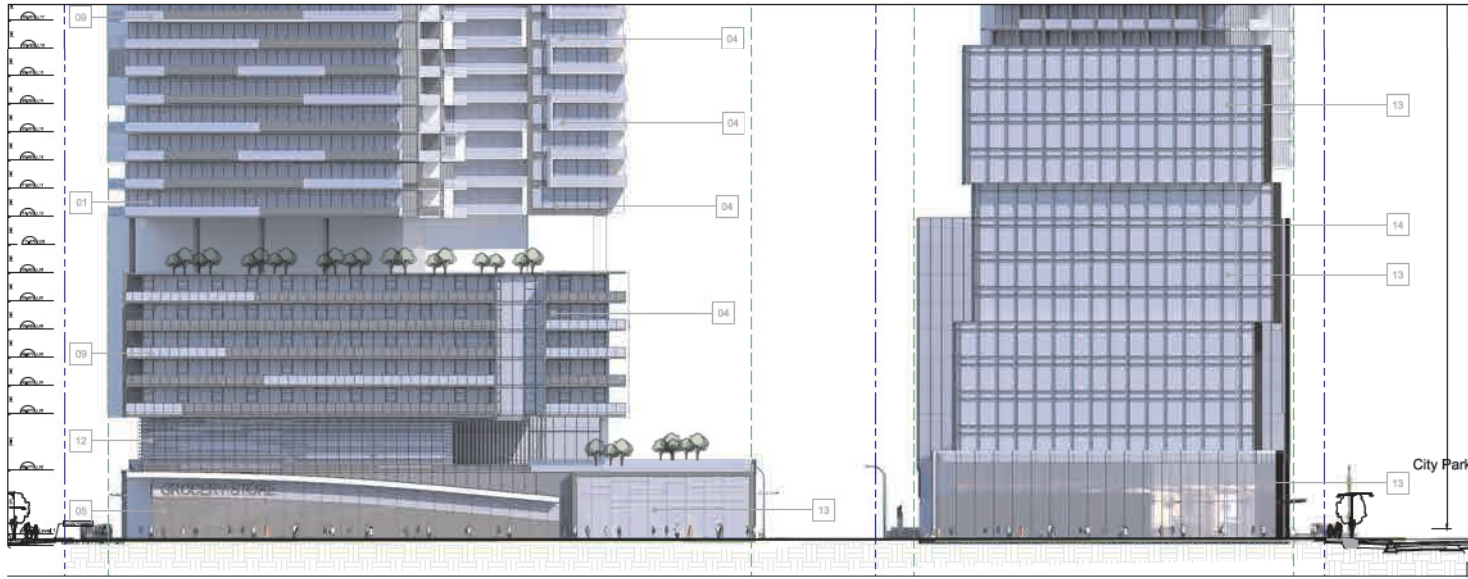
South Elevation(Blow up)



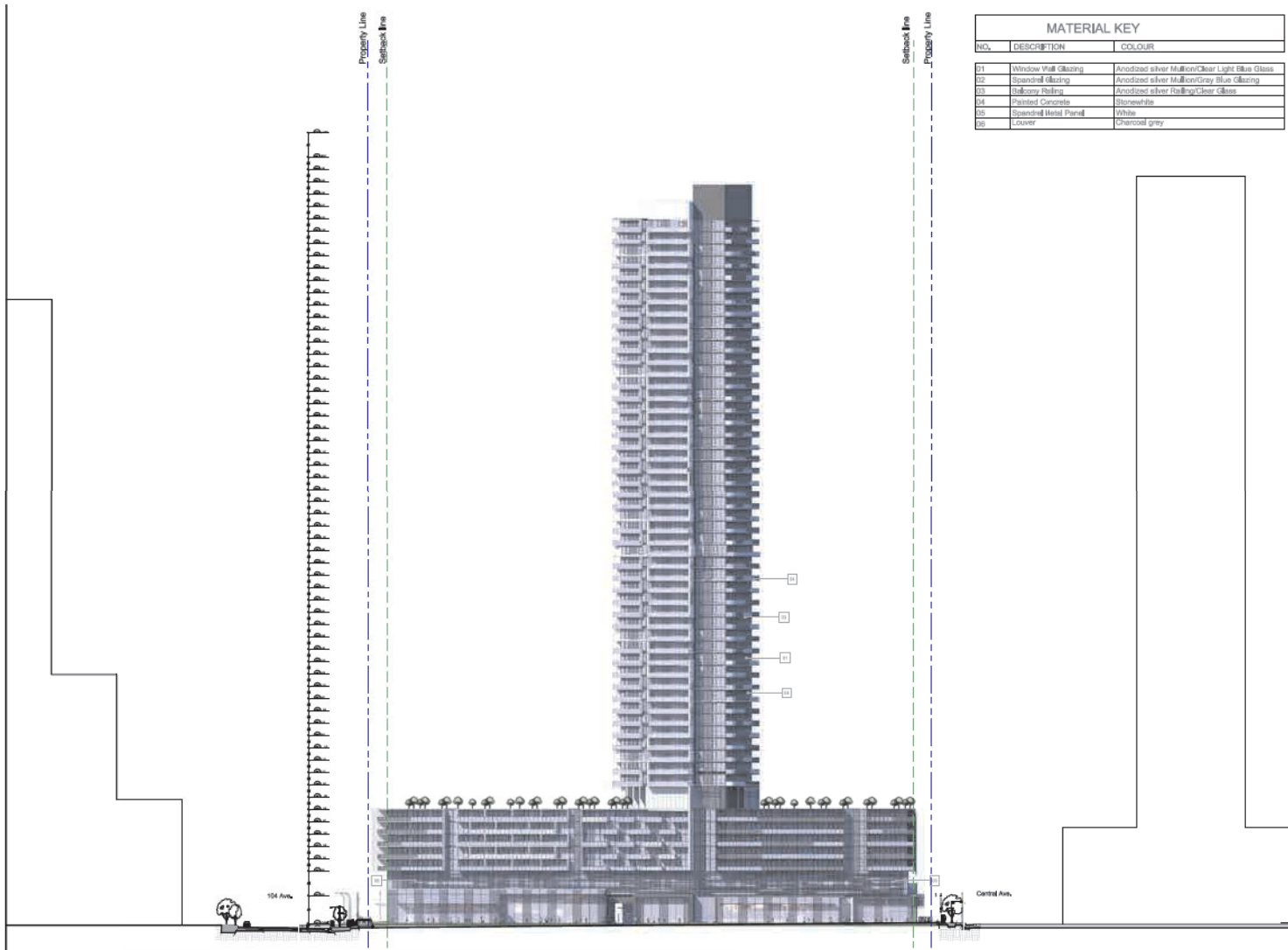
North Elevation



MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Glazing	Anodized silver Mullion/Clear Light Blue Glass
02	Spandrel Glazing	Anodized silver Mullion/Gray Blue Glazing
03	Balcony Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	StoneWhite
05	Spandrel Metal Panel	White
06	Cover	Charcoal grey

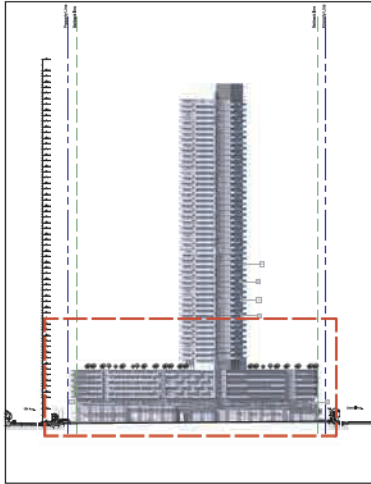


North Elevation(Blow up)



MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Glazing	Anodized silver Mullet/Clear Light Blue Glass
02	Spandrel Glazing	Anodized silver Mullet/Gray Blue Glazing
03	Rainway Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	Stonewhite
05	Spandrel Metal Panel	White
06	Louwer	Charcoal grey

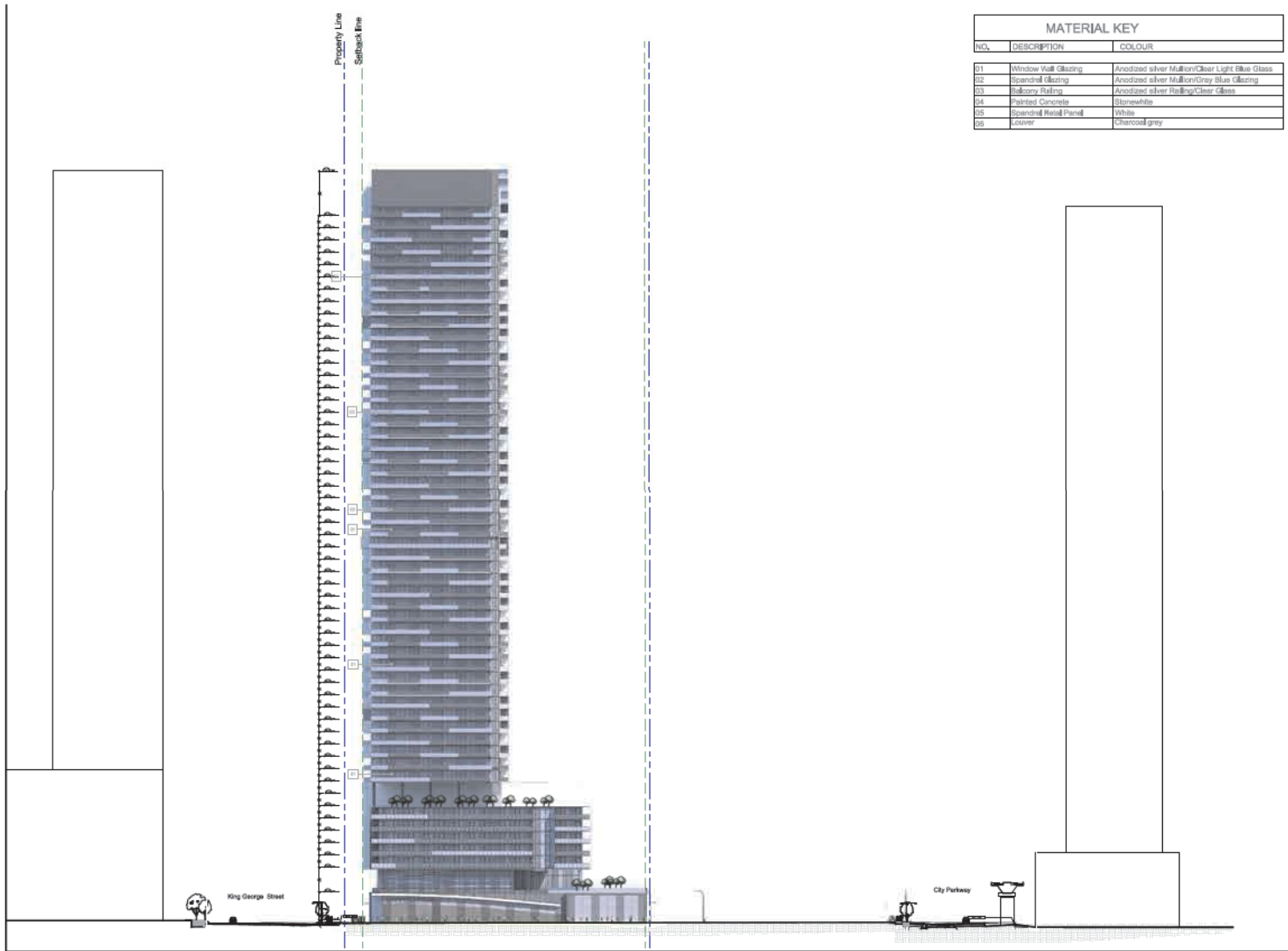
East Elevation - Phase 1



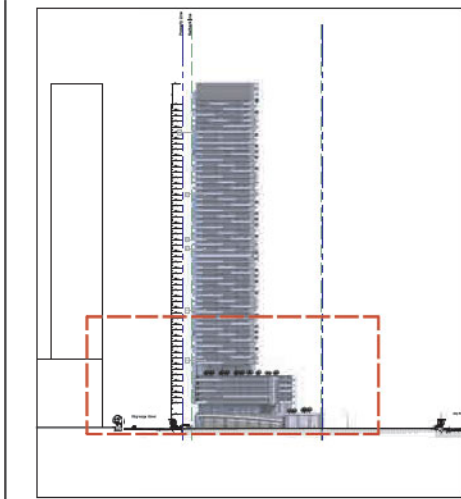
MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Glazing	Anodized silver Milled/Clear Light Blue Glass
02	Spandrel Glazing	Anodized silver Milled/Gray Blue Glazing
03	Balcony Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	Stonewhite
05	Spandrel Metal Panel	White
06	Louvers	Charcoal grey



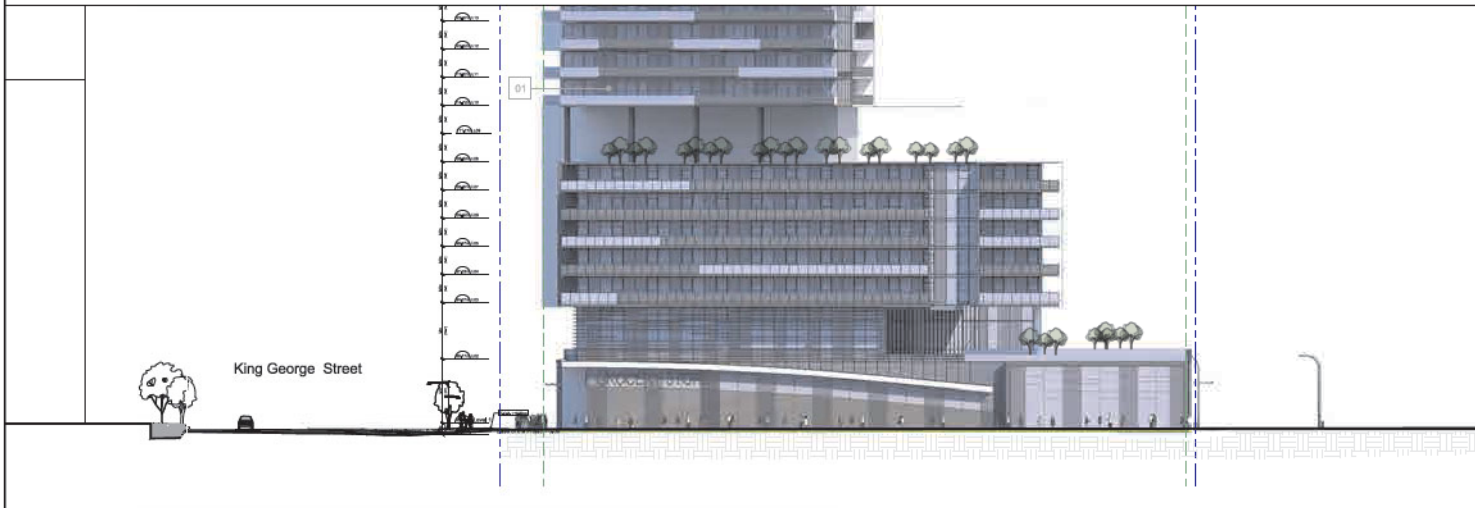
East Elevation (Blow up) - Phase 1



North Elevation



MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Glazing	Anodized silver Milled/Clear Light Blue Glass
02	Spandrel Glazing	Anodized silver Milled/Gray Blue Glazing
03	Rainway Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	Stonewhite
05	Spandrel Metal Panel	White
06	Louvers	Charcoal grey

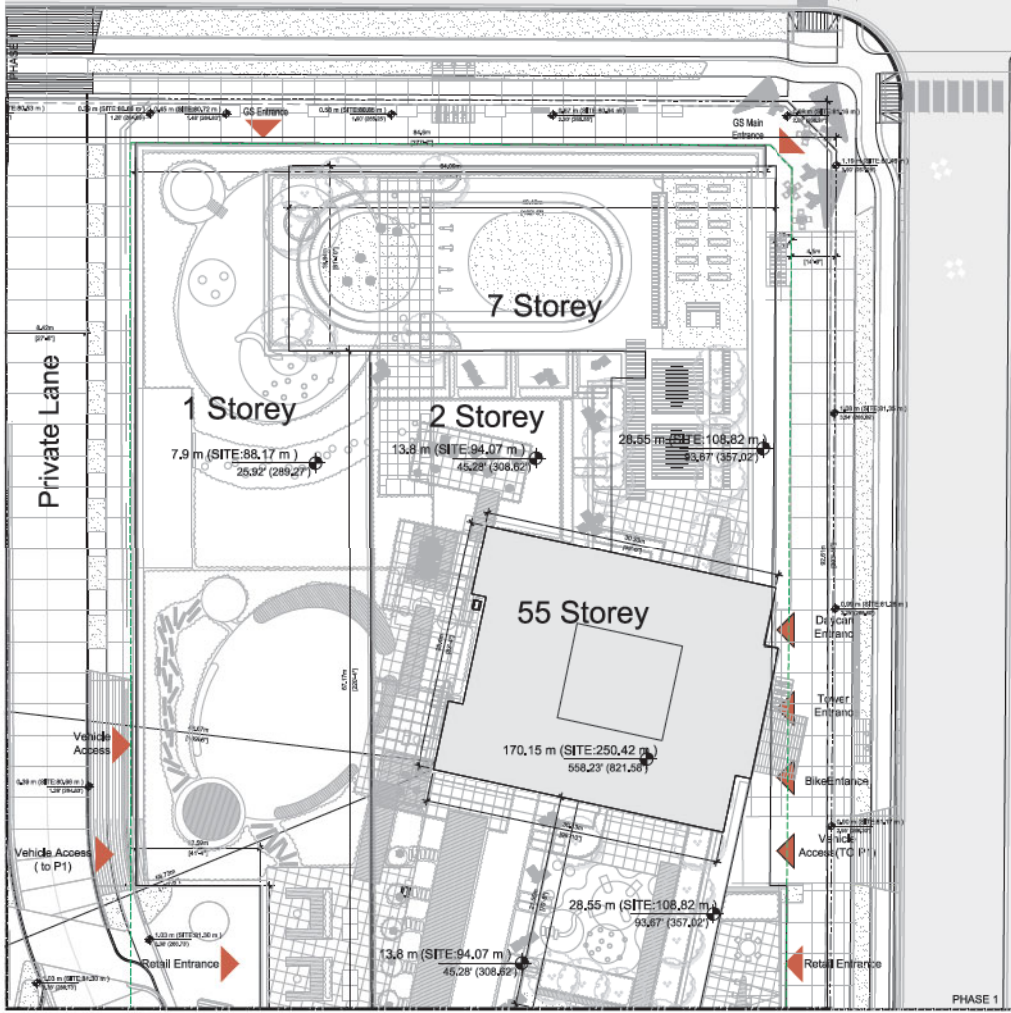


North Elevation (Blow up) - Phase 1



104 AVENUE

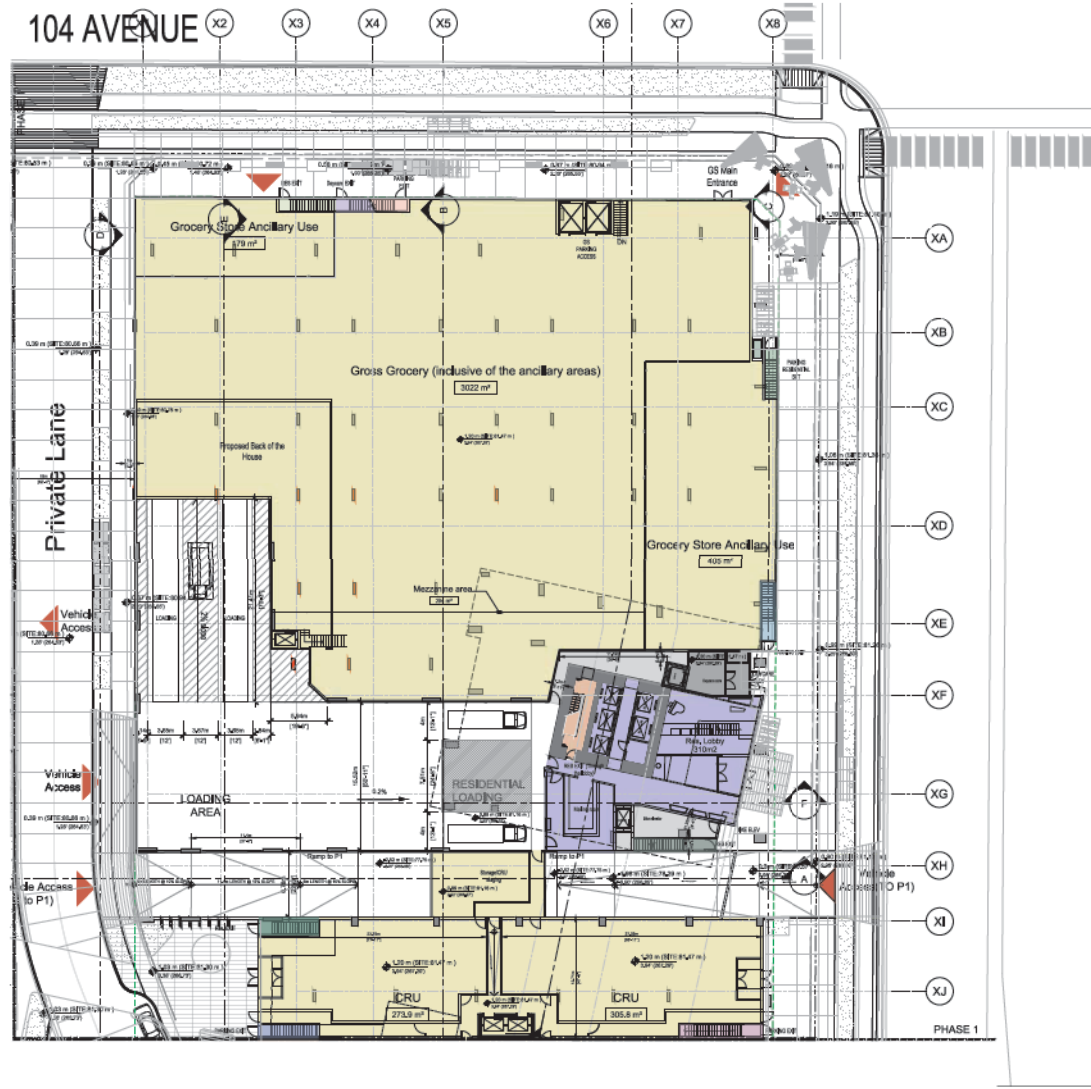
DRAWING SET



KING GEORGE BLVD.

