City of Richmond

# Report to Development Permit Panel

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| **To:** | Development Permit Panel | **Date:** | July 9, 2025 |
| **From:** | Joshua Reis<br>Director, Development | **File:** | DP 23-016633 |
| **Re:** | **Application by Andrew Cheung Architects Inc. for a Development Permit at 3600 Lysander Lane** | | |

## Staff Recommendation

That an Environmentally Sensitive Area Development Permit be issued at 3600 Lysander Lane, which would:

1. Facilitate the subdivision of the site into two lots (Lot A and Lot B) and the construction of two, three-storey multi-tenant mixed office/industrial buildings on Lot B; and

2. Vary the provision of Richmond Zoning Bylaw 8500 to:
   a) Reduce the required number of large loading bays for a non-residential use from one space to zero for Lot B; and
   b) Reduce the minimum required parking spaces for Lot A from 259 spaces to 84 spaces.

Joshua Reis
Director, Development
(604-247-4625)

JR:bb
Att. 4

## Staff Report

### Origin

Andrew Cheung Architects Inc., on behalf of Symphony Hills Properties Inc., has applied to the City of Richmond for an Environmentally Sensitive Area (ESA) Development Permit (DP) to facilitate the subdivision of 3600 Lysander Lane into two lots (Lot A and Lot B), for the purposes of retaining the existing five-storey office building on Lot A and to construct two, three-storey multi-tenant mixed office/industrial buildings on Lot B. Location and aerial maps of the subject site are provided in Attachment 1.

A Servicing Agreement (SA) is required prior to approval of the proposed subdivision and includes, but is not limited to, the following improvements:

- Water, storm sewer and sanitary sewer works upgrades;
- Diking related works along the foreshore of the site;
- Street frontage improvements; and
- Street lighting along all frontages and publicly accessible walkways and open spaces.

### Development Information

Please refer to the attached Development Application Data Sheet (Attachment 2) for a comparison of the proposed development data with the relevant Bylaw requirements.

### Background

The subject site is zoned "Auto-Oriented Commercial (ZC10) – Airport and Aberdeen Village" and is designed "Commercial" in the Official Community Plan (OCP). The site includes a five-storey commercial building and a surface parking area. The site is located within the Sea Island Area Plan and is in close proximity to the Vancouver International Airport (YVR).

Development surrounding the subject site is as follows:

To the North: Across Lysander Lane is a 10-storey hotel building (Radisson Blu Vancouver Airport Hotel) at 3500 Cessna Drive, on a lot zoned "Auto-Oriented Commercial (CA)" and designated "Commercial (COM)" in the OCP. This property is the subject of a DP to facilitate the development of two additional hotels.

To the East: Middle Arm of the Fraser River.

To the South: A three-storey multi-tenant commercial building. The lot is zoned "Auto-Oriented Commercial (ZC10) – Airport and Aberdeen Village" and designated "Commercial (COM)" in the OCP.

To the West: Across Cessna Drive and Russ Baker Parkway are single-family residential dwellings located on Catalina Cresent within the Sea Island (Burkeville) neighbourhood. These lots are zoned "Small-Scale Multi-Unit Housing (RSM/L)" and designated "Neighbourhood Residential (NRES)" in the OCP.

### Staff Comments

The proposed scheme attached to this report has satisfactorily addressed the environmental concerns and other staff comments identified as part of the review of the subject DP application. In addition, it complies with the intent of the applicable sections of the OCP and is generally in compliance with the "Auto-Oriented Commercial (ZC10) – Airport and Aberdeen Village" zone, except for the zoning variances noted below.

### Zoning Compliance/Variances (staff comments in ***bold italics***)

The applicant requests to vary the provisions of Richmond Zoning Bylaw 8500 to:

a) Reduce the required number of large loading bays for a non-residential use from one space to zero for Lot B.
***The applicant's Traffic Impact Assessment (TIA) prepared by a qualified transportation professional confirms that the two medium loading bays proposed would be sufficient to meet the needs of the future tenants of Lot B, while the site's existing loading bay would provide continued use to the tenants and visitors of Lot A. The proposal has been reviewed and supported by the City's Transportation staff.***

b) Reduce the minimum required parking spaces for Lot A from 259 spaces to 84 spaces.
***The proposed development would have a total of 187 stalls across both properties, with 84 spaces located on Lot A and 103 on Lot B. While Lot B would meet its minimum on-site parking requirement of 38 spaces, Lot A would have a shortfall of 174 spaces from the 259 spaces required. The applicant has provided a TIA which identifies that the total on-site parking proposed(187 spaces) across both Lot A and Lot B is sufficient meet the identified needs of the development. Prior to DP issuance, the registration of a legal agreement on Title is required to provide for cross-access over the drive aisles and shared parking facilities between Lot A and B.***

***The applicant has also agreed to implement a comprehensive package of Transportation Demand Management (TDM) measures to support the requested variance. Prior to DP issuance, the applicant will be required to enter into an agreement on Title to implement the proposed TDM measures. Details of the TDM package are outlined later in this report.***

***The City's Transportation Department has reviewed the requested variance and the applicant's TIA and agrees with its findings.***

### Analysis

*Conditions of Adjacency*

- The proposed three-storey buildings are smaller in scale than the adjacent 10-storey hotel building to the north of Lysander Lane.
- The proposed buildings would have a maximum height of 16.2 m, which closely matches the height of the existing building on the adjacent property to the south at 3688 Cessna Drive, which is approximately 20 m.
- The edge of the subject site includes existing landscaping buffers along Cessna Drive, Lysander Lane and Hudson Avenue.

Landscaping in these areas will be further enhanced to soften the interface between the proposed buildings and the adjacent streets, as addressed later in this report.

- The area of the subject site adjacent to the future dike would be further enhanced through riparian landscaping to provide a green buffer between the existing building and the future dike trail.

***Site Planning and Design, Parking Layout, and Traffic Demand Management***

- The proposed buildings would have a modern mixed office/industrial design and appearance, and would include a mix of concrete, steel and glazed windows on all four elevations, coupled with exterior colours including grey, blue and silver.
- Vertical breaks would be employed on the second and third storeys of the proposed buildings along all elevations to reinforce a modern industrial façade.
- All new proposed buildings would be located outside the area designated ESA.
- The proposed site layout and orientation of the three-storey buildings on Lot B, support improved site circulation for pedestrians and vehicles from Lysander Lane.
- Both proposed buildings will incorporate built-in canopies along their west and east elevations to provide enhanced weather protection for pedestrians.
- Both proposed buildings would include strata office/industrial units on all floors. Individual units are proposed to be accessible via street-level entrances, while upper floors would be accessible via an elevator and two stairways per building.
- Vehicular access to the existing building on Lot A would be provided from Hudson Avenue to the south as well as via Lot B through the parking area. The proposed buildings on Lot B would be accessible via an existing driveway from Lysander Lane as well as via the surface parking area of Lot A. Prior to DP issuance, the registration of a legal agreement on Title is required to provide for cross-access over the drive isles and the proposed shared parking facilities between Lot A and B.
- The applicant's submitted TIA proposes a package of TDM measures in support of the requested parking variance. TDM measures will be secured by legal agreements registered on Title prior to DP issuance and include:
    - One-year two-zone monthly transit passes for 50 per cent of the employees of Lot A.
    - Operation of a shuttle bus program for five years for the employees of Lot A and Lot B.
    - End of trip facility including showers, toilets, sinks and lockers for users of Lot A and Lot B.
    - Class 1 bicycle parking and bicycle maintenance facilities on Lot B.
    - One car share parking stall equipped with an electric vehicle (EV) charging station on Lot B.
- Prior to DP issuance, the registration of a Statutory Right-of-Way (SRW) providing for the following road dedications at the time of subdivision approval, to accommodate road frontage improvements:
    - 3.0 m wide along the full length of Lysander Lane; and
    - 1.0 m wide across Cessna Drive frontage.
- Prior to DP issuance, the registration of a SRW providing Public Right of Passage (PROP) of a 10.5 m in width to extend Hudson Avenue would be required to provide road frontage improvements extending from Hudson Avenue toward the foreshore and future dike and dike trail.

- 13 Class 1 bicycle spaces are located on Lot B in designated bicycle storage areas adjacent to the main drive aisle connecting to Lysander Lane, while 13 Class 2 bicycle spaces would be provided in designated bicycle storage areas on the main floor of the new buildings.
- A garbage and recycling enclosure for Lot B is proposed north of Building 2 and would be screened by landscaping along the site's northern property line and fencing from the site.

***Floodplain Management***

- The proposed development must meet the requirements of the Flood Plain Designation and Protection Bylaw 8204. The subject site is located in an area with a designated Flood Construction Level (FCL) of 4.3 m GSC.
- There is an existing flood covenant (Registration number CA3630776) registered on Title. Prior to DP issuance, the applicant will be required to discharge and replace this agreement with a new flood covenant (4.35 m GSC).
- As the subject site is located along the foreshore of the Middle Arm of the Fraser River, it is subject to future dike raising requirements to prepare the city for the impacts of climate change and anticipated water level rises.
- As part of the required SA, the applicant is required to design and construct diking improvements along the subject site's frontage adjacent to the Fraser River from the current elevation of approximately 3.3 m GSC to 4.7 m GSC. In addition, the applicant will be required to raise portions of Hudson Avenue (south portion of the site within the required SRW PROP) and Lysander Lane to match with the 4.7 m GSC elevation adjacent of the dike. These works will be specified in the SA to be entered into prior to subdivision approval.
- The ultimate dike elevation in this area is identified as 5.5 m GSC. The design of the dike to 4.7 m GSC, would need to take into account the ultimate elevation of 5.5 m GSC and confirm that the future dike elevation would be accommodated on-site within the registered dike SRW. The applicant has submitted a cross-section of the proposed dike design and confirmed that the future elevation of the dike would be accommodated to the 5.5 m GSC elevation.
- A 19.1 m wide SRW along the foreshore of Lot A is required to permit future dike construction. In addition, a 7.5 m wide SRW dike setback (running west of the dike area) is required for future access to the dike for repairs, upgrades and general maintenance. All SRWs would be secured prior to DP issuance.
- The existing dike trail running along the foreshore of Lot A (included in the dike SRW), would be reconstructed following the raising of the area and is required to have a width of 5.0 m. This ensures the long-term connection of the dike trail system on Sea Island. Construction of the dike trail would be secured via the servicing agreement.
- As a portion of the required dike SRW and dike setback area SRW would overlap with the existing building's footprint on Lot A, any future demolition of the existing building will require further land raising and diking upgrades to account for the totality of the SRW for both dike and dike setback along the entire foreshore of the Lot A.

***Environmentally Sensitive Area Assessment***

- Approximately 3,300 $m^2$ of the foreshore portion of the subject site is identified as "Shoreline" ESA. A portion of the ESA designation is partially overlapped by the existing building along the north-east corner of the property (approximately 450 $m^2$).
- An Environmental Impact Assessment (EIA) prepared by a qualified environmental professional was submitted by the applicant, which assesses the portion of "Shoreline" ESA located within the subject site as having ecological functions that currently do not fully exhibit characteristics typical of this type of ESA.
- The ESA area is currently comprised of sod, eleven bylaw-sized trees and small plants and includes a portion of the dike trail. An area of approximately 50 $m^2$ in the north-east corner of the subject site contains invasive species namely, Himalayan blackberry and Scotch broom.
- The submitted EIA notes that the subject site and adjacent areas do not have a high potential of hosting many provincially designated species of concern and that the proposed development would not be expected to incur disturbance of highly sensitive habitats.
- The proposed buildings on Lot B and improvements along the north and west portions of the subject site do not directly result in disturbance of the ESA.

***Tree Inventory***

The applicant has submitted a Certified Arborist's Report, which identifies on-site and off-site tree species, assesses tree structure and condition and provides recommendations on tree retention and removal relative to the proposed development. The Report assesses 44 bylaw-sized trees on-site (including seven (7) trees shared with the City), and one (1) tree on city property.

Tree Retention

- 20 on-site trees (Tag #s 4, 6,7, 12-13, 20-30, and 43-46) are in good health and are to be retained and protected.
- A tree security deposit in the amount of $145,000.00 is required prior to DP issuance.
- The applicant has submitted a Tree Management Plan noting the location and specification of tree protection fencing. The applicant would be required to enter into a contract with a certified arborist prior to DP issuance to ensure supervision during future site improvement and construction activities to protect the 37 trees to be retained.
- Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site and remain in place until construction and landscaping on-site is completed.

Tree Replacement

- Eight (8) on-site trees (Tag #31-38) and one (1) City tree (Tag #39), which are Austrian pine species which are located along the foreshore, are in good or fair condition but are in conflict with the required dike construction and are recommended for removal. Trees #31-38 also exhibit signs of previous pruning and scarring, or decay.
- One (1) on-site tree (Tag #5), which is a tulip tree, is in fair health but with signs of decay and is in conflict with the proposed building envelope and is recommended to be removed.
- 15 on-site trees (Tags #1-3, 9-11, 14-19 and 40-42), which are a mix of deciduous and coniferous trees (tulip trees, Eastern redbud, and Austrian pine), are located along Lysander Lane, Cessna Drive and Hudson Avenue and are in fair condition and are proposed to be

removed as they are in conflict with the proposed frontage improvements along Lysander Lane, Cessna Drive and Hudson Avenue. Through the required SA, staff will further review opportunities to refine the design of the frontage improvements to retain additional trees.

- A total of 24 on-site trees and one (1) off-site tree are proposed for removal. As per the Tree Protection Bylaw No. 8057, a total of 50 replacement trees are required on-site (at 2:1 replacement ratio). The applicant is proposing to plant 37 replacement trees on-site. Replacement trees will be a mix of deciduous and coniferous species and will be of the minimum size and height requirements prescribed in Richmond's Tree Protection Bylaw No. 8057.
- The applicant's landscape architect has confirmed that the proposed landscape design maximizes tree planting on site and that no additional replacement trees can be accommodated on-site. Tree planting within the dike SRW is not permitted.
- The owner is required to submit a cash-in-lieu contribution for the 13 required replacement trees, which are not provided on-site, in the amount of $9,750.00 ($750/per replacement tree as required by Richmond's Consolidated Fees Bylaw No. 8636) prior to DP issuance.

***Proposed ESA Compensation and Landscape Improvements***

- The applicant proposes to provide approximately 940 $m^2$ of riparian planting in compensation for the 832 $m^2$ of ESA designated lands to be disturbed as a result of the proposed development and diking improvements and represents a compensation ratio of 1.1:1.
- The applicant proposes an ESA planting package comprised of the following:
    - Active observation and management of invasive species on-site, namely, Himalayan blackberry and Scotch broom. These species are considered of moderate risk.
    - A 6.0 m wide strip 832 $m^2$ area) of riparian planting within the portion of the site adjacent to the dike (to be planted after raising the lands to meet the required diking improvements).
    - The species proposed within the designated riparian planting area would be planted with a density of one tree/shrub per square metre, and would be comprise:
        - Red Osier Dogwood;
        - Nootka rose;
        - Red elderberry;
        - Ocean Spray; and
        - Blizzard mockorange.
    - The riparian planting area would be subject to a three-year monitoring and maintenance period post-completion. The owner would be required to submit annual maintenance and progress report on the status of this area.
- The owner is required to submit a Landscaping Security in the amount of $164,984.00 related to ecological restoration and overall site landscaping.

***Sustainability***

- The proposed buildings on Lot B are proposed to be constructed to exceed the NECB 2020 Energy Compliance standard that the City requires for industrial building occupancy. Compliance is to be confirmed through an energy model at the BP stage.

- Proposed sustainability measures, noted in Attachment 3, include:
  - Locally procured and produced construction material;
  - Use of concrete for higher energy efficiency and insulation performance;
  - Incorporation of large overhangs along building facades to reduce solar heat gain;
  - Installation of solar panels to reduce reliance on the City's energy infrastructure;
  - Energy modelling for buildings that are targeting net-zero energy consumption, with specific measures to be developed at BP stage; and
  - An on-site rainwater collection system to reduce water usage for landscaped areas.
- Prior to DP issuance, the applicant shall enter into a legal agreement to secure the building energy efficiency and sustainability measures proposed.
- More than 50 per cent of the parking stalls for the proposed buildings on Lot B would be served with Level 2 charging stations. Additionally, four parking stalls on Lot B would be complemented with Opportunity Charging Stations, which provide faster charging than Level 2 stations. The EV charging infrastructure would exceed the required servicing for a non-residential development. This commitment would be secured via registration of a legal agreement on Title prior to DP issuance.

### *Public Art*

As part of the City's Public Art Plan, the applicant has agreed to provide a voluntary contribution of $15,965.00 to the City of Richmond's Public Art Reserve based on a rate of $0.30 per buildable square foot, calculated against the proposed new buildings on Lot B.