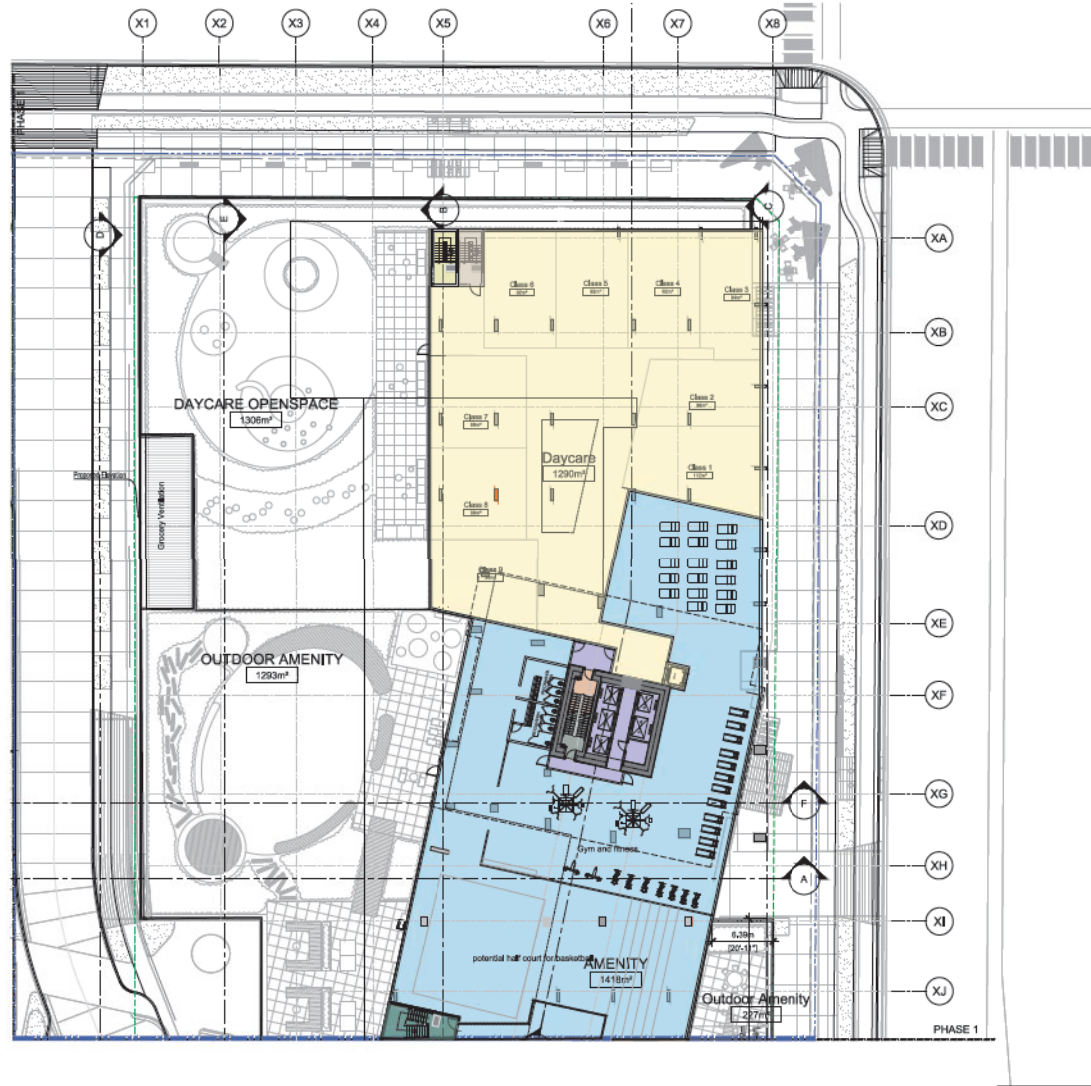


Plan P05

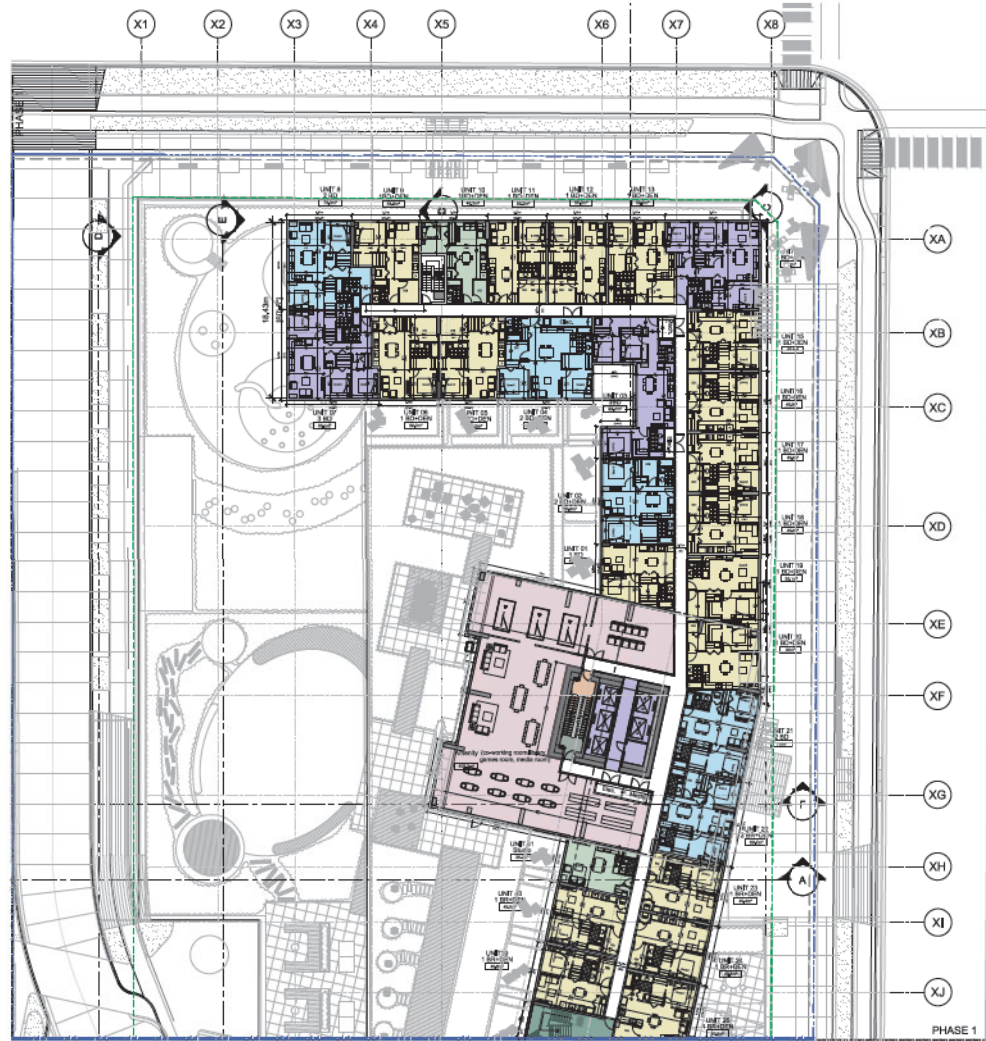


Plan Level 01

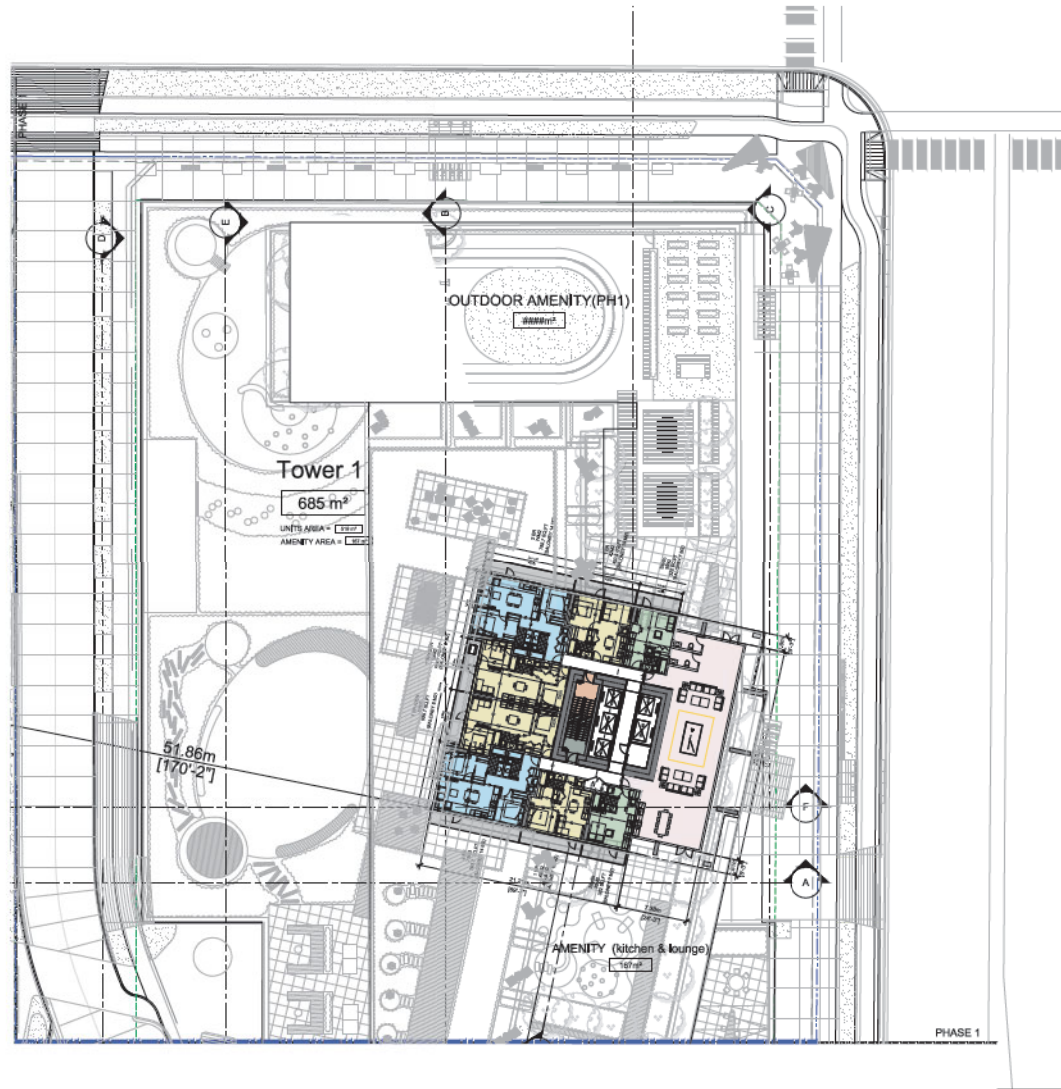




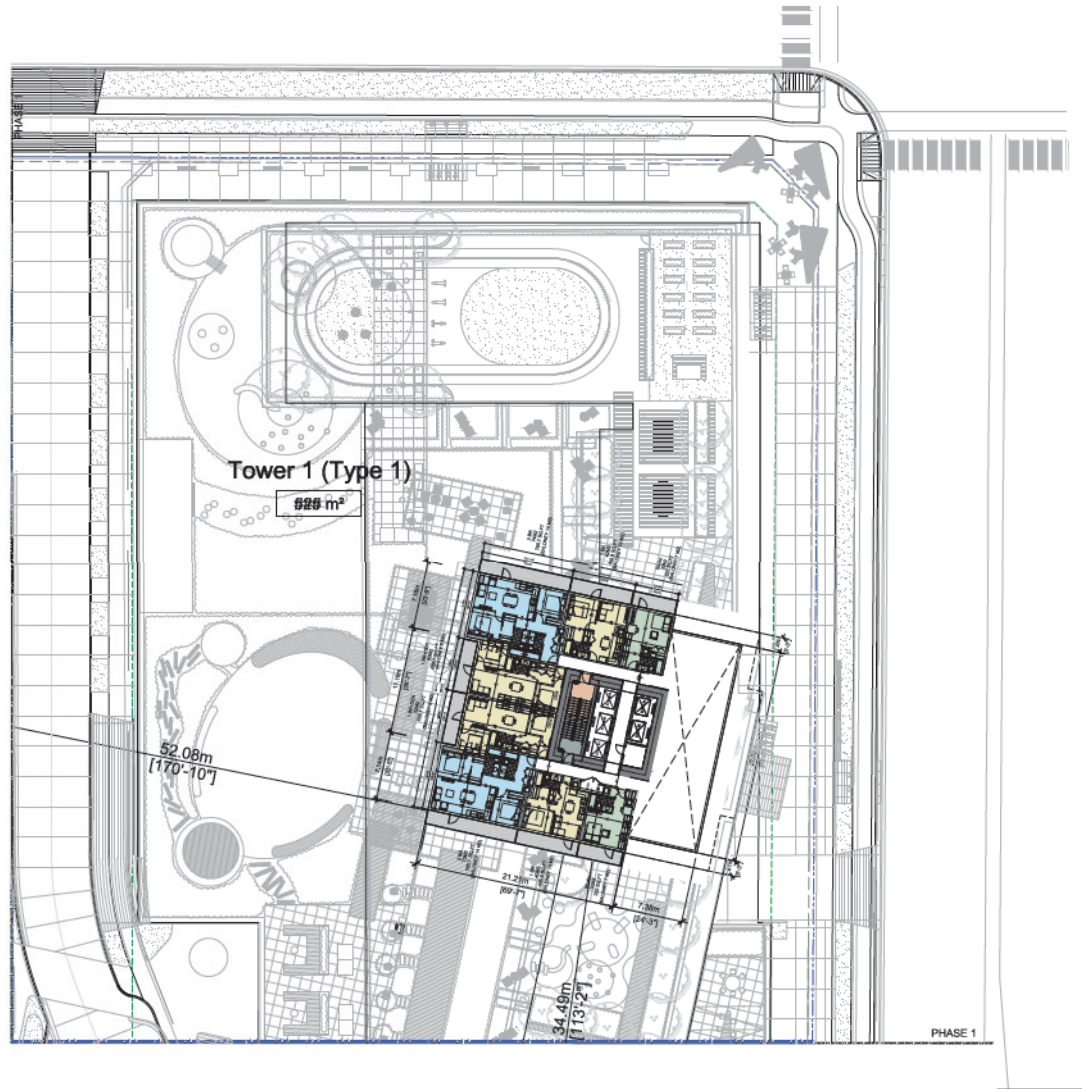
Plan Level 02



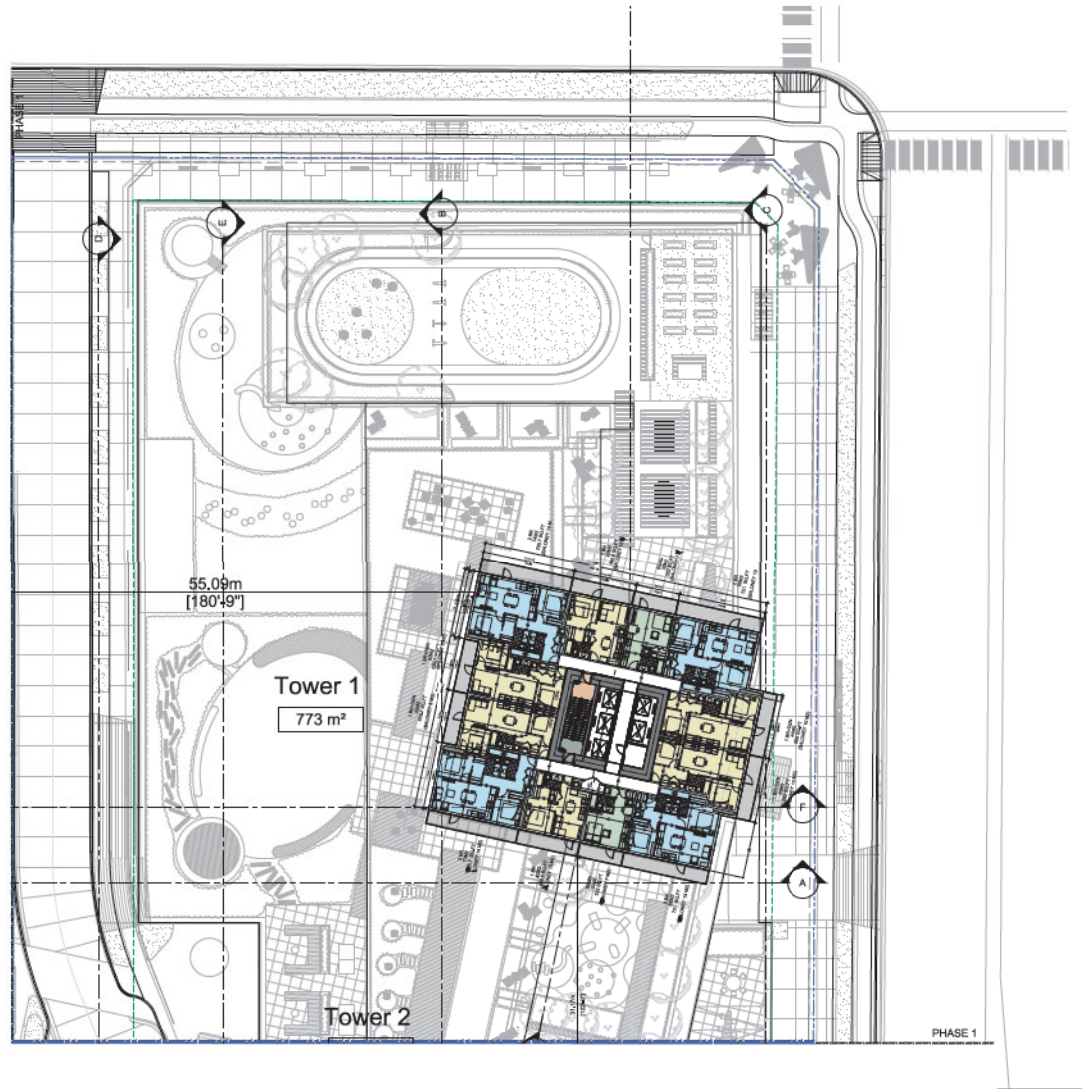
Plan Level 03



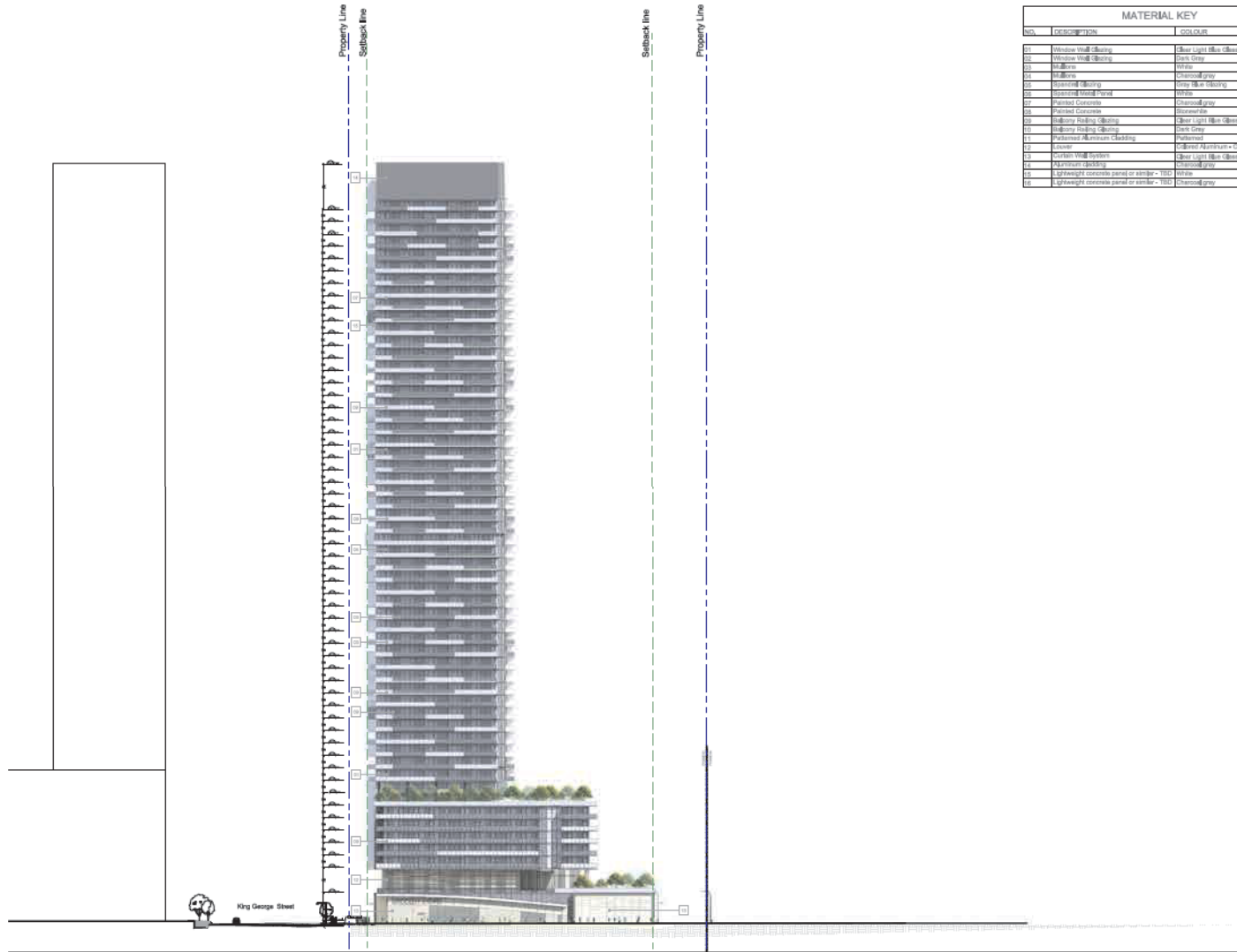
Plan Level 08



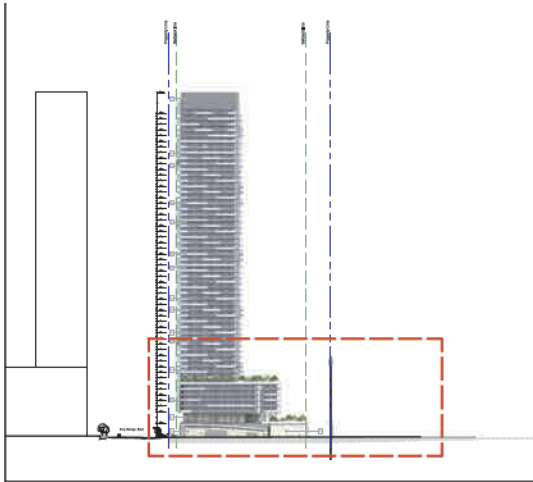
Plan Level 09



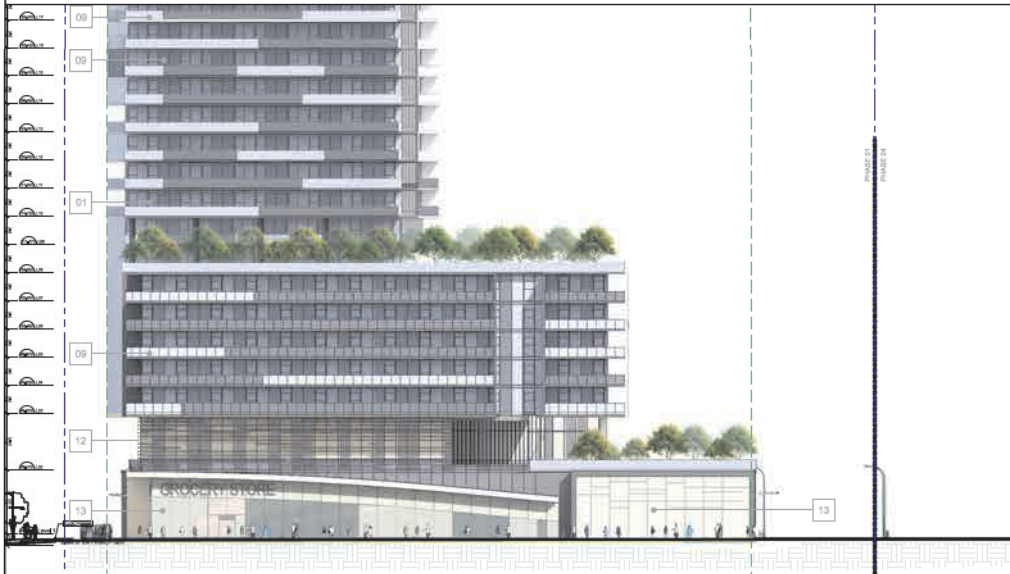
Towers Level



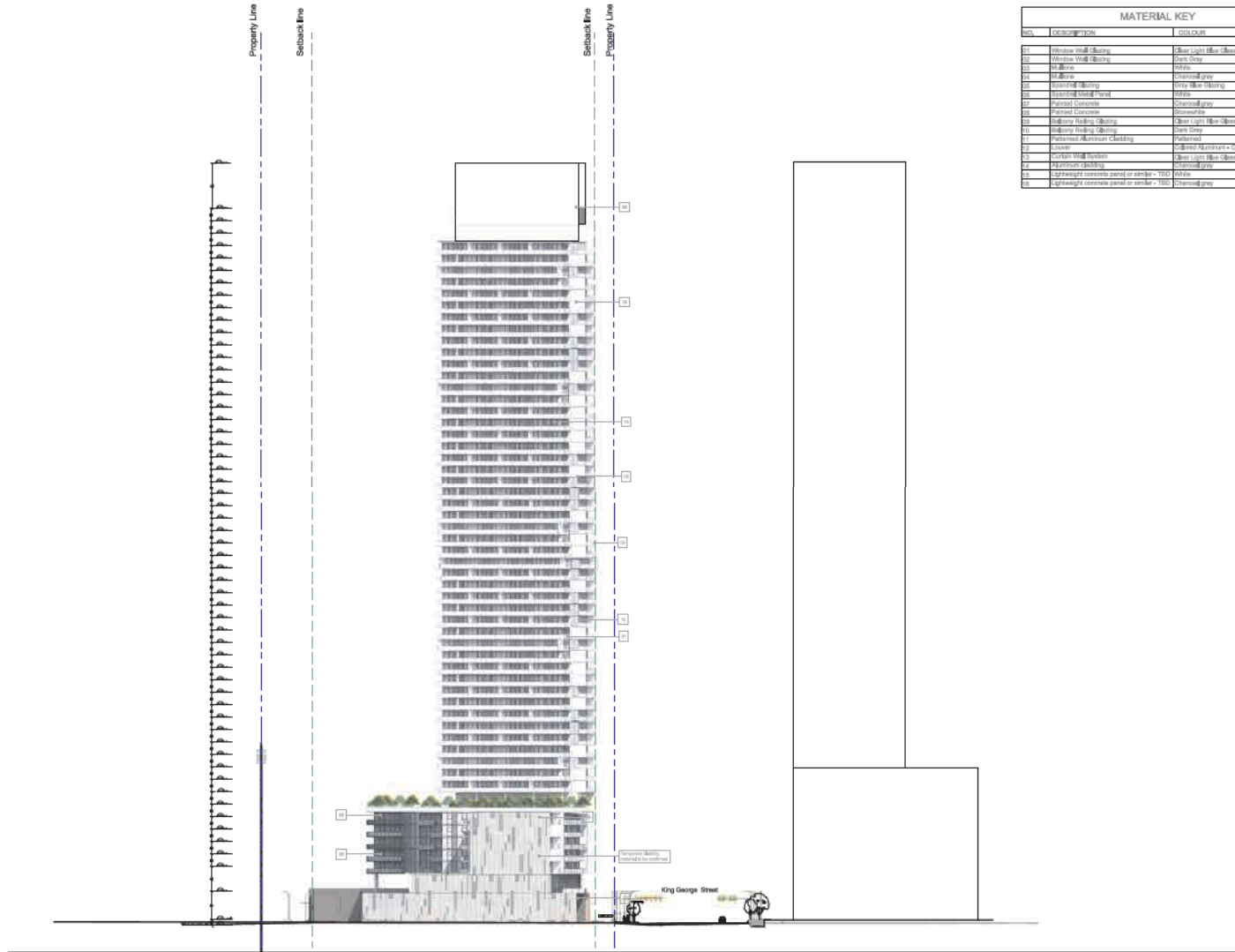
North Elevation



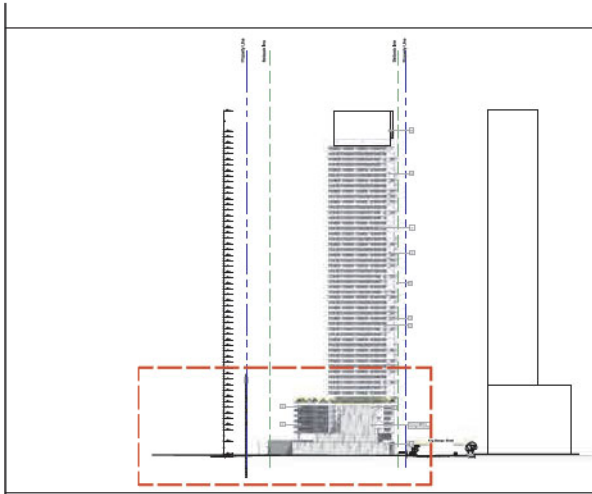
MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Unit Glazing	Anodized silver Mullet/Clear Light Blue Glass
02	Spandrel Glazing	Anodized silver Mullet/Gray Blue Glazing
03	Balcony Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	Stonewhite
05	Spandrel Metal Panel	White
06	LOUVER	Charcoal grey



North Elevation



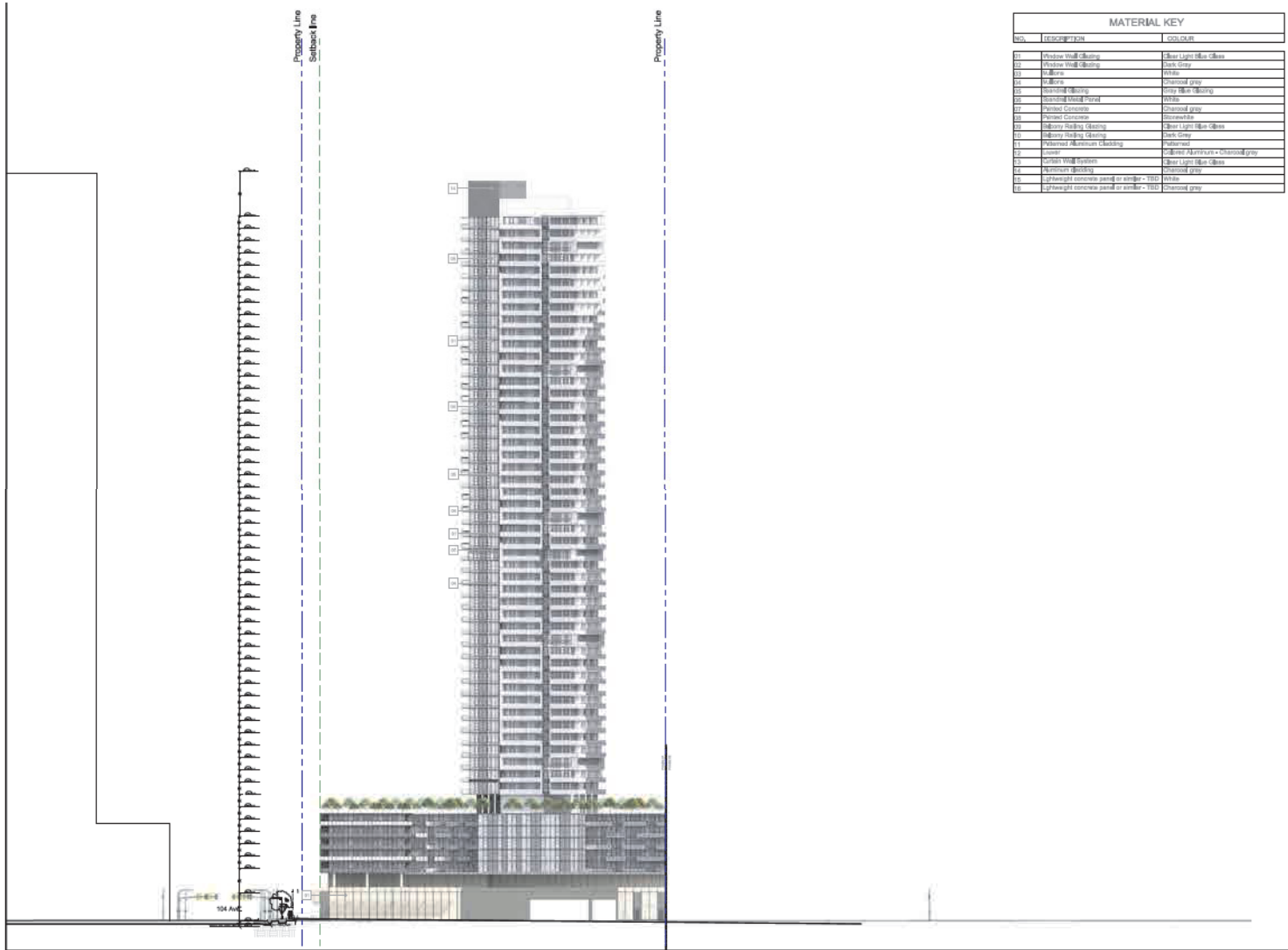
South Elevation



MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Cladding	Anodized silver Mirror/Clay Light Blue Glass
02	Spandrel Cladding	Anodized silver Mirror/Clay Blue Glass
03	Balcony Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	StoneWhite
05	Spandrel Metal Panel	White
06	Lower	Charcoal grey

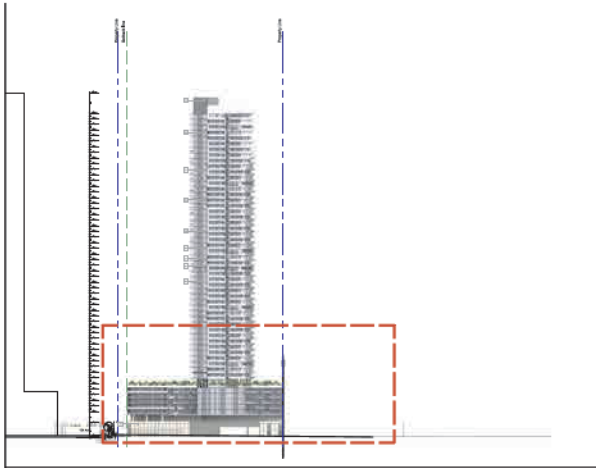


North Elevation

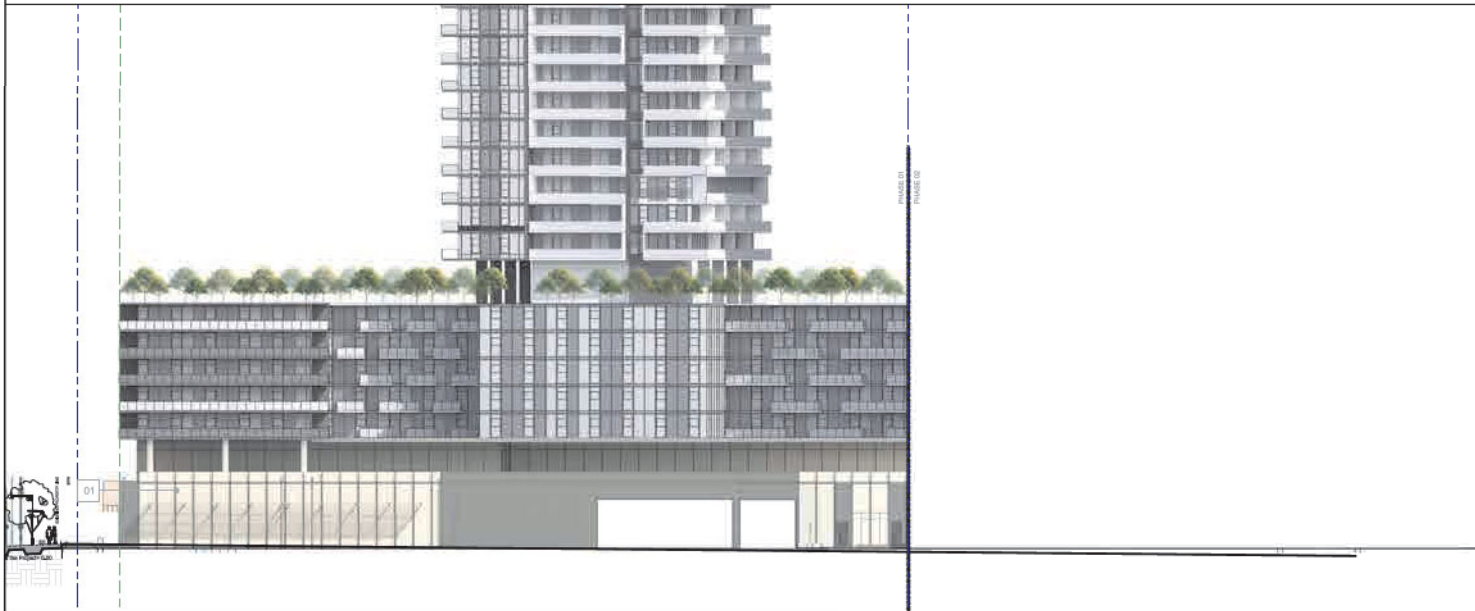


MATERIAL KEY		
NO.	DESCRIPTION	COLOR
01	Concrete Wall Cladding	Clear Light Blue Glass
02	Concrete Wall Cladding	Dark Gray
03	Wall Core	White
04	Wall Core	Thermal Gray
05	Vertical Cladding	Gray Blue Cladding
06	Horizontal Metal Panel	White
07	Panel Concrete	Thermal Gray
08	Panel Concrete	Stone White
09	Aluminum Window Cladding	Clear Light Blue Glass
10	Aluminum Window Cladding	Dark Gray
11	Polished Aluminum Cladding	Polished
12	Panel	White Apartment - Thermal Gray
13	Panel Wall Cladding	Clear Light Blue Glass
14	Aluminum Cladding	Thermal Gray
15	Lightweight concrete panel or similar - 100	White
16	Lightweight concrete panel or similar - 100	Thermal Gray

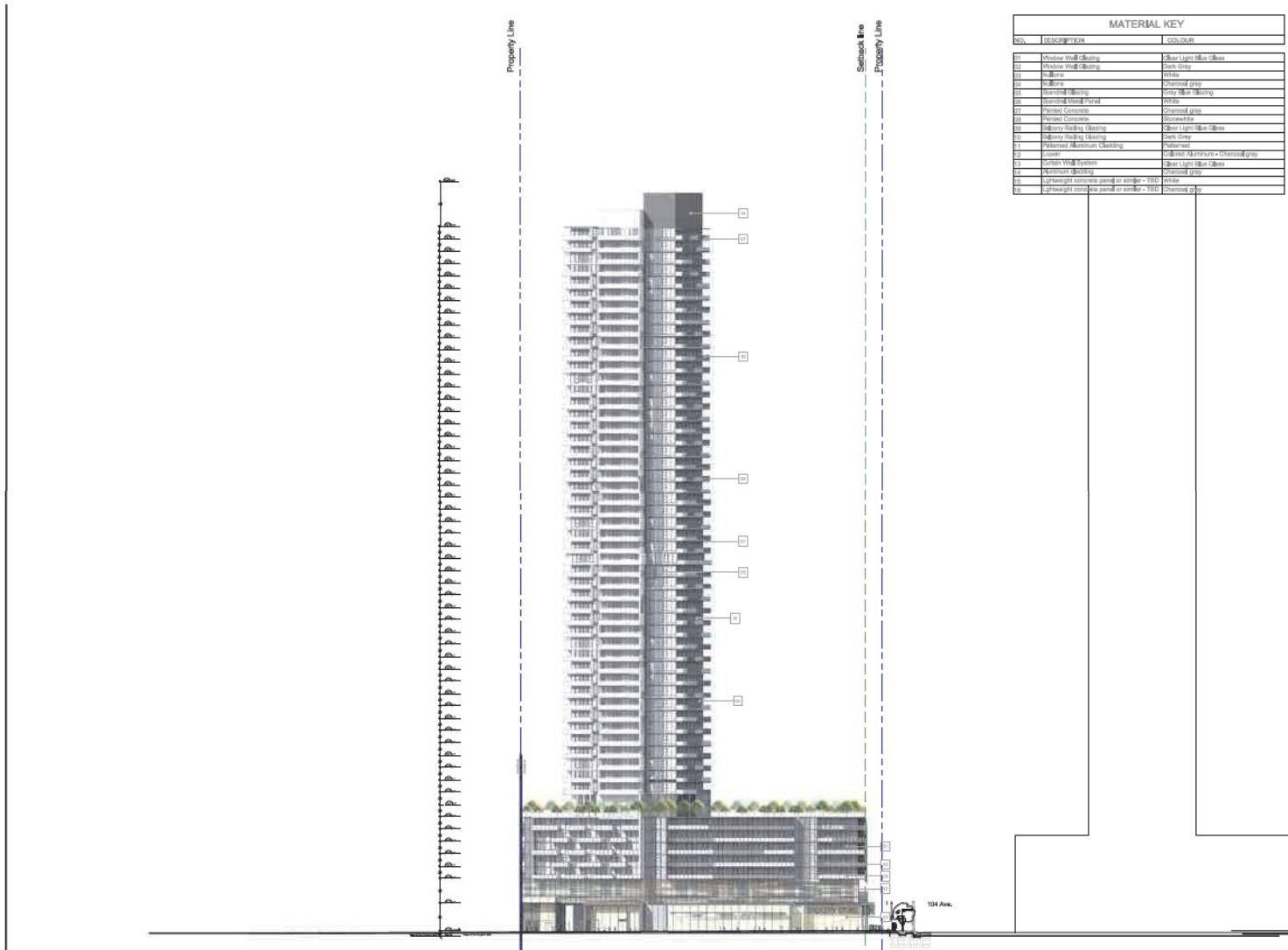
West Elevation



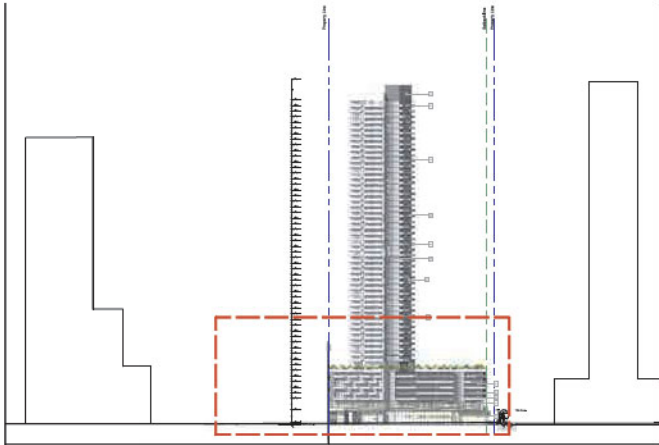
MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Window Wall Glazing	Anodized silver Miliion/Clear Light Blue Glass
02	Spandrel Glazing	Anodized silver Miliion/Gray Blue Glazing
03	Balcony Railing	Anodized silver Railing/Clear Glass
04	Painted Concrete	Stonewhite
05	Spandrel Metal Panel	White
06	LOUVER	Charcoal grey



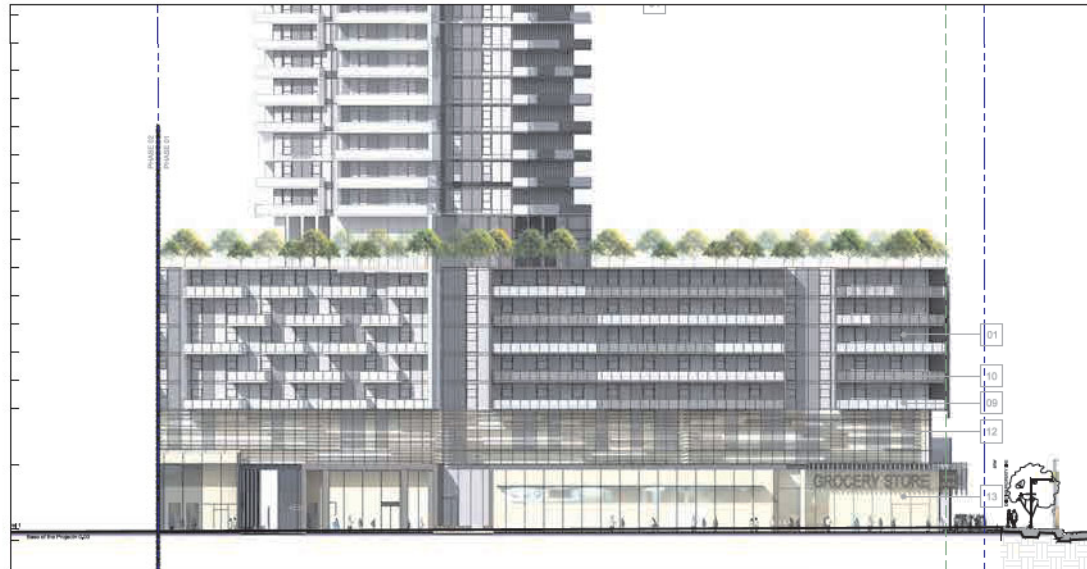
West Elevation (Blow up)



Est Elevation



MATERIAL KEY		
NO.	DESCRIPTION	COLOUR
01	Concrete Wall Cladding	Clear Light Blue Glass
02	Concrete Wall Cladding	Dark Grey
03	Wallstone	White
04	Wallstone	Shaded grey
05	Vertical Sliding	Grey Blue Sliding
06	Shaded Metal Panel	White
07	Perforated Concrete	Shaded grey
08	Perforated Concrete	Shaded grey
09	Shaded Metal Sliding	Clear Light Blue Glass
10	Shaded Metal Sliding	Dark Grey
11	Perforated Aluminum Cladding	Shaded
12	Panel	Shaded Aluminum - Horizontal/gray
13	Panel Wall Sliding	Clear Light Blue Glass
14	Perforated Sliding	Shaded grey
15	Lightweight concrete panel or similar - 150	White
16	Lightweight concrete panel or similar - 150	Shaded grey



East Elevation (blow up)

OVERALL LANDSCAPE CONCEPT PLAN

LANDSCAPE SET



GROUND FLOOR PLAN - PHASE 1



① BUFFER PLANTING STRIP



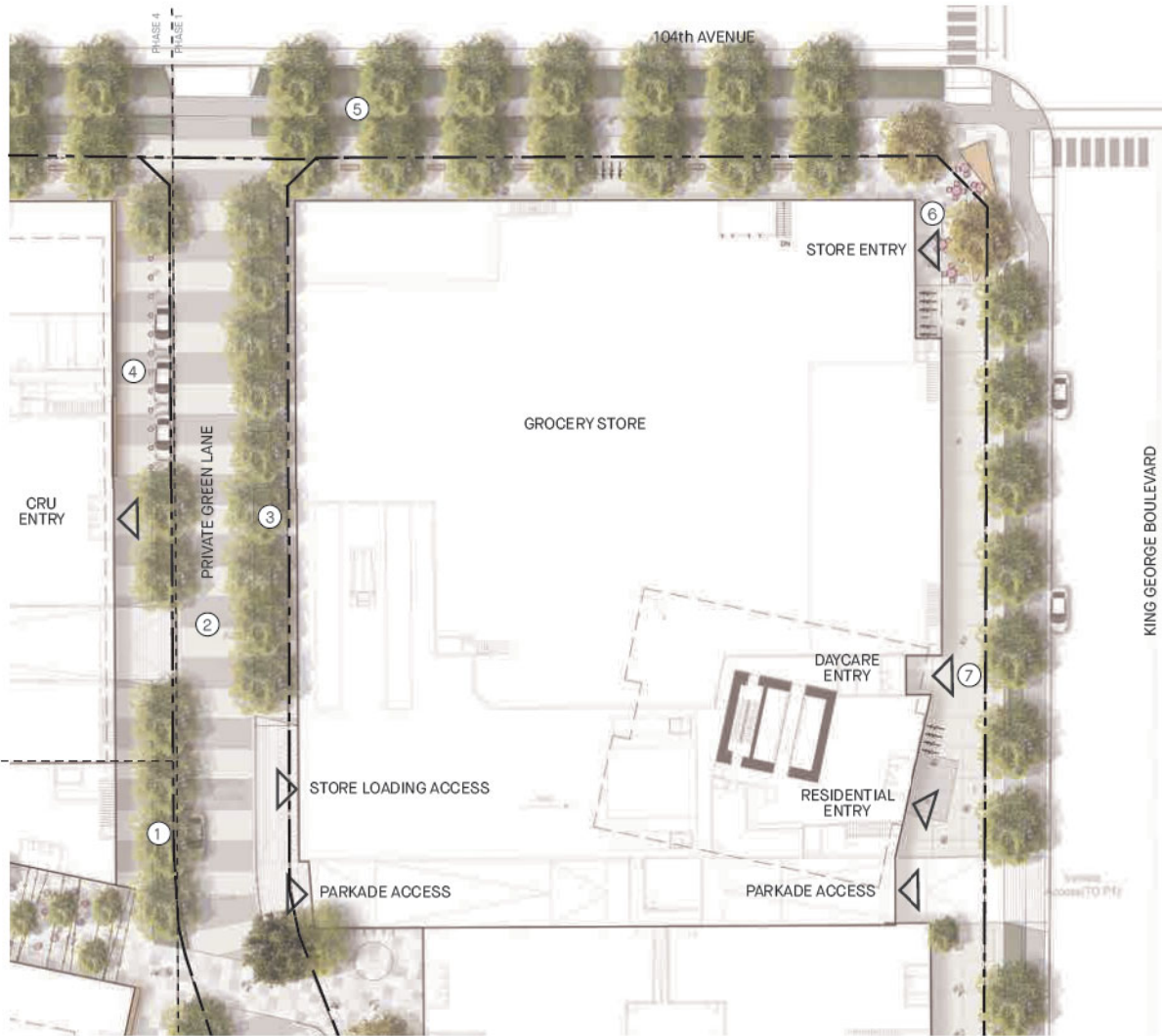
② PRIVATE GREEN LANE



③ BUFFERED STREETScape



④ PICK-UP AND DROP-OFF



LANDSCAPE SET



⑤ THREE ROW ALLEY

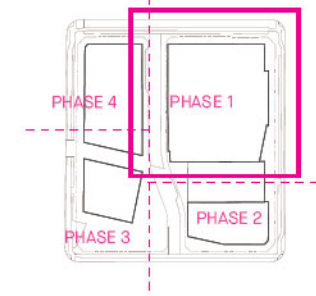


⑥ ENTRY PLAZA



⑦ ANIMATED CHILD CARE ENTRY

KEY PLAN



GROUND FLOOR PLAN - PHASE 2



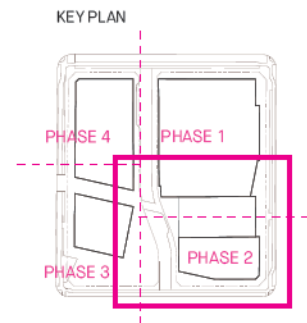
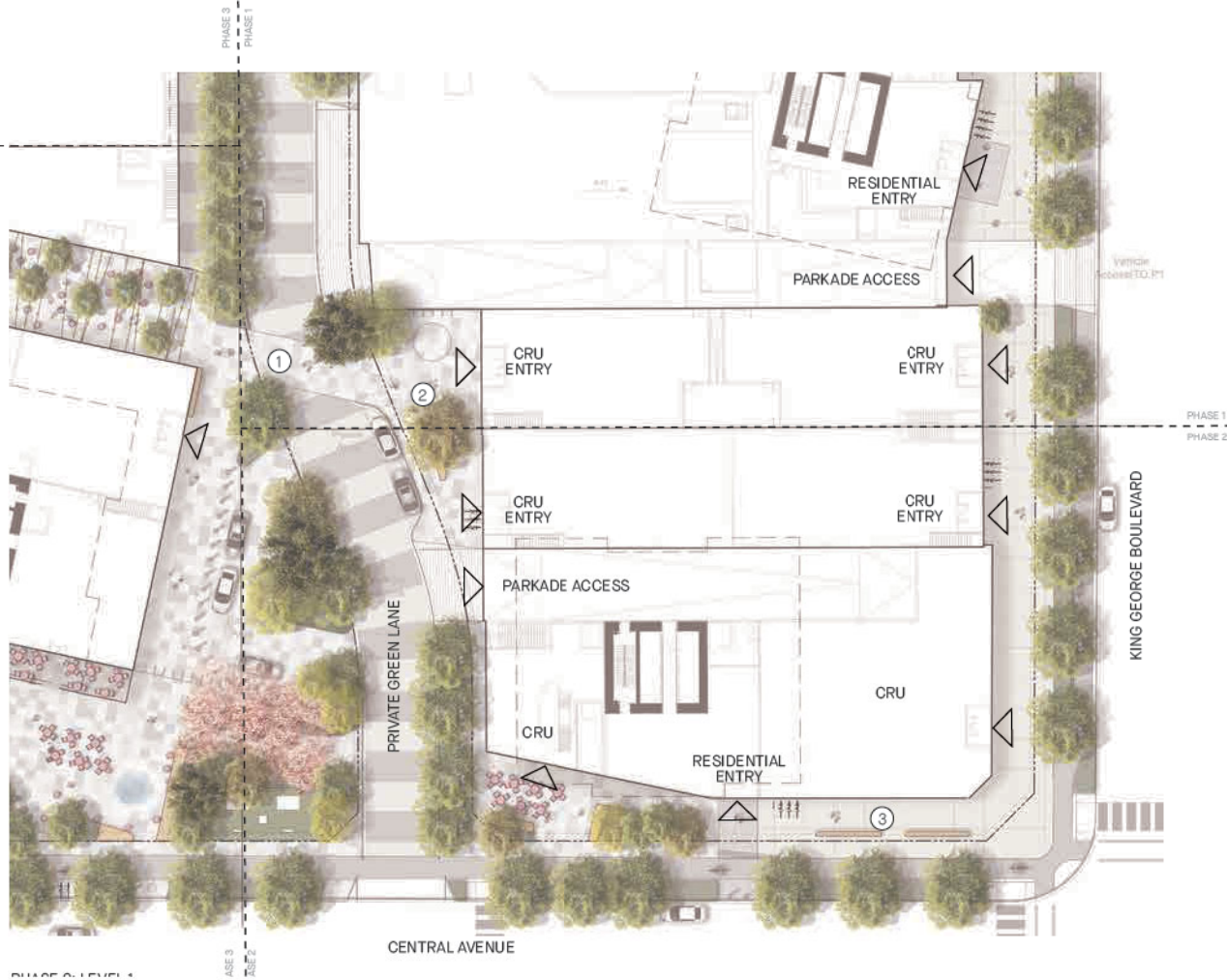
1 THE CROSSING



2 PLATFORM SEATING



3 GREEN SPINE



GROUND FLOOR PLAN - PHASE 3

LANDSCAPE SET



1 RETAIL EDDIES



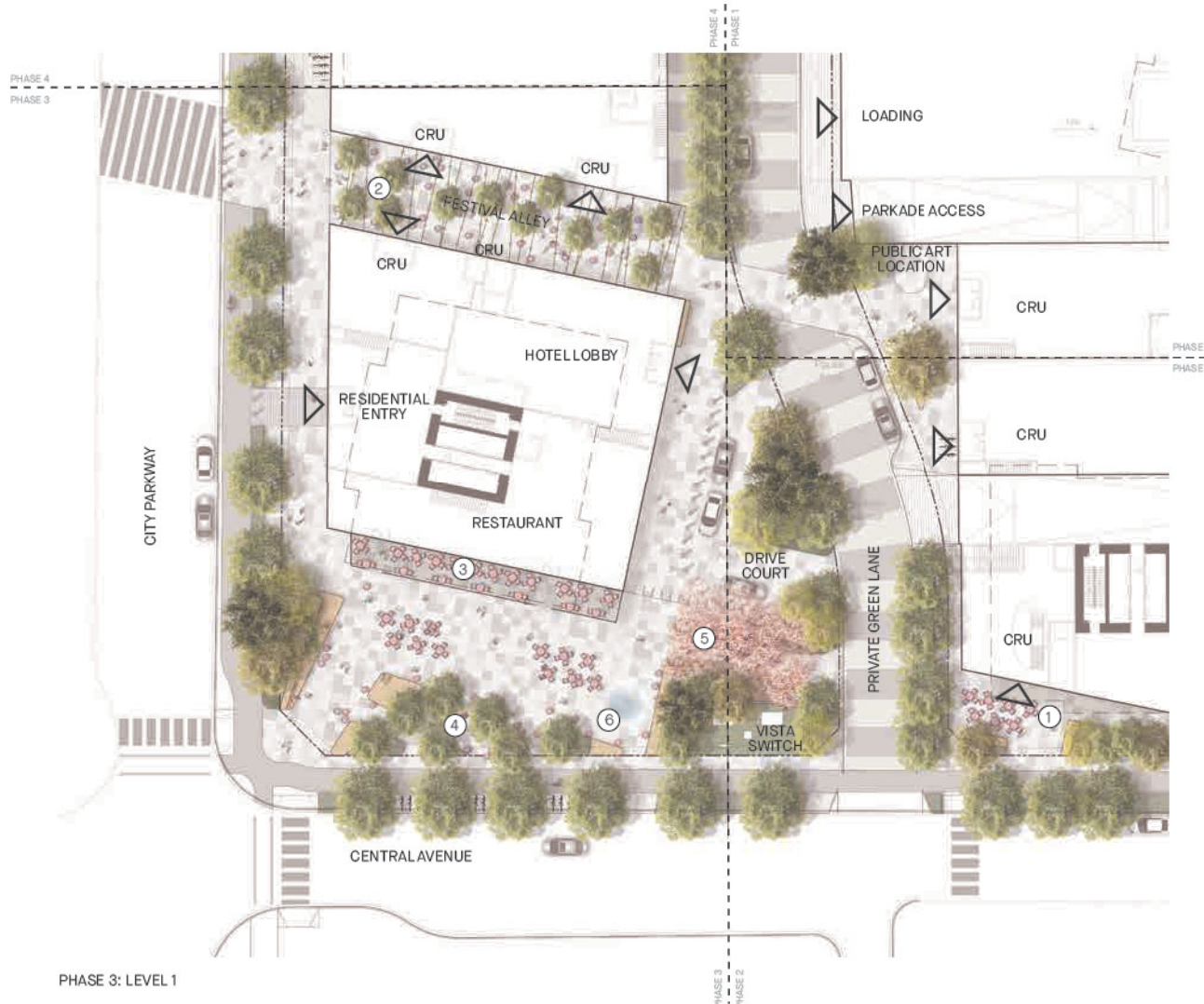
2 FESTIVAL ALLEY



3 POCKET PLAZA



POCKET PLAZA



PHASE 3: LEVEL 1

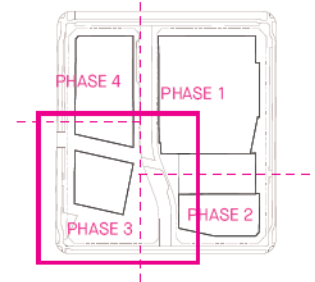


5 FLOWERING BOSQUE



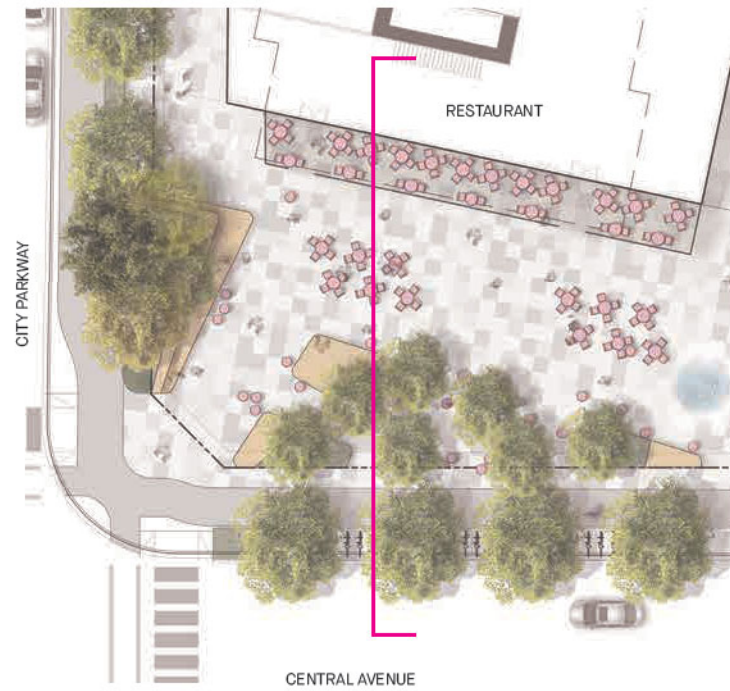
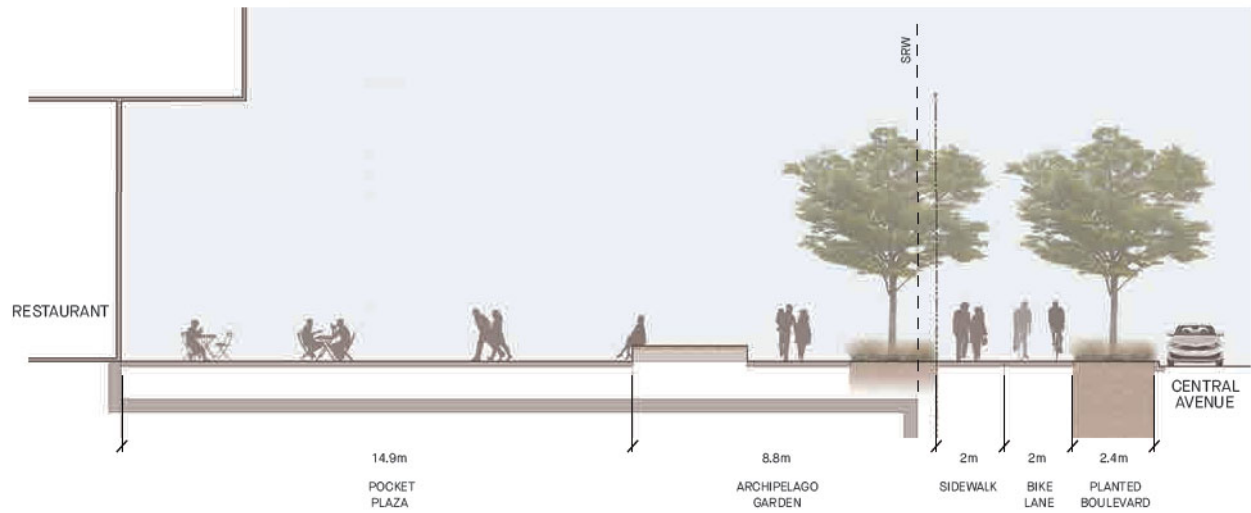
6 THE SURREY CENTRAL FOG CLOCK

KEY PLAN



GROUND FLOOR SECTION - CENTRAL AVE / RESTAURANT

LANDSCAPE SET



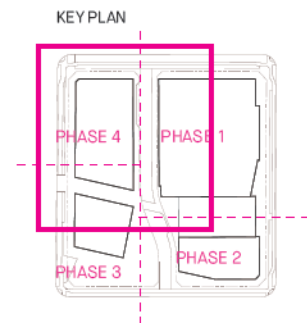
GROUND FLOOR PLAN - PHASE 4



① STREET FURNITURE



② CIRCUMFERENCE CANOPY



LEVEL 2 PLAN - PHASE 1 DAYCARE, RESIDENTIAL & RESTAURANT AMENITY



1 Clearing



2 Daycare Play Space



3 Outdoor Living Room



4 Outdoor Living Room



LANDSCAPE SET

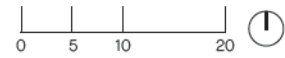
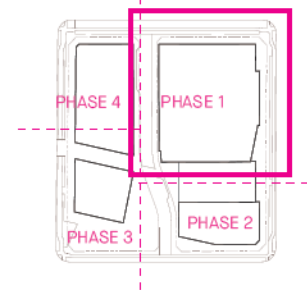


5 Pavilion



6 Rooftop Bar

KEY PLAN



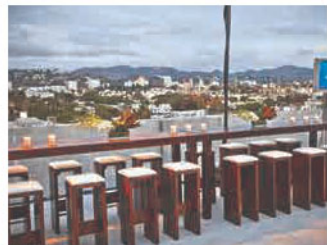
LEVEL 2 PLAN - PHASE 2 RESTAURANT & RESIDENTIAL AMENITY



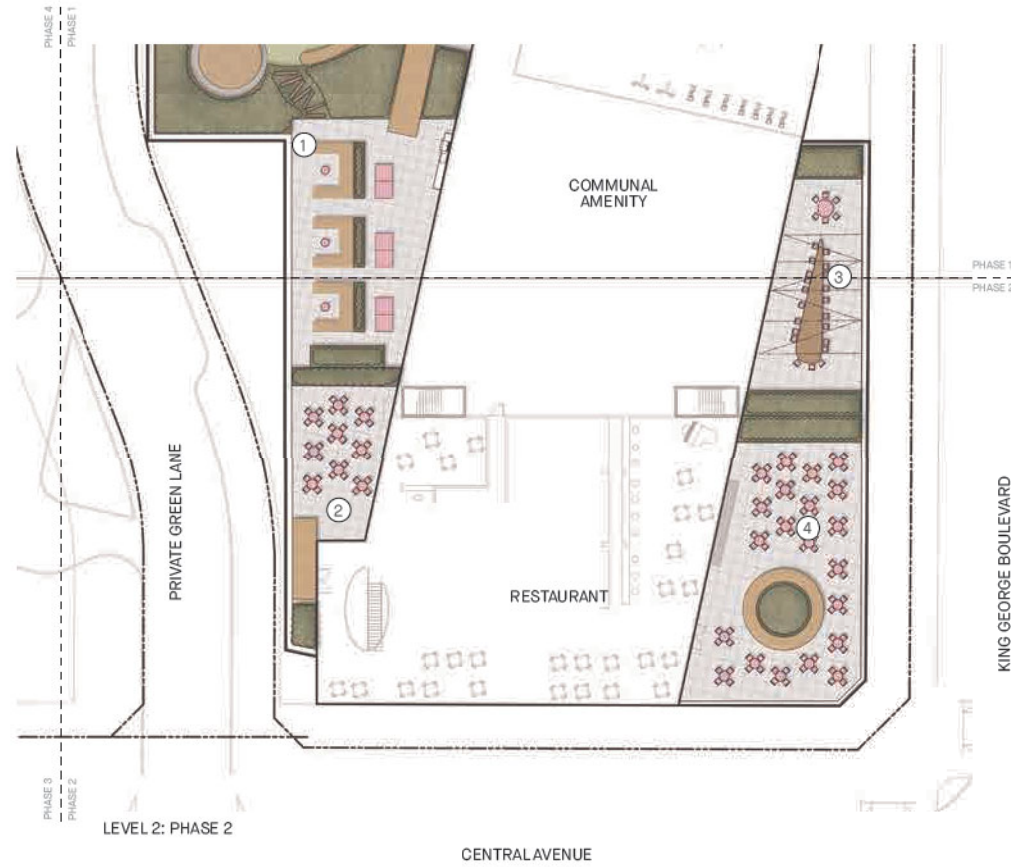
1 Lounge



2 Restaurant Patio 1

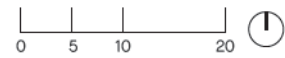
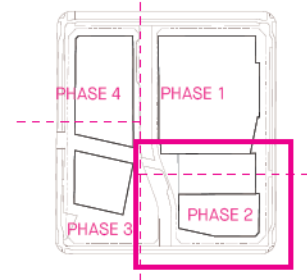


3 Rooftop Bar



4 Restaurant Patio 2

KEY PLAN

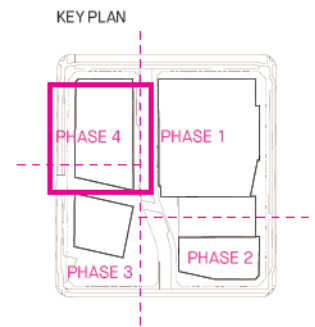
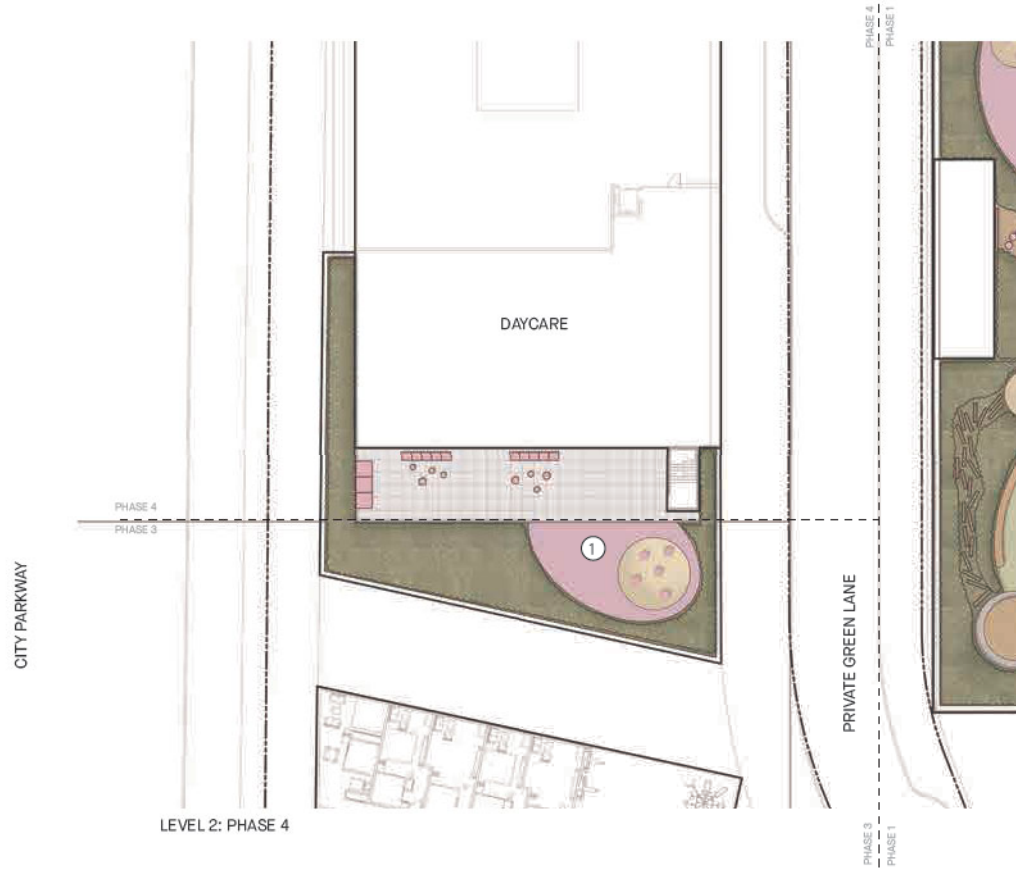


LEVEL 2 PLAN - PHASE 4 DAYCARE

LANDSCAPE SET



① Daycare Play Space



LEVEL 3 PLAN - PHASE 1 RESIDENTIAL AMENITY & PRIVATE PATIOS

LANDSCAPE SET



① Outdoor Room



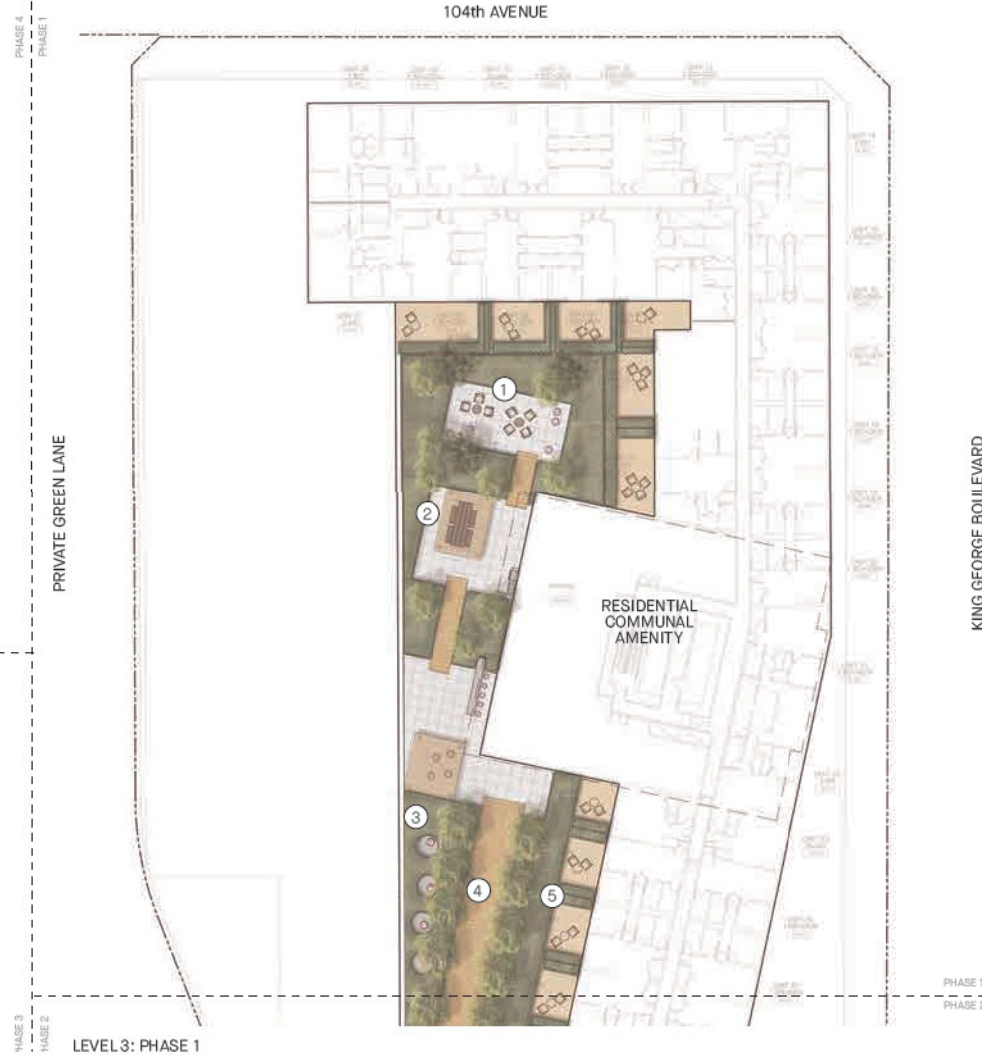
② Covered Workspace



③ Contemplation Nook

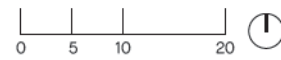
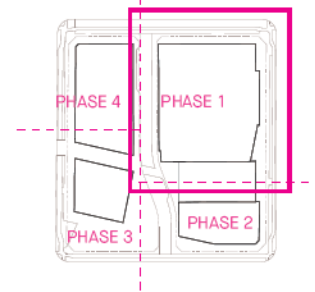


④ Deck



⑤ Private Patio
Trees and screening hedges provide privacy to residential patios

KEY PLAN



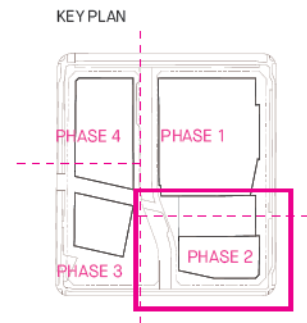
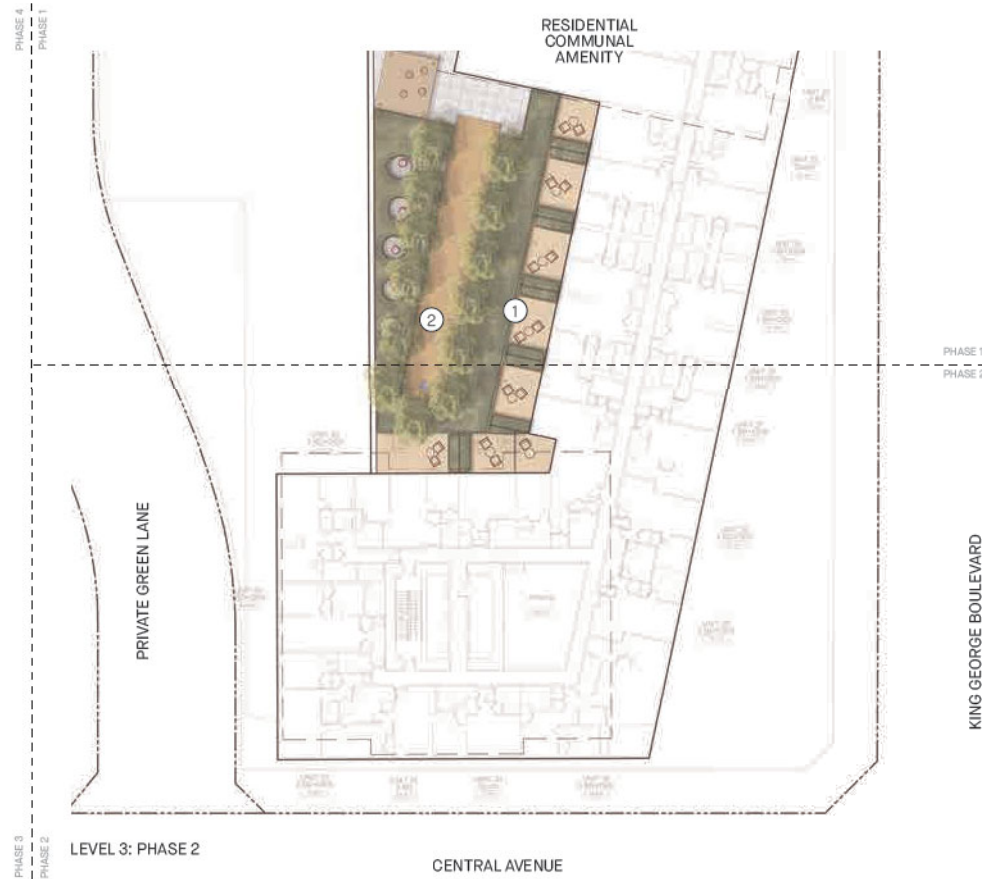
LEVEL 3 PLAN - PHASE 2 RESIDENTIAL AMENITY & PRIVATE PATIOS



① Private Patio



② Garden Path



LEVEL 8 PLAN - PHASE 1 RESIDENTIAL AMENITY

LANDSCAPE SET



① Outdoor Fitness



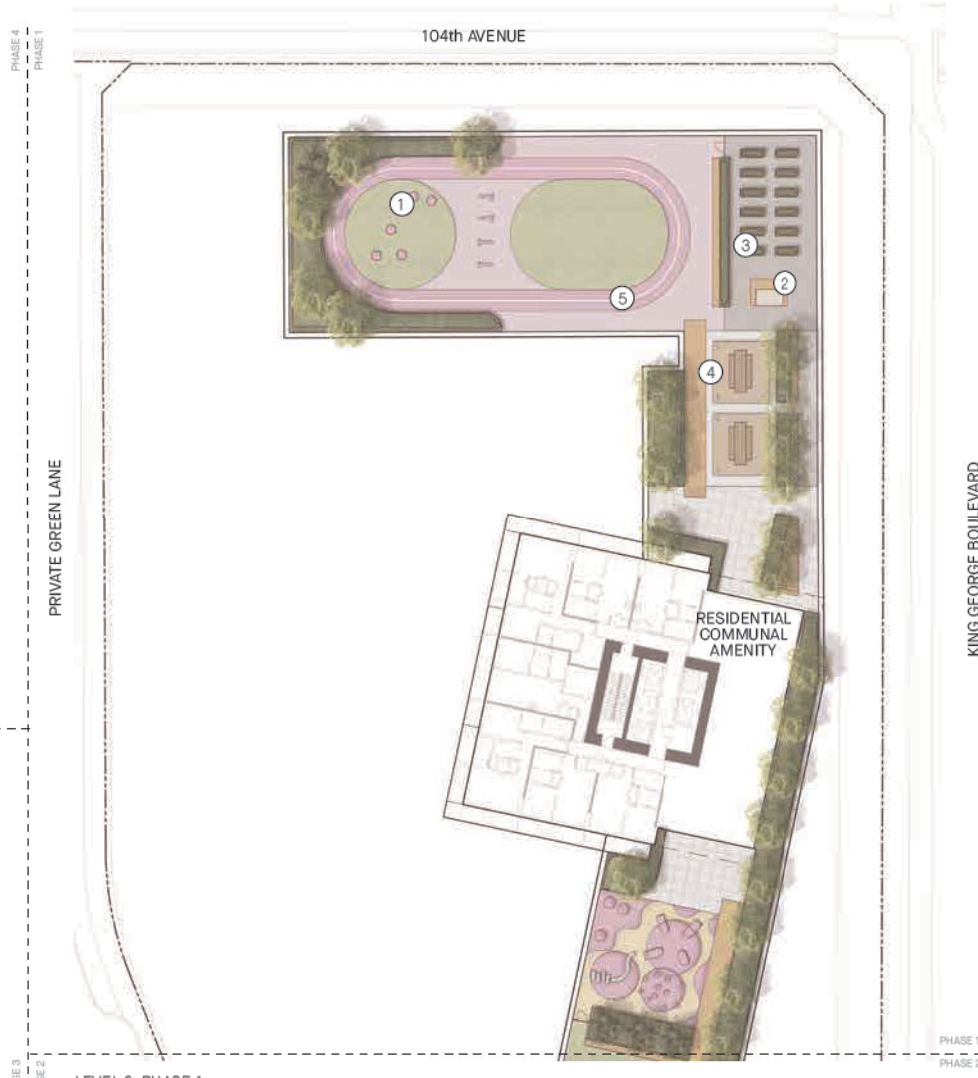
② Maker Space



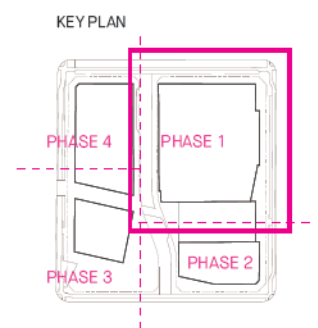
③ Urban Agriculture



④ Rooftop Dining



⑤ Running Track



LEVEL 8 PLAN - PHASE 2 RESIDENTIAL AMENITY



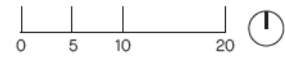
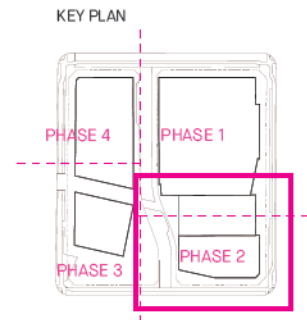
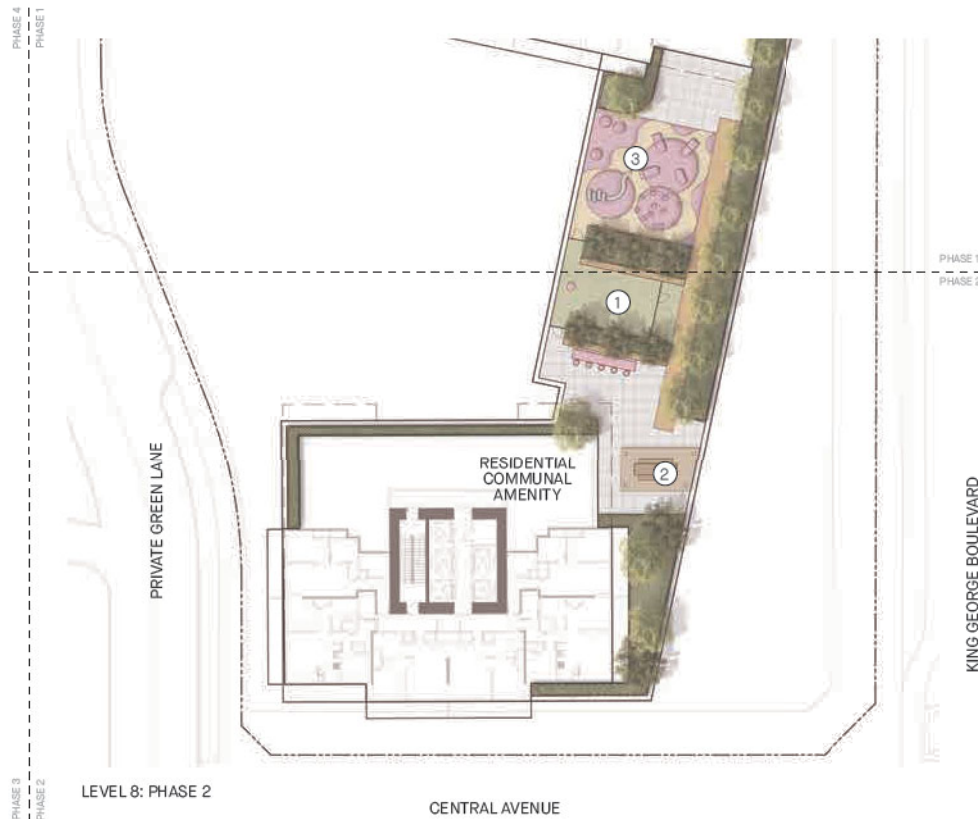
1 Dog Relief Area



2 Flex Space



3 Rooftop Playground



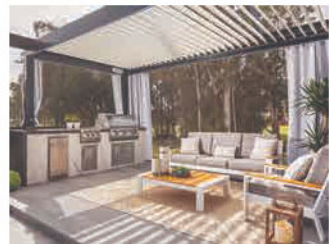
LEVEL 10 PLAN - PHASE 3 RESIDENTIAL AMENITY



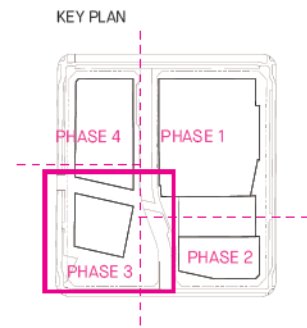
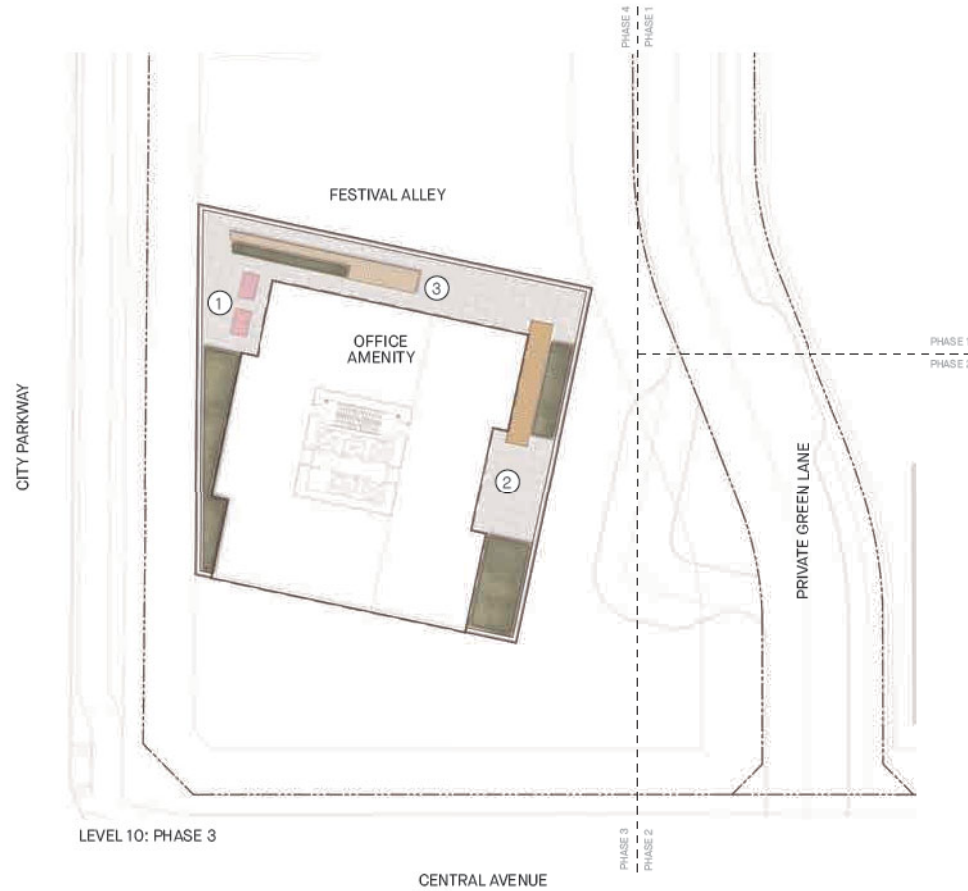
① Ping Pong Table



② Outdoor Break-out Space



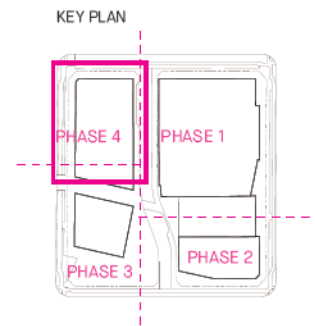
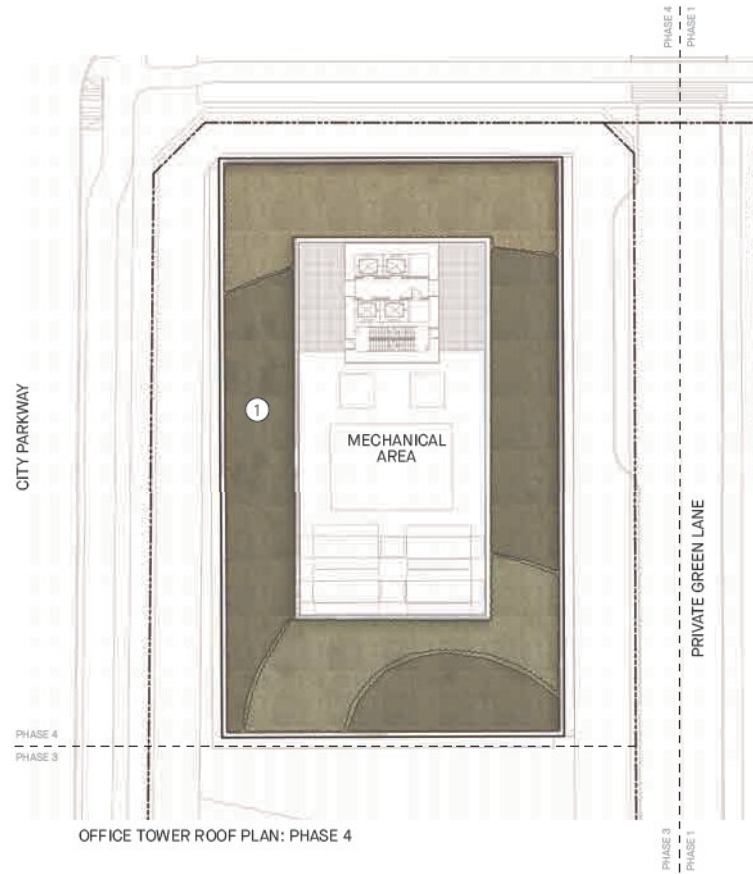
③ Covered Patio



OFFICE TOWER ROOF PLAN - PHASE 4 GREEN ROOF



1 Green Roof



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

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

DATE: **April 30, 2024** PROJECT FILE: **7822-0321-00**

RE: **Engineering Requirements
Location: 10355 King George Blvd**

REZONE/SUBDIVISION

Property and Right-of-Way Requirements

- Dedicate 4.958 m along 104 Avenue;
- Dedicate 3.442 m along City Parkway;
- Dedicate 2.931 m along King George Boulevard;
- Dedicate 7.233 m along Central Avenue;
- Dedicate 5.0 m x 5.0 m corner cuts at all intersections;
- Register 0.5 m statutory right-of-ways along all road frontages.

Works and Services

- Construct driveway letdown for accesses to the site;
- Construct adequately-sized service connections (drainage, water, and sanitary), to the site;
- Construct/upgrade required fronting servicing mains (drainage, water, and sanitary) in order to service the site.
 - Downstream sanitary constraints may exist. Submit sanitary catchment analysis.
- Abandon existing sanitary service connections.

A Servicing Agreement is required prior to Rezone/Subdivision.

DEVELOPMENT PERMIT

There are no engineering requirements relative to issuance of the Development Permit.



Jeff Pang, P.Eng.
Manager, Development Services
MS

Department: **Planning and Demographics**
Date: **March 1, 2024**
Report For: **City of Surrey**

Development Impact Analysis on Schools For:

Application #: **22 0321 00**

The proposed development of **2092** High Rise Apartment units are estimated to have the following impact on elementary and secondary schools within the school regions.

School-aged children population projection	176
---	-----

Projected Number of Students From This Development In:	
Elementary School =	105
Secondary School =	42
Total Students =	147

Current Enrolment and Capacities:	
Old Yale Road Elementary	
Enrolment	526
Operating Capacity	438
# of Portables	3
Kwantlen Park Secondary	
Enrolment	1594
Operating Capacity	1200
# of Portables	16

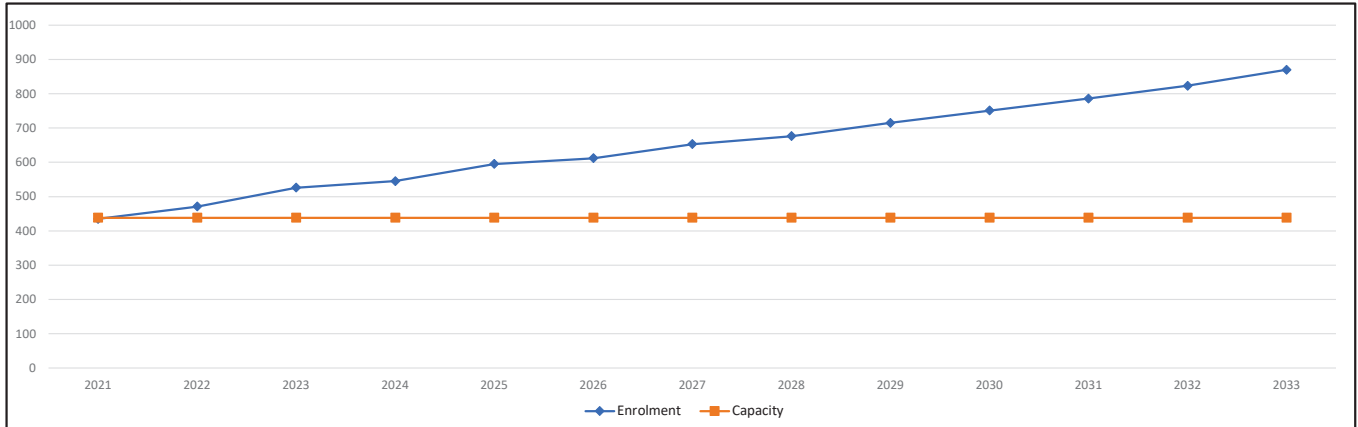
Summary of Impact and Commentary

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

Old Yale Road catchment serves the central business district of Surrey. As of September 2023, the school was operating at 120% capacity. This catchment is projected to see significant growth over the coming years. As part of the 2024/25 Capital Plan, the District has requested a 10-classroom addition and additions at surrounding schools, but no capital funding has been approved at this time.

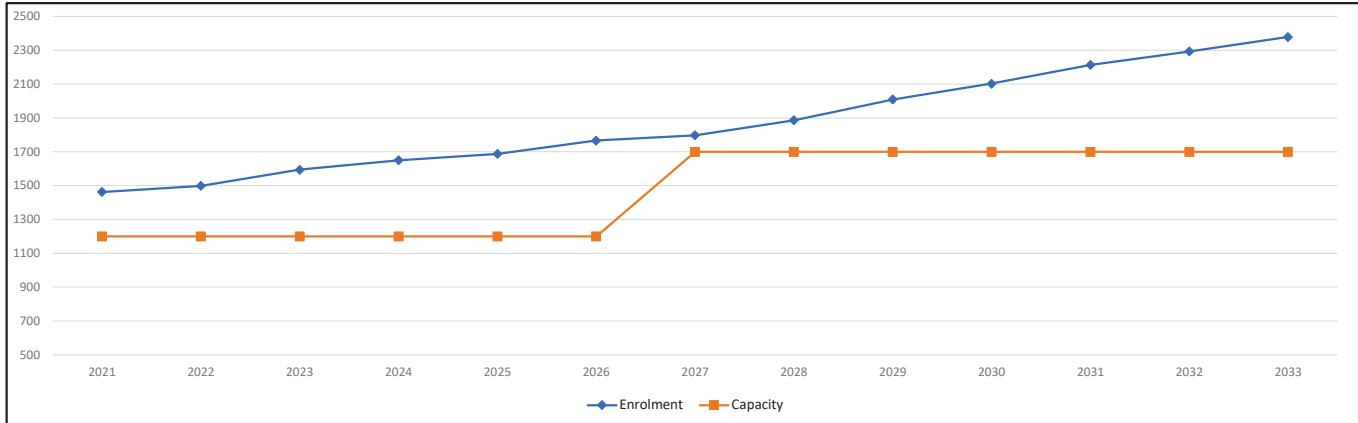
As of September 2023, Kwantlen Park Secondary is currently operating at 133% with 16 portables on site used for enrolling classes and is projected to grow significantly over the next 10 years. This school will also be impacted by timing of future high-rise development in the area. In February 2023, the District has received capital funding approval from the Ministry to build a 500-capacity addition, targeted to open in the fall of 2027. However additional measures will also be required to address the future growth.

Old Yale Road Elementary



Note: If this report is provided in the months of October, November and December, the 10-year projections are out of date and they will be updated in January of next year.

Kwantlen Park Secondary



Note: If this report is provided in the months of October, November and December, the 10-year projections are out of date and they will be updated in January of next year.

Population: The projected population of children aged 0-17 impacted by the development.

Enrolment: The number of students projected to attend the Surrey School District ONLY.