### *Site Servicing and Road Frontage Improvements*

The applicant is required to enter into a SA prior to approval of the subdivision of the site for the design and construction of the required site servicing and off-site works. These include but are not limited to:

- Hudson Avenue: Roadway widening including a 0.3 m wide back boulevard, 1.5 m wide concrete sidewalk, 1.5 m wide front boulevard, and curb and gutter;
- Lysander Lane: 11.2 m roadway with 0.3 m wide back boulevard, 1.5 m wide concrete sidewalk, 1.5 m wide front boulevard and curb and gutter;
- Cessna Drive: 0.3 m wide back boulevard, 2.0 m wide concrete sidewalk, 1.5 m front boulevard, and curb and gutter;
- A 4.0 m by 4.0 m corner cut road dedication at the southwest corner of Hudson Avenue and Cessna Drive;
- Drainage and watermain upgrades;
- Sanitary system analysis;
- Street lighting upgrades on all road frontages and on-site multi-use pathways; and
- Dike improvements and associated land raising and vegetation planting (ESA restoration works).

## Financial Impact

As a result of the proposed development, the City will take ownership of developer-contributed assets such as dikes, storm sewers, streetlights and street trees. The anticipated operating budget impact for the ongoing maintenance of these assets is $80,953.50.

**Conclusions**

As the proposed development would meet applicable policies and guidelines beyond the requested variances, staff recommend that the ESA DP be endorsed, and issuance by Council be recommended. A full list of the conditions and considerations which must be completed prior to council issuance are attached (Attachment 4).

B Behnia

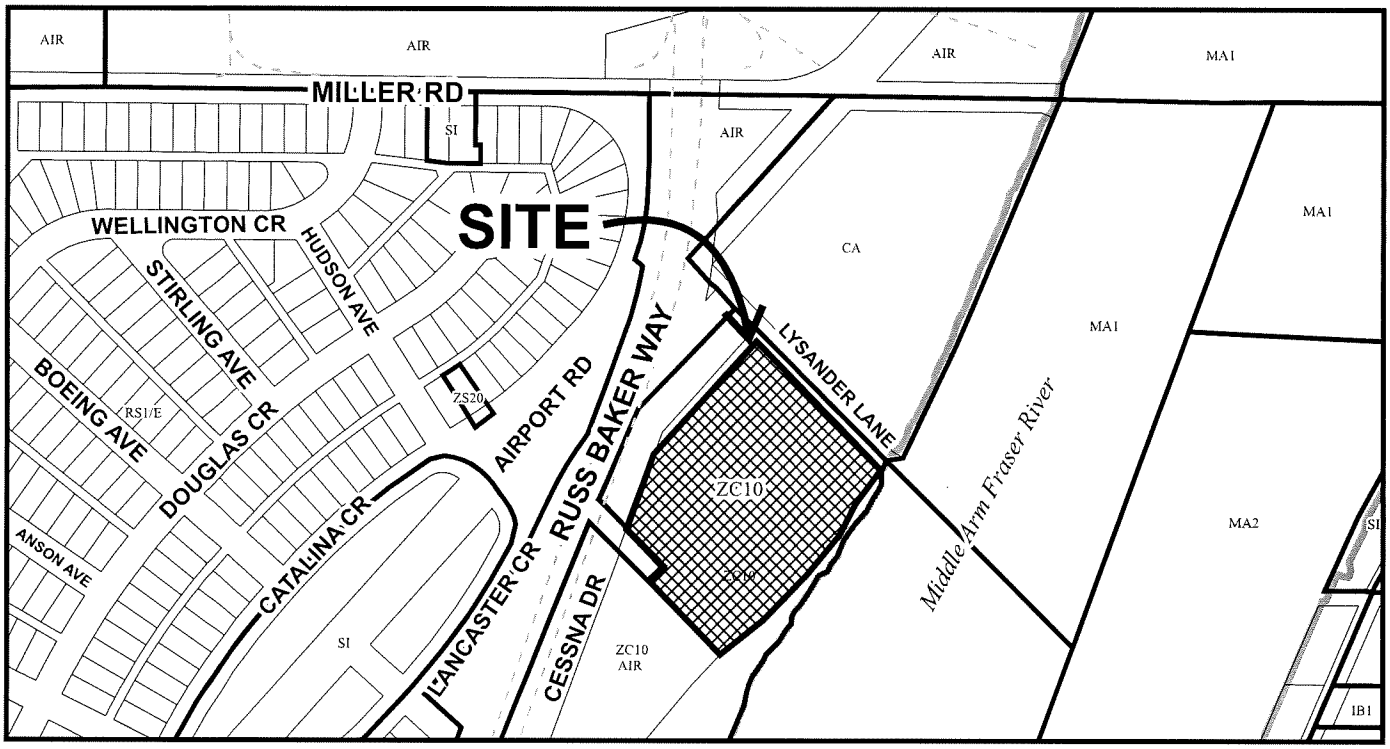
Babak Behnia
Planner 2
(604-204-8639)

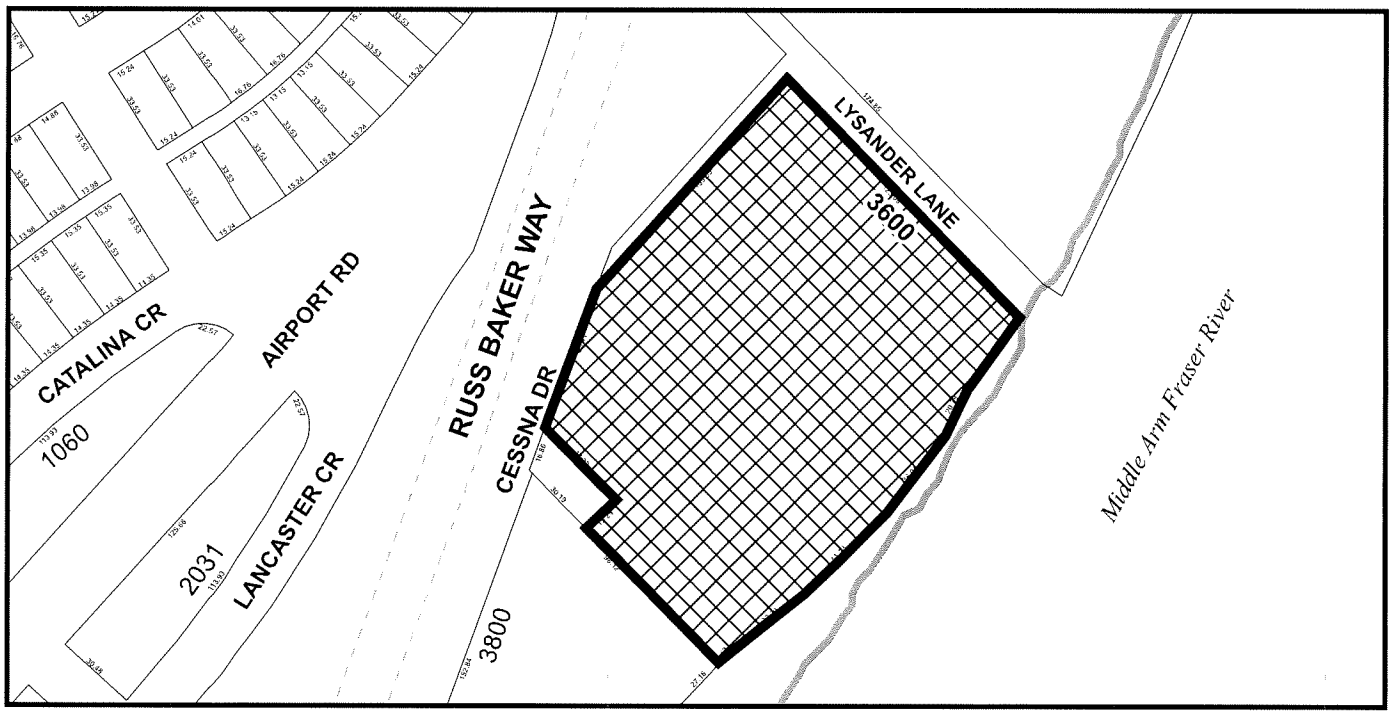
BB:cas

Att. 1: Location Map
2: Development Application Data Sheet
3: Sustainability Strategy
4: Development Permit Considerations

Attachment 1

# City of Richmond

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| | DP 23-016633 | Original Date: 05/02/23<br>Revision Date:<br>Note: Dimensions are in METRES |

City of
Richmond


# DP 23-016633

Original Date: 06/23/25
Revision Date:

Note: Dimensions are in METRES

City of Richmond

# Development Application Data Sheet

Development Applications Department

**DP 23 - 016633** **Attachment 2**

Address: 3600 Lysander Lane

Applicant: Andrew Cheung Architects Inc. Owner: Symphony Hills Properties Inc.

Planning Area: Sea Island

| | Existing | Proposed |
|---|---|---|
| **Site Area:** | 2.1 Ha | Lot A: 1.5 Ha (less future road dedication)<br>Lot B: 0.6 Ha (less future road dedication) |
| **Land Uses:** | Commercial | No change |
| **OCP Designation:** | Commercial | No change |
| **Zoning:** | Auto-Oriented Commercial – Airport and Aberdeen Village (ZC10) | No change |
| **Number of commercial/industrial units** | Existing Building: 14 Commercial Units (Non-Strata) | Lot A: Retention of Building<br>Lot B: Two office/industrial buildings, each including 14 units (28 total) on two floors. |

| | Bylaw Requirement | Proposed | Variance |
|---|---|---|---|
| | | | |
| FAR | 1.0 | Lot A: 0.78<br>Lot B: 0.84 | None Permitted |
| Lot Coverage: | Max. 55% | Lot A: 30%<br>Lot B: 28% | None |
| Setback – west lot line: | Min. 7 m | Consistent with zone | None |
| Height (m): | Max. 20.0 m | Lot A (Existing Building): 20.0 m<br>Lot B (New Buildings): 16.2 m | None |
| Off-street Parking Spaces – Regular/Commercial: | `Lot A: Min. 259<br>Lot B: Min. 38 | Lot A: 84<br>Lot B: 103 | 259 to 84<br>None |
| Off-street Parking Spaces – Accessible: | Min. 2% | 2% | None |
| Small Car Parking Spaces | Max. 50% | 50% | None |

| | Bylaw Requirement | Proposed | Variance |
|---|---|---|---|
| Loading Spaces | Medium Space: 2<br>Large Space: 1 | Lot A: unchanged (existing building contains one Loading Space) to be grandfathered | None |
| | | Lot B: 2 Medium Spaces | 1 Large Space to 0 Large Space |
| Bicycle Parking | Class 1: 13<br>Class 2: 13 | Class 1: 13<br>Class 2: 13 | None |

# Sustainability Statement for 3600 Lysander Lane

## Introduction

3600 Lysander Lane is committed to fostering sustainable development in Richmond, BC. Our vision is to create a building that not only meets the highest standards of environmental responsibility but also enhances the community and contributes to the local economy. We believe that sustainable design and construction are fundamental to creating a resilient future for Richmond.

## Environmental Sustainability

### 1. Passive Design

- **Building construction method: Tilt Up Construction**

  The proposed tilt up construction is inherently a sustainable methodology for the following reasons:

  **Material Efficiency**

  - **Reduced Waste**: Tilt-up construction uses concrete, which can be precisely mixed and poured on-site, reducing waste typically associated with transporting pre-cast panels or excessive formwork. The panels are formed using reusable molds, minimizing material waste.
  - **Local Materials**: Concrete ingredients, such as sand, gravel, and cement, are often locally sourced, reducing transportation emissions and supporting local economies.

  **Recyclability**:

  - Concrete is a recyclable material, and at the end of a building's lifecycle, tilt up panels can be crushed and reused as aggregate for new concrete, further minimizing environmental impact.

  **Energy Efficiency**

  - **Thermal Mass**: Concrete's high thermal mass helps regulate indoor temperatures, reducing the need for heating and cooling systems. This can lead to significant energy savings and a decrease in the building's carbon footprint.
  - **Insulation**: Tilt-up panels can be designed with integrated insulation layers, enhancing the building's energy efficiency and meeting high-performance building codes.

**Reduced Construction Time and Costs**

- **Efficient Construction**: The tilt-up method allows for rapid construction as panels are cast and cured on-site and then lifted into place, reducing labor costs and construction timelines. Faster construction means less energy consumption and fewer emissions from construction equipment.
- **Economical**: The method often proves more cost-effective than traditional construction methods, making sustainable building more accessible.

**Durability and Longevity**

- **Long Lifespan**: Concrete structures are known for their durability and resistance to natural disasters like earthquakes and hurricanes. The longevity of tilt-up buildings means fewer resources are needed for repairs and renovations over time.
- **Low Maintenance**: The robustness of concrete reduces the need for frequent maintenance, conserving resources and minimizing environmental impact.

**Design Flexibility**

- **Adaptability**: Tilt-up construction allows for a variety of design options, including architectural finishes and textures that can mimic other materials. This flexibility supports the creation of aesthetically pleasing structures that meet community needs without compromising sustainability.

**Improved Indoor Air Quality**

- **Low Emissions**: Concrete is an inert material, meaning it doesn't emit volatile organic compounds (VOCs) that can degrade indoor air quality. This contributes to healthier indoor environments for occupants.

**Site Impact**

- **Minimal Site Disruption**: Tilt-up construction involves fewer deliveries of materials and equipment, reducing site disruption and preserving the local environment. This results in less soil erosion and habitat destruction compared to traditional construction methods.

**Transportation Efficiency**

- **On-Site Production**: The panels are created on-site, which means fewer transportation-related emissions compared to prefabricated methods that require panels to be shipped from a factory.

- **Building Design elements**

Building design incorporates large overhanging sun-shade elements which reduce solar heat gain and result in a lower air conditioning demand at the peak hours.

**2. Green Building Standards**

- **Energy Efficiency**:
    - The building is designed to exceed the energy efficiency standards set by the BC Energy Step Code, aiming for a net-zero energy consumption.
    - The building will utilize state-of-the-art HVAC systems, high-performance glazing, and LED lighting to reduce energy consumption by at least 30% compared to conventional buildings.

- **Renewable Energy**: Solar panels will be installed on the roof, generating clean, renewable energy to power common areas and reduce reliance on the grid.

- **Electric Vehicle Charging**: more than 50 % of stalls serving the new building are equipped with level 2 charging stations (which goes beyond Richmond Zoning bylaw requirement for 35%). Further to that there is 4 stalls (10%) with opportunity charging at faster speeds.

**3. Water Conservation**

- **Rainwater Harvesting**: A rainwater collection system will be implemented to reduce water usage by providing irrigation for landscaping and water for non-potable uses.
- **Low-Flow Fixtures**: The building will feature low-flow faucets and toilets to minimize water consumption and promote responsible usage.

**4. Sustainable Materials**

- **Local and Recycled Materials**: We will source materials locally whenever possible and incorporate recycled materials into the construction process to minimize the building's carbon footprint.
- **Eco-Friendly Landscaping**: The landscaping design will use native plants to promote biodiversity and reduce water consumption.

## Social Sustainability

**1. Community Engagement**

- **Public Spaces**: The project brings small scale light industrial businesses to the area and creates points of interest for local community on a site which at the moment serves as mostly underutilized surface parking.
- **Local Partnerships**: We will work with local businesses and organizations to support the community and create job opportunities during and after construction.

### 2. Accessibility and Inclusivity

- **Universal Design**: The building is designed with accessibility in mind, ensuring that all business patrons and visitors alike, regardless of ability, can easily navigate and enjoy the space.

## Economic Sustainability

### 1. Job Creation

- **Construction and Operations**: The project will result in a number of new businesses that are ground oriented and will bring a number of small scale businesses to the area along with the typical employment that this type of industry will result in.

  The project will create numerous jobs during the construction phase and provide ongoing employment opportunities for building operations and maintenance.

### 2. Economic Growth

- **Local Business Support**: By integrating small businesses and local partnerships, we aim to boost the local economy and support small businesses in Richmond.
- **Sustainable Transportation**: The building developers are enhancing commute to this area by offering a transportation demand measures package which offers free shuttle transport to and from sky-train, updates to the transportation infrastructure and ample bicycle parking to reduce reliance on cars and promote eco-friendly commuting.

## Conclusion

3600 Lysander Lane development is dedicated to setting a new standard for sustainable development in Richmond, BC. Through innovative design, responsible construction, and community collaboration, we are building a future that respects the environment, supports the community, and contributes to the local economy. Our commitment to sustainability ensures that this project will serve as a model for future developments in the region.