Tree Preservation Summary

Surrey Project No:

Address: 10355 King George Blvd Surrey

Registered Arborist: Glenn Murray

On-Site Trees	Number of Trees
Protected Trees Identified (on-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	76
Protected Trees to be Removed	76
Protected Trees to be Retained (excluding trees within proposed open space or riparian areas)	0
Total Replacement Trees Required: - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio <u> 0 </u> X one (1) = 0 - All other Trees Requiring 2 to 1 Replacement Ratio <u> 76 </u> X two (2) = 152	152
Replacement Trees Proposed	0
Replacement Trees in Deficit	152
Protected Trees to be Retained in Proposed [Open Space / Riparian Areas]	

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

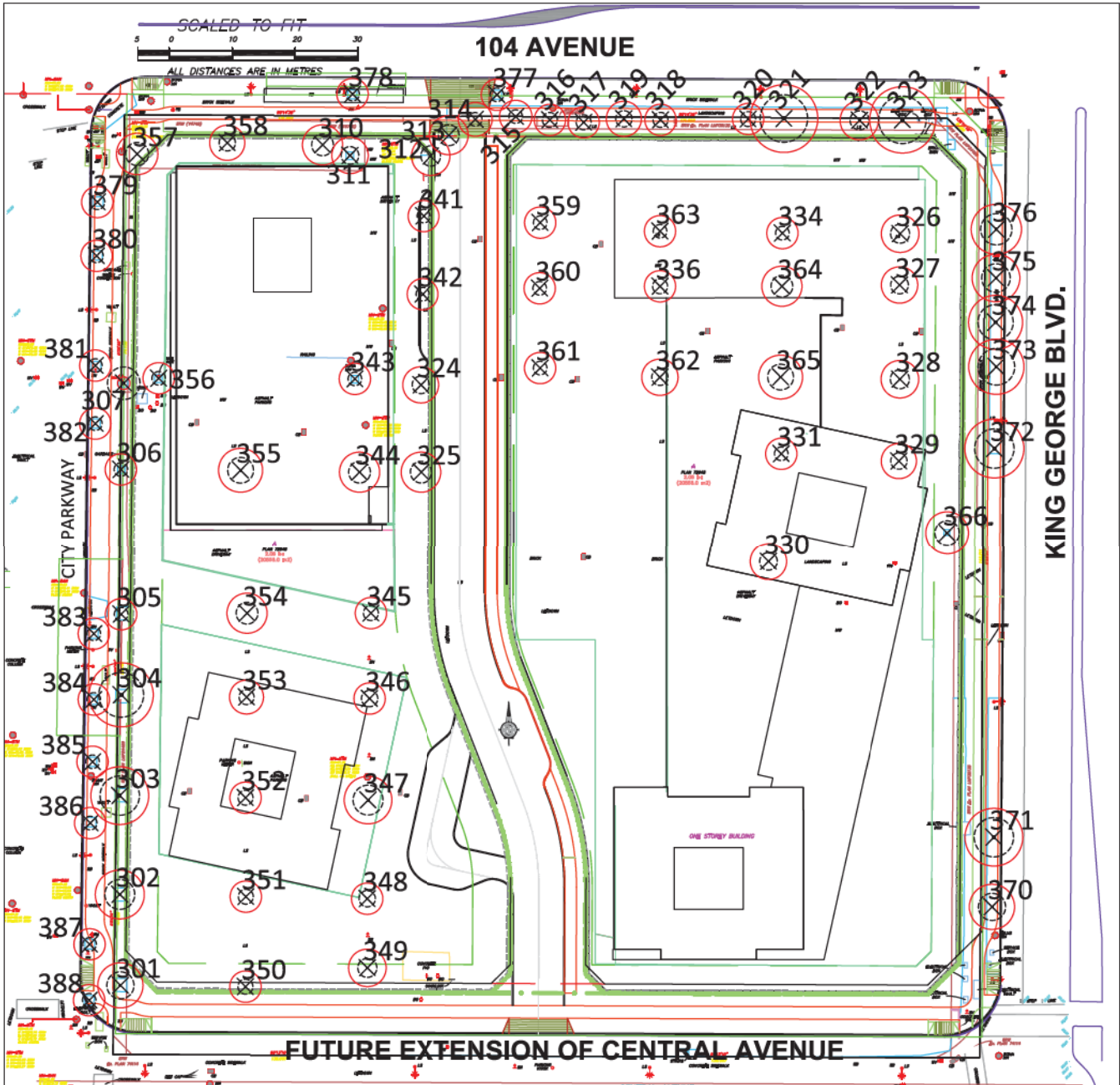
Summary, report and plan prepared and submitted by:



(Signature of Arborist)

Apr 16, 2024
Date

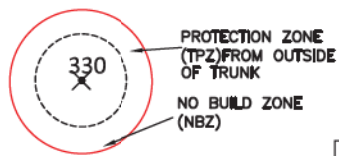
APPENDIX 2 TREE REMOVAL PLAN



TREE INVENTORY

#	Type	Action	DBH	TPZ	#	Type	Action	DBH	TPZ
301	Red Maple	Remove	33cm	2.0m	348	Red Maple	Remove	20cm	1.2m
302	Red Maple	Remove	37cm	2.2m	349	Red Maple	Remove	23cm	1.4m
303	Red Maple	Remove	46cm	2.9m	350	Red Maple	Remove	19cm	1.1m
304	Red Maple	Remove	55cm	3.3m	351	Red Maple	Remove	18cm	1.1m
305	Red Maple	Remove	40cm	2.4m	352	Red Maple	Remove	25cm	1.5m
306	Red Maple	Remove	15cm	1.0m	353	Red Maple	Remove	18cm	1.1m
307	Red Maple	Remove	40cm	2.4m	354	Red Maple	Remove	26cm	1.6m
310	Linden	Remove	26cm	1.6m	355	Red Maple	Remove	31cm	1.9m
311	Red Maple	Remove	22cm	1.3m	356	Katsura	Remove	13cm	1.0m
312	Cherry	Remove	25cm	1.5m	357	Cherry	Remove	28cm	1.7m
313	Cherry	Remove	24cm	1.4m	358	Linden	Remove	20cm	1.2m
314	Linden	Remove	18cm	1.1m	359	Red Maple	Remove	14cm	1.0m
315	Linden	Remove	12cm	1.0m	360	Red Maple	Remove	15cm	1.0m
316	Linden	Remove	20cm	1.2m	361	Red Maple	Remove	14cm	1.0m
317	Red Maple	Remove	18cm	1.1m	362	Red Maple	Remove	22cm	1.3m
318	Red Maple	Remove	19cm	1.1m	363	Red Maple	Remove	17cm	1.0m
319	Red Maple	Remove	20cm	1.2m	364	Red Maple	Remove	27cm	1.6m
320	Red Maple	Remove	16cm	1.1m	365	Red Maple	Remove	31cm	1.9m
321	Red Maple	Remove	60cm	3.6m	366	Red Maple	Remove	30cm	1.8m
322	Linden	Remove	24cm	1.4m	370	Red Oak	Remove	33cm	2.0m
323	Red Maple	Remove	56cm	3.5m	371	Red Oak	Remove	48cm	2.9m
324	Red Maple	Remove	21cm	1.3m	372	Red Oak	Remove	49cm	2.9m
325	Red Maple	Remove	26cm	1.6m	373	Red Oak	Remove	45cm	2.7m
326	Red Maple	Remove	23cm	1.4m	374	Red Oak	Remove	43cm	2.6m
327	Red Maple	Remove	21cm	1.3m	375	Red Oak	Remove	35cm	2.1m
328	Red Maple	Remove	23cm	1.4m	376	Red Oak	Remove	39cm	2.3m
329	Red Maple	Remove	20cm	1.2m	377	Red Maple	Remove	5cm	1.0m
330	Red Maple	Remove	21cm	1.3m	378	Hedge Maple	Remove	15cm	1.0m
331	Red Maple	Remove	15cm	1.0m	379	Honey Locust	Remove	18cm	1.1m
334	Red Maple	Remove	16cm	1.0m	380	Honey Locust	Remove	17cm	1.0m
336	Red Maple	Remove	16cm	1.1m	381	Honey Locust	Remove	17cm	1.0m
341	Red Maple	Remove	13cm	1.0m	382	Honey Locust	Remove	6cm	1.0m
342	Red Maple	Remove	12cm	1.0m	383	Honey Locust	Remove	11cm	1.0m
343	Katsura	Remove	15cm	1.0m	384	Honey Locust	Remove	5cm	1.0m
344	Red Maple	Remove	27cm	1.6m	385	Honey Locust	Remove	9cm	1.0m
345	Red Maple	Remove	18cm	1.1m	386	Honey Locust	Remove	16cm	1.0m
346	Red Maple	Remove	20cm	1.2m	387	Honey Locust	Remove	17cm	1.0m
347	Red Maple	Remove	36cm	2.2m	388	Honey Locust	Remove	15cm	1.0m

TREE PROPOSED FOR REMOVAL LEGEND



- NOTES:
1. SITE LAYOUT INFORMATION AND TREE SURVEY DATA PER SUPPLIED DRAWING
 2. REFER TO ATTACHED TREE PROTECTION REPORT FOR INFORMATION CONCERNING TREE SPECIES, STEM DIAMETER, HEIGHT, CANOPY SPREAD AND CONDITION.
 3. ALL MEASUREMENTS ARE METRIC

**Froggers Creek
Tree Consultants Ltd**

7763 McGregor Avenue Burnaby BC V5J 4H4
Telephone: 604-721-6002 Fax: 604-437-0970

10355 King George Blvd

TREE REMOVAL PLAN
THE DRAWING PLOTS ALL TREES, PROPOSED FOR REMOVAL AND THEIR PROTECTION ZONES IN RELATION TO PROPOSED LAYOUT

April 16, 2024

CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7922-0321-00

Issued To:

Address of Owner:

1. This development variance permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development variance permit.

2. This development variance permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 004-863-917
 Lot A Section 27 Block 5 North Range 2 West New Westminster District Plan 72648
 10355 King George Blvd.

(the "Land")

3. (a) As the legal description of the Land is to change, the City Clerk is directed to insert the new legal description for the Land once title(s) has/have been issued, as follows:

Parcel Identifier:

- (b) If the civic address(es) change(s), the City Clerk is directed to insert the new civic address(es) for the Land, as follows:

4. Surrey Subdivision and Development By-law, 1986, No. 8830, as amended is varied as follows:
 - (a) In Part I – Interpretation – Definitions, "Bond" means cash, an irrevocable Letter of Credit or a Surety Bond in favour of the City.
5. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
6. This development variance permit shall lapse if the Owner does not substantially start any construction with respect to which this development variance permit is issued, within two (2) years after the date this development variance permit is issued.
7. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
8. This development variance permit is not a building permit.

AUTHORIZING RESOLUTION PASSED BY THE COUNCIL/DELEGATED OFFICIAL, THE
DAY OF , 20 .

ISSUED THIS DAY OF , 20 .

Mayor – Brenda Locke

City Clerk – Jennifer Ficocelli



Advisory Design Panel Minutes

Location: Virtual
THURSDAY, MARCH 7, 2024
Time: 4:00 p.m.

Present:

Panel Members:
M. Cheung, Chair
G. Brumpton
N. Couttie
M. Krivolutskaya
J. Packer
Y. Popovska

Guests:

Sebastian Jasiorkowski, Wesgroup Properties LP
Gwyn Vose and Orod Aris, Arcadis Architects
Joseph Fry and Lukas Holy, Hapa Collaborative

Staff Present:

A. McLean, City Architect
S. Maleknia, Sr. Urban Design Planner
A. Yahav, Clerk 3

B. NEW SUBMISSIONS

1. 4:05 p.m.

File No.:	7922-0321-00
New or Resubmit:	New
Last Submission Date:	N/A
Description:	Rezoning from C-8 to CD based on RM-135 and C-8, sitewide General Development Permit, Detailed Development Permit for Phase 1 and Subdivision (from one lot into four) to allow for a four-phase, mixed-use development consisting of 4 high-rise (13, 60, 60 and 61 storeys) mixed-use towers consisting of ground floor commercial, food store, daycare, restaurant, hotel, office (stand-alone 13-storey in Phase 4), and 2,092 residential dwelling units with an overall site-wide gross FAR of 9.10.
Address:	10355 King George Boulevard
Developer:	Sebastian Jasiorkowski, Wesgroup Properties LP
Architect:	Gwyn Vose and Orod Aris, Arcadis Architects
Landscape Architect:	Joseph Fry and Lukas Holy, Hapa Collaborative
Planner:	Jennifer McLean
Urban Design Planner:	Sam Maleknia

The Urban Design Planner outlined the important aspects of the project, starting from the broader context and location of the site. He further explained the neighbouring sites and current and future development activities. He emphasized the importance of public realm and connectivity throughout the site, noting that the project's tower separation does not meet the city center guidelines. The Panel was advised that the use, programming, density, and general heights have been supported by staff.

The Panel was asked to comment on the form and architecture, tower placement, tower height variations, programming and use, public realm interfaces and landscape concept.

The Project Architect presented an overview of the site planning, streetscapes, building concept, and 3D Views.

The Landscape Architect presented an overview of the general concept for the Landscape design.

ADVISORY DESIGN PANEL STATEMENT OF REVIEW

Panel members were asked to put forward and vote on two separate motions to evaluate both the general development permit (GDP) for the entire site and the detailed development permit (DDP) for phase 1 of the project:

It was Moved by N. Couttie
Seconded by J. Packer
That the Advisory Design Panel (ADP)
SUPPORT the GDP of the project and recommends that the applicant address the following issues to the satisfaction of the Planning & Development Department.
Carried

It was then Moved by N. Couttie
Seconded by J. Packer
That the Advisory Design Panel (ADP)
SUPPORT the DDP for phase 1 of the project and recommends that the applicant address the following issues to the satisfaction of the Planning & Development Department.
Carried

Key Points

GDP

- Consider more tower separation between different phases.
Wesgroup has taken every feasible option to increase the separation between towers, while keeping the current configuration of the site programming in-tact. There have been discussions ongoing for over year, some of which culminated with the City's design team requesting we move (or remove) entire tower blocks. The location of every single tower, their phasing, and massing has been carefully considered since Day-1 of this project. The three biggest drivers for the current site configuration are: the grocery store location, the standalone office tower location, and the location of the plaza. The phasing requirements are also very prescriptive, thanks in part to the location of the future Private Green Lane, as well as the CRUs in the NW corner which will be utilized as an on-site discovery & sales centre. With the grocery store being required to be constructed in the NE corner, at King George & 104th, in the first phase, the rest of the site falls into place – running clockwise until we culminate with the office tower in the final phase in the NW corner. As such, we decided to rotate two towers to create a more interesting impact on the skyline, as well as influence some additional separation between the face-to-face plane. Based on additional meetings we've had, we will work on the architectural façade & balcony expressions on the Phase 2 tower to limit sightlines into the adjacent towers.

- Consider more tower height variation between different phases.
We have amended the towers to show further height variation:
 - Tower 1: 55-storeys
 - Tower 2: 60-storeys
 - Tower 3: 65-storeys
- Reconsider the treatment of the office rooftop space for better usability.
We have added a green roof to the office building. We'll continue to work through the detailed design of this area as we progress through the phases.
- Consider grocery store heat recovery strategy for the entire project.
Wesgroup has engaged Reshape Strategies, an infrastructure consultant that focuses on sustainable energies & systems, to help us understand any potential strategies to recover waste heat throughout the project. Wesgroup also has an internal sustainability department that is providing input on the design of the mechanical & electrical systems. We intend to formally request the grocery store operator group to utilize their store within the greater heat recovery plan.

DDP

- Consider energy modeling to future climate data (2050 – 2080) to anticipate shock events (hot and cold).
Our energy consultant is currently working on an energy modeling report, and we'll have them provide some guidance for longer-term effects of any polar extreme events.
- Reconsider the ratio between indoor and outdoor use for the daycare and consider further design development for the childcare facility and consult with a licensing group during this process.
*The new design of the daycare more appropriately aligns the outdoor and indoor space allocations. We've also incorporated a 2nd daycare space in Phase 4 to keep the same amount of originally proposed floor area (in fact there is a net gain of roughly 3,500sf).
We will also reach out to private daycare providers we've worked with in the past to provide further guidance on the design.*

Site

GDP

- Consider undergrounding the Vista switchgear and further coordination with landscape.
Our electrical engineer will coordinate with BC Hydro and push to get approval to underground the Vista switch.
- Consider providing more coordination between the parkade ventilation, vista, etc. and the landscape design/public realm.
We will ensure that all items which interact with the public realm are coordinated appropriately.

DDP

- No specific issues were identified.
Noted.

Form and Character

GDP

- Consider providing more design coordination between project phasing to building design.
We are working with the code consultant to ensure proper project phasing between buildings is captured in design and is feasible from a constructability standpoint. The phasing of Phase 1 and Phase 2, specifically in the podium, will be coordinated so that the southern portion of Phase 1's podium is temporarily clad with an attractive finish. The current expectation is that construction timing between the two phases will be roughly 2-years apart, and Phase 2 will be well under construction upon completion of Phase 1.

DDP

- Consider better articulating the restaurant corner and the podium massing above.
As we engage potential restaurant groups, we'll continue working through the design of these CRU spaces to ensure they appropriately fit within the massing.
- Recommend moving the grocery store entrance to the closest possible point to the SkyTrain and other public transportation.
The location of the grocery store entrance has been discussed at length for almost a year. We have met multiple times with the Urban Design team to work through potential solutions that appease their recommendations, while also being conscious of the realities of the layout as imposed to us by operators. The operator has a unique understanding as to what works design-wise from a real-world functionality perspective. Wesgroup has worked with the architect and landscape architect to enhance the public realm leading from public transportation nodes around the site towards the grocery store entrance. The functionality of the main grocery store entrance being in the NW corner is also due to the loading and back-of-house requirements of a grocer. The City would not allow a grocer to load immediately off busy arterials like 104th Avenue and King George Boulevard, so naturally the store needs to be loaded off a laneway. This laneway bisects the site North-South, and therefore the back-of-house for a grocery store needs to be located near the loading area. We have also recently further enhanced the pedestrian experience along the private laneway and along 104th Avenue to create a more intimate and friendly approach. Therefore, we will proceed with maintaining the grocery store entrance in its current location.
- Review the residential unit layouts at building corners to ensure exposure to natural light and privacy.
Unit layouts will continue to be reviewed at building corners as we proceed towards an anticipated sales launch in 2025.

- Reconsider the locations of the daycare.
*We are reducing the size of the daycare in Phase 1 to meet the outdoor play area requirements per the interior space amount.
We've also located a 2nd daycare within the office tower phase.*
- Review the daycare drop off/pick up strategy.
We will work with a daycare provider throughout detailed design to ensure we have an appropriate drop-off/pick-up area on the ground floor and in the parkade.
- Ensure balconies do not get reduced to less than six feet as the project develops.
As we work through design, we'll make sure that balconies are appropriately sized.

Landscape

GDP

- Further review and refine the landscape concept.
We continue to work with the landscape architect to enhance the concept and move it through to detailed design.
- Recommend further design development in the office building rooftop space.
We've worked with the landscape architect to make the rooftop of the office tower a green roof.

DDP

- Ensure that the landscape design for the outdoor daycare play area meets basic requirements for a childcare facility of its size.
*As mentioned previously, we are making the daycare space within Phase 1 smaller so that its indoor square footage aligns better with the outdoor play area space.
The new daycare space in Phase 4 also meets required minimums for outdoor play area.*
- Reconsider the proximity of the grocery store exhaust to the child play area to mitigate noise levels, fume emissions, etc.
We will review the location of the grocery store exhaust to mitigate its interaction with the daycare play area and outdoor amenity locations.
- Recommend conducting shadow studies for the daycare outdoor play areas.
We've created more shadow studies to show the impact of the towers on the daycare play areas.
- Consider the addition of covered space that can be used in all weather.
We will work to find opportunities for more covered outdoor spaces within the project.

CPTED

GDP

- No specific issues were identified.
Noted.

DDP

- No specific issues were identified.
Noted.

Sustainability

GDP

- Consider establishing specific targets for project performance goals which exceed BC Step Code minimums for aspects like insulation values and/or air tightness.
We will work with our energy and sustainability consultants to seek efficiencies wherever feasible.

DDP

- Consider providing bike parking for E-bikes for both internal and exterior bike parking.
We will establish designated parking for E-bike commuters to charge their vehicles.
- Consider high quality bike amenities including good wayfinding for bicyclists, automatic door operators to ease entry and exit, ample room for cargo bikes and trailers, and electric bike charging.
Bicycle amenities are a mainstay in many Wesgroup projects, and we will continue to work on implementing a similar experience at this project.
- Before going too far with layouts, consider the location of heat pumps in the suites. This will produce significantly better units.
We will be very conscious to place mechanical heating & cooling equipment in locations that are efficient, accessible, and keep audible ambient noise to a minimum.

Accessibility

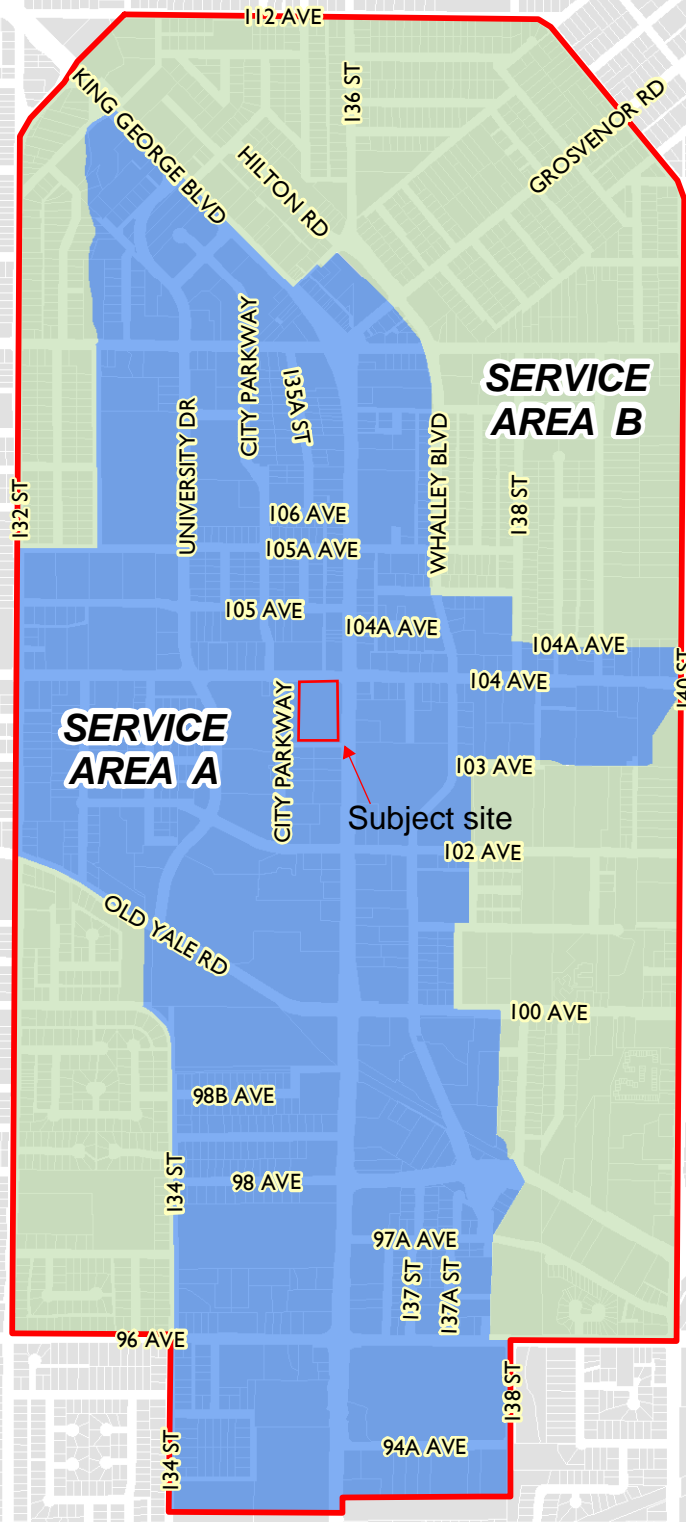
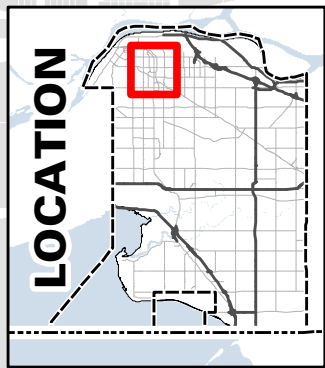
GDP

- No specific issues were identified.
Noted.

DDP

- Ensure that accessible parking is located as close to the elevator core as possible with direct pedestrian connection without the need to cross traffic.
We will work to ensure that accessible parking is located close to elevators where possible.
- Consider providing electric vehicle charging stations for accessible stalls.
We will include EV charging capability for all types of parking stalls within our parkade.

FIGURE 1



LEGEND

- Service Area A
- Service Area B
- City Centre Boundary

Produced by GIS Section: May 31, 2012, CS/AW8



DISTRICT ENERGY SERVICE AREA (SERVICE AREA A & SERVICE AREA B)

ENGINEERING DEPARTMENT

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, Legal descriptions and encumbrances must be confirmed at the Land Title Office.

CITY OF SURREY

BYLAW NO. 21264

A Comprehensive Development bylaw to amend Surrey Zoning By-law, 1993, No. 12000, as amended

.....

THE COUNCIL of the City of Surrey ENACTS AS FOLLOWS:

- 1. Surrey Zoning By-law, 1993, No. 12000, as amended, is hereby further amended, pursuant to the provisions of Section 479 of the *Local Government Act*, R.S.B.C. 2015 c. 1, as amended, for the following lands:

Address: As described in Appendix "A".
Legal: As described in Appendix "A".
PID: As described in Appendix "A".

as follows:

- (a) by creating a new Comprehensive Development Zone 211 (CD 211), attached as Appendix "A" and forming part of this bylaw;
- (b) by changing the zoning classification shown in Schedule A, Zoning Maps, as follows:
 FROM: COMMUNITY COMMERCIAL ZONE (C-8)
 TO: COMPREHENSIVE DEVELOPMENT ZONE (CD); and
- (c) by amending Part 52, Comprehensive Development Zone, Section C. Comprehensive Development Zones, by adding a new CD Zone "CD 211" as follows:

CD Zone ID	Civic Address	Legal Description	CD Bylaw No.	Replaces Bylaw No.
"CD 211	10355 King George Boulevard	Lot A, Plan72648	21264	N/A"

- 2. This By-law shall be cited for all purposes as "Surrey Comprehensive Development Zone 211 (CD 211), Bylaw, 2024, No. 21264".

PASSED FIRST READING on the th day of , 20 .

PASSED SECOND READING on the th day of , 20 .

PASSED THIRD READING on the th day of , 20 .

RECONSIDERED AND FINALLY ADOPTED, signed by the Mayor and Clerk, and sealed with the Corporate Seal on the th day of , 20 .

_____MAYOR

_____CLERK

APPENDIX "A"

COMPREHENSIVE DEVELOPMENT ZONE 211 (CD 211)

This Comprehensive Development Zone 211 (CD 211) as well as all other applicable regulations of Surrey Zoning By-law, 1993, No. 12000, as amended, (the "Zoning By-law") apply to the following lands:

Address	Legal Descriptions	PID
10355 King George Boulevard	Lot A Section 27 Block 5 North Range 2 West NWD Plan 72648	004-863-917

The lands are divided into Blocks A, B, and C as shown outlined in bold on the Survey Plan, attached hereto and forming part of this Bylaw as Schedule A, certified correct by Jesse Pierre Morin, B.C.L.S. on the 29th day of April, 2024.

(collectively the "*Lands*")

A. Intent

This Comprehensive Development Zone is intended to accommodate and regulate the development of high density, high-rise *multiple unit residential buildings* and commercial, office and *tourist accommodation* uses, and related *amenity spaces*, which are to be developed in accordance with a *comprehensive design*.

B. Permitted Uses

Lands, buildings and structures shall only be used for the following uses, or a combination thereof:
Blocks A and B:

Principal Uses:

1. *Multiple unit residential buildings.*

Accessory Uses:

2. The following *accessory uses*, provided that such uses form an integral part of a *multiple unit residential building* on the *Lands*:
 - (a) *Retail stores* excluding *adult entertainment stores*, auction houses, and *second-hand stores and pawnshops*;
 - (b) *Personal service uses* excluding *body rub parlours*;
 - (c) *General service uses* excluding funeral parlours and *drive through banks*;
 - (d) *Eating establishments* excluding *drive-through restaurants*;
 - (e) *Neighbourhood pubs* regulated under the Liquor Control and Licensing Act, as amended;
 - (f) *Liquor store*;
 - (g) Office uses excluding *social escort services, methadone clinics* and marijuana dispensaries;
 - (h) *Indoor recreational facilities*;
 - (i) *Community services*;
 - (j) *Child care centres*;
 - (k) *Cultural uses* regulated under the Community Care and Assisted Living Act, as amended, and the Child Care Licensing Regulation, as amended; and
 - (l) *Entertainment uses* excluding *arcades* and *adult entertainment stores*.

Block C:

Principal Uses:

1. *Multiple unit residential buildings.*
2. *Tourist accommodation.*
3. Office uses excluding *social escort services, methadone clinics* and marijuana dispensaries.

Accessory Uses:

4. The following *accessory uses*, provided that such uses form an integral part of a *multiple unit residential building* on the *Lands*:
 - (a) *Retail stores* excluding *adult entertainment stores*, auction houses, and *second-hand stores* and *pawnshops*;
 - (b) *Personal service uses* excluding *body rub parlours*;
 - (c) *General service uses* excluding funeral parlours and *drive through banks*;
 - (d) *Eating establishments* excluding *drive-through restaurants*;
 - (e) *Neighbourhood pubs* regulated under the Liquor Control and Licensing Act, as amended;
 - (f) *Liquor store*;
 - (g) *Indoor recreational facilities*;
 - (h) *Community services*;
 - (i) *Child care centres* regulated under the Community Care and Assisted Living Act, as amended, and the Child Care Licensing Regulation, as amended;
 - (j) *Cultural uses*; and
 - (k) *Entertainment uses* excluding *arcades* and *adult entertainment stores*.

C. Lot Area

Not applicable to this Zone.

D. Density

1. Maximum Density:

Maximum *density* shall be as follows:

 - (a) 1 *dwelling unit*; and
 - (b) The lesser of *floor area ratio* of 0.1 or *building area* of 300 sq. m.
2. Permitted Density Increases:

If amenity contributions are provided in accordance with Schedule G, *density* may be increased as follows:

 - (a) Block A: Maximum *floor area ratio* of 6.9, provided that *multiple unit residential building* does not exceed a *floor area ratio* of 6.2, excluding:
 - i. The indoor *amenity space* requirement (pursuant to Section J.1. of this Zone); and
 - ii. Up to a maximum of 170 sq. m of *the secure bicycle parking area* requirement (pursuant to Section H.4. of this Zone);
 - (b) Block B: Maximum *floor area ratio* of 13.2, provided that *multiple unit residential building* does not exceed a *floor area ratio* of 12.6, excluding:
 - i. The indoor *amenity space* requirement (pursuant to Section J.1. of this Zone); and
 - ii. Up to a maximum of 170 sq. m of *the secure bicycle parking area* requirement (pursuant to Section H.4. of this Zone);
 - (c) Block C: Maximum *floor area ratio* of 12.8, provided that *multiple unit residential building* does not exceed a *floor area ratio* of 7.1,
 - i. The indoor *amenity space* requirement (pursuant to Section J.1. of this Zone); and
 - ii. Up to a maximum of 170 sq. m of *the secure bicycle parking area* requirement (pursuant to Section H.4. of this Zone); and
3. Notwithstanding the definition of *floor area ratio*, for an air space subdivision, the air space parcels and the remainder *lot* of the air space subdivision shall be considered as one *lot* for the purpose of application of Section D. of this Zone, and further provided that the *floor area ratio* calculated from the cumulative floor areas of the *buildings* within all of the air space parcels and the remainder *lot* of the air space subdivision shall not exceed the maximum specified in Sub-section D.2. of this Zone.

E. Lot Coverage

1. The maximum *lot coverage* for all *buildings* and *structures* shall be 60%.
2. Notwithstanding the definition of *lot coverage*, for an air space subdivision, the air space parcels and the remainder *lot* of the air space subdivision shall be considered as one *lot* for the purpose of application of Section E. of this Zone, and further provided that the *lot coverage* within all of the air space parcels and the remainder *lot* of the air space subdivision shall not exceed the maximum specified in Section E.1. of this Zone.

F. Yards and Setbacks

1. *Buildings* and *structures* shall be sited in accordance with the following minimum *setbacks*:
Block A

USES:	SETBACKS:			
	North Yard	South Yard	East Yard	West Yard
<i>Principal Buildings and Accessory Buildings and Structures</i>	4.5 m	0.0 m	4.5 m	11.5 m

Block B

USES:	SETBACKS:			
	North Yard	South Yard	East Yard	West Yard
<i>Principal Buildings and Accessory Buildings and Structures</i>	0.0 m	4.5 m	4.5 m	11.5 m

Block C

USES:	SETBACKS:			
	North Yard	South Yard	East Yard	West Yard
<i>Principal Buildings and Accessory Buildings and Structures</i>	4.5 m	4.5 m	4.5 m	4.5 m

2. Notwithstanding Section A.3.(d) of Part 5, Off-Street Parking and Loading/Unloading, a *parking - underground* may be located up to 0.0 m of any *lot line*.
3. Notwithstanding Section A.26.(b) of Part 4, General Provisions, stairs with more than three risers may encroach into the *setbacks*.
4. Notwithstanding Section F. of this Zone, canopies and architectural features may encroach into the *setbacks*.
5. Notwithstanding Section F. of this Zone, the minimum *setbacks* of *principal buildings* and *accessory buildings* and *structures* for interior *lot lines* for *lots* created by an air space subdivision may be 0.0 m.

G. Height of Buildings

Block A:

1. Principal Buildings:
Principal building height shall not exceed 173 m.
2. Accessory Buildings and Structures:
Accessory building height and *structure height* shall not exceed 4.5 m.

Block B:

1. Principal Buildings:
Principal building height shall not exceed 188 m.
2. Accessory Buildings and Structures:
Accessory building height and *structure height* shall not exceed 4.5 m.

Block C:

1. Principal Buildings:
Principal building height shall not exceed 205 m.
2. Accessory Buildings and Structures:
Accessory building height and structure height shall not exceed 4.5 m.

H. Off-Street Parking and Loading/Unloading

1. Parking Calculations:
 - (a) Refer to Table D.1. of Part 5 Off-Street Parking and Loading/Unloading.
 - (b) Notwithstanding Section D.1. of Part 5 Off-Street Parking and Loading/Unloading of the Zoning By-law, the required *parking spaces* for office may be shared 25% with the required *parking spaces* for residential visitors, *retail stores, eating establishment, child care centre* and *tourist accommodation* uses on the *Lands*.
2. Tandem Parking:
Tandem parking is not permitted.
3. Underground Parking:
All required resident *parking spaces* shall be provided as *parking - underground*.
4. Bicycle Parking:
A *secure bicycle parking area* shall be provided in a separate bicycle room located within a *building*, whether located at or above *finished grade*, with convenient access to the outside of the *building*.

I. Landscaping and Screening

1. General Landscaping:
 - (a) All developed portions of the *lot* not covered by *buildings, structures* or paved areas shall be landscaped including the retention of mature trees. This *landscaping* shall be maintained; and
 - (b) *Highway* boulevards abutting a *lot* shall be seeded or sodded with grass; except at *driveways*, or as directed by the City.
2. Refuse:
Garbage containers and *passive recycling containers* shall be located within the *parking -underground* or within a *building*.

J. Special Regulations

1. Amenity Spaces:
Amenity space, subject to Section B.6. of Part 4, General Provisions, shall be provided on the *lot* as follows:
 - (a) Outdoor *amenity space* in the amount of:
 - i. 3.0 sq. m per *dwelling unit*;
 - ii. 1.0 sq. m per *lock-off suite*; and
 - iii. 4.0 sq. m per *micro unit*;
 - (b) Indoor *amenity space* in the amount of:
 - i. 3.0 sq. m per *dwelling unit* up to 557 sq. m of *amenity space* (equivalent to 186 *dwelling units*);
 - ii. 1.0 sq. m per *dwelling unit* for that portion greater than 557 sq. m of *amenity space*;
 - iii. 1.0 sq. m per *lock-off suite*; and
 - iv. 4.0 sq. m per *micro unit*.
2. Child Care Centres:
Child care centres shall be located on the *lot* such that these centres have direct access to an *open space* and play area within the *lot*.

3. Balconies:
Balconies are required for all *dwelling units* which are not *ground-oriented* and shall be a minimum of 5% of the *dwelling unit* size or 4.6 sq. m per *dwelling unit*, whichever is greater.

K. Subdivision

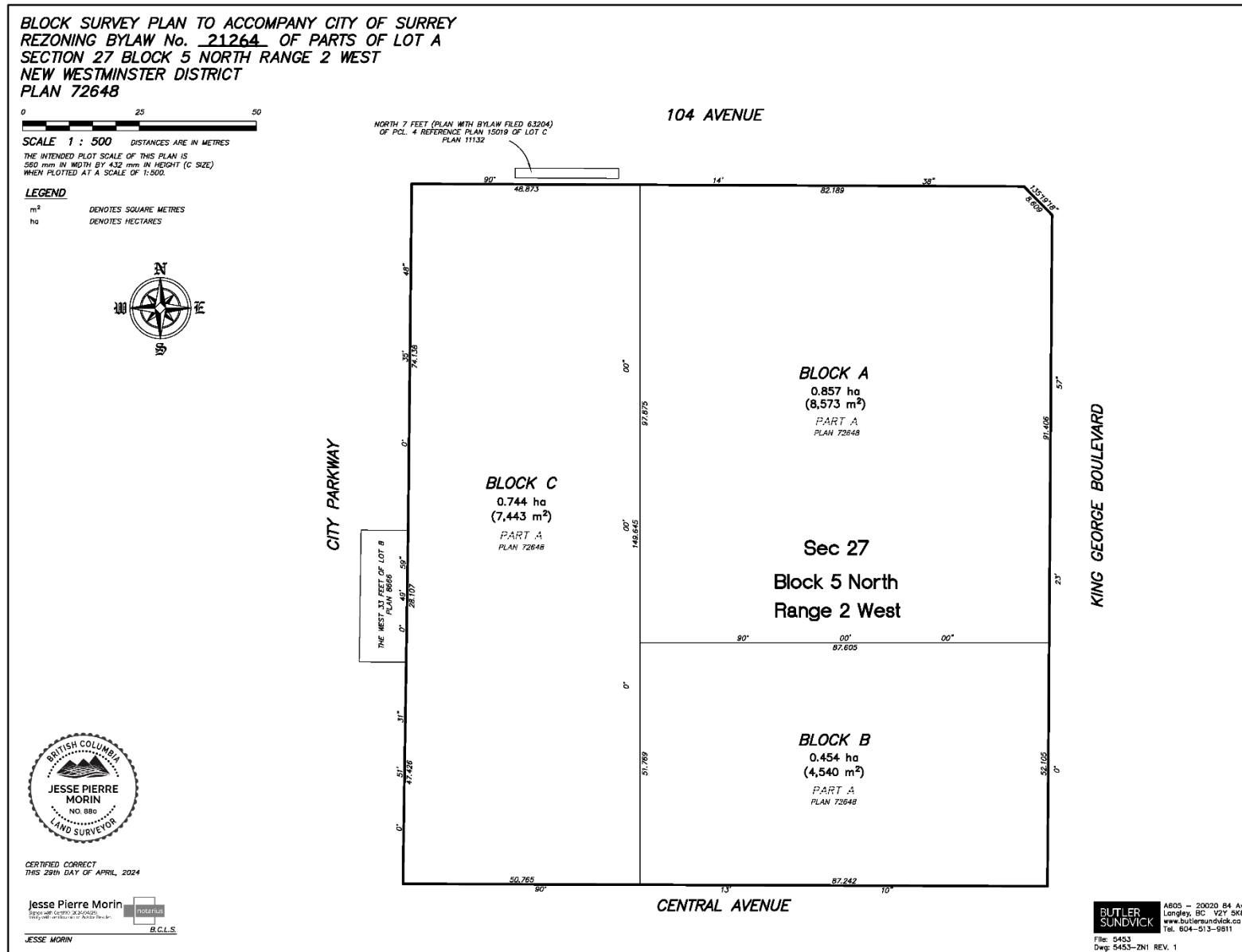
1. Minimum Lot Sizes:
Lots created through subdivision, except *strata lots*, shall conform to the following minimum standards:
 - (a) *Lot Area*: Minimum 3000 sq. m;
 - (b) *Lot Width*: Minimum 38 m; and
 - (c) *Lot Depth*: Minimum 70 m.
2. Air space parcels and the remainder *lot* created through an air space subdivision in this Zone are not subject to Section K.1.

L. Other Regulations

Additional land use regulations may apply as follows:

1. Prior to any use, the *Lands* must be serviced as set out in Part 2 Uses Limited, of the Zoning Bylaw and in accordance with the servicing requirements for the RM-135 Zone as set forth in the Surrey Subdivision and Development By-law, 1986, No. 8830, as amended.
2. *Building* permits shall be subject to Surrey Development Cost Charge Bylaw, 2021, No. 20291, as may be amended or replaced from time to time, and the development cost charges shall be based on the RM-135 Zone for the residential portion and the C-8 Zone for the commercial portion.
3. Development permits, pursuant to the *OCP*.
4. Trees and vegetation, pursuant to Surrey Tree Preservation Bylaw, as amended.
5. Sign regulations, pursuant to Surrey Sign By-law, as amended.

SCHEDULE A



BYLAWS AND PERMITS
(Continued)

H - 7

ACTION REQUIRED: Approval

TYPE: TUP / DP

PURPOSE: The applicant is seeking to permit 60 parking spaces for the temporary storage of traffic advisory sign trailers and associated towing vehicles (pickup trucks) for a period not to exceed three years.

LOCATION: 18114 - 96 Avenue

PROCESSING DATES:

TEMPORARY USE PERMIT

October 16, 2023 - Supported: Carried RES.R23-2052

September 25, 2023 - Proceed to Public Notification: Carried RES.R23-1823

DEVELOPMENT PERMIT

September 25, 2023 - Authorize to Draft: Carried RES.R23-1823

TO: **City Clerk, Legislative Services Division**

FROM: **Chief Development Approvals Officer
Planning & Development Department**

DATE: **May 3, 2024**

FILE: **7923-0184-00**

RE: **Development Application No. 7923-0184-00**

ADDRESS: 18114 - 96 Avenue

OWNERS: 1413259 B.C. Ltd
Director: H. Purewal, K. Rai

AGENT: Harry Purewal 116830 BC Ltd. 3037 194 St Surrey V3S 9V2

PROPOSAL: Temporary Use Permit No. 7923-0184-00 and Development Permit No. 7923-0184-00 to permit the temporary storage of traffic advisory sign trailers and associated towing vehicles (pickup trucks) for a period not to exceed three years.

On October 16, 2023, Council supported Temporary Use Permit No. 7923-0184-00.

All conditions of approval with respect to this permit have been met.

It is now in order for Council to issue Temporary Use Permit No. 7923-0184-00 and to authorize the Mayor and Clerk to execute the Permit.

Staff was authorized to draft Development Permit No. 7923-0184-00 on September 25, 2023.

It is now in order for Council to issue attached Development Permit No. 7923-0184-00 and to authorize the Mayor and Clerk to execute the Permit.