City of Richmond

# Development Permit Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

**Address:** 3600 Lysander Lane **File No.:** DP 23-016633

**Prior to approval of the Development Permit, the developer is required to complete the following:**

1. **(Arborist Contract)** Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
2. **(Tree Survival Security)** Submission of a Tree Survival Security to the City in the amount of $145,000 for the 20 trees to be retained, as identified in the Arborist report prepared by Durante Kreuk Limited, dated July 2, 2025.
3. **(Tree Protection)** Installation of appropriate tree protection fencing around all trees to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.
4. **(Replacement Trees Fee)** Submission of a cash in-lieu of thirteen replacement trees not proposed to be planted on-site calculated at $750 per required tree for a total amount of $9,750,
5. **(Ecological Compensation, Landscape Agreement, Maintenance and Monitoring)** Registration of a legal agreement on title identifying ESA planting and restoration along the foreshore of the site and denoting the landscaped area both within the ESA as well as through the site and ensuring that landscaping is completed as per the Landscape Plans and specification prepared by Durante Kreuk Ltd., dated June 16, 2023, as well as the Environmental Impact Assessment Report prepared by ROE Environmental Consulting, dated August 7, 2024. The owner would also be required to register a legal agreement on title to ensure that landscaping scheme, including planting area within the ESA is maintained and will not be abandoned or removed. The agreement would note that landscaping within the ESA would be monitored and maintained for a 3-year Maintenance and Monitoring Period as per the Environmental Impact Assessment Report prepared by ROE Environmental Consulting, dated August 14, 2024.
6. **(Landscaping Security)** Receipt of a Letter of Credit for landscaping and ESA planting and restoration along the foreshore of the site in the amount of $164,984.00 plus taxes, inclusive of a 10% contingency cost (as per the landscape cost estimate provided by Durante Kreuk Ltd., on August 14, 2024).
7. **(Flood Covenant Discharge and New Flood Covenant Registration)** Discharge of previous Flood Indemnity Covenant CA3630776 from title and registering a new Flood Covenant on title (4.35 m GSC).
8. **(Building Energy Performance)** Registration of a legal agreement to secure building energy performance noting the proposed buildings will be built to exceed the minimum energy standards of NECB 2020 and will incorporate the standards included in the Sustainability Statement submitted by the developer in August 2024. The Sustainability measures, include but are not limited to, the utilization of green building standards (energy efficiency measures, solar panels on roofs, water conservation mechanisms of rainwater harvest systems, and low flow fixtures), usage of sustainable materials sourced locally, implementation of eco-friendly landscaping design and aiming for a net zero energy consumption).
9. **(EV Charging)** Registration of an Electric Vehicle (EV) Charging Infrastructure Covenant on title, securing the owner's commitment to ensure that a minimum 50% of parking stalls serving the new buildings are to be equipped with Level 2 Charging Stations as well as installing, maintaining and repairing a further four Charging Stations providing charging capacity faster than Level 2 (Opportunity Charging Capacity).
10. **(Diking SRW)** The granting of a 19.1 m wide Statutory Diking Right-of-Way (SRW) along the foreshore (south-east) property line for the purpose of the future superdike and associated upgrades pertaining to the diking works therein and including but not limited to, raising lands within the SRW to the minimum 4.7 m geodetic elevation as per the City's diking standards, where possible, and to accommodate the raising of the lands in the future to the maximum 5.5 m geodetic elevation relating to the ultimate diking elevation standards, as well as to construct a new publicly accessible dike trail with a width of 5.0 m to replace the existing trail and to maintain trail connection to the trail

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network on Sea Island. The SRW would also include language confirming that the area that would be overlapped by the existing building would be subject to future dike-related upgrades and the same requirements as to the rest of the SRW upon demolition of the said building at no cost to the City.

11. **(Diking Access SRW)** Registration of a 7.5 m wide Statutory Right-of-Way (SRW) along the full east frontage of the dike to accommodate access to the dike for repair and routine maintenance of diking infrastructure. Future roles and responsibilities in terms of dike repair, monitoring and routine maintenance by the City via the dike access SRW, will be provided by the City's Engineering Department and appended into the agreement.
12. **(Lysander Lane and Cessna Drive SRW)** Registration of the following SRWs, which provide for the dedication of the lands to which the SRW applies, prior to subdivision approval:
    a) 3.0 m wide along the full length of Lysander Lane; and
    b) 1.0 m wide across Cessna Drive frontage.
13. **(Hudson Avenue SRW)** Registration of a 10.5 m wide Public Right-Of-Passage (PROP) Statutory Right-of-Way (SRW) from the end of Hudson Avenue along the full length of the existing roadway to accommodate frontage improvements including widening the existing road width, installing curb and gutter and a new concrete sidewalk connecting with the dike multi use pathway.
14. **(Shared Parking and Access)** Registration of a restrictive covenant or other legal agreement(s) on Title to facilitate shared access between the proposed new lots (Lot A and B) for the purposes of shared access, parking, bicycle parking, loading, and use of Transportation Demand Management (TDM) facilities. This agreement shall include the entirety of the driveways, drive aisles, loading facilities, bicycle and vehicle parking and end of trip facilities.
15. **(Parking Strategy)** Registration of a restrictive covenant or alternative legal agreement(s) on title to the satisfaction of the Director, Transportation, securing the owner's commitment to provide, at their sole cost, Transportation Demand Management (TDM) measures to encourage alternate travel modes and reduce parking demands, including:
    a) Shared Parking / No Parking Assignment: Registration of a legal agreement on title to prohibit the assignment of parking stalls. All parking stalls shall be for the shared use of all users accessing proposed Lot A or Lot B. Parking stalls proposed between the new buildings and fronting onto ground-oriented units' overhead entrances may be assignable.
    b) Transit Pass Program: Registration of a legal agreement on title to ensure the execution and completion of a transit pass program, including the following methods of administration and terms, or an equivalent cash contribution to the City's Transportation Demand Management Reserve Fund to the satisfaction of the Director of Transportation. If registration of an agreement to deliver the transit pass program is pursued, it shall include the following method of administration and terms:
        (1) Provide one year of two-zone monthly transit passes for 50% of employees at Lot A;
        (2) Letter of Credit provided to the City for 100% of the transit pass program value or submission of an executed agreement with Translink demonstrating that payment to Translink to facilitate the program has been provided, to the satisfaction of the Director of Transportation.
        (3) Administration by Translink or management company. The owner is not responsible for monitoring the use of the transit passes but only noting the number of "subscribed" users to the program until all available passes are exhausted over a period of three years.
        (4) If the transit pass program is not fully subscribed within three years, the remaining funds equivalent to the value of the remaining passes are to be transferred to the City of Richmond through contribution to the Transportation Demand Management Reserve Fund for alternate transportation initiatives.
    c) Shuttle Bus Program: Submission of an operations plan detailing the intended operator, hours of operation, frequency and route for the shuttle bus program, and location for drop-off and pick-up. Registration of a legal agreement on title to secure the owner's commitment to operate a shuttle bus program for a minimum of five years. Letter of credit to be submitted for the purchase of vehicles associated with operation of the program OR provision of an executed agreement with a shuttle bus operator to the satisfaction of the Director of Transportation.
    d) End of Trip Facility: Registration of a legal agreement on title to secure the owner's commitment to provide an end of trip facility including showers, toilets, sinks and lockers, with the following terms:

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(1) End of trip facility shall be for the shared use of all users for Lot A and Lot B at no cost to all users.

(2) No issuance of Building Permit until the facility has been incorporated into the building design.

(3) No Occupancy until construction of the End of Trip Facility(s) has been completed and demonstrated.

e) Enhanced Bicycle Parking: Registration of a legal agreement on title to secure the owner's commitment to provide all Class 1 bicycle parking indoors, and provide bicycle maintenance facilities on Lot B.

f) Car Share:

(1) *Car Share Parking:* Registration of a legal agreement on title securing the owner's commitment to provide one car share parking stall equipped with electric vehicle (EV) charging stations, with the following terms:

(a) Use of the space shall not be subject to parking fees, except as otherwise determined at the sole discretion of the City.

(b) Use of the car share space shall be at the discretion of the Director of Transportation for any time that a car share operator is not operating within such a facility.

(c) Secures the car-share facility on the lot via a statutory right-of-way(s) and easement(s) registered on title, providing unrestricted 24/7 public access to the facility for the purpose of car share usage.

(2) Provide written confirmation from a minimum of one (1) car share operating outlining the availability of the parking stall for car-share usage and the car-share operator's interest in operating in such stalls.

16. **(Public Art Contribution)** City acceptance of the developer's offer to voluntarily contribute $15,965.00 to the City's Public Art Reserve based on $0.30 (based on 2024 rates and subject to 2025 rate at time of DP Approval Consideration) per buildable square foot for the proposed new buildings on Lot B.

17. **(Notice Fees)** Payment of all fees in full for the cost associated with the Development Permit Panel Meeting Notices, consistent with the City's Consolidated Fees Bylaw No 8636, as amended.

**Prior to Subdivision Approval, the developer must complete the following requirements:**

1. **(Road Dedication)** Dedicate land along the subject site's full frontage along Lysander Lane, Cessna Drive, Hudson Avenue and the riverfront frontage. Exact road dedication shall be confirmed through design of the Servicing Agreement* works. Approximate road dedications are as follows:

a) Along Lysander Lane: Approximately 3.0 m of dedication to accommodate roadway improvements.

b) Along Cessna Drive (Lot A post-subdivision): Approximately 1.0 m of dedication to accommodate roadway improvements.

c) Corner cuts: A 4 m by 4 m corner cut road dedication at the southwest corner of the subject development at the Hudson Avenue and Cessna Drive.

2. **(Servicing Agreement)** Enter into a Servicing Agreement* for the design and construction of site servicing, off-site works, frontage improvements and diking upgrades. A Letter of Credit or cash security for the value of the Service Agreement works, as determined by the City, will be required as part of entering into the Servicing Agreement. Works include, but may not be limited to:

**1. Water Works:**

a. Using the OCP Model with the water main upgrades identified below, there will be 434 L/s of water available at a 20 psi residual at the Cessna Dr frontage, 269 L/s of water available at a 20 psi residual at the Lysander Lane frontage. Based on your proposed development, your site requires a minimum fire flow of 220 L/s.

b. At Developer's cost, the Developer is required to:

i. Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.

ii. Replace the existing watermain that are located under the protected private trees along the entire Lysander Lane, approximately 150 meters in length. The replacement watermain shall be installed within the roadway

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in Lysander Lane. Tie-in to the northwest shall be to the existing watermain with unit ID number WND187771 located in south of the southwest corner of 3500 Cessna Dr. The dead end of the watermain at the southeast end shall have an automatic flushing system to address water quality and maintenance issues associated with the resulting dead end watermain,

iii. The flushing system shall be located in a right-of-way within the private boulevard just southeast of the driveway to the existing building that is proposed to be retained fronting the dike. The right-of-way details shall be finalized through the servicing agreement.

iv. Fill as per MMCD then abandon the existing watermain along the north property line at Lysander Lane frontage after the new watermain in the roadway is operational and accepted by the City.

v. Remove the existing 150mm AC watermain in Lysander Lane and dispose offsite as per regulations after the new watermain in the roadway is operational and accepted by the City.

vi. Review hydrant spacing on all road frontages and provide fire hydrants as required to meet City spacing requirements. Fire department approval is required for all fire hydrant installations, removals, and relocations.

vii. Fire department sign off is required to confirm the location of the existing and proposed hydrants are sufficiently close to service the most remote principal entrance.

viii. Install one water service connection complete with meter off of the new watermain in Lysander Lane.

ix. Provide a right-of-way for the water meter. Minimum right-of-way dimensions to be the size of the meter box (from the City of Richmond supplementary specifications) + any appurtenances (for example, the bypass on W2n-SD) + 0.5 m on all sides. Exact right-of-way dimensions to be finalized at the servicing agreement review stage.

c. At Developer's cost, the City is to:

i. Re-connect all existing water service connections and fire hydrants to the proposed water main in Lysander Lane.

ii. Complete all tie-ins for the proposed works to existing City infrastructure.

**2. Storm Sewer Works:**

a. At Developer's cost, the Developer is required to:

i. Install the ultimate storm sewers along Cessna Drive, complete with manholes as per City Engineering specifications, as there are no existing City storm sewers at the Cessna Drive frontage. Approximate length of required storm sewer is 222 meters. Tie-in to the south shall be at existing manhole STMH133649 located at the northwest corner of 3688 Cessna Drive. Tie-in to the north shall be to the existing manhole STMH 7289 located near the southwest corner of 3500 Cessna Drive.

ii. Upgrade the existing storm sewer at Lysander Lane to minimum 600mm diameter or OCP size, complete with manholes, as per City Engineering specifications.

iii. Install the ultimate storm sewers along Hudson Avenue, complete with manholes and catch basins as per City Engineering specifications, as there are no existing City storm sewers at the Hudson Avenue frontage. Approximate length of required storm sewer is 90 meters. Tie-in to the north shall be to the required storm sewer at Cessna Drive via a new manhole. A manhole is required at the high end to the southeast.

iv. Provide capacity analyses under the existing and OCP scenarios to confirm frontage upgrade requirements at Cessna Drive and Lysander Lane and confirm if potential downstream upgrades are required. The developer's civil consultant shall confirm with the City's Engineering Department the drainage catchment boundary prior to start of the capacity analyses works. The City's approval of the capacity analyses is required prior to the DP report advancing to Planning Committee.

v. Install a new storm service connection complete with an inspection chamber. Location and details of the service connection shall be finalized through the servicing agreement design review.

vi. Provide an erosion and sediment control plan for all on-site and off-site works, to be reviewed as part of the servicing agreement.

b. At Developer's cost, the City is to:.

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- Complete all tie-ins for the proposed works to existing City infrastructure, including re-connections of existing services to the new mains.

**3. Sanitary Sewer Works:**

a. At Developer's cost, the City is to:
   i. Install one new sanitary service connection, complete with inspection chamber off of the existing sanitary main along the Cessna Drive frontage for the proposed development. Tie-in shall be at exiting manhole SMH6329 complete with an inspection chamber in a right of way.
   i. Complete all tie-ins for the proposed works to existing City infrastructure including re-connections of existing services to the new mains.

4. **Dike Improvements:**

a. At the Developer's cost the developer is required to construct approximately 210 meters of dike upgrades. Tie-in from the south shall be from Hudson Avenue and tie-in to the north shall be to Lysander Lane. The City's current dike standards required that the dike crest be a minimum of 4.7 m geodetic (after settlement) and be designed to accommodate a future elevation of 5.5 m.
b. The dike design proposal is required to show how the dike can be raised to a future elevation of 5.5 m. The dike design proposal (plan and cross sections) needs to be finalized to confirm the required dike SRW prior to finalization of the Service Agreement. The required land to facilitate the proposed and ultimate dike raising shall be secured via the right of way.
c. At Developer's cost, the Developer is required to provide the following to facilitate the construction of the dike upgrades:
   - 19.10m dike SRW.
   - 7.5m SRW for required dike setback as per bylaw.
   - Raise the existing dike at the entire river frontage to 4.7m complete with tie-ins to the north and south as per City standards. The required dike raising shall take into consideration and be ready to accommodate the ultimate dike elevation of 5.5m. Please note that the required dike dedication and SRW for dike set back above are based on the 5.5m ultimate dike elevation.
   - The City prefers the land within the required 7.5m dike setback SRW be raised to the 4.7m dike elevation.
   - SRW of the portion of Hudson Ave that ties into the existing dike.
   - Raising of Hudson Ave to facilitate tie-in to the required dike raising.
   - Raising of Lysander Lane to facilitate tie-in to the required dike raising.
   - Relocation of all City and private utilities that will be affected by the required road raising in Hudson Ave and Lysander Lane.
d. At the Developer's cost the developer is required to confirm the actual condition of the existing dike and address the following:
   i. That the water side slope is not steeper than 2:1. A survey is required to assess the true slope of the bank. Show the existing slope as per survey in the revised cross sections.
   ii. That the riprap is not obscured, no void spaces, no game trails, no spalling of the riprap material and no inadequate filter material.
   iii. Reconstruction of the dike face along the entire dike frontage is required starting with the scrubbing of overgrown vegetation and removal of existing riprap.
   iv. Construction of the new dike face would be acceptable from the natural eco-bench. Construction of the new dike toe into the eco bench should follow British Columbia's standard Dike Design and Construction Guide when digging in the toe along the eco-bench. Dike face should be a minimum of 2H:1V slope. The developer is required to obtain Engineering and Environmental services and obtain provincial and federal permitting before commencing construction.
   v. Provide the cross sections at the north and south tie-ins. The proposed dike shall be designed so that the service vehicles and equipment (including excavators) can access the entire length of the dike, and the design shall provide adequate space for the service vehicles to enter and exit, which

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shall be at no more than 10% grade and based on the Transportation Associate of Canada's standard SU turning templates and approved by the City's Transportation department. Tie-in of the upgraded dike to the north shall be to Lysander Lane and tie-in to the south shall be to Hudson Ave. Tie-in details shall be finalized via the servicing agreement design review.

vi. Trees within the dikes foot print are not permitted and shall be removed. This includes the dike face plus 2 meters from the toe, the dikes crest, and the landside slope of the dike plus 2 meters from the toe. If the landside of the dike is not sloped please allow a 3 meter buffer from the edge of the dike crest to the drip edge of any existing tree.

vii. Japanese Knotweed and other invasive plant species shall be removed. The developer should obtain the services of a QEP to advice on the proper removal and the identification of the vegetation on site.

e. Piers, if required, shall have access hatches for dike maintenance. Show how the interface between the Pier restaurant and the dike will look like. Hatch will need to be 1.5 m x 1.5 m for access below the pier. Ensure the rip rap placed under the pier meets City specifications.

f. The Developer is required to satisfy the following in terms of dike design and construction:

*General Design Requirements.*

- The dike design shall be done by a Professional Geotechnical Engineer.
- The elevation of the dike crest shall be raised to minimum 4.7 m geodetic, and shall be designed to accommodate a future elevation of 5.5 m. On the waterside of the dike, the slope shall be maximum 2:1. On the landside of the dike, the slope shall be maximum 3:1.
- In order to satisfy the requirements of a "superdike", as much as possible of the property must be at elevation 4.7 m geodetic or higher.
- All dike construction, including materials, shall be in conformance with the current version of City standard drawing MB-98 and MB-99, Dike Design and Construction Guide – Best Management Practices for British Columbia, and Environmental Guidelines for Vegetation Management on Flood Protection Works to Protect Public Safety and the Environment.
- The design and construction of the dike shall be done to the satisfaction of the General Manager, Engineering and Public Works, the Provincial Inspector of Dikes, and federal approving authorities.