Ron Gill
Chief Development Approvals Officer

JK8

CITY OF SURREY

(the "City")

TEMPORARY USE PERMIT

NO.: 7923-0184-00

Issued To: 1413259 B.C. LTD

Address of Owner: PO BOX 3522 LCD LCD 1
Langley, BC V3A 4R9

(the "owner")

1. This temporary use permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this temporary use permit.
2. This temporary use permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 018-685-943

Lot 1 Except: Parcel A (Statutory Right Of Way Plan BCP27281) Section 32 Township 8 New
Westminster District Plan LMP15332

18114 - 96 Avenue

(the "Land")

3. The authority to issue Temporary Use Permits is granted to municipalities under Sections 492 and 493 of the *Local Government Act* R.S.B.C. 2015, c.1. Pursuant to Implementation, II(c) Implementation Instruments, Temporary Use Permits of Surrey Official Community Plan, 2013, No. 18020, as amended, the entire City of Surrey is designated a Temporary Use Permit area.
4. The temporary use permitted on the Land shall be for the parking and storage of traffic advisory sign trailers and associated towing vehicles (pickup trucks).
5. The temporary use permitted on the Land shall be in accordance with:
 - (a) The site plan showing the location of the existing house, access and parking/storage as attached in Schedule A and numbered 7923-0184-00(A) (the "Drawings") which is attached hereto and forms part of this permit.

- (a) The site plan showing the location of the existing house, access and parking/storage as attached in Schedule A and numbered 7923-0184-00(A) (the "Drawings") which is attached hereto and forms part of this permit.
 - (b) The landscaping, fencing and tree retention shall conform to drawings shown on Schedule A and numbered 7923-0184-00(B) through to and including 7923-0184-00(E) (the "Landscaping") which is attached hereto and forms part of this permit.
6. The Owner covenants and agrees that the pre-servicing requirements attached as Schedule B (the "Pre-Servicing Requirements") which is attached hereto and forms part of this permit, have been completed and will be maintained for the duration of the Temporary Use Permit.
7. The temporary use shall be carried out according to the following conditions:
- (a) No vehicles exceeding 5,000 kilograms G.V.W shall access or park on the site at any time;
 - (b) The parking area shall be designed to support the anticipated vehicle load in order to prevent dirt from being tracked onto the City roadway;
 - (c) Adequate washroom facilities are to be provided on site to the satisfaction of the General Manager of Planning & Development with a minimum of one such facility on site; and
 - (d) the following activities are prohibited on the land:
 - i. vehicle washing
 - ii. vehicle maintenance
 - iii. truck fuel storage or refuelling
 - iv. storage of waste petroleum fluids
 - v. parking or storage of vehicles containing Dangerous Goods as defined by the *Transport of Dangerous Goods Act R.S.B.C. 1996, Chapter 458.*
8. As a condition of the issuance of this temporary use permit, Council is holding security set out below (the "Security") to ensure that the temporary use is carried out in accordance with the terms and conditions of this temporary use permit. Should the Owner fail to comply with the terms and conditions of this temporary use permit within the time provided, the amount of the Security shall be forfeited to the City. The City has the option of using the Security to enter upon the Land and perform such works as is necessary to eliminate the temporary use and bring the use and occupancy of the Land into compliance with Surrey Zoning By-law, 1993, No. 12000, as amended (the "Works"). The Owner hereby authorizes the City or its agents to enter upon the Land to complete the Works. There is submitted accordingly:

~~Cash in the amount of \$ _____~~

An Irrevocable Letter of Credit, in a form acceptable to the City, in the amount of
\$ 79,232.00

The Security is for:

- i. Landscaping and Fencing.
9. The Landscaping shall be completed prior to the issuance of this temporary use permit.
 - (a) When the Landscaping is substantially complete as determined by the City, without the City having to use the Security, 90% of the original Security will be returned. When the Landscaping receives final approval by the City, not earlier than twelve (12) months after the date of substantial completion of the Landscaping, 10% of the original Security will be returned;
 - (b) If final approval of the Landscaping is not given by the City, the City has the option of using the Security to complete the Landscaping and any remaining money shall be returned. The Owner hereby authorizes the City or its agents to enter upon the Land to complete the Landscaping; and
 - (c) If the City elects not to enter upon the Land to complete the Landscaping and the Owner does not complete the Landscaping, the Security is forfeited to the City one (1) year after the date of the issuance of this temporary use permit.
 10. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this temporary use permit. This temporary use permit is not a building permit.
 11. An undertaking submitted by the Owner is attached hereto as Appendix I and forms part of this temporary use permit.
 12. This temporary use permit is not transferable.

13. This temporary use permit shall lapse on or before three years from date of issuance.

AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 .

ISSUED THIS DAY OF , 20 .

Mayor – Brenda Locke

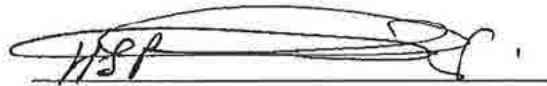
City Clerk – Jennifer Ficocelli

IN CONSIDERATION OF COUNCIL'S APPROVAL OF THIS TEMPORARY USE PERMIT AND OTHER GOOD AND VALUABLE CONSIDERATION, I/WE THE UNDERSIGNED AGREED TO THE TERMS AND CONDITIONS OF THIS TEMPORARY USE PERMIT AND ACKNOWLEDGE THAT WE HAVE READ AND UNDERSTOOD IT.

Authorized Agent: Signature

Name (Please Print)

OR



Owner: Signature

Hs. 22(1) POREWAL,
Name: (Please Print)

Hs. 22(1) POREWAL

^{s. 22(1)} Ks. 22(1)

Owner Signature

Hs. 22(1) RAI

Name: Hs. 22(1) Rai

TO THE CITY OF SURREY:

I, 1413259 B.C. LTD. (Name of Owner)

being the owner of LOT 1, Plan LMP15332, Section 32, Township 8,
(Legal Description) Except Plan PCLA (SRMPL

known as 18114 96 Avenue, Surrey, BC V4N 4A8 BCP27281)
(Civic Address)

hereby undertake as a condition of issuance of my temporary use permit to:

- (a) demolish or remove all buildings and/or structures that are permitted to be constructed pursuant to the temporary use permit issued to me; and
- (b) restore the land described on the temporary use permit to a condition specified in that permit;

all of which shall be done not later than the termination date set out on the temporary use permit.

I further understand that should I not fulfill the undertaking described herein, the City or its agents may enter upon the land described on the temporary use permit and perform such work as is necessary to eliminate the temporary use and bring the use and occupancy of the land in compliance with Surrey Zoning By-law, 1993, No. 12000, as amended, and that any securities submitted by me to the City pursuant to the temporary use permit shall be forfeited and applied to the cost of restoration of my land as herein set out.

This undertaking is attached hereto and forms part of the temporary use permit.

s. 22(1)
s. 22(1)
s. 22(1) (owner)

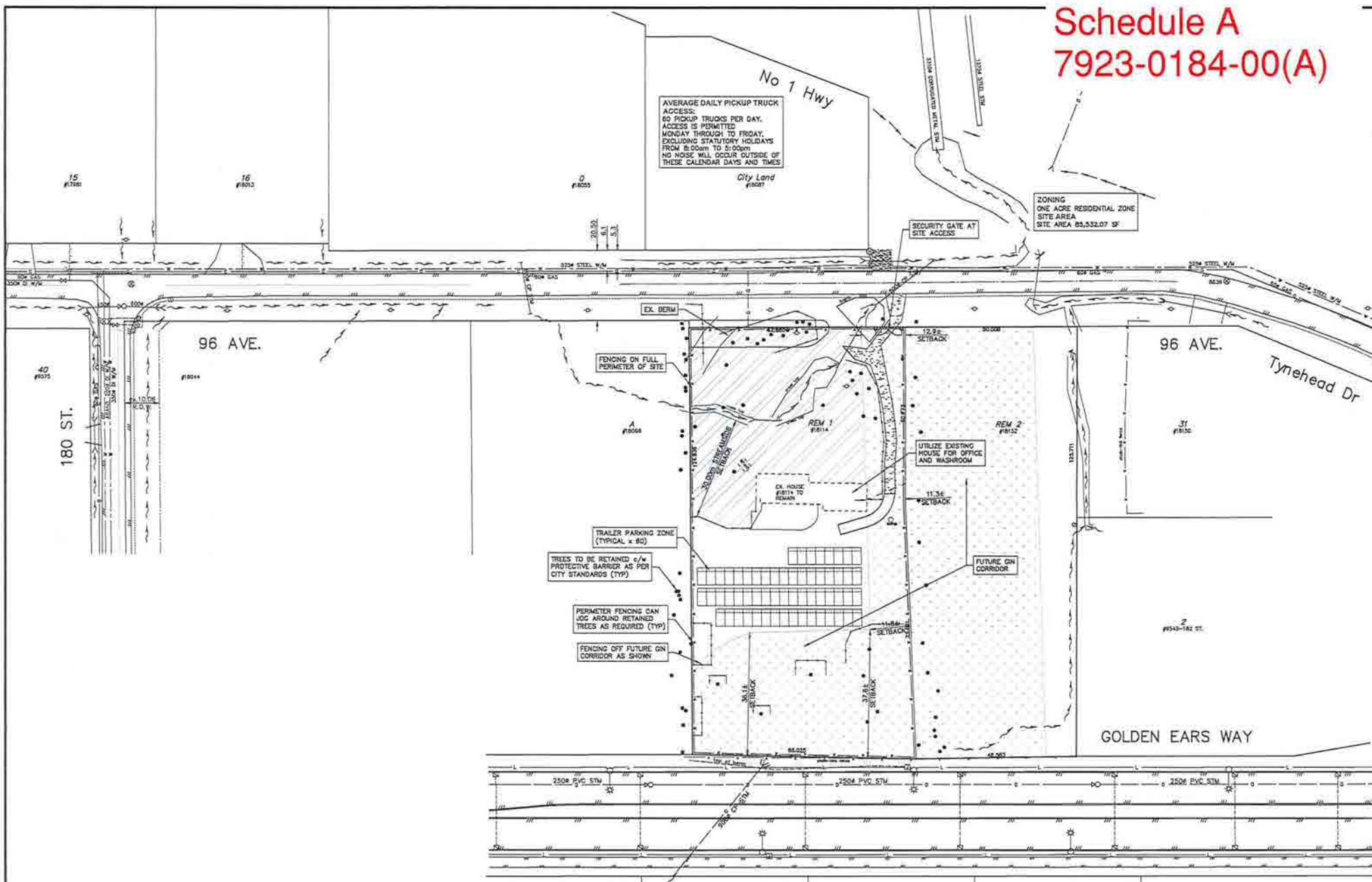
[Signature]

(Owner)

[Signature]

(Witness)

Schedule A 7923-0184-00(A)



LOT 1, EXCEPT PARCEL A (STATUTORY RIGHT OF WAY PLAN BOP27281) &
 LOT 2, EXCEPT PART IN PLAN BOP26862, TP. B, N.M., PLAN LMP15332
 BOUNDARY 96 AVE. & TYNEHEAD DR. SCALE 0.998018
 MON 8630 N 3447169.832 E 520455.122 ELEV 40.382m

REV	DATE	DESCRIPTION	BY

CONSULTANT



Coastland
 engineering & surveying ltd.
 #101, 19232 - 60 Avenue
 Surrey, BC V3S 3M2
 Phone: (604)532-9700
 Fax: (604)532-9700

Permit to Practice No. 1001893



CITY OF
SURREY

1161830 B.C. LTD.
 P.O. BOX 3522, STN L201, LANGLEY, B.C. V3A 4R8
 SAREJOT PUREWAL 778-885-5757 (Development Director)
 TOM GILL 604-418-2217
 aors@puregroup.ca tgg@puregroup.ca

KEY PLAN
 18114 & 18132-96 AVENUE

SCALE 1:500	DATE (YYYY-MM) 2023 MARCH	SURREY PROJECT NUMBER 7823-0184-00
DESIGNED MEH	Checked Project No. 2889	DRAWING TYPE KEY
DRAWN KDL	DATE 2	REV. 3
REVIEWED FRY		

7923-0184-00(D)

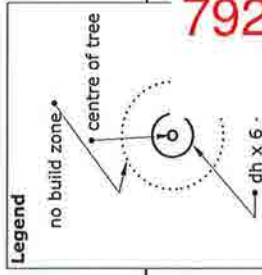


Tree Plan for TUP at
18114 96 Avenue,
Surrey

Date: September 6, 2023

City Land
#18087

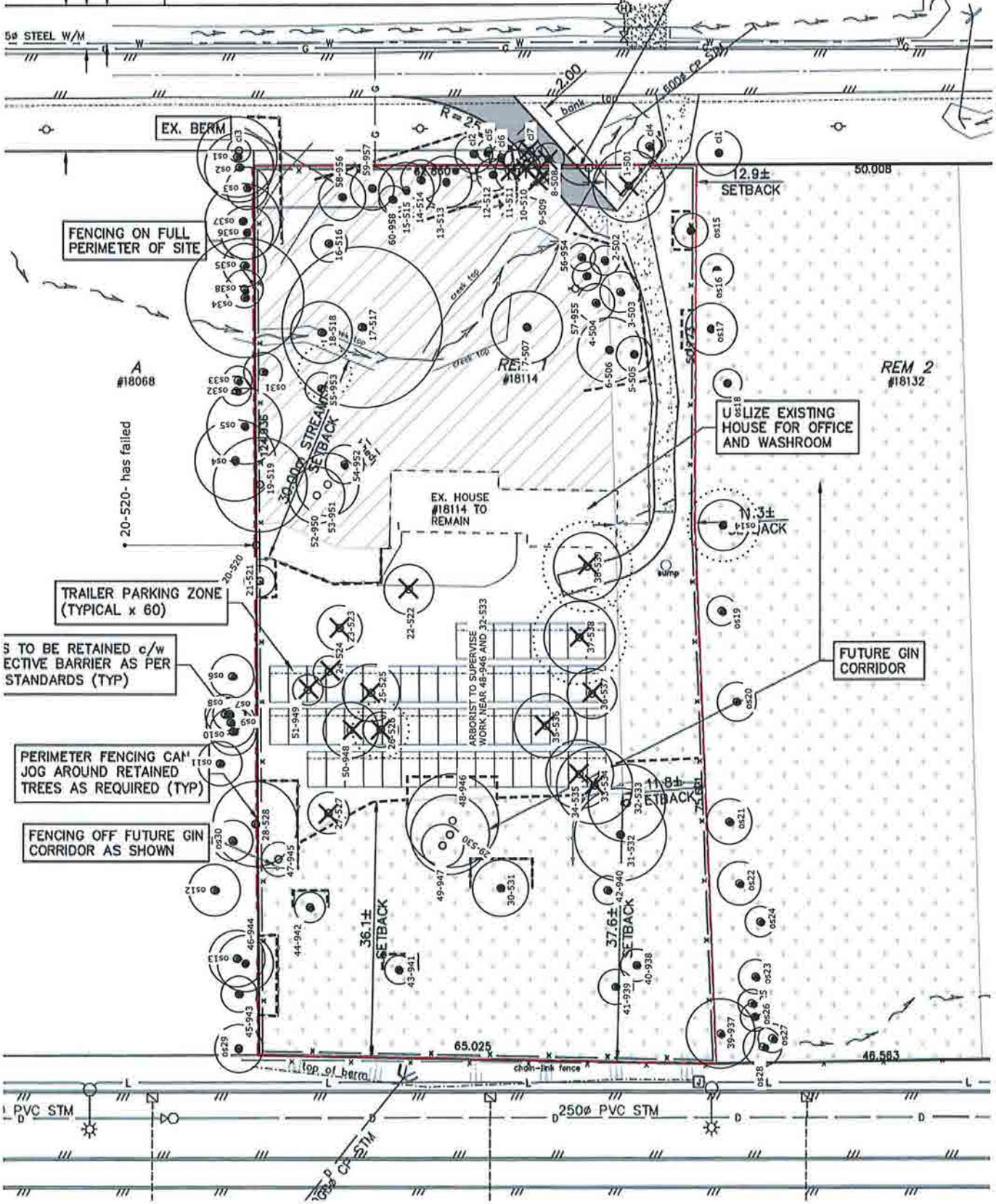
ACCESS:
50 PICKUP TRUCKS PER DAY.
CLOSED TO FRIDAY,
PUBLIC HOLIDAYS
5:00pm
CLOSURE OUTSIDE OF
DAYS AND TIMES



Legend

- = Undersize
- x = remove tree
- tree barrier
- 1m 1:500 1C

ZONING SITE



FENCING ON FULL PERIMETER OF SITE

20-520- has failed

TRAILER PARKING ZONE (TYPICAL x 60)

TREES TO BE RETAINED c/w PROTECTIVE BARRIER AS PER STANDARDS (TYP)

PERIMETER FENCING CAN JOG AROUND RETAINED TREES AS REQUIRED (TYP)

FENCING OFF FUTURE GIN CORRIDOR AS SHOWN

EX. HOUSE #18114 TO REMAIN

ARBOREST TO SUPERVISE WORK NEAR #8-946 AND #2-533

UTILIZE EXISTING HOUSE FOR OFFICE AND WASHROOM

FUTURE GIN CORRIDOR

A #18068

RE #18114

REM 2 #18132

PVC STM

250Ø PVC STM

TOP OF BARRI

chain-link fence

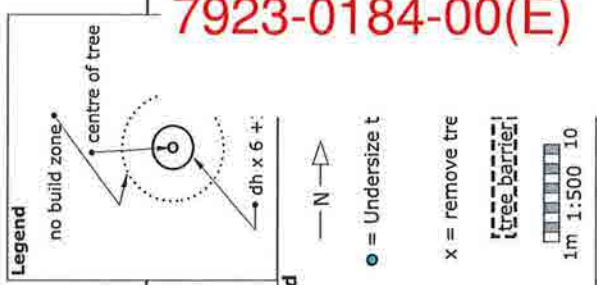


Tree Plan for TUP at
18114 96 Avenue,
Surrey

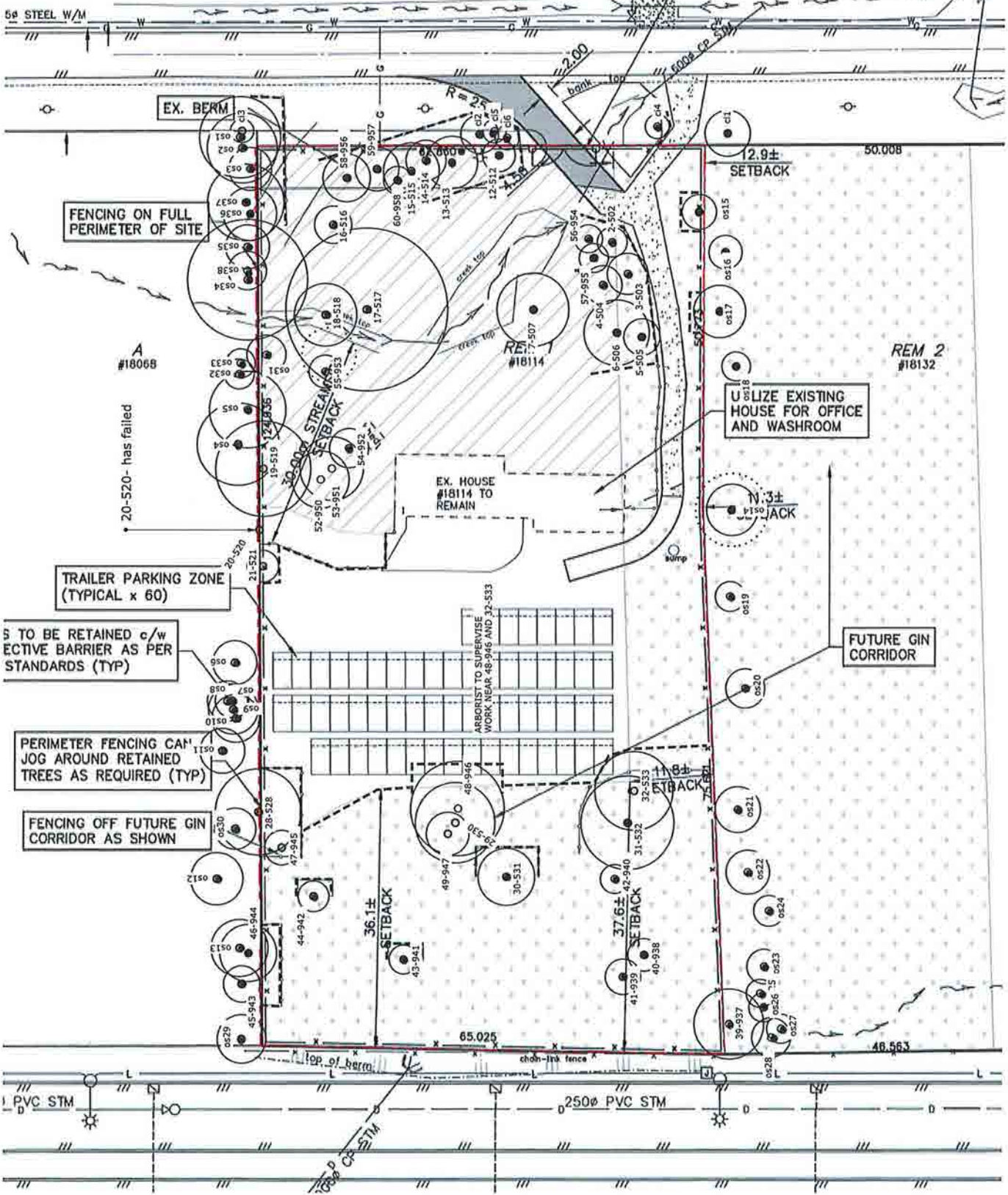
Retained Trees
Date: September 6, 2023

ACCESS:
PER DAY.
ED
TO FRIDAY,
ORY HOLIDAYS
5:00pm
CUR OUTSIDE OF
DAYS AND TIMES

City Land
#18087



ZON
ONE
SITI
SITE



#18055

A
#18068

RE
#18114

REM 2
#18132

FENCING ON FULL PERIMETER OF SITE

20-520 - has failed

TRAILER PARKING ZONE (TYPICAL x 60)

S TO BE RETAINED c/w EFFECTIVE BARRIER AS PER STANDARDS (TYP)

PERIMETER FENCING CAN JOG AROUND RETAINED TREES AS REQUIRED (TYP)

FENCING OFF FUTURE GIN CORRIDOR AS SHOWN

EX. HOUSE #18114 TO REMAIN

ARBOREST TO SUPERVISE WORK NEAR 48-946 AND 32-533

UTILIZE EXISTING HOUSE FOR OFFICE AND WASHROOM

FUTURE GIN CORRIDOR

PVC STM

250Ø PVC STM

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

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

DATE: **September 19, 2023** PROJECT FILE: **7823-0184-00**

RE: **Engineering Requirements (Commercial/Industrial)
Location: 18114 96 Ave**

TEMPORARY USE PERMIT

The following are to be addressed as a condition of issuance of the Temporary Use Permit:

- Confirm road width and integrity from the site to the intersection of 96 Avenue and 180 Street to support truck turning movements, and provide improvements as required.
- Construct storm infrastructure upgrades to adequately capture increased road runoff.
- Secure applicable provincial and federal approvals for all impacted streams, as required.
- Construct a new metered water service connection, if required.
- Construct on-site stormwater mitigation features to meet pre-development conditions up to the 100-year storm event; appropriate geotechnical infiltration testing is required to verify infiltration capacity to support mitigation features.
- Construct on-site water quality treatment features.
- Register restrictive covenant(s) for the on-site stormwater mitigation and water quality.

A Servicing Agreement is required prior to issuance of the Temporary Use Permit.



Jeff Pang, P.Eng.
Development Services Manager

CITY OF SURREY

(the "City")

DEVELOPMENT PERMIT

NO.: 7923-0184-00

Issued To: 1413259 BC LTD.
(the "Owner")

Address of Owner:

A. General Provisions

1. This development permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development permit.
2. This development permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 018-685-943
Lot 1 Except: Parcel A (Statutory Right Of Way Plan Bcp27281) Section 32 Township 8 New
Westminster District Plan Lmp15332

18114 96 Avenue

(the "Land")

3. This development permit applies to only the portion of the Land shown on Schedule A which is attached to and forms part of this development permit.
4. The Land has been designated as a development permit area in Surrey Official Community Plan, 2013, No. 18020, as amended.

B. Sensitive Ecosystem

1. Development shall occur strictly in accordance with the attached and numbered drawing 7923-0184-00(1).
2. The Riparian Protection Area, including the Riparian Setback Area as defined in Surrey Zoning By-law, as may be amended or replaced from time to time, shown outlined in a solid heavy line on the Explanatory Plan EPP136834, shall be established, inspected and maintained in accordance with the plans numbered 7923-0184-00(1).

3. Tree removal and vegetation disturbance shall be undertaken, monitored, inspected and maintained in accordance with the reports attached and numbered 7923-0184-00(2) through to and including 7923-0184-00(46). Tree removal and protective fencing shall be undertaken in accordance with the Arborist Report dated March 15, 2024 and prepared by Terry Thrale attached and numbered 7923-0184-00(47) through to and including 7923-0184-00(71).
4. Riparian Protection Areas shall remain free of development and left undisturbed.
5. Habitat protection, mitigation, compensation and rehabilitation works shall be completed in accordance with the reports attached and numbered 7923-0184-00(1) through to and including 7923-0184-00(46).
6. Minor changes to the Drawings that do not affect the Riparian Protection Area or Green Infrastructure Protection Area, as identified and forming part of this development permit, site grading, soil stability, building placement, runoff or vegetation on the Land, may be permitted subject to the approval of the City.

C. Landscaping Installation and Maintenance

1. The landscaping shall be constructed, planted, installed and maintained in good order in accordance with the landscaping plans prepared by KD Planning and Design Ltd, and numbered 7923-0184-00(1) (the "Landscaping").
2. For Sensitive Ecosystem development permits, , the Landscaping shall be completed PRIOR TO the issuance of a building permit, as identified in Development Permit Procedures and Delegation Bylaw, as may be amended or replaced from time to time.
3. For Hazard Land, Sensitive Ecosystem and Farm Protection development permits, or for that portion of a development permit pertaining to Hazard Land, Sensitive Ecosystem or Farm Protection, Landscaping shall be maintained for a minimum of five years after the date of substantial completion and shall be confirmed "free to grow" at the end of the maintenance period.

D. Security and Inspections

1. Security must be submitted to the City prior to the installation of any Landscaping.
2. For Form and Character development permits, security may be submitted after the issuance of a Development Permit.

3. For Hazard Land, Sensitive Ecosystem and Farm Protection development permits, security must be submitted prior to the issuance of any Development Permit, Building Permit or Tree-cutting Permit.
4. For development permits that include shared vehicles in exchange for reduced minimum parking requirements, shared vehicle security must be submitted prior to the issuance of a Building Permit.
5. The security is to be submitted as follows:
 - i. An Irrevocable Letter of Credit, in a form acceptable to the City, in the amount of \$79,233 (the "Security")
6. For Hazard Land, Sensitive Ecosystem or Farm Protection development permits, or that portion of the development pertaining to the Hazard Land, Sensitive Ecosystem or Farm Protection component, the Security amount is for: \$79,233.
7. Security release will only be considered once installation of the Landscaping has been completed, after final approval of the installation has been given by the City, and after the completion by the Owner of any required maintenance periods identified in this development permit, to the satisfaction of the City.
8. For Form and Character development permits, when the Landscaping has been determined to be substantially complete, as determined by the City, and without the City having to use the Security, 90%, less deficiencies, of the original Security will be returned. When the Landscaping requirements and permit requirements receive final approval by the City, 10% of the original Security will be returned.
9. For Hazard Land, Sensitive Ecosystem and Farm Protection development permits, when Landscaping requirements and permit requirements have been substantially completed and approved by the City AND upon successful completion of the MINIMUM FIVE YEAR maintenance period, to the satisfaction of the Qualified Environmental Professional and the City, with Landscaping confirmed at the 'free to grow stage' (as confirmed and approved by the City), and without the City having to use the Security, ____% of the original Security will be returned. When the Landscaping requirements and permit requirements receive final approval from the City, the remaining ____% of the original Security will be returned.
10. If final approval of the Landscaping installation and maintenance is not given by the City, the City has the option of using the Security to complete the Landscaping (or to hire a contractor to complete the work on the City's behalf) with any remaining money returned to the Owner. The Owner authorizes the City or its agent to enter upon the Land to complete the Landscaping.
11. If the City elects not to enter upon the Land to complete the Landscaping and the Owner does not complete the Landscaping, the Security is forfeited to the City five (5) years after

the date of the provisional or final inspection of the buildings and structures referred to in the Drawings.

12. If the Owner or shared vehicle operator fails to supply the shared vehicle as required, the City has the option of using the Security to cover all costs of fulfilling the obligations of the shared vehicle agreement. The Owner authorizes the City or its agent to enter upon the Land to complete any work necessary to fulfill the obligations of the shared vehicle agreement.

E. Monitoring

1. A Registered Professional Biologist must be retained by the Owner to ensure completion of the works in accordance with this Development Permit and shall submit monitoring reports and a completion report to the City.
2. Upon completion of the development, the Owner shall provide the City with confirmation from the Qualified Professional(s) that the development is complete in accordance with the terms of this development permit.
3. A Qualified Environmental Professional must be retained by the Owner to ensure completion of the works in accordance with this development permit and shall submit monitoring reports and a completion report to the City.

F. Administration

1. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development permit.
2. This development permit shall lapse if the Owner does not substantially start any construction with respect to which this development permit is issued within two (2) years after the date this development permit is issued. The terms and conditions of this development permit, and any amendment to it, are binding on any and all persons who acquire an interest in the Land.
3. This development permit is only valid for the development that is described in this development permit. If a change to development is considered, a new development permit or an amendment to this permit is required before any work is started.
4. All reports, documents and drawings referenced in this development permit shall be attached to and form part of this development permit.

5. In addition to this development permit, and in accordance with the Surrey Building Bylaw, as may be amended or replaced from time to time, a restrictive covenant, and SRW have been registered as a charge(s) on the Land to ensure safeguarding and maintenance of the Streamside Protection and Green Infrastructure Network Areas on the site.

6. This development permit is issued subject to compliance by the Owner and the Owner's employees, contractors and agents with all applicable City bylaws, including the Tree Protection Bylaw, Erosion and Sediment Control Bylaw and the Soil Removal and Deposition Bylaw, all as may be amended or replaced from time to time.

7. This development permit is NOT A BUILDING PERMIT.


AUTHORIZING RESOLUTION PASSED BY THE COUNCIL/DELEGATED OFFICIAL, THE DAY OF , 20 .

ISSUED THIS DAY OF , 20 .

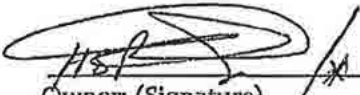
Mayor

City Clerk

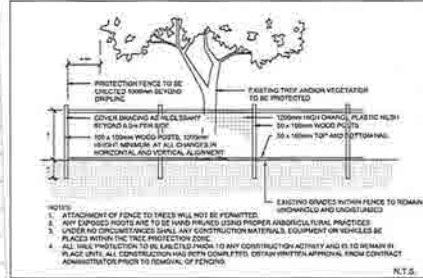
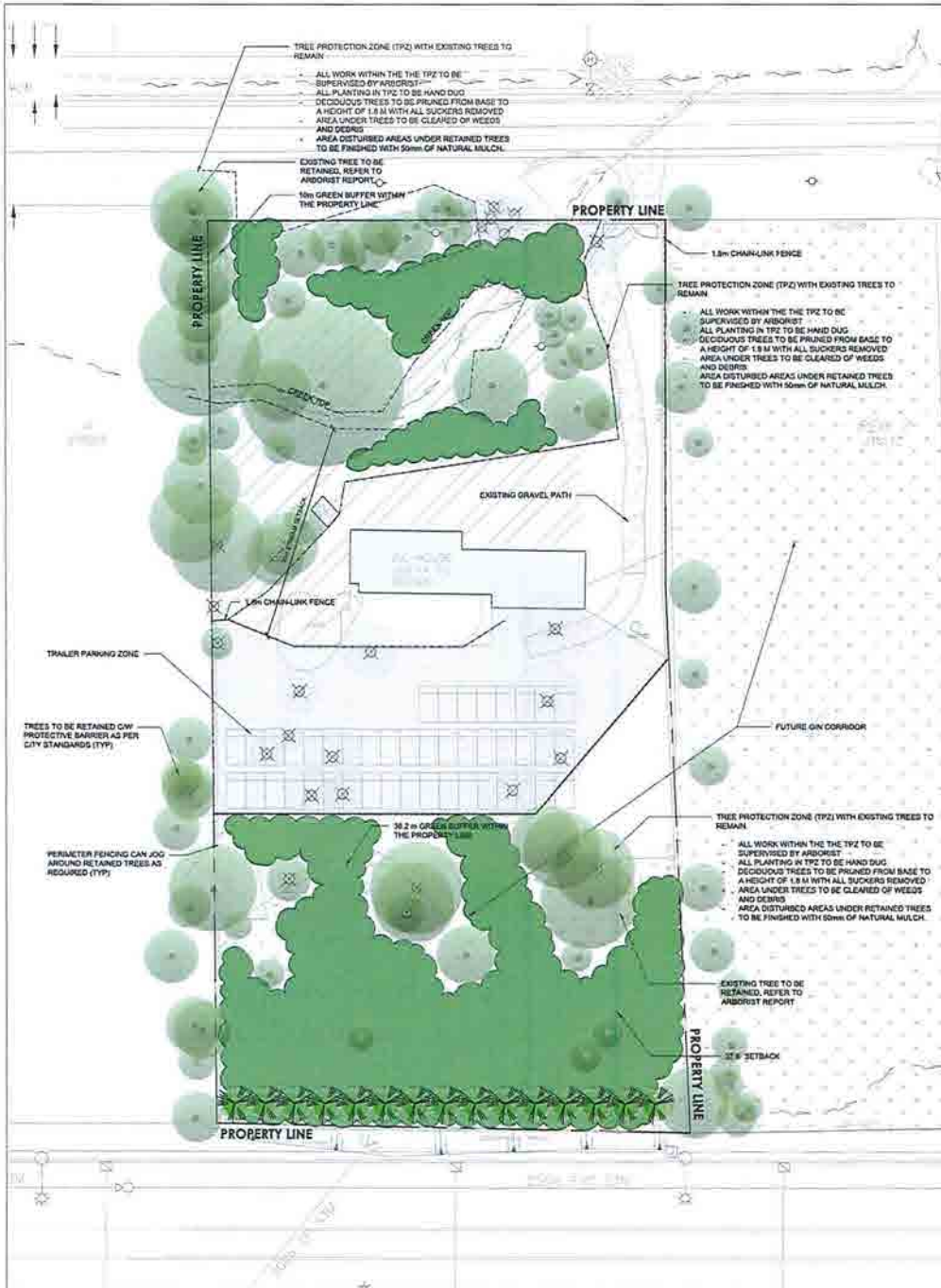
IN CONSIDERATION OF COUNCIL APPROVAL OF THIS DEVELOPMENT PERMIT AND OTHER GOOD AND VALUABLE CONSIDERATION, I/WE THE UNDERSIGNED AGREE TO THE TERMS AND CONDITIONS OF THIS DEVELOPMENT PERMIT AND ACKNOWLEDGE THAT WE HAVE READ AND UNDERSTOOD IT.


K.S. 22(1) _____
Authorized Agent: (Signature)


K.S. 22(1) _____
Name: (Please Print)


Owner: (Signature)

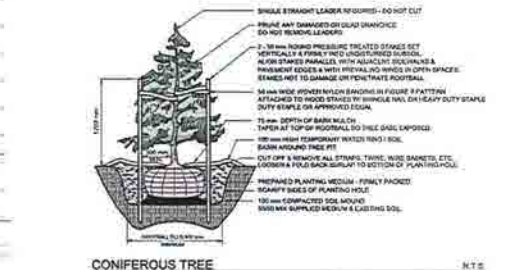

K.S. 22(1) _____



- GENERAL NOTES:**
- EXAMINE SITE AND CON WITH EXISTING SITE CONDITIONS BEFORE BIDDING
 - CONFIRM ALL MEASUREMENTS ON SITE, DO NOT SCALE DRAWINGS
 - CONFIRM EXISTING AND PROPOSED GRADES PRIOR TO BEGINNING CONSTRUCTION WORK
 - CONFIRM MUNICIPAL REQUIREMENTS FOR SIGNING, FENCING, AND CONSTRUCTION WORK AND OBTAIN ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION WORK
 - OBTAIN UTILITY AND SERVICES LOCATIONS PRIOR TO BEGINNING CONSTRUCTION WORK
 - PROTECT FROM DAMAGE ALL EXISTING STRUCTURES, UTILITIES, SURFACES, SOFT SURFACES, UNDERGROUND SERVICES AND OTHER EXISTING ELEMENTS THAT EXIST REMAIN ON SITE, AND THAT OF THIS SITE ACCESS ON THE ADJACENT TO THE SITE. REPAIR DAMAGE AND MAKE GOOD WORKS FOR ANY DAMAGE THAT IS CAUSED BY THE CONTRACTORS WORK AT THE CONTRACTORS OWN EXPENSE.
 - UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL GUARANTEE ALL WORKS AND MATERIALS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR, COMMENCING FROM THE DATE OF COMPLETION OF WORK. CONTRACTOR SHALL REPLACE AND REPAIR MATERIALS THAT ARE IN POOR CONDITION WITHIN TWO WEEKS OF REJECTION OR REJECTION.
 - THE CONTRACTOR SHALL MAINTAIN THE SITE IN GOOD WORKING ORDER WITH A CLEAN AND ORDERLY APPEARANCE DURING THE PERIOD OF WORK. PROVISION PUBLIC AND ROAD AREAS ARE TO BE KEPT AT THE END OF EACH DAY AND KEPT FREE OF DEBRIS, LANDSCAPE DEBRIS IS TO BE DISPOSED OFF SITE AT LEGAL AND APPROVED LOCATIONS.

PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	BRANDS	CONDITION
DECIDUOUS TREES						
11	Three (3)	Thorn Apple	Western Red Cedar	100 FL	A4 (20mm)	W.B.



240605	ISSUED FOR REVIEW
240615	ISSUED FOR REVIEW
240620	ISSUED FOR REVIEW
230912	ISSUED FOR COORDINATION
230908	ISSUED FOR COORDINATION
230904	ISSUED FOR COORDINATION
230905	ISSUED FOR COORDINATION

NORTH

18114 96 AVENUE - TUP

18114 96th AVENUE SURREY, BC

LANDSCAPE PLAN

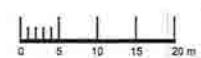
1/200

50'

10'

20'

DATE



Ecosystem Development Plan

18114 96TH AVENUE SURREY, BC



Prepared for:

1161830 BC Ltd.
PO Box 3522 LCD LCD1
LANGLEY BC
V3A 4R9

Prepared by:

AQUATERRA
ENVIRONMENTAL LTD
Port Moody, BC
V3H 0A2

Project No. 20221069

July 2023

August 2023 [REV.1]

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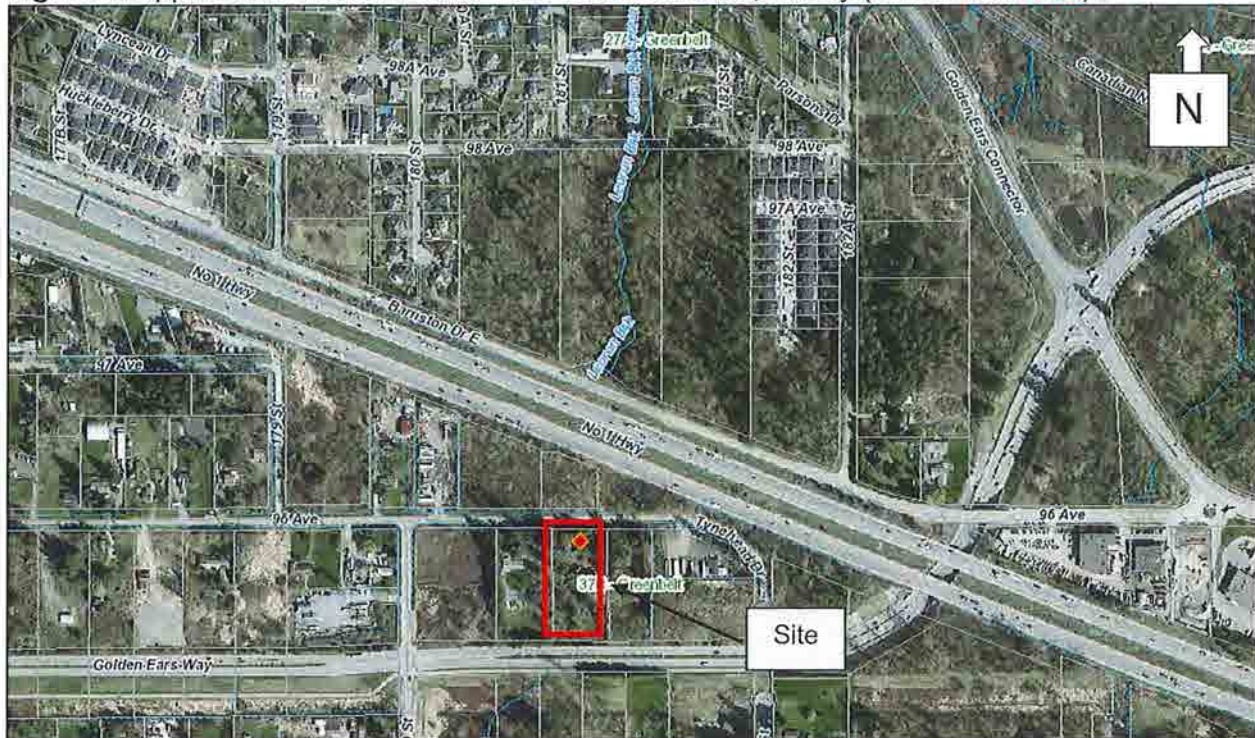
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- Appendix A** – Watercourse Assessment Report
- Appendix B** – Site Plan
- Appendix C** – Site Photographs

1 BACKGROUND

In June 2023, AquaTerra Environmental Ltd. (AquaTerra) was retained by Mr. Harry Purewal (the 'client') of 1161830 BC Ltd. to prepare an Ecosystem Development Plan (EDP) report for the site, referenced as 18114 96th Avenue in the City of Surrey, BC (PID: 018-685-943; **Figure 1**). Specifically, the City of Surrey (the 'City'), requested the completion of an EDP report to identify and offset the potential impacts associated with a Temporary Use Permit (TUP) for development of outdoor truck parking and storage areas. The purpose of the EDP is to verify compliance with applicable City of Surrey bylaws as well as relevant environmental legislation and guidelines.

Figure 1. Approximate Site Location – 18114 96th Avenue, Surrey (Outlined in RED).



The City of Surrey has adopted Development Permit Guidelines: Sensitive Ecosystem (DP3) for Streamside Areas and existing Green Infrastructure Areas. As part of the development permit, the owner is responsible for submitting an Ecosystem Development Plan (EDP) to the City for review and approval. The EDP applies to construction projects located within Streamside Areas and Green Infrastructure Areas (including 50 m buffers). The guidelines were developed to ensure that the aquatic and terrestrial habitats as well as potential sensitive receptors are adequately assessed and mitigated both during and post-construction.

2 OBJECTIVES

The primary objectives of this EDP are to accurately describe existing conditions, including aquatic and terrestrial habitat conditions at the site and to evaluate potential impacts relating to the proposed development of the site for TUP use, and identify appropriate mitigation strategies, as applicable, to minimize potential risks and residual effects that can be implemented during the construction phases. Specifically, this EDP is intended to:

1. Summarize existing aquatic and riparian habitats within and adjacent to the site;
2. Evaluate potential aquatic and riparian impacts associated with the proposed development of the site for residential use;
3. Determine Streamside Protection Area based on Part 7a, Streamside Protection of Surrey's Zoning Bylaw;
4. Identify safeguarding of any Streamside and Green Infrastructure areas;
5. Evaluate the significance and permanence of watercourses adjacent to the site, and;
6. Provide recommendations to be adhered to during temporary use activities.

3 PROPOSED PROJECT

AquaTerra understands that the client is intending to develop the site for light industrial truck parking area. Based on available information provided to AquaTerra, the existing residence may be utilized for an office and washroom, with the respected setbacks for the watercourse within the front of the site being retained. Similarly, the Green Infrastructure Network (GIN) within the eastern and southern portions of the site are to be retained with the exception of the existing driveway access, and passenger car parking stalls. Refer to **Appendix B** for proposed project details.

SUMMARY OF BACKGROUND SEARCH RESULTS

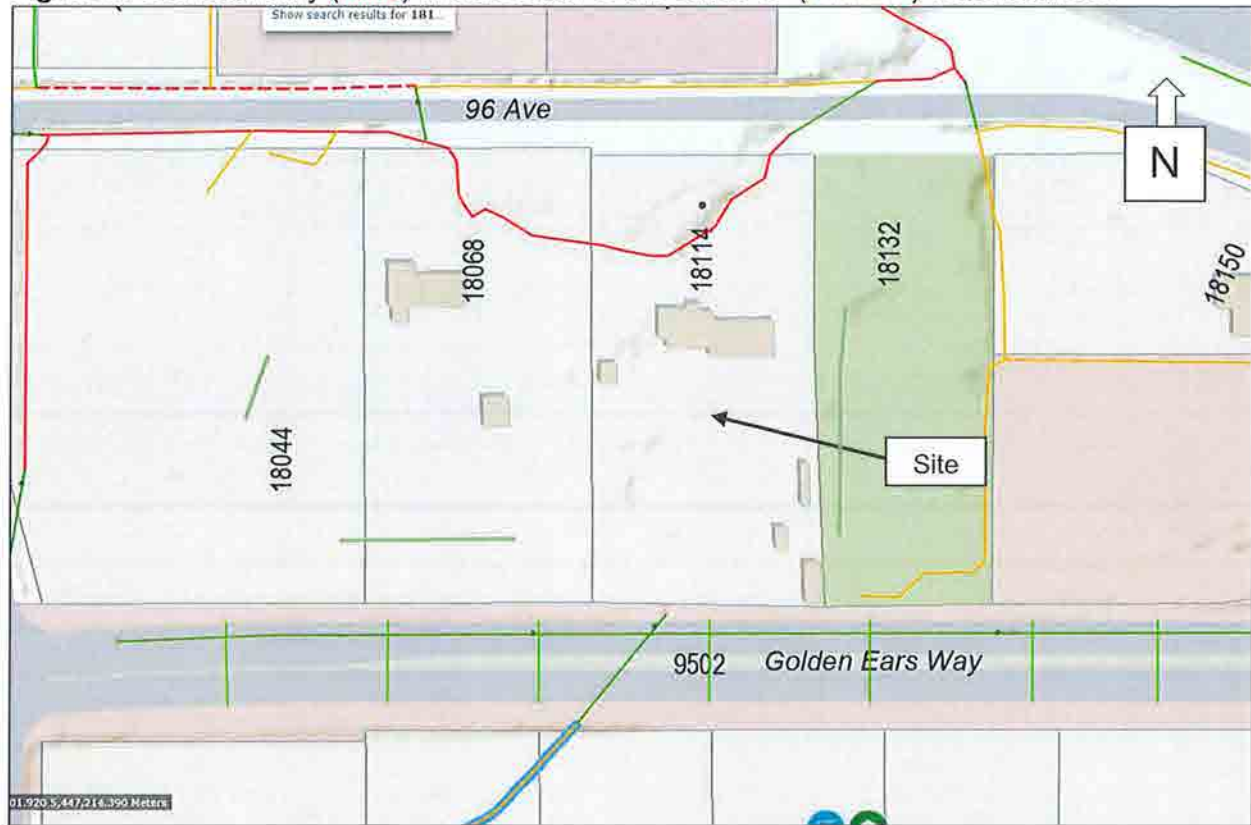
3.1 Existing Site Conditions

On 13 July 2023, two (2) AquaTerra personnel conducted a detailed site assessment to evaluate existing site conditions, including natural features, and inventory common and sensitive (if any) plant and animal species. Currently, a two-storey single-family residence and shed / storage building are present near the northern portion of the site. A more recently constructed shed / small residence was observed in the rear yard along the western site boundary. At the time of the assessment, workers were emptying the residence and surrounding area, which included a storage of miscellaneous equipment, tools, a mobile home, boat and building materials. The boat was being actively prepared for removal during the assessment. Workers were also loading miscellaneous building equipment onto a trailer for off-site disposal.

The front yard, fronting 96th Avenue, consisted of overgrown vegetated areas comprised of ornamental/decorative and fruit-bearing tree species, transitioning to native vegetation within the watercourse corridor, which consisted of Salmonberry (*Rubus spectabilis*), Trailing Blackberry, Indian Plum (*Oemleria cerasiformis*), Western Redcedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*) and Common Horsetail (*Equisetum arvense*). The rear yard consisted of an overgrown, unmanicured lawn area, an unmaintained pool, an unmaintained garden area near the rear of the property, numerous large trees including but not limited to Horse Chestnut (*Aesculus hippocastanum*), and an isolated pond. Specifically, AquaTerra personnel evaluated the pond, assessing for surface water / groundwater inputs and outflows; however, none were identified. The pond was surrounded by Common Cattail (*Typha latifolia*), Fragrant Water-lily (*Nymphaea odorata*), PONDWEED, Duckweed (*Lemna minor*), Hardhack (*Spirea douglasii*), Salmonberry and Lodgepole Pine (*Pinus contorta*).

As illustrated in the City's online GIS mapping system (COSMOS), a watercourse is mapped for the northern portion of the site. A historical development feasibility study completed by AquaTerra denoted that the watercourse was mapped as Class A – fish bearing, permanent as shown on **Figure 2**. At the time of the assessment, flowing water was present in the watercourse and resident, provincially blue-listed (Special Concern) Cutthroat Trout (*Oncorhynchus clarkii clarkii*) were confirmed within the deeper pools of the creek. For further watercourse details, refer to **Appendix A** and Section 4.1.

The site measures approximately 7944 sq.m. (~2.0 acres) and is situated approximately 42 meters (m) above sea level (ASL). Topographically, the site is flat and slopes gently northward, with a 2-4 m elevation change occurring across the extent of the site. The site is bounded by Golden Ears Way to the south, 96th Avenue to the north and residential properties to the east and west.

Figure 2. Site Boundary (RED) and Location of the Class 'C' (GREEN) Watercourses.

3.1 Conservation Data Centre (<http://www.env.gov.bc.ca/cdc/>)

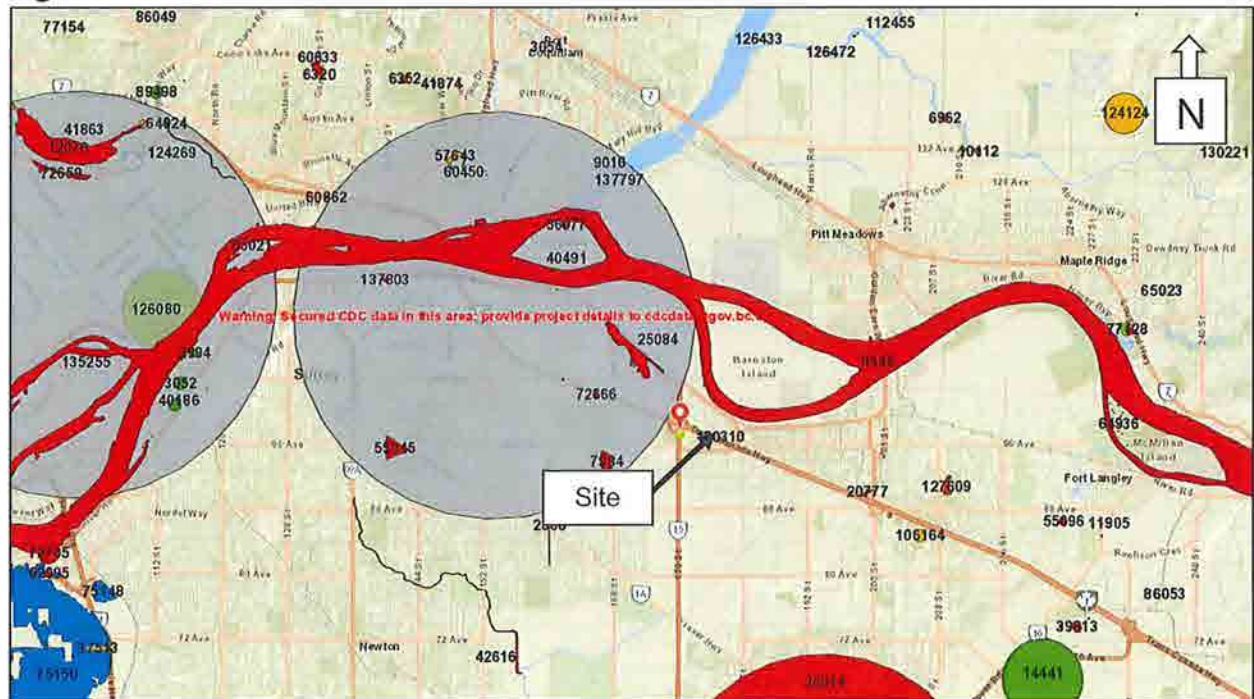
The BC Conservation Data Centre (CDC) database was queried on 13 July 2023 to obtain details on known occurrences of rare animal species or plant communities for the site and surrounding areas. The CDC is part of the Wildlife Inventory Section of the Resource Inventory Branch of the BC Ministry of Environment (MOE) that uses a listing process to identify species that are candidates for legal designation as extirpated, endangered, or threatened (**Red Listed**), as well those species that are considered to be of special concern (**Blue Listed**).

The results of the CDC query indicated no rare species or plant communities' occurrence records in the CDC database mapped specifically for the site. Six (6) other rare species were recorded within approximately 5 km of the site, which is summarized in **Table 1** and illustrated on **Figure 3**. The potential for this species to occur within or adjacent to the site is discussed in **Section 5**.

Table 1. BC Conservation Centre Results – Organized by Distance from Site.

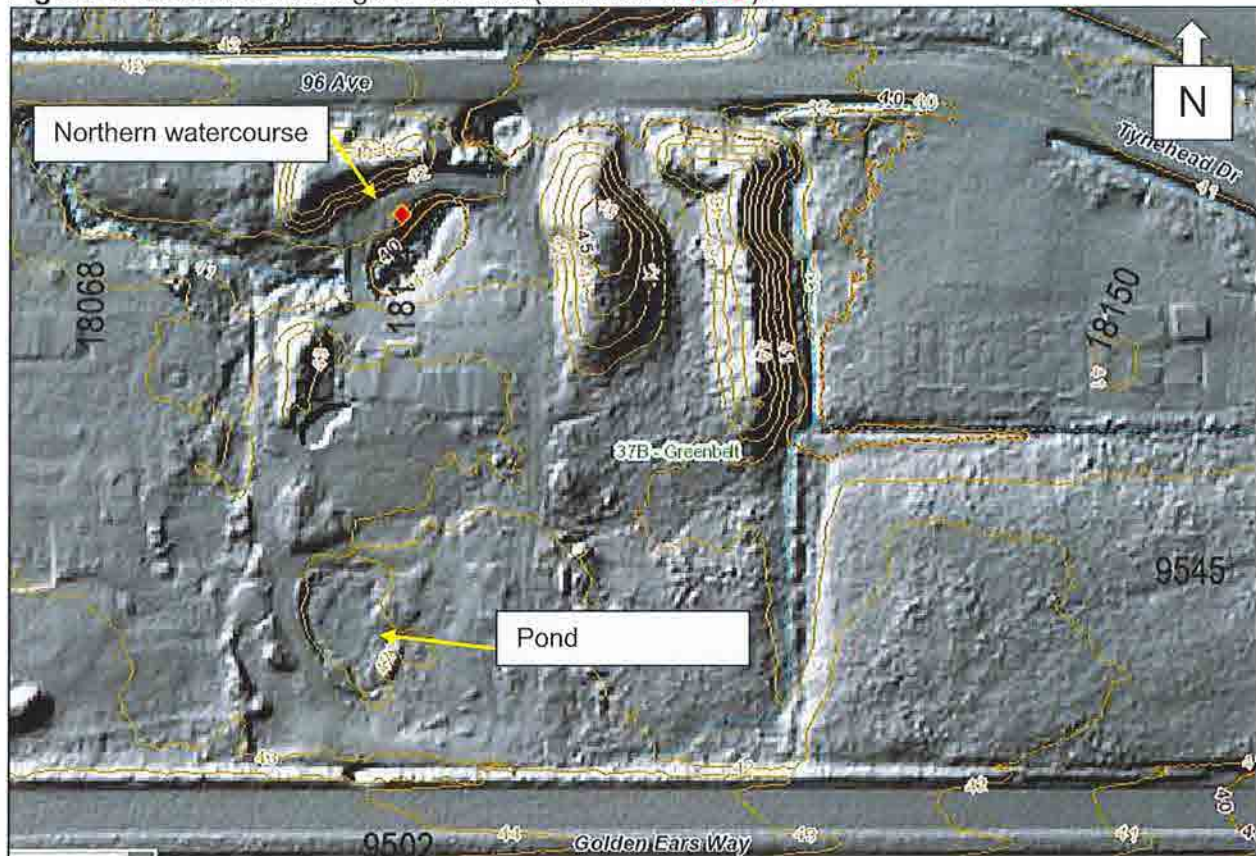
Shape ID	Common Name	Scientific Name	Province Ranking*	Observed Location	Distance from Site	Last Observed
130310	Oregon Forest Snail	<i>Allogona townsendiana</i>	Red	Barnston Island	0.4 km E	2010
8546	White Sturgeon	<i>Acipenser transmontanus</i>	Red	Fleetwood	2.1 km NE	2004
25084	Pacific Water Shrew	<i>Sorex bendirii</i>	Red	Fraser Heights	1.9 km NW	2009
7984	Great Blue Heron	<i>Ardea Herodias fannini</i>	Blue	Port Coquitlam	1.7 km SW	2010
72666	Pacific Water Shrew	<i>Sorex bendirii</i>	Red	Fraser Heights	4.8 km W	2011
2806	Vancouver Island Beggarticks	<i>Bidens amplissima</i>	Blue	Douglas Island	4.2 km SW	1994
20777	Trowbridge's shrew	<i>Sorex trowbridgii</i>	Blue	Latimer Creek	5.0 km SE	2003

Figure 3. BC Conservation Data Centre Results.



3.2 Historical Site Conditions

The City's online GIS mapping system (COSMOS) was queried on 13 July 2023 to collect historical information associated with the site. Historical aerial photography demonstrated that the site was cleared and developed as part of a larger parcel since at least 1949, or earlier. No pond was observed during this time. In 1998, prior to construction of Golden Ears Way, the existing single-family residence was confirmed and included cleared roadway access to the rear of the site as well as along the eastern site boundary off-site towards Golden Ears Way. The aerial photograph resolution was such that the confirmation of the pond within the rear (southern) portion of the site could not be confirmed; however, dense vegetation may have precluded this feature during this time period. In 2001, the rear yard had been largely cleared of vegetation, and a pond is readily visible within the rear of the site, which included a boat and bridge / walkway across the southern pond limits. The watercourse within the northern portion of the site was not readily apparent, but may include an isolated open (daylighted) rear with culverts near the western and north/central portion of the site. In 2011, a ring-road driveway had been constructed/re-established around the front yard including around the watercourse bisecting the northern portion of the site. Increasing storage of materials in the side and rear yards were observed during this time. Vegetation became increasingly established between 2001 – 2010. The site remained relatively unchanged from 2010 to present, with increasing vegetation growth, and a reduction in size of the isolated pond to the rear of the site, likely due to vegetation growth surrounding the pond and leaf litter inputs, slowly raising the elevation within the pond. Aerial LIDAR imagery from 2022 illustrates the watercourse within the northern portion of the site as well as the shallow pond within the southern portion of the site. Localized berming observed on-site along the northern site boundary and adjacent property to the east was also confirmed via LIDAR. **(Figure 4)**.

Figure 4. 2022 LIDAR Image of the Site (Outlined in RED).

3.3 Species at Risk (<http://sararegistry.gc.ca>) and Species at Risk and Local Government – A Primer for British Columbia

The federal species-at-risk and species-at-risk / local government databases were queried on 13 July 2023 to evaluate the potential for federally listed endangered, threatened and/or special concern species to occur on-site. The following Schedule 1, Schedule 3, and COSEWIC (Committee on the Status of Endangered Wildlife in Canada) listed species were listed as potentially occurring on-site based on available habitat types observed during the site assessment (Section 5):

Mammals

- Little Brown Myotis (*Myotis lucifugus*) – Endangered
- Pacific Water Shrew (*Sorex bendirii*) – Endangered
- Townsend's Mole (*Scapanus townsendii*) - Endangered

Birds

- Band-tailed Pigeon (*Patagioenas fasciata*) – Special Concern
- Barn Owl (*Tyto alba*) – Threatened
- Barn Swallow (*Hirundo rustica*) – Threatened
- Common Nighthawk (*Chordeiles minor*) – Threatened

- Great Blue Heron (*Ardea herodias fannini*) – Special Concern
- Short-eared Owl (*Asio flammeus*) – Special Concern
- Western Screech Owl (*Megascops kennicottii kennicottii*) – Threatened
- Olive-sided Flycatcher (*Contopus cooperi*) – Threatened

Reptiles and Amphibians

- Northern Red-legged Frog (*Rana aurora*) – Special Concern

Invertebrates

- Dun Skipper (*Euphyes vestris*) – Threatened
- Oregon Forest Snail (*Allogona townsendiana*) – Endangered
- Monarch (*Danaus plexippus*) – Special Concern

Based on existing habitat types on-site, sensitive vascular plants, lichen, moss, or fish species are not anticipated to occur on-site. A detailed discussion of federally listed sensitive species potentially occurring at the site is included in **Section 5**.

3.4 Community Mapping Network (<http://www.cmnbc.ca>)

The Community Mapping Network (CMN) Wildlife Tree Stewardship (WITs) database was queried on 13 July 2023 to evaluate the potential presence of raptor and heron nests within or adjacent to the site boundaries. Within a 5 km radius, the records identified three (3) Bald Eagle (*Haliaeetus leucocephalus*) nests. BAEA-204-039 is situated approximately 4.5 km northeast of the site, BAEA-204-089 approximately 4.4 km east of the site, and BAEA-204-101 approximately 4.2 km south of the site. Refer to **Figure 5** for location details.

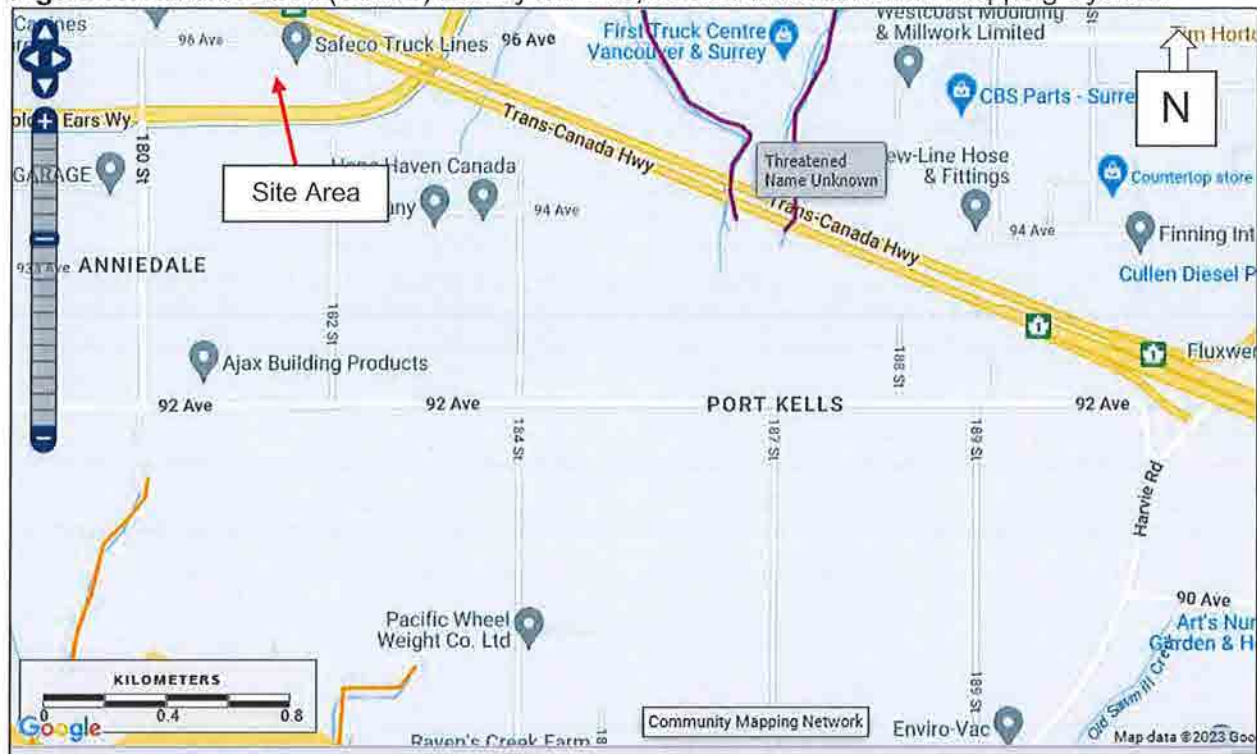
Figure 5. Wildlife Tree Stewardship Results.



The CMN Sensitive Habitat Inventory Mapping (SHIM) database was queried on 13 July 2023. No watercourses were mapped for the site or the surrounding area. The closest watercourses were 'Endangered' (Orange) watercourses to the south of the site – south of 92nd Avenue and

west of 184th Street, and 'Threatened' (Purple) watercourses to the east of the site near TransCanada Highway (Highway 1).

Figure 6. Watercourses (Yellow) nearby the Site, as Illustrated on SHIM Mapping System.



3.5 City of Surrey Mapping Online System (COSMOS)

As illustrated in **Figure 7**, the City of Surrey COSMOS map was queried on 13 July 2023 (and historically for the development feasibility assessment; **Appendix A**) to assess for watercourses and Green Infrastructure Network (GIN) corridors and hubs within and adjacent to the site as well as associated setbacks. Refer to Section 4.1.1 for watercourse assessment details and setback requirements.

The mapping utility identified one watercourse (historically classified as 'Class A – permanent, fish bearing') within the northern portion of the site. A GIN corridor, with potential connectivity to Tynehead Regional Park is located along the eastern site boundary, extending approximately 10 m into the site from the east, and approximately 35 m into the site from the south. The GIN corridor is classified as being of "moderate" ecological value.

Figure 7. Identified GIN Corridor Shown (GREEN). Site Outlined in RED.

In 2014, the city adopted a Biodiversity Conservation Strategy¹ (BCS), which was developed to preserve the city's natural environment. As part of the BCS, the city also developed a Habitat Suitability Map (HSM) (refer to **Figure 8**). The HSM was developed incorporating information from the Environmentally Sensitive Areas (ESA) map and other relevant data sources based on species-at-risk presence, species accounts, and known ecosystem habitat inventories. Based on the HSM, the site was ranked as "21-40 Low".

¹ Biodiversity Conservation Strategy – City of Surrey (http://www.surrey.ca/files/Surrey_BCS_Report.pdf)

Figure 8. Habitat Suitability Map and Surrounding Areas of the Site.

3.6 Biogeoclimatic Zone and Climate Details

The site lies within the Eastern Very Dry Maritime Coastal Western Hemlock (CWHxm1) biogeoclimatic zone (**Figure 9**), which occurs at low – mid elevations ranging from the westernmost point of Vancouver, and extending eastwards throughout Langley, parts of Abbotsford, and continuing just east of Sardis. The CWHxm1 is subzone of the broader Coastal Western Hemlock (CWH) zone, which is characterized by a moderate climate, cool summers and mild winters. Mean annual temperature is 5.5°C, ranging from 2.4°C to 9.3°C. The CWH is the wettest zone in BC with a mean annual precipitation of 2200 mm.

Figure 9. Site Biogeoclimatic Zone.

3.7 Topography and Surficial Geology

The surficial geology is characterized as Quaternary cover (code 'Qal'), consisting of alluvium, glaciofluvial gravels as well as sand and till (2005 BC Geological Survey; **Figure 10**). The site itself exists on flat, stabilized terrain, and is gently sloped towards the southwest with negligible slope regression. (**Figure 11**).

Figure 10. The Surficial Geology of the Site.

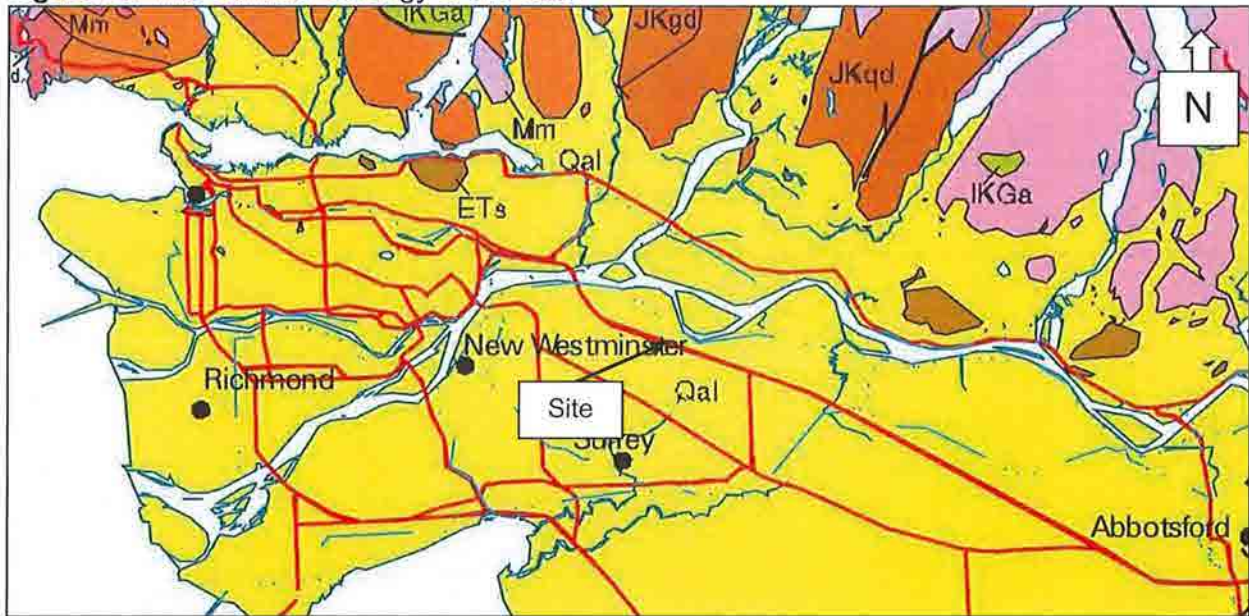
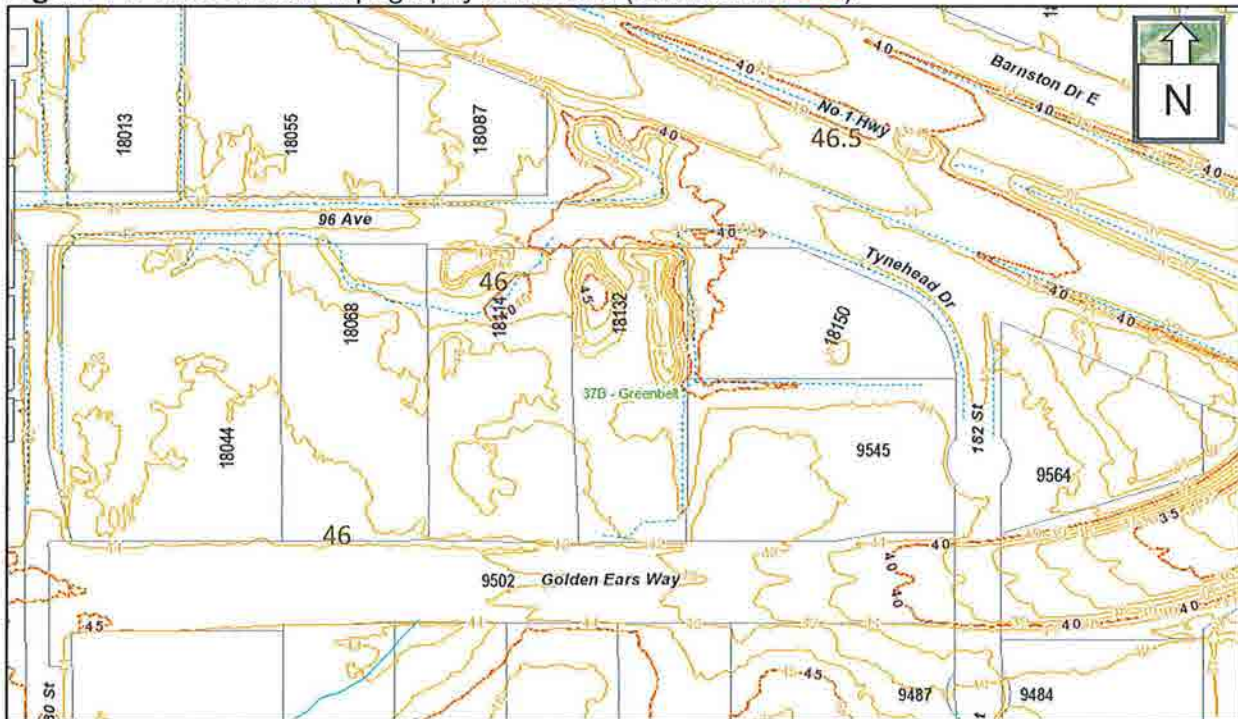


Figure 11. The General Topography of the Site (Outlined in RED).



4 FIELD ASSESSMENT RESULTS – OVERVIEW OF AQUATIC AND TERRESTRIAL HABITATS

This section summarizes the aquatic, riparian and terrestrial habitats observed on-site during the site assessment completed by AquaTerra personnel on 13 July 2023. Aquatic habitat features identified on the COSMOS mapping utility were evaluated for accuracy during the site assessment. The site was also traversed to evaluate other aquatic features that were not mapped but may provide habitat value, as well as to evaluate terrestrial habitat features. Photographs of the site assessment observations on-site are provided in **Appendix C**.

4.1 Aquatic Habitat

At the time of the assessment, AquaTerra personnel verified the presence of the watercourse mapped on-site, which flows from the western site boundary, eastward to the northeast portion of the site prior to continuing off-site to the north. The average width of the channel from high water mark to high water mark was 1.9 m, with a shallow depth of 0.2 – 0.3 m. Water was flowing to the 800 mm corrugated steep pipe (CSP) culvert within the northern portion of the site; however, flows were low (base flows) estimated at 5-6 L min⁻¹. Substrate was predominantly organics, transitioning to cobble and rip-rap near the culvert inlet. Resident Cutthroat Trout (estimated n=10) were observed in a deeper pool and scattered upon approach by the biologists. Two (2) culverts were observed, which appear to have been installed to accommodate a ring-road around the frontage of the site, noting abundant overgrowth of invasive vegetation including Bamboo, English Holly, English Ivy, and Herb Robert. Native riparian vegetation within the vicinity of the watercourse consisted of Western Redcedar, Black Cottonwood, Douglas-fir, Mock Orange, Lodgepole Pine, Red Elderberry, Indian Plum, and regenerating Red Alder.

Within the southern portion of the site, an isolated pond was observed. AquaTerra personnel used a tape measure and laser range finder, estimating the pond to be approximately 10 m wide x 22 m long. Approximately half the pond was dry, consisting of loose clay and till. The maximum water depth was estimated at <0.3 m. Riparian vegetation in the pond consisted of Lodgepole Pine, Common Cattail, Fragrant Water-lily, Pondweed, Duckweed, Hardhack and Salmonberry. Numerous amphibians were observed to be surfacing at the time of the field assessment. Netting revealed juvenile Long-toed Salamanders (*Ambystoma macrodactylum*). No other amphibians or reptiles were identified.

4.1.1 Watercourse Setback Requirements

Per the City of Surrey Streamside Protection Section 7a of the Zoning Bylaw, default setbacks from the top-of-bank (TOB) exist for streams (Class A, A/O, or B). Under the City of Surrey's Zoning By-law 12000, a stream is defined as any of the following that provides fish habitat: 1) a watercourse, whether it usually contains water or not; 2) a pond, lake, river, creek, brook, ravine, swamp, gulch or natural or channelized stream; or 3) a ditch, spring or wetland, that is connected by surface flow to any items referred to in (1) or (2). For lots that existed prior to 12 September

2016, where zoning allows for single family dwelling and duplex uses, the setback is 15 m from the top-of-bank per the excerpt from the bylaw (**Table 2**).

Table 2. Default Setbacks from the Top-of-Bank for Lots Existing Prior to 12 September 2016.

<i>Stream Types</i>	<i>Minimum Distance from Top of Bank</i>	
	<i>Stream Classifications</i>	
	<i>A or A/O</i>	<i>B</i>
<i>All Stream Types</i> (except as shown below)	15 metres	15 metres
Ditches <i>Stream that is a constructed drainage channel, carrying water that does not originate from a headwater or significant source of groundwater.</i>	10 metres	7 metres

However, based on discussions with the City of Surrey Planning Department, any rezoning or changes to the lot would result in a revised setback to **25 m** for a Class A or AO channelized watercourse. The City subsequently requested an increase of the re-revised setback to **30 m**, noting that this reach of the channel would be defined as a 'naturalized watercourse'. AquaTerra notes that areas to the east of the site exist as a roadside ditch(es).

In contrast, given that the pond appears to be man-made and does not appear to consist of any surface water or groundwater inputs, confirmed via the field assessment and COSMOS mapping layers, as well as the shallow topographic relief denoted by the LIDAR mapping, the default setback for the pond feature is anticipated to be 0 m (i.e., null setback). For further details regarding setback locations, refer to **Appendix A** and **Appendix B**.

4.2 Terrestrial Habitat

At the time of the site assessment, terrestrial habitat on-site (and outside of the riparian corridor) was generally modified, consisting of unmaintained lawn areas, regressed landscaped areas, and former garden areas. Terrestrial vegetation included Lodgepole Pine, Western Redcedar, Horse Chestnut, Mock Orange, Black Cottonwood, Red Alder, as well as numerous ornamentals including Rhododendrons, Bamboo, Azaleas, and Hydrangeas.

4.3 Sensitive Habitats

Sensitive habitats identified on-site included the watercourse bisecting the northern portion of the site, areas associated with the GIN along the eastern and southern site boundaries, and the man-made pond within the southern portion of the site, which currently serves as amphibian and bird habitat. AquaTerra personnel did not classify any other significant and/or unmapped sensitive habitats on-site.

4.4 Invasive Vegetation

Invasive vegetation was prevalent across much of the site, including Himalayan Blackberry and Bamboo fronting the site, as well as localized English Ivy (*Hedera helix*), English Holly, and Cherry Laurel (*Prunus laurocerasus*) within the northwestern portions of the site. English Ivy was also prevalent within the western and southwestern portions of the site, and had impacted numerous

mature trees, increasing the risk of windthrow and toppling. Other invasives included Herb Robert, Sheep Sorel, Creeping Buttercup, Sheep Sorel, and Alfalfa, primarily within the watercourse setback boundary and unmanicured / regressing rear yard areas.

4.5 Terrestrial Wildlife

A summary of terrestrial wildlife or terrestrial wildlife signs observed during the detailed site assessment on 13 July 2023 are outlined in the following sections. Common wildlife species include mammals, birds, amphibians and reptiles, and invertebrates.

4.5.1.1 Mammals

Mammal observations were limited to an introduced Eastern Cottontail (*Sylvilagus floridanus* rabbit) that is not native to the area.

4.5.1.2 Birds

Bird species observed on-site included Black-capped Chickadee (*Poecile atricapillus*), American Robin (*Turdus migratorius*), and Song Sparrow (*Melospiza melodia*). No raptor nests or active migratory songbird nests were identified during the assessment.

4.5.1.3 Amphibians and Reptiles

Numerous juvenile Long-toed Salamanders were identified in the shallow pond within the rear (southern) portion of the site. Incidental discussions with the land owner indicates that a pet Red-eared Slider (*Trachemys scripta elegans*) turtle(s) was released into the unmaintained swimming pool. Prior to pond infill, the turtles should be captured and donated / surrendered to a pet rehabilitation location.

4.5.1.4 Invertebrates

No invertebrate species were observed at the site during the detailed site assessment.

5 HABITAT SUITABILITY AND POTENTIAL OCCURRENCE RANKING

Development of habitat suitability ratings for potentially occurring species was based on protocols outlined in the document titled 'British Columbia Wildlife Habitat Rating Standards' (MELP 1999). Given the scarcity of data for many provincial and federal species-at-risk (SAR) specific habitat requirements, a four-class ranking system was used. This ranking system employs high (H), moderate (M), low (L) and nil (N) ratings for defined seasons and habitat uses. Ratings reflect the value of a specific habitat type for a specific SAR relative to the best habitat (benchmark) available for this species in the province. Specifically, the benchmark is the highest capability habitat for the species in the province, against which all other habitats for that species are rated. It is used to calibrate the capability and suitability ratings by providing "the standard" for comparing and rating each habitat or ecosystem unit for a season and life requisite. The ranking system criteria are summarized in **Table 3**.

Table 3. Adapted Habitat Suitability Rating Scheme for Species at Risk.

% of Provincial Best	Intermediate Knowledge – 4-Class	
	Rating	Code
100-76%	High	H
75-26%	Moderate	M
25-1%	Low	L
0%	Nil	N

Ratings for potentially occurring provincially and federally listed rare and endangered species within the site boundaries are presented in **Table 4** and are based on habitat suitability ratings, the reviewed background information, BEC zone, and the detailed site assessment findings.

Table 4. Occurrence Ranking for Sensitive Species Potentially Utilizing the Site Based on Habitat.