*Maintenance Access.*

- The dike crest running surface shall be minimum 5.0 m wide (proposed and ultimate) with unobstructed access to the waterside dike slope clear of benches, lighting, and other park amenities; such amenities shall be located in the landside of the dike to allow full access to the rip rap for future dike maintenance.
- The actual width of the dike crest to be determined via the road functional plan and the detailed servicing agreement design. The dike shall be designed so that the service vehicles and equipment (including excavators) can access the entire length of the dike, and the design shall provide adequate space for the service vehicles to enter and exit, which shall be at no more than 10% grade and based on the Transportation Associate of Canada's standard SU turning templates and approved by the City's Transportation department.

*Tie-in to Existing*

- Verify the condition of the existing riprap and toe of the dike. Based on the actual condition, the Geotechnical Engineer shall coordinate the findings and confirm with City staff whether the existing riprap and toe is adequate to support the proposed dike raising, or whether removal are required to the existing riprap and toe.
- Developer to be responsible to locate the dike to the north and south/east and west for a smooth transition.
- Ensure a smooth transition to the existing drainage pump station and the improvements surrounding it. The dike transition to the north should not affect maintenance access to the existing Miller Road drainage pump station.

*Seismic Design Requirements.*

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- Follow the Engineering & Geoscientists BC Seismic Assessment and Seismic Design of Dikes in BC

*Planting and Vegetation on the Dike.*

- The area consisting of the dike crest, waterside and landside dike slopes and a 3 m strip beyond the theoretical landside toe (determined by extending the landside slope of the 5.5 m dike elevation to the proposed finished grade of the site) must be kept clear of trees as per the provincial Environmental Guidelines for Vegetation Management on Flood Protection Works to Protect Public Safety and the Environment.
- Vegetation that does not obstruct inspection visibility, displace Type 6 material (rip rap) or create holes in the dike slope may be acceptable on the waterside and landside slope when placed in clumps measuring no more than 3 m wide located at intervals of 9 m between adjacent clumps, as per the City's Riparian Planting on Dikes Design Standard. A list of permitted dike plantings shall be obtained from the City Engineering Department by the Landscape Architect prior to starting the detailed landscaping design.

*Dike Inspection.* The City's Public Works Dikes group must be coordinated with to perform a dike inspection at the beginning of dike construction. They can be reached at floodprotection@richmond.ca to schedule an assessment and must inspect the following at least once in the dike construction process:

- Review of site stripping to ensure existing plants are removed
- Review of dike fill compaction (Type 2 material)
- Review of rip rap filter (Type 3 material)
- Review of filter fabric installation (Geotextile from Layfield Canada – Typar 3401)
- Review of rip rap placement (Type 6 material)

- **Street Lighting:**

a. At the Developer's cost, the Developer is required to provide street lighting along all frontages. The developer shall coordinate with the City's Planning department to confirm the street light types.

b. Off-Street Publicly-Accessible Walkways & Opens Spaces

i. Dike Trail

a) To be determined in coordination with Planning and Parks Department.

b) Lighting is not permitted to encroach within the dike core for both the proposed 4.7 m and future 5.5 m dike, and should be placed on the building side of the multi-use pathway (i.e. not in the center nor on the waterside) to avoid impacting dike maintenance access.

- **General Items:**

a. The Developer is required to:

- Locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the developments site (see list below for examples). A functional plan showing conceptual locations for such infrastructure shall be included in the development process design review. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the functional plan and registered prior to SA design approval:
  - BC Hydro PMT – 4.0 x 5.0 m
  - BC Hydro LPT – 3.5 x 3.5 m
  - Street light kiosk – 1.5 x 1.5 m
  - Traffic signal kiosk – 1.0 x 1.0 m
  - Traffic signal UPS – 2.0 x 1.5 m

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- Shaw cable kiosk – 1.0 x 1.0 m
- Telus FDH cabinet – 1.1 x 1.0 m

▪ Coordinate with BC Hydro, Telus and other private communication service providers:
- To underground, the overhead lines and poles along Lysander Lane. All required above-ground boxes to facilitate the undergrounding works shall be located within the development site; all below-ground boxes shall be located outside of sidewalks and bike paths.
- To pre-duct for future hydro, telephone and cable utilities along all road frontages.
- When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.

b. Provide, prior to site preparation works (e.g., preloading, soil densification, DSM wall installation, etc.) or within the first servicing agreement submission, whichever comes first, a geotechnical assessment of preload and soil preparation impacts on the existing utilities fronting the development site (e.g., existing sanitary sewer at Cessna frontage, etc.) and provide mitigation recommendations.

c. Provide a video inspection report of the existing sanitary sewers along the development's Cessna Drive frontage prior to start of site preparation works or within the first servicing agreement submission, whichever comes first. Provide a follow-up video inspection after site preparation works are complete (i.e. pre-load removal, completion of dewatering, etc.) to assess the condition of the existing utilities is required. Any utilities damaged by the pre-load, de-watering, or other ground preparation shall be replaced at the Developer's cost.

▪ Monitor the settlement at the adjacent utilities and structures during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts to the City for approval.

▪ Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

Additionally, the following components would be secured via the Subdivision application:

**Frontage Upgrades/Improvements**

1. A Functional Road Plan is to be included that shows all required improvements
2. The applicant shall be required to construct the following along the full frontage of the subject site at the applicant's cost:
   a. (Lysander Lane) from (north to south), from existing north edge of pavement:
      i. 11.2m roadway
      ii. Curb and gutter
      iii. Minimum 1.5m front boulevard
      iv. Minimum 1.5m concrete sidewalk
      v. 0.3m back boulevard
   b. (Cessna Drive) from (west to east), from existing curb
      i. Curb and gutter
      ii. Minimum 1.5m front boulevard
      iii. Minimum 2.0m concrete sidewalk
      iv. 0.3m back boulevard
      v. **Note:** Cessna Drive is under the jurisdiction of the Federal Crown/YVR. Applicant to consult with YVR on City specified frontage works and confirm with YVR on frontage works requirement.
   c. (Hudson Avenue) from (north to south), from existing PL:
      i. 0.3m back boulevard
      ii. Minimum 1.5m concrete sidewalk
      iii. Minimum 1.5m front boulevard

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iv. Curb and gutter
v. Any pavement required to accommodate turning vehicles to be confirmed via functional road plan

d. Dike crest, from existing north edge of pavement:
   i. 5.0m Multi-use pathway with lighting
e. Hudson Avenue Dike Access (from south to north) from existing PL:
   i. 7.5m pavement structure
   ii. Curb and gutter
   iii. Minimum 1.5m boulevard
   iv. 1.5m concrete sidewalk

**Prior to Building Permit Issuance, the developer must complete the following requirements** *(note – the following is a preliminary list and subject to change/modification through the review and processing of the building permit application)*:

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

**Note:**

* This requires a separate application.

- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

  All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

  The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

- If the development will be constructed in phases and stratified, a Phased Strata Subdivision Application is required. Each phase of a phased strata plan should be treated as a separate parcel, each phase to comply with the Richmond Zoning Bylaw 8500 in terms of minimum lot area, building setback and parking requirements. Please arrange to have the City's Approving Officer review the proposed phased boundaries in the early DP stages. To allow sufficient time for staff review and preparation of legal agreements, the application should be submitted at least 12 months prior to the expected occupancy of development.

- If the development intends to create one or more air space parcels, an Air Space Parcel Subdivision Application is required. To allow sufficient time for staff review and preparation of legal agreements, the application should be submitted at least 12 months prior to the expected occupancy of development.

- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance

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of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed

Date

City of Richmond

# Development Permit

**No. DP 23-016633**

| | |
|---|---|
| To the Holder: | Lysander Holdings Ltd. |
| Property Address: | 3600 Lysander Lane |
| Address: | Suite 200 – 13888 Wireless Way<br>Richmond BC, V6V 0A3 |

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #11 attached hereto.
4. As a condition of the issuance of this Permit, the City is holding the security in the amount of $164,984.00 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
5. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.
7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

   This Permit is not a Building Permit.

# Development Permit
**No. DP 23-016633**

| | |
|---|---|
| To the Holder: | Lysander Holdings Ltd. |
| Property Address: | 3600 Lysander Lane |
| Address: | Suite 200 – 13888 Wireless Way<br>Richmond BC, V6V 0A3 |

---

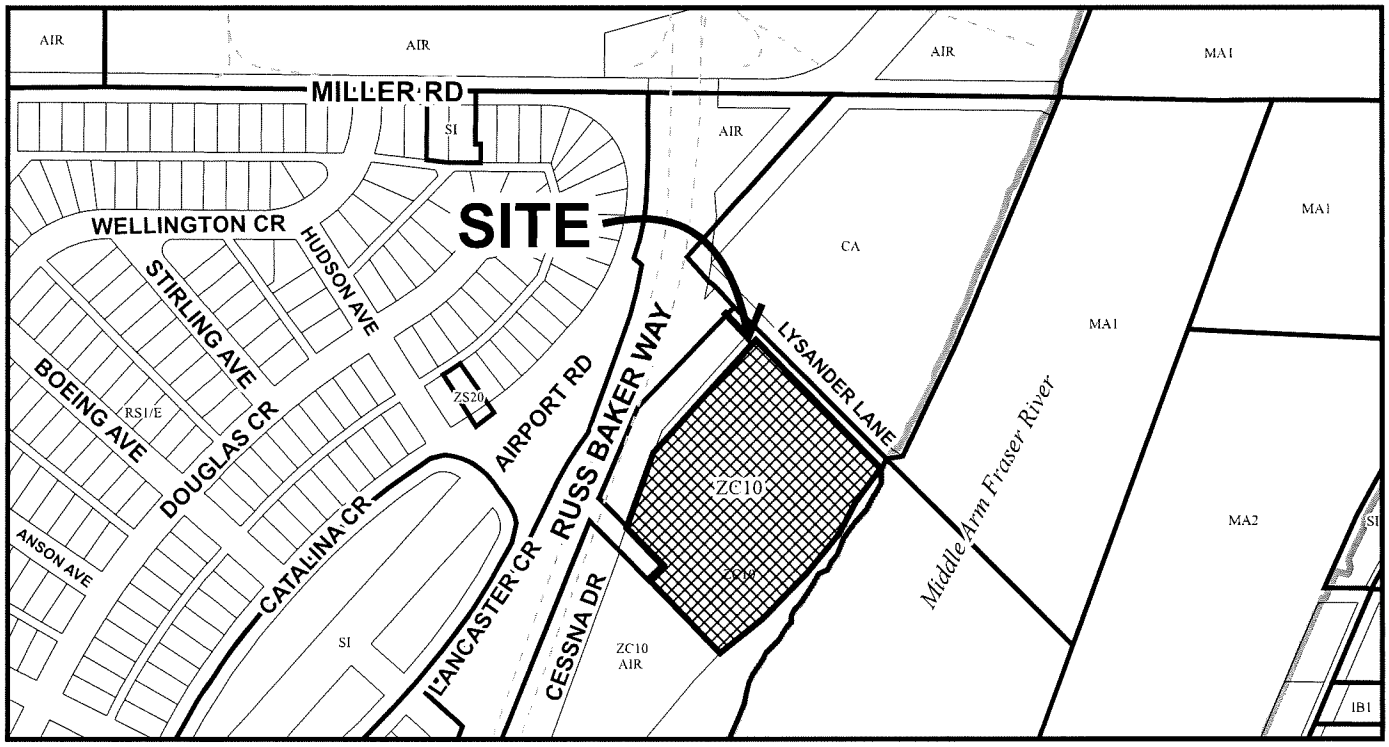
AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF , .

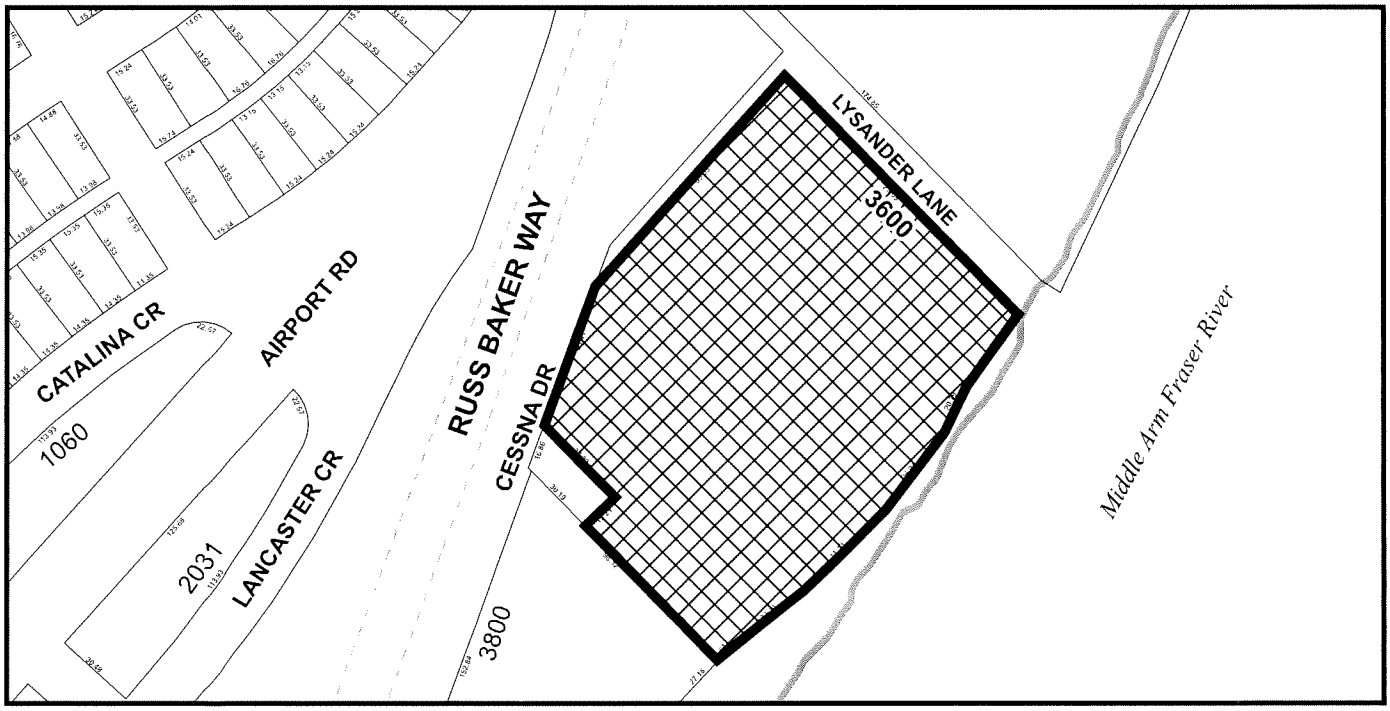
DELIVERED THIS DAY OF , .

_____

MAYOR

City of
Richmond




# DP 23-016633
# SCHEDULE "A"

Original Date: 05/02/23

Revision Date:

Note: Dimensions are in METRES

DP 23-016633 Permit Drawing #1

# 3600 Lysander Lane, Richmond BC

## Development Permit Application


**SURVEYOR**
J.C. Tam & Associates

Office: 604-214-8928
Email: office@jctam.com

**ARCHITECT**
ANDREW CHEUNG ARCHITECTS INC.
Kassra Tavakoli

Office 604-685-2088 x-116
Email: kassra@andrewcheungarchitects.com

**LANDSCAPE CONSULTANT**
DURANTE KRUEK LTD.
Andrew Briggs

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**CIVIL CONSULTANT**
CitiWest
Peter Yue

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Email: pyue@citiwest.com

**TRAFFIC CONSULTANT 1**
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Federico Puscar

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Email: fpuscar@islengineering.com

**TRAFFIC CONSULTANT 2**
CTS
Aaron Chan

Office: 604-936-6190 ex.223
Email: fachan@cts-bc.com

**ENVIRONMENTAL CONSULTANT**
SARTORIENVIRONMENTAL
Thibault Dorx

Office 604-987-5588
Email: thibault@satorienv.com

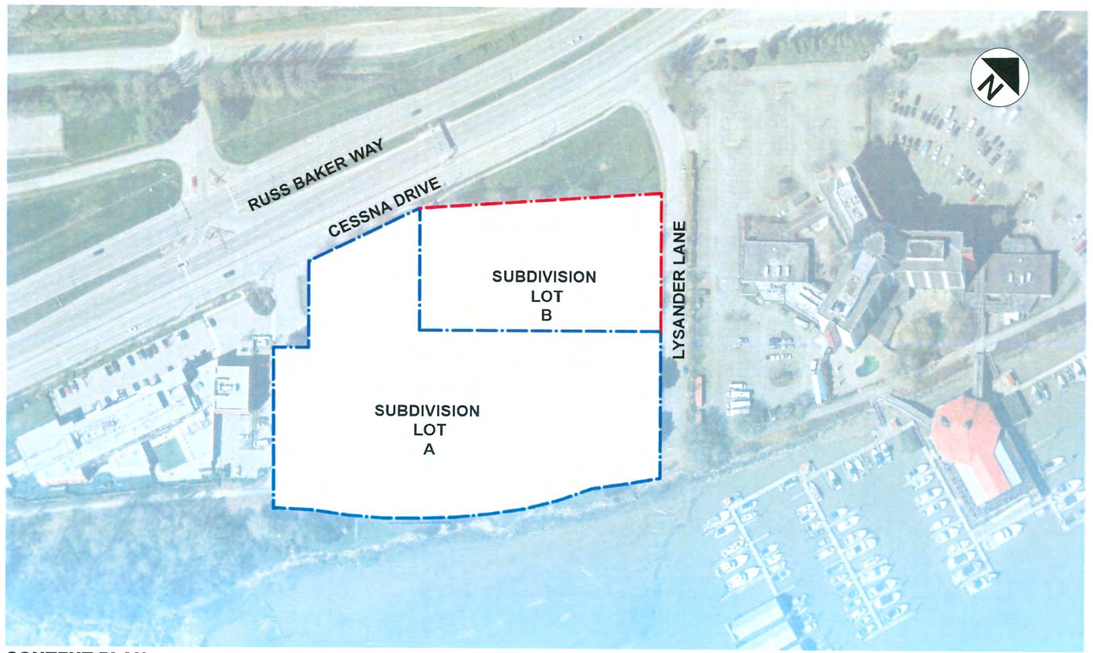
**CLIENT**
SYMPHONY HILL PROPERTIES INC.
Mun Wai Lai

Office: 778-710-3311
Email: lai@symphonyhill.ca

ACAI
ANDREW CHEUNG ARCHITECTS INC.

DP 23-016633 Permit Drawing #2


**NEIGHBORHOOD MAP** SCALE: 1:5000




**CONTEXT PLAN** SCALE: 1:1000

## DRAWING LIST



## PROJECT DATA

**CIVIC ADDRESS:**
3600 LYSANDER LANE, RICHMOND, BC, V7B 1C3

**LEGAL DESCRIPTION:**
PARCEL A, BLOCK 5N, PLAN BCP22413, SECTION 29, RANG E 6W, NEW WESTMINSTER LAND DISTRICT, EXCEPT PLAN EP P36999

**ZONE:** ZC10

**PID:** 026-601-624

**SITE AREA:**
SUBDIVISION "A" : 14,657.5 SM
SUBDIVISION "B" : 5,884.0 SM

**F.A.R.:**
**(ZC10 MAX: 0.85)**

**SUBDIVISION "A":**
AREA (L1 ~ L5) : 11,580.0 SM
F.A.R. = 11,580/14,657.5 = **0.79**

**SUBDIVISION "B":**
INDUSTRIAL(L1) : 1,518.0 SM
INDUSTRIAL(L2) : 1,588.0 SM
INDUSTRIAL(L3) : 1,140.0 SM

TOTAL AREA : 4,516 SM
F.A.R. = 4,945/5,884.0= **0.76**

**SITE COVERAGE:**
**SUBDIVISION "A":**
OVERALL BLDG FOOTPRINT: 4419.5 SM
4419.5/14657.5= 30.15 %

**SUBDIVISION "B":**
OVERALL BLDG FOOTPRINT: 1656.6 SM
1656.6/5884= 28.15 %

**BUILDING HEIGHT:**
**SUBDIVISION "A":**
EXISTING BUILDING REMAINS UNCHANGED

**SUBDIVISION "B":**
Maximum Height allowable: 20 M
Proposed Height (thigh parapet): 16.17 M

**PARKING:**

**SUBDIVISION "A":**

*1) TABLE 7.7.2.3 (CHILD CARE): 0.75 SPACES PER EMPLOYEE + 1 SPACE PER 10 CHILDREN)*
*2) TABLE 7.7.2.3 (OFFICE): 3 SPACES PER 100SM OF LEASABLE AREA*

REQUIRED: (15X0.75)+(80/10)+((8004/100)*3)=**259**
*42% REDUCTION PROPOSED FOR TDM MEASURES*
PROVIDED: **149**

**SUBDIVISION "B":**

*1) TABLE 7.7.2.3 (INDUSTRIAL): 0.75 SPACES PER 100SM OF LEASABLE AREA*

REQUIRED: ((4,945 /100)*0.75))=**38**
PROVIDED: **38**

**LOADING:**

**SUBDIVISION "A":**
*EXISTING BUILDING LOADING UNAFFECTED BY NEW SUBDIVISION.*

**SUBDIVISION "B":**
*BCBC TABLE 7.13.6.2 (NON RESIDENTIAL):*
*MEDIUM:*
*ON-SITE DESIGNATED: 1 SPACE PLUS 1 SPACE FOR EACH ADDITIONAL 5,000.0 M² OVER1,860.0 M²*
REQUIRED: 2
PROVIDED: **2**
LARGE:
*ON-SITE DESIGNATED: 1 SPACE FOR EACH ADDITIONAL 5,000.0 M² OVER 1,860.0 M²*
REQUIRED: 1
PROVIDED: **0** (SEEKING VARIANCE FROM BYLAW)

**BICYCLE PARKING:**

**SUBDIVISION "A":**
*EXISTING BUILDING BICYCLE PARKING NOT AFFECTED BY NEW SUBDIVISION*

**SUBDIVISION "B":**

*BCBC TABLE 7.14.9.1 (GENERAL INDUSTRIAL):*
*CLASS 1 (& CLASS 2)*
*0.27 SPACES PER EACH 100 SM OF GROSS LEASABLE FLOOR AREA GREATER THAN 100 SM:*
CLASS 1:
REQUIRED: ((4945 SM / 100) * 0.27) =**13**
PROVIDED: **13**
CLASS 2:
REQUIRED: ((4945 SM / 100) * 0.27) =**13**
PROVIDED: **13**

notes

| date | revisions |
|---|---|
| 14 Apr. 2023 | Issued for Development Permit |
| 31 Jul. 2024 | Issued for Development Permit |
| 08 Aug. 2024 | Issued for Development Permit |
| 06 Mar. 2025 | Issued for Development Permit |
| 10 May. 2025 | Issued for Development Permit |

consultants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v6j 1h3

tel (604) 685-2088
fax (604) 685-1889


project
**3600 LYSANDER LANE RICHMOND, BC**

title
**PROJECT DATA / CONTEXT**

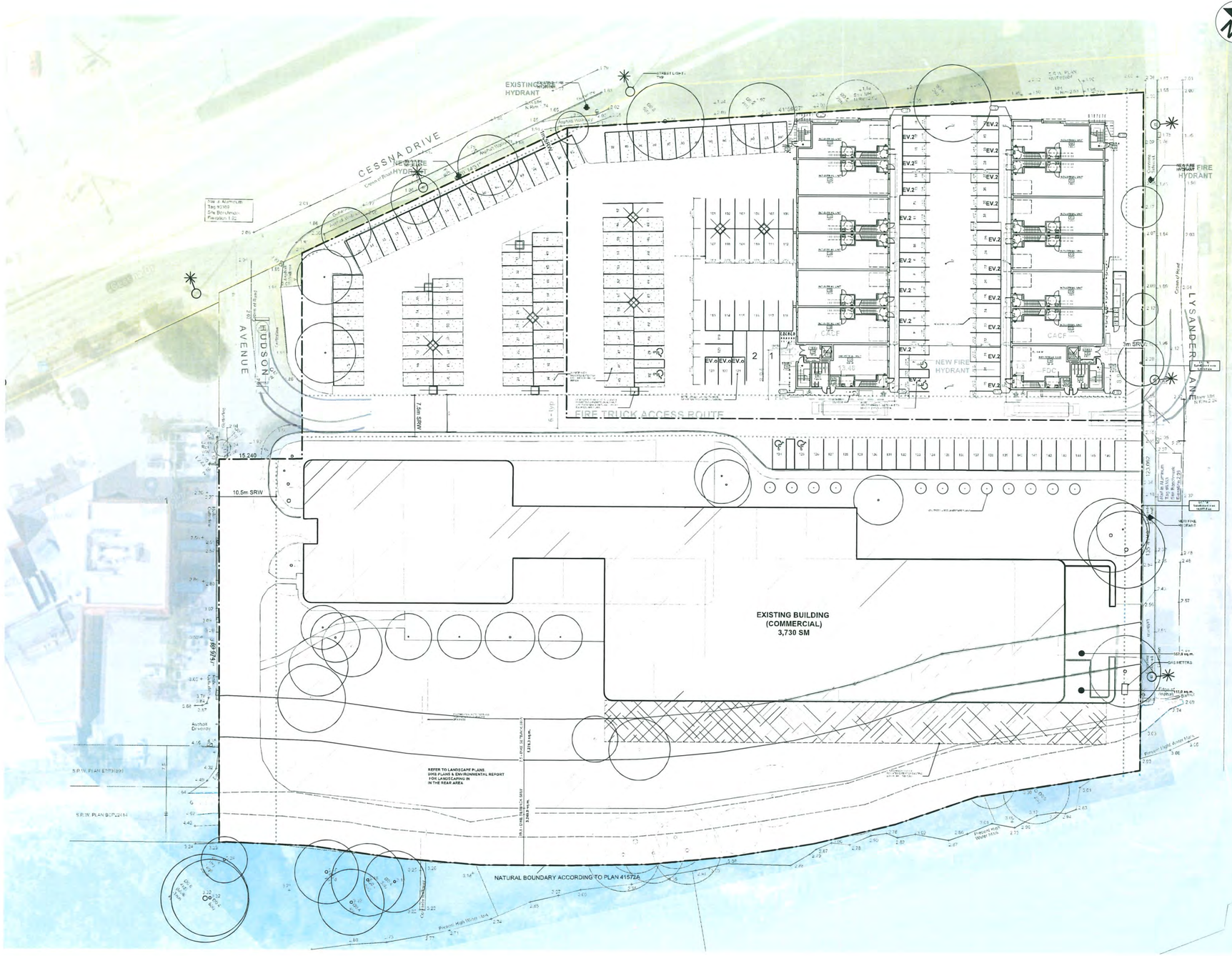
| project number | | file name |
|---|---|---|
| 22210 | | |
| drawn | checked | scale |
| kt | ac | AS INDICATED |

drawing number
**A 1.0**



This drawing was created using an Apple Macintosh computer

DP 23-016633 Permit Drawing #3




notes

| date | revisions |
|---|---|
| 14 Apr. 2023 | Issued for Development Permit |
| 3rd Jul. 2024 | Issued for Development Permit |
| 10 May. 2025 | Issued for Development Permit |
| 30 Jun. 2025 | Issued for Development Permit |

consultants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project
**3600 LYSANDER LANE RICHMOND, BC**

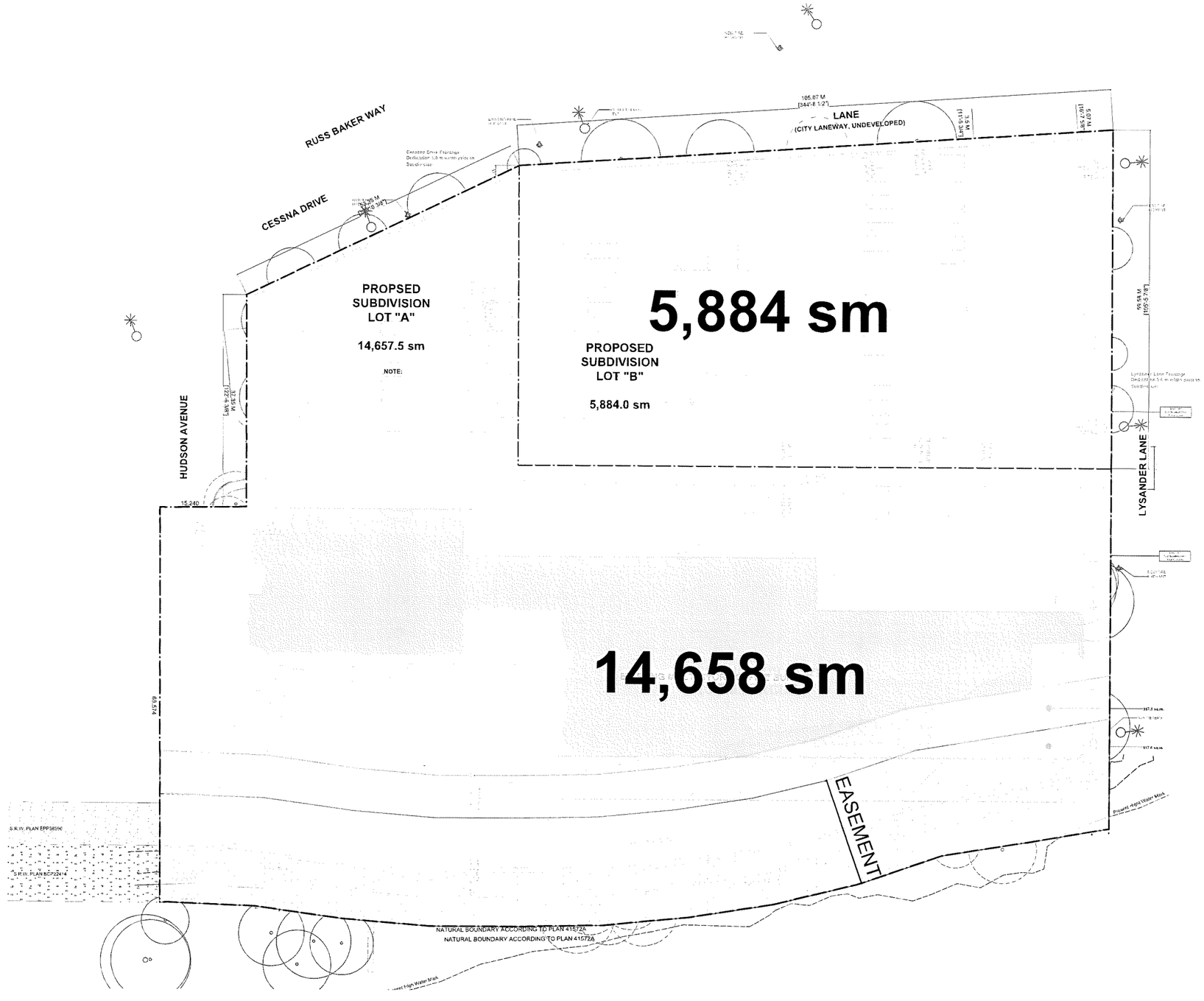
title
**SITE PLAN**

| project number | | file name |
|---|---|---|
| 22210 | | |
| drawn | checked | scale |
| kt | ac | 1:300 |
| | | drawing number |
| | | A 1.1 |



This drawing was created using an Apple Macintosh computer

DP 23-016633 Permit Drawing #4




notes

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|---|---|
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| 10 May. 2025 | Issued for Development Permit |
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fax (604) 685-1889


project
**3600 LYSANDER LANE**
**RICHMOND, BC**

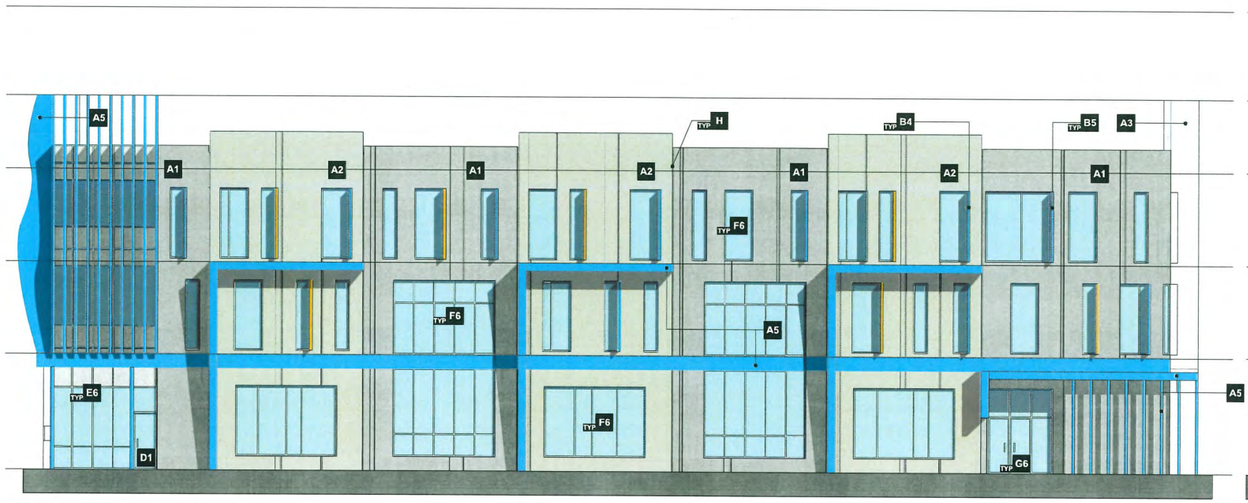
title
**PROPERTY OUTLINE**

| project number | file name |
|---|---|
| 22210 | |
| drawn: vs | checked: ac |
| scale: 1:300 | |