Common and Scientific Names	Status	Potential Occurrence Ranking	Rationale
MAMMALS			
Little Brown Myotis <i>Myotis lucifugus</i>	Yellow; E	LOW - MODERATE	No suitable nesting and overwintering habitat are present on-site. The site also only offers marginal foraging opportunity, as this species is known to prefer open habitats. Elevated presence due to pond. Presence, if any, is anticipated to be transitory.
Pacific Water Shrew <i>Sorex bendirii</i>	Red; EN	MODERATE	This species tends to prefer dense, wet forest habitat. Presence of watercourse and pond increase the potential for this species.
Townsend's Mole <i>Scapanus townsendii</i>	Red; EN	MODERATE	Suitable lowland and flood plain habitat exists on-site. Given the wetland-like quality of the eastern portion of the site, and the abundant grasses providing nesting habitat there is some potential for species' utilization of the site.
BIRDS			
Band-tailed Pigeon <i>Patagioenas fasciata</i>	Blue; SC	MODERATE - HIGH	Species prefers forest and shrub habitat for foraging and nesting. Marginal suitable habitat for breeding, nesting, or foraging within the site.

Table 4. Occurrence Ranking for Sensitive Species Potentially Utilizing the Site Based on Habitat (Continued).

Common and Scientific Names	Status	Potential Occurrence Ranking	Rationale
Barn Owl <i>Tyto alba</i>	Blue; SC	MODERATE	Large tracts of open habitat may be suitable for foraging, however minimal nesting habitat is present on-site.
Barn Swallow <i>Hirundo rustica</i>	Blue; TH	LOW - MODERATE	The limited open habitat provides marginal opportunities for foraging, with some nesting habitat due to run-down buildings and outbuildings.
Common Nighthawk <i>Chordeilus minor</i>	Yellow; SC	LOW	Nests are generally located in large, old, or mature stands, near water. The site lacks such nesting and breeding habitat. Presence, if any, is anticipated to be transitory.
Great Blue Heron <i>Ardea herodias fannini</i>	Blue; SC	MODERATE	Suitable foraging habitat is present on-site. Nests are commonly located high in trees in forested areas. Given the limited forested canopy on-site, nesting habitat is sub-optimal.
Short-eared Owl <i>Asio flammeus</i>	Blue; SC	MODERATE	This species is known to be found in open habitats with low vegetation for nesting and foraging. Such habitat is available on-site, especially near the eastern site border.
Western Screech-Owl <i>Megascops kennicottii kennicottii</i>	Blue; TH	LOW	Prefers dense mixed growth forests. Some suitable habitat is present on the site. Presence, if any, is anticipated to be transitory.
Olive-Sided Flycatcher <i>Contopus cooperi</i>	Blue; TH	LOW	Species prefers forest and woodland habitat. Marginal foraging habitat on-site. Presence, if any, is anticipated to be transitory.
AMPHIBIANS AND REPTILES			
Northern Red-legged Frog <i>Rana aurora</i>	Blue; SC	MODERATE	Occasionally found in open and rural habitats but tend to prefer forested habitat outside of breeding season. The presence of riparian vegetation and pond confer some habitat for this species.

Table 4. Occurrence Ranking for Sensitive Species Potentially Utilizing the Site Based on Habitat (Continued).

Common and Scientific Names	Status	Potential Occurrence Ranking	Rationale
INVERTEBRATES			
Monarch <i>Danaus plexippus</i>	Blue; SC	LOW	Lack of milkweed (which is necessary for breeding) on-site limits breeding potential. Presence, if any, is anticipated to be transitory.
Oregon Forest Snail <i>Allogona townsendiana</i>	Red; EN	LOW	Prefers mixed and deciduous forests with suitable leaf litter and coarse woody debris. The lack of these features likely precludes presence of this species on-site.
Dun Skipper <i>Euphyes vestris</i>	Blue; SC	MODERATE	Known to inhabit grassland and meadow habitat like what is present on-site. Potential for site utilization but presence is still anticipated only to be transitory.

6 SUPPLEMENTARY SECTION (City of Surrey Requirement)

CITY OF SURREY DEVELOPMENT GUIDELINES (Streamside)

#	REQUIREMENT	AQUATERRA RESPONSE
3a	Overall Site: Building construction and site layout adjacent to a Streamside Area shall be done in such a way to minimize impacts on the identified Streamside Protection Area. Locate buildings, roadways, parking areas and driveways away from the Streamside Protection Area boundary as far as possible.	The proposed light industrial truck parking area is planned to be constructed outside of the relevant SPEA and GIN setbacks. No encroachment into the SPEA is anticipated. The SPEA can be protected via fencing along the SPEA boundary to mitigate encroachment concerns
4	Overall Site: Establish buffers large enough to protect the ecological integrity of Sensitive Ecosystem Areas. (illustr.)	<p>This project does not encroach into the SPEA, with minor site access to the proposed parking area (within an existing driveway / site access footprint) and minor small personal vehicle parking proposed within the GIN in existing unvegetated areas – refer to the TUP Site Plan (Appendix B). Existing trees along the site perimeter and within the GIN areas as well as the pond will be retained. As such, no impacts or residual risks are anticipated to occur as a result of proposed construction based on current site conditions.</p> <p>For further details regarding the ultimate SPEA buffer, see the Development Feasibility Assessment report which was developed for this site by AquaTerra (Appendix A) and Section 4.1.1.</p>
5a	Overall Site: Avoid locating infrastructure corridors adjacent to or within Streamside Protection Areas. Where it can be demonstrated that alternatives are not possible, design crossings that are narrow and perpendicular, and that minimize disturbance to Streamside Protection Areas.	The project is not anticipated to encroach into the Streamside Protection Area or GIN corridor. The SPEA is to be delineated with either split rail or chain-link fencing (Appendix B) to prevent encroachment, and no construction or storage of materials is to occur within the established buffers. As such, no impacts or residual risks are anticipated to occur as a result of proposed construction based on current site conditions.
6	Overall Site: Determine buffer locations and sizes using contemporary Best Management Practices with the main goal of protecting Sensitive Ecosystem Areas from the effects of development and to retain the integrity of the Sensitive Ecosystem as a habitat and/or riparian area.	Refer to Section 4.1.1 for details.

7a	Overall Site: Any development adjacent to or within (for approved works and services installations only) a Streamside Protection Area requires the monitoring of conditions, both on-and off-site, by a QEP prior to, and during construction.	AquaTerra, or another Environmental Consultant, will conduct monitoring during the construction, on an as needed basis.
8	Building and Construction: Minimize impervious surfaces to improve stormwater absorption by using permeable materials and techniques, including permeable pavers and structural grass fields.	This recommendation has been made to the landowner and developer for incorporation into the detailed design for the proposed development. Development should adhere to applicable Best Practices and stormwater management provisions.
9	Trees and Vegetation: Create continuous vegetated corridors, wherever possible, by linking tree retention areas from within the development to that of adjacent Streamside Protection Areas or Green Infra-structure Protection Areas.	No tree retention is proposed within the TUP portion of the site. If trees are to be removed during the songbird nesting window (15 March – 31 August) a pre-clearing Songbird Nest Survey is required to be conducted by a Qualified Environmental Professional (QEP) prior to tree removal.
10	Trees and Vegetation: In addition to the Areas of Protection, retain as much existing native vegetation and as many trees as possible during site development or redevelopment. Ensure tree replacement ratios are consistent with the requirements identified in Surrey's Tree Protection Bylaw, as amended.	No tree retention is proposed within the TUP portion of the site. If trees are to be removed during the songbird nesting window (15 March – 31 August) a pre-clearing Songbird Nest Survey is required to be conducted by a QEP prior to tree removal.
11	Trees and Vegetation: Protect trees or existing vegetation within the development site and any trees on adjacent City of Surrey property and/or boulevards, before and during construction, in accordance with Surrey's Tree Protection Bylaw, as amended.	No tree retention is proposed within the TUP portion of the site. If trees are to be removed during the songbird nesting window (15 March – 31 August) a pre-clearing Songbird Nest Survey is required to be conducted by a QEP prior to tree removal. In addition, the developer is to follow all tree protection measures outlined in the associated Arborist Assessment report.
12	Trees and Vegetation: Landscape the setback areas created between buildings, roadways, parking and driveways and the edge of the Streamside Protection Area or Green Infrastructure Protection Area using native plantings (e.g. trees, shrubs, and groundcover) where appropriate. Landscaping should be complementary and supportive of the habitat types and ecosystem values found within the adjacent Streamside Protection Area or Green Infrastructure Protection Area as documented within the	Based on preliminary design documents, encroachment into the 30 m SPEA is not anticipated to occur. The project is not anticipated to encroach into the GIN corridor. Given that a portion of the site is covered by, any landscaping should follow applicable Best Management Practices to minimize dispersal of invasive plant species. Landscaping should also prioritize planting of native species, which are supportive of local habitat and promote

	Ecosystem Development Plan and/or the Impact and Mitigation Plan.	enhancement of the surrounding ecosystem. These recommendations have been made to the client.
13	Habitat: Design sites to mitigate light pollution to reduce impacts on those habitat areas reliant on darkness.	Not applicable, as the proposed development is not anticipated to emit significant amount of light pollution.
14	Habitat: Prevent disturbance of animal and bird nesting sites and breeding areas by preserving adequate animal habitat through the retention of appropriate trees and vegetation and by timing construction activity to avoid bird breeding windows.	No tree retention is proposed within the TUP portion of the site. If trees are to be removed during the songbird nesting window (15 March – 31 August) a pre-clearing Songbird Nest Survey is required to be conducted by a QEP prior to tree removal.
15	Habitat: Retain intact aquatic and terrestrial ecosystems and their connectivity to other Sensitive Ecosystem Areas. Preserve large tracts of wildlife habitat or long, continuous corridors to facilitate safe and unencumbered movement of wildlife from one place to another. Maintain natural hydrologic cycles in wetlands, ponds, streams and seepage areas to retain biodiversity.	No tree retention is proposed within the TUP portion of the site. In addition, no noteworthy encroachment into the 30 m SPEA or GIN setbacks are anticipated, meaning the high value sensitive habitat is to remain undisturbed. Natural hydrologic cycles are therefore not anticipated to be affected as part of the proposed project.
16	Habitat: Reconnect fragmented ecosystems, where practical and necessary, by establishing and restoring corridors and protecting habitats for isolated species or populations as shown in Surrey's Biodiversity Conservation Strategy.	The proposed development is not anticipated to detrimentally impact the connectivity with the GIN corridor, which is to remain with the exception of personal vehicle parking stalls in existing disturbed areas and/or driveway access areas.
17	Habitat: Plan and design development to: a) Protect endangered, threatened, vulnerable species or Species-at-Risk plant and animal communities. Plan, design and implement land development and subdivisions to protect Sensitive Ecosystem Areas. Prioritize protection for habitats that provide for at-risk species, at-risk ecological communities, and keystone species. Minimize impacts on significant, rare, or unique vegetation, wildlife and wildlife habitat.	a) Resident Cutthroat Trout, a 'special concern' fish, was observed in the watercourse within the northern portion of the site. No other identified at-risk/threatened/vulnerable species or communities were observed on-site; however, juvenile Long-toed Salamanders were observed within the man-made pond, which is to remain as part of the GIN. Encroachment into the GIN corridor and TUP access via existing driveway) or 30 m SPEA are not anticipated, and vegetation removal (beyond grubbing of the development footprint) is to be minimized when possible. A majority of the site is to remain undeveloped, and where development is proposed is not considered to be significant habitat for most endangered, threatened, vulnerable or Species-at-Risk.

	<p>b) Retain and enhance ecosystem features such as significant trees, hedgerows or windbreaks, with enough undisturbed space around them to protect root systems.</p> <p>c) Retain natural landforms such as escarpments, ravines, rock croppings, bluffs, hilltops or cliffs.</p> <p>d) Design and implement artificial habitat features, such as nesting boxes or spawning beds, where natural features are not present or practical.</p>	<p>b) No tree retention is proposed within the TUP portion of the site.</p> <p>c) Not applicable. No encroachment into the SPEA is anticipated and the GIN corridor is to be protected noting minor use within the GIN for personal vehicle parking and TUP access via the existing driveway within the GIN. No development expansion into forested areas is proposed.</p> <p>d) Not applicable.</p>
18	<p>Drainage: At a minimum, manage stormwater so that the quantity, quality and rate of stormwater input into receiving streams does not vary from that which existed pre-development. Install both temporary and permanent sediment/pollutant containment and erosion control measures for any development or redevelopment.</p>	<p>Erosion and Sediment Control (ESC) plan is anticipated to be a component of the development and it is anticipated that the client will be required to adhere to the City's Erosion and Sediment Control Bylaw 16138. The developer should also follow Best Management Practices (BMPs) as outlined by the City and other applicable provincial and federal authorities. No discharge / direction of water to the pond within the GIN is permitted, noting that water quality is to be maintained to preserve biological function.</p>
19	<p>Drainage: Manage site drainage in accordance with the Integrated Stormwater Management Plan (ISMP) relevant to the site location and with Surrey's Erosion and Sediment Control and Stormwater Drainage Regulation and Charges Bylaws, as amended.</p>	<p>Erosion and Sediment Control (ESC) plan will likely be a component of the development and it is anticipated that the client will be required to adhere to the City's Erosion and Sediment Control Bylaw 16138. The developer should also follow Best Management Practices (BMPs) as outlined by the City and other applicable provincial and federal authorities. No discharge / direction of water to the pond within the GIN is permitted, noting that water quality is to be maintained to preserve biological function.</p>
20	<p>Drainage: Implement measures that will prevent the release of silt or sediment-laden water into streams and Surrey's drainage network during any activity involving soil disturbance. Manage and mitigate the quality and quantity of stormwater runoff to help protect and enhance aquatic habitat.</p>	<p>Proponent / developer is responsible for securing erosion and sediment control (ESC) designs and undertaking implementation, if required, to preventing ESC issues. No discharge / direction of water to the pond within the GIN is permitted, noting that water quality is to be maintained to preserve biological function.</p>

21	Drainage: Incorporate rainwater Best Management Practices into development to ensure that post-development peak flows do not exceed pre-development peak flows by treating, storing, redirecting and slowly releasing rainwater from impervious surfaces back into natural hydrological pathways as much as possible, and by using systems such as green roofs, underground rainwater storage systems, rain gardens and rain barrels. Incorporate on-site storm water management features into the development as required by the Surrey Stormwater Drainage Regulation and Charges Bylaw, as amended.	Best practices and stormwater controls will be required for this development including engineering designs. Erosion and Sediment Control (ESC) plan will likely be a component of development and it is anticipated that the client will be required to adhere to the City's Erosion and Sediment Control Bylaw 16138. No discharge / direction of water to the pond within the GIN is permitted, noting that water quality is to be maintained to preserve biological function.
22	Drainage: Construct wetlands and detention ponds to improve the quality of rainwater through bio-filtration and to maximize habitat creation.	To be determined by planners, and project engineers based on construction timing, footprint, and availability of area for temporary stormwater infrastructure. No discharge / direction of water to the pond within the GIN is permitted, noting that water quality is to be maintained to preserve biological function.
23	ALL registered professionals who will be involved in the development proposal, whether a Biologist, Geo-scientist, Engineer, Forester, and/or Agrologist, shall have demonstrated education, expertise, accreditation and knowledge relevant to sensitive environments, ecosystems and/or streamside management.	Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL – 23 years of experience; 21 years of consulting experience.
24	ALL Arborists who will be involved in the development proposal shall be registered and certified with the International Society of Arboriculture (ISA).	Not applicable.
25	Supply a list and written statement, including all documentation, verifying the qualifications of all Qualified Environmental Professionals (QEP) and/or ISA Certified Arborists responsible for preparing report submissions or involved in monitoring site conditions for Sensitive Ecosystems Development Permit applications.	Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL – 23 years of experience; 21 years of consulting experience.
26	Where more than one Qualified Environmental Professional is needed, submit a written statement identifying THE PRIMARY QEP for the entire development and acknowledging their role to ensure: all required reports are prepared by qualified professionals and are coordinated both in content and execution; and that all	Not applicable

	relevant Development Permit Guidelines and requirements have been met and/or addressed in the application submission.	
27a	Zoning Bylaw: Part 7a, Streamside Protection of Surrey's Zoning Bylaw is to be used to determine the Area of Protection required for development adjacent to a stream.	Refer to Section 4.1.1
28	Maximum Safeguarding: conveyance of the Protection Area to the City of Surrey. Where conveyance is chosen, the applicant is not responsible for the additional ecological restoration or on-going maintenance of the Protection Area as detailed and described below under the Minimum Safeguarding option.	To be determined based on discussions with the property owner and developer.
29	<p>Minimum Safeguarding: registration of a combined Restrictive Covenant/Right-of-Way against the property to ensure safeguarding and maintenance of the Protection Area in perpetuity.</p> <p>The Restrictive Covenant/Right-of-Way shall detail the:</p> <ol style="list-style-type: none"> 1) identified "no disturbance" and "maintenance access" areas. 2) provisions for post-construction on-going management of the Protection Areas for a minimum of five years, including any required rehabilitation, restoration and/or conservation of any areas identified by the project-managing QEP. 3) provisions for yearly monitoring and reporting; and 4) identification of the Principal QEP responsible for providing yearly monitoring reports during the minimum five-year maintenance period. 5) compensation plan and cost estimate for all items listed in this section. This will also be used to determine landscape bonding and security requirements for installation and maintenance purposes. 	<ol style="list-style-type: none"> 1) The 30 m SPEA setback will be protected via fencing at the setback boundary. Signage should also be attached to the fence indicating the protected, no disturbance and maintenance access areas. 2) As no encroachment or reduction in SPEA, sensitive environmental area, or GIN are proposed, no management, restoration, rehabilitation or conservation requiring monitoring and management are currently proposed. 3) As no encroachment or reduction in SPEA, sensitive environmental area, or GIN are proposed, no management, restoration, rehabilitation or conservation requiring monitoring and management are currently proposed. 4) If required, Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL – 23 years of experience; 21 years of consulting experience. 5) As no encroachment or reduction in SPEA, sensitive environmental area, or GIN are proposed, no management, restoration, rehabilitation or conservation

		requiring monitoring and management are currently proposed.
30	Building and Construction: Identify all existing on-site buildings, structures and developed areas, including paved and landscaped areas, and any other areas disturbed beyond its original condition.	An existing single-family residence is proposed to remain as offices / washroom facilities. The remaining outbuildings are to be removed from the site. No paved areas exist on-site. Landscaped areas within the SPEA/GIN areas are to remain, and the remainder of the site is to be cleared to accommodate the TUP.
31	Soils: Perform a slope analysis and identify existing topographic features including geological and hydro-geological soil conditions, particularly are as of unstable or sensitive soils.	Refer to Section 3.8 . The site is generally flat with minor topographical relief; therefore, a geotechnical assessment is not anticipated to be required for TUP usage.
32	Trees and Vegetation: Identify and detail existing vegetation and trees (including trees defined in the Surrey Tree Protection Bylaw, as amended) and submit in an arborist's assessment report.	No tree retention is proposed within the TUP portion of the site. If trees are to be removed during the songbird nesting window (15 March – 31 August) a pre-clearing Songbird Nest Survey is required to be conducted by a QEP prior to tree removal.
33	Habitat: Identify Schedule 1, Federally-protected Species-At-Risk Act or Provincial Red-or Blue-Listed plant or animal species and their critical habitats including shrub and ground cover communities and any species, or habitat feature, identified as requiring year-round protection as identified in the Provincial Wildlife Act.	Refer to Section 5 of this EDP for details.
34	Drainage: Identify the Streamside Protection Area and stream locations, including top of bank (illustr.) and stream classifications (as defined in Surrey's Zoning Bylaw, as amended).	The location of the proposed development complies with the setback requirements laid out in this EDP. Refer to Section 4.1.1, Appendix A regarding watercourse classifications and setback requirements.
35	Drainage: Identify existing site drainage conditions in accordance with the Integrated Storm-water Management Plan (ISMP) relevant to the site location.	Refer to Section 3.8 provided in this EDP. This recommendation has been made to the landowner and developer for incorporation into the detailed design for the proposed development. Surface water run-off / stormwater is not to be directed to the man-made pond on-site so as to retain biological function.

36	Drainage: Detail existing site drainage conditions including depth to ground water table, storm water conveyance, infiltration and storage features and storm water channels and overland flow paths.	Refer to Section 3.8 provided in this EDP. This information has been made to the landowner and developer for incorporation into the detailed design for the proposed development. Surface water run-off / stormwater is not to be directed to the man-made pond on-site so as to retain biological function.
37a	Overall Site: Identify the Streamside Protection Area and where it is situated with the development.	Refer to Section 4.1.1 and the associated development feasibility assessment report (Appendix A) submitted for this site.
38	Locate development where it is most sensitive to the objectives of the Biodiversity Management Areas, Green Infrastructure Network and corresponding conditions and recommendations required for management as identified in Surrey's Biodiversity conservation Strategy (illustr.).	The location and siting of the proposed development complies with the objectives of the City's Biodiversity conservation and is not situated within a BMA or GIN area. Development has been specifically designed to avoid the SPEA and GIN areas based on input from the AquaTerra QEP.
39	Overall Site: Identify the Green Infrastructure Protection Area and where it is situated with the development.	Refer to Section 3.6 and Appendix B for details regarding location of the GIN corridor on the site.
40	Building and Construction: Detail construction specifications including materials, timing, technologies and techniques proposed to mitigate and reduce the ecological impacts of development on the identified Stream or Green Infrastructure Protection Area.	Refer to Section 3.6 and Appendix B for details regarding location of the GIN corridor on the site.
41	Building and Construction: Detail the locations of all proposed buildings, structures and impervious surfaces.	This recommendation has been made to the landowner and developer for incorporation into the detailed design for the proposed development.
42	Building and Construction: Detail the timing and scheduling of all proposed development activities.	As soon as permit is issued – Proposed construction is anticipated to take 8-12 months to complete. Given that no instream works are occurring, works should be able to proceed year-round and within the nesting window after an appropriate survey(s) has been completed.
43	Soils: Provide site grading plans illustrating the area and extent of proposed soil disturbance including slope grades and any proposed retaining wall heights, locations and materials used. Detail how slope or soil stability will be ensured and how erosion and increased sedimentation risks will be reduced.	This recommendation has been made to the landowner and developer for incorporation into the detailed design for the proposed development. Due to the topography of the site, slope and soil stability is not anticipated to be an issue.

44	<p>Trees and Vegetation: Identify how existing trees, shrubs and groundcover will be retained and protected including details and specifications on the replanting, restoration and management of vegetated areas and maintenance of short- and long-term hydraulic regime.</p>	<p>The watercourse setback and fencing are anticipated to protect the trees, shrub and ground cover within the watercourse ESA. Encroachment and degradation are to be mitigated via fencing. Similarly, fencing is proposed along the GIN corridor boundary with the exception of areas requiring site access (e.g., existing driveway over existing culvert). The fencing is design to protect trees, shrubs and ground cover within the GIN. No replanting/restoration is currently proposed in the SPEA/ESA/GIN areas as no notable encroachment are proposed.</p> <p>No tree retention is proposed within the TUP portion of the site.</p> <p>If trees are to be removed during the songbird nesting window (15 March – 31 August) a pre-clearing Songbird Nest Survey is required to be conducted by a QEP prior to tree removal.</p>
45	<p>Trees and Vegetation: Identify individual tree retention and removal, and areas of structured landscaping, including plant species, size and location.</p>	<p>No tree retention is proposed within the TUP portion of the site. The remaining ESAs (SPEA & GIN) are to be protected with fencing to mitigate encroachment.</p> <p>If trees are to be removed during the songbird nesting window (15 March – 31 August) a pre-clearing Songbird Nest Survey is required to be conducted by a QEP prior to tree removal.</p>
46	<p>Trees and Vegetation: Provide details as to how the Streamside or Green Infrastructure Area management or protection objectives will be met and monitored following the official completion of all construction activity. Where restorative work IS NOT required, maintenance and monitoring shall be for a minimum of ONE year; and where restorative work IS required, maintenance and monitoring shall be for a minimum of FIVE years.</p>	<p>The watercourse setback and fencing are anticipated to protect the trees, shrub and ground cover within the watercourse ESA. Encroachment and degradation are to be mitigated via fencing. Similarly, fencing is proposed along the GIN corridor boundary with the exception of areas requiring site access (e.g., existing driveway over existing culvert). The fencing is design to protect trees, shrubs and ground cover within the GIN. No replanting/restoration is currently proposed in the SPEA/ESA/GIN areas as no notable encroachment are proposed.</p> <p>Post construction monitoring to be conducted by AquaTerra or another environmental consultant selected by the developer. The developer is responsible for notifying the City and consultant as construction progresses.</p>

47	Trees and Vegetation: Provide a restoration, maintenance and cost estimate plan consistent with the development requirements identified in the Ecosystem Management Plan and/or Impact Mitigation Plan to be used to determine landscape bonding and security requirements for installation, monitoring and maintenance purposes.	Currently no notable encroachment into the SPEA or GIN are anticipated with the exception of roadway access to the TUP via the existing driveway (in the existing GIN). As such, no restoration and maintenance are currently proposed. If a restoration / enhancement plan is required, this EDP report will be updated accordingly.
48	Habitat: articulate how the proposed development meets the Objectives and Recommendations of the Biodiversity Management Areas and Green Infrastructure Network of the Biodiversity Conservation Strategy.	The proposed project has been developed in consultation with AquaTerra Environmental from an early pre-development design stage, evaluating sensitive aquatic areas, setbacks, watercourses, and GINs, and implementing appropriate setbacks to mitigate development related impacts. As such, design implementation with consideration of environmental constraints was the foremost proactive measure to meet the objectives and recommendations of the BMA/GIN requirements.
49	Habitat: detail how wildlife habitat will be protected and enhanced while taking into consideration wildlife movement and connectivity to adjacent sites. Focus on Schedule 1, Federally-protected Species-at-Risk, or provincial Red- or Blue-listed plant or animal species and their critical habitats and how they may be affected by the proposed development and indicate how proposed Best Management Practices may be used for the protection and preservation of their habitat.	Refer to Section 5 for details.
50	Drainage: Identify post-development drainage site conditions in accordance with the Integrated Storm-water Management Plan (ISMP) relevant to the site location.	This recommendation has been made to the landowner and developer for incorporation into the detailed design for the proposed development. Surface water run-off / stormwater is not to be directed to the man-made pond on-site so as to retain biological function.
51	Drainage: Detail how flooding risk and water quality degradation will be mitigated including specific measures that will be taken to prevent channel erosion and prevent the fouling of streams, wetlands or drainage conveyance corridors.	Not anticipated to be an issue due to limited project footprint and small scale of development. Proponent / developer is responsible for securing erosion and sediment control (ESC) designs and undertaking implementation, if required, to preventing ESC issues.

52	<p>An IMPACT MITIGATION PLAN is required to determine the appropriateness of requests to reduce the Streamside Protection Area (through the use of a Development Variance Permit) as defined in Surrey's Zoning Bylaw, Part 7a. The IMPACT MITIGATION PLAN, where relevant to the site (determined by City of Surrey), shall include the following:</p> <p>a) Overall Site: A detailed Riparian assessment report, following the Provincial methods specified in the Riparian Areas Regulation, B.C. Reg. 376/2004, identifying the regulatory Streamside Protection and Enhancement Area and associated measures.</p> <p>b) Overall Site: An assessment report indicating any expected changes and modifications to streams and aquatic and riparian areas, including any expected water quality reductions, water quantity changes, or fish and wildlife habitat degradation, with a particular focus on salmonid habitat and healthy tree retention, as a result of the proposed Streamside Setback Area variance.</p> <p>c) Overall Site: A restoration plan and cost estimate for the items submitted with the Impact Mitigation Plan. This restoration plan shall also be used to determine landscaping bonding and security requirements for installation, monitoring and maintenance purposes.</p> <p>d) Building and Construction: Details demonstrating how the City of Surrey can reasonably access the stream to maintain drainage conveyance including illustrating the location of a required minimum 5 m wide access corridor that is geotechnically-stable and located outside of the Streamside Protection and Enhancement Area, as defined in Riparian Areas Regulation, B.C. Reg. 376/2004, as amended.</p> <p>e) Building and Construction: Details on how public and maintenance access will be accommodated where there is a park trail proposed within the proposed adjusted Streamside Setback Area.</p>	<p>Not applicable – proposed construction is outside the prescribed setback.</p> <p>a) A Development Feasibility Assessment with Riparian Areas Protection Regulation (RAPR) setback requirements (based on field assessment observations) was completed by AquaTerra has been submitted to the City for review and approval.</p> <p>b) No water quality reduction or water quantity changes are anticipated to occur so long as stormwater management and detention are designed and effectively managed. No further variance proposed. Trees within the SPEAs are anticipated to be retained as outlined TUP site plan (Appendix B). Surface water run-off / stormwater is not to be directed to the man-made pond on-site so as to retain biological function.</p> <p>c) Currently no restoration plan required as no notable encroachment is proposed into the ESAs (SPEA or GIN). If enhancement is requested / required a habitat enhancement plan will be developed by AquaTerra and this EDP report updated accordingly.</p> <p>d) The watercourse is accessible from 96th Avenue, see Figure 2 for more details.</p> <p>e) Not applicable – No park trail exists within the site.</p> <p>f) Not applicable –encroachment into SPEA and issues with slope stability are not anticipated as the site is generally flat. Development is proposed to comply with the setback requirements → 30 m from the top-of-bank of the watercourse on-site.</p>
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<p>f) Soils: Provide a geotechnical report that assesses the impacts of the adjustments and recommends how to protect stream bank stability. The report will provide detailed information on stream hydraulics, erosion, sedimentation, and top of bank conditions (e.g. top loading or slope undercutting effects). The report will include a seismic assessment addressing impacts for both structural and human use.</p> <p>g) Trees and Vegetation: A vegetation accounting report including the effects of any biomass and habitat removal, or any other disturbances as a result of the proposed Streamside Setback Area variance.</p> <p>h) Habitat: A riparian restoration plan specifying the following: invasive species management; abatement of hazard trees; appropriate native species proposed to be used in any restoration work; details on any removal of anthropomorphic habitat debris; and how stream complexing and drainage conveyance will be under-taken (to the satisfaction of the City of Surrey).</p> <p>i) Drainage: An assessment report on any expected flooding or increase in flooding or impacts, positive or negative, affecting groundwater as a result of the proposed Streamside Setback Area variance.</p> <p>j) Drainage: An assessment report of the stream and how the proposed adjustment to the Streamside Setback Area will not create a vulnerability from beaver activities for the development site.</p> <p>k) Drainage: Detail and identify post-development drainage site conditions in accordance with the Integrated Stormwater Management Plan (ISMP) relevant to the site location.</p>	<p>g) This requirement has been conveyed to the client and developer. No variance associated with Streamside Setback Area is currently anticipated.</p> <p>h) This requirement has been conveyed to the client and developer. No variance associated with Streamside Setback Area is currently anticipated. The exotic Red-eared Slider turtle(s) within the unmaintained pool should be captured and relocated / donated to a wildlife or reptile sanctuary as opposed to release into the pond or watercourse area.</p> <p>i) This requirement has been conveyed to the client and developer. No variance associated with Streamside Setback Area is currently anticipated.</p> <p>j) Not applicable – No variance associated with Streamside Setback Area is currently anticipated.</p> <p>k) The preparation and issuance of an Erosion and Sediment Control Plan is anticipated to be required as a component of development and should be designed to identify post-development drainage site conditions in accordance with the ISMP.</p>
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7 CLOSURE

We trust this provides the information you currently require. Should you have any questions, please feel free to contact the undersigned.

Respectfully submitted,

Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL
Principal / Senior Biologist
AquaTerra Environmental Ltd.

8 REFERENCES

Chilibeck, B., Chislett, G. and G. Norris. 1992. *Land Development Guidelines for the Protection of Aquatic Habitat*. ISBN 0-7726-1582-9

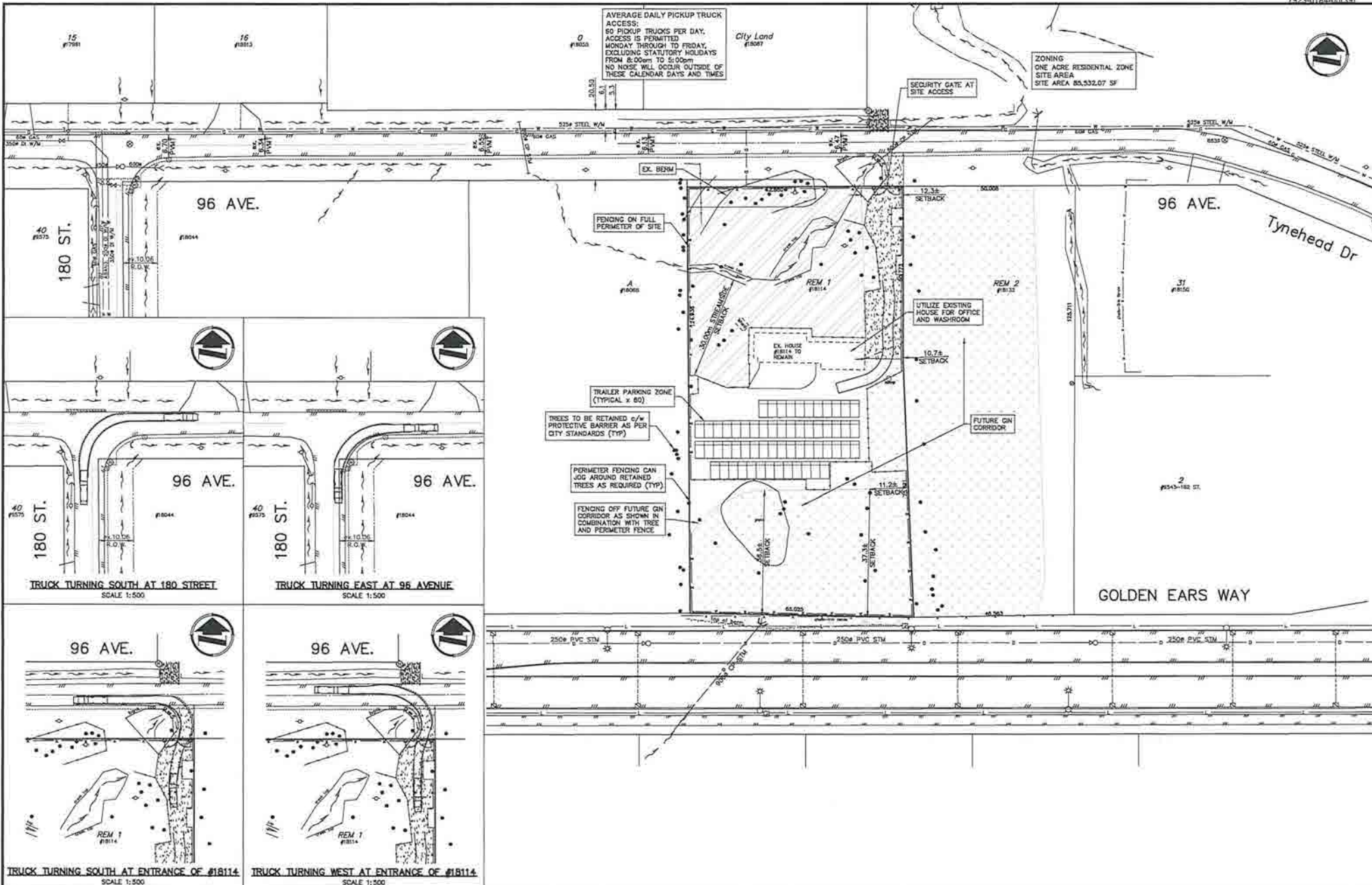
Ministry of Environment, Lands and Parks (MELP). July 1998. *Planting Criteria and Recommended Native Tree and Shrub Species for Restoration and Enhancement of Fish and Wildlife Habitat*. Ministry of Environment, Lands and Parks.

MELP 1999. *British Columbia Wildlife Habitat Rating Standards*. Prepared by the Ministry of Environment, Lands and Parks Resources Inventory Branch for the Terrestrial Ecosystem Task Force Resources Inventory Committee. Version 2.0. Available on-line here: <http://www.llbc.leg.bc.ca/public/pubdocs/bcdocs/335486/whrs.pdf>

Polster, D. and J. Cullington. 2012. *Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia*. Available on-line here: <http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/DWC%202006%20Sec%201%20Introduction.pdf>

APPENDIX A
Development Feasibility Assessment Memo

APPENDIX B
Site Plan



LOT 1, EXCEPT PARCEL A (STATUTORY RIGHT OF WAY PLAN BCP27281)
 15 TOWNSHIP 8, NEW WESTMINSTER DISTRICT, PLAN LMP15332
 BENCHMARK 96 AVE. & TYNEHEAD DR. SCALE 0.9996018
 MON 8639 N 5447169.832 E 520455.122 ELEV 40.382m

REV.	DATE	DESCRIPTION	BY

CONSULTANT
Coastland
 engineering & surveying inc.
 #101, 19292 - 80 Avenue
 Surrey, BC V2S 3M2
 Phone: (604)532-9700
 Fax: (604)532-9700
 Permit To Practice No. 1001893

CITY OF SURREY

1161830 B.C. LTD.
 P.O. BOX 3322, STN LCD1, LANGLEY, B.C. V0A 4R9
 SARAJOT PUREVAL 778-865-8797 (Development Director)
 TOM GILL 804-418-2217
 tom@puregroup.ca tlgill@puregroup.ca
KEY PLAN
 18114 - 96 AVENUE

SCALE: 1:500	DATE (YYYY MM): 2023 MARCH	SURVEY PROJECT NUMBER: 7823-0184-00
DESIGNED: MEH	Coastland Project No.: 2889	DRAWING TYPE: KEY
DRAWN: KDL	CHECKED: at 3	REV: 2
REVIEWED: FRY		

APPENDIX C
Site Photographs

Photographs

Photo 1: Existing single-family residence on-site.



Photo 2: Outbuilding and unmaintained front yard with invasive species.



Photo 3: Eastern Cottontail utilizing the rear yard.



Photo 4: Miscellaneous stored materials being removed from the site.



Photo 5: Rear yard looking northward at the single-family residence.



Photo 6: English ivy infestation on mature Black Cottonwood.



Photo 7: Shallow isolated pond in the rear yard looking southward.



Photo 8: Shallow isolated pond in the rear yard looking westward.



Photo 9: Unmaintained pool adjacent to the existing single-family residence.



Photo 10: Watercourse within the front (northern portion) of the site, looking downstream.



Photo 11: Watercourse within the front (northern portion) of the site, looking upstream.



Photo 12: Juvenile Long-toed Salamander.





Arborist Report

Inventory and Assessment of Trees Associated to Development at
18114 96 Avenue, Surrey

March 15, 2024

Adrian Szabunio, Diploma in Civil Engineering Technology
ISA Certified Arborist and Tree Risk Assessor PR 5079A

Terry Thrale

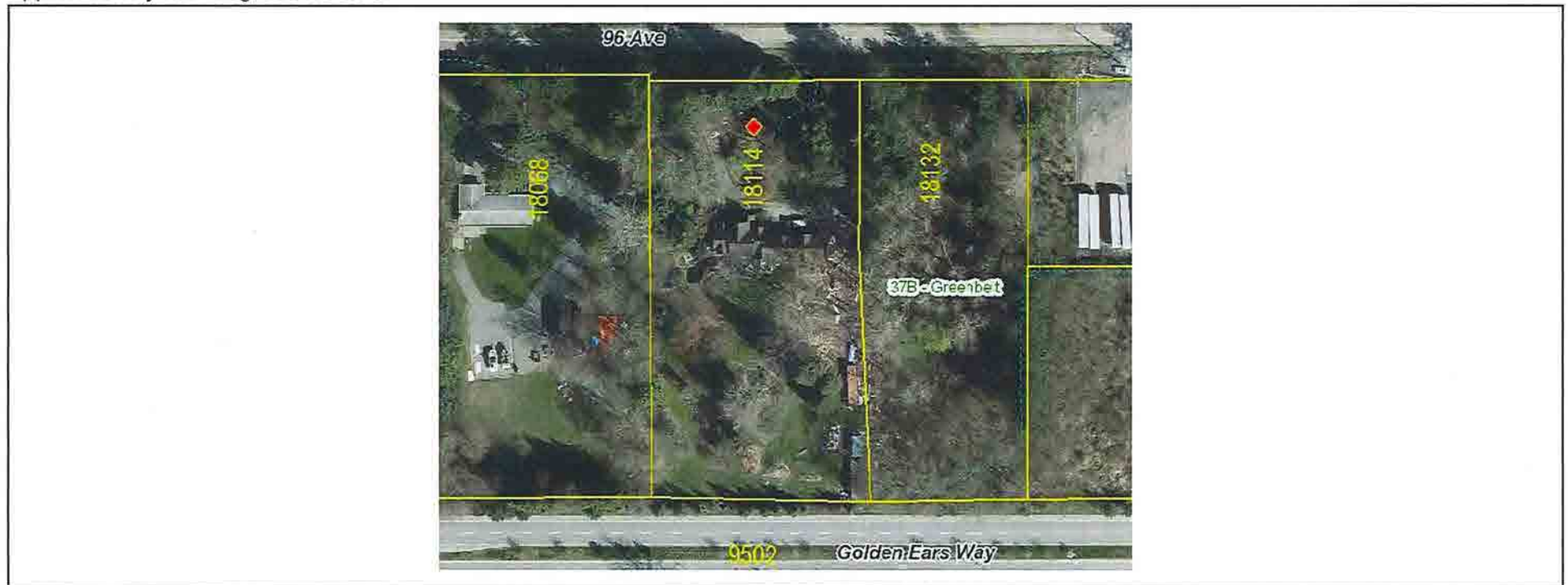
ISA Certified Arborist and Tree Risk Assessor PR 6766A

Assignment and Methodology

Woodridge Tree has been retained to undertake an inventory and assessment of trees associated with construction at 18114 96 Avenue, Surrey. The objective is to make tree preservation and protection recommendations in the context of municipal permits, rules and regulations for development.