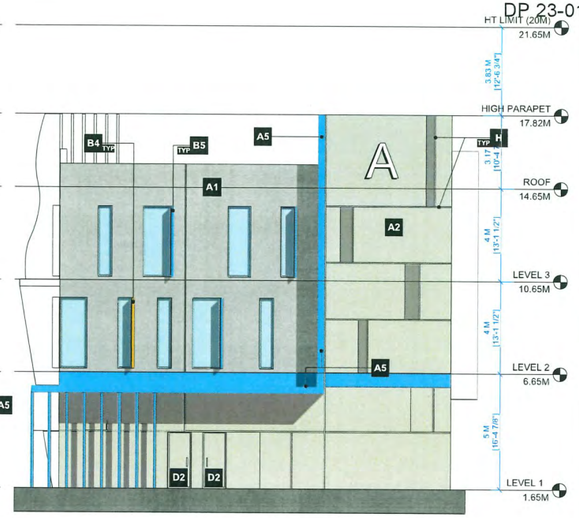


drawing number
**A 1.2**

DP 23-016633 Permit Drawing #5

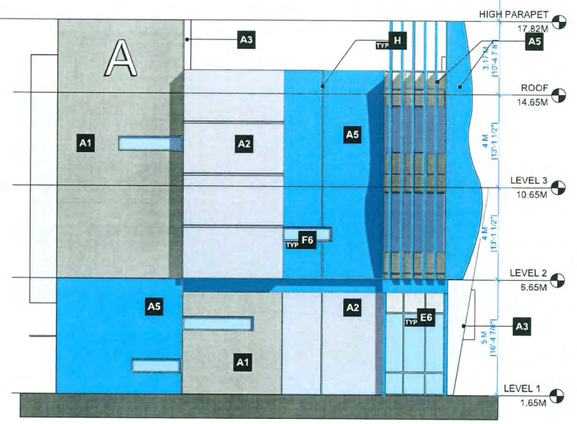



1 WEST ELEVATION - BUILDING A
Scale: Actual Size




2 SOUTH ELEVATION - BUILDING A
Scale: Actual Size


3 EAST ELEVATION - BUILDING A
Scale: Actual Size




4 NORTH ELEVATION - BUILDING A
Scale: Actual Size

**MATERIAL LEGEND**

| | |
|---|---|
| A | INSULATED TILT-UP CONCRETE PANEL |
| B | PREFINISHED ALUMINUM PANEL |
| C | INSULATED ALUMINUM AND GLASS OVERHEAD DOOR |
| D | INSULATED STEEL DOOR |
| E | CURTAINWALL |
| F | ALUMINUM WINDOW |
| G | PANEL JOINT |

**COLOR LEGEND**

| | |
|---|---|
| 1 | BENJAMIN MOORE: HC -167, AMHERST GRAY |
| 2 | BENJAMIN MOORE: HC -169, COVENTRY GRAY |
| 3 | BENJAMIN MOORE: OC-26, SILVER SATIN |
| 4 | BENJAMIN MOORE: 2015-10, ELECTRIC ORANGE |
| 5 | BENJAMIN MOORE: 2061-20, CHAMPION COBLAT |
| 6 | ANODIZED SILVER |
| 7 | GRAY TINT |

Amherst Gray HC-167

Coventry Gray HC-169

Silver Satin OC-26

Electric Orange 2015-10

Champion Cobalt 2061-20

notes

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| 10 May. 2025 | Issued for Development Permit |

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fax (604) 685-1889

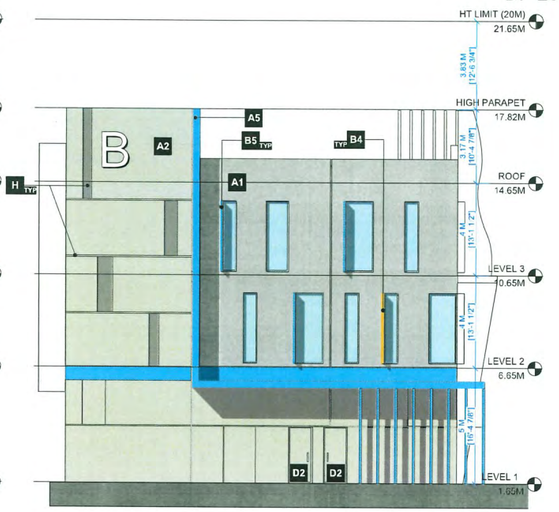

project
**3600 LYSANDER LANE RICHMOND, BC**

title
**Elevations - Building B**

| project number | file name |
|---|---|
| 22210 | |
| drawn: H | checked: ac |
| scale: 1:100 | |
| drawing number: **A 3.1** | |

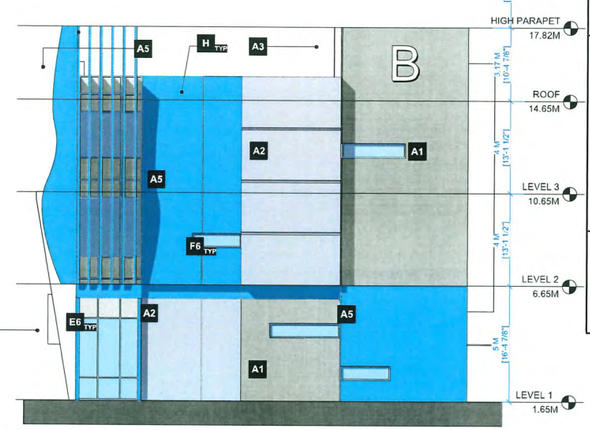
DP 23-016633 Permit Drawing #6


1 EAST ELEVATION - BUILDING B
1/8" = 1'-0"




2 SOUTH ELEVATION - BUILDING B
1/8" = 1'-0"


3 WEST ELEVATION - BUILDING B
1/8" = 1'-0"




4 NORTH ELEVATION - BUILDING B
1/8" = 1'-0"

**MATERIAL LEGEND**

| | |
|---|---|
| A | INSULATED TILT-UP CONCRETE PANEL |
| B | PREFINISHED ALUMINUM PANEL |
| C | INSULATED ALUMINUM AND GLASS OVERHEAD DOOR |
| D | INSULATED STEEL DOOR |
| E | CURTAINWALL |
| F | ALUMINUM & GLASS WINDOW |
| G | ALUMINUM & GLASS ENTRY DOOR |
| H | PANEL JOINT |

**COLOR LEGEND**

| | |
|---|---|
| 1 | BENJAMIN MOORE: HC -167, AMHERST GRAY |
| 2 | BENJAMIN MOORE: HC -169, COVENTRY GRAY |
| 3 | BENJAMIN MOORE: OC-26, SILVER SATIN |
| 4 | BENJAMIN MOORE: 2015-10, ELECTRIC ORANGE |
| 5 | BENJAMIN MOORE: 2061-20, CHAMPION COBLAT |
| 6 | ANODIZED ALUMINUM / SILVER |
| 7 | GRAY TINTED |


notes

| date | revisions |
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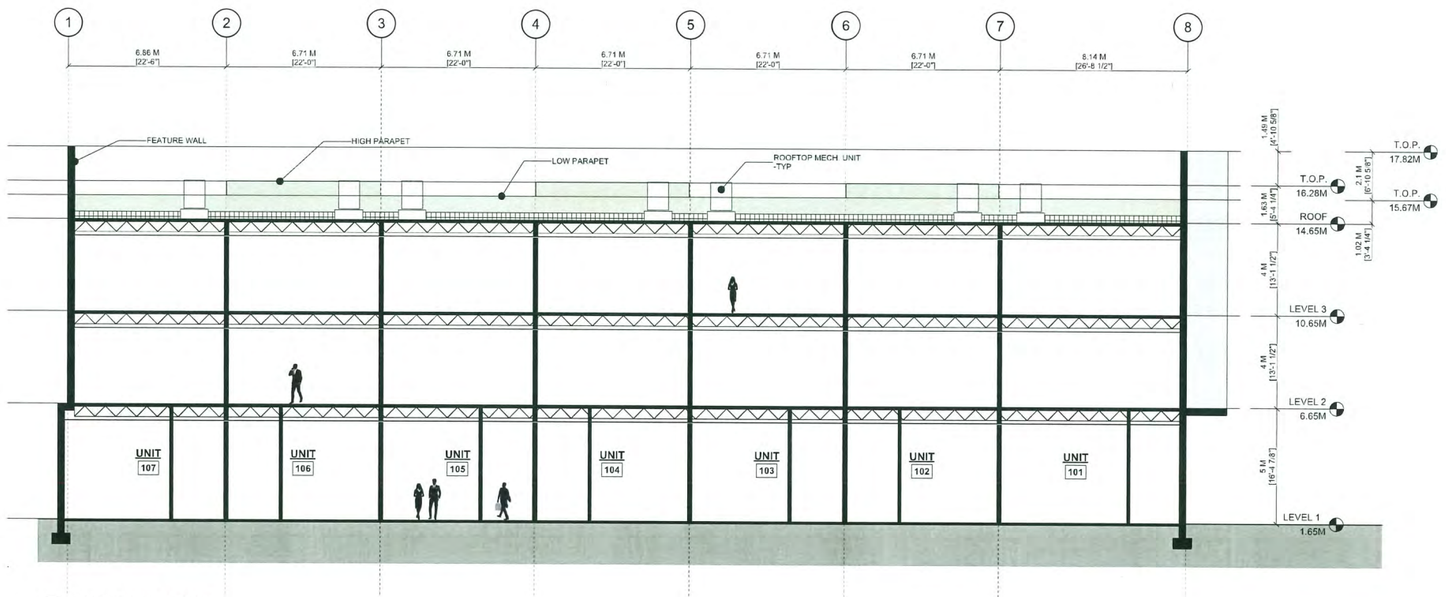
fax (604) 685-1889


project
**3600 LYSANDER LANE RICHMOND, BC**

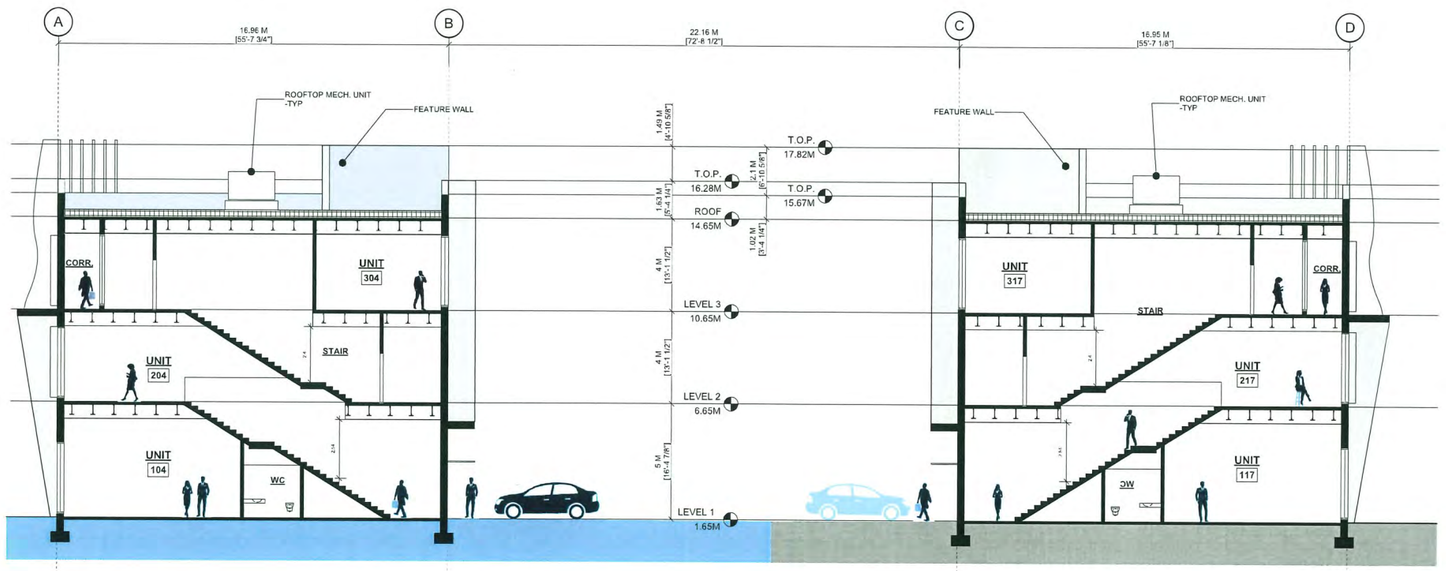
title
**Elevations - Building B**

| project number | | file name |
|---|---|---|
| 22210 | | |
| drawn: HS | checked: ac | scale: 1:100 |
| | | drawing number: A 3.2 |

DP 23-016633 Permit Drawing #7




1 LONGITUDINAL SECTION
1/8" = 1'-0"




2 CROSS SECTION
1/8" = 1'-0"

notes

| date | revisions |
|---|---|
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project
**3600 LYSANDER LANE RICHMOND, BC**

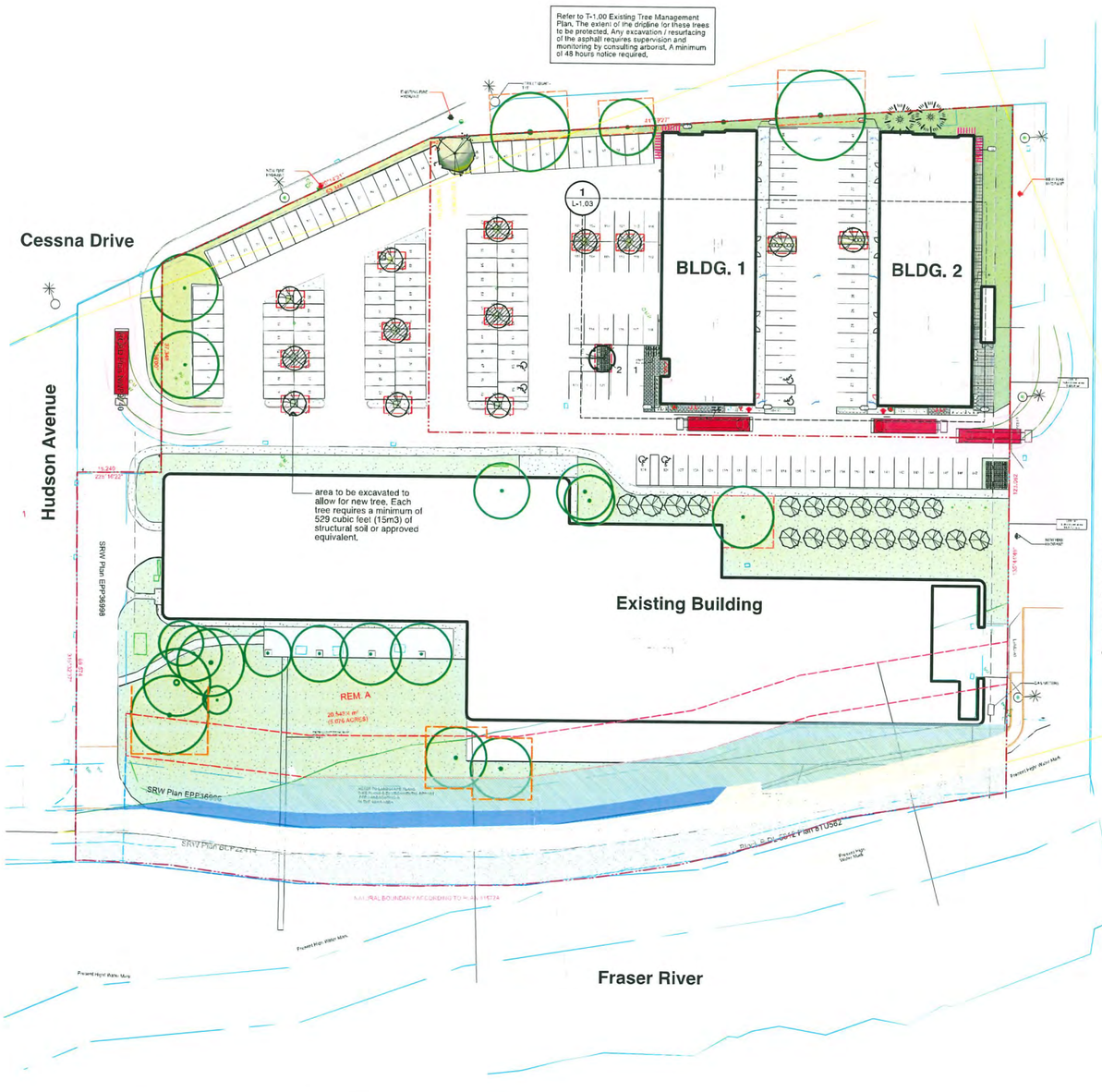
title
**Sections**

| project number | | file name |
|---|---|---|
| 22210 | | |
| drawn: H | checked: ac | scale: 1:100 |



drawing number
**A 4.1**

DP 23-016633 Permit Drawing #8




| no.: | date: | item: |
|---|---|---|
| 8 | 2025-07-02 | issue for dp |
| 7 | 2025-05-16 | issue coordination/review |
| 6 | 2024-08-08 | re-issue for dp |
| 5 | 2024-08-07 | issue for coordination |
| 4 | 2024-07-24 | re-issue for dp |
| 3 | 2024-07-19 | issue for coordination |
| 2 | 2023-04-14 | issue for dp |
| 1 | 2023-03-29 | issue for coordination |

Revisions:

Stamp:



DURANTE KREUK LTD. LANDSCAPE ARCHITECTS
102 - 1637 West 5th Avenue Vancouver B.C. V6J 1N5
P 604.684.4611 | F 604.684.0577 | www.dkl.bc.ca


Client:

**ANDREW CHEUNG ARCHITECTS INC.**

Project:

**3600 LYSANDER LANE**

**3600 LYSANDER LANE RICHMOND, BC**

| | |
|---|---|
| Drawn by: | AGB |
| Checked by: | SJV |
| Date: | 16 JUN 2023 |
| Scale: | 1/32" = 1'-0" |

Drawing Title:

**SITE PLAN - PLANTING PLAN**

Project No.: 23024

Sheet No.:

**L-1.02**

## DRAWING LIST



## GENERAL NOTES

1. Refer to architectural drawings for all walls and stair layout and elevations, unless otherwise noted.
2. Refer to electrical drawings for all final landscape lighting layout and specifications.
3. Refer to architectural and mechanical drawings for all drain locations and rim elevations.
4. Refer to arborist drawings for all tree retention / removal information.
5. Refer to civil drawings for all grading and utility information.
6. Refer to survey drawings for all existing on site services and survey symbols.

## PRODUCT + MATERIAL NOTES

1. All materials to be as specified or pre-approved equivalent.
2. All material and products to be installed per manufacturer's specifications.

## LANDSCAPE NOTES

1. All work shall meet or exceed the requirements as outlined in the current Edition of the Canadian Landscape Standard.
2. Plant sizes and related container classes are specified according to the Canadian Landscape Standard current Edition. For container classes #3 and smaller, plant sizes shall be as shown in the plant list and the Standard; for all other plants, both plant size and container class shall be as shown in the plant list. Specifically, when the plant list call for #5 class containers, these shall be as defined in the CNLA (ANSI) Standard.
3. Area of search for specified plant material shall include the Lower Mainland of British Columbia, Vancouver Island, Washington and Oregon States.
4. Contractor shall source specified plant material and only after area of search has been exhausted will substitutions be considered.
5. All plant material used on this project shall be hardy in this climate. Plant types have been selected with this as a primary criteria. This Contractor shall guarantee that plant material supplied has equal provenance, ie: it is developed from cuttings or seeds collected in an area of similar climatic characteristics.
6. Substitutions in plant material will not be considered unless written proof is submitted thirty (30) days prior to scheduled installation stating a specified plant cannot be obtained within the specified area of search.
7. All plants to be sourced from nurseries certified tree of P. ramorum.
8. Contractor shall not move or work growing medium or additives when they are excessively wet, extremely dry, or frozen or in any manner which will adversely affect growing medium structure. Growing medium whose structure has been destroyed by handling under these conditions will be rejected. Growing medium shall not be handled in wet or frozen conditions.
9. Place growing medium, except structural to required finish grades and minimum depths as detailed, unless shown otherwise.
10. All growing medium placed on project to meet or exceed BCNTA and Canadian Landscape Standards latest edition.
11. All trees to be staked in accordance with CNLA Standards.
12. Submit sieve analysis by an approved independent soil testing laboratory for each type of growing medium being used on the project PRIOR to placement for review and approval. Clearly identify source and type for each. Resubmit as required until growing medium is approved.
13. Submittals shall be made at least seven (7) days before

## IRRIGATION NOTES

1. All 'Soft Landscape Areas' are to be irrigated with a high efficiency design/build irrigation system, complete with Rain and Wind Sensor.
2. The irrigation system design and installation shall be in accordance with the Irrigation Industry of BC Standards and Guidelines.
3. System design and installation shall take into account elevation differences, sun orientation and other factors affecting zoning and operation of the system to minimized evapotranspiration and wind lost.
4. System design shall provide for uniform complete 'Head to Head' coverage of all lawns and planted areas.
5. Contractor shall be responsible to provide SHOP DRAWINGS a minimum of 3 weeks prior to installation of any irrigation for review and approval.
6. Should the contractor proceed without approval, any additional modifications to the irrigation systems, as directed by the Landscape Architect shall be at at contractors cost.
7. Lawns shall be irrigated on separate zones from planted areas.
8. Controller shall be located in mechanical room.
9. PRIOR to Substantial Performance, contractor shall provide a maintenance data and Operation instruction manual containing operational information for all operating components, cleancing and lubrication schedules, overhaul/adjustment schedule.
10. Record Drawings: Submit with the operating and maintenance manuals a reproducible copy of the AS-BUILT condition of the system.
11. Contractor shall instruct a designated representative of the Owner in the complete operating and maintenance procedures for the irrigation system, including winterizing for the fist time with the designated representative observing.
12. Use GSR Schedule 40 PVC designed for solvent welding to PVC pipe except where valves, risers, etc. require threaded joints.
13. Provide sleeves under all hard surfaces and as required through walls.
14. Solenoid valves shall be first quality, compatible with the controller selected.
15. Valve boxes shall be reinforced plastic boxes manufactured specifically for landscape irrigation, complete with captive lock bolt cover, sized to suit valves and other components with adequate room for operation and maintenance.

## MATERIALS LEGEND

**CIP CONCRETE**
EXISTING CONDITION

01 **CIP CONCRETE PAVING**
BROOM FINISH W/ SAW CUTS

02 **SLAB PAVER - RANDOM PATTERN**
24 X 24 (colouring may differ)

03 **PLANK PAVER - RUNNING BOND**
12 X 24 (colouring may differ)

04 **GRANULAR MATERIAL**
DRIP STRIP AROUND NEW BUILDING FACE

05 **RIPRAP**
AS PER CITY STANDARDS

**MUP**
REFER TO KWL

**NEW PLANTING**
REFER TO PLANT LIST

**EXISTING SOD**

06 **HYDROSEED OR NEW LAWN**

## STRUCTURE LEGEND

1 **STRUCTURAL SOIL**
A MINIMUM OF 529 CUBIC FEET (15M3) / TREE

## SITE FURNISHING LEGEND

| Key | Description |
|---|---|
| 01 | **BIKE RACKS** ICONIC 2300 - MAGLIN, BLACK |

## IRRIGATION

| Key | Description |
|---|---|
| | **HOSE BIB** |
| | **STUB OUT** |

## PLANT LIST

TREES

| symbol | qty | botanical name | common name | size | notes |
|---|---|---|---|---|---|
| | 13 | Acer rubrum 'Bowhall' | Bowhall red maple | 8cm caliper minimum | balled & burlapped |
| | 1 | Cercis canadensis | Eastern redbud | 8cm caliper minimum | balled & burlapped |
| | 1 | Ginkgo biloba 'Autumn Gold' | Autumn Gold Maidenhair | 6cm caliper | balled & burlapped, larger caliper preferred if available |
| | 2 | Pseudotsuga menziesii | Douglas fir | 4m (13'-0") h minimum | balled & burlapped |
| | 20 | Quercus robur 'Fastigiata' | Columnar English Oak | 8cm caliper minimum | balled & burlapped |

SHRUBS / PERENNIALS / GRASSES / GROUNDCOVERS

| symbol | qty | botanical name | common name | size | notes |
|---|---|---|---|---|---|
| Az | 7 | Azalea 'Hino White' | Hino White azalea | #2 pot | 24" o.c. |
| Bm | 14 | Buxus micro. 'Winter Beauty' | Korean Boxwood | #2 pot | 18" o.c |
| Cs | 21 | Cornus sercia 'Kelseyii' | Kelsey dogwood | #2 pot | 18" o.c. |
| fg | 14 | Festuca glauca 'Elijah Blue' | Blue fescue | #1 pot | 12" o.c. |
| Hd | 7 | Holodiscus discolor | Ocean Spray | #2 pot | 30" o.c. |
| Pt | 336 | Pachysandra terminalis | Japanese spurge | #1 pot | 12" o.c. |
| Pl | 19 | Philadelphus lewisii 'Blizzard' | Blizzard mockorange | #2 pot | 36" o.c |
| Sb | 40 | Spiraea x bumalda 'Goldflame' | Goldflame Spiraea | #2 pot | 24" o.c |

## PLANT LIST - DIKE

SHRUBS / GROUNDCOVERS

| symbol | qty | botanical name | common name | size | notes |
|---|---|---|---|---|---|
| Cos | | Cornus stolonifera | Red Osier Dogwood | #2 pot | 36" o.c |
| Rol | | Rosa nutkana | Nootka Rose | #2 pot | 36" o.c. |
| Sr | | Sambucus racemosa var. arborescens | Red elderberry | #5 pot | 36" o.c. |
| Hd | | Holodiscus discolor | Ocean Spray | #2 pot | 30" o.c. |
| Pl | | Philadelphus lewisii 'Blizzard' | Blizzard mockorange | #2 pot | 36" o.c |

940m2.

*spacing and percentages to be determined

Bylaw size trees to be removed: 25
Replacement trees required at 2:1 ratio = 50 trees
Deciduous trees at 8cm caliper minimum
Coniferous trees at 4m height minimum
Landscape plan shows 37 trees.

| no.: | date: | item: |
|---|---|---|
| 8 | 2025-07-02 | issue for dp |
| 7 | 2025-05-16 | issue coordination/review |
| 6 | 2024-08-08 | re-issue for dp |
| 5 | 2024-08-07 | issue for coordination |
| 4 | 2024-07-24 | re-issue for dp |
| 3 | 2024-07-19 | issue for coordination |
| 2 | 2023-04-14 | issue for dp |
| 1 | 2023-03-29 | issue for coordination |

Revisions:

Stamp:

BRITISH COLUMBIA SOCIETY OF LANDSCAPE ARCHITECTS REGISTERED MEMBER STEPHEN J. VINCENT

2025-07-02

**DURANTE KREUK LTD.** LANDSCAPE ARCHITECTS
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P 604.684.4611 | F 604.684.0577 | www.dkLbc.ca

Client:

**ANDREW CHEUNG ARCHITECTS INC.**

Project:

**3600 LYSANDER LANE**

**3600 LYSANDER LANE RICHMOND, BC**

| | |
|---|---|
| Drawn by: | AGB |
| Checked by: | SJV |
| Date: | 16 JUN 2023 |
| Scale: | as shown |

Drawing Title:

**COVER SHEET**

Project No.:
23024

Sheet No.:

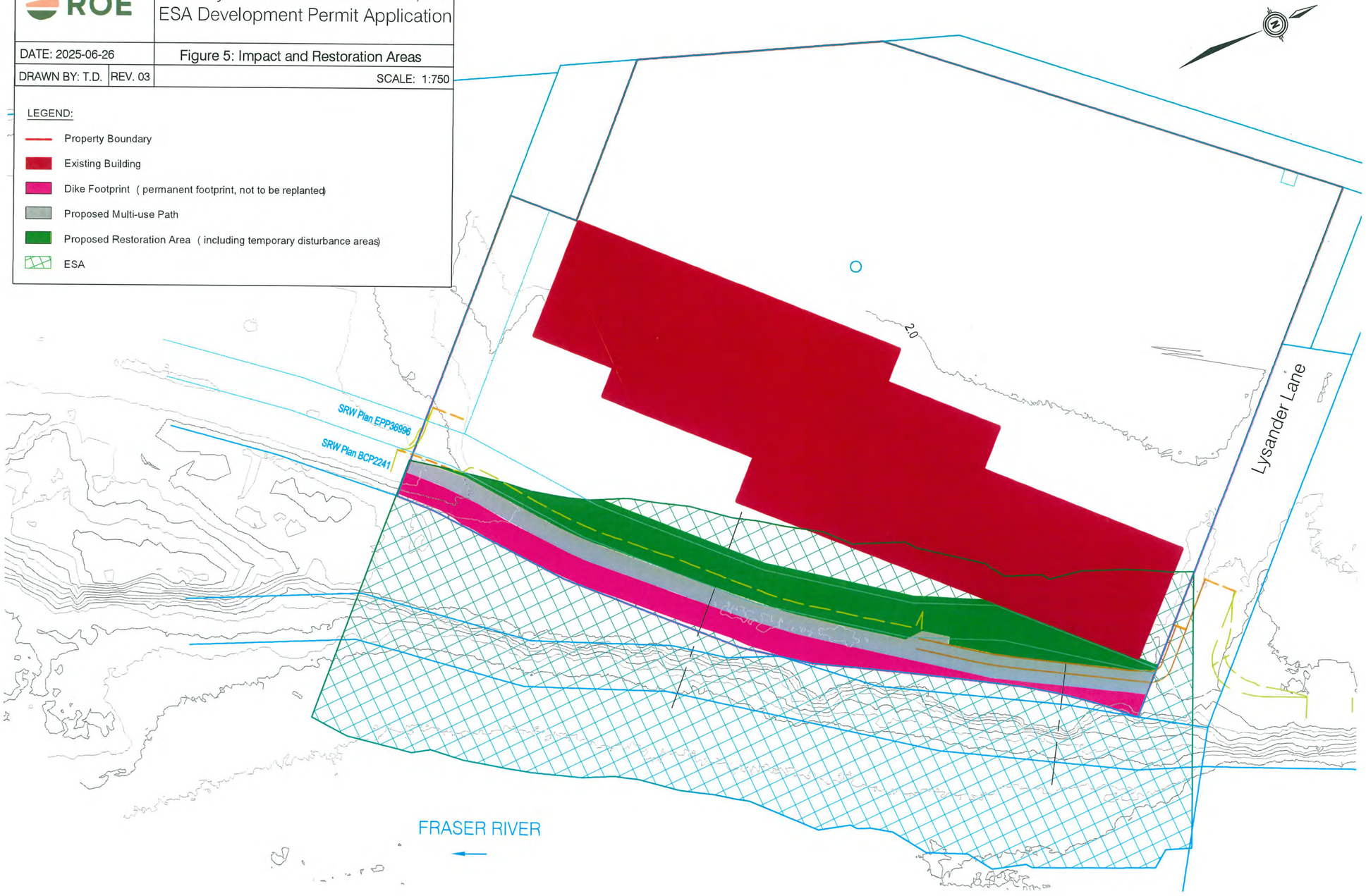
**L-0.00**

DP 23-016633 Permit Drawing #10

| ROE | 3600 Lysander Lane. Richmond, BC<br>ESA Development Permit Application |
|---|---|
| DATE: 2025-06-26 | Figure 5: Impact and Restoration Areas |
| DRAWN BY: T.D. REV. 03 | SCALE: 1:750 |

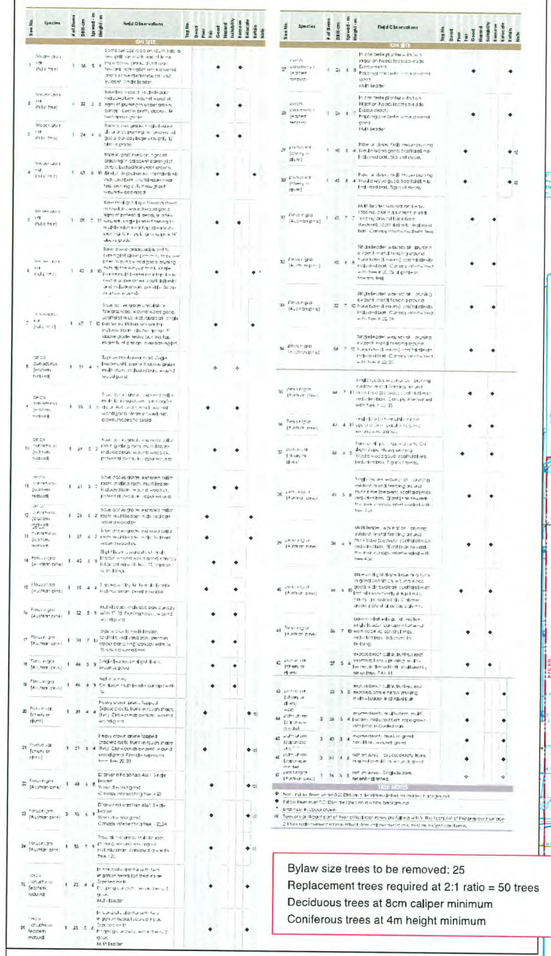
LEGEND:

- Property Boundary
- Existing Building
- Dike Footprint ( permanent footprint, not to be replanted)
- Proposed Multi-use Path
- Proposed Restoration Area ( including temporary disturbance areas)
- ESA