Associated trees were visually assessed to determine species, diameter at breast height (dbh) and characteristic description. Tree diameters were measured at 1.4 meters height with a diameter tape. Protection areas were calculated for all trees within range of the property. Tree hazards were assessed according to International Society of Arboriculture standards using the TRAQ (Tree Risk Assessment Qualification) method. Recommendations for removal or retention are based on assessment outcome and proximity of trees to structure and infrastructure. Soil testing, root exploration and internal probing of tissue have not been incorporated in the findings.

The observations recorded are based on inspections performed on February 27, 2023. The weather at the time of observation was overcast and approximately four degrees Celsius.



aerial image of property before redevelopment

Findings

The property at 18114 96 Avenue, Surrey is located on the South side of 96 Avenue near the intersection of 180 Street. At the time of observation a residential house stood on the lot. Associated trees were comprised of native conifers and deciduous species. Trees located on the subject property, and neighbors' trees close to the property lines are considered in the findings of this report.



image of property from street at time of field data collection

Tree Inventory and Assessment

- **DBH** - Diameter at 1.4m height measured in centimeters
 - on trees with multiple stems the 3 largest sections measured at 1.4m are combined to make up the total.
- **critical root zone (TPZ)** = dbh x 6 unless otherwise specified
- **ci** - City owned tree
- **CR**- Crown Radius
- **L** - Location, s-on site, o-offsite, c-city
- **LCR** = live crown ratio, percentage of live crown remaining
D=Dormant
- **os** - off site tree
- **S** - Surveyed, y=yes, n=no

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
ci1	y	c	Douglas Fir	<i>Pseudotsuga menziesii</i>	49	50	3	12-15	Single stem. Some ivy in the canopy. Canopy has light deadwood.	Moderate	retain	2.94
ci2	y	c	Douglas Fir	<i>Pseudotsuga menziesii</i>	41	70	3	12-15	Single stem, splitting to codominant leaders around 3m with bark inclusion. Canopy has light deadwood.	Moderate	retain	2.46
ci3	y	c	Douglas Fir	<i>Pseudotsuga menziesii</i>	22	10	1	3-5	Single stem. Tree has been topped below overhead wires. Canopy has light deadwood.	Moderate	retain	1.50
ci4	y	c	Western Red Cedar	<i>Thuja plicata</i>	26	80	3	3-5	Single stem. Canopy has light deadwood.	Moderate	retain	1.56
ci5	y	c	Western Red Cedar	<i>Thuja plicata</i>	24	80	3	8-10	Single stem. Canopy has light deadwood.	Moderate	retain	1.50
ci6	y	c	Douglas Fir	<i>Pseudotsuga menziesii</i>	26	40	3	10-12	Single stem. Canopy has light deadwood.	Moderate	retain	1.56
ci7	y	c	Western Red Cedar	<i>Thuja plicata</i>	25	80	3	8-10	Single stem. Canopy has light deadwood.	Moderate	retain	1.50
1-501	y	s	Horse Chestnut	<i>Aesculus hippocastanum</i>	78	0	4	10-12	Single stem, dead tree. Observed March 13/24- tree has failed.	Poor		4.68

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
2-502	y	s	Western Red Cedar	<i>Thuja plicata</i>	32	90	3	8-10	Single stem. Canopy has light deadwood.	Moderate	retain	1.92
3-503	y	s	Western Red Cedar	<i>Thuja plicata</i>	17+ 27= 44	75	3	8-10	Dual stem from 1m. Canopy has light deadwood.	Moderate	retain	2.64
4-504	y	s	Western Red Cedar	<i>Thuja plicata</i>	12+ 29= 41	75	3	8-10	Dual stem from 1m. Canopy has light deadwood.	Moderate	retain	2.46
5-505	y	s	Norway Spruce	<i>Picea abies</i>	39	70	3	10-12	Single stem. Tree has a failed dead stem leaning into it. Canopy has light deadwood.	Moderate	retain	2.34
6-506	y	s	Douglas Fir	<i>Pseudotsuga menziesii</i>	70	75	4	12-15	Single stem. Canopy has light deadwood.	Moderate	retain	4.20
7-507	y	s	Horse Chestnut	<i>Aesculus hippocastanum</i>	78	D	4	12-15	Codominant leaders from 3m. Canopy has large and light deadwood.	Moderate	retain	4.68
8-508	y	s	Western Red Cedar	<i>Thuja plicata</i>	34	80	3	10-12	Single stem. On shared property with the City. Canopy has large and light deadwood.	Moderate	retain	2.04
9-509	y	s	Western Red Cedar	<i>Thuja plicata</i>	27+ 20= 47	80	3	10-12	Codominant leaders from 1m. Canopy has large and light deadwood.	Moderate	retain	2.82
10-510	y	s	Western Red Cedar	<i>Thuja plicata</i>	50	70	3	10-12	Single stem. Canopy has large and light deadwood. Conflicts with road access.	Moderate	Retain	3.00
11-511	y	s	Western Red Cedar	<i>Thuja plicata</i>	47	70	3	10-12	Single stem. Canopy has large and light deadwood.	Moderate	retain	2.82
12-512	y	s	Grand Fir	<i>Abies grandis</i>	35	40	3	10-12	Single stem. Canopy has light deadwood.	Moderate	retain	2.10
13-513	y	s	Douglas Fir	<i>Pseudotsuga menziesii</i>	56	80	3	12-15	Single stem. Canopy has light deadwood.	Moderate	retain	3.36
14-514	y	s	Western Red	<i>Thuja plicata</i>	43	80	3	10-12	Single stem. Canopy has light deadwood.	Moderate	retain	2.58

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
			Cedar									
15-515	y	s	Western Red Cedar	<i>Thuja plicata</i>	60	80	3	10-12	Single stem. Canopy has light deadwood. Tree not surveyed	Moderate	retain	3.60
16-516	y	s	Western Red Cedar	<i>Thuja plicata</i>	40	70	3	5-8	Single stem. Canopy has light deadwood.	Moderate	retain	2.40
17-517	y	s	Black Cottonwood	<i>Populus trichocarpa</i>	174	D	5	18-20	Single stem. Canopy has large and light deadwood.	Poor	Retain	10.44
18-518	y	s	Black Cottonwood	<i>Populus trichocarpa</i>	67	D	2	10-12	Codominant leaders from 2m. Canopy has light deadwood.	Poor	retain	4.02
19-519	y	s	Red Alder	<i>Alnus rubra</i>	102	D	5	12-15	Multi-stem from 1.5m. Canopy has large and light deadwood. Conflicts with proposed.	Poor	retain	6.12
20-520	y	s	Cherry Tree	<i>Prunus avium</i>	43	D	2	10-12	Tree has failed at the base.	Poor		2.58
21-521	y	s	Cherry Tree	<i>Prunus avium</i>	34	D	3	10-12	Single stem. Canopy has light deadwood.	Moderate	retain	2.04
22-522	y	s	London Plane	<i>Platanus x acerifolia</i>	54	D	4	8-10	Single stem, splitting to multiple leaders higher in the canopy. Canopy has been topped with vigorous regrowth. Canopy has large and light deadwood.	Moderate	remove	3.24
23-523	y	s	Norway Maple	<i>Acer platanoides</i>	49	D	4	10-12	Codominant leaders from 2m. Canopy has large and light deadwood. Lower trunk has observed conks. Conflicts with proposed.	Poor	remove	2.94

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
24-524	y	s	Scots Pine	<i>Pinus sylvestris</i>	34	20	3	10-12	Single stem. Canopy has large and light deadwood. Tree not surveyed	Moderate	remove	2.04
25-525	y	s	Oak	<i>Quercus spp.</i>	62	D	7	12-15	Single stem. Canopy has some branch failures, and light deadwood. Observe a large split in the main trunk. Failure of the tree is expected.	poor	remove	3.72
26-526	y	s	Scots Pine	<i>Pinus sylvestris</i>	38	40	3	12-15	Single stem. Canopy has large and light deadwood. Conflicts with proposed.	Moderate	remove	2.28
27-527	y	s	Scots Pine	<i>Pinus sylvestris</i>	45	25	2	10-12	Single stem, ivy grows up the trunk. Canopy has large and light deadwood. Conflicts with proposed.	Moderate	retain	2.70
28-528	y	s	Western Red Cedar	<i>Thuja plicata</i>	92	100	4	12-15	Single stem. Canopy has light deadwood. Conflicts with proposed.	Moderate	retain	5.52
29-530	y	s	Black Cottonwood	<i>Populus trichocarpa</i>	86	D	5	15-18	Single stem, ivy grows up the trunk. Canopy has large and light deadwood.	Poor	retain	5.16
30-531	y	s	Apple Tree	<i>Malus spp.</i>	61	D	4	8-10	Single stem, splitting to multiple tops around 1.5m. Canopy has large and light deadwood.	Moderate	retain	3.66
31-532	y	s	Giant Sequoia	<i>Sequoiadendron giganteum</i>	100	70	4	12-15	Single stem. Canopy has large and light deadwood. Observed March 13/24- Fill has been placed within a section of the TPZ.	Good	Retain Arborist to supervise restoration of the grade.	6.00
32-533	y	s	Giant Sequoia	<i>Sequoiadendron giganteum</i>	84	70	4	12-15	Single stem. Canopy has large and light deadwood.	Good	Retain	5.04

								Observed March 13/24- Fill has been placed within a section of the TPZ.		Arborist to supervise restoration of the grade.		
33-534	y	s	Giant Sequoia	<i>Sequoiadendron giganteum</i>	83	70	4	12-15	Single stem. Canopy has large and light deadwood.	Good	retain	4.98
34-535	y	s	Giant Sequoia	<i>Sequoiadendron giganteum</i>	74	70	4	12-15	Single stem. Canopy has large and light deadwood.	Good	retain	4.44
35-536	y	s	Oak	<i>Quercus spp.</i>	69	D	4	12-15	Single stem. Canopy has light deadwood. Conflicts with proposed.	Moderate	remove	4.14
36-537	y	s	Norway Maple	<i>Acer platanoides</i>	54	D	7	12-15	Single stem, splitting to codominant leaders around 2m. Canopy has light deadwood. Conflicts with proposed.	Moderate	remove	3.24
37-538	y	s	London Plane	<i>Platanus x acerifolia</i>	78	D	7	12-15	Single stem. Canopy has large and light deadwood. Conflicts with proposed.	Moderate	remove	4.68
38-539	y	s	Dawn Redwood	<i>Metasequoia glyptostroboides</i>	74	D	5	12-15	Single stem. Canopy has light deadwood. Conflicts with proposed.	Good	remove	4.44
39-937	y	s	Cherry Tree	<i>Prunus avium</i>	36+	D	2	1-3	Dual-stem from the base. Canopy has light deadwood.	Moderate	retain	4.50
40-938	y	s	Cherry Tree	<i>Prunus avium</i>	12+	D	2	1-3	Single stem, splitting to multiple leaders around 1.2m. Canopy has light deadwood. Tree has been removed and replaced with a giant pile of fill material.	Moderate	remove	2.10
41-939	y	s	Cherry Tree	<i>Prunus avium</i>	12+	D	2	1-3	Single stem, splitting to multiple leaders around 1m. Canopy has light deadwood. Tree has been removed and replaced with a giant pile of fill material.	Moderate	remove	2.28

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
42-940	y	s	Cherry Tree	<i>Prunus avium</i>	10+ 13+ 8= 31	D	2	1-3	Multi-stem from the base with bark inclusions. Canopy has large and light deadwood. Tree has been removed and replaced with a giant pile of fill material.	Moderate	remove	1.86
43-941	y	s	Cherry Tree	<i>Prunus avium</i>	11+ 10+ 10= 31	D	2	1-3	Multi-stem from the base with bark inclusions. Canopy has light deadwood.	Moderate	retain	1.86
44-942	y	s	Scots Pine	<i>Pinus sylvestris</i>	33	25	3	8-10	Single stem. Canopy has large and light deadwood.	Moderate	retain	1.98
45-943	y	o	Birch	<i>Betula spp.</i>	39	D	2	8-10	Single stem. Tree has observed top down dieback. Canopy has large and light deadwood.	Poor	retain	2.34
46-944	y	o	Red Alder	<i>Alnus rubra</i>	61	D	4	12-15	Single stem. Trunk has observed decay on the lower East side. Canopy has large and light deadwood.	Poor	retain	3.66
47-945	y	s	Norway Maple	<i>Acer platanoides</i>	37	D	4	8-10	Single stem. Canopy has large and light deadwood. Tree has large top failures.	Moderate	retain	2.22
48-946	y	s	Black Cottonwood	<i>Populus trichocarpa</i>	101	D	5	15-18	Dual stem from 1.4m. Ivy grows up the trunk. Canopy has large and light deadwood.	Poor	Retain	6.06
49-947	y	s	Scots Pine	<i>Pinus sylvestris</i>	46	25	2	10-12	Single stem, ivy grows up the trunk. Canopy has light deadwood.	Moderate	retain	2.76

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
50-948	y	s	Scots Pine	<i>Pinus sylvestris</i>	18+ 26+ 16= 60	40	3	8-10	Multi-stem from the base with bark inclusions. Canopy has light deadwood. Conflicts with proposed.	Moderate	remove	3.60
51-949	y	s	Apple Tree	<i>Malus spp.</i>	13+ 9+ 11= 33	D	2	1-3	Codominant leaders from 1m. Canopy has light deadwood. Conflicts with proposed.	Moderate	remove	1.98
52-950	y	s	Western Red Cedar	<i>Thuja plicata</i>	31+ 30= 61	40	3	10-12	Dual stem from 1m. Ivy grows up the trunk. Canopy has light deadwood.	Moderate	retain	3.66
53-951	y	s	Western Red Cedar	<i>Thuja plicata</i>	33+ 35= 68	40	3	10-12	Dual stem from 1m. Ivy grows up the trunk. Canopy has light deadwood.	Moderate	retain	4.08
54-952	y	s	Western Red Cedar	<i>Thuja plicata</i>	42	40	3	8-10	Single stem, splitting to codominant leaders higher in the canopy with bark inclusion. Ivy grows up the trunk, and the canopy has light deadwood.	Moderate	retain	2.52
55-953	y	s	Cherry Tree	<i>Prunus avium</i>	35	D	2	8-10	Single stem. Ivy grows up the trunk. Canopy has light deadwood.	Moderate	retain	2.10
56-954	y	s	Western Red Cedar	<i>Thuja plicata</i>	30	80	3	8-10	Single stem. Canopy has light deadwood.	Moderate	retain	1.80
57-955	y	s	Western Red Cedar	<i>Thuja plicata</i>	31	80	3	8-10	Single stem. Canopy has light deadwood.	Moderate	retain	1.86
58-956	y	s	Western Red Cedar	<i>Thuja plicata</i>	51	80	3	10-12	Single stem. Canopy has light deadwood.	Moderate	retain	3.06
59-957	y	s	Western Red Cedar	<i>Thuja plicata</i>	47	80	3	10-12	Single stem. Canopy has light deadwood.	Moderate	retain	2.82

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
60-958	y	s	Western Red Cedar	<i>Thuja plicata</i>	30	80	3	8-10	Single stem. Canopy has light deadwood.	Moderate	retain	1.80
os1	y	o	Western Red Cedar	<i>Thuja plicata</i>	53+ 34= 87	60	3	12-15	Dual stem tree fused with a Douglas Fir. The douglas fir is topped. Canopy has large and light deadwood.	Moderate	retain	5.22
os2	y	o	Norway Spruce	<i>Picea abies</i>	75	50	3	12-15	Dual stem from the base. One stem has failed and is dead (not included in dbh). Canopy has large and light deadwood.	Moderate	retain	4.50
os3	y	o	Norway Spruce	<i>Picea abies</i>	46	50	3	12-15	Single stem. Canopy has large and light deadwood.	Moderate	retain	2.76
os4	y	o	Black Cottonwood	<i>Populus trichocarpa</i>	88	D	5	18-20	Single stem. Canopy has large and light deadwood.	Poor	retain	5.28
os5	y	o	Douglas Fir	<i>Pseudotsuga menziesii</i>	82	70	4	15-18	Single stem. Canopy has large and light deadwood. Tree not surveyed	Moderate	retain	4.92
os6	y	o	Birch	<i>Betula spp.</i>	47	D	3	8-10	Single stem. Tree has a failed top. Canopy has large and light deadwood.	Poor	retain	2.82
os7	y	o	Red Alder	<i>Alnus rubra</i>	36	D	3	10-12	Single stem. Canopy has large and light deadwood.	Poor	retain	2.16
os8	y	o	Red Alder	<i>Alnus rubra</i>	43	D	3	10-12	Single stem. Canopy has large and light deadwood.	Poor	retain	2.58
os9	y	o	Red Alder	<i>Alnus rubra</i>	53	D	3	10-12	Single stem. Canopy has large and light deadwood.	Poor	retain	3.18
os10	y	o	Red Alder	<i>Alnus rubra</i>	51	D	3	10-12	Single stem. Canopy has large and light deadwood.	Poor	retain	3.06
os11	y	o	Red Alder	<i>Alnus rubra</i>	48	D	3	10-12	Single stem. Canopy has large and light deadwood.	Poor	retain	2.88
os12	y	o	Red Alder	<i>Alnus rubra</i>	56	D	4	12-15	Single stem. Canopy has large and light deadwood.	Poor	retain	3.36
os13	y	o	Red Alder	<i>Alnus rubra</i>	61	D	4	12-15	Single stem. Canopy has large and light deadwood.	Poor	retain	3.66

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
os14	y	o	Douglas Fir	<i>Pseudotsuga menziesii</i>	55	60	4	12-15	Single stem. Canopy has light deadwood.	Moderate	retain	3.30
os15	y	o	Western Red Cedar	<i>Thuja plicata</i>	37	50	3	12-15	Single stem. Canopy has large and light deadwood.	Moderate	retain	2.22
os16	y	o	Western Red Cedar	<i>Thuja plicata</i>	36	50	3	12-15	Single stem. Canopy has large and light deadwood.	Moderate	retain	2.16
os17	y	o	Western Red Cedar	<i>Thuja plicata</i>	56	70	3	12-15	Single stem. Canopy has light deadwood.	Moderate	retain	3.36
os18	y	o	Western Red Cedar	<i>Thuja plicata</i>	31	30	3	10-12	Single stem. Canopy is sparse and has large and light deadwood.	Moderate	retain	1.86
os19	y	o	Black Cottonwood	<i>Populus trichocarpa</i>	32	D	2	12-15	Single stem. Canopy has large and light deadwood.	Poor	retain	1.92
os20	y	o	Black Cottonwood	<i>Populus trichocarpa</i>	42	D	3	12-15	Single stem. Canopy has large and light deadwood.	Poor	retain	2.52
os21	y	o	Red Alder	<i>Alnus rubra</i>	27+ 10+ 12= 49	D	3	12-15	Multi-stem tree from the base. Canopy has a large dead stem, including light deadwood.	Poor	retain	2.94
os22	y	o	Red Alder	<i>Alnus rubra</i>	20+ 27= 47	D	2	10-12	Dual-stem tree from the base. One stem has a failed top.	Poor	retain	2.82
os23	y	o	Red Alder	<i>Alnus rubra</i>	37	D	2	10-12	Single stem. Canopy has large and light deadwood.	Poor	retain	2.22
os24	y	o	Red Alder	<i>Alnus rubra</i>	33	D	2	10-12	Single stem. Canopy has light deadwood.	Poor	retain	1.98
os25	y	o	Red Alder	<i>Alnus rubra</i>	30	D	2	10-12	Single stem. Canopy has light deadwood.	Poor	retain	1.80

ID#	S	L	Common Name	Botanical Name	DBH (cm)	LCR (%)	CR (m)	Height (m)	Condition & Comments	Retention Suitability	Action	TPZ (m)
os26	y	o	Red Alder	<i>Alnus rubra</i>	31	D	2	10-12	Single stem. Canopy has light deadwood.	Poor	retain	1.86
os27	y	o	Red Alder	<i>Alnus rubra</i>	31	D	2	10-12	Single stem. Canopy has light deadwood.	Poor	retain	1.86
os28	y	o	Red Alder	<i>Alnus rubra</i>	24+ 18= 42	D	2	10-12	Dual-stem tree from the base. Canopy has light deadwood.	Poor	retain	2.52
os29	y	o	Birch	<i>Betula spp.</i>	52	D	2	10-12	Single stem. Tree has observed top down dieback. Canopy has large and light deadwood.	Poor	retain	3.12
os30	y	o	Red Alder	<i>Alnus rubra</i>	44	D	4	12-15	Single stem. Canopy has large and light deadwood.	Poor	retain	2.64
os31	y	o	Red Alder	<i>Alnus rubra</i>	42	D	3	8-10	Single stem. Canopy has large and light deadwood.	Poor	retain	2.52
os32	y	o	Black Cottonwood	<i>Populus trichocarpa</i>	32	D	2	10-12	Single stem. Canopy has light deadwood.	Poor	retain	1.92
os33	y	o	Black Cottonwood	<i>Populus trichocarpa</i>	31	D	2	10-12	Single stem. Canopy has light deadwood.	Poor	retain	1.86
os34	y	o	Black Cottonwood	<i>Populus trichocarpa</i>	129	D	5	15-18	Codominant leaders from 1.4m. Tree has one failed top. Canopy has large and light deadwood.	Poor	retain	7.74
os35	y	o	Norway Spruce	<i>Picea abies</i>	47	50	3	12-15	Single stem. Canopy has light deadwood.	Moderate	retain	2.82
os36	y	o	Norway Spruce	<i>Picea abies</i>	57	50	3	12-15	Single stem. Canopy has light deadwood.	Moderate	retain	3.42
os37	y	o	Douglas Fir	<i>Pseudotsuga menziesii</i>	82	60	3	12-15	Single stem. Canopy has light deadwood.	Moderate	retain	4.92
os38	y	o	Norway Spruce	<i>Picea abies</i>	41	40	3	12-15	Single stem, base adjacent to tree os34. Canopy has light deadwood.	Moderate	retain	2.46

Images

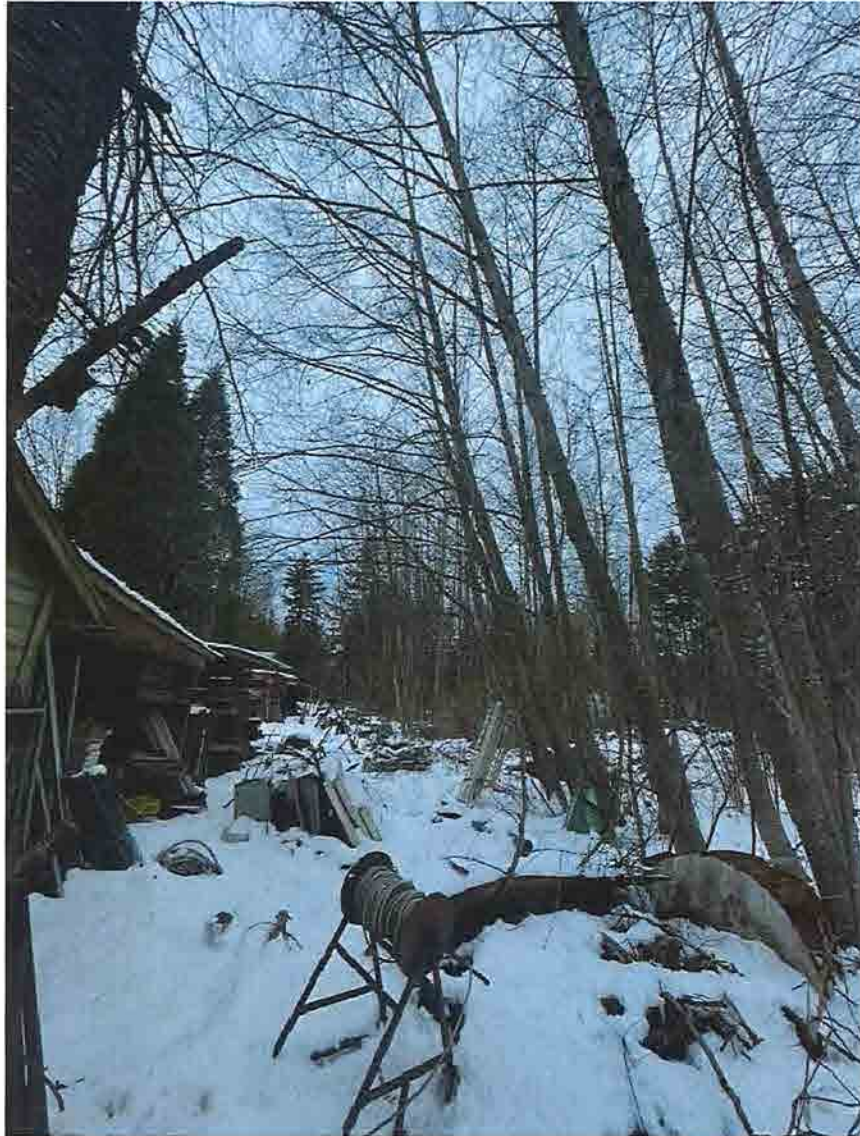


IMAGE 1- Row of offsite trees along the East side of the property



IMAGE 2- East side of the back of the property



IMAGE 3- East side of the back of the property

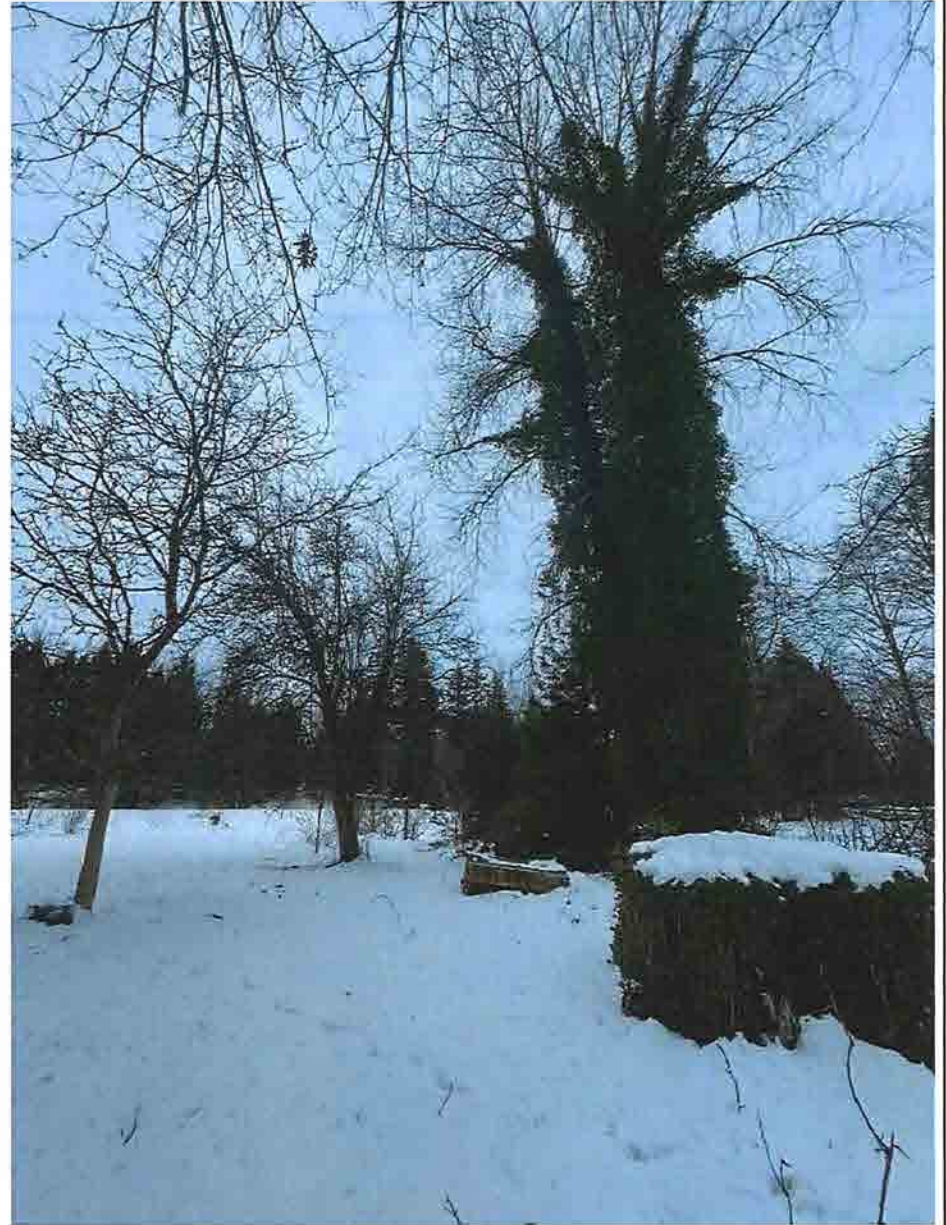


IMAGE 4- West side of the back of the property



IMAGE 5- West side of the back of the property



IMAGE 6- Failed tree 20-520. Circle and arrow point to failed base



IMAGE 7- Failed tree 20-520



IMAGE 8- Trees along the frontage of the property (96 Avenue)



IMAGE 9- Grove of trees near entry way to property

IMAGE 10- Dead tree 1-501



IMAGE 11- Front of property facing West



IMAGE 12- Front of property facing West



IMAGE 13- Front of property facing East



IMAGE 14- Front of property facing East

Tree Species	Existing	Remove	Retain
Alder and Cottonwood Trees			
Alder	2	0	2
Cottonwood	4	0	4
Horse Chestnut	1	1	0
Cherry Tree	7	3	4
London Plane	2	2	0
Norway Maple	3	2	1
Oak	2	2	0
Apple	1	1	0
Birch	1	0	1
Grand Fir	1	0	1
Douglas Fir	6	0	6
Norway Spruce	1	0	1
Western Red Cedar	22	0	22
Scot Pine	6	3	3
Giant Sequoia	4	0	4
Dawn REDwood	1	1	0
Total (excluding Alder and Cottonwood Trees)	58	15	43
Total Replacement Trees Proposed (excluding Boulevard Street Trees)			
Total Retained and Replacement Trees			

Tree Preservation Summary

Surrey Project No:

Address:

Registered Arborist: Woodridge Tree Consulting Arborists Ltd., Terry Thrale- PN6766A

On-Site Trees	Number of Trees	Off-Site Trees	Number of Trees
Protected Trees Identified *	25	Protected Trees Identified	38
Protected Trees to be Removed	15	Protected Trees to be Removed	0
Protected Trees to be Retained (excluding trees within proposed open space or riparian areas)	10	Protected Trees to be Retained	
Total Replacement Trees Required:		Total Replacement Trees Required:	
- Alder & Cottonwoods to be removed (1:1) 0 X one (1) =	30	- Alder & Cottonwoods to be removed (1:1) 0 X one (1) = 0	
- All other species to be removed (2:1) 15 X two (2) = 30		- All other species to be removed (2:1) 0 X two (2) = 0	
Replacement Trees Proposed		Replacement Trees Proposed	
Replacement Trees in Deficit		Replacement Trees in Deficit	
Protected Trees to be Retained in Proposed Open Space or Riparian Areas	33		
*on-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas			

Summary, report and plan prepared and submitted by:



(Signature of Arborist)

March 15, 2024

Date

Limitations and Assumptions

- This report was prepared for and on behalf of the client and it is intended solely for their use. Woodridge Tree Consulting Arborists Ltd. shall not accept any liability derived from the partial, unintended, unauthorized or improper use of this report.
- This report is restricted to the subject trees as detailed in the report. No other trees were inspected or assessed as part of the work related to the preparation of this report.
- The accuracy and ownership of the locations of trees, property lines and other site features were not verified by Woodridge Tree. Third party information to the consultant may have been relied upon in the formation of the opinion of the consultant in the preparation of this report, and that information is assumed to be true and correct.
- The use of maps, sketches, photographs and diagrams are intended only as a reference for the readers use in understanding the contents and findings of this report, and are not intended as a representation of fact.
- Approvals from a municipal or senior government agency may be required in relation to certain recommendations and treatments provided in this report. The owner is responsible to make application for, pay related fees and meet all requirements and conditions for the issuance of such permits, approvals or authorizations.

I certify to the best of my knowledge or belief that:

- staff from this firm have performed site inspections on the dates as stated herein.
- the findings are based on information known to the consultant at that time.
- the statements of fact determined by the consultant are true and correct.

If there are questions regarding the contents of this report please contact our office.



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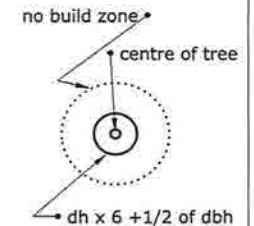
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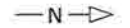
**Tree Plan for TUP at
18114 96 Avenue,
Surrey**

Date: March 15, 2024

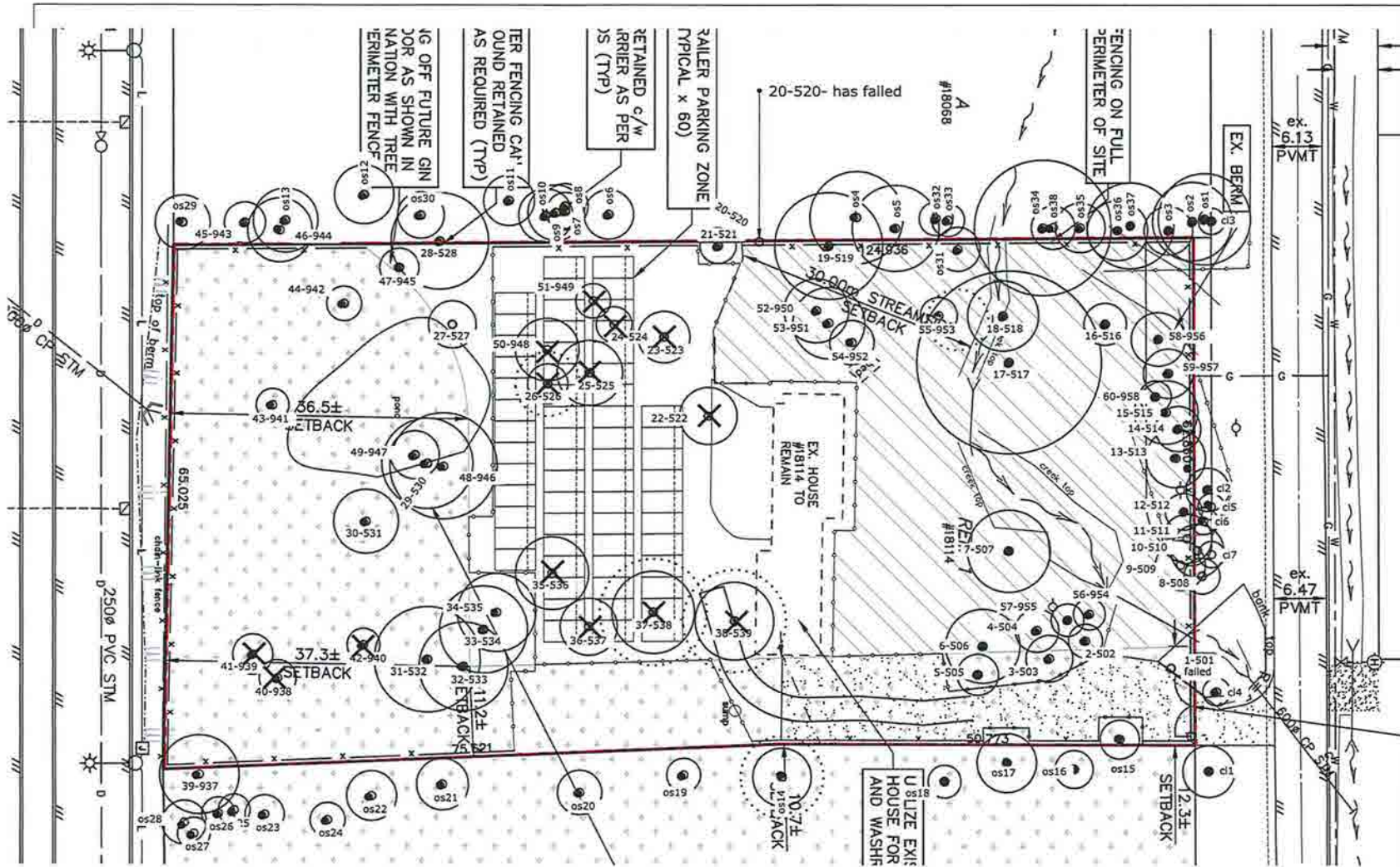
Legend



Legend



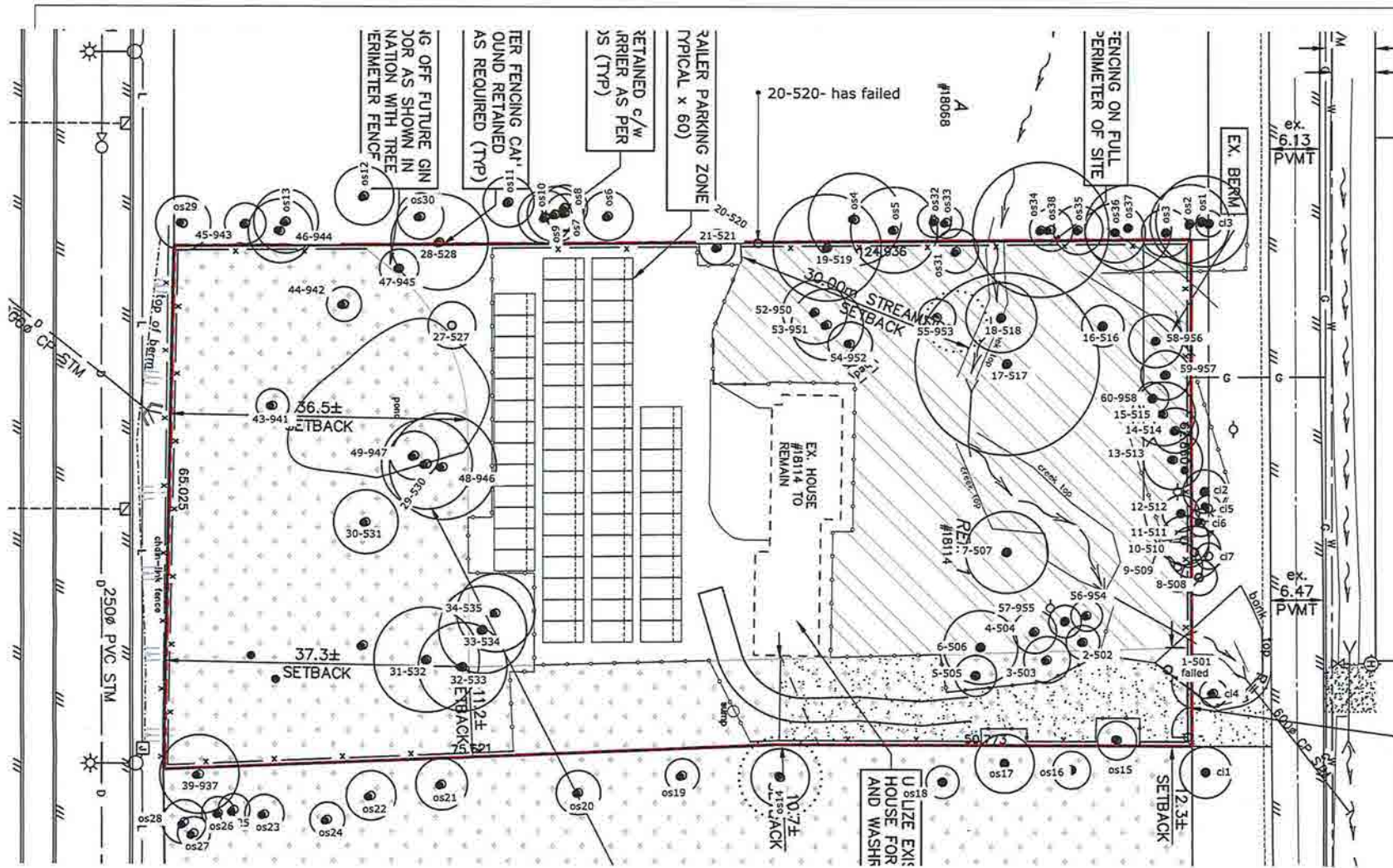
● = Undersize tree





**Tree Plan for TUP at
18114 96 Avenue,
Surrey**

Date: March 15, 2024



Legend

- no build zone
- centre of tree
- dh x 6 + 1/2 of dbh

Legend

- N —>
- = Undersize tree