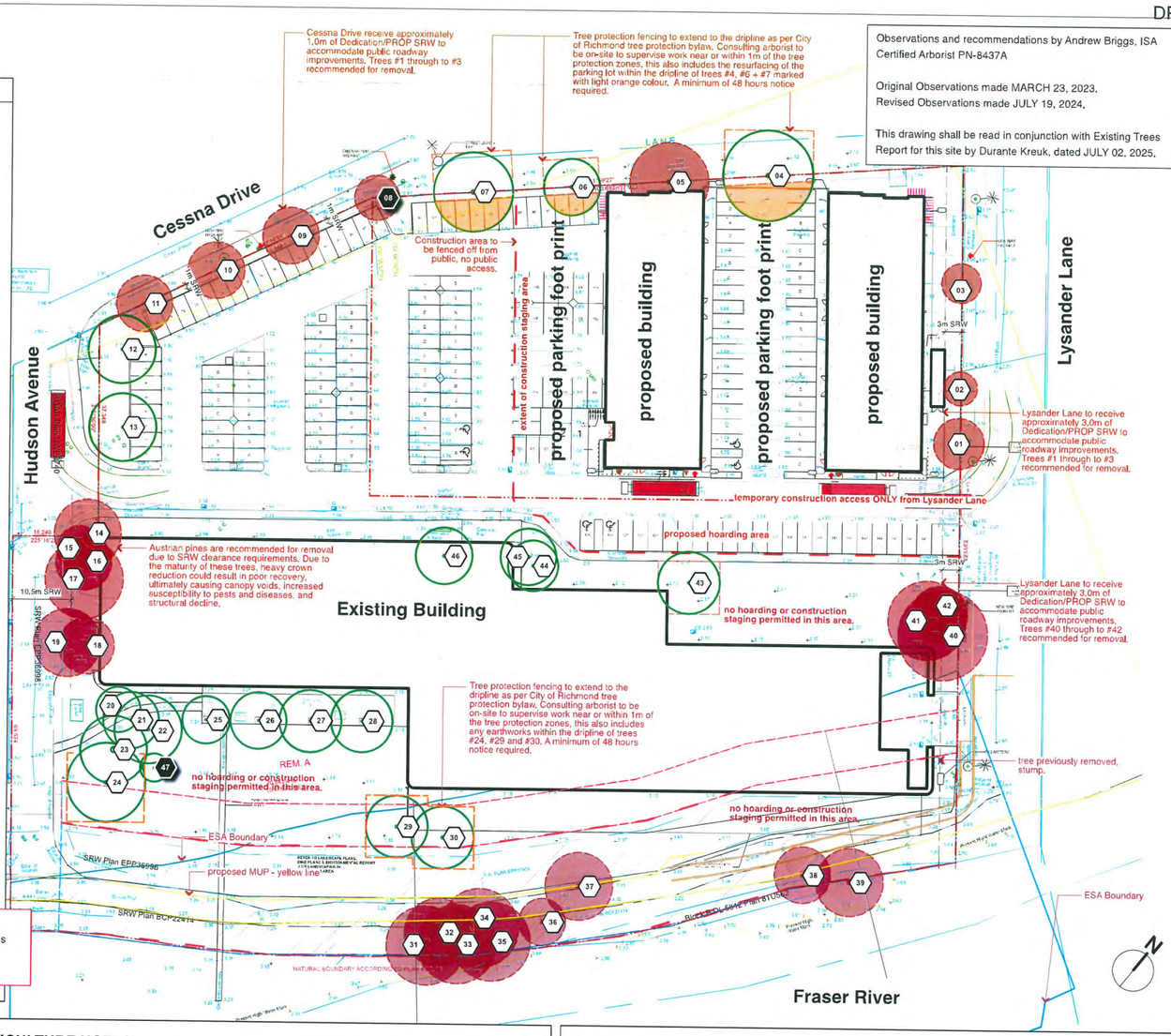


DP 23-016633 Permit Drawing #11

## TREE INVENTORY LIST



Bylaw size trees to be removed: 25
Replacement trees required at 2:1 ratio = 50 trees
Deciduous trees at 8cm caliper minimum
Coniferous trees at 4m height minimum

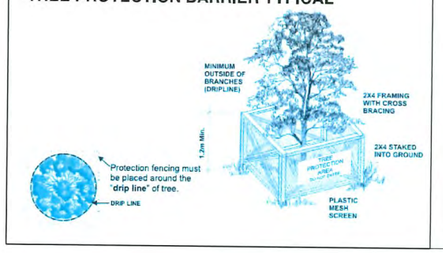



Observations and recommendations by Andrew Briggs, ISA Certified Arborist PN-8437A

Original Observations made MARCH 23, 2023.
Revised Observations made JULY 19, 2024.

This drawing shall be read in conjunction with Existing Trees Report for this site by Durante Kreuk, dated JULY 02, 2025.

## TREE PROTECTION BARRIER TYPICAL




## ARBORICULTURE NOTES

1. Trees, their environment, their health and structrual stability change over time. Our arboricultural recommendations are based on observations made on the date noted. Observations are done as an ISA Level 2 basic visual assessment, unless noted otherwise, Durante Kreuk Ltd. cannot guarantee that trees recommended for retention will remain whole or structurally stable.
2. Durante Kreuk Ltd, assumes no responsibility for tree protection unless we have been contracted to provide services in that regard, and provided appropriate notice when work on or near the trees is to be done.
3. Consulting arborist shall be called to site to coordinate and monitor excavation or other work within any tree protection area or as noted otherwise within the arboricultural documentations.
4. All work within the tree protection area shall be coordinated with and supervised by the consulting arborist.
5. All root pruing and crown pruning shall be done as directed by consulting and/or City arborist. All work shall be done to ISA industry standards.
6. It is the responsibility of the general contractor to ensure all protection measures and other arboricultural recommendations are applied as required. It is the general contractors responsibility to engage the consulting arborist at appropriate times as outlined in arboricultural documentations.
7. Tree Protection Barrier shall be kept in place until final inspection by the City. Any adjustment to the barrier/fencing or temporary relocation has to be approved in writing by the consulting arborist, 48 hour minimum notification required.
8. Refer to detail page for further tree protection zone requirements as per City of Richmond.

## TREE LEGEND

| Key | Description |
|---|---|
| • | extent of dripline of existing tree recommended for removal (location from BCLS Land Surveyor). |
| • | extent of dripline of existing tree recommended for removal (location from BCLS Land Surveyor). |
| • | approximate extent of dripline outside of the tree protection zone. Consulting Arborist to monitor, allow 48hrs notice. Tree Protection Fencing shall be built to municipal standards to extent as shown on drawings. |

| Key | Description |
|---|---|
| 01 | Tree Number refferred to in Existing Trees List and Report for BY-LAW size with DBH 0.20m or larger. |
| 01 | Tree Number refferred to in Existing Trees List and Report for non-BY-LAW size with DBH smaller than 0.20m. |
| X | stump, tree has been removed |
| | property line |
| | Extent of construction area |
| | existing condition |

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Revisions:

Stamp:

REGISTERED MEMBER STEPHEN J. VINCENT 2025-07-02


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| | |
|---|---|
| Drawn by: | AGB |
| Checked by: | SJV |
| Date: | 16 JUN 2023 |
| Scale: | 1/32" = 1'-0" |

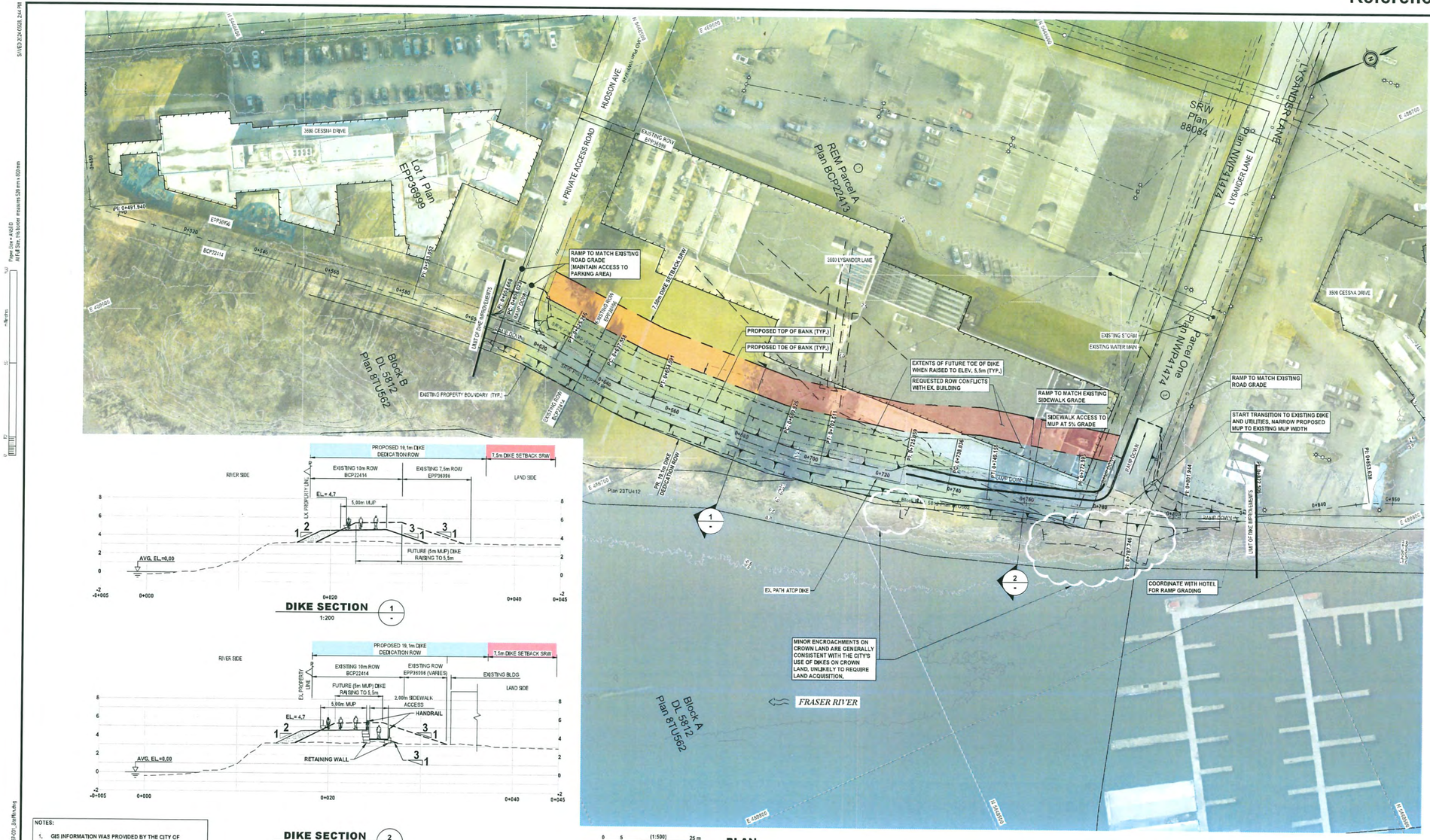
Drawing Title:

**EXISTING TREE MANAGEMENT PLAN**

Project No.: 23024

Sheet No.: **T-1.00**

# Reference Plan #1







**DIKE SECTION** 1 / - 1:200




**DIKE SECTION** 2 / - 1:200


**PLAN** Scale 1:500

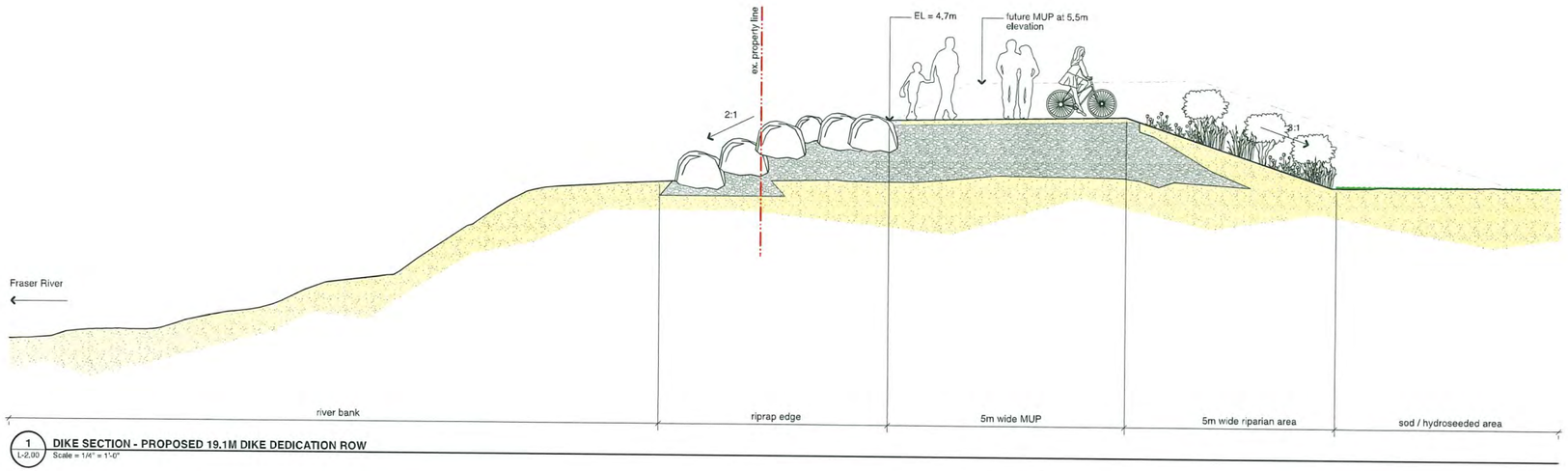
NOTES:

1. GIS INFORMATION WAS PROVIDED BY THE CITY OF RICHMOND ON 2017-09-19
2. ORTHO IMAGERY FROM 2021
3. HORIZONTAL DATUM: NAD83 CSRS UTM10
   VERTICAL DATUM: CGVD2013
4. LIDAR SURFACE DATA FROM 2017
5. POTENTIAL OVERBUILD OF DIKE CREST TO ELEVATION 4.9m SUBJECT TO GEOTECH RECOMMENDATIONS.

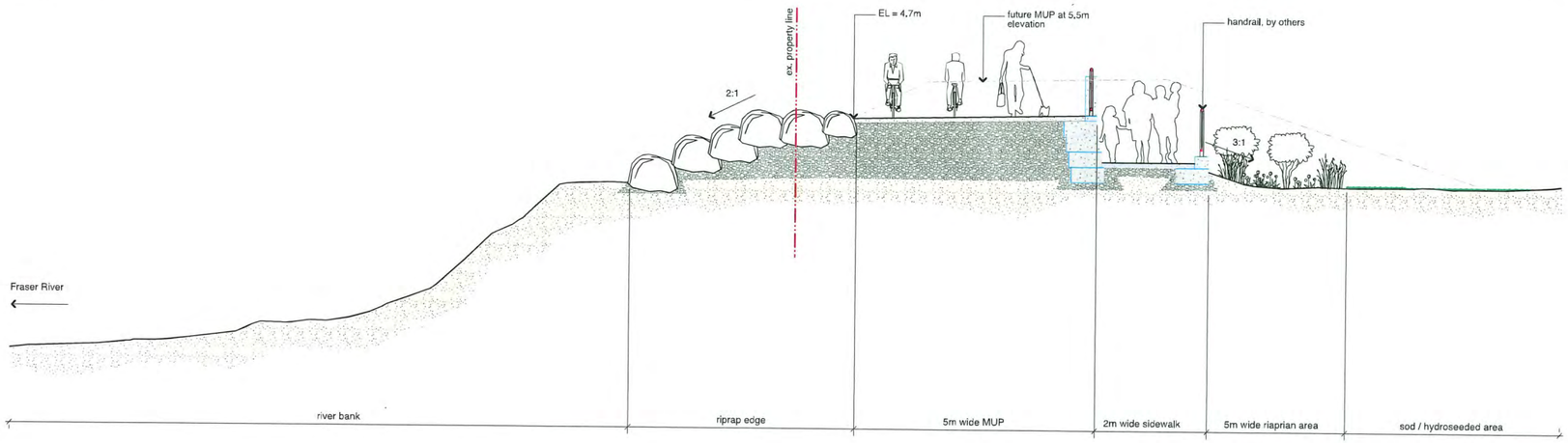
KERR WOOD LEIDAL consulting engineers

**4467-001 3600 LYSANDER LANE**
**PRELIMINARY DESIGN**
**JUN. 28, 2024**

Reference Plan #2




1 L-2.00 **DIKE SECTION - PROPOSED 19.1M DIKE DEDICATION ROW**
Scale = 1/4" = 1'-0"




2 L-2.00 **DIKE SECTION - PROPOSED 19.1M DIKE DEDICATION ROW**
Scale = 1/4" = 1'-0"

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Revisions:

Stamp:

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA STEPHEN J. VINCENT 2025-07-02


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|---|---|
| Drawn by: | AGB |
| Checked by: | SJV |
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| Scale: | as shown |

Drawing Title:

**SECTIONS**

Project No.:
23024

Sheet No.:

**L-2.00